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(54) Title: COMPOSITION OF 1,5-DIMETHYL-6-THIOXO-3-(2,2,7-TRIFLUORO-3-OXO-4-(PROP-2-YNYL)-3,4-DIHYDRO-2H-BENZO[B][1,4]OXAZIN-6-YL)-1,3,5-TRIAZINANE-2,4-DIONE

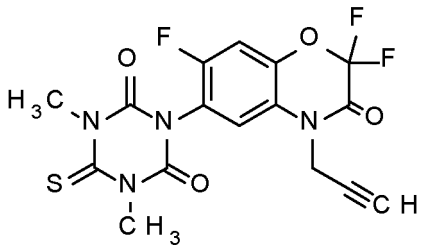
(57) Abstract: The present invention relates to a composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, wherein at most 50% per volume of the particles have a diameter below 3 μm.

Composition of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione

One of the most common practices for controlling undesirable plant species is the use of herbicides.

In crop protection products, it is desirable in principle to increase the specificity and the reliability of the action of active compounds. In particular, it is desirable for the crop protection product to control the harmful plants effectively and, at the same time, to be tolerated by the useful plants in question. It is known that in some cases better crop plant compatibility can be achieved by joint application of specifically acting herbicides with organic active compounds, which act as antidotes or antagonists. Owing to the fact that they can reduce or even prevent damage to the crop plants, they are also referred to as safeners.

1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]-oxazin-6-yl)-1,3,5-triazinane-2,4-dione, which hereinafter is also termed as “benzoxazinone (I)”, is the herbicidally active substance of the formula I:



(I)

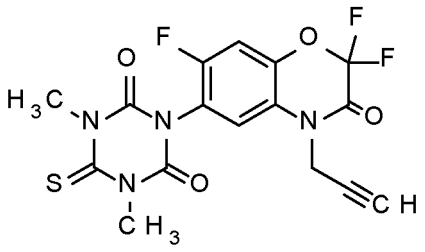
Benzoxazinone (I) and a process for its production are known from WO 2010/145992. This process yields benzoxazinone (I) as an amorphous solid.

However, the herbicidal properties of the known benzoxazinone (I) with regard to the harmful plants, and their compatibility with crop plants are not always entirely satisfactory.

It is therefore an object of the present invention to provide a herbicidal benzoxazinone (I), which is highly active against unwanted harmful plants, and, at the same time, has good compatibility with useful plants.
This and further objects are achieved by the composition of benzoxazinone (I) as defined below.

Surprisingly it has been found that the benzoxazinone (I) applied in the form of particles, wherein at most 50% per volume of the particles have a diameter below 3 μm, exhibits reduced phytotoxity.

Accordingly, the present invention relates to a composition of benzoxazinone (I),



(I)

comprising the benzoxazinone (I) in form of particles,
wherein at most 50% per volume of the particles have a diameter below 3 μm.

This composition of benzoxazinone of formula (I) comprising the benzoxazinone of formula (I) in form of particles wherein at most 50% per volume of the particles have a diameter below 3 μm is hereinafter also described and termed as “composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles “ or as “composition A”.

The present invention also provides plant protection agents comprising a herbicidally active amount of the composition of benzoxazinone (I) as described herein (composition A) and at least one inert liquid and/or solid carrier and, if appropriate, at least one surface-active substance.

The present invention also provides a method of safening crops from phytotoxic injury from application of a herbicidally effective amount of the composition of benzoxazinone (I) as described herein (composition A).

The present invention also provides a method of controlling undesired vegetation, which comprises allowing an herbicidal active amount of the composition of benzoxazinone (I) as described herein (composition A), to act on plants, their environment or on seed.

The present invention further relates to herbicidal combinations comprising at least the composition A (as component A) and at least one further compound selected from herbicidal compounds (as component B) and safeners (as component C).

Further embodiments of the present invention are evident from the claims, the description and the examples. It is to be understood that the features mentioned above and still to be illustrated below of the subject matter of the invention can be applied not only in the combination given in each particular case but also in other combinations, without leaving the scope of the invention.

As used herein, the terms "controlling" and "combating" are synonyms.
As used herein, the terms "undesirable vegetation" and "harmful plants" are synonyms.

The particle diameter, as referred herein, is the volume average particle diameter according to static laser scattering. In the following the term "x_n" defines the particle size x with n vol.-% of the particles having a diameter below x and (100-n) vol-% having a diameter above x.

Method and definitions are in detail laid down in the European Norm ISO 13320, "Particle size analysis — Laser diffraction Methods", first edition 2009-10-01, corrected version 2009-12-01. A skilled person is familiar with these methods which are also described e.g. in H. Wiese (D. Distler, Ed.), Aqueous Polymer Dispersions (Wässrige Polymerdispersionen), Wiley-VCH 1999, Chapter 4.2.1, p. 40ff, and the literature cited therein; H. Auweter, D. Horn, J. Colloid Interf. Sci. 105 (1985), p. 399; D. Lilge, D. Horn, Colloid Polym. Sci. 269 (1991), p. 704; and H. Wiese, D. Horn, J. Chem. Phys. 94 (1991), p. 6429.

The preparation of benzoxazinone (I) used for the production of the composition of benzoxazinone (I) as described herein (composition A), can be effected by the process described in WO 2010/145992, to which full reference is hereby made.

Particles of benzoxazinone (I) can be manufactured by various techniques, the necessary unit operations are generally known to a chemical engineer.
For example the benzoxazinone (I) can result from the synthesis with the right particle size, e.g. by a precipitation from appropriate solvents under appropriate technical conditions, like e.g. mixing speed, turbulence, temperature or solvent gradients, just to mention a few. Particles too small can be enlarged by e.g. agglomeration or Ostwald ripening, particles too large can be milled down mechanically. Usually, it is most economical to start with larger particles and mill subsequently.
For this step both dry and wet milling operations are suitable, for examples see e.g. H. Mollet und A. Grubenmann, Formulierungstechnik Emulsionen, Suspensionen, Feste Formen, Wiley VCH, Weinheim2000, chapter 5.3.1: „Der Zerkleinerungsvorgang".
Dry milling can be performed with jet mills or mechanical mills (hammer mills, crushing or grinding gears, cryogenic grinding), wet milling can be achieved with e.g. colloid mills, rotor stator mills, double-cone mills, ball or bead mills, attritors, agitator ball mills, rotating mills, disk mills, annular chamber mills, and media mills, such as sand mills.) To dissipate the heat energy introduced during the grinding process, the grinding chambers are preferably fitted with cooling systems. Particularly suitable is the ball mill Drais Superflow DCP SF 12 from DRAISWERKE, INC.40 Whitney Road. Mahwah, NJ 07430 USA, a Drais Perl Mill PMC from DRAISWERKE, INC., the circulating mill system ZETA from Netzsch-Feinmahltechnik GmbH, the disk mill from Netzsch Feinmahltechnik GmbH, Selb, Germany, the bead mill Eiger Mini 50 from Eiger Machinery, Inc., 888 East Belvidere Rd., Grayslake, IL 60030 USA and the bead mill DYNO-Mill KDL from WA Bachofen AG, Switzerland.

In all cases the milling parameters – like e.g. equipment, energy input, velocity, size, material and filling of balls and beads – have to be adjusted to result in the particle size and particle size

distribution according to this invention.
Finally all unit operations above can be coupled with sieves, gaps, cyclones or alike that allow a classification and thus a further refinement of the particle size distribution by separation and usually also recirculation of unwanted particles.
In above processes usually also milling aids, like e.g. dispersing agents, anti-baking agents but also defoamers and thickeners can be used to aid the operation.

The preferred embodiments of the invention mentioned herein below have to be understood as being preferred either independently from each other or in combination with one another.

Preferably at most 35% per volume of the particles have a diameter below 3 μm, which equals x_{35} >= 3 μm;
particularly preferred at most 25% per volume of the particles have a diameter below 3 μm, which equals x_{25} >= 3 μm;
especially preferred at most 20% per volume of the particles have a diameter below 3 μm, which equals x_{20} >= 3 μm.

According to a further embodiment of the invention,
preferably at most 60% per volume of the particles have a diameter below 5 μm, which equals x_{60} >= 5 μm;
particularly preferred at most 45% per volume of the particles have a diameter below 5 μm, which equals x_{45} >= 5 μm;
especially preferred at most 35% per volume of the particles have a diameter below 5 μm, which equals x_{35} >= 5 μm;
more preferred at most 30% per volume of the particles have a diameter below 5 μm, which equals x_{30} >= 5 μm.

According to a further embodiment of the invention,
preferably at most 15% per volume of the particles have a diameter above 45 μm, which equals x_{85} <= 45 μm.

The composition of benzoxazinone (I) according to the invention (composition A) comprises the benzoxazinone (I) in form of particles.
Preferably the particles of benzoxazinone (I) are in a crystalline form, more preferably in form of the crystalline, stable modifications A, B and/or C of the benzoxazinone (I).

Crystalline benzoxazinone (I) can be generally prepared by applying suitable crystallization conditions as described below. In order to yield crystalline benzoxazinone (I) according to the particle size distribution claimed in this invention fine-tuning of the process is necessary.

The concentration of benzoxazinone (I) in the solution or slurry used for the crystallization naturally depends on the nature of the solvent and the dissolution temperature and often lies in the

range from 100 to 800 g/l. Suitable conditions can be determined by the person skilled in the art by routine experiments.

Preferably the solution or slurry used for the crystallization contains benzoxazinone (I) in a purity of at least 85%, often at least 90%, in particular at least 95%, i.e. the content of organic impurities which are not organic solvents is not more than 15 wt.%, often not more than 10 wt.%, and in particular not more than 5 wt.%, based on the benzoxazinone (I) present dissolved in the solvent.

The solution or slurry used for the crystallization is preferably essentially free from solvents other than those stated. In this context, “essentially free” means that the concentration of other solvents in the benzoxazinone (I) containing solution or slurry does not exceed 10 wt.%, often 5 wt.%, based on the total quantity of solvent.

The solution of benzoxazinone (I) can for example be prepared by the following methods:

(1) Dissolution of the benzoxazinone (I), in one of the aforesaid polar organic solvents, or

(2) Preparation of the benzoxazinone (I) by a chemical reaction and transfer of the reaction mixture, if necessary after removal of reagents and/or side products, into an organic solvent suitable according to the invention.

For the preparation of the solution by dissolution of the benzoxazinone (I), essentially any known form of benzoxazinone (I) can be used. Often amorphous benzoxazinone (I) or a mixture of different crystalline modifications or a mixture of amorphous and crystalline benzoxazinone (I) will be used. Also suitable are other crystalline forms of benzoxazinone (I) and mixtures thereof, for example the form B described below and the form C also described below, and mixtures of these forms as well as mixtures of form A with form B or form C of benzoxazinone (I).

The dissolution of the benzoxazinone (I) is usually effected at temperatures in the range from 10 to 200 °C,
preferably in the range from 10 to 100°C, in particular from 20 to 60°C;
also preferably in the range from 85 to 200°C, in particular from 90 to 150°C.

The solution of the benzoxazinone (I) can also be prepared by transferring a reaction mixture obtained by a chemical reaction, which contains the benzoxazinone (I), if necessary after removal of reagents and/or side products, into an organic solvent suitable according to the invention. This can be effected in such a manner that the reaction is performed in an organic solvent or solvent mixture which consists at least partly, preferably at least 50 wt.%, of a solvent suitable for the crystallization and, if necessary a workup is performed during which excess reagents and any catalysts present and any unsuitable solvents present, for example water and/or methanol, are removed. The preparation of a solution of the benzoxazinone (I) by chemical reaction of a suitable precursor of benzoxazinone (I) can be effected by analogy to the methods which

are described in the state of the art cited at the beginning, to which full reference is hereby made.

For the preparation of a slurry of the benzoxazinone (I), essentially any known form of benzoxazinone (I) can be used. Of course, in the preparation of a specific crystalline form of benzoxazinone (I), usually a form of benzoxazinone (I), which is different from the pure specific crystalline form, is used. However, benzoxazinone (I) may be used in a form already containing the specific crystalline form, thereby achieving a specific crystalline form having a higher content of the specific crystalline form.
For example, in the preparation of form A, usually a form of benzoxazinone (I), which is different from pure form A, is used. However, benzoxazinone (I) may be used in a form already containing form A, thereby achieving a form A having a higher content of form A.

Often amorphous benzoxazinone (I) or a mixture of different crystalline modifications or a mixture of amorphous and crystalline benzoxazinone (I) will be used. Also suitable are other crystalline forms of benzoxazinone (I) and mixtures thereof, for example the forms A, B and C described below, as well as mixtures of form A with form B and/or form C of benzoxazinone (I).

The crystallization of the benzoxazinone (I) is as a rule carried out until at least 80 wt.%, preferably at least 90 wt.%, of the benzoxazinone (I) used crystallizes out.

If the crystallization of the benzoxazinone (I) is effected by cooling, the cooling rate is preferably less than 10 K/min.

The crystallization of the benzoxazinone (I) can be promoted or accelerated by seeding with seed crystals of the benzoxazinone (I), preferably of form A, for example by adding seed crystals of the benzoxazinone (I), preferably of form A, before or during the crystallization.

If seed crystals are added during the crystallization, the quantity thereof is typically 0.001 to 10 wt.%, often 0.005 to 5 wt.%, in particular 0.01 to 1 wt.% and especially 0.05 to 0.5 wt.%, based on the dissolved benzoxazinone (I).

If the crystallization is performed in the presence of seed crystals of the benzoxazinone (I), preferably of form A, these are preferably only added at a temperature at which the saturation concentration of the benzoxazinone (I) in the solvent in question has been reached, i.e. at or below that temperature at which the dissolved quantity of benzoxazinone (I) forms a saturated solution in the solvent in question. The person skilled in the art can determine the temperature dependence of the saturation concentration in a solvent in routine experiments.
The isolation of the crystallization product, i.e. the separation of the crystalline benzoxazinone (I), preferably form A, from the mother liquor, is effected by usual techniques for the separation of solid components from liquids, for example by filtration, centrifugation or by decantation. As a

rule, the isolated solid will be washed, for example with the solvent used for the crystallization, with water or with a mixture of the organic solvent used for the crystallization with water. The washing can be affected in one or more steps, washing with water often being used in the last washing step. The washing is typically affected at temperatures below 30°C, often below 25°C and in particular below 20°C, in order to keep the loss of valuable product as small as possible. Next, the form A obtained can be dried and then supplied for further processing. Often, however, the moist active substance obtained after washing, in particular an active substance moist with water, will be supplied directly for the further processing.

By means of the crystallization, the crystalline benzoxazinone (I), preferably form A, is obtained with a benzoxazinone (I) content of as a rule at least 90 wt.%, often 94 wt.%, in particular at least 96 wt.%.
The content of crystalline benzoxazinone (I), preferably form A, based on the total quantity of benzoxazinone (I), is typically at least 90% and often at least 95 % or at least 96%.

Therefore, a particular embodiment of the invention relates to a composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, wherein the particles consist of at least 90 wt.% and often at least 95 % or at least 96% of a crystalline benzoxazinone (I), preferably the crystalline form A.

The particles of benzoxazinone (I), preferably particles of benzoxazinone (I) containing the benzoxazinone (I) in a crystalline form, more preferably the crystalline form A, may be mixed with other forms of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, e.g. form B and/or form C, without loosing the benefits achieved by the particles of benzoxazinone (I).

Therefore, the invention also relates to a to a composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles (composition A), wherein the particles are a mixture of the particles of benzoxazinone (I) containing the crystalline form A of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione as described herein and 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione in a form which is different from form A, where the total amount of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione in the mixture is at least 90 % by weight, preferably at least 94 % by weight, based on the total weight of the mixture.
The mixture can likewise be used for preparing formulations as described hereinafter and can likewise be used as the particles of benzoxazinone (I) containing the benzoxazinone (I) in a crystalline form, itself. In the mixture, the amount of crystalline benzoxazinone (I), preferably form A, will generally be at least 50 % by weight, in particular at least 60 % by weight, e.g. from 50 to 95 % by weight, in particular from 60 to 90 % by weight, based on the total amount of the particles of benzoxazinone (I) contained in the mixture.

In connection with the study on the crystallization of benzoxazinone (I), three crystalline modifications A, B and C were found. While modifications A and B can be obtained in pure form, modification C was occasionally obtained as a mixture with forms A and B.

The form A of the benzoxazinone (I) can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram of form A recorded using Cu-Kα radiation (1.54178 Å) at 25 °C shows at least 3, often at least 5, in particular at least 7, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
8,6±0,2°	10,28
10,9±0,2°	8,16
12,9±0,2°	6,86
13,4±0,2°	6,63
14,0±0,2°	6,33
14,4±0,2°	6,14
15,5±0,2°	5,72
16,9±0,2°	5,25
18,2±0,2°	4,88
20,5±0,2°	4,33

Studies on single crystals of form A demonstrate that the underlying crystal structure is orthorhombic. The unit cell has the space group Pna2(1). The characteristic data of the crystal structure of form A (determined at -173 °C) are compiled in the following table.

Crystallographic characteristics of form A

Parameter	Form A
Crystal system	Orthorhombic
Space group	P n a 2_1
a	16.0815(4) Å
b	13.1360(3) Å
c	7.9675(2) Å
α	90°
β	90°
γ	90°
Volume	1683.11(7) $Å^3$
Z	4

Parameter	Form A
Density (calculated)	1.63 g/cm^3
R-Factor (%)	2.97

a,b,c = Length of the edges of the unit cell
α,β,γ = Angles of the unit cell
Z = Number of molecules, in the unit cell

Form A displays a thermogram with a characteristic melting peak in the range from 150 to 185°C. The melting point, determined as the onset of the melting peak, typically lies in the range from about 170°C to 180°C, in particular in the range from 174 to 179°C. The melting enthalpy is preferably in the range from 70 to 80 J/g. The values quoted here relate to values determined by differential calorimetry (differential scanning calorimetry: DSC, aluminum closed and vented cup, nitrogen flow 150 ml/min, heating rate 5 K/min).

The production of the form A of benzoxazinone (I) may be effected by crystallization from a solution of benzoxazinone (I) in a suitable organic solvent. Suitable solvents for the crystallization of form A from a solution are organic solvents which are selected from C_1-C_3-alkanols, such as methanol, ethanol, n-propanol or isopropanol, C_1-C_4-dialkylketones, such as acetone, mono- or di-C_1-C_4-dialkylbenzenes such as ethylbenzene or xylenes, and mono- or dichlorobenzenes.

The production of the form A of benzoxazinone (I) may be also be effected by crystallization from a slurry of benzoxazinone (I) in a suitable organic solvent. Suitable solvents for the crystallization of form A from a slurry are mixtures of water with water-miscible organic solvents which are selected from C_1-C_3-alkanols, in particular ethanol or isopropanol, C_2-C_4-alkandiols, such as 1,3-propanediol, C_1-C_4-dialkylketones, such as acetone and cyclic ethers having preferably 4 to 6 carbon atoms and 1 or 2 oxygen atoms, such as tetrahydrofurane and 1,4-dioxane.

In order to obtain form A of benzoxazinone (I), the crystallization is affected at temperatures of below 60°C, in particular at most 50°C and more preferably at most 40°C. Crystallization of form A is preferably effected under controlled conditions, i.e. the conditions of the crystallization are chosen to achieve a slow crystallization rate.

For this, in a first step i) a solution or slurry of benzoxazinone (I) in one of the aforesaid solvents or solvent mixtures is prepared, and then in a second step ii) crystallization of the benzoxazinone (I) is effected at temperatures of below 60°C, in particular at most 50°C and more preferably at most 40°C, e.g. from -10 to 50°C, in particular from 0 to 40°C.

In order to obtain form A of benzoxazinone (I), the dissolution of the benzoxazinone (I) is usually effected at temperatures in the range from 10 to 100°C, in particular from 20 to 60°C.

The crystallization of form A of benzoxazinone (I) can be effected as follows, for example

- by cooling of the solution or slurry which contains the dissolved or dispersed benzoxazinone (I),
- by concentration of the solution or slurry which contains the dissolved or dispersed benzoxazinone (I), or
- by a combination of the aforesaid measures.

The form B can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram of form B recorded using Cu-Kα radiation (1.54178 Å) at 25 °C shows at least 3, often at least 5, in particular at least 7, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
9,0±0,2°	9,85
10,9±0,2°	8,10
11,5±0,2°	7,69
12,9±0,2°	6,87
13,5±0,2°	6,56
14,9±0,2°	5,96
16,4±0,2°	5,42
16,5±0,2°	5,36
17,5±0,2°	5,06
20,3±0,2°	4,39

Form B displays a thermogram with a characteristic melting peak in the range from 190 to 220°C. The melting point, determined as the onset of the melting peak, typically lies in the range from about 200°C to 210°C, in particular in the range from 203 to 208°C.
The melting enthalpy is preferably in the range from 30 to 40 J/g. The values quoted here relate to values determined by differential calorimetry (differential scanning calorimetry: DSC, aluminum closed and vented cup, nitrogen flow 150 ml/min, heating rate 5 K/min).

The production of the modification B can be principally effected by running the crystallization at temperatures exceeding 60°C, in particular at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C.

Form B can be obtained e.g. by crystallization from a solution or slurry of benzoxazinone I in an organic solvent selected from toluene, monochlorobenzene or dichlorobenzene at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C.

Form B can be obtained e.g. by crystallization from a slurry of benzoxazinone (I) in a mixture of water and a water-miscible solvent, selected from C_1-C_3-alkanols, in particular methanol or isopropanol, C_2-C_4-alkandiols, such as 1,3-propanediol, C_1-C_4-dialkylketones, such as acetone and cyclic ethers having preferably 4 to 6 carbon atoms and 1 or 2 oxygen atoms such as tetrahydrofurane and 1,4-dioxane at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C. Apart from that crystallization from a slurry of benzoxazinone (I) to obtain form B can be performed by analogy to the crystallization of form A, in particular regarding preparation of the slurry, concentrations and measures of effecting crystallization, provided that crystallization is effected in the above temperature range.

Form B can be also be obtained e.g. by crystallization from a solution or slurry of benzoxazinone (I) in toluene at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C. Apart from that crystallization from a solution of benzoxazinone (I) to obtain form B can be performed by analogy to the crystallization of form A, in particular regarding preparation of the solution, concentrations and measures of effecting crystallization, provided that crystallization is effected in the above temperature range.

Pure form B is also obtained by heating the crystalline benzoxazinone (I), e.g. form A of benzoxazinone (I) or mixtures of forms A + B + C to temperatures of at least 160°C, in particular at least 170°C, e.g. temperatures in the range from 160°C to 210°C or in the range from 170 to 200°C.

In order to obtain form B of benzoxazinone (I), the crystallization is effected at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C. Crystallization of form B is preferably effected under controlled conditions, i.e. the conditions of the crystallization are chosen to achieve a slow crystallization rate.

For this, in a first step i) a solution or slurry of benzoxazinone I in one of the aforesaid solvents or solvent mixtures is prepared, and then in a second step ii) crystallization of the benzoxazinone I is effected at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C.

In order to obtain form B of benzoxazinone (I), the dissolution of the benzoxazinone (I) is usually effected at temperatures in the range from 85 to 200°C, in particular from 90 to 150°C.

The crystallization of form B of benzoxazinone I can be effected as follows, for example

- by cooling of a hot saturated solution or slurry which contains the dissolved or suspended benzoxazinone I, to a temperature in the range from 80 to 100°C
- by concentration of a hot saturated solution or slurry which contains the dissolved or dispersed benzoxazinone I, or
- by a combination of the aforesaid measures.

By means of the crystallization the form B can be obtained with a benzoxazinone (I) content of as a rule at least 90 wt.%, often 94 wt.%, in particular at least 96 wt.%. The content of form B, based on the total quantity of benzoxazinone (I), is typically at least 90% and often at least 95 % or at least 96%.

In the mixture of forms A, B and C, form C can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram recorded using Cu-Kα radiation (1.54178 Å) at 25°C shows at least 3, often at least 5, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
7,6±0,2°	11,64
9,6±0,2°	9,17
11,8±0,2°	7,48
12,4±0,2°	7,11
15,2±0,2°	5,81
15,9±0,2°	5,57
16,1±0,2°	5,52
19,1±0,2°	4,64

Just like the known amorphous benzoxazinone (I), the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I) as well as mixtures of form A with other form of benzoxazinone (I) are suitable as a herbicide.

The invention thus also relates to plant protection agents containing the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles (composition A), preferably in the crystalline form A, and additives usual for the formulation of plant protection agents, in particular plant protection agents in the form of aqueous suspension concentrates (so-called SCs), non-aqueous suspension concentrates (so-called ODs), wettable powders (so-called WPs), water-dispersible granules (so-called WG's), dustable powder (so-called DP), powder for dry seed treatment (so-called DS), flowable concentrate for seed treatment (so-called FS), granules (so-called GR), oil-miscible flowable concentrate (so-called OF), oil-dispersible powder (so-called OP), directly applicable suspension concentrate (so-called SD), suspoemulsion (so-called SE); water-dispersible powder for slurry seed treatment (so-called WS), water-dispersible tablet (so-called WT) and mixed formulations ZE and ZC.

Preferred are the formulation types SC, WG, SE as well as the mix formulations ZC and ZE.

Especially preferred are the formulation types SC, WG and SE.

The invention also relates to a process for combating undesired plant growth, which is characterized in that the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), more preferably as a suitable active substance preparation, is used on plants, their habitat and/or on seeds.

The invention also relates to plant protection agents containing a mixture of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the crystalline form A, with at least one other form of benzoxazinone (I) and additives usual for the formulation of plant protection agents, in particular plant protection agents in the form of any of the formulation types mentioned above.

The invention also relates to a process for combating undesired plant growth, which is characterized in that the mixture of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A, of benzoxazinone (I), with at least one other form of benzoxazinone (I), preferably as a suitable active substance preparation, is used on plants, their habitat and/or on seeds.

The statements made hereinafter with regard to the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), also apply to mixtures of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A, with other forms of benzoxazinone (I).

Further, the statements made hereinafter with regard to the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), also apply to combinations of the composition of benzoxazinone (I) comprising as component A the benzoxazinone (I) in form of particles, preferably in form A, with at least one further herbicide B (component B) and/or safener C (component C) as defined.
In such combinations, the composition A can also comprise a mixtures of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A, with other forms of benzoxazinone (I).

In crop protection products, it is desirable in principle to increase the specificity and the reliability of the action of active compounds. In particular, it is desirable for the crop protection product to control the harmful plants effectively and, at the same time, to be tolerated by the useful plants in question. Selective herbicides control undesired vegetation while not harming the desired crop significantly.

The composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), combinations comprising the composition A as defined (component A) and at least one further herbicide B (component B) and/or safener C (component C) as defined, and the plant protection agents which contain , composition A or or com-

binations thereof combat plant growth, in particular monocotyledonous weed species such as Avena, Lolium, Alopecurus, Phalaris, Echinochloa, Digitaria, Setaria, Cyperus species, Agropyron, Cynodon, Imparato and Sorghum, and dicotyledonous weed species such as Galium, Viola, Veronica, Lamium, Stellaria, Amaranthus, Sinapsis, Ipomoea, Matricaria, Abutilon, Sida, Convolvulus, Cirsium, Rumex and Artemisia on non-cultivated areas very well, particularly at high application levels. In crops such as wheat, barley, rye, rice, maize, sugar beet, soya and cotton, they are active against weeds and noxious grasses, without harming the crop plants significantly. This effect occurs above all at low application levels.

Depending on the particular application method, the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), combinations comprising the composition A as defined (component A) and at least one further herbicide B (component B) and/or safener C (component C) as defined or the plant protection agents containing composition A or or combinations thereof can also be used in a further number of crop plants for the elimination of undesired plants.

Examples for crops are crops of corn, soybeans, cereals, pulse, cotton, peanuts, sunflower, citrus, nuts, rice abd sugar cane;
preferred crops are corn, soybeans and cereals;
particularly preferred crops are corn and cereals,
especially preferred is corn.

Possible crops for example include the following:
Allium cepa, Ananas comosus, Arachis hypogaea, Asparagus officinalis, Avena sativa, Beta vulgaris spec. altissima, Beta vulgaris spec. rapa, Brassica napus var. napus, Brassica napus var. napobrassica, Brassica rapa var. silvestris, Brassica oleracea, Brassica nigra, Camellia sinensis, Carthamus tinctorius, Carya illinoinensis, Citrus limon, Citrus sinensis, Coffea arabica (Coffea canephora, Coffea liberica), Cucumis sativus, Cynodon dactylon, Daucus carota, Elaeis guineensis, Fragara vesca, Glycine max, Gossypium hirsutum, (Gossypium arboreum, Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hevea brasiliensis, Hordeum vulgare, Humulus lupulus, Ipomoea batatas, Juglans regia, Lens culinaris, Linum usitatissimum, Lycopersicon lycopersicum, Malus spec., Manihot esculenta, Medicago sativa, Musa spec., Nicotiana tabacum (N. rustica), Olea europaea, Oryza sativa, Phaseolus lunatus, Phaseolus vulgaris, Picea abies, Pinus spec., Pistacia vera, Pisum sativum, Prunus armeniaca, Prunus avium, Prunus cerasus, Prunus dulcis, Prunus domestica, Prunus persica, Pyrus communis, Ribes sylvestre, Ricinus communis, Saccharum officinarum, Secale cereale, Sinapis alba, Solanum tuberosum, Sorghum bicolor (S. vulgare), Theobroma cacao, Trifolium pratense, Triticale, Triticum aestivum, Triticum durum, Vicia faba, Vitis vinifera and Zea mays.
Preferred crops are the following: Avena sativa, Glycine max, Gossypium hirsutum, (Gossypium arboreum, Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hordeum vulgare, Lens culinaris, Linum usitatissimum, Oryza sativa , Phaseolus lunatus, Phaseolus

vulgaris, Pisum sativumSaccharum officinarum, Secale cereale, Sorghum bicolor (s. vulgare), Triticale, Triticum aestivum, Triticum durum, Vicia faba, and Zea mays.

In addition, the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), or the plant protection agents containing the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A, or combinations comprising the composition A as defined (component A) and at least one further herbicide B (component B) and/or safener C (component C) as defined can also be used in crops which through breeding including genetic engineering methods are tolerant towards the action of herbicides.

The composition A according to the invention and combinations comprising it can also be used in genetically modified plants. The term “genetically modified plants” is to be understood as plants, which genetic material has been modified by the use of recombinant DNA techniques in a way that under natural circumstances it cannot readily be obtained by cross breeding, mutations or natural recombination. Typically, one or more genes have been integrated into the genetic material of a genetically modified plant in order to improve certain properties of the plant. Such genetic modifications also include but are not limited to targeted post-transitional modification of protein(s), oligo- or polypeptides e. g. by glycosylation or polymer additions such as prenylated, acetylated or farnesylated moieties or PEG moieties. Plants that have been modified by breeding, mutagenesis or genetic engineering, e.g. have been rendered tolerant to applications of specific classes of herbicides, such as hydroxyphenylpyruvate dioxygenase (HPPD) inhibitors; acetolactate synthase (ALS) inhibitors, such as sulfonyl ureas (see e.g. US 6,222,100, WO 01/82685, WO 00/26390, WO 97/41218, WO 98/02526, WO 98/02527, WO 04/106529, WO 05/20673, WO 03/14357, WO 03/13225, WO 03/14356, WO 04/16073) or imidazolinones (see e. g. US 6,222,100, WO 01/82685, WO 00/026390, WO 97/41218, WO 98/002526, WO 98/02527, WO 04/106529, WO 05/20673, WO 03/014357, WO 03/13225, WO 03/14356, WO 04/16073); enolpyruvylshikimate-3-phosphate synthase (EPSPS) inhibitors, such as glyphosate (see e.g. WO 92/00377); glutamine synthetase (GS) inhibitors, such as glufosinate (see e.g. EP-A 242 236, EP-A 242 246) or oxynil herbicides (see e. g. US 5,559,024) as a result of conventional methods of breeding or genetic engineering. Several cultivated plants have been rendered tolerant to herbicides by conventional methods of breeding (mutagenesis), e. g. Clearfield® summer rape (Canola, BASF SE, Germany) being tolerant to imidazolinones, e. g. imazamox. Genetic engineering methods have been used to render cultivated plants such as soybean, cotton, corn, beets and rape, tolerant to herbicides such as glypho-sate and glufosinate, some of which are commercially available under the trade names RoundupReady® (glyphosate-tolerant, Monsanto, U.S.A.) and LibertyLink® (glufosinate-tolerant, Bayer CropScience, Germany).

Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more insecticidal proteins, especially those known from the bacterial genus Bacillus, particularly from Bacillus thuringiensis, such as delta-endotoxins, e. g. CryIA(b), CryIA(c), CryIF, CryIF(a2), CryIIA(b), CryIIIA, CryIIIB(b1) or Cry9c; vegetative insecticidal proteins (VIP), e. g. VIP1, VIP2, VIP3 or VIP3A; insecticidal proteins of bacteria colonizing

nematodes, e. g. Photorhabdus spp. or Xenorhabdus spp.; toxins produced by animals, such as scorpion toxins, arachnid toxins, wasp toxins, or other insect-specific neurotoxins; toxins produced by fungi, such Streptomycetes toxins, plant lectins, such as pea or barley lectins; agglu-ti-nins; proteinase inhibitors, such as trypsin inhibitors, serine protease inhibitors, patatin, cysta-tin or papain inhibitors; ribosome-inactivating proteins (RIP), such as ricin, maize-RIP, abrin, luffin, saporin or bryodin; steroid metabolism enzymes, such as 3-hydroxy-steroid oxidase, ec-dysteroid-IDP-glycosyl-transferase, cholesterol oxidases, ecdysone inhibitors or HMG-CoA-reductase; ion channel blockers, such as blockers of sodium or calcium channels; juvenile hor-mone esterase; diuretic hormone receptors (helicokinin receptors); stilbene synthase, bibenzyl synthase, chitinases or glucanases. In the context of the present invention these insecticidal proteins or toxins are to be under-stood expressly also as pre-toxins, hybrid proteins, truncated or otherwise modified proteins. Hybrid proteins are characterized by a new combination of pro-tein domains, (see, e. g. WO 02/015701). Further examples of such toxins or genetically modi-fied plants capable of synthesizing such toxins are dis-closed, e. g., in EP-A 374 753, WO 93/007278, WO 95/34656, EP-A 427 529, EP-A 451 878, WO 03/18810 und WO 03/52073. The methods for producing such genetically modified plants are generally known to the person skilled in the art and are described, e. g. in the publications mentioned above. These insecticidal proteins contained in the genetically modified plants impart to the plants producing these pro-teins tolerance to harmful pests from all taxonomic groups of arthropods, especially to beetles (Coeloptera), two-winged insects (Diptera), and moths (Lepidoptera) and to nematodes (Nema-toda). Genetically modified plants capable to synthesize one or more insecticidal pro-teins are, e. g., described in the publications mentioned above, and some of which are commercially available such as YieldGard® (corn cultivars producing the Cry1Ab toxin), YieldGard® Plus (corn cultivars producing Cry1Ab and Cry3Bb1 toxins), Starlink® (corn cultivars producing the Cry9c toxin), Herculex® RW (corn cultivars producing Cry34Ab1, Cry35Ab1 and the enzyme Phos-phinothricin-N-Acetyltransferase [PAT]); NuCOTN® 33B (cotton cultivars producing the Cry1Ac toxin), Bollgard® I (cotton culti-vars producing the Cry1Ac toxin), Bollgard® II (cotton cultivars producing Cry1Ac and Cry2Ab2 toxins); VIPCOT® (cotton cultivars producing a VIP-toxin); NewLeaf® (potato cultivars producing the Cry3A toxin); Bt-Xtra®, NatureGard®, KnockOut®, BiteGard®, Protecta®, Bt11 (e. g. Agrisure® CB) and Bt176 from Syngenta Seeds SAS, France, (corn cultivars producing the Cry1Ab toxin and PAT enzyme), MIR604 from Syngenta Seeds SAS, France (corn cultivars producing a modified version of the Cry3A toxin, c.f. WO 03/018810), MON 863 from Monsanto Europe S.A., Belgium (corn cultivars produ-cing the Cry3Bb1 toxin), IPC 531 from Monsanto Europe S.A., Belgium (cotton cultivars producing a modified version of the Cry1Ac toxin) and 1507 from Pioneer Overseas Corporation, Belgium (corn cultivars producing the Cry1F toxin and PAT enzyme).

Furthermore, plants are also covered that are by the use of recombinant DNA tech-niques capable to synthesize one or more proteins to in-crease the resistance or tolerance of those plants to bacterial, viral or fungal pathogens. Examples of such proteins are the so-called "pathogenesis-related proteins" (PR proteins, see, e.g. EP-A 392 225), plant disease resistance genes (e. g. potato culti-vars, which express resistance genes acting against Phytophthora in-festans derived from the Mexican wild potato Solanum bulbocastanum) or T4-lyso-zym (e.g. potato cultivars capable of synthesizing these proteins with increased resistance against bacte-

ria such as Erwinia amylvora). The methods for producing such genetically modi-fied plants are generally known to the person skilled in the art and are described, e.g. in the publications mentioned above.

Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more proteins to increase the productivity (e.g. bio mass production, grain yield, starch content, oil content or protein content), tolerance to drought, salinity or other growth-limiting environ-mental factors or tolerance to pests and fungal, bacterial or viral pathogens of those plants.

Furthermore, plants are also covered that contain by the use of recombinant DNA techniques a modified amount of substances of content or new substances of content, specifically to improve human or animal nutrition, e. g. oil crops that produce health-promoting long-chain omega-3 fatty acids or unsaturated omega-9 fatty acids (e. g. Nexera® rape, DOW Agro Sciences, Canada).

Furthermore, plants are also covered that contain by the use of recombinant DNA techniques a modified amount of substances of content or new substances of content, specifically to improve raw material production, e.g. potatoes that produce increased amounts of amylopectin (e.g. Amflora® potato, BASF SE, Germany).

Further, the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), or the plant protection agents containing the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A, can also be used in crops which through breeding including genetic engineering methods are tolerant towards insect or fungal attack.

The composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), or combinations comprising the composition A as defined (component A) and at least one further herbicide B (component B) and/or safener C (component C) as defined, are also just as suitable as the known amorphous benzoxazinone or combinations comprising it for the defoliation and desiccation of plant parts, for example for crop plants such as cotton, potato, rape, sunflower, soya bean or field beans, in particular cotton. In this regard, embodiments of the invention also relate to agents for the desiccation and/or defoliation of plants, processes for the production of these agents and methods for the desiccation and/or defoliation of plants using the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I).

The composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), are in particular suitable as desiccants for the desiccation of the aboveground parts of crop plants such as potato, rape, sunflower and soya bean, but also cereals. This enables completely mechanical harvesting of these important crop plants.

Also of scientific interest is the facilitation of harvesting which is enabled by the time-concentrated dropping or reduction of the strength of attachment to the tree with citrus fruits,

olives or other species and varieties of pomaceous, stone and shelled fruit. The same mechanism, i.e. the promotion of the formation of separation tissue between fruit or leaf and shoot of the plants is also significant for well-controlled defoliation of useful plants, in particular cotton.

In addition, the shortening of the time interval in which the individual cotton plants become ripe leads to heightened fiber quality after the harvest.

The composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), combinations comprising the composition A as defined (component A) and at least one further herbicide B (component B) and/or safener C (component C) as defined, or the plant protection agents containing either composition A or combinations thereof can for example be used in the form of directly sprayable aqueous solutions, powders, suspensions and also high concentration aqueous, oily or other suspensions, oil suspensions, pastes, dusting agents, scattering agents or granules by spraying, misting, dusting, scattering or pouring. The use forms are determined by the use purposes; in each case, they should ensure the finest possible distribution of the active substances according to the invention.

The plant protection agents according to the invention contain the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), in a purity, based on the modification in question, of at least 90 wt.%, and additives and/or carriers such as are usual for the formulation of plant protection agents. In such plant protection agents, the quantity of active substance, i.e. the total quantity of benzoxazinone (I) and of other active substances if necessary, normally lies in the range from 1 to 98 wt.%, in particular in the range from 10 to 95 wt.%, based on the total weight of the plant protection agent.

All solid and liquid substances which are normally used as carriers in plant protection agents, in particular in herbicide formulations are possible as carriers.

Solid carriers are for example mineral earths such as silicic acids, silica gels, silicates, talc, kaolin, limestone, lime, chalk, bole, loess, clay, dolomite, diatomaceous earth, calcium and magnesium sulfate, magnesium oxide, ground plastics, fertilizers such as ammonium sulfate, ammonium phosphate, ammonium nitrate, ureas and plant products such as cereal flour, tree bark, wood and nutshell flour, cellulose powder, ground plant parts like straw, flax, sugarcane straw or alike, and other solid carriers.

Liquid carriers, as well as water, are also organic liquids, for example mineral oil fractions of medium to high boiling point such as kerosene and diesel oil, also coal tar oils and oils of plant or animal origin, aliphatic, cyclic and aromatic hydrocarbons, for example paraffins, tetrahydronaphthalene, alkylated naphthalenes and derivatives thereof, alkylated benzenes and derivatives thereof, including aromatic and non-aromatic hydrocarbon mixtures, for example the

products marketed under the trade names Exxsol and Solvesso, natural oils like plant – e.g. sunflower, corn, cotton, rapeseed, palm, soybean, coconut, olive, linseed – or animal oils – e.g. fish, pork, beef – or derivative of those like methyl oleate or biodiesel, alcohols such as propanol, butanol and cyclohexanol, ketones such as cyclohexanone, and strongly polar solvents, for example amides such as fatty alkyl dimethyl amides or N-methyl-pyrrolidone.

Typical additives include surface-active substances, in particular those wetting agents, emulsifiers and dispersant (additives) normally used in plant protection agents, and also viscosity-modifying additives (thickeners and rheology modifiers), antifoaming agents, antifreeze agents, pH adjusting agents, stabilizers, anticaking agents and biocides (preservatives).

Possible surface-active substances are preferably anionic and nonionic surfactants. Protective colloids are also suitable surface-active substances.

The quantity of surface-active substances will as a rule be 0.1 to 50 wt.%, in particular 0.5 to 30 wt.%, based on the total weight of the plant protection agents according to the invention, or 0.5 to 100 wt.%, based on the total quantity of solid active substances in the formulation. Preferably, the surface-active substance include at least one anionic surface-active substance and at least one nonionic surface-active substance, and the proportion of anionic to nonionic surface-active substance typically lies in the range from 10:1 to 1:10.

Examples of anionic surfactants include alkyl aryl-sulfonates, aromatic sulfonates, for example ligninsulfonates (Borresperse types, Borregaard), phenylsulfonates, naphthalenesulfonates (Morwet types, Akzo Nobel), dibutylnaphthalenesulfonates (Nekal types, BASF), alkyl sulfates, in particular fatty alcohol sulfates, lauryl sulfates, and sulfated hexadeca-, heptadeca- and octadecanols, alkylsulfonates, alkyl ether sulfates, in particular fatty alcohol (poly)glycol ether sulfates, alkyl aryl ether sulfates, alkyl polyglycol ether phosphates, polyarylphenyl ether phosphates, alkyl-sulfosuccinates, olefin sulfonates, paraffin sulfon-ates, petroleum sulfonates, taurides, sarcosides, fatty acids, alkylnaphthalenesulfonic acids, naphthalene-sulfonic acids, ligninsulfonic acids, condensation products of sulfonated naphthalenes with formaldehyde, condensation products of sulfonated naphthalenes with formaldehyde and phenol and optionally urea and condensation products of phenolsulfonic acid with formaldehyde and urea, lignin sulfite waste liquor, alkyl phosphates, alkyl aryl phosphates, for example tristyryl phosphates, and polycarboxylates such as for example polyacrylates, maleic anhydride/olefin copolymers (for example Sokalan® CP9, BASF), including the alkali metal, alkaline earth, ammonium and amine salts of the aforesaid substances. Preferred anionic surface-active substances are those which bear at least one sulfonate group and in particular the alkali metal and ammonium salts thereof.

Examples of non-ionic surface-active substances are alkylphenol alkoxylates, in particular ethoxylates and ethoxylate-copropoxylates of octylphenol, isooctylphenol, nonylphenol and tributylphenol, di- and tristyrylphenol alkoxylates, alcohol alkoxylates, in particular fatty alcohol eth-

oxylates and fatty alcohol ethoxylate-copropoxylates, for example alkoxylated isotridecanol, fatty amine alkoxylates, polyoxyethylene glycerol fatty acid esters, castor oil alkoxylates, fatty acid alkoxylates, fatty acid amide alkoxylates, fatty acid polydiethanolamides, lanolin ethoxylates, fatty acid polyglycol esters, isotridecyl alcohol, ethoxylated fatty acid amides, ethoxylated fatty acid esters, alkyl polyglycosides, ethoxylated alkyl polyglycosides, sorbitan fatty acid esters, ethoxylated sorbitan fatty acid esters, glycerol fatty acid esters, lower molecular weight polyalkylene oxides such as polyethylene glycol, polypropylene oxide, polyethylene oxide copropylene oxide di- and tri- block copolymers, and mixtures thereof. Preferred nonionic surface-active substances are fatty alcohol ethoxylates, alkyl polyglycosides, glycerol fatty acid esters, castor oil ethoxylates, fatty acid ethoxylates, fatty acid amide ethoxylates, lanolin ethoxylates, fatty acid polyglycol esters, ethylene oxide propylene oxide block copolymers and mixtures thereof.

Protective colloids are typically water-soluble, amphiphilic polymers which unlike the aforesaid surfactants typically have molecular weights over 2,000 daltons (number average). Examples thereof are proteins and denatured proteins such as casein, polysaccharides such as water-soluble starch derivatives and cellulose derivatives, hydrophobically modified starches and celluloses, for example methylcellulose, and also polycarboxylates such as polyacrylic acid, acrylic acid copolymers and maleic acid copolymers (BASF Sokalan types), polyvinyl alcohol (Mowiol types from Clariant), polyalkoxylates, polyvinylpyrrolidone, vinylpyrrolidone copolymers, polyvinyl amines, polyethyleneimines (Lupasol types from BASF) and higher molecular weight polyalkylene oxides such as polyethylene glycol, polypropylene oxides, and polyethylene oxide copolypropylene oxide di- and tri- block copolymers.

The plant protection agents according to the invention can also contain one or more additives modifying the viscosity (rheology modifiers). These are understood in particular to mean substances and substance mixtures which impart modified flow behavior to the formulation, for example a high viscosity in the resting state and low viscosity in the moving state. The nature of the rheology modifier is determined by the nature of the formulation. As examples of rheology modifiers, inorganic substances, for example layer silicates and organically modified layer silicates such as bentonites or attapulgites (for example Attaclay®, Engelhardt Co.), and organic substances such as polysaccharides and heteropolysaccharides such as Xanthan Gum® (Kelzan® from Kelco Co.), Rhodopol® 23 (Rhone Poulenc) or Veegum® (R.T. Vanderbilt Co.) should be mentioned. The quantity of the viscosity-modifying additives is often 0.1 to 5 wt.%, based on the total weight of the plant protection agent.

Examples of antifoaming agents are the silicone emulsions known for this purpose (Silikon® SRE, Wacker Co. or Rhodorsil® from Rhodia Co.), long-chain alcohols, fatty acids and salts thereof, foam suppressants of the aqueous wax dispersion type, solid foam suppressants (so-called Compounds) and organofluorine compounds and mixtures thereof. The quantity of antifoaming agent is typically 0.1 to 1 wt.%, based on the total weight of the plant protection agent.

The plant protection agents according to the invention can also contain preservatives for stabilization. Suitable preservatives are those based on isothiazol-ones, for example Proxel® from ICI Co., or Acticide® from Thor Chemie Co. or Kathon® MK from Rohm & Hass Co. The quantity of preservative is typically 0.05 to 0.5 wt.%, based on the total weight of the SC.

Aqueous plant protection agents, i.e. those with an aqueous carrier, often contain antifreeze agents. Suitable antifreeze agents are liquid polyols, for example ethylene glycol, propylene glycol or glycerine, and urea. The quantity of antifreeze agent is as a rule 1 to 20 wt.%, in particular 5 to 10 wt.%, based on the total weight of the aqueous plant protection agent.

If the plant protection agents containing the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the crystalline modification A of benzoxazinone (I) and optionally at least one further herbicide B (component B) and/or safener C (component C)are used for seed treatment, they can also contain normal components such as are used for seed treatment, for example in dressing or coating. In addition to the aforesaid components, these include in particular colorants, adhesives, fillers and plasticizers.

All the dyes and pigments usual for such purposes are possible as colorants. Both pigments of low solubility in water and also dyes soluble in water are usable here. As examples, the dyes and pigments known under the names Rhodamin B, C.I. Pigment Red 112 and C.I. Solvent Red 1, Pigment Blue 15:4, Pigment Blue 15:3, Pigment Blue 15:2, Pigment Blue 15:1, Pigment Blue 80, Pigment Yellow 1, Pigment Yellow 13, Pigment Red 48:2, Pigment Red 48:1, Pigment Red 57:1, Pigment Red 53:1, Pigment Orange 43, Pigment Orange 34, Pigment Orange 5, Pigment Green 36, Pigment Green 7, Pigment White 6, Pigment Brown 25, Basic Violet 10, Basic Violet 49, Acid Red 51, Acid Red 52, Acid Red 14, Acid Blue 9, Acid Yellow 23, Basic Red 10, Basic Red 10 and Basic Red 108 may be mentioned. The quantity of colorant will normally not constitute more than 20 wt.% of the formulation and preferably lies in the range from 0.1 to 15 wt.%, based on the total weight of the formulation.

All binders normally usable in dressings come under consideration as adhesives. Examples of suitable binders include thermoplastic polymers such as poly-vinylpyrrolidone, polyvinyl acetate, polyvinyl alcohol and tylose and also polyacrylates, polymethacrylates, polybutenes, polyisobutenes, polystyrene, polyethylene amines, polyethylene amides, the aforesaid protective colloids, polyesters, polyether esters, polyanhydrides, polyester urethanes, polyester amides, thermoplastic polysaccharides, for example cellulose derivatives such as cellulose esters, cellulose ethers, cellulose ether esters, including methylcellulose, ethylcellulose, hydroxymethylcellulose, carboxymethylcellulose, hydroxypropyl cellulose and starch derivatives and modified starches, dextrins, maltodextrins, alginates and chitosans, and also fats, oils, proteins, including casein, gelatin and zein, gum Arabic and shellac. The adhesives are preferably plant-compatible, i.e. they exhibit no, or no significant, phytotoxic effects. The adhesives are preferably biodegradable. The adhesive is preferably selected such that it acts as a matrix for the ac-

tive components of the formulation. The quantity of adhesive will normally not constitute more than 40 wt.% of the formulation and preferably lies in the range from 1 to 40 wt.% and in particular in the range from 5 to 30 wt.%, based on the total weight of the formulation.

In addition to the adhesive, the formulation for seed treatment can also contain inert fillers. Examples of these are the aforesaid solid carriers, in particular finely divided inorganic materials such as clays, chalk, bentonite, kaolin, talc, perlite, mica, silica gel, diatomaceous earth, quartz powder and montmorillonite but also fine-particle organic materials such as wood flour, cereal flour, active charcoal and the like. The quantity of filler is preferably selected such that the total quantity of filler does not exceed 70 wt.%, based on the total weight of all non-volatile components of the formulation. Often, the quantity of filler lies in the range from 1 to 50 wt.%, based on the total weight of all non-volatile components of the formulation.

In addition, the formulation for seed treatment can also contain a plasticizer which increases the flexibility of the coating. Examples of plasticizers are oligomeric polyalkylene glycols, glycerine, dialkyl phthalates, alkylbenzyl phthalates, glycol benzoates and comparable compounds. The quantity of plasticizer in the coating often lies in the range from 0.1 to 20 wt.%, based on the total weight of all non-volatile components of the formulation.

A preferred embodiment of the invention relates to liquid formulations of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I) and optionally at least one further herbicide B (component B) and/or safener C (component C). In addition to the solid active substance phase, these have at least one liquid phase, in which benzoxazinone (I) is present in the form of particles according to the invention, preferably in the form of form A. Possible liquid phases are essentially water and those organic solvents in which the particles of benzoxazinone (I), preferably the form A, is only slightly soluble, or insoluble, for example those wherein the solubility of the particles of benzoxazinone (I), preferably of the form A at 25°C and 1013 mbar is not more than 1 wt.%, in particular not more than 0.1 wt.%, and especially not more than 0.01 wt.%.

According to one embodiment of the invention, the liquid phase, wherein the composition as claimed in claims 1 to 5 is present in form of particles, is water.

According to a first preferred embodiment, the liquid phase is selected from water and aqueous solvents, i.e. solvent mixtures which in addition to water also contain up to 20 wt.%, preferably however not more than 10 wt.%, based on the total quantity of water and solvent, of one or more organic solvents miscible with water, for example ethers miscible with water such as tetrahydrofuran, methyl glycol, methyl diglycol, alkanols such as isopropanol or polyols such as glycol, glycerine, diethylene glycol, propylene glycol and the like. Such formulations are also referred to below as suspension concentrates (SCs).

Such suspension concentrates contain benzoxazinone (I) in the form of the particles of benzoxazinone (I), preferably of the modification A, in a finely divided particulate form, wherein the particles of benzoxazinone (I), preferably the form A, are present suspended in an aqueous phase.

In such SCs the quantity of active substance, i.e. the total quantity of benzoxazinone (I) and of other active substances if necessary, usually lies in the range from 10 to 70 wt.%, in particular in the range from 20 to 50 wt.%, based on the total weight of the suspension concentrate.

In addition to the active substance, aqueous suspension concentrates typically contain surface-active substances, and also if necessary antifoaming agents, thickeners (= rheology modifiers), antifreeze agents, stabilizers (biocides), agents for adjusting the pH and anticaking agents.

Possible surface-active substances are the previously named surface-active substances. Preferably the aqueous plant protection agents according to the invention contain at least one of the previously named anionic surfactants and if necessary one or more nonionic surfactants, if necessary in combination with a protective colloid. The quantity of surface-active substances will as a rule be 1 to 50 wt.%, in particular 2 to 30 wt.%, based on the total weight of the aqueous SCs according to the invention. Preferably the surface-active substances include at least one anionic surface-active substance and at least one nonionic surface-active substance, and the proportion of anionic to nonionic surface-active substance typically lies in the range from 10:1 to 1:10.

Concerning the nature and quantity of the antifoaming agents, thickeners, antifreeze agents and biocides, the same applies as aforesaid.

If necessary, the aqueous SCs according to the invention can contain buffers for pH regulation. Examples of buffers are alkali metal salts of weak inorganic or organic acids, such as for example phosphoric acid, boric acid, acetic acid, propionic acid, citric acid, fumaric acid, tartaric acid, oxalic acid and succinic acid.

According to a second preferred embodiment, the liquid phase consists of non-aqueous organic solvents in which the solubility of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), at 25°C and 1013 mbar is not more than 1 wt.%, in particular not more than 0.1 wt.%, and especially not more than 0.01 wt.%. These include in particular aliphatic and cycloaliphatic hydrocarbons and oils, in particular those of plant origin, and also C_1-C_4 alkyl esters of saturated or unsaturated fatty acids or fatty acid mixtures, in particular the methyl esters, for example methyl oleate, methyl stearate and rape oil methyl ester, but also paraffinic mineral oils and the like.
Accordingly, the present invention relates also to agents for plant protection in the form of a non-aqueous suspension concentrate, which will also be referred to below as OD (oil-dispersion). Such ODs contain the composition of benzoxazinone (I) as described herein com-

prise the benzoxazinone (I) in a finely divided particulate form, wherein the particles, preferably of the form A, are present suspended in a non-aqueous phase.

In such ODs, the quantity of active substance, i.e. the total quantity of benzoxazinone (I) and of other active substances if necessary, usually lies in the range from 10 to 70 wt.%, in particular in the range from 20 to 50 wt.%, based on the total weight of the non-aqueous suspension concentrate.

In addition to the active substance and the liquid carrier, non-aqueous suspension concentrates typically contain surface-active substances, and also if necessary antifoaming agents, agents to modify the rheology and stabilizers (biocides).

Possible surface-active substances are preferably the previously named anionic and nonionic surfactants. The quantity of surface-active substances will as a rule be 1 to 30 wt.%, in particular 2 to 20 wt.%, based on the total weight of the non-aqueous SCs according to the invention. Preferably the surface-active substances include at least one anionic surface-active substance and at least one nonionic surface-active substance, and the proportion of anionic to nonionic surface-active substance typically lies in the range from 10:1 to 1:10.

The composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), according to the invention can also be formulated as solid plant protection agents. These include powder, scattering and dusting agents but also water-dispersible powders and granules, for example coated, impregnated and homogenous granules. Such formulations can be produced by mixing or simultaneous grinding of the particles of benzoxazinone (I), preferably of the form A of benzoxazinone (I) with a solid carrier and if necessary other additives, in particular surface-active substances. Granules can be produced by binding of the active substances to solid carriers. Solid carriers are mineral earths such as silicic acids, silica gels, silicates, talc, kaolin, limestone, lime, chalk, bole, loess, clay, dolomite, diatomaceous earth, calcium and magnesium sulfate, magnesium oxide, ground plastics, fertilizers such as ammonium sulfate, ammonium phosphate, ammonium nitrate, ureas and plant products such as cereal flour, tree bark, wood and nutshell flour, cellulose powder or other solid carriers. Solid formulations can also be produced by spray drying, if necessary in the presence of polymeric or inorganic drying aids, and if necessary in the presence of solid carriers. For the production of solid formulations of the particles of benzoxazinone (I), preferably of benzoxazinone (I) of form A, extrusion processes, fluidized bed granulation, spray granulation and comparable technologies are suitable.

Possible surface-active substances are the previously named surfactants and protective colloids. The quantity of surface-active substances will as a rule be 1 to 30 wt.%, in particular 2 to 20 wt.%, based on the total weight of the solid formulation according to the invention.

In such solid formulations, the quantity of active substance, i.e. the total quantity of benzoxazinone and of other active substances if necessary, usually lies in the range from 10 to 70 wt.%, in particular in the range from 20 to 50 wt.%, based on the total weight of the solid formulation.

The application of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), or the herbicidal agents containing them is effected, if the formulation is not already ready for use, in the form of aqueous spray fluids. These are prepared by dilution of the aforesaid formulations containing the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), with water. The spray fluids can also contain other components in dissolved, emulsified or suspended form, for example fertilizers, active substances of other herbicidal or growth-regulating active substance groups, other active substances, for example active substances for combating animal pests or phyto-pathogenic fungi or bacteria, and also mineral salts which are used for the elimination of nutritional and trace element deficiencies, and non-phytotoxic oils and oil concentrates. As a rule, these components are added to the spray fluid before, during or after the dilution of the formulations according to the invention.

The application of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), or of the plant protection agents containing them can be effected in a pre-emergence or in a post-emergence method. Also application techniques can be used wherein the herbicidal agents are sprayed using the spraying equipment in such a manner that the leaves of the sensitive crop plants are as far as possible not hit, while the active substances reach the leaves of undesired plants growing under them or the uncovered soil surface (post-directed, lay-by).

The quantities of benzoxazinone (I) applied are 0.001 to 3.0 kg active substance per hectare, preferably 0.01 to 1.0 kg active substance (a.S)/ha, depending on the treatment aim, season, target plants and growth stage.

In a further embodiment, the application of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), or the plant protection agent containing them can be effected by treatment of seed.

Treatment of seed essentially includes all techniques with which the person skilled in the art is familiar (seed dressing, seed coating, seed dusting, seed soaking, seed film coating, seed multilayer coating, seed encrusting, seed dripping and seed pelleting) on the basis of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), or agents prepared therefrom. Here the plant protection agents can be applied diluted or undiluted.

The term seed includes seed of all types, for example grains, seeds, fruits, tubers, cuttings and similar forms. Preferably, the term seed here describes grains and seeds.

As seed, seed of the crop plants mentioned above but also the seeds of transgenic plants or those obtained by conventional breeding methods can be used.

For the seed treatment, benzoxazinone (I) is normally used in quantities of 0.001 to 10 kg per 100 kg of seed.

To broaden the spectrum of action and to achieve synergistic effects, the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), can be mixed and applied together with many members of other herbicidal or growth regulating active substance groups. In addition, it can be advantageous to formulate or apply the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I) together with safeners. With regard to such combinations, full reference is made to WO 2010/145992.
Suitable components for mixtures are, for example, 1,2,4-thiadiazoles, 1,3,4-thiadiazoles, amides, aminophosphoric acid and its derivatives, aminotriazoles, anilides, (het)aryloxyalkanoic acids and their derivatives, benzoic acid and its derivatives, benzothiadiazinones, 2-aroyl-1,3-cyclohexanediones, 2-hetaroyl-1,3-cyclohexanediones, hetaryl aryl ketones, benzylisoxazolidinones, meta-CF_3-phenyl derivatives, carbamates, quinolinecarboxylic acid and its derivatives, chloroacetanilides, cyclohexenone oxime ether derivatives, diazines, dichloropropionic acid and its derivatives, dihydrobenzofurans, dihydrofuran-3-ones, dinitroanilines, dinitrophenols, diphenyl ethers, dipyridyls, halocarboxylic acids and their derivatives, ureas, 3-phenyluracils, imidazoles, imidazolinones, N-phenyl-3,4,5,6-tetrahydrophthalimides, oxadiazoles, oxiranes, phenols, aryloxy- and hetaryloxyphenoxypropionic esters, phenylacetic acid and its derivatives, 2-phenylpropionic acid and its derivatives, pyrazoles, phenylpyrazoles, pyridazines, pyridinecarboxylic acid and its derivatives, pyrimidyl ethers, sulfonamides, sulfonylureas, triazines, triazinones, triazolinones, triazolecarboxamides, uracils, phenyl pyrazolines and isoxazolines and derivatives thereof.

In addition, it can be of value to apply the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A, alone or in combination with other herbicides also mixed with still further plant protection agents, together for example with agents for combating pests or phytopathogenic fungi or bacteria. Also of interest is the miscibility with mineral salt solutions which are used for the elimination of nutritional and trace element deficiencies. Additives such as non-phytotoxic oils and oil concentrates can also be added.

In one embodiment of the present invention the herbicidal combinations according to the present invention comprise at least the composition A (component A) and at least one further ac-

tive compound selected from herbicides B (component B), preferably herbicides B of class b1) to b15), and safeners C (component C).

In another embodiment of the present invention the the herbicidal combinations according to the present invention comprise at least the composition A and at least one further active compound B (herbicide B).

The further active compound B (herbicide B) is preferably selected from the herbicides of class b1) to b15):

b1) lipid biosynthesis inhibitors;
b2) acetolactate synthase inhibitors (ALS inhibitors);
b3) photosynthesis inhibitors;
b4) protoporphyrinogen-IX oxidase inhibitors,
b5) bleacher herbicides;
b6) enolpyruvyl shikimate 3-phosphate synthase inhibitors (EPSP inhibitors);
b7) glutamine synthetase inhibitors;
b8) 7,8-dihydropteroate synthase inhibitors (DHP inhibitors);
b9) mitose inhibitors;
b10) inhibitors of the synthesis of very long chain fatty acids (VLCFA inhibitors);
b11) cellulose biosynthesis inhibitors;
b12) decoupler herbicides;
b13) auxin herbicides;
b14) auxin transport inhibitors; and
b15) other herbicides selected from the group consisting of bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters;

including their agriculturally acceptable salts or derivatives.

Preference is given to those herbicidal combinations according to the present invention comprising at least one herbicide B selected from herbicides of class b2, b3, b4, b5, b6, b9 and b10.

Specific preference is given to those herbicidal combinations according to the present invention which comprise at least one herbicide B selected from the herbicides of class b4, b6, b9 and b10.

Particular preference is given to those herbicidal combinations according to the present invention which comprise at least one herbicide B selected from the herbicides of class b4, b6 and b10.

According to a first embodiment of the invention the herbicidal combinations contain at least one inhibitor of the lipid biosynthesis (herbicide b1). These are compounds which inhibit lipid biosynthesis. Inhibition of the lipid biosynthesis can be affected either through inhibition of acetyl CoA carboxylase (hereinafter termed ACC herbicides) or through a different mode of action (hereinafter termed non-ACC herbicides). The ACC herbicides belong to the group A of the HRAC classification system whereas the non-ACC herbicides belong to the group N of the HRAC classification.

According to a second embodiment of the invention the herbicidal combinations contain at least one ALS inhibitor (herbicide b2). The herbicidal activity of these compounds is based on the inhibition of acetolactate synthase und thus on the inhibiton of the branched chain aminoacid biosynthesis. These inhibitors belong to the group B of the HRAC classification system.

According to a third embodiment of the invention the herbicidal combinations contain at least one inhibitor of photosynthesis (herbicide b3). The herbicidal activity of these compounds is based either on the inhibition of the photosystem II in plants (so-called PSII inhibitors, groups C1, C2 and C3 of HRAC classification) or on diverting the electron transfer in photosystem I in plants (so-called PSI inhibitors, group D of HRAC classification) and thus on an inhibition of photosynthesis. Amongst these, PSII inhibitors are preferred.

According to a fourth embodiment of the invention the herbicidal combinations contain at least one inhibitor of protoporphyrinogen-IX-oxidase (herbicide b4). The herbicidal activity of these compounds is based on the inhibition of the protoporphyrinogen-IX-oxidase. These inhibitors belong to the group E of the HRAC classification system.

According to a fifth embodiment of the invention the herbicidal combinations contain at least one bleacher-herbicide (herbicide b5). The herbicidal activity of these compounds is based on the inhibition of the carotinoid biosynthesis. These include compounds which inhibit carotinoid biosynthesis by inhibition of phytoene desaturase (so-called PDS inhibitors, group F1 of HRAC classification), compounds which inhibit the 4-hydroxyphenylpyruvat-dioxygenase (HPPD inhibitors, group F2 of HRAC classification) and compounds which inhibit carotinoid biosynthesis by an unknown mode of action (bleacher - unknown target, group F3 of HRAC classification).

According to a sixth embodiment of the invention the herbicidal combinations contain at least one EPSP synthase inhibitor (herbicide b6). The herbicidal activity of these compounds is based on the inhibition of enolpyruvyl shikimate 3-phosphate synthase und thus on the inhibition of the aminoacid biosynthesis in plants. These inhibitors belong to the group G of the HRAC classification system.

According to a seventh embodiment of the invention the herbicidal combinations contain at least one glutamin synthetase inhibitor (herbicide b7). The herbicidal activity of these compounds is based on the inhibition of glutamin synthetase und thus on the inhibition of the ami-

noacid biosynthesis in plants. These inhibitors belong to the group H of the HRAC classification system.

According to an eighth embodiment of the invention the herbicidal combinations contain at least one DHP synthase inhibitor (herbicide b8). The herbicidal activity of these compounds is based on the inhibition of 7,8-dihydropteroate synthetase. These inhibitors belong to the group I of the HRAC classification system.

According to a ninth embodiment of the invention the herbicidal combinations contain at least one mitose inhibitor (herbicide b9). The herbicidal activity of these compounds is based on the disturbance or inhibition of microtubule formation or organization and thus on the mitosis inhibition. These inhibitors belong to the groups K1 and K2 of the HRAC classification system. Among these, compounds of the group K1, in particular dinitroanilines, are preferred.

According to a tenth embodiment of the invention the herbicidal combinations contain at least one VLCFA inhibitor (herbicide b10). The herbicidal activity of these compounds is based on the inhibition of the synthesis of very long chain fatty acids and thus on the disturbance or inhibition of cell division in plants. These inhibitors belong to the group K3 of the HRAC classification system.

According to an eleventh embodiment of the invention the herbicidal combinations contain at least one cellulose biosynthesis inhibitor (herbicide b11). The herbicidal activity of these compounds is based on the inhibition of the biosynthesis of cellulose and thus on the inhibition of the synthesis of cell walls in plants. These inhibitors belong to the group L of the HRAC classification system.

According to a twelfth embodiment of the invention the herbicidal combinations contain at least one decoupler herbicide (herbicide b12). The herbicidal activity of these compounds is based on the disruption of the cell membrane. These inhibitors belong to the group M of the HRAC classification system.

According to a thirtheenth embodiment of the invention the herbicidal combinations contain at least one auxin herbicide (herbicide b13). These include compounds which act like auxins, i.e. plant hormones, and inhibit the growth of the plants. These compounds belong to the group O of the HRAC classification system.

According to a fourteenth embodiment of the invention the herbicidal combinations contain at least one auxin transport inhibitor (herbicide b14). The herbicidal activity of these compounds is based on the inhibition of the auxin transport in plants. These compounds belong to the group P of the HRAC classification system.

As to the given mechanisms of action and classification of the active substances, see e.g. "HRAC, Classification of Herbicides According to Mode of Action", http://www.plantprotection.org/hrac/MOA.html).

Examples of herbicides B which can be used in combination with the composition A according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors:
ACC-herbicides such as alloxydim, alloxydim-sodium, butroxydim, clethodim, clodinafop, clodinafop-propargyl, cycloxydim, cyhalofop, cyhalofop-butyl, diclofop, diclofop-methyl, fenoxaprop, fenoxaprop-ethyl, fenoxaprop-P, fenoxaprop-P-ethyl, fluazifop, fluazifop-butyl, fluazifop-P, fluazifop-P-butyl, haloxyfop, haloxyfop-methyl, haloxyfop-P, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop, quizalofop-ethyl, quizalofop-tefuryl, quizalofop-P, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim and tralkoxydim, and non ACC herbicides such as benfuresate, butylate, cycloate, dalapon, dimepiperate, EPTC, esprocarb, ethofumesate, flupropanate, molinate, orbencarb, pebulate, prosulfocarb, TCA, thiobencarb, tiocarbazil, triallate and vernolate;

b2) from the group of the ALS inhibitors:
Sulfonylureas such as amidosulfuron, azimsulfuron, bensulfuron, bensulfuron-methyl, chlorimuron, chlorimuron-ethyl, chlorsulfuron, cinosulfuron, cyclosulfamuron, ethametsulfuron, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, flucetosulfuron, flupyrsulfuron, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron, halosulfuron-methyl, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, metsulfuron, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, primisulfuron, primisulfuron-methyl, propyrisulfuron, prosulfuron, pyrazosulfuron, pyrazosulfuron-ethyl, rimsulfuron, sulfometuron, sulfometuron-methyl, sulfosulfuron, thifensulfuron, thifensulfuron-methyl, triasulfuron, tribenuron, tribenuron-methyl, trifloxysulfuron, triflusulfuron, triflusulfuron-methyl and tritosulfuron, imidazolinones such as imazamethabenz, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin and imazethapyr, triazolopyrimidine herbicides and sulfonanilides such as cloransulam, cloransulam-methyl, diclosulam, flumetsulam, florasulam, metosulam, penoxsulam, pyrimisulfan and pyroxsulam, pyrimidinylbenzoates such as bispyribac, bispyribac-sodium, pyribenzoxim, pyriftalid, pyriminobac, pyriminobac-methyl, pyrithiobac, pyrithiobac-sodium, 4-[[[2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]phenyl]methyl]amino]-benzoic acid-1-methylethyl ester (CAS 420138-41-6), 4-[[[2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]phenyl]methyl]amino]-benzoic acid propyl ester (CAS 420138-40-5), N-(4-bromophenyl)-2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-benzenemethanamine (CAS 420138-01-8) and sulfonylaminocarbonyl-triazolinone herbicides such as flucarbazone, flucarbazone-sodium, propoxycarbazon, propoxycarbazon- sodium, thiencarbazone and thiencarbazone-methyl. Among these, a preferred embodiment of the invention relates to those combinations comprising at least one imidazolinone herbicide;

b3) from the group of the photosynthesis inhibitors:
amicarbazone, inhibitors of the photosystem II, e.g. triazine herbicides, including of chlorotriazine, triazinones, triazindiones, methylthiotriazines and pyridazinones such as ametryn, atrazine, chloridazone, cyanazine, desmetryn, dimethametryn,hexazinone, metribuzin, prometon, prometryn, propazin, simazin, simetryn, terbumeton, terbuthylazin, terbutryn and trietazin, aryl urea such as chlorobromuron, chlorotoluron, chloroxuron, dimefuron, diuron, fluometuron, isoproturon, isouron, linuron, metamitron, methabenzthiazuron, metobenzuron, metoxuron, mono-

linuron, neburon, siduron, tebuthiuron and thiadiazuron, phenyl carbamates such as desmedipham, karbutilat, phenmedipham, phenmedipham-ethyl, nitrile herbicides such as bromofenoxim, bromoxynil and its salts and esters, ioxynil and its salts and esters, uraciles such as bromacil, lenacil and terbacil, and bentazon and bentazon-sodium, pyridatre, pyridafol, pentanochlor and propanil and inhibitors of the photosystem I such as diquat, diquat-dibromide, paraquat, paraquat-dichloride and paraquat-dimetilsulfate. Among these, a preferred embodiment of the invention relates to those combinations comprising at least one aryl urea herbicide. Among these, likewise a preferred embodiment of the invention relates to those combinations comprising at least one triazine herbicide. Among these, likewise a preferred embodiment of the invention relates to those combinations comprising at least one nitrile herbicide;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:
acifluorfen, acifluorfen-sodium, azafenidin, bencarbazone, benzfendizone, bifenox, butafenacil, carfentrazone, carfentrazone-ethyl, chlomethoxyfen, cinidon-ethyl, fluazolate, flufenpyr, flufenpyr-ethyl, flumiclorac, flumiclorac-pentyl, flumioxazin, fluoroglycofen, fluoroglycofen-ethyl, fluthiacet, fluthiacet-methyl, fomesafen, halosafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, profluazol, pyraclonil, pyraflufen, pyraflufen-ethyl, saflufenacil, sulfentrazone, thidiazimin, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 45100-03-7) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides:
PDS inhibitors: beflubutamid, diflufenican, fluridone, flurochloridone, flurtamone, norflurazon, picolinafen, and 4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7), HPPD inhibitors: benzobicyclon, benzofenap, isoxaflutole, mesotrione, pyrasulfotole, pyrazolynate, pyrazoxyfen, sulcotrione, tefuryltrione, tembotrione, topramezone and bicyclopyrone, bleacher, unknown target: aclonifen, amitrole, clomazone and flumeturon;

b6) from the group of the EPSP synthase inhibitors:
glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

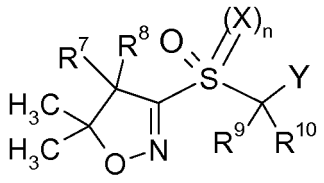
b7) from the group of the glutamine synthase inhibitors:
bilanaphos (bialaphos), bilanaphos-sodium, glufosinate, glufosinate-P and glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors:
asulam;

b9) from the group of the mitose inhibitors:
compounds of group K1: dinitroanilines such as benfluralin, butralin, dinitramine, ethalfluralin, fluchloralin, oryzalin, pendimethalin, prodiamine and trifluralin, phosphoramidates such as amiprophos, amiprophos-methyl, and butamiphos, benzoic acid herbicides such as chlorthal, chlorthal-dimethyl, pyridines such as dithiopyr and thiazopyr, benzamides such as propyzamide and tebutam; compounds of group K2: chlorpropham, propham and carbetamide, among these, compounds of group K1, in particular dinitroanilines are preferred;

b10) from the group of the VLCFA inhibitors:
chloroacetamides such as acetochlor, alachlor, butachlor, dimethachlor, dimethenamid, dimethenamid-P, metazachlor, metolachlor, metolachlor-S, pethoxamid, pretilachlor, propachlor, propisochlor and thenylchlor, oxyacetanilides such as flufenacet and mefenacet, acetanilides such as diphenamid, naproanilide and napropamide, tetrazolinones such fentrazamide, and other herbicides such as anilofos, cafenstrole, fenoxasulfone, ipfencarbazone, piperophos, pyroxasulfone and

isoxazoline compounds of the formula II,



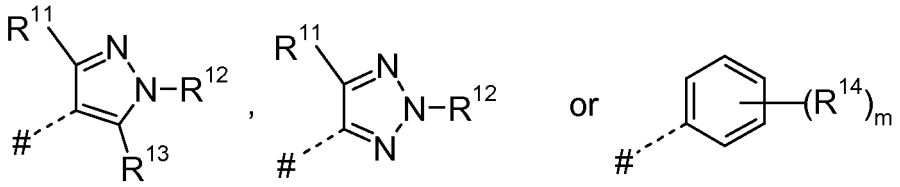
(II)

wherein R^7, R^8, R^9, R^{10}, W, Z and n have the following meanings:
R^7, R^8, R^9, R^{10} independently of one another hydrogen, halogen or C_1-C_4-alkyl;
X oxygen or NH;
Y phenyl or monocyclic 5-, 6-, 7-, 8-, 9- or 10-membered heterocyclyl containing, in addition to carbon ring members one, two or three same or different heteroatoms selected from oxygen, nitrogen and sulfur as ring members, wherein phenyl and heterocyclyl are unsubstituted or carry 1, 2 or 3 substituents R^{yy} selected from halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkyl and C_1-C_4-haloalkoxy;
preferably phenyl or 5- or 6-membered aromatic heterocyclyl (hetaryl) which contains, in addition to carbon ring members, one, two or three nitrogen atoms as ring members, wherein phenyl and hetaryl are unsubstituted or carry 1, 2 or 3 substituents R^{yy} ; and
n zero or one;

among the isoxazoline compounds of the formula II, preference is given to isoxazoline compounds of the formula II, wherein
R^7, R^8, R^9, R^{10} independently of one another are H, F, Cl or methyl;
X is oxygen;

n is 0 or 1; and

Y is phenyl, pyrazolyl or 1,2,3-triazolyl, wherein the three last-mentioned radicals are unsubstituted or carry one, two or three substituents R^{yy}, especially one of the following radicals



wherein

R^{11} is halogen, C_1-C_4-alkyl or C_1-C_4-haloalkyl;

R^{12} is C_1-C_4-alkyl;

R^{13} is halogen, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy;

R^{14} is halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl or C_1-C_4-haloalkoxy;

m is 0, 1, 2 or 3; and

denotes the point of attachment to the group $CR^{13}R^{14}$;

among the isoxazoline compounds of the formula II, particular preference is given to those isoxazoline compounds of the formula II, wherein

R^7 is hydrogen;

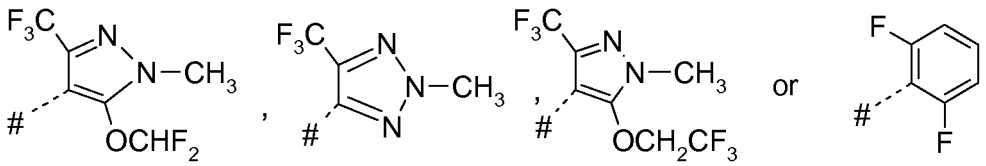
R^8 is fluorine;

R^9 is hydrogen or fluorine;

R^{10} is hydrogen or fluorine;

X is oxygen;

Y is one of the radicals of the formulae Y^1, Y^2, Y^3 or Y^4

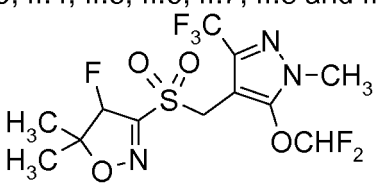


Y^1 Y^2 Y^3 Y^4

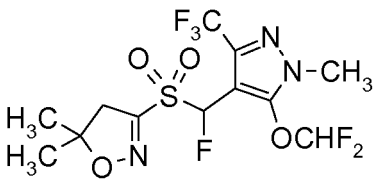
wherein # denotes the point of attachment to the group CR^9R^{10};

n is zero or 1, in particular 1; and

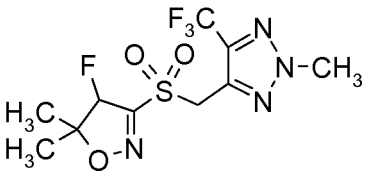
among these, especially prefered are the isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9



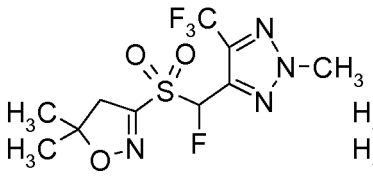
II.1



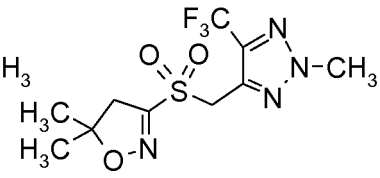
II.2



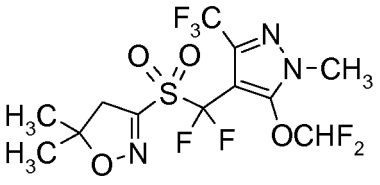
II.3



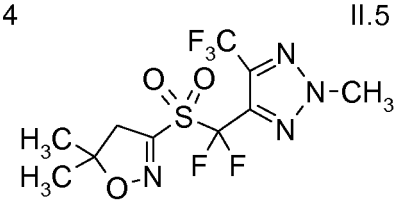
II.4



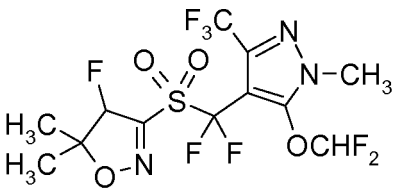
II.5



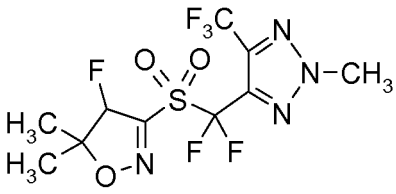
II.6



II.7



II.8

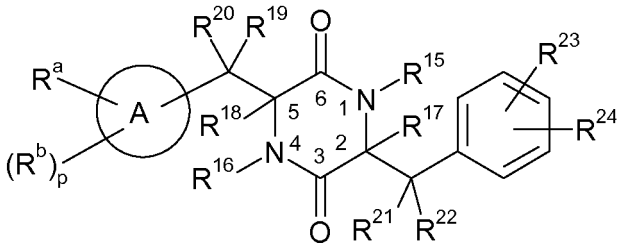


II.9

the isoxazoline compounds of the formula II are known in the art, e.g. from WO 2006/024820, WO 2006/037945, WO 2007/071900 and WO 2007/096576;

among the VLCFA inhibitors, preference is given to chloroacetamides and oxyacetamides, especially to pyroxasulfone;

b11) from the group of the cellulose biosynthesis inhibitors:
chlorthiamid, dichlobenil, flupoxam, isoxaben, 1-Cyclohexyl-5-pentafluorphenyloxy-1^4-[1,2,4,6]thiatriazin-3-ylamine and piperazine compounds of formula III,



III,

in which

A is phenyl or pyridyl where R^a is attached in the ortho-position to the point of attachment of A to a carbon atom;

R^a is CN, NO_2, C_1-C_4-alkyl, D-C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, O-D-C_3-C_6-cycloalkyl, $S(O)_qR^y$, C_2-C_6-alkenyl, D-C_3-C_6-cycloalkenyl, C_3-C_6-alkenyloxy, C_2-C_6-alkynyl, C_3-C_6-alkynyloxy, NR^AR^B, tri-C_1-C_4-alkylsilyl, D-C(=O)-R^{a1}, D-P(=O)(R^{a1})$_2$, phenyl, naphthyl, a 3- to 7-membered monocyclic or 9- or 10-membered bicyclic saturated, unsaturated or aromatic heterocycle which is attached

via carbon or nitrogen, which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, and which may be partially or fully substituted by groups R^{aa} and/or R^{a1}, and, if R^a is attached to a carbon atom, additionally halogen;

R^y is C_1-C_6-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, NR^AR^B or C_1-C_4-haloalkyl and q is 0, 1 or 2;

R^A,R^B independently of one another are hydrogen, C_1-C_6-alkyl, C_3-C_6-alkenyl and C_3-C_6-alkynyl; together with the nitrogen atom to which they are attached, R^A,R^B may also form a five- or six-membered saturated, partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be substituted by 1 to 3 groups R^{aa};

D is a covalent bond, C_1-C_4-alkylene, C_2-C_6-alkenyl or C_2-C_6-alkynyl;

R^{a1} is hydrogen, OH, C_1-C_8-Alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_8-alkenyl, C_5-C_6-cycloalkenyl, C_2-C_8-alkynyl, C_1-C_6-alkoxy, C_1-C_4-haloalkoxy, C_3-C_8-alkenyloxy, C_3-C_8-alkynyloxy, NR^AR^B, C_1-C_6-alkoxyamino, C_1-C_6-alkylsulfonylamino, C_1-C_6-alkylaminosulfonylamino, [di-(C_1-C_6)alkylamino]sulfonylamino, C_3-C_6-alkenylamino, C_3-C_6-alkynylamino, N-(C_2-C_6-alkenyl)-N-(C_1-C_6-alkyl)amino, N-(C_2-C_6-alkynyl)-N-(C_1-C_6-alkyl)amino, N-(C_1-C_6-alkoxy)-N-(C_1-C_6-alkyl)amino, N-(C_2-C_6-alkenyl)-N-(C_1-C_6-alkoxy)amino, N-(C_2-C_6-alkynyl)-N-(C_1-C_6-alkoxy)-amino, C_1-C_6-alkylsulfonyl, tri-C_1-C_4-alkylsilyl, phenyl, phenoxy, phenylamino or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa};

R^{aa} is halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, $S(O)_qR^y$, D-C(=O)-R^{a1} and tri-C_1-C_4-alkylsilyl;

R^b independently of one another are hydrogen, CN, NO_2, halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, benzyl or $S(O)_qR^y$,

R^b together with the group R^a or R^b attached to the adjacent ring atom may also form a five- or six-membered saturated or partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be partially or fully substituted by R^{aa};

p is 0, 1, 2 or 3;

R^{15} is hydrogen, OH, CN, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, $C(=O)R^{25}$, CON-R^AR^B, phenyl or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic aromatic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are attached via D^1 and are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa}, and also the following partially or fully R^{aa}-substituted groups: C_1-C_4-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, C_1-C_4-

alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, $C(=O)R^{25}$, $CONR^AR^B$;
preferably is hydrogen, OH, CN, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, $C(=O)R^{25}$, $CONR^AR^B$, phenyl or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic aromatic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are attached via D^1 and are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa}, and also the following partially or fully R^{aa}-substituted groups: C_1-C_4-alkyl, C_3-C_4-alkenyl and C_3-C_4-alkynyl;

R^{25} is hydrogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy;

D^1 is carbonyl or a group D;

where in groups R^{15}, R^a and their sub-substituents the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa} and/or R^{a1};

R^{16} is C_1-C_4-alkyl, C_3-C_4-alkenyl or C_3-C_4-alkynyl;

R^{17} is OH, NH_2, C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_3-C_6-alkenyl, C_3-C_6-alkynyl, C_1-C_4-hydroxyalkyl, C_1-C_4-cyanoalkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy-C_1-C_4-alkyl or $C(=O)R^{25}$;

R^{18} is hydrogen, halogen, C_1-C_4-alkyl or C_1-C_4-haloalkyl, or R^{18} and R^{19} together are a covalent bond;

R^{19}, R^{20}, R^{21}, R^{21} independently of one another are hydrogen, halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and C_3-C_6-cycloalkynyl;

R^{23}, R^{24} independently of one another are hydrogen, halogen, OH, haloalkyl, NR^AR^B, $NR^AC(O)R^{26}$, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, O-$C(O)R^{26}$, phenoxy or benzyloxy, where in groups R^{23} and R^{24} the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa};

R^{26} is C_1-C_4-alkyl or NR^AR^B;

among the isoxazoline compounds of the piperazin compounds of formula III, preference is given to the piperazine compounds of the formula III, wherein

A is phenyl or pyridyl where R^a is attached in the ortho-position to the point of attachment of A to a carbon atom;

R^a is CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy or D-$C(=O)$-R^{a1};

R^y is C_1-C_6-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, NR^AR^B or C_1-C_4-haloalkyl and q is 0, 1 or 2;

R^A,R^B independently of one another are hydrogen, C_1-C_6-alkyl, C_3-C_6-alkenyl and C_3-C_6-alkynyl; together with the nitrogen atom to which they are attached, R^A,R^B may also form a five- or six-membered saturated, partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3

heteroatoms selected from the group consisting of O, N and S, which ring may be substituted by 1 to 3 groups R^{aa};

D is a covalent bond or C_1-C_4-alkylene;

R^{a1} is hydrogen, OH, C_1-C_8-Alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl;

R^{aa} is halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, $S(O)_qR^y$, D-C(=O)-R^{a1} and tri-C_1-C_4-alkylsilyl;

R^b independently of one another is CN, NO_2, halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, benzyl or $S(O)_qR^y$,

R^b together with the group R^a or R^b attached to the adjacent ring atom may also form a five- or six-membered saturated or partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be partially or fully substituted by R^{aa};

p is 0 or 1;

R^{15} is hydrogen, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy or $C(=O)R^{25}$, which can be partially or fully substituted by R^{aa}-groups;

preferably is hydrogen, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy or $C(=O)R^{25}$;

R^{25} is hydrogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy;

where in groups R^{15}, R^a and their sub-substituents the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa} and/or R^{a1};

R^{16} is C_1-C_4-alkyl;

R^{17} is OH, NH_2, C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl or $C(=O)R^{25}$;

R^{18} is hydrogen, or R^{18} and R^{19} together are a covalent bond;

R^{19}, R^{20}, R^{21}, R^{21} independently of one another are hydrogen;

R^{23}, R^{24} independently of one another are hydrogen, halogen or OH;

b12) from the group of the decoupler herbicides:
dinoseb, dinoterb and DNOC and its salts;

b13) from the group of the auxin herbicides:
2,4-D and its salts and esters, 2,4-DB and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, benazolin, benazolin-ethyl, chloramben and its salts and esters, clomeprop, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr, fluroxypyr-butometyl, fluroxypyr-meptyl, MCPA and its salts and esters, MCPA-thioethyl, MCPB and its salts and esters, mecoprop and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, TBA (2,3,6) and its salts and esters, triclopyr and its salts and esters, and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr, diflufenzopyr-sodium, naptalam and naptalam-sodium;

b15) from the group of the other herbicides: bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

Preferred herbicides B which can be used in combination with the composition A according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors:
clethodim, clodinafop-propargyl, cycloxydim, cyhalofop-butyl, diclofop-methyl, fenoxaprop-P-ethyl, fluazifop-P-butyl, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim, tralkoxydim, benfuresate, dimepiperate, EPTC, esprocarb, ethofumesate, molinate, orbencarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors:
amidosulfuron, azimsulfuron, bensulfuron-methyl, bispyribac-sodium, chlorimuron-ethyl, chlorsulfuron, cloransulam-methyl, cyclosulfamuron, diclosulam, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, florasulam, flucarbazone-sodium, flucetosulfuron, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron-methyl, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, metosulam, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, penoxsulam, primisulfuron-methyl, propoxycarbazon-sodium, propyrisulfuron, prosulfuron, pyrazosulfuron-ethyl, pyribenzoxim, pyrimisulfan, pyriftalid, pyriminobac-methyl, pyrithiobac-sodium, pyroxsulam, rimsulfuron, sulfometuron-methyl, sulfosulfuron, thiencarbazone-methyl, thifensulfuron-methyl, triasulfuron, tribenuron-methyl, trifloxysulfuron, triflusulfuron-methyl and tritosulfuron;

b3) from the group of the photosynthesis inhibitors:
ametryn, amicarbazone, atrazine, bentazone, bentazone-sodium, bromoxynil and its salts and esters, chloridazone, chlorotoluron, cyanazine, desmedipham, diquat-dibromide, diuron, fluometuron, hexazinone, ioxynil and its salts and esters, isoproturon, lenacil, linuron, metamitron, methabenzthiazuron, metribuzin, paraquat, paraquat-dichloride, phenmedipham, propanil, pyridate, simazine, terbutryn, terbuthylazine and thidiazuron;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:

acifluorfen-sodium, bencarbazone, benzfendizone, butafenacil, carfentrazone-ethyl, cinidon-ethyl, flufenpyr-ethyl, flumiclorac-pentyl, flumioxazin, fluoroglycofen-ethyl, fomesafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, pyraflufen-ethyl, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 45100-03-7) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides:
aclonifen, beflubutamid, benzobicyclon, clomazone, diflufenican, flurochloridone, flurtamone, isoxaflutole, mesotrione, norflurazon, picolinafen, pyrasulfotole, pyrazolynate, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, 4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7), amitrole and flumeturon;

b6) from the group of the EPSP synthase inhibitors:
glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors:
glufosinate, glufosinate-P, glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors: asulam;

b9) from the group of the mitose inhibitors:
benfluralin, dithiopyr, ethalfluralin, oryzalin, pendimethalin, thiazopyr and trifluralin;

b10) from the group of the VLCFA inhibitors:
acetochlor, alachlor, anilofos, butachlor, cafenstrole, dimethenamid, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, naproanilide, napropamide, pretilachlor, fenoxasulfone, ipfencarbazone, pyroxasulfone thenylchlor and isoxazoline-compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: dichlobenil, flupoxam, isoxaben, 1-Cyclohexyl-5-pentafluorphenyloxy-1^4-[1,2,4,6]thiatriazin-3-ylamine and the piperazine compounds of formula III as mentioned above;

b13) from the group of the auxin herbicides:

2,4-D and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr-meptyl, MCPA and its salts and esters, MCPB and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, triclopyr and its salts and esters, and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyr-sodium;

b15) from the group of the other herbicides: bromobutide, cinmethylin, cumyluron, dalapon, difenzoquat, difenzoquat-metilsulfate, DSMA, dymron (= daimuron), flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, indanofan, indaziflam, metam, methylbromide, MSMA, oxaziclomefone, pyributicarb, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

Particularly preferred herbicides B which can be used in combination with the composition A according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors: clodinafop-propargyl, cycloxydim, cyhalofop-butyl, fenoxaprop-P-ethyl, pinoxaden, profoxydim, tepraloxydim, tralkoxydim, esprocarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors: bensulfuron-methyl, bispyribac-sodium, cyclosulfamuron, diclosulam, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, nicosulfuron, penoxsulam, propoxycarbazon-sodium, pyrazosulfuron-ethyl, pyroxsulam, rimsulfuron, sulfosulfuron, thiencarbazon-methyl and tritosulfuron;

b3) from the group of the photosynthesis inhibitors: ametryn, atrazine, diuron, fluometuron, hexazinone, isoproturon, linuron, metribuzin, paraquat, paraquat-dichloride, propanil, terbutryn and terbuthylazine;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors: flumioxazin, oxyfluorfen, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides: clomazone, diflufenican, flurochloridone, isoxaflutole, mesotrione, picolinafen, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, amitrole and flumeturon;

b6) from the group of the EPSP synthase inhibitors: glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors: glufosinate, glufosinate-P and glufosinate-ammonium;

b9) from the group of the mitose inhibitors: pendimethalin and trifluralin;

b10) from the group of the VLCFA inhibitors: acetochlor, cafenstrole, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, fenoxasulfone, ipfencarbazone and pyroxasulfone; likewise, preference is given to isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: isoxaben and the piperazine compounds of formula III as mentioned above;

b13) from the group of the auxin herbicides: 2,4-D and its salts and esters, aminopyralid and its salts and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, fluroxypyr-meptyl, quinclorac, quinmerac and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyr-sodium,

b15) from the group of the other herbicides: dymron (= daimuron), indanofan, indaziflam, oxaziclomefone and triaziflam.

Moreover, it may be useful to apply the composition A in combination with safeners. Safeners are chemical compounds which prevent or reduce damage on useful plants without having a major impact on the herbicidal action of the composition A towards unwanted plants. They can be applied either before sowings (e.g. on seed treatments, shoots or seedlings) or in the preemergence application or post-emergence application of the useful plant. The safeners and the composition A can be applied simultaneously or in succession.

Furthermore, the safeners C, the composition A and/or the herbicides B can be applied simultaneously or in succession.

Suitable safeners are e.g. (quinolin-8-oxy)acetic acids, 1-phenyl-5-haloalkyl-1H-1,2,4-triazol-3-carboxylic acids, 1-phenyl-4,5-dihydro-5-alkyl-1H-pyrazol-3,5-dicarboxylic acids, 4,5-dihydro-

5,5-diaryl-3-isoxazol carboxylic acids, dichloroacetamides, alpha-oximinophenylacetonitriles, acetophenonoximes, 4,6-dihalo-2-phenylpyrimidines, N-[[4-(aminocarbonyl)phenyl]sulfonyl]-2-benzoic amides, 1,8-naphthalic anhydride, 2-halo-4-(haloalkyl)-5-thiazol carboxylic acids, phosphorthiolates and N-alkyl-O-phenylcarbamates and their agriculturally acceptable salts and their agriculturally acceptable derivatives such amides, esters, and thioesters, provided they have an acid group.

Examples of preferred safeners C are benoxacor, cloquintocet, cyometrinil, cyprosulfamide, dichlormid, dicyclonon, dietholate, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, mephenate, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

Especially preferred safeners C are benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

Particularly preferred safeners C are benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro-[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

The active compounds B of groups b1) to b15) and the active compounds C are known herbicides and safeners, see, for example, The Compendium of Pesticide Common Names (http://www.alanwood.net/pesticides/); Farm Chemicals Handbook 2000 volume 86, Meister Publishing Company, 2000; B. Hock, C. Fedtke, R. R. Schmidt, Herbizide [Herbicides], Georg Thieme Verlag, Stuttgart 1995; W. H. Ahrens, Herbicide Handbook, 7th edition, Weed Science Society of America, 1994; and K. K. Hatzios, Herbicide Handbook, Supplement for the 7th edition, Weed Science Society of America, 1998. 2,2,5-Trimethyl-3-(dichloroacetyl)-1,3-oxazolidine [CAS No. 52836-31-4] is also referred to as R-29148. 4-(Dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane [CAS No. 71526-07-3] is also referred to as AD-67 and MON 4660. Further herbicidal compounds are known from WO 96/26202, WO 97/41116, WO 97/41117, WO 97/41118 and WO 01/83459 and also from W. Krämer et al. (ed.) "Modern Crop Protection Compounds", Vol. 1, Wiley VCH, 2007 and the literature cited therein.

The assignment of the active compounds to the respective mechanisms of action is based on current knowledge. If several mechanisms of action apply to one active compound, this substance was only assigned to one mechanism of action.

If the herbicides B and/or the safener C are capable of forming geometrical isomers, for example E/Z isomers, both the pure isomers and mixtures thereof may be used in the combinations according to the invention. If the herbicides B and/or the safener C have one of more centers of chirality and are thus present as enantiomers or diastereomers, both the pure enantiomers and diastereomers and mixtures thereof may be used in the combinations according to the invention.

If the herbicides B and/or the safener C have ionizable functional groups, they can also be employed in the form of their agriculturally acceptable salts. Suitable are, in general, the salts of those cations and the acid addition salts of those acids whose cations and anions, respectively, have no adverse effect on the activity of the active compounds.

Preferred cations are the ions of the alkali metals, preferably of lithium, sodium and potassium, of the alkaline earth metals, preferably of calcium and magnesium, and of the transition metals, preferably of manganese, copper, zinc and iron, further ammonium and substituted ammonium in which one to four hydrogen atoms are replaced by C_1-C_4-alkyl, hydroxy-C_1-C_4-alkyl, C_1-C_4-alkoxy-C_1-C_4-alkyl, hydroxy-C_1-C_4-alkoxy-C_1-C_4-alkyl, phenyl or benzyl, preferably ammonium, methylammonium, isopropylammonium, dimethylammonium, diisopropylammonium, trimethylammonium, tetramethylammonium, tetraethylammonium, tetrabutylammonium, 2-hydroxyethylammonium, 2-(2-hydroxyeth-1-oxy)eth-1-ylammonium, di(2-hydroxyeth-1-yl)-ammonium, benzyltrimethylammonium, benzyltriethylammonium, furthermore phosphonium ions, sulfonium ions, preferably tri(C_1-C_4-alkyl)sulfonium, such as trimethylsulfonium, and sulfoxonium ions, preferably tri(C_1-C_4-alkyl)sulfoxonium.

Anions of useful acid addition salts are primarily chloride, bromide, fluoride, iodide, hydrogensulfate, methylsulfate, sulfate, dihydrogenphosphate, hydrogenphosphate, nitrate, bicarbonate, carbonate, hexafluorosilicate, hexafluorophosphate, benzoate and also the anions of C_1-C_4-alkanoic acids, preferably formate, acetate, propionate and butyrate.

Active compounds B and C having a carboxyl group can be employed in the form of the acid, in the form of an agriculturally suitable salt or else in the form of an agriculturally acceptable derivative in the combinations according to the invention, for example as amides, such as mono- and di-C_1-C_6-alkylamides or arylamides, as esters, for example as allyl esters, propargyl esters, C_1-C_{10}-alkyl esters, alkoxyalkyl esters and also as thioesters, for example as C_1-C_{10}-alkylthio esters. Preferred mono- and di-C_1-C_6-alkylamides are the methyl and the dimethylamides. Preferred arylamides are, for example, the anilides and the 2-chloroanilides. Preferred alkyl esters are, for example, the methyl, ethyl, propyl, isopropyl, butyl, isobutyl, pentyl, mexyl (1-methylhexyl) or isooctyl (2-ethylhexyl) esters. Preferred C_1-C_4-alkoxy-C_1-C_4-alkyl esters are the straight-chain or branched C_1-C_4-alkoxy ethyl esters, for example the methoxyethyl, ethoxyethyl or butoxyethyl ester. An example of a straight-chain or branched C_1-C_{10}-alkylthio ester is the ethylthio ester.

According to a preferred embodiment of the invention, the herbicidal combination comprises as herbicidal active compound B or component B, at least one, preferably exactly one herbicide B.

According to another preferred embodiment of the invention, the herbicidal combination comprises as herbicidal active compound B or component B, at least two, preferably exactly two herbicides B different from each other.

According to another preferred embodiment of the invention, the herbicidal combination comprises as herbicidal active compound B or component B, at least three, preferably exactly three herbicides B different from each other.

According to another preferred embodiment of the invention, the herbicidal combination comprises as safening component C at least one, preferably exactly one safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component B, at least one, preferably exactly one herbicide B, and at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component B, preferably exactly two herbicides B different from each other, and at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component B, at least three, preferably exactly three herbicides B different from each other, and at least one, preferably exactly one, safener C.

According to a another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, and as component B, at least one, preferably exactly one herbicide B.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, and as component B, at least two, preferably exactly two herbicides B different from each other.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, and as component B, at least three, preferably exactly three herbicides B different from each other.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, and as component C at least one, preferably exactly one safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, as component B at least one, preferably exactly one herbicide B, and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, as component B preferably exactly two herbicides B different from each other, and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, and as component B, at least three, preferably exactly three herbicides B different from each other, and as component C at least one, preferably exactly one, safener C.

A first preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b1), in particular selected from the group consisting of clodinafop-propargyl, cycloxydim, cyhalofop-butyl, fenoxaprop-P-ethyl, pinoxaden, profoxydim, tepraloxydim, tralkoxydim, esprocarb, prosulfocarb, thiobencarb and triallate.

A second preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b2), in particular selected from the group consisting of bensulfuron-methyl, bispyribac-sodium, cyclosulfamuron, diclosulam, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, nicosulfuron, penoxsulam, propoxycarbazon-sodium, pyrazosulfuron-ethyl, pyroxsulam, rimsulfuron, sulfosulfuron, thiencarbazon-methyl and tritosulfuron.

A third preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b3), in particular selected from the group consisting of ametryn, atrazine, diuron, fluometuron, hexazinone, isoproturon, linuron, metribuzin, paraquat, paraquat-dichloride, propanil, terbutryn and terbuthylazine.

A fourth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b4), in particular selected from the group consisting of flumioxazin, oxyfluorfen, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione.

A fifth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b5), in particular selected from the group consisting of clomazone, diflufenican, flurochloridone, isoxaflutole, mesotrione, picolinafen, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, amitrole and flumeturon.

A sixth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b6), in particular selected from the group consisting of glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate).

A seventh preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b7), in particular selected from the group consisting of glufosinate, glufosinate-P and glufosinate-ammonium.

An eighth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b9), in particular selected from the group consisting of pendimethalin and trifluralin.

A ninth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b10), in particular selected from the group consisting of acetochlor, cafenstrole, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, fenoxasulfone and pyroxasulfone. Likewise, preference is given to combinations comprising in addition to the composition A, at least one and especially exactly one herbicidal compound from group b10), in particular selected from the group consisting of isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9, as defined above.

A tenth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b11), in particular isoxaben. Likewise, preference is given to combinations comprising in addition to the composition A, at least one and especially exactly one herbicidal compound from group b10), in particular selected from the group consisting of piperazine compounds of formula III as defined above.

An eleventh preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b13), in particular selected from the group consisting of

2,4-D and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, fluroxypyr-meptyl, quinclorac, quinmerac and aminocyclopyrachlor and its salts and esters.

A twelfth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b14), in particular selected from the group consisting of diflufenzopyr and diflufenzopyr-sodium.

A 13th preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b15), in particular selected from the group consisting of dymron (= daimuron), indanofan, indaziflam, oxaziclomefone and triaziflam.

A 14th preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition the composition A, at least one and especially exactly one herbicidal compound from the safeners C, in particular selected from the group consisting of benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

Further preferred embodiments relate to ternary herbicidal combinations which correspond to the binary herbicidal combinations of embodiments 1 to 14 and additionally comprise a safener C, in particular selected from the group consisting of benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

Here and below, the term “binary herbicidal combinations” includes herbicidal combinations comprising the composition A and one or more, for example 1, 2 or 3, herbicides B or one or more safeners.
Correspondingly, the term “ternary herbicidal combinations” includes herbicidal combinations comprising the composition A, one or more, for example 1, 2 or 3, herbicides B and one or more, for example 1, 2 or 3, safeners C.

In binary herbicidal combinations comprising the composition A as component A and at least one herbicide B, the weight ratio of the active components A:B is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

In binary herbicidal combinations comprising the composition A as component A and at least one safener C, the weight ratio of the active components A:C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

In ternary herbicidal combinations comprising the composition A as component A, at least one herbicide B and at least one safener C, the relative proportions by weight of the components A:B are generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1, the weight ratio of the components A:C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1, and the weight ratio of the components B:C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1. The weight ratio of components A + B to component C is preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

Particularly preferred herbicides B are the herbicides B as defined above; in particular the herbicides B.1 - B.141 listed below in table B:

Table B:

	Herbicide B
B.1	clethodim
B.2	clodinafop-propargyl
B.3	cycloxydim
B.4	cyhalofop-butyl
B.5	fenoxaprop-P-ethyl
B.6	metamifop
B.7	pinoxaden
B.8	profoxydim
B.9	sethoxydim
B.10	tepraloxydim
B.11	tralkoxydim
B.12	esprocarb
B.13	ethofumesate
B.14	molinate
B.15	prosulfocarb
B.16	thiobencarb
B.17	triallate

	Herbicide B
B.18	bensulfuron-methyl
B.19	bispyribac-sodium
B.20	cloransulam
B.21	chlorsulfuron
B.22	clorimuron
B.23	cyclosulfamuron
B.24	diclosulam
B.25	florasulam
B.26	flumetsulam
B.27	flupyrsulfuron-methyl-sodium
B.28	foramsulfuron
B.29	imazamox
B.30	imazapic
B.31	imazapyr
B.32	imazaquin
B.33	imazethapyr
B.34	imazosulfuron

	Herbicide B
B.35	iodosulfuron-methyl-sodium
B.36	mesosulfuron
B.37	metazosulfuron
B.38	metsulfuron
B.39	metosulam
B.40	nicosulfuron
B.41	penoxsulam
B.42	propoxycarbazon-sodium
B.43	pyrazosulfuron-ethyl
B.44	pyribenzoxim
B.45	pyriftalid
B.46	pyroxsulam
B.47	rimsulfuron
B.48	sulfosulfuron
B.49	thiencarbazone-methyl
B.50	thifensulfuron
B.51	tribenuron
B.52	tritosulfuron
B.53	ametryne
B.54	atrazine
B.55	bentazon
B.56	bromoxynil
B.57	diuron
B.58	fluometuron
B.59	hexazinone
B.60	isoproturon
B.61	linuron
B.62	metamitron
B.63	metribuzin
B.64	propanil
B.65	simazin
B.66	terbuthylazine
B.67	terbutryn
B.68	paraquat-dichloride
B.69	acifluorfen
B.70	butafenacil
B.71	carfentrazone-ethyl
B.72	flumioxazin
B.73	fomesafen
B.74	oxadiargyl
B.75	oxyfluorfen

	Herbicide B
B.76	saflufenacil
B.77	sulfentrazone
B.78	ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyl-oxy]acetate (CAS 353292-31-6)
B.79	3-[7-fluoro-3-oxo-4-(prop-2-yn-yl)-3,4-dihydro-2H-benzo[1,4]-oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione
B.80	benzobicyclon
B.81	clomazone
B.82	diflufenican
B.83	flurochloridone
B.84	isoxaflutole
B.85	mesotrione
B.86	norflurazone
B.87	picolinafen
B.88	sulcotrione
B.89	tefuryltrione
B.90	tembotrione
B.91	topramezone
B.92	bicyclopyrone
B.93	amitrole
B.94	fluometuron
B.95	glyphosate
B.96	glyphosate-isopropylammonium
B.97	glyphosate-trimesium (sulfosate)
B.98	glufosinate
B.99	glufosinate-P
B.100	glufosinate-ammonium
B.101	pendimethalin
B.102	trifluralin
B.103	acetochlor
B.104	butachlor
B.105	cafenstrole
B.106	dimethenamid-P
B.107	fentrazamide
B.108	flufenacet

	Herbicide B
B.109	mefenacet
B.110	metazachlor
B.111	metolachlor
B.112	S-metolachlor
B.113	pretilachlor
B.114	fenoxasulfone
B.115	isoxaben
B.116	pyroxasulfone
B.117	2,4-D
B.118	aminopyralid
B.119	clopyralid
B.120	dicamba
B.121	fluroxypyr-meptyl
B.122	MCPA
B.123	quinclorac
B.124	quinmerac
B.125	aminocyclopyrachlor

	Herbicide B
B.126	diflufenzopyr
B.127	diflufenzopyr-sodium
B.128	dymron
B.129	indanofan
B.130	indaziflam
B.131	oxaziclomefone
B.132	triaziflam
B.133	II.1
B.134	II.2
B.135	II.3
B.136	II.4
B.137	II.5
B.138	II.6
B.139	II.7
B.140	II.8
B.141	II.9

Particularly preferred safeners C, which, as component C, are constituent of the herbicidal combinations according to the invention are the safeners C as defined above; in particular the safeners C.1 - C.12 listed below in table C:

Table C

	Safener C
C.1	benoxacor
C.2	cloquintocet
C.3	cyprosulfamide
C.4	dichlormid
C.5	fenclorim
C.6	fenchlorazole
C.7	furilazole
C.8	isoxadifen
C.9	mefenpyr
C.10	4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3)
C.11	2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4)
C.12	naphtalic acid anhydride

The weight ratios of the individual components in the preferred herbicidal combinations mentioned below are within the limits given above, in particular within the preferred limits.

Particularly preferred are the herbicidal combinations mentioned below,
comprising the composition A as defined and the substance(s) as defined in the respective row of table 1;
especially preferred comprising as only herbicidal active compounds the composition A as defined and the substance(s) as defined in the respective row of table 1;
most preferably comprising as only active compounds the composition A as defined and the substance(s) as defined in the respective row of table 1.

Particularly preferred are the herbicidal combinations 1.1 to 1.1833 comprising the composition A and the substance(s) as defined in the respective row of table 1:

Table 1(herbicidal combinations 1.1 to 1.1833):

comp. no.	herbicide B	safener C
1.1	B.1	--
1.2	B.2	--
1.3	B.3	--
1.4	B.4	--
1.5	B.5	--
1.6	B.6	--
1.7	B.7	--
1.8	B.8	--
1.9	B.9	--
1.10	B.10	--
1.11	B.11	--
1.12	B.12	--
1.13	B.13	--
1.14	B.14	--
1.15	B.15	--
1.16	B.16	--
1.17	B.17	--
1.18	B.18	--
1.19	B.19	--
1.20	B.20	--
1.21	B.21	--
1.22	B.22	--
1.23	B.23	--
1.24	B.24	--
1.25	B.25	--
1.26	B.26	--
1.27	B.27	--
1.28	B.28	--
1.29	B.29	--
1.30	B.30	--
1.31	B.31	--
1.32	B.32	--
1.33	B.33	--
1.34	B.34	--
1.35	B.35	--
1.36	B.36	--
1.37	B.37	--
1.38	B.38	--
1.39	B.39	--
1.40	B.40	--
1.41	B.41	--
1.42	B.42	--
1.43	B.43	--
1.44	B.44	--
1.45	B.45	--
1.46	B.46	--
1.47	B.47	--
1.48	B.48	--
1.49	B.49	--
1.50	B.50	--
1.51	B.51	--
1.52	B.52	--
1.53	B.53	--
1.54	B.54	--
1.55	B.55	--
1.56	B.56	--
1.57	B.57	--
1.58	B.58.	--
1.59	B.59	--
1.60	B.60	--
1.61	B.61	--
1.62	B.62	--
1.63	B.63	--
1.64	B.64	--
1.65	B.65	--
1.66	B.66	--
1.67	B.67	--
1.68	B.68	--
1.69	B.69	--
1.70	B.70	--
1.71	B.71	--
1.72	B.72	--
1.73	B.73	--
1.74	B.74	--
1.75	B.75	--
1.76	B.76	--
1.77	B.77	--
1.78	B.78	--

comp. no.	herbicide B	safener C
1.79	B.79	--
1.80	B.80	--
1.81	B.81	--
1.82	B.82	--
1.83	B.83	--
1.84	B.84	--
1.85	B.85	--
1.86	B.86	--
1.87	B.87	--
1.88	B.88	--
1.89	B.89	--
1.90	B.90	--
1.91	B.91	--
1.92	B.92	--
1.93	B.93	--
1.94	B.94	--
1.95	B.95	--
1.96	B.96	--
1.97	B.97	--
1.98	B.98	--
1.99	B.99	--
1.100	B.100	--
1.101	B.101	--
1.102	B.102	--
1.103	B.103	--
1.104	B.104	--
1.105	B.105	--
1.106	B.106	--
1.107	B.107	--
1.108	B.108	--
1.109	B.109	--
1.110	B.110	--
1.111	B.111	--
1.112	B.112	--
1.113	B.113	--
1.114	B.114	--
1.115	B.115	--
1.116	B.116	--
1.117	B.117	--
1.118	B.118	--
1.119	B.119	--
1.120	B.120	--
1.121	B.121	--
1.122	B.122	--
1.123	B.123	--
1.124	B.124	--
1.125	B.125	--
1.126	B.126	--
1.127	B.127	--
1.128	B.128	--
1.129	B.129	--
1.130	B.130	--
1.131	B.131	--
1.132	B.132	--
1.133	B.133	--
1.134	B.134	--
1.135	B.135	--
1.136	B.136	--
1.137	B.137	--
1.138	B.138	--
1.139	B.139	
1.140	B.140	--
1.141	B.141	--
1.142	B.1	C.1
1.143	B.2	C.1
1.144	B.3	C.1
1.145	B.4	C.1
1.146	B.5	C.1
1.147	B.6	C.1
1.148	B.7	C.1
1.149	B.8	C.1
1.150	B.9	C.1
1.151	B.10	C.1
1.152	B.11	C.1
1.153	B.12	C.1
1.154	B.13	C.1
1.155	B.14	C.1
1.156	B.15	C.1
1.157	B.16	C.1
1.158	B.17	C.1
1.159	B.18	C.1
1.160	B.19	C.1
1.161	B.20	C.1
1.162	B.21	C.1
1.163	B.22	C.1
1.164	B.23	C.1
1.165	B.24	C.1
1.166	B.25	C.1
1.167	B.26	C.1
1.168	B.27	C.1
1.169	B.28	C.1
1.170	B.29	C.1
1.171	B.30	C.1
1.172	B.31	C.1
1.173	B.32	C.1
1.174	B.33	C.1
1.175	B.34	C.1
1.176	B.35	C.1
1.177	B.36	C.1
1.178	B.37	C.1
1.179	B.38	C.1
1.180	B.39	C.1
1.181	B.40	C.1
1.182	B.41	C.1
1.183	B.42	C.1
1.184	B.43	C.1
1.185	B.44	C.1
1.186	B.45	C.1
1.187	B.46	C.1
1.188	B.47	C.1
1.189	B.48	C.1
1.190	B.49	C.1
1.191	B.50	C.1
1.192	B.51	C.1
1.193	B.52	C.1
1.194	B.53	C.1
1.195	B.54	C.1

comp. no.	herbicide B	safener C
1.196	B.55	C.1
1.197	B.56	C.1
1.198	B.57	C.1
1.199	B.58.	C.1
1.200	B.59	C.1
1.201	B.60	C.1
1.202	B.61	C.1
1.203	B.62	C.1
1.204	B.63	C.1
1.205	B.64	C.1
1.206	B.65	C.1
1.207	B.66	C.1
1.208	B.67	C.1
1.209	B.68	C.1
1.210	B.69	C.1
1.211	B.70	C.1
1.212	B.71	C.1
1.213	B.72	C.1
1.214	B.73	C.1
1.215	B.74	C.1
1.216	B.75	C.1
1.217	B.76	C.1
1.218	B.77	C.1
1.219	B.78	C.1
1.220	B.79	C.1
1.221	B.80	C.1
1.222	B.81	C.1
1.223	B.82	C.1
1.224	B.83	C.1
1.225	B.84	C.1
1.226	B.85	C.1
1.227	B.86	C.1
1.228	B.87	C.1
1.229	B.88	C.1
1.230	B.89	C.1
1.231	B.90	C.1
1.232	B.91	C.1
1.233	B.92	C.1
1.234	B.93	C.1
1.235	B.94	C.1
1.236	B.95	C.1
1.237	B.96	C.1
1.238	B.97	C.1
1.239	B.98	C.1
1.240	B.99	C.1
1.241	B.100	C.1
1.242	B.101	C.1
1.243	B.102	C.1
1.244	B.103	C.1
1.245	B.104	C.1
1.246	B.105	C.1
1.247	B.106	C.1
1.248	B.107	C.1
1.249	B.108	C.1
1.250	B.109	C.1
1.251	B.110	C.1
1.252	B.111	C.1
1.253	B.112	C.1
1.254	B.113	C.1
1.255	B.114	C.1
1.256	B.115	C.1
1.257	B.116	C.1
1.258	B.117	C.1
1.259	B.118	C.1
1.260	B.119	C.1
1.261	B.120	C.1
1.262	B.121	C.1
1.263	B.122	C.1
1.264	B.123	C.1
1.265	B.124	C.1
1.266	B.125	C.1
1.267	B.126	C.1
1.268	B.127	C.1
1.269	B.128	C.1
1.270	B.129	C.1
1.271	B.130	C.1
1.272	B.131	C.1
1.273	B.132	C.1
1.274	B.133	C.1
1.275	B.134	C.1
1.276	B.135	C.1
1.277	B.136	C.1
1.278	B.137	C.1
1.279	B.138	C.1
1.280	B.139	C.1
1.281	B.140	C.1
1.282	B.141	C.1
1.283	B.1	C.2
1.284	B.2	C.2
1.285	B.3	C.2
1.286	B.4	C.2
1.287	B.5	C.2
1.288	B.6	C.2
1.289	B.7	C.2
1.290	B.8	C.2
1.291	B.9	C.2
1.292	B.10	C.2
1.293	B.11	C.2
1.294	B.12	C.2
1.295	B.13	C.2
1.296	B.14	C.2
1.297	B.15	C.2
1.298	B.16	C.2
1.299	B.17	C.2
1.300	B.18	C.2
1.301	B.19	C.2
1.302	B.20	C.2
1.303	B.21	C.2
1.304	B.22	C.2
1.305	B.23	C.2
1.306	B.24	C.2
1.307	B.25	C.2
1.308	B.26	C.2
1.309	B.27	C.2
1.310	B.28	C.2
1.311	B.29	C.2
1.312	B.30	C.2

comp. no.	herbicide B	safener C
1.313	B.31	C.2
1.314	B.32	C.2
1.315	B.33	C.2
1.316	B.34	C.2
1.317	B.35	C.2
1.318	B.36	C.2
1.319	B.37	C.2
1.320	B.38	C.2
1.321	B.39	C.2
1.322	B.40	C.2
1.323	B.41	C.2
1.324	B.42	C.2
1.325	B.43	C.2
1.326	B.44	C.2
1.327	B.45	C.2
1.328	B.46	C.2
1.329	B.47	C.2
1.330	B.48	C.2
1.331	B.49	C.2
1.332	B.50	C.2
1.333	B.51	C.2
1.334	B.52	C.2
1.335	B.53	C.2
1.336	B.54	C.2
1.337	B.55	C.2
1.338	B.56	C.2
1.339	B.57	C.2
1.340	B.58.	C.2
1.341	B.59	C.2
1.342	B.60	C.2
1.343	B.61	C.2
1.344	B.62	C.2
1.345	B.63	C.2
1.346	B.64	C.2
1.347	B.65	C.2
1.348	B.66	C.2
1.349	B.67	C.2
1.350	B.68	C.2
1.351	B.69	C.2
1.352	B.70	C.2
1.353	B.71	C.2
1.354	B.72	C.2
1.355	B.73	C.2
1.356	B.74	C.2
1.357	B.75	C.2
1.358	B.76	C.2
1.359	B.77	C.2
1.360	B.78	C.2
1.361	B.79	C.2
1.362	B.80	C.2
1.363	B.81	C.2
1.364	B.82	C.2
1.365	B.83	C.2
1.366	B.84	C.2
1.367	B.85	C.2
1.368	B.86	C.2
1.369	B.87	C.2
1.370	B.88	C.2
1.371	B.89	C.2
1.372	B.90	C.2
1.373	B.91	C.2
1.374	B.92	C.2
1.375	B.93	C.2
1.376	B.94	C.2
1.377	B.95	C.2
1.378	B.96	C.2
1.379	B.97	C.2
1.380	B.98	C.2
1.381	B.99	C.2
1.382	B.100	C.2
1.383	B.101	C.2
1.384	B.102	C.2
1.385	B.103	C.2
1.386	B.104	C.2
1.387	B.105	C.2
1.388	B.106	C.2
1.389	B.107	C.2
1.390	B.108	C.2
1.391	B.109	C.2
1.392	B.110	C.2
1.393	B.111	C.2
1.394	B.112	C.2
1.395	B.113	C.2
1.396	B.114	C.2
1.397	B.115	C.2
1.398	B.116	C.2
1.399	B.117	C.2
1.400	B.118	C.2
1.401	B.119	C.2
1.402	B.120	C.2
1.403	B.121	C.2
1.404	B.122	C.2
1.405	B.123	C.2
1.406	B.124	C.2
1.407	B.125	C.2
1.408	B.126	C.2
1.409	B.127	C.2
1.410	B.128	C.2
1.411	B.129	C.2
1.412	B.130	C.2
1.413	B.131	C.2
1.414	B.132	C.2
1.415	B.133	C.2
1.416	B.134	C.2
1.417	B.135	C.2
1.418	B.136	C.2
1.419	B.137	C.2
1.420	B.138	C.2
1.421	B.139	C.2
1.422	B.140	C.2
1.423	B.141	C.2
1.424	B.1	C.3
1.425	B.2	C.3
1.426	B.3	C.3
1.427	B.4	C.3
1.428	B.5	C.3
1.429	B.6	C.3

comp. no.	herbicide B	safener C
1.430	B.7	C.3
1.431	B.8	C.3
1.432	B.9	C.3
1.433	B.10	C.3
1.434	B.11	C.3
1.435	B.12	C.3
1.436	B.13	C.3
1.437	B.14	C.3
1.438	B.15	C.3
1.439	B.16	C.3
1.440	B.17	C.3
1.441	B.18	C.3
1.442	B.19	C.3
1.443	B.20	C.3
1.444	B.21	C.3
1.445	B.22	C.3
1.446	B.23	C.3
1.447	B.24	C.3
1.448	B.25	C.3
1.449	B.26	C.3
1.450	B.27	C.3
1.451	B.28	C.3
1.452	B.29	C.3
1.453	B.30	C.3
1.454	B.31	C.3
1.455	B.32	C.3
1.456	B.33	C.3
1.457	B.34	C.3
1.458	B.35	C.3
1.459	B.36	C.3
1.460	B.37	C.3
1.461	B.38	C.3
1.462	B.39	C.3
1.463	B.40	C.3
1.464	B.41	C.3
1.465	B.42	C.3
1.466	B.43	C.3
1.467	B.44	C.3
1.468	B.45	C.3
1.469	B.46	C.3
1.470	B.47	C.3
1.471	B.48	C.3
1.472	B.49	C.3
1.473	B.50	C.3
1.474	B.51	C.3
1.475	B.52	C.3
1.476	B.53	C.3
1.477	B.54	C.3
1.478	B.55	C.3
1.479	B.56	C.3
1.480	B.57	C.3
1.481	B.58.	C.3
1.482	B.59	C.3
1.483	B.60	C.3
1.484	B.61	C.3
1.485	B.62	C.3
1.486	B.63	C.3
1.487	B.64	C.3
1.488	B.65	C.3
1.489	B.66	C.3
1.490	B.67	C.3
1.491	B.68	C.3
1.492	B.69	C.3
1.493	B.70	C.3
1.494	B.71	C.3
1.495	B.72	C.3
1.496	B.73	C.3
1.497	B.74	C.3
1.498	B.75	C.3
1.499	B.76	C.3
1.500	B.77	C.3
1.501	B.78	C.3
1.502	B.79	C.3
1.503	B.80	C.3
1.504	B.81	C.3
1.505	B.82	C.3
1.506	B.83	C.3
1.507	B.84	C.3
1.508	B.85	C.3
1.509	B.86	C.3
1.510	B.87	C.3
1.511	B.88	C.3
1.512	B.89	C.3
1.513	B.90	C.3
1.514	B.91	C.3
1.515	B.92	C.3
1.516	B.93	C.3
1.517	B.94	C.3
1.518	B.95	C.3
1.519	B.96	C.3
1.520	B.97	C.3
1.521	B.98	C.3
1.522	B.99	C.3
1.523	B.100	C.3
1.524	B.101	C.3
1.525	B.102	C.3
1.526	B.103	C.3
1.527	B.104	C.3
1.528	B.105	C.3
1.529	B.106	C.3
1.530	B.107	C.3
1.531	B.108	C.3
1.532	B.109	C.3
1.533	B.110	C.3
1.534	B.111	C.3
1.535	B.112	C.3
1.536	B.113	C.3
1.537	B.114	C.3
1.538	B.115	C.3
1.539	B.116	C.3
1.540	B.117	C.3
1.541	B.118	C.3
1.542	B.119	C.3
1.543	B.120	C.3
1.544	B.121	C.3
1.545	B.122	C.3
1.546	B.123	C.3

comp. no.	herbicide B	safener C
1.547	B.124	C.3
1.548	B.125	C.3
1.549	B.126	C.3
1.550	B.127	C.3
1.551	B.128	C.3
1.552	B.129	C.3
1.553	B.130	C.3
1.554	B.131	C.3
1.555	B.132	C.3
1.556	B.133	C.3
1.557	B.134	C.3
1.558	B.135	C.3
1.559	B.136	C.3
1.560	B.137	C.3
1.561	B.138	C.3
1.562	B.139	C.3
1.563	B.140	C.3
1.564	B.141	C.3
1.565	B.1	C.4
1.566	B.2	C.4
1.567	B.3	C.4
1.568	B.4	C.4
1.569	B.5	C.4
1.570	B.6	C.4
1.571	B.7	C.4
1.572	B.8	C.4
1.573	B.9	C.4
1.574	B.10	C.4
1.575	B.11	C.4
1.576	B.12	C.4
1.577	B.13	C.4
1.578	B.14	C.4
1.579	B.15	C.4
1.580	B.16	C.4
1.581	B.17	C.4
1.582	B.18	C.4
1.583	B.19	C.4
1.584	B.20	C.4
1.585	B.21	C.4
1.586	B.22	C.4
1.587	B.23	C.4
1.588	B.24	C.4
1.589	B.25	C.4
1.590	B.26	C.4
1.591	B.27	C.4
1.592	B.28	C.4
1.593	B.29	C.4
1.594	B.30	C.4
1.595	B.31	C.4
1.596	B.32	C.4
1.597	B.33	C.4
1.598	B.34	C.4
1.599	B.35	C.4
1.600	B.36	C.4
1.601	B.37	C.4
1.602	B.38	C.4
1.603	B.39	C.4
1.604	B.40	C.4
1.605	B.41	C.4
1.606	B.42	C.4
1.607	B.43	C.4
1.608	B.44	C.4
1.609	B.45	C.4
1.610	B.46	C.4
1.611	B.47	C.4
1.612	B.48	C.4
1.613	B.49	C.4
1.614	B.50	C.4
1.615	B.51	C.4
1.616	B.52	C.4
1.617	B.53	C.4
1.618	B.54	C.4
1.619	B.55	C.4
1.620	B.56	C.4
1.621	B.57	C.4
1.622	B.58.	C.4
1.623	B.59	C.4
1.624	B.60	C.4
1.625	B.61	C.4
1.626	B.62	C.4
1.627	B.63	C.4
1.628	B.64	C.4
1.629	B.65	C.4
1.630	B.66	C.4
1.631	B.67	C.4
1.632	B.68	C.4
1.633	B.69	C.4
1.634	B.70	C.4
1.635	B.71	C.4
1.636	B.72	C.4
1.637	B.73	C.4
1.638	B.74	C.4
1.639	B.75	C.4
1.640	B.76	C.4
1.641	B.77	C.4
1.642	B.78	C.4
1.643	B.79	C.4
1.644	B.80	C.4
1.645	B.81	C.4
1.646	B.82	C.4
1.647	B.83	C.4
1.648	B.84	C.4
1.649	B.85	C.4
1.650	B.86	C.4
1.651	B.87	C.4
1.652	B.88	C.4
1.653	B.89	C.4
1.654	B.90	C.4
1.655	B.91	C.4
1.656	B.92	C.4
1.657	B.93	C.4
1.658	B.94	C.4
1.659	B.95	C.4
1.660	B.96	C.4
1.661	B.97	C.4
1.662	B.98	C.4
1.663	B.99	C.4

comp. no.	herbicide B	safener C
1.664	B.100	C.4
1.665	B.101	C.4
1.666	B.102	C.4
1.667	B.103	C.4
1.668	B.104	C.4
1.669	B.105	C.4
1.670	B.106	C.4
1.671	B.107	C.4
1.672	B.108	C.4
1.673	B.109	C.4
1.674	B.110	C.4
1.675	B.111	C.4
1.676	B.112	C.4
1.677	B.113	C.4
1.678	B.114	C.4
1.679	B.115	C.4
1.680	B.116	C.4
1.681	B.117	C.4
1.682	B.118	C.4
1.683	B.119	C.4
1.684	B.120	C.4
1.685	B.121	C.4
1.686	B.122	C.4
1.687	B.123	C.4
1.688	B.124	C.4
1.689	B.125	C.4
1.690	B.126	C.4
1.691	B.127	C.4
1.692	B.128	C.4
1.693	B.129	C.4
1.694	B.130	C.4
1.695	B.131	C.4
1.696	B.132	C.4
1.697	B.133	C.4
1.698	B.134	C.4
1.699	B.135	C.4
1.700	B.136	C.4
1.701	B.137	C.4
1.702	B.138	C.4
1.703	B.139	C.4
1.704	B.140	C.4
1.705	B.141	C.4
1.706	B.1	C.5
1.707	B.2	C.5
1.708	B.3	C.5
1.709	B.4	C.5
1.710	B.5	C.5
1.711	B.6	C.5
1.712	B.7	C.5
1.713	B.8	C.5
1.714	B.9	C.5
1.715	B.10	C.5
1.716	B.11	C.5
1.717	B.12	C.5
1.718	B.13	C.5
1.719	B.14	C.5
1.720	B.15	C.5
1.721	B.16	C.5
1.722	B.17	C.5
1.723	B.18	C.5
1.724	B.19	C.5
1.725	B.20	C.5
1.726	B.21	C.5
1.727	B.22	C.5
1.728	B.23	C.5
1.729	B.24	C.5
1.730	B.25	C.5
1.731	B.26	C.5
1.732	B.27	C.5
1.733	B.28	C.5
1.734	B.29	C.5
1.735	B.30	C.5
1.736	B.31	C.5
1.737	B.32	C.5
1.738	B.33	C.5
1.739	B.34	C.5
1.740	B.35	C.5
1.741	B.36	C.5
1.742	B.37	C.5
1.743	B.38	C.5
1.744	B.39	C.5
1.745	B.40	C.5
1.746	B.41	C.5
1.747	B.42	C.5
1.748	B.43	C.5
1.749	B.44	C.5
1.750	B.45	C.5
1.751	B.46	C.5
1.752	B.47	C.5
1.753	B.48	C.5
1.754	B.49	C.5
1.755	B.50	C.5
1.756	B.51	C.5
1.757	B.52	C.5
1.758	B.53	C.5
1.759	B.54	C.5
1.760	B.55	C.5
1.761	B.56	C.5
1.762	B.57	C.5
1.763	B.58.	C.5
1.764	B.59	C.5
1.765	B.60	C.5
1.766	B.61	C.5
1.767	B.62	C.5
1.768	B.63	C.5
1.769	B.64	C.5
1.770	B.65	C.5
1.771	B.66	C.5
1.772	B.67	C.5
1.773	B.68	C.5
1.774	B.69	C.5
1.775	B.70	C.5
1.776	B.71	C.5
1.777	B.72	C.5
1.778	B.73	C.5
1.779	B.74	C.5
1.780	B.75	C.5

comp. no.	herbicide B	safener C
1.781	B.76	C.5
1.782	B.77	C.5
1.783	B.78	C.5
1.784	B.79	C.5
1.785	B.80	C.5
1.786	B.81	C.5
1.787	B.82	C.5
1.788	B.83	C.5
1.789	B.84	C.5
1.790	B.85	C.5
1.791	B.86	C.5
1.792	B.87	C.5
1.793	B.88	C.5
1.794	B.89	C.5
1.795	B.90	C.5
1.796	B.91	C.5
1.797	B.92	C.5
1.798	B.93	C.5
1.799	B.94	C.5
1.800	B.95	C.5
1.801	B.96	C.5
1.802	B.97	C.5
1.803	B.98	C.5
1.804	B.99	C.5
1.805	B.100	C.5
1.806	B.101	C.5
1.807	B.102	C.5
1.808	B.103	C.5
1.809	B.104	C.5
1.810	B.105	C.5
1.811	B.106	C.5
1.812	B.107	C.5
1.813	B.108	C.5
1.814	B.109	C.5
1.815	B.110	C.5
1.816	B.111	C.5
1.817	B.112	C.5
1.818	B.113	C.5
1.819	B.114	C.5
1.820	B.115	C.5
1.821	B.116	C.5
1.822	B.117	C.5
1.823	B.118	C.5
1.824	B.119	C.5
1.825	B.120	C.5
1.826	B.121	C.5
1.827	B.122	C.5
1.828	B.123	C.5
1.829	B.124	C.5
1.830	B.125	C.5
1.831	B.126	C.5
1.832	B.127	C.5
1.833	B.128	C.5
1.834	B.129	C.5
1.835	B.130	C.5
1.836	B.131	C.5
1.837	B.132	C.5
1.838	B.133	C.5
1.839	B.134	C.5
1.840	B.135	C.5
1.841	B.136	C.5
1.842	B.137	C.5
1.843	B.138	C.5
1.844	B.139	C.5
1.845	B.140	C.5
1.846	B.141	C.5
1.847	B.1	C.6
1.848	B.2	C.6
1.849	B.3	C.6
1.850	B.4	C.6
1.851	B.5	C.6
1.852	B.6	C.6
1.853	B.7	C.6
1.854	B.8	C.6
1.855	B.9	C.6
1.856	B.10	C.6
1.857	B.11	C.6
1.858	B.12	C.6
1.859	B.13	C.6
1.860	B.14	C.6
1.861	B.15	C.6
1.862	B.16	C.6
1.863	B.17	C.6
1.864	B.18	C.6
1.865	B.19	C.6
1.866	B.20	C.6
1.867	B.21	C.6
1.868	B.22	C.6
1.869	B.23	C.6
1.870	B.24	C.6
1.871	B.25	C.6
1.872	B.26	C.6
1.873	B.27	C.6
1.874	B.28	C.6
1.875	B.29	C.6
1.876	B.30	C.6
1.877	B.31	C.6
1.878	B.32	C.6
1.879	B.33	C.6
1.880	B.34	C.6
1.881	B.35	C.6
1.882	B.36	C.6
1.883	B.37	C.6
1.884	B.38	C.6
1.885	B.39	C.6
1.886	B.40	C.6
1.887	B.41	C.6
1.888	B.42	C.6
1.889	B.43	C.6
1.890	B.44	C.6
1.891	B.45	C.6
1.892	B.46	C.6
1.893	B.47	C.6
1.894	B.48	C.6
1.895	B.49	C.6
1.896	B.50	C.6
1.897	B.51	C.6

comp. no.	herbicide B	safener C
1.898	B.52	C.6
1.899	B.53	C.6
1.900	B.54	C.6
1.901	B.55	C.6
1.902	B.56	C.6
1.903	B.57	C.6
1.904	B.58.	C.6
1.905	B.59	C.6
1.906	B.60	C.6
1.907	B.61	C.6
1.908	B.62	C.6
1.909	B.63	C.6
1.910	B.64	C.6
1.911	B.65	C.6
1.912	B.66	C.6
1.913	B.67	C.6
1.914	B.68	C.6
1.915	B.69	C.6
1.916	B.70	C.6
1.917	B.71	C.6
1.918	B.72	C.6
1.919	B.73	C.6
1.920	B.74	C.6
1.921	B.75	C.6
1.922	B.76	C.6
1.923	B.77	C.6
1.924	B.78	C.6
1.925	B.79	C.6
1.926	B.80	C.6
1.927	B.81	C.6
1.928	B.82	C.6
1.929	B.83	C.6
1.930	B.84	C.6
1.931	B.85	C.6
1.932	B.86	C.6
1.933	B.87	C.6
1.934	B.88	C.6
1.935	B.89	C.6
1.936	B.90	C.6
1.937	B.91	C.6
1.938	B.92	C.6
1.939	B.93	C.6
1.940	B.94	C.6
1.941	B.95	C.6
1.942	B.96	C.6
1.943	B.97	C.6
1.944	B.98	C.6
1.945	B.99	C.6
1.946	B.100	C.6
1.947	B.101	C.6
1.948	B.102	C.6
1.949	B.103	C.6
1.950	B.104	C.6
1.951	B.105	C.6
1.952	B.106	C.6
1.953	B.107	C.6
1.954	B.108	C.6
1.955	B.109	C.6
1.956	B.110	C.6
1.957	B.111	C.6
1.958	B.112	C.6
1.959	B.113	C.6
1.960	B.114	C.6
1.961	B.115	C.6
1.962	B.116	C.6
1.963	B.117	C.6
1.964	B.118	C.6
1.965	B.119	C.6
1.966	B.120	C.6
1.967	B.121	C.6
1.968	B.122	C.6
1.969	B.123	C.6
1.970	B.124	C.6
1.971	B.125	C.6
1.972	B.126	C.6
1.973	B.127	C.6
1.974	B.128	C.6
1.975	B.129	C.6
1.976	B.130	C.6
1.977	B.131	C.6
1.978	B.132	C.6
1.979	B.133	C.6
1.980	B.134	C.6
1.981	B.135	C.6
1.982	B.136	C.6
1.983	B.137	C.6
1.984	B.138	C.6
1.985	B.139	C.6
1.986	B.140	C.6
1.987	B.141	C.6
1.988	B.1	C.7
1.989	B.2	C.7
1.990	B.3	C.7
1.991	B.4	C.7
1.992	B.5	C.7
1.993	B.6	C.7
1.994	B.7	C.7
1.995	B.8	C.7
1.996	B.9	C.7
1.997	B.10	C.7
1.998	B.11	C.7
1.999	B.12	C.7
1.1000	B.13	C.7
1.1001	B.14	C.7
1.1002	B.15	C.7
1.1003	B.16	C.7
1.1004	B.17	C.7
1.1005	B.18	C.7
1.1006	B.19	C.7
1.1007	B.20	C.7
1.1008	B.21	C.7
1.1009	B.22	C.7
1.1010	B.23	C.7
1.1011	B.24	C.7
1.1012	B.25	C.7
1.1013	B.26	C.7
1.1014	B.27	C.7

comp. no.	herbicide B	safener C
1.1015	B.28	C.7
1.1016	B.29	C.7
1.1017	B.30	C.7
1.1018	B.31	C.7
1.1019	B.32	C.7
1.1020	B.33	C.7
1.1021	B.34	C.7
1.1022	B.35	C.7
1.1023	B.36	C.7
1.1024	B.37	C.7
1.1025	B.38	C.7
1.1026	B.39	C.7
1.1027	B.40	C.7
1.1028	B.41	C.7
1.1029	B.42	C.7
1.1030	B.43	C.7
1.1031	B.44	C.7
1.1032	B.45	C.7
1.1033	B.46	C.7
1.1034	B.47	C.7
1.1035	B.48	C.7
1.1036	B.49	C.7
1.1037	B.50	C.7
1.1038	B.51	C.7
1.1039	B.52	C.7
1.1040	B.53	C.7
1.1041	B.54	C.7
1.1042	B.55	C.7
1.1043	B.56	C.7
1.1044	B.57	C.7
1.1045	B.58.	C.7
1.1046	B.59	C.7
1.1047	B.60	C.7
1.1048	B.61	C.7
1.1049	B.62	C.7
1.1050	B.63	C.7
1.1051	B.64	C.7
1.1052	B.65	C.7
1.1053	B.66	C.7
1.1054	B.67	C.7
1.1055	B.68	C.7
1.1056	B.69	C.7
1.1057	B.70	C.7
1.1058	B.71	C.7
1.1059	B.72	C.7
1.1060	B.73	C.7
1.1061	B.74	C.7
1.1062	B.75	C.7
1.1063	B.76	C.7
1.1064	B.77	C.7
1.1065	B.78	C.7
1.1066	B.79	C.7
1.1067	B.80	C.7
1.1068	B.81	C.7
1.1069	B.82	C.7
1.1070	B.83	C.7
1.1071	B.84	C.7
1.1072	B.85	C.7
1.1073	B.86	C.7
1.1074	B.87	C.7
1.1075	B.88	C.7
1.1076	B.89	C.7
1.1077	B.90	C.7
1.1078	B.91	C.7
1.1079	B.92	C.7
1.1080	B.93	C.7
1.1081	B.94	C.7
1.1082	B.95	C.7
1.1083	B.96	C.7
1.1084	B.97	C.7
1.1085	B.98	C.7
1.1086	B.99	C.7
1.1087	B.100	C.7
1.1088	B.101	C.7
1.1089	B.102	C.7
1.1090	B.103	C.7
1.1091	B.104	C.7
1.1092	B.105	C.7
1.1093	B.106	C.7
1.1094	B.107	C.7
1.1095	B.108	C.7
1.1096	B.109	C.7
1.1097	B.110	C.7
1.1098	B.111	C.7
1.1099	B.112	C.7
1.1100	B.113	C.7
1.1101	B.114	C.7
1.1102	B.115	C.7
1.1103	B.116	C.7
1.1104	B.117	C.7
1.1105	B.118	C.7
1.1106	B.119	C.7
1.1107	B.120	C.7
1.1108	B.121	C.7
1.1109	B.122	C.7
1.1110	B.123	C.7
1.1111	B.124	C.7
1.1112	B.125	C.7
1.1113	B.126	C.7
1.1114	B.127	C.7
1.1115	B.128	C.7
1.1116	B.129	C.7
1.1117	B.130	C.7
1.1118	B.131	C.7
1.1119	B.132	C.7
1.1120	B.133	C.7
1.1121	B.134	C.7
1.1122	B.135	C.7
1.1123	B.136	C.7
1.1124	B.137	C.7
1.1125	B.138	C.7
1.1126	B.139	C.7
1.1127	B.140	C.7
1.1128	B.141	C.7
1.1129	B.1	C.8
1.1130	B.2	C.8
1.1131	B.3	C.8

comp. no.	herbicide B	safener C
1.1132	B.4	C.8
1.1133	B.5	C.8
1.1134	B.6	C.8
1.1135	B.7	C.8
1.1136	B.8	C.8
1.1137	B.9	C.8
1.1138	B.10	C.8
1.1139	B.11	C.8
1.1140	B.12	C.8
1.1141	B.13	C.8
1.1142	B.14	C.8
1.1143	B.15	C.8
1.1144	B.16	C.8
1.1145	B.17	C.8
1.1146	B.18	C.8
1.1147	B.19	C.8
1.1148	B.20	C.8
1.1149	B.21	C.8
1.1150	B.22	C.8
1.1151	B.23	C.8
1.1152	B.24	C.8
1.1153	B.25	C.8
1.1154	B.26	C.8
1.1155	B.27	C.8
1.1156	B.28	C.8
1.1157	B.29	C.8
1.1158	B.30	C.8
1.1159	B.31	C.8
1.1160	B.32	C.8
1.1161	B.33	C.8
1.1162	B.34	C.8
1.1163	B.35	C.8
1.1164	B.36	C.8
1.1165	B.37	C.8
1.1166	B.38	C.8
1.1167	B.39	C.8
1.1168	B.40	C.8
1.1169	B.41	C.8
1.1170	B.42	C.8
1.1171	B.43	C.8
1.1172	B.44	C.8
1.1173	B.45	C.8
1.1174	B.46	C.8
1.1175	B.47	C.8
1.1176	B.48	C.8
1.1177	B.49	C.8
1.1178	B.50	C.8
1.1179	B.51	C.8
1.1180	B.52	C.8
1.1181	B.53	C.8
1.1182	B.54	C.8
1.1183	B.55	C.8
1.1184	B.56	C.8
1.1185	B.57	C.8
1.1186	B.58.	C.8
1.1187	B.59	C.8
1.1188	B.60	C.8
1.1189	B.61	C.8
1.1190	B.62	C.8
1.1191	B.63	C.8
1.1192	B.64	C.8
1.1193	B.65	C.8
1.1194	B.66	C.8
1.1195	B.67	C.8
1.1196	B.68	C.8
1.1197	B.69	C.8
1.1198	B.70	C.8
1.1199	B.71	C.8
1.1200	B.72	C.8
1.1201	B.73	C.8
1.1202	B.74	C.8
1.1203	B.75	C.8
1.1204	B.76	C.8
1.1205	B.77	C.8
1.1206	B.78	C.8
1.1207	B.79	C.8
1.1208	B.80	C.8
1.1209	B.81	C.8
1.1210	B.82	C.8
1.1211	B.83	C.8
1.1212	B.84	C.8
1.1213	B.85	C.8
1.1214	B.86	C.8
1.1215	B.87	C.8
1.1216	B.88	C.8
1.1217	B.89	C.8
1.1218	B.90	C.8
1.1219	B.91	C.8
1.1220	B.92	C.8
1.1221	B.93	C.8
1.1222	B.94	C.8
1.1223	B.95	C.8
1.1224	B.96	C.8
1.1225	B.97	C.8
1.1226	B.98	C.8
1.1227	B.99	C.8
1.1228	B.100	C.8
1.1229	B.101	C.8
1.1230	B.102	C.8
1.1231	B.103	C.8
1.1232	B.104	C.8
1.1233	B.105	C.8
1.1234	B.106	C.8
1.1235	B.107	C.8
1.1236	B.108	C.8
1.1237	B.109	C.8
1.1238	B.110	C.8
1.1239	B.111	C.8
1.1240	B.112	C.8
1.1241	B.113	C.8
1.1242	B.114	C.8
1.1243	B.115	C.8
1.1244	B.116	C.8
1.1245	B.117	C.8
1.1246	B.118	C.8
1.1247	B.119	C.8
1.1248	B.120	C.8

comp. no.	herbicide B	safener C
1.1249	B.121	C.8
1.1250	B.122	C.8
1.1251	B.123	C.8
1.1252	B.124	C.8
1.1253	B.125	C.8
1.1254	B.126	C.8
1.1255	B.127	C.8
1.1256	B.128	C.8
1.1257	B.129	C.8
1.1258	B.130	C.8
1.1259	B.131	C.8
1.1260	B.132	C.8
1.1261	B.133	C.8
1.1262	B.134	C.8
1.1263	B.135	C.8
1.1264	B.136	C.8
1.1265	B.137	C.8
1.1266	B.138	C.8
1.1267	B.139	C.8
1.1268	B.140	C.8
1.1269	B.141	C.8
1.1270	B.1	C.9
1.1271	B.2	C.9
1.1272	B.3	C.9
1.1273	B.4	C.9
1.1274	B.5	C.9
1.1275	B.6	C.9
1.1276	B.7	C.9
1.1277	B.8	C.9
1.1278	B.9	C.9
1.1279	B.10	C.9
1.1280	B.11	C.9
1.1281	B.12	C.9
1.1282	B.13	C.9
1.1283	B.14	C.9
1.1284	B.15	C.9
1.1285	B.16	C.9
1.1286	B.17	C.9
1.1287	B.18	C.9
1.1288	B.19	C.9
1.1289	B.20	C.9
1.1290	B.21	C.9
1.1291	B.22	C.9
1.1292	B.23	C.9
1.1293	B.24	C.9
1.1294	B.25	C.9
1.1295	B.26	C.9
1.1296	B.27	C.9
1.1297	B.28	C.9
1.1298	B.29	C.9
1.1299	B.30	C.9
1.1300	B.31	C.9
1.1301	B.32	C.9
1.1302	B.33	C.9
1.1303	B.34	C.9
1.1304	B.35	C.9
1.1305	B.36	C.9
1.1306	B.37	C.9
1.1307	B.38	C.9
1.1308	B.39	C.9
1.1309	B.40	C.9
1.1310	B.41	C.9
1.1311	B.42	C.9
1.1312	B.43	C.9
1.1313	B.44	C.9
1.1314	B.45	C.9
1.1315	B.46	C.9
1.1316	B.47	C.9
1.1317	B.48	C.9
1.1318	B.49	C.9
1.1319	B.50	C.9
1.1320	B.51	C.9
1.1321	B.52	C.9
1.1322	B.53	C.9
1.1323	B.54	C.9
1.1324	B.55	C.9
1.1325	B.56	C.9
1.1326	B.57	C.9
1.1327	B.58.	C.9
1.1328	B.59	C.9
1.1329	B.60	C.9
1.1330	B.61	C.9
1.1331	B.62	C.9
1.1332	B.63	C.9
1.1333	B.64	C.9
1.1334	B.65	C.9
1.1335	B.66	C.9
1.1336	B.67	C.9
1.1337	B.68	C.9
1.1338	B.69	C.9
1.1339	B.70	C.9
1.1340	B.71	C.9
1.1341	B.72	C.9
1.1342	B.73	C.9
1.1343	B.74	C.9
1.1344	B.75	C.9
1.1345	B.76	C.9
1.1346	B.77	C.9
1.1347	B.78	C.9
1.1348	B.79	C.9
1.1349	B.80	C.9
1.1350	B.81	C.9
1.1351	B.82	C.9
1.1352	B.83	C.9
1.1353	B.84	C.9
1.1354	B.85	C.9
1.1355	B.86	C.9
1.1356	B.87	C.9
1.1357	B.88	C.9
1.1358	B.89	C.9
1.1359	B.90	C.9
1.1360	B.91	C.9
1.1361	B.92	C.9
1.1362	B.93	C.9
1.1363	B.94	C.9
1.1364	B.95	C.9
1.1365	B.96	C.9

comp. no.	herbicide B	safener C
1.1366	B.97	C.9
1.1367	B.98	C.9
1.1368	B.99	C.9
1.1369	B.100	C.9
1.1370	B.101	C.9
1.1371	B.102	C.9
1.1372	B.103	C.9
1.1373	B.104	C.9
1.1374	B.105	C.9
1.1375	B.106	C.9
1.1376	B.107	C.9
1.1377	B.108	C.9
1.1378	B.109	C.9
1.1379	B.110	C.9
1.1380	B.111	C.9
1.1381	B.112	C.9
1.1382	B.113	C.9
1.1383	B.114	C.9
1.1384	B.115	C.9
1.1385	B.116	C.9
1.1386	B.117	C.9
1.1387	B.118	C.9
1.1388	B.119	C.9
1.1389	B.120	C.9
1.1390	B.121	C.9
1.1391	B.122	C.9
1.1392	B.123	C.9
1.1393	B.124	C.9
1.1394	B.125	C.9
1.1395	B.126	C.9
1.1396	B.127	C.9
1.1397	B.128	C.9
1.1398	B.129	C.9
1.1399	B.130	C.9
1.1400	B.131	C.9
1.1401	B.132	C.9
1.1402	B.133	C.9
1.1403	B.134	C.9
1.1404	B.135	C.9
1.1405	B.136	C.9
1.1406	B.137	C.9
1.1407	B.138	C.9
1.1408	B.139	C.9
1.1409	B.140	C.9
1.1410	B.141	C.9
1.1411	B.1	C.10
1.1412	B.2	C.10
1.1413	B.3	C.10
1.1414	B.4	C.10
1.1415	B.5	C.10
1.1416	B.6	C.10
1.1417	B.7	C.10
1.1418	B.8	C.10
1.1419	B.9	C.10
1.1420	B.10	C.10
1.1421	B.11	C.10
1.1422	B.12	C.10
1.1423	B.13	C.10
1.1424	B.14	C.10
1.1425	B.15	C.10
1.1426	B.16	C.10
1.1427	B.17	C.10
1.1428	B.18	C.10
1.1429	B.19	C.10
1.1430	B.20	C.10
1.1431	B.21	C.10
1.1432	B.22	C.10
1.1433	B.23	C.10
1.1434	B.24	C.10
1.1435	B.25	C.10
1.1436	B.26	C.10
1.1437	B.27	C.10
1.1438	B.28	C.10
1.1439	B.29	C.10
1.1440	B.30	C.10
1.1441	B.31	C.10
1.1442	B.32	C.10
1.1443	B.33	C.10
1.1444	B.34	C.10
1.1445	B.35	C.10
1.1446	B.36	C.10
1.1447	B.37	C.10
1.1448	B.38	C.10
1.1449	B.39	C.10
1.1450	B.40	C.10
1.1451	B.41	C.10
1.1452	B.42	C.10
1.1453	B.43	C.10
1.1454	B.44	C.10
1.1455	B.45	C.10
1.1456	B.46	C.10
1.1457	B.47	C.10
1.1458	B.48	C.10
1.1459	B.49	C.10
1.1460	B.50	C.10
1.1461	B.51	C.10
1.1462	B.52	C.10
1.1463	B.53	C.10
1.1464	B.54	C.10
1.1465	B.55	C.10
1.1466	B.56	C.10
1.1467	B.57	C.10
1.1468	B.58.	C.10
1.1469	B.59	C.10
1.1470	B.60	C.10
1.1471	B.61	C.10
1.1472	B.62	C.10
1.1473	B.63	C.10
1.1474	B.64	C.10
1.1475	B.65	C.10
1.1476	B.66	C.10
1.1477	B.67	C.10
1.1478	B.68	C.10
1.1479	B.69	C.10
1.1480	B.70	C.10
1.1481	B.71	C.10
1.1482	B.72	C.10

comp. no.	herbicide B	safener C
1.1483	B.73	C.10
1.1484	B.74	C.10
1.1485	B.75	C.10
1.1486	B.76	C.10
1.1487	B.77	C.10
1.1488	B.78	C.10
1.1489	B.79	C.10
1.1490	B.80	C.10
1.1491	B.81	C.10
1.1492	B.82	C.10
1.1493	B.83	C.10
1.1494	B.84	C.10
1.1495	B.85	C.10
1.1496	B.86	C.10
1.1497	B.87	C.10
1.1498	B.88	C.10
1.1499	B.89	C.10
1.1500	B.90	C.10
1.1501	B.91	C.10
1.1502	B.92	C.10
1.1503	B.93	C.10
1.1504	B.94	C.10
1.1505	B.95	C.10
1.1506	B.96	C.10
1.1507	B.97	C.10
1.1508	B.98	C.10
1.1509	B.99	C.10
1.1510	B.100	C.10
1.1511	B.101	C.10
1.1512	B.102	C.10
1.1513	B.103	C.10
1.1514	B.104	C.10
1.1515	B.105	C.10
1.1516	B.106	C.10
1.1517	B.107	C.10
1.1518	B.108	C.10
1.1519	B.109	C.10
1.1520	B.110	C.10
1.1521	B.111	C.10
1.1522	B.112	C.10
1.1523	B.113	C.10
1.1524	B.114	C.10
1.1525	B.115	C.10
1.1526	B.116	C.10
1.1527	B.117	C.10
1.1528	B.118	C.10
1.1529	B.119	C.10
1.1530	B.120	C.10
1.1531	B.121	C.10
1.1532	B.122	C.10
1.1533	B.123	C.10
1.1534	B.124	C.10
1.1535	B.125	C.10
1.1536	B.126	C.10
1.1537	B.127	C.10
1.1538	B.128	C.10
1.1539	B.129	C.10
1.1540	B.130	C.10
1.1541	B.131	C.10
1.1542	B.132	C.10
1.1543	B.133	C.10
1.1544	B.134	C.10
1.1545	B.135	C.10
1.1546	B.136	C.10
1.1547	B.137	C.10
1.1548	B.138	C.10
1.1549	B.139	C.10
1.1550	B.140	C.10
1.1551	B.141	C.10
1.1552	B.1	C.11
1.1553	B.2	C.11
1.1554	B.3	C.11
1.1555	B.4	C.11
1.1556	B.5	C.11
1.1557	B.6	C.11
1.1558	B.7	C.11
1.1559	B.8	C.11
1.1560	B.9	C.11
1.1561	B.10	C.11
1.1562	B.11	C.11
1.1563	B.12	C.11
1.1564	B.13	C.11
1.1565	B.14	C.11
1.1566	B.15	C.11
1.1567	B.16	C.11
1.1568	B.17	C.11
1.1569	B.18	C.11
1.1570	B.19	C.11
1.1571	B.20	C.11
1.1572	B.21	C.11
1.1573	B.22	C.11
1.1574	B.23	C.11
1.1575	B.24	C.11
1.1576	B.25	C.11
1.1577	B.26	C.11
1.1578	B.27	C.11
1.1579	B.28	C.11
1.1580	B.29	C.11
1.1581	B.30	C.11
1.1582	B.31	C.11
1.1583	B.32	C.11
1.1584	B.33	C.11
1.1585	B.34	C.11
1.1586	B.35	C.11
1.1587	B.36	C.11
1.1588	B.37	C.11
1.1589	B.38	C.11
1.1590	B.39	C.11
1.1591	B.40	C.11
1.1592	B.41	C.11
1.1593	B.42	C.11
1.1594	B.43	C.11
1.1595	B.44	C.11
1.1596	B.45	C.11
1.1597	B.46	C.11
1.1598	B.47	C.11
1.1599	B.48	C.11

comp. no.	herbicide B	safener C
1.1600	B.49	C.11
1.1601	B.50	C.11
1.1602	B.51	C.11
1.1603	B.52	C.11
1.1604	B.53	C.11
1.1605	B.54	C.11
1.1606	B.55	C.11
1.1607	B.56	C.11
1.1608	B.57	C.11
1.1609	B.58.	C.11
1.1610	B.59	C.11
1.1611	B.60	C.11
1.1612	B.61	C.11
1.1613	B.62	C.11
1.1614	B.63	C.11
1.1615	B.64	C.11
1.1616	B.65	C.11
1.1617	B.66	C.11
1.1618	B.67	C.11
1.1619	B.68	C.11
1.1620	B.69	C.11
1.1621	B.70	C.11
1.1622	B.71	C.11
1.1623	B.72	C.11
1.1624	B.73	C.11
1.1625	B.74	C.11
1.1626	B.75	C.11
1.1627	B.76	C.11
1.1628	B.77	C.11
1.1629	B.78	C.11
1.1630	B.79	C.11
1.1631	B.80	C.11
1.1632	B.81	C.11
1.1633	B.82	C.11
1.1634	B.83	C.11
1.1635	B.84	C.11
1.1636	B.85	C.11
1.1637	B.86	C.11
1.1638	B.87	C.11
1.1639	B.88	C.11
1.1640	B.89	C.11
1.1641	B.90	C.11
1.1642	B.91	C.11
1.1643	B.92	C.11
1.1644	B.93	C.11
1.1645	B.94	C.11
1.1646	B.95	C.11
1.1647	B.96	C.11
1.1648	B.97	C.11
1.1649	B.98	C.11
1.1650	B.99	C.11
1.1651	B.100	C.11
1.1652	B.101	C.11
1.1653	B.102	C.11
1.1654	B.103	C.11
1.1655	B.104	C.11
1.1656	B.105	C.11
1.1657	B.106	C.11
1.1658	B.107	C.11
1.1659	B.108	C.11
1.1660	B.109	C.11
1.1661	B.110	C.11
1.1662	B.111	C.11
1.1663	B.112	C.11
1.1664	B.113	C.11
1.1665	B.114	C.11
1.1666	B.115	C.11
1.1667	B.116	C.11
1.1668	B.117	C.11
1.1669	B.118	C.11
1.1670	B.119	C.11
1.1671	B.120	C.11
1.1672	B.121	C.11
1.1673	B.122	C.11
1.1674	B.123	C.11
1.1675	B.124	C.11
1.1676	B.125	C.11
1.1677	B.126	C.11
1.1678	B.127	C.11
1.1679	B.128	C.11
1.1680	B.129	C.11
1.1681	B.130	C.11
1.1682	B.131	C.11
1.1683	B.132	C.11
1.1684	B.133	C.11
1.1685	B.134	C.11
1.1686	B.135	C.11
1.1687	B.136	C.11
1.1688	B.137	C.11
1.1689	B.138	C.11
1.1690	B.139	C.11
1.1691	B.140	C.11
1.1692	B.141	C.11
1.1693	B.1	C.12
1.1694	B.2	C.12
1.1695	B.3	C.12
1.1696	B.4	C.12
1.1697	B.5	C.12
1.1698	B.6	C.12
1.1699	B.7	C.12
1.1700	B.8	C.12
1.1701	B.9	C.12
1.1702	B.10	C.12
1.1703	B.11	C.12
1.1704	B.12	C.12
1.1705	B.13	C.12
1.1706	B.14	C.12
1.1707	B.15	C.12
1.1708	B.16	C.12
1.1709	B.17	C.12
1.1710	B.18	C.12
1.1711	B.19	C.12
1.1712	B.20	C.12
1.1713	B.21	C.12
1.1714	B.22	C.12
1.1715	B.23	C.12
1.1716	B.24	C.12

comp. no.	herbicide B	safener C
1.1717	B.25	C.12
1.1718	B.26	C.12
1.1719	B.27	C.12
1.1720	B.28	C.12
1.1721	B.29	C.12
1.1722	B.30	C.12
1.1723	B.31	C.12
1.1724	B.32	C.12
1.1725	B.33	C.12
1.1726	B.34	C.12
1.1727	B.35	C.12
1.1728	B.36	C.12
1.1729	B.37	C.12
1.1730	B.38	C.12
1.1731	B.39	C.12
1.1732	B.40	C.12
1.1733	B.41	C.12
1.1734	B.42	C.12
1.1735	B.43	C.12
1.1736	B.44	C.12
1.1737	B.45	C.12
1.1738	B.46	C.12
1.1739	B.47	C.12
1.1740	B.48	C.12
1.1741	B.49	C.12
1.1742	B.50	C.12
1.1743	B.51	C.12
1.1744	B.52	C.12
1.1745	B.53	C.12
1.1746	B.54	C.12
1.1747	B.55	C.12
1.1748	B.56	C.12
1.1749	B.57	C.12
1.1750	B.58.	C.12
1.1751	B.59	C.12
1.1752	B.60	C.12
1.1753	B.61	C.12
1.1754	B.62	C.12
1.1755	B.63	C.12
1.1756	B.64	C.12
1.1757	B.65	C.12
1.1758	B.66	C.12
1.1759	B.67	C.12
1.1760	B.68	C.12
1.1761	B.69	C.12
1.1762	B.70	C.12
1.1763	B.71	C.12
1.1764	B.72	C.12
1.1765	B.73	C.12
1.1766	B.74	C.12
1.1767	B.75	C.12
1.1768	B.76	C.12
1.1769	B.77	C.12
1.1770	B.78	C.12
1.1771	B.79	C.12
1.1772	B.80	C.12
1.1773	B.81	C.12
1.1774	B.82	C.12
1.1775	B.83	C.12
1.1776	B.84	C.12
1.1777	B.85	C.12
1.1778	B.86	C.12
1.1779	B.87	C.12
1.1780	B.88	C.12
1.1781	B.89	C.12
1.1782	B.90	C.12
1.1783	B.91	C.12
1.1784	B.92	C.12
1.1785	B.93	C.12
1.1786	B.94	C.12
1.1787	B.95	C.12
1.1788	B.96	C.12
1.1789	B.97	C.12
1.1790	B.98	C.12
1.1791	B.99	C.12
1.1792	B.100	C.12
1.1793	B.101	C.12
1.1794	B.102	C.12
1.1795	B.103	C.12
1.1796	B.104	C.12
1.1797	B.105	C.12
1.1798	B.106	C.12
1.1799	B.107	C.12
1.1800	B.108	C.12
1.1801	B.109	C.12
1.1802	B.110	C.12
1.1803	B.111	C.12
1.1804	B.112	C.12
1.1805	B.113	C.12
1.1806	B.114	C.12
1.1807	B.115	C.12
1.1808	B.116	C.12
1.1809	B.117	C.12
1.1810	B.118	C.12
1.1811	B.119	C.12
1.1812	B.120	C.12
1.1813	B.121	C.12
1.1814	B.122	C.12
1.1815	B.123	C.12
1.1816	B.124	C.12
1.1817	B.125	C.12
1.1818	B.126	C.12
1.1819	B.127	C.12
1.1820	B.128	C.12
1.1821	B.129	C.12
1.1822	B.130	C.12
1.1823	B.131	C.12
1.1824	B.132	C.12
1.1825	B.133	C.12
1.1826	B.134	C.12
1.1827	B.135	C.12
1.1828	B.136	C.12
1.1829	B.137	C.12
1.1830	B.138	C.12
1.1831	B.139	C.12
1.1832	B.140	C.12
1.1833	B.141	C.12

The specific number for each single combination is deductible as follows:
Combination 1.777 for example comprises the composition A, flumioxazin (B.72) and fenclorim (C.5) (see table 1, entry 1.777; as well as table B, entry B.72 and table C, entry C.5).
Combination 7.777 for example comprises imazaquin (B32) (see the definition for combinations 7.1 to 7.1692 below), and the composition A, flumioxazin (B.72) and fenclorim (C.5) (see table 1, entry 1.777; as well as table B, entry B.77 and table C, entry C.5).

Also especially preferred are combinations 2.1 to 2.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.2 as further herbicide B.

Also especially preferred are combinations 3.1 to 3.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.7 as further herbicide B.

Also especially preferred are combinations 4.1 to 4.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.29 as further herbicide B.

Also especially preferred are combinations 5.1 to 5.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.30 as further herbicide B.

Also especially preferred are combinations 6.1 to 6.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.31 as further herbicide B.

Also especially preferred are combinations 7.1 to 7.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.32 as further herbicide B.

Also especially preferred are combinations 8.1 to 8.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.33 as further herbicide B.

Also especially preferred are combinations 9.1 to 9.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.40 as further herbicide B.

Also especially preferred are combinations 10.1 to 10.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.44 as further herbicide B.

Also especially preferred are combinations 11.1 to 11.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.45 as further herbicide B.

Also especially preferred are combinations 12.1 to 12.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.52 as further herbicide B.

Also especially preferred are combinations 13.1 to 13.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.53 as further herbicide B.

Also especially preferred are combinations 14.1 to 14.1833, which differ from the corre-

sponding combinations 1.1 to 1.1833 only in that they additionally comprise B.54 as further herbicide B.

Also especially preferred are combinations 15.1 to 15.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.55 as further herbicide B.

Also especially preferred are combinations 16.1 to 16.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.56 as further herbicide B.

Also especially preferred are combinations 17.1 to 17.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.57 as further herbicide B.

Also especially preferred are combinations 18.1 to 18.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.60 as further herbicide B.

Also especially preferred are combinations 19.1 to 19.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.65 as further herbicide B.

Also especially preferred are combinations 20.1 to 20.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.66 as further herbicide B.

Also especially preferred are combinations 21.1 to 21.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.69 as further herbicide B.

Also especially preferred are combinations 22.1 to 22.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.72 as further herbicide B.

Also especially preferred are combinations 23.1 to 23.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.73 as further herbicide B.

Also especially preferred are combinations 24.1 to 24.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.76 as further herbicide B.

Also especially preferred are combinations 25.1 to 25.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.77 as further herbicide B.

Also especially preferred are combinations 26.1 to 26.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.80 as further herbicide B.

Also especially preferred are combinations 27.1 to 27.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.81 as further herbicide B.

Also especially preferred are combinations 28.1 to 28.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.84 as further

herbicide B.

Also especially preferred are combinations 29.1 to 29.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.84 and B.54 as further herbicides B.

Also especially preferred are combinations 30.1 to 30.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.84 and B.60 as further herbicides B.

Also especially preferred are combinations 31.1 to 31.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.84 and B.66 as further herbicides B.

Also especially preferred are combinations 32.1 to 32.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 85 as further herbicide B.

Also especially preferred are combinations 33.1 to 33.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 85 and B.54 as further herbicides B.

Also especially preferred are combinations 34.1 to 34.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 85 and B.60 as further herbicides B.

Also especially preferred are combinations 35.1 to 35.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 85 and B.66 as further herbicides B.

Also especially preferred are combinations 36.1 to 36.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.87 as further herbicide B.

Also especially preferred are combinations 37.1 to 37.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 88 as further herbicide B.

Also especially preferred are combinations 38.1 to 38.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 88 and B.54 as further herbicides B.

Also especially preferred are combinations 39.1 to 39.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 88 and B.60 as further herbicides B.

Also especially preferred are combinations 40.1 to 40.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 88 and B.66 as further herbicides B.

Also especially preferred are combinations 41.1 to 41.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.90 as further herbicide B.

Also especially preferred are combinations 42.1 to 42.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.91 as further herbicide B.

Also especially preferred are combinations 43.1 to 43.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.91 and B.54 as further herbicides B.

Also especially preferred are combinations 44.1 to 44.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.91 and B.60 as further herbicides B.

Also especially preferred are combinations 45.1 to 45.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.91 and B.66 as further herbicides B.

Also especially preferred are combinations 46.1 to 46.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 as further herbicide B.

Also especially preferred are combinations 47.1 to 47.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.54 as further herbicides B.

Also especially preferred are combinations 48.1 to 48.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.76 as further herbicides B.

Also especially preferred are combinations 49.1 to 49.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.84 as further herbicides B.

Also especially preferred are combinations 50.1 to 50.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.103 as further herbicides B.

Also especially preferred are combinations 51.1 to 51.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.85 as further herbicides B.

Also especially preferred are combinations 52.1 to 52.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.88 as further herbicides B.

Also especially preferred are combinations 53.1 to 53.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.91 as further herbicides B.

Also especially preferred are combinations 54.1 to 54.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.98 as further herbicide B.

Also especially preferred are combinations 55.1 to 55.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.101 as further herbicide B.

Also especially preferred are combinations 56.1 to 56.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.103 as further herbicide B.

Also especially preferred are combinations 57.1 to 57.1833, which differ from the corre-

sponding combinations 1.1 to 1.1833 only in that they additionally comprise B.106 as further herbicide B.

Also especially preferred are combinations 58.1 to 58.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.107 as further herbicide B.

Also especially preferred are combinations 59.1 to 59.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.108 as further herbicide B.

Also especially preferred are combinations 60.1 to 60.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.110 as further herbicide B.

Also especially preferred are combinations 61.1 to 61.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.112 as further herbicide B.

Also especially preferred are combinations 62.1 to 62.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.113 as further herbicide B.

Also especially preferred are combinations 63.1 to 63.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.117 as further herbicide B.

Also especially preferred are combinations 64.1 to 64.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.119 as further herbicide B.

Also especially preferred are combinations 65.1 to 65.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.120 as further herbicide B.

Also especially preferred are combinations 66.1 to 66.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.122 as further herbicide B.

Also especially preferred are combinations 67.1 to 67.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.123 as further herbicide B.

Also especially preferred are combinations 68.1 to 68.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.130 as further herbicide B.

Also especially preferred are combinations 69.1 to 69.12 comprising the composition A, and as further compound the substance as defined in the respective row of table C:

Table C

comp. no.	safener C
69.1	C.1
69.2	C.2

comp. no.	safener C
69.3	C.3
69.4	C.4

comp. no.	safener C
69.5	C.5
69.6	C.6
69.7	C.7
69.8	C.8

comp. no.	safener C
69.9	C.9
69.10	C.10
69.11	C.11
69.12	C.12

According to one embodiment of the invention, in the ready-to-use preparations of combinations according to the invention in the form of plant protection agents, the components A (composition A) and B and/or C can be present formulated jointly or separately in suspended, emulsified or dissolved form. The use forms depend entirely on the intended applications.

Accordingly, a first embodiment of the invention relates to combinations in the form of a plant protection agent formulated as a 1-component combination comprising the composition A and at least one further active compound selected from the herbicides B and the safeners C and also a solid or liquid carrier and, if appropriate, one or more surfactants.

Accordingly, a second embodiment of the invention relates to combinations in the form of a plant protection agent formulated as a 2-component combination comprising a first formulation (component) comprising the composition A, a solid or liquid carrier and, if appropriate, one or more surfactants, and a second component comprising at least one further active compound selected from the herbicides B and safeners C, a solid or liquid carrier and, if appropriate, one or more surfactants.

The composition A and the at least one further active compound B and/or C can be applied jointly or separately, simultaneously or in succession, before, during or after the emergence of the plants. The order of the application of the components A, B and/or C is of minor importance. The only thing that is important is that the composition A and at least one further active component B and/or C are present simultaneously at the site of action, i.e. are at the same time in contact with or taken up by the plant to be controlled.

The required application rate of component B and, if appropriate, C without formulation auxiliaries depends on the structure of the plant stand, on the development stage of the plants, on the climatic conditions at the site of use and on the application technique. In general, the application rate of B and, if appropriate, C, is from 0.001 to 3 kg/ha, preferably from 0.005 to 2.5 kg/ha and in particular from 0.01 to 2 kg/ha of active substance (a.s.).

The required application rates of component B are generally in the range of from 0.0005 kg/ha to 2.5 kg/ha and preferably in the range of from 0.005 kg/ha to 2 kg/ha or 0.01 kg/ha to 1.5 kg/h of a.s.

The required application rates of component C are generally in the range of from 0.0005 kg/ha to 2.5 kg/ha and preferably in the range of from 0.005 kg/ha to 2 kg/ha or 0.01 kg/ha to 1.5 kg/h of a.s.

The combinations according to the invention are applied to the plants mainly by spraying the leaves. Here, the application can be carried out using, for example, water as carrier by customary spraying techniques using spray liquor amounts of from about 100 to 1000 l/ha (for example from 300 to 400 l/ha). The herbicidal combinations may also be applied by the low-volume or the ultra-low-volume method, or in the form of microgranules.

The combinations according to the invention can be applied pre- or post-emergence, or together with the seed of a crop plant. It is also possible to apply the combinations by applying seed, pretreated with a combination of the invention, of a crop plant. If the active components A and B and, if appropriate C, are less well tolerated by certain crop plants, application techniques may be used in which the herbicidal combinations are sprayed, with the aid of the spraying equipment, in such a way that as far as possible they do not come into contact with the leaves of the sensitive crop plants, while the active compounds reach the leaves of undesirable plants growing underneath, or the bare soil surface (post-directed, lay-by).

The following illustrations and examples serve to illustrate the invention and should not be regarded as limiting.

The particle size distribution has been determined by light scattering on a Malvern Mastersizer 2000 from Malvern Instruments Ldt. according to the European norm ISO 13320 using the Mie scattering model.

Example 1 (reference)

A suspension made of 422 parts per weight water, 60 parts propylene glycol, 167 parts Pluronic® PE 10500 18% Solution, 20 parts Tamol® DN, 2.5 parts Wacker Silicon SRE-PFL and 508 parts crystalline benzoxazinone (I) of modification A was circulated through a beadl mill until x_{80} < 2 µm. Subsequently, a suspension of 10 parts propylene glycol, 3 parts Rhodopol® G, 3 parts water, 2 parts Acticide® MBS and 2.5 parts Wacker Silicon SRE-PFL was added yielding a suspension concentrate (SC) containing 500 g/L benzoxazinone (I).
The particle sizes according to laser scattering were: x_{10} = 0.5 µm, x_{50} = 1.0 µm, x_{90} = 2.3 µm; x_{95} = 3.0 µm (i.e. 95 % per volume < 3 µm), x_{99} = 5.0 µm (i.e. 99 % per volume < 5 µm) and no detectable particles above 45 µm.

Example 2

Using the same recipe like in example 1 a suspension concentrate containing 500 g/L crystalline benzoxazinone (I) of modification A was manufactured, but instead of a bead mill a mechanical crushing mill was used.

In this SC formulation the particles are characterized as follows: x_{10} = 1.0 µm, x_{50} = 5.3 µm, x_{90} = 49 µm, x_{39} = 3.0 µm (i.e. 39 % per volume < 3 µm), x_{49} = 5.0 µm (i.e. 49 % per volume < 5 µm) and x_{88} = 45.0 µm (i.e. 12 % per volume > 45 µm).

Example 3

Using the same recipe like in example 1 a suspension concentrate containing 500 g/L crystalline benzoxazinone (I) of modification A was manufactured, but instead of a bead mill a rotor stator system was used.

In this SC formulation the particles are characterized as follows: x_{10} = 1.1 µm, x_{50} = 7.8 µm, x_{90} = 38 µm, x_{30} = 3.0 µm (i.e. 30 % per volume < 3 µm), x_{40} = 5.0 µm (i.e. 40 % per volume < 5 µm) and x_{93} = 45.0 µm (i.e. 7 % per volume > 45 µm).

Preparation of form A of benzoxazinone (I) by crystallization from a solution in an organic solvent with evaporation

Examples 4.1 to 4.10:

50 mg of benzoxazinone (I) were dissolved in 2-3 ml of the respective solvent in a test vessel. The test vessel was placed in a greenhouse and a nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline rods, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form A was identified.

Table 1:

Example	Solvent	Form	Crystal form
4.1	ethylbenzene	A	small rods
4.2	dichlorobenzene	A	small rods
4.3	chlorobenze	A	small rods
4.4	p-xylene	A	small rods
4.5	acetone	A	small rods
4.6	methylethylketone	A	small rods
4.7	methylbutylketone	A	small rods
4.8	methanol	A	small rods
4.9	ethanol	A	small rods
4.10	ispropanol	A	small rods

Preparation of form A of benzoxazinone (I) by crystallization from a slurry in a mixture of water and organic solvent

Example 4.11:
A mixture of forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and Ethanol (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 4.12:
Form B of benzoxazinone (I), obtained by example 16 (500 mg) were suspended in 3 ml of a mixture of water and tetrahydrofurane (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 4.13:
A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of toluene and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 4.14:
A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and 1,3-propanediol (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Preparation of form B of benzoxazinone (I) by crystallization from a slurry in a mixture of water and organic solvent

Example 4.15:
Form A of benzoxazinone (I), obtained by example 12 (500 mg) were suspended in 3 ml of a mixture of water and ethanol (1:1 v/v) and the slurry was stirred for 48 h at 90°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form B of benzoxazinone (I).

Example 4.16:
A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and 1,3-propanediol (1:1 v/v) and the slurry was

stirred for 48 h at 90°C. A slurry of crystalline material was obtained, which was filtered and analysed by PXRD and DSC. The obtained material was pure form B of benzoxazinone (I).

Preparation of form B of benzoxazinone (I) by crystallization from a solution in an organic solvent with evaporation

Example 4.17:
50 mg of benzoxazinone (I) were dissolved in 2-3 ml of toluene in a test vessel. The test vessel placed in a greenhouse and heated to 95°C and a nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline plates, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form B was identified.

Preparation of form B of benzoxazinone (I) by heating form A

Example 4.18:
500 mg of form A of benzoxazinone (I), obtained by example 12 were placed into an open vessel. The vessel was purged with nitrogen and sealed and then heated to 180°C for 2 h. The obtained material was isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form B was identified.

Preparation of a mixture of forms A and B of benzoxazinone (I)

50 mg of benzoxazinone (I) were dissolved in 2-3 ml of the respective solvent (e.g. 1-butanol, isobutanol) in a test vessel. The test vessel was placed in a greenhouse and heated to 90 °C. A nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline rods, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, a mixture of forms A and B was identified.

Figure 1 shows an X-ray powder diffraction diagram of form A. The X-ray diffraction diagram of form A was recorded by using Panalytical X´Pert Pro diffractometer (manufacturer: Panalytical) in reflection geometry in the range from 2θ =3°-35° with increments of 0,0167°C using Cu-Kα radiation (at 25°C). The recorded 2θ values were used to calculate the stated interplanar spacings d. The intensity of the peaks (y-axis: linear intensity counts) is plotted versus the 2θ angle (x-axis in degrees 2θ).

Figure 2 shows an X-ray powder diffraction diagram of form B. The X-ray diffraction diagram was recorded under the conditions stated for Figure 1.

Figure 3 shows an X-ray powder diffraction diagram of a mixture of forms A + B + C. The X-ray diffraction diagram was recorded under the conditions stated for Figure 1.

The single crystal X-ray diffraction data of Form A was collected on a Bruker AXS CCD Detector using graphite Cu-Kα radiation (at -173°C). The structure was solved using direct methods, refined and expanded by using Fourier techniques with SHELX software package (G. M. Sheldrick, SHELX-97, University of Göttingen, 1997). Absorption correction was performed with SADABS software.

DSC was performed on a Mettler Toledo DSC 822e module. Tha samples were placed in crimped but vented aluminium pans. The samples size in each case was 5 to 10 mg. The thermal behaviour was analized in the range 30 – 250 °C. The heating rate was 5°C/min. The samples were purged with a stream of nitrogen flowing at 150 ml/ during the experiment. Melting points values were confirmed by a Mettler Hot Stage in combination with a light microscope.

Use examples

Greenhouse test

The herbicidal action of the composition A and combinations according to the invention was demonstrated by the following greenhouse experiments:

The culture containers used were trays, consisting of individually separated plastic pots (each approx. 4cm in diameter) containing loamy sand with approximately 2,5% of organic matter as substrate. The seeds of the test plants were sown separately for each species, one seed per pot was used for corn (ZEAMX), the grass species (SETFA) was broadcasted over the pot and covered with a thin layer of soil.

For the pre-emergence treatment, the active compounds in the form of the respective suspension concentrate were diluted to comply with a rate of 50 g/ha benzoxazinone (I) and 200 l/ha water, and subsequently applied directly after sowing by drip application. A pipette was used, in total per pot a volume of 2ml was applied. The containers were irrigated gently to promote germination and growth and subsequently covered with transparent plastic hoods until the plants had rooted. This cover caused uniform germination of the test plants unless this was adversely affected by the active compounds.

The plants were kept at 15 - 35°C in the glasshouse.

The test period was approx. 10 days. During this time, the plants were tended and their response to the individual treatments was evaluated.

Evaluation was carried out using a scale from 0 to 100. 100 means no emergence of the plants, or complete destruction of at least the above-ground parts, and 0 means no damage or normal course of growth. A good herbicidal activity is given at values of at least 60, and very good herbicidal activity is given at values of at least 85. In parallel the crop injury / phytotoxicity was evaluated. The activity – selectivity window was calculated as quotient of activity and phytotoxicity obtained in the test.

A selectivity is present if the damage to the crop plant caused by the composition of benzoxazinone (I) according to the present invention is less compared to the damage caused by application of a benzoxazinone (I), wherein the particle size distribution is not according to that according to the present invention.

Example 5: Herbicidal action of the pre-emergence applied benzoxazinone (I) against SETFA and selectivity with regard to corn 10 days after treatment in the greenhouse

benzoxazinone (I)	application rate [g/ha]	damage to corn	herbicidal action against SETFA	Safety window
reference example 1	50	60	88	1.47
example 2	50	18	83	4.61

In this example, benzoxazinone (I) was formulated as a 500 g/l SC.
Prior to application, the formulated benzoxazinone (I) was diluted into water and the aqueous solution was used for the drip application.

Field test
The herbicidal action of the composition A and combinations according to the invention was demonstrated by the following field experiments:
A field trial was performed on a loamy sand soil with approximately 1.5-2,5% of organic matter. The test plants were sown separately for each species in rows, as crop corn (ZEAMX) was planted, as indicator weed species Brassica (BRSNW) was planted according to field trial practice.
For the pre-emergence treatment, the active compounds, suspended in water, were applied directly after sowing by means of finely distributing nozzles. 200 g/ha benzoxazinone (I) in the form of the respective SC formulations were diluted with 200 l/ha water for application.
To ensure adequate activation the plots were irrigated after the application with 15 mm of water. The test period was during the whole growing period of corn. After 19 days after application the response of the crop and the activity on the indicator weed species to the individual treatments were evaluated.

Evaluation was carried out using a scale from 0 to 100. 100 means no emergence of the plants, or complete destruction of at least the above-ground parts, and 0 means no damage or normal

course of growth. A good herbicidal activity is given at values of at least 60, and very good herbicidal activity is given at values of at least 85. In parallel the crop injury / phytotoxicity was evaluated. The activity – selectivity window was calculated as quotient of activity and phytotoxicity obtained in the test.

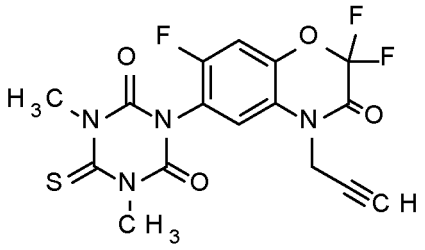
A safener action is present if the damage to the crop plant caused by the composition of benzoxazinone (I) according to the present invention is less compared to the damage caused by application of a benzoxazinone (I), wherein the particle size distribution is not according to that according to the present invention.

Example 6: Herbicidal action of the pre-emergence applied benzoxazinone (I) against SETFA and selectivity with regard to corn 19 days after treatment

benzoxazinone (I)	application rate [g/ha]	damage to corn	herbicidal action against SETFA	Safety window
reference example 1	100	7	93	13.29
example 3	100	4	93	23.25

Claims

1. A composition of benzoxazinone (I),



(I)

comprising the benzoxazinone (I) in form of particles,
wherein at most 50% per volume of the particles have a diameter below 3 μm.

2. The composition according to claim 1, wherein at most 60% per volume of the particles have a diameter below 5 μm.

3. The composition according to claims 1 or 2, wherein at most 35% per volume of the particles have a diameter below 3 μm.

4. The composition according to any of claims 1 to 3, wherein at least 90% wt.% of the particles are crystalline.

5. The composition according to any of claims 1 to 4, wherein the particles are present in the crystalline form A.

6. A plant protection agent comprising the composition as claimed in claims 1 to 5, and water.

7. A plant protection agent comprising a herbicidally active amount of a composition of benzoxazinone (I) as claimed in claims 1 to 5 and at least one inert liquid and/or solid carrier and, if appropriate, at least one surface-active substance.

8. A plant protection agent as claimed in claim 7 in form of a suspension concentrate (SC), oil-dispersion (OD), wettable powder (WP) and/or wettable granule (WG).

9. A process for the preparation of a plant protection agent, which comprises mixing an herbicidally active amount of a composition of benzoxazinone (I) as claimed in claims 1 to 5 and water.

10. A process for the preparation of a plant protection agent, which comprises mixing an herbicidally active amount of a composition of benzoxazinone (I) as claimed in claims 1 to 5 and at least one inert liquid and/or solid carrier and, if desired, at least one surface-

active substance.

11. A method of controlling undesired vegetation in crops, which comprises allowing an herbicidally active amount of a composition of benzoxazinone (I) as claimed in any of claims 1 to 5 to act on plants, their environment or on seed.

12. A method as claimed in claim 11, wherein the crop is selected from corn and cereals.

13. The use of a composition of benzoxazinone (I) as claimed in any of claims 1 to 5 as selective herbicide in crops.

14. Herbicidal combination comprising a herbicidal active amount of a composition of benzoxazinone (I) as claimed in any of claims 1 to 5 and at least one and at least one further active compound selected from

B) herbicides of class b1) to b15):

- b1) lipid biosynthesis inhibitors;
- b2) acetolactate synthase inhibitors (ALS inhibitors);
- b3) photosynthesis inhibitors;
- b4) protoporphyrinogen-IX oxidase inhibitors,
- b5) bleacher herbicides;
- b6) enolpyruvyl shikimate 3-phosphate synthase inhibitors (EPSP inhibitors);
- b7) glutamine synthetase inhibitors;
- b8) 7,8-dihydropteroate synthase inhibitors (DHP inhibitors);
- b9) mitose inhibitors;
- b10) inhibitors of the synthesis of very long chain fatty acids (VLCFA inhibitors);
- b11) cellulose biosynthesis inhibitors;
- b12) decoupler herbicides;
- b13) auxin herbicides;
- b14) auxin transport inhibitors; and
- b15) other herbicides selected from the group consisting of bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters;

including their agriculturally acceptable salts or derivatives;

and

C) safeners selected from (quinolin-8-oxy)acetic acids, 1-phenyl-5-haloalkyl-1H-1,2,4-triazol-3-carboxylic acids, 1-phenyl-4,5-dihydro-5-alkyl-1H-pyrazol-3,5-dicarboxylic acids, 4,5-dihydro-5,5-diaryl-3-isoxazol carboxylic acids, dichloroacetamides, alpha-oximinophenylacetonitriles, acetophenonoximes, 4,6-dihalo-2-phenylpyrimidines, N-[[4-(aminocarbonyl)phenyl]sulfonyl]-2-benzoic amides, 1,8-naphthalic anhydride, 2-halo-4-(haloalkyl)-5-thiazol carboxylic acids, phosphorthiolates and N-alkyl-O-phenylcarbamates and their agriculturally acceptable salts and their agriculturally acceptable derivatives such amides, esters, and thioesters, provided they have an acid group.

Figure 1

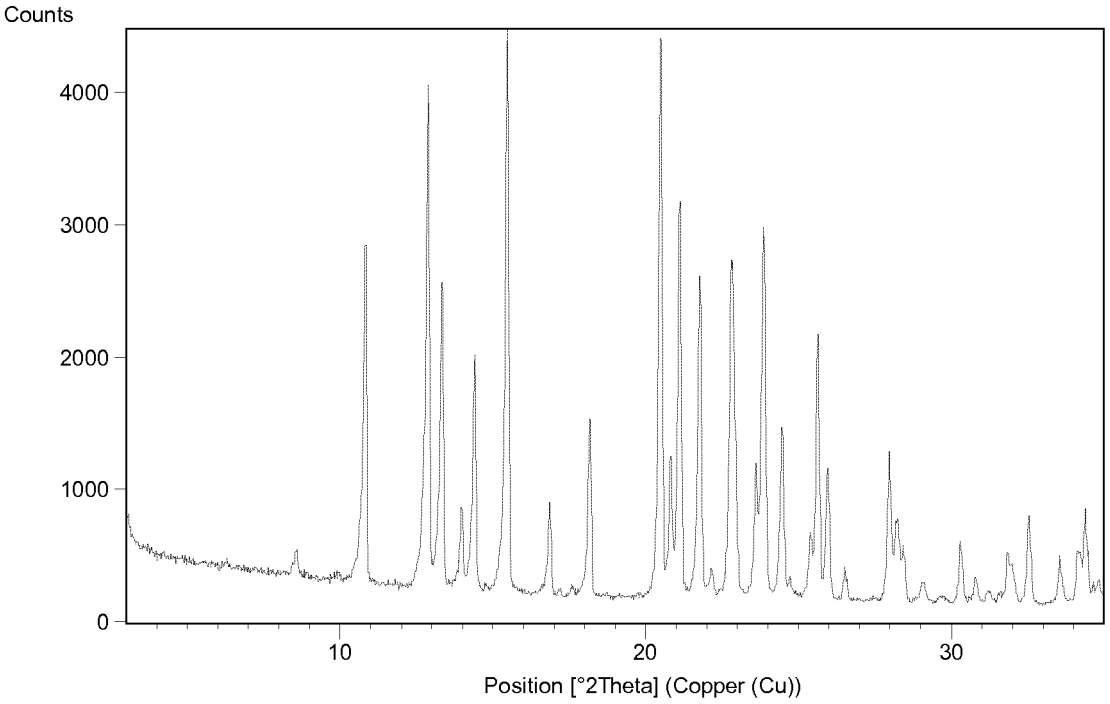


Figure 2

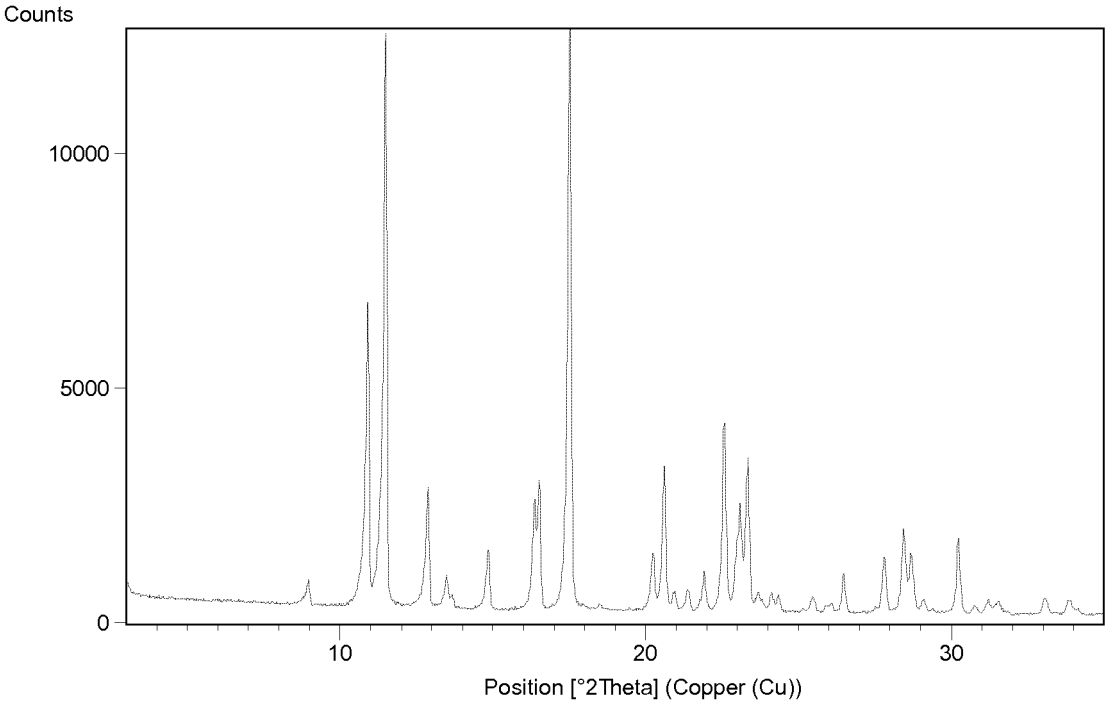
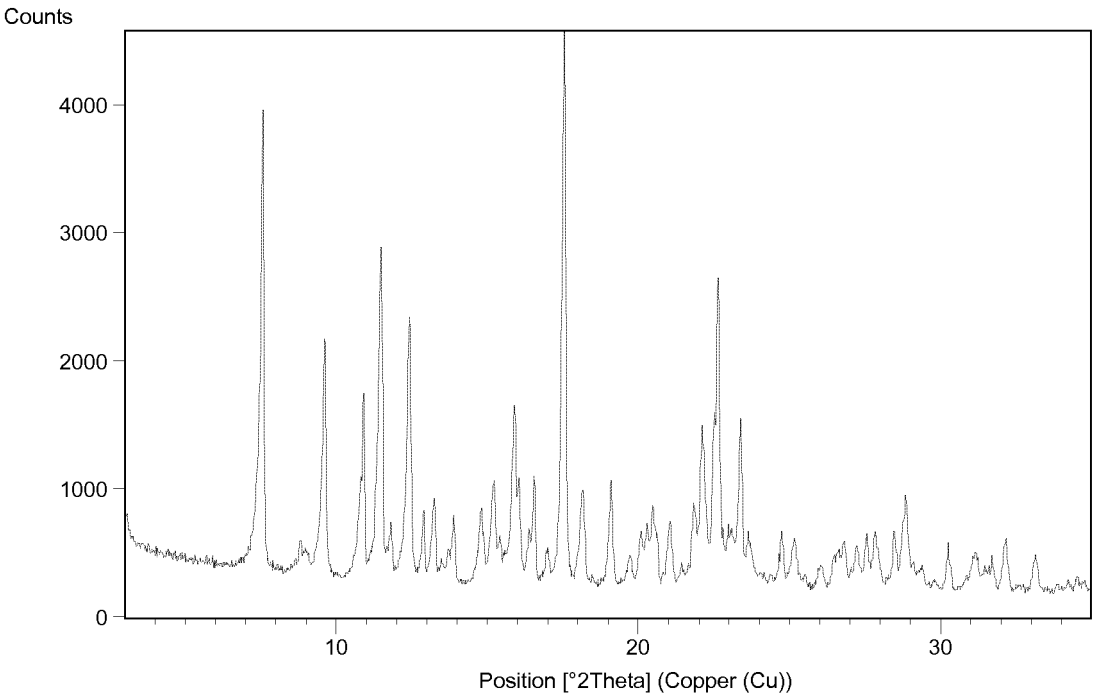


Figure 3

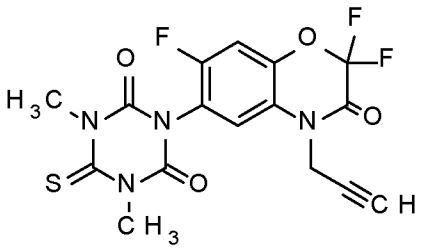

Counts
4000
3000
2000
1000
0
10
20
30
Position [°2Theta] (Copper (Cu))

Composition of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione

One of the most common practices for controlling undesirable plant species is the use of herbicides.

In crop protection products, it is desirable in principle to increase the specificity and the reliability of the action of active compounds. In particular, it is desirable for the crop protection product to control the harmful plants effectively and, at the same time, to be tolerated by the useful plants in question. It is known that in some cases better crop plant compatibility can be achieved by joint application of specifically acting herbicides with organic active compounds, which act as antidotes or antagonists. Owing to the fact that they can reduce or even prevent damage to the crop plants, they are also referred to as safeners.

1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]-oxazin-6-yl)-1,3,5-triazinane-2,4-dione, which hereinafter is also termed as “benzoxazinone (I)”, is the herbicidally active substance of the formula I:



(I)

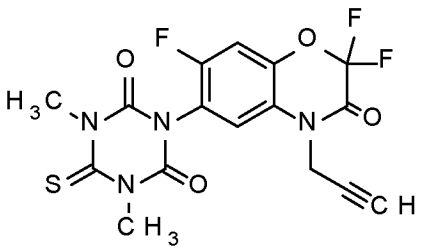
Benzoxazinone (I) and a process for its production are known from WO 2010/145992. This process yields benzoxazinone (I) as an amorphous solid.

However, the herbicidal properties of the known benzoxazinone (I) with regard to the harmful plants, and their compatibility with crop plants are not always entirely satisfactory.

It is therefore an object of the present invention to provide a herbicidal benzoxazinone (I), which is highly active against unwanted harmful plants, and, at the same time, has good compatibility with useful plants.
This and further objects are achieved by the composition of benzoxazinone (I) as defined below.

Surprisingly it has been found that the benzoxazinone (I) applied in the form of particles, wherein at most 50% per volume of the particles have a diameter below 3 μm, exhibits reduced phytotoxity.

Accordingly, the present invention relates to a composition of benzoxazinone (I),



(I)

comprising the benzoxazinone (I) in form of particles,
wherein at most 50% per volume of the particles have a diameter below 3 μm.

This composition of benzoxazinone of formula (I) comprising the benzoxazinone of formula (I) in form of particles wherein at most 50% per volume of the particles have a diameter below 3 μm is hereinafter also described and termed as “composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles “ or as “composition A”.

The present invention also provides plant protection agents comprising a herbicidally active amount of the composition of benzoxazinone (I) as described herein (composition A) and at least one inert liquid and/or solid carrier and, if appropriate, at least one surface-active substance.

The present invention also provides a method of safening crops from phytotoxic injury from application of a herbicidally effective amount of the composition of benzoxazinone (I) as described herein (composition A).

The present invention also provides a method of controlling undesired vegetation, which comprises allowing an herbicidal active amount of the composition of benzoxazinone (I) as described herein (composition A), to act on plants, their environment or on seed.

The present invention further relates to herbicidal combinations comprising at least the composition A (as component A) and at least one further compound selected from herbicidal compounds (as component B) and safeners (as component C).

Further embodiments of the present invention are evident from the claims, the description and the examples. It is to be understood that the features mentioned above and still to be illustrated below of the subject matter of the invention can be applied not only in the combination given in each particular case but also in other combinations, without leaving the scope of the invention.

As used herein, the terms "controlling" and "combating" are synonyms.
As used herein, the terms "undesirable vegetation" and "harmful plants" are synonyms.

The particle diameter, as referred herein, is the volume average particle diameter according to static laser scattering. In the following the term "x_n" defines the particle size x with n vol.-% of the particles having a diameter below x and (100-n) vol-% having a diameter above x.

Method and definitions are in detail laid down in the European Norm ISO 13320, "Particle size analysis — Laser diffraction Methods", first edition 2009-10-01, corrected version 2009-12-01. A skilled person is familiar with these methods which are also described e.g. in H. Wiese (D. Distler, Ed.), Aqueous Polymer Dispersions (Wässrige Polymerdispersionen), Wiley-VCH 1999, Chapter 4.2.1, p. 40ff, and the literature cited therein; H. Auweter, D. Horn, J. Colloid Interf. Sci. 105 (1985), p. 399; D. Lilge, D. Horn, Colloid Polym. Sci. 269 (1991), p. 704; and H. Wiese, D. Horn, J. Chem. Phys. 94 (1991), p. 6429.

The preparation of benzoxazinone (I) used for the production of the composition of benzoxazinone (I) as described herein (composition A), can be effected by the process described in WO 2010/145992, to which full reference is hereby made.

Particles of benzoxazinone (I) can be manufactured by various techniques, the necessary unit operations are generally known to a chemical engineer.
For example the benzoxazinone (I) can result from the synthesis with the right particle size, e.g. by a precipitation from appropriate solvents under appropriate technical conditions, like e.g. mixing speed, turbulence, temperature or solvent gradients, just to mention a few. Particles too small can be enlarged by e.g. agglomeration or Ostwald ripening, particles too large can be milled down mechanically. Usually, it is most economical to start with larger particles and mill subsequently.
For this step both dry and wet milling operations are suitable, for examples see e.g. H. Mollet und A. Grubenmann, Formulierungstechnik Emulsionen, Suspensionen, Feste Formen, Wiley VCH, Weinheim2000, chapter 5.3.1: „Der Zerkleinerungsvorgang".
Dry milling can be performed with jet mills or mechanical mills (hammer mills, crushing or grinding gears, cryogenic grinding), wet milling can be achieved with e.g. colloid mills, rotor stator mills, double-cone mills, ball or bead mills, attritors, agitator ball mills, rotating mills, disk mills, annular chamber mills, and media mills, such as sand mills.) To dissipate the heat energy introduced during the grinding process, the grinding chambers are preferably fitted with cooling systems. Particularly suitable is the ball mill Drais Superflow DCP SF 12 from DRAISWERKE, INC.40 Whitney Road. Mahwah, NJ 07430 USA, a Drais Perl Mill PMC from DRAISWERKE, INC., the circulating mill system ZETA from Netzsch-Feinmahltechnik GmbH, the disk mill from Netzsch Feinmahltechnik GmbH, Selb, Germany, the bead mill Eiger Mini 50 from Eiger Machinery, Inc., 888 East Belvidere Rd., Grayslake, IL 60030 USA and the bead mill DYNO-Mill KDL from WA Bachofen AG, Switzerland.

In all cases the milling parameters – like e.g. equipment, energy input, velocity, size, material and filling of balls and beads – have to be adjusted to result in the particle size and particle size

distribution according to this invention.
Finally all unit operations above can be coupled with sieves, gaps, cyclones or alike that allow a classification and thus a further refinement of the particle size distribution by separation and usually also recirculation of unwanted particles.
In above processes usually also milling aids, like e.g. dispersing agents, anti-baking agents but also defoamers and thickeners can be used to aid the operation.

The preferred embodiments of the invention mentioned herein below have to be understood as being preferred either independently from each other or in combination with one another.

Preferably at most 35% per volume of the particles have a diameter below 3 μm, which equals x_{35} >= 3 μm;
particularly preferred at most 25% per volume of the particles have a diameter below 3 μm, which equals x_{25} >= 3 μm;
especially preferred at most 20% per volume of the particles have a diameter below 3 μm, which equals x_{20} >= 3 μm.

According to a further embodiment of the invention,
preferably at most 60% per volume of the particles have a diameter below 5 μm, which equals x_{60} >= 5 μm;
particularly preferred at most 45% per volume of the particles have a diameter below 5 μm, which equals x_{45} >= 5 μm;
especially preferred at most 35% per volume of the particles have a diameter below 5 μm, which equals x_{35} >= 5 μm;
more preferred at most 30% per volume of the particles have a diameter below 5 μm, which equals x_{30} >= 5 μm.

According to a further embodiment of the invention,
preferably at most 15% per volume of the particles have a diameter above 45 μm, which equals x_{85} <= 45 μm.

The composition of benzoxazinone (I) according to the invention (composition A) comprises the benzoxazinone (I) in form of particles.
Preferably the particles of benzoxazinone (I) are in a crystalline form, more preferably in form of the crystalline, stable modifications A, B and/or C of the benzoxazinone (I).

Crystalline benzoxazinone (I) can be generally prepared by applying suitable crystallization conditions as described below. In order to yield crystalline benzoxazinone (I) according to the particle size distribution claimed in this invention fine-tuning of the process is necessary.

The concentration of benzoxazinone (I) in the solution or slurry used for the crystallization naturally depends on the nature of the solvent and the dissolution temperature and often lies in the

range from 100 to 800 g/l. Suitable conditions can be determined by the person skilled in the art by routine experiments.

Preferably the solution or slurry used for the crystallization contains benzoxazinone (I) in a purity of at least 85%, often at least 90%, in particular at least 95%, i.e. the content of organic impurities which are not organic solvents is not more than 15 wt.%, often not more than 10 wt.%, and in particular not more than 5 wt.%, based on the benzoxazinone (I) present dissolved in the solvent.

The solution or slurry used for the crystallization is preferably essentially free from solvents other than those stated. In this context, "essentially free" means that the concentration of other solvents in the benzoxazinone (I) containing solution or slurry does not exceed 10 wt.%, often 5 wt.%, based on the total quantity of solvent.

The solution of benzoxazinone (I) can for example be prepared by the following methods:

(1) Dissolution of the benzoxazinone (I), in one of the aforesaid polar organic solvents, or

(2) Preparation of the benzoxazinone (I) by a chemical reaction and transfer of the reaction mixture, if necessary after removal of reagents and/or side products, into an organic solvent suitable according to the invention.

For the preparation of the solution by dissolution of the benzoxazinone (I), essentially any known form of benzoxazinone (I) can be used. Often amorphous benzoxazinone (I) or a mixture of different crystalline modifications or a mixture of amorphous and crystalline benzoxazinone (I) will be used. Also suitable are other crystalline forms of benzoxazinone (I) and mixtures thereof, for example the form B described below and the form C also described below, and mixtures of these forms as well as mixtures of form A with form B or form C of benzoxazinone (I).

The dissolution of the benzoxazinone (I) is usually effected at temperatures in the range from 10 to 200 °C,
preferably in the range from 10 to 100°C, in particular from 20 to 60°C;
also preferably in the range from 85 to 200°C, in particular from 90 to 150°C.

The solution of the benzoxazinone (I) can also be prepared by transferring a reaction mixture obtained by a chemical reaction, which contains the benzoxazinone (I), if necessary after removal of reagents and/or side products, into an organic solvent suitable according to the invention. This can be effected in such a manner that the reaction is performed in an organic solvent or solvent mixture which consists at least partly, preferably at least 50 wt.%, of a solvent suitable for the crystallization and, if necessary a workup is performed during which excess reagents and any catalysts present and any unsuitable solvents present, for example water and/or methanol, are removed. The preparation of a solution of the benzoxazinone (I) by chemical reaction of a suitable precursor of benzoxazinone (I) can be effected by analogy to the methods which

are described in the state of the art cited at the beginning, to which full reference is hereby made.

For the preparation of a slurry of the benzoxazinone (I), essentially any known form of benzoxazinone (I) can be used. Of course, in the preparation of a specific crystalline form of benzoxazinone (I), usually a form of benzoxazinone (I), which is different from the pure specific crystalline form, is used. However, benzoxazinone (I) may be used in a form already containing the specific crystalline form, thereby achieving a specific crystalline form having a higher content of the specific crystalline form.
For example, in the preparation of form A, usually a form of benzoxazinone (I), which is different from pure form A, is used. However, benzoxazinone (I) may be used in a form already containing form A, thereby achieving a form A having a higher content of form A.

Often amorphous benzoxazinone (I) or a mixture of different crystalline modifications or a mixture of amorphous and crystalline benzoxazinone (I) will be used. Also suitable are other crystalline forms of benzoxazinone (I) and mixtures thereof, for example the forms A, B and C described below, as well as mixtures of form A with form B and/or form C of benzoxazinone (I).

The crystallization of the benzoxazinone (I) is as a rule carried out until at least 80 wt.%, preferably at least 90 wt.%, of the benzoxazinone (I) used crystallizes out.

If the crystallization of the benzoxazinone (I) is effected by cooling, the cooling rate is preferably less than 10 K/min.

The crystallization of the benzoxazinone (I) can be promoted or accelerated by seeding with seed crystals of the benzoxazinone (I), preferably of form A, for example by adding seed crystals of the benzoxazinone (I), preferably of form A, before or during the crystallization.

If seed crystals are added during the crystallization, the quantity thereof is typically 0.001 to 10 wt.%, often 0.005 to 5 wt.%, in particular 0.01 to 1 wt.% and especially 0.05 to 0.5 wt.%, based on the dissolved benzoxazinone (I).

If the crystallization is performed in the presence of seed crystals of the benzoxazinone (I), preferably of form A, these are preferably only added at a temperature at which the saturation concentration of the benzoxazinone (I) in the solvent in question has been reached, i.e. at or below that temperature at which the dissolved quantity of benzoxazinone (I) forms a saturated solution in the solvent in question. The person skilled in the art can determine the temperature dependence of the saturation concentration in a solvent in routine experiments.
The isolation of the crystallization product, i.e. the separation of the crystalline benzoxazinone (I), preferably form A, from the mother liquor, is effected by usual techniques for the separation of solid components from liquids, for example by filtration, centrifugation or by decantation. As a

rule, the isolated solid will be washed, for example with the solvent used for the crystallization, with water or with a mixture of the organic solvent used for the crystallization with water. The washing can be affected in one or more steps, washing with water often being used in the last washing step. The washing is typically affected at temperatures below 30°C, often below 25°C and in particular below 20°C, in order to keep the loss of valuable product as small as possible. Next, the form A obtained can be dried and then supplied for further processing. Often, however, the moist active substance obtained after washing, in particular an active substance moist with water, will be supplied directly for the further processing.

By means of the crystallization, the crystalline benzoxazinone (I), preferably form A, is obtained with a benzoxazinone (I) content of as a rule at least 90 wt.%, often 94 wt.%, in particular at least 96 wt.%.
The content of crystalline benzoxazinone (I), preferably form A, based on the total quantity of benzoxazinone (I), is typically at least 90% and often at least 95 % or at least 96%.

Therefore, a particular embodiment of the invention relates to a composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, wherein the particles consist of at least 90 wt.% and often at least 95 % or at least 96% of a crystalline benzoxazinone (I), preferably the crystalline form A.

The particles of benzoxazinone (I), preferably particles of benzoxazinone (I) containing the benzoxazinone (I) in a crystalline form, more preferably the crystalline form A, may be mixed with other forms of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, e.g. form B and/or form C, without loosing the benefits achieved by the particles of benzoxazinone (I).

Therefore, the invention also relates to a to a composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles (composition A), wherein the particles are a mixture of the particles of benzoxazinone (I) containing the crystalline form A of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione as described herein and 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione in a form which is different from form A, where the total amount of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione in the mixture is at least 90 % by weight, preferably at least 94 % by weight, based on the total weight of the mixture.
The mixture can likewise be used for preparing formulations as described hereinafter and can likewise be used as the particles of benzoxazinone (I) containing the benzoxazinone (I) in a crystalline form, itself. In the mixture, the amount of crystalline benzoxazinone (I), preferably form A, will generally be at least 50 % by weight, in particular at least 60 % by weight, e.g. from 50 to 95 % by weight, in particular from 60 to 90 % by weight, based on the total amount of the particles of benzoxazinone (I) contained in the mixture.

In connection with the study on the crystallization of benzoxazinone (I), three crystalline modifications A, B and C were found. While modifications A and B can be obtained in pure form, modification C was occasionally obtained as a mixture with forms A and B.

The form A of the benzoxazinone (I) can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram of form A recorded using Cu-Kα radiation (1.54178 Å) at 25 °C shows at least 3, often at least 5, in particular at least 7, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
8,6±0,2°	10,28
10,9±0,2°	8,16
12,9±0,2°	6,86
13,4±0,2°	6,63
14,0±0,2°	6,33
14,4±0,2°	6,14
15,5±0,2°	5,72
16,9±0,2°	5,25
18,2±0,2°	4,88
20,5±0,2°	4,33

Studies on single crystals of form A demonstrate that the underlying crystal structure is orthorhombic. The unit cell has the space group Pna2(1). The characteristic data of the crystal structure of form A (determined at -173 °C) are compiled in the following table.

Crystallographic characteristics of form A

Parameter	Form A
Crystal system	Orthorhombic
Space group	P n a 2_1
a	16.0815(4) Å
b	13.1360(3) Å
c	7.9675(2) Å
α	90°
β	90°
γ	90°
Volume	1683.11(7) $Å^3$
Z	4

Parameter	Form A
Density (calculated)	1.63 g/cm^3
R-Factor (%)	2.97

a,b,c = Length of the edges of the unit cell
α,β,γ = Angles of the unit cell
Z = Number of molecules, in the unit cell

Form A displays a thermogram with a characteristic melting peak in the range from 150 to 185°C. The melting point, determined as the onset of the melting peak, typically lies in the range from about 170°C to 180°C, in particular in the range from 174 to 179°C. The melting enthalpy is preferably in the range from 70 to 80 J/g. The values quoted here relate to values determined by differential calorimetry (differential scanning calorimetry: DSC, aluminum closed and vented cup, nitrogen flow 150 ml/min, heating rate 5 K/min).

The production of the form A of benzoxazinone (I) may be effected by crystallization from a solution of benzoxazinone (I) in a suitable organic solvent. Suitable solvents for the crystallization of form A from a solution are organic solvents which are selected from C_1-C_3-alkanols, such as methanol, ethanol, n-propanol or isopropanol, C_1-C_4-dialkylketones, such as acetone, mono- or di-C_1-C_4-dialkylbenzenes such as ethylbenzene or xylenes, and mono- or dichlorobenzenes.

The production of the form A of benzoxazinone (I) may be also be effected by crystallization from a slurry of benzoxazinone (I) in a suitable organic solvent. Suitable solvents for the crystallization of form A from a slurry are mixtures of water with water-miscible organic solvents which are selected from C_1-C_3-alkanols, in particular ethanol or isopropanol, C_2-C_4-alkandiols, such as 1,3-propanediol, C_1-C_4-dialkylketones, such as acetone and cyclic ethers having preferably 4 to 6 carbon atoms and 1 or 2 oxygen atoms, such as tetrahydrofurane and 1,4-dioxane.

In order to obtain form A of benzoxazinone (I), the crystallization is affected at temperatures of below 60°C, in particular at most 50°C and more preferably at most 40°C. Crystallization of form A is preferably effected under controlled conditions, i.e. the conditions of the crystallization are chosen to achieve a slow crystallization rate.

For this, in a first step i) a solution or slurry of benzoxazinone (I) in one of the aforesaid solvents or solvent mixtures is prepared, and then in a second step ii) crystallization of the benzoxazinone (I) is effected at temperatures of below 60°C, in particular at most 50°C and more preferably at most 40°C, e.g. from -10 to 50°C, in particular from 0 to 40°C.

In order to obtain form A of benzoxazinone (I), the dissolution of the benzoxazinone (I) is usually effected at temperatures in the range from 10 to 100°C, in particular from 20 to 60°C.

The crystallization of form A of benzoxazinone (I) can be effected as follows, for example

- by cooling of the solution or slurry which contains the dissolved or dispersed benzoxazinone (I),
- by concentration of the solution or slurry which contains the dissolved or dispersed benzoxazinone (I), or
- by a combination of the aforesaid measures.

The form B can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram of form B recorded using Cu-Kα radiation (1.54178 Å) at 25 °C shows at least 3, often at least 5, in particular at least 7, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
9,0±0,2°	9,85
10,9±0,2°	8,10
11,5±0,2°	7,69
12,9±0,2°	6,87
13,5±0,2°	6,56
14,9±0,2°	5,96
16,4±0,2°	5,42
16,5±0,2°	5,36
17,5±0,2°	5,06
20,3±0,2°	4,39

Form B displays a thermogram with a characteristic melting peak in the range from 190 to 220°C. The melting point, determined as the onset of the melting peak, typically lies in the range from about 200°C to 210°C, in particular in the range from 203 to 208°C.
The melting enthalpy is preferably in the range from 30 to 40 J/g. The values quoted here relate to values determined by differential calorimetry (differential scanning calorimetry: DSC, aluminum closed and vented cup, nitrogen flow 150 ml/min, heating rate 5 K/min).

The production of the modification B can be principally effected by running the crystallization at temperatures exceeding 60°C, in particular at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C.

Form B can be obtained e.g. by crystallization from a solution or slurry of benzoxazinone I in an organic solvent selected from toluene, monochlorobenzene or dichlorobenzene at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C.

Form B can be obtained e.g. by crystallization from a slurry of benzoxazinone (I) in a mixture of water and a water-miscible solvent, selected from C_1-C_3-alkanols, in particular methanol or isopropanol, C_2-C_4-alkandiols, such as 1,3-propanediol, C_1-C_4-dialkylketones, such as acetone and cyclic ethers having preferably 4 to 6 carbon atoms and 1 or 2 oxygen atoms such as tetrahydrofurane and 1,4-dioxane at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C. Apart from that crystallization from a slurry of benzoxazinone (I) to obtain form B can be performed by analogy to the crystallization of form A, in particular regarding preparation of the slurry, concentrations and measures of effecting crystallization, provided that crystallization is effected in the above temperature range.

Form B can be also be obtained e.g. by crystallization from a solution or slurry of benzoxazinone (I) in toluene at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C. Apart from that crystallization from a solution of benzoxazinone (I) to obtain form B can be performed by analogy to the crystallization of form A, in particular regarding preparation of the solution, concentrations and measures of effecting crystallization, provided that crystallization is effected in the above temperature range.

Pure form B is also obtained by heating the crystalline benzoxazinone (I), e.g. form A of benzoxazinone (I) or mixtures of forms A + B + C to temperatures of at least 160°C, in particular at least 170°C, e.g. temperatures in the range from 160°C to 210°C or in the range from 170 to 200°C.

In order to obtain form B of benzoxazinone (I), the crystallization is effected at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C. Crystallization of form B is preferably effected under controlled conditions, i.e. the conditions of the crystallization are chosen to achieve a slow crystallization rate.

For this, in a first step i) a solution or slurry of benzoxazinone I in one of the aforesaid solvents or solvent mixtures is prepared, and then in a second step ii) crystallization of the benzoxazinone I is effected at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C.

In order to obtain form B of benzoxazinone (I), the dissolution of the benzoxazinone (I) is usually effected at temperatures in the range from 85 to 200°C, in particular from 90 to 150°C.

The crystallization of form B of benzoxazinone I can be effected as follows, for example

- by cooling of a hot saturated solution or slurry which contains the dissolved or suspended benzoxazinone I, to a temperature in the range from 80 to 100°C
- by concentration of a hot saturated solution or slurry which contains the dissolved or dispersed benzoxazinone I, or
- by a combination of the aforesaid measures.

By means of the crystallization the form B can be obtained with a benzoxazinone (I) content of as a rule at least 90 wt.%, often 94 wt.%, in particular at least 96 wt.%. The content of form B, based on the total quantity of benzoxazinone (I), is typically at least 90% and often at least 95 % or at least 96%.

In the mixture of forms A, B and C, form C can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram recorded using Cu-Kα radiation (1.54178 Å) at 25°C shows at least 3, often at least 5, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
7,6±0,2°	11,64
9,6±0,2°	9,17
11,8±0,2°	7,48
12,4±0,2°	7,11
15,2±0,2°	5,81
15,9±0,2°	5,57
16,1±0,2°	5,52
19,1±0,2°	4,64

Just like the known amorphous benzoxazinone (I), the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I) as well as mixtures of form A with other form of benzoxazinone (I) are suitable as a herbicide.

The invention thus also relates to plant protection agents containing the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles (composition A), preferably in the crystalline form A, and additives usual for the formulation of plant protection agents, in particular plant protection agents in the form of aqueous suspension concentrates (so-called SCs), non-aqueous suspension concentrates (so-called ODs), wettable powders (so-called WPs), water-dispersible granules (so-called WG's), dustable powder (so-called DP), powder for dry seed treatment (so-called DS), flowable concentrate for seed treatment (so-called FS), granules (so-called GR), oil-miscible flowable concentrate (so-called OF), oil-dispersible powder (so-called OP), directly applicable suspension concentrate (so-called SD), suspoemulsion (so-called SE); water-dispersible powder for slurry seed treatment (so-called WS), water-dispersible tablet (so-called WT) and mixed formulations ZE and ZC.

Preferred are the formulation types SC, WG, SE as well as the mix formulations ZC and ZE.

Especially preferred are the formulation types SC, WG and SE.

The invention also relates to a process for combating undesired plant growth, which is characterized in that the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), more preferably as a suitable active substance preparation, is used on plants, their habitat and/or on seeds.

The invention also relates to plant protection agents containing a mixture of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the crystalline form A, with at least one other form of benzoxazinone (I) and additives usual for the formulation of plant protection agents, in particular plant protection agents in the form of any of the formulation types mentioned above.

The invention also relates to a process for combating undesired plant growth, which is characterized in that the mixture of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A, of benzoxazinone (I), with at least one other form of benzoxazinone (I), preferably as a suitable active substance preparation, is used on plants, their habitat and/or on seeds.

The statements made hereinafter with regard to the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), also apply to mixtures of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A, with other forms of benzoxazinone (I).

Further, the statements made hereinafter with regard to the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), also apply to combinations of the composition of benzoxazinone (I) comprising as component A the benzoxazinone (I) in form of particles, preferably in form A, with at least one further herbicide B (component B) and/or safener C (component C) as defined.
In such combinations, the composition A can also comprise a mixtures of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A, with other forms of benzoxazinone (I).

In crop protection products, it is desirable in principle to increase the specificity and the reliability of the action of active compounds. In particular, it is desirable for the crop protection product to control the harmful plants effectively and, at the same time, to be tolerated by the useful plants in question. Selective herbicides control undesired vegetation while not harming the desired crop significantly.

The composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), combinations comprising the composition A as defined (component A) and at least one further herbicide B (component B) and/or safener C (component C) as defined, and the plant protection agents which contain , composition A or or com-

binations thereof combat plant growth, in particular monocotyledonous weed species such as Avena, Lolium, Alopecurus, Phalaris, Echinochloa, Digitaria, Setaria, Cyperus species, Agropyron, Cynodon, Imparato and Sorghum, and dicotyledonous weed species such as Galium, Viola, Veronica, Lamium, Stellaria, Amaranthus, Sinapsis, Ipomoea, Matricaria, Abutilon, Sida, Convolvulus, Cirsium, Rumex and Artemisia on non-cultivated areas very well, particularly at high application levels. In crops such as wheat, barley, rye, rice, maize, sugar beet, soya and cotton, they are active against weeds and noxious grasses, without harming the crop plants significantly. This effect occurs above all at low application levels.

Depending on the particular application method, the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), combinations comprising the composition A as defined (component A) and at least one further herbicide B (component B) and/or safener C (component C) as defined or the plant protection agents containing composition A or or combinations thereof can also be used in a further number of crop plants for the elimination of undesired plants.

Examples for crops are crops of corn, soybeans, cereals, pulse, cotton, peanuts, sunflower, citrus, nuts, rice abd sugar cane;
preferred crops are corn, soybeans and cereals;
particularly preferred crops are corn and cereals,
especially preferred is corn.

Possible crops for example include the following:
Allium cepa, Ananas comosus, Arachis hypogaea, Asparagus officinalis, Avena sativa, Beta vulgaris spec. altissima, Beta vulgaris spec. rapa, Brassica napus var. napus, Brassica napus var. napobrassica, Brassica rapa var. silvestris, Brassica oleracea, Brassica nigra, Camellia sinensis, Carthamus tinctorius, Carya illinoinensis, Citrus limon, Citrus sinensis, Coffea arabica (Coffea canephora, Coffea liberica), Cucumis sativus, Cynodon dactylon, Daucus carota, Elaeis guineensis, Fragara vesca, Glycine max, Gossypium hirsutum, (Gossypium arboreum, Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hevea brasiliensis, Hordeum vulgare, Humulus lupulus, Ipomoea batatas, Juglans regia, Lens culinaris, Linum usitatissimum, Lycopersicon lycopersicum, Malus spec., Manihot esculenta, Medicago sativa, Musa spec., Nicotiana tabacum (N. rustica), Olea europaea, Oryza sativa, Phaseolus lunatus, Phaseolus vulgaris, Picea abies, Pinus spec., Pistacia vera, Pisum sativum, Prunus armeniaca, Prunus avium, Prunus cerasus, Prunus dulcis, Prunus domestica, Prunus persica, Pyrus communis, Ribes sylvestre, Ricinus communis, Saccharum officinarum, Secale cereale, Sinapis alba, Solanum tuberosum, Sorghum bicolor (S. vulgare), Theobroma cacao, Trifolium pratense, Triticale, Triticum aestivum, Triticum durum, Vicia faba, Vitis vinifera and Zea mays.
Preferred crops are the following: Avena sativa, Glycine max, Gossypium hirsutum, (Gossypium arboreum, Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hordeum vulgare, Lens culinaris, Linum usitatissimum, Oryza sativa , Phaseolus lunatus, Phaseolus

vulgaris, Pisum sativumSaccharum officinarum, Secale cereale, Sorghum bicolor (s. vulgare), Triticale, Triticum aestivum, Triticum durum, Vicia faba, and Zea mays.

In addition, the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), or the plant protection agents containing the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A, or combinations comprising the composition A as defined (component A) and at least one further herbicide B (component B) and/or safener C (component C) as defined can also be used in crops which through breeding including genetic engineering methods are tolerant towards the action of herbicides.

The composition A according to the invention and combinations comprising it can also be used in genetically modified plants. The term “genetically modified plants” is to be understood as plants, which genetic material has been modified by the use of recombinant DNA techniques in a way that under natural circumstances it cannot readily be obtained by cross breeding, mutations or natural recombination. Typically, one or more genes have been integrated into the genetic material of a genetically modified plant in order to improve certain properties of the plant. Such genetic modifications also include but are not limited to targeted post-transitional modification of protein(s), oligo- or polypeptides e. g. by glycosylation or polymer additions such as prenylated, acetylated or farnesylated moieties or PEG moieties. Plants that have been modified by breeding, mutagenesis or genetic engineering, e.g. have been rendered tolerant to applications of specific classes of herbicides, such as hydroxyphenylpyruvate dioxygenase (HPPD) inhibitors; acetolactate synthase (ALS) inhibitors, such as sulfonyl ureas (see e.g. US 6,222,100, WO 01/82685, WO 00/26390, WO 97/41218, WO 98/02526, WO 98/02527, WO 04/106529, WO 05/20673, WO 03/14357, WO 03/13225, WO 03/14356, WO 04/16073) or imidazolinones (see e. g. US 6,222,100, WO 01/82685, WO 00/026390, WO 97/41218, WO 98/002526, WO 98/02527, WO 04/106529, WO 05/20673, WO 03/014357, WO 03/13225, WO 03/14356, WO 04/16073); enolpyruvylshikimate-3-phosphate synthase (EPSPS) inhibitors, such as glyphosate (see e.g. WO 92/00377); glutamine synthetase (GS) inhibitors, such as glufosinate (see e.g. EP-A 242 236, EP-A 242 246) or oxynil herbicides (see e. g. US 5,559,024) as a result of conventional methods of breeding or genetic engineering. Several cultivated plants have been rendered tolerant to herbicides by conventional methods of breeding (mutagenesis), e. g. Clearfield® summer rape (Canola, BASF SE, Germany) being tolerant to imidazolinones, e. g. imazamox. Genetic engineering methods have been used to render cultivated plants such as soybean, cotton, corn, beets and rape, tolerant to herbicides such as glypho-sate and glufosinate, some of which are commercially available under the trade names RoundupReady® (glyphosate-tolerant, Monsanto, U.S.A.) and LibertyLink® (glufosinate-tolerant, Bayer CropScience, Germany).

Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more insecticidal proteins, especially those known from the bacterial genus Bacillus, particularly from Bacillus thuringiensis, such as delta-endotoxins, e. g. CryIA(b), CryIA(c), CryIF, CryIF(a2), CryIIA(b), CryIIIA, CryIIIB(b1) or Cry9c; vegetative insecticidal proteins (VIP), e. g. VIP1, VIP2, VIP3 or VIP3A; insecticidal proteins of bacteria colonizing

nematodes, e. g. Photorhabdus spp. or Xenorhabdus spp.; toxins produced by animals, such as scorpion toxins, arachnid toxins, wasp toxins, or other insect-specific neurotoxins; toxins produced by fungi, such Streptomycetes toxins, plant lectins, such as pea or barley lectins; agglu-ti-nins; proteinase inhibitors, such as trypsin inhibitors, serine protease inhibitors, patatin, cysta-tin or papain inhibitors; ribosome-inactivating proteins (RIP), such as ricin, maize-RIP, abrin, luffin, saporin or bryodin; steroid metabolism enzymes, such as 3-hydroxy-steroid oxidase, ec-dysteroid-IDP-glycosyl-transferase, cholesterol oxidases, ecdysone inhibitors or HMG-CoA-reductase; ion channel blockers, such as blockers of sodium or calcium channels; juvenile hor-mone esterase; diuretic hormone receptors (helicokinin receptors); stilbene synthase, bibenzyl synthase, chitinases or glucanases. In the context of the present invention these insecticidal proteins or toxins are to be under-stood expressly also as pre-toxins, hybrid proteins, truncated or otherwise modified proteins. Hybrid proteins are characterized by a new combination of pro-tein domains, (see, e. g. WO 02/015701). Further examples of such toxins or genetically modi-fied plants capable of synthesizing such toxins are dis-closed, e. g., in EP-A 374 753, WO 93/007278, WO 95/34656, EP-A 427 529, EP-A 451 878, WO 03/18810 und WO 03/52073. The methods for producing such genetically modified plants are generally known to the person skilled in the art and are described, e. g. in the publications mentioned above. These insecticidal proteins contained in the genetically modified plants impart to the plants producing these pro-teins tolerance to harmful pests from all taxonomic groups of arthropods, especially to beetles (Coeloptera), two-winged insects (Diptera), and moths (Lepidoptera) and to nematodes (Nema-toda). Genetically modified plants capable to synthesize one or more insecticidal pro-teins are, e. g., described in the publications mentioned above, and some of which are commercially available such as YieldGard® (corn cultivars producing the Cry1Ab toxin), YieldGard® Plus (corn cultivars producing Cry1Ab and Cry3Bb1 toxins), Starlink® (corn cultivars producing the Cry9c toxin), Herculex® RW (corn cultivars producing Cry34Ab1, Cry35Ab1 and the enzyme Phos-phinothricin-N-Acetyltransferase [PAT]); NuCOTN® 33B (cotton cultivars producing the Cry1Ac toxin), Bollgard® I (cotton culti-vars producing the Cry1Ac toxin), Bollgard® II (cotton cultivars producing Cry1Ac and Cry2Ab2 toxins); VIPCOT® (cotton cultivars producing a VIP-toxin); NewLeaf® (potato cultivars producing the Cry3A toxin); Bt-Xtra®, NatureGard®, KnockOut®, BiteGard®, Protecta®, Bt11 (e. g. Agrisure® CB) and Bt176 from Syngenta Seeds SAS, France, (corn cultivars producing the Cry1Ab toxin and PAT enzyme), MIR604 from Syngenta Seeds SAS, France (corn cultivars producing a modified version of the Cry3A toxin, c.f. WO 03/018810), MON 863 from Monsanto Europe S.A., Belgium (corn cultivars produ-cing the Cry3Bb1 toxin), IPC 531 from Monsanto Europe S.A., Belgium (cotton cultivars producing a modified version of the Cry1Ac toxin) and 1507 from Pioneer Overseas Corporation, Belgium (corn cultivars producing the Cry1F toxin and PAT enzyme).

Furthermore, plants are also covered that are by the use of recombinant DNA tech-niques capable to synthesize one or more proteins to in-crease the resistance or tolerance of those plants to bacterial, viral or fungal pathogens. Examples of such proteins are the so-called "pathogenesis-related proteins" (PR proteins, see, e.g. EP-A 392 225), plant disease resistance genes (e. g. potato culti-vars, which express resistance genes acting against Phytophthora in-festans derived from the Mexican wild potato Solanum bulbocastanum) or T4-lyso-zym (e.g. potato cultivars capable of synthesizing these proteins with increased resistance against bacte-

ria such as Erwinia amylvora). The methods for producing such genetically modi-fied plants are generally known to the person skilled in the art and are described, e.g. in the publications mentioned above.

Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more proteins to increase the productivity (e.g. bio mass production, grain yield, starch content, oil content or protein content), tolerance to drought, salinity or other growth-limiting environ-mental factors or tolerance to pests and fungal, bacterial or viral pathogens of those plants.

Furthermore, plants are also covered that contain by the use of recombinant DNA techniques a modified amount of substances of content or new substances of content, specifically to improve human or animal nutrition, e. g. oil crops that produce health-promoting long-chain omega-3 fatty acids or unsaturated omega-9 fatty acids (e. g. Nexera® rape, DOW Agro Sciences, Canada).

Furthermore, plants are also covered that contain by the use of recombinant DNA techniques a modified amount of substances of content or new substances of content, specifically to improve raw material production, e.g. potatoes that produce increased amounts of amylopectin (e.g. Amflora® potato, BASF SE, Germany).

Further, the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), or the plant protection agents containing the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A, can also be used in crops which through breeding including genetic engineering methods are tolerant towards insect or fungal attack.

The composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), or combinations comprising the composition A as defined (component A) and at least one further herbicide B (component B) and/or safener C (component C) as defined, are also just as suitable as the known amorphous benzoxazinone or combinations comprising it for the defoliation and desiccation of plant parts, for example for crop plants such as cotton, potato, rape, sunflower, soya bean or field beans, in particular cotton. In this regard, embodiments of the invention also relate to agents for the desiccation and/or defoliation of plants, processes for the production of these agents and methods for the desiccation and/or defoliation of plants using the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I).

The composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), are in particular suitable as desiccants for the desiccation of the aboveground parts of crop plants such as potato, rape, sunflower and soya bean, but also cereals. This enables completely mechanical harvesting of these important crop plants.

Also of scientific interest is the facilitation of harvesting which is enabled by the time-concentrated dropping or reduction of the strength of attachment to the tree with citrus fruits,

olives or other species and varieties of pomaceous, stone and shelled fruit. The same mechanism, i.e. the promotion of the formation of separation tissue between fruit or leaf and shoot of the plants is also significant for well-controlled defoliation of useful plants, in particular cotton.

In addition, the shortening of the time interval in which the individual cotton plants become ripe leads to heightened fiber quality after the harvest.

The composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), combinations comprising the composition A as defined (component A) and at least one further herbicide B (component B) and/or safener C (component C) as defined, or the plant protection agents containing either composition A or combinations thereof can for example be used in the form of directly sprayable aqueous solutions, powders, suspensions and also high concentration aqueous, oily or other suspensions, oil suspensions, pastes, dusting agents, scattering agents or granules by spraying, misting, dusting, scattering or pouring. The use forms are determined by the use purposes; in each case, they should ensure the finest possible distribution of the active substances according to the invention.

The plant protection agents according to the invention contain the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), in a purity, based on the modification in question, of at least 90 wt.%, and additives and/or carriers such as are usual for the formulation of plant protection agents. In such plant protection agents, the quantity of active substance, i.e. the total quantity of benzoxazinone (I) and of other active substances if necessary, normally lies in the range from 1 to 98 wt.%, in particular in the range from 10 to 95 wt.%, based on the total weight of the plant protection agent.

All solid and liquid substances which are normally used as carriers in plant protection agents, in particular in herbicide formulations are possible as carriers.

Solid carriers are for example mineral earths such as silicic acids, silica gels, silicates, talc, kaolin, limestone, lime, chalk, bole, loess, clay, dolomite, diatomaceous earth, calcium and magnesium sulfate, magnesium oxide, ground plastics, fertilizers such as ammonium sulfate, ammonium phosphate, ammonium nitrate, ureas and plant products such as cereal flour, tree bark, wood and nutshell flour, cellulose powder, ground plant parts like straw, flax, sugarcane straw or alike, and other solid carriers.

Liquid carriers, as well as water, are also organic liquids, for example mineral oil fractions of medium to high boiling point such as kerosene and diesel oil, also coal tar oils and oils of plant or animal origin, aliphatic, cyclic and aromatic hydrocarbons, for example paraffins, tetrahydronaphthalene, alkylated naphthalenes and derivatives thereof, alkylated benzenes and derivatives thereof, including aromatic and non-aromatic hydrocarbon mixtures, for example the

products marketed under the trade names Exxsol and Solvesso, natural oils like plant – e.g. sunflower, corn, cotton, rapeseed, palm, soybean, coconut, olive, linseed – or animal oils – e.g. fish, pork, beef – or derivative of those like methyl oleate or biodiesel, alcohols such as propanol, butanol and cyclohexanol, ketones such as cyclohexanone, and strongly polar solvents, for example amides such as fatty alkyl dimethyl amides or N-methyl-pyrrolidone.

Typical additives include surface-active substances, in particular those wetting agents, emulsifiers and dispersant (additives) normally used in plant protection agents, and also viscosity-modifying additives (thickeners and rheology modifiers), antifoaming agents, antifreeze agents, pH adjusting agents, stabilizers, anticaking agents and biocides (preservatives).

Possible surface-active substances are preferably anionic and nonionic surfactants. Protective colloids are also suitable surface-active substances.

The quantity of surface-active substances will as a rule be 0.1 to 50 wt.%, in particular 0.5 to 30 wt.%, based on the total weight of the plant protection agents according to the invention, or 0.5 to 100 wt.%, based on the total quantity of solid active substances in the formulation. Preferably, the surface-active substance include at least one anionic surface-active substance and at least one nonionic surface-active substance, and the proportion of anionic to nonionic surface-active substance typically lies in the range from 10:1 to 1:10.

Examples of anionic surfactants include alkyl aryl-sulfonates, aromatic sulfonates, for example ligninsulfonates (Borresperse types, Borregaard), phenylsulfonates, naphthalenesulfonates (Morwet types, Akzo Nobel), dibutylnaphthalenesulfonates (Nekal types, BASF), alkyl sulfates, in particular fatty alcohol sulfates, lauryl sulfates, and sulfated hexadeca-, heptadeca- and octadecanols, alkylsulfonates, alkyl ether sulfates, in particular fatty alcohol (poly)glycol ether sulfates, alkyl aryl ether sulfates, alkyl polyglycol ether phosphates, polyarylphenyl ether phosphates, alkyl-sulfosuccinates, olefin sulfonates, paraffin sulfon-ates, petroleum sulfonates, taurides, sarcosides, fatty acids, alkylnaphthalenesulfonic acids, naphthalene-sulfonic acids, ligninsulfonic acids, condensation products of sulfonated naphthalenes with formaldehyde, condensation products of sulfonated naphthalenes with formaldehyde and phenol and optionally urea and condensation products of phenolsulfonic acid with formaldehyde and urea, lignin sulfite waste liquor, alkyl phosphates, alkyl aryl phosphates, for example tristyryl phosphates, and polycarboxylates such as for example polyacrylates, maleic anhydride/olefin copolymers (for example Sokalan® CP9, BASF), including the alkali metal, alkaline earth, ammonium and amine salts of the aforesaid substances. Preferred anionic surface-active substances are those which bear at least one sulfonate group and in particular the alkali metal and ammonium salts thereof.

Examples of non-ionic surface-active substances are alkylphenol alkoxylates, in particular ethoxylates and ethoxylate-copropoxylates of octylphenol, isooctylphenol, nonylphenol and tributylphenol, di- and tristyrylphenol alkoxylates, alcohol alkoxylates, in particular fatty alcohol eth-

oxylates and fatty alcohol ethoxylate-copropoxylates, for example alkoxylated isotridecanol, fatty amine alkoxylates, polyoxyethylene glycerol fatty acid esters, castor oil alkoxylates, fatty acid alkoxylates, fatty acid amide alkoxylates, fatty acid polydiethanolamides, lanolin ethoxylates, fatty acid polyglycol esters, isotridecyl alcohol, ethoxylated fatty acid amides, ethoxylated fatty acid esters, alkyl polyglycosides, ethoxylated alkyl polyglycosides, sorbitan fatty acid esters, ethoxylated sorbitan fatty acid esters, glycerol fatty acid esters, lower molecular weight polyalkylene oxides such as polyethylene glycol, polypropylene oxide, polyethylene oxide copropylene oxide di- and tri- block copolymers, and mixtures thereof. Preferred nonionic surface-active substances are fatty alcohol ethoxylates, alkyl polyglycosides, glycerol fatty acid esters, castor oil ethoxylates, fatty acid ethoxylates, fatty acid amide ethoxylates, lanolin ethoxylates, fatty acid polyglycol esters, ethylene oxide propylene oxide block copolymers and mixtures thereof.

Protective colloids are typically water-soluble, amphiphilic polymers which unlike the aforesaid surfactants typically have molecular weights over 2,000 daltons (number average). Examples thereof are proteins and denatured proteins such as casein, polysaccharides such as water-soluble starch derivatives and cellulose derivatives, hydrophobically modified starches and celluloses, for example methylcellulose, and also polycarboxylates such as polyacrylic acid, acrylic acid copolymers and maleic acid copolymers (BASF Sokalan types), polyvinyl alcohol (Mowiol types from Clariant), polyalkoxylates, polyvinylpyrrolidone, vinylpyrrolidone copolymers, polyvinyl amines, polyethyleneimines (Lupasol types from BASF) and higher molecular weight polyalkylene oxides such as polyethylene glycol, polypropylene oxides, and polyethylene oxide copolypropylene oxide di- and tri- block copolymers.

The plant protection agents according to the invention can also contain one or more additives modifying the viscosity (rheology modifiers). These are understood in particular to mean substances and substance mixtures which impart modified flow behavior to the formulation, for example a high viscosity in the resting state and low viscosity in the moving state. The nature of the rheology modifier is determined by the nature of the formulation. As examples of rheology modifiers, inorganic substances, for example layer silicates and organically modified layer silicates such as bentonites or attapulgites (for example Attaclay®, Engelhardt Co.), and organic substances such as polysaccharides and heteropolysaccharides such as Xanthan Gum® (Kelzan® from Kelco Co.), Rhodopol® 23 (Rhone Poulenc) or Veegum® (R.T. Vanderbilt Co.) should be mentioned. The quantity of the viscosity-modifying additives is often 0.1 to 5 wt.%, based on the total weight of the plant protection agent.

Examples of antifoaming agents are the silicone emulsions known for this purpose (Silikon® SRE, Wacker Co. or Rhodorsil® from Rhodia Co.), long-chain alcohols, fatty acids and salts thereof, foam suppressants of the aqueous wax dispersion type, solid foam suppressants (so-called Compounds) and organofluorine compounds and mixtures thereof. The quantity of antifoaming agent is typically 0.1 to 1 wt.%, based on the total weight of the plant protection agent.

The plant protection agents according to the invention can also contain preservatives for stabilization. Suitable preservatives are those based on isothiazol-ones, for example Proxel® from ICI Co., or Acticide® from Thor Chemie Co. or Kathon® MK from Rohm & Hass Co. The quantity of preservative is typically 0.05 to 0.5 wt.%, based on the total weight of the SC.

Aqueous plant protection agents, i.e. those with an aqueous carrier, often contain antifreeze agents. Suitable antifreeze agents are liquid polyols, for example ethylene glycol, propylene glycol or glycerine, and urea. The quantity of antifreeze agent is as a rule 1 to 20 wt.%, in particular 5 to 10 wt.%, based on the total weight of the aqueous plant protection agent.

If the plant protection agents containing the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the crystalline modification A of benzoxazinone (I) and optionally at least one further herbicide B (component B) and/or safener C (component C)are used for seed treatment, they can also contain normal components such as are used for seed treatment, for example in dressing or coating. In addition to the aforesaid components, these include in particular colorants, adhesives, fillers and plasticizers.

All the dyes and pigments usual for such purposes are possible as colorants. Both pigments of low solubility in water and also dyes soluble in water are usable here. As examples, the dyes and pigments known under the names Rhodamin B, C.I. Pigment Red 112 and C.I. Solvent Red 1, Pigment Blue 15:4, Pigment Blue 15:3, Pigment Blue 15:2, Pigment Blue 15:1, Pigment Blue 80, Pigment Yellow 1, Pigment Yellow 13, Pigment Red 48:2, Pigment Red 48:1, Pigment Red 57:1, Pigment Red 53:1, Pigment Orange 43, Pigment Orange 34, Pigment Orange 5, Pigment Green 36, Pigment Green 7, Pigment White 6, Pigment Brown 25, Basic Violet 10, Basic Violet 49, Acid Red 51, Acid Red 52, Acid Red 14, Acid Blue 9, Acid Yellow 23, Basic Red 10, Basic Red 10 and Basic Red 108 may be mentioned. The quantity of colorant will normally not constitute more than 20 wt.% of the formulation and preferably lies in the range from 0.1 to 15 wt.%, based on the total weight of the formulation.

All binders normally usable in dressings come under consideration as adhesives. Examples of suitable binders include thermoplastic polymers such as poly-vinylpyrrolidone, polyvinyl acetate, polyvinyl alcohol and tylose and also polyacrylates, polymethacrylates, polybutenes, polyisobutenes, polystyrene, polyethylene amines, polyethylene amides, the aforesaid protective colloids, polyesters, polyether esters, polyanhydrides, polyester urethanes, polyester amides, thermoplastic polysaccharides, for example cellulose derivatives such as cellulose esters, cellulose ethers, cellulose ether esters, including methylcellulose, ethylcellulose, hydroxymethylcellulose, carboxymethylcellulose, hydroxypropyl cellulose and starch derivatives and modified starches, dextrins, maltodextrins, alginates and chitosans, and also fats, oils, proteins, including casein, gelatin and zein, gum Arabic and shellac. The adhesives are preferably plant-compatible, i.e. they exhibit no, or no significant, phytotoxic effects. The adhesives are preferably biodegradable. The adhesive is preferably selected such that it acts as a matrix for the ac-

tive components of the formulation. The quantity of adhesive will normally not constitute more than 40 wt.% of the formulation and preferably lies in the range from 1 to 40 wt.% and in particular in the range from 5 to 30 wt.%, based on the total weight of the formulation.

In addition to the adhesive, the formulation for seed treatment can also contain inert fillers. Examples of these are the aforesaid solid carriers, in particular finely divided inorganic materials such as clays, chalk, bentonite, kaolin, talc, perlite, mica, silica gel, diatomaceous earth, quartz powder and montmorillonite but also fine-particle organic materials such as wood flour, cereal flour, active charcoal and the like. The quantity of filler is preferably selected such that the total quantity of filler does not exceed 70 wt.%, based on the total weight of all non-volatile components of the formulation. Often, the quantity of filler lies in the range from 1 to 50 wt.%, based on the total weight of all non-volatile components of the formulation.

In addition, the formulation for seed treatment can also contain a plasticizer which increases the flexibility of the coating. Examples of plasticizers are oligomeric polyalkylene glycols, glycerine, dialkyl phthalates, alkylbenzyl phthalates, glycol benzoates and comparable compounds. The quantity of plasticizer in the coating often lies in the range from 0.1 to 20 wt.%, based on the total weight of all non-volatile components of the formulation.

A preferred embodiment of the invention relates to liquid formulations of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I) and optionally at least one further herbicide B (component B) and/or safener C (component C). In addition to the solid active substance phase, these have at least one liquid phase, in which benzoxazinone (I) is present in the form of particles according to the invention, preferably in the form of form A. Possible liquid phases are essentially water and those organic solvents in which the particles of benzoxazinone (I), preferably the form A, is only slightly soluble, or insoluble, for example those wherein the solubility of the particles of benzoxazinone (I), preferably of the form A at 25°C and 1013 mbar is not more than 1 wt.%, in particular not more than 0.1 wt.%, and especially not more than 0.01 wt.%.

According to one embodiment of the invention, the liquid phase, wherein the composition as claimed in claims 1 to 5 is present in form of particles, is water.

According to a first preferred embodiment, the liquid phase is selected from water and aqueous solvents, i.e. solvent mixtures which in addition to water also contain up to 20 wt.%, preferably however not more than 10 wt.%, based on the total quantity of water and solvent, of one or more organic solvents miscible with water, for example ethers miscible with water such as tetrahydrofuran, methyl glycol, methyl diglycol, alkanols such as isopropanol or polyols such as glycol, glycerine, diethylene glycol, propylene glycol and the like. Such formulations are also referred to below as suspension concentrates (SCs).

Such suspension concentrates contain benzoxazinone (I) in the form of the particles of benzoxazinone (I), preferably of the modification A, in a finely divided particulate form, wherein the particles of benzoxazinone (I), preferably the form A, are present suspended in an aqueous phase.

In such SCs the quantity of active substance, i.e. the total quantity of benzoxazinone (I) and of other active substances if necessary, usually lies in the range from 10 to 70 wt.%, in particular in the range from 20 to 50 wt.%, based on the total weight of the suspension concentrate.

In addition to the active substance, aqueous suspension concentrates typically contain surface-active substances, and also if necessary antifoaming agents, thickeners (= rheology modifiers), antifreeze agents, stabilizers (biocides), agents for adjusting the pH and anticaking agents.

Possible surface-active substances are the previously named surface-active substances. Preferably the aqueous plant protection agents according to the invention contain at least one of the previously named anionic surfactants and if necessary one or more nonionic surfactants, if necessary in combination with a protective colloid. The quantity of surface-active substances will as a rule be 1 to 50 wt.%, in particular 2 to 30 wt.%, based on the total weight of the aqueous SCs according to the invention. Preferably the surface-active substances include at least one anionic surface-active substance and at least one nonionic surface-active substance, and the proportion of anionic to nonionic surface-active substance typically lies in the range from 10:1 to 1:10.

Concerning the nature and quantity of the antifoaming agents, thickeners, antifreeze agents and biocides, the same applies as aforesaid.

If necessary, the aqueous SCs according to the invention can contain buffers for pH regulation. Examples of buffers are alkali metal salts of weak inorganic or organic acids, such as for example phosphoric acid, boric acid, acetic acid, propionic acid, citric acid, fumaric acid, tartaric acid, oxalic acid and succinic acid.

According to a second preferred embodiment, the liquid phase consists of non-aqueous organic solvents in which the solubility of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), at 25°C and 1013 mbar is not more than 1 wt.%, in particular not more than 0.1 wt.%, and especially not more than 0.01 wt.%. These include in particular aliphatic and cycloaliphatic hydrocarbons and oils, in particular those of plant origin, and also C_1-C_4 alkyl esters of saturated or unsaturated fatty acids or fatty acid mixtures, in particular the methyl esters, for example methyl oleate, methyl stearate and rape oil methyl ester, but also paraffinic mineral oils and the like.
Accordingly, the present invention relates also to agents for plant protection in the form of a non-aqueous suspension concentrate, which will also be referred to below as OD (oil-dispersion). Such ODs contain the composition of benzoxazinone (I) as described herein com-

prise the benzoxazinone (I) in a finely divided particulate form, wherein the particles, preferably of the form A, are present suspended in a non-aqueous phase.

In such ODs, the quantity of active substance, i.e. the total quantity of benzoxazinone (I) and of other active substances if necessary, usually lies in the range from 10 to 70 wt.%, in particular in the range from 20 to 50 wt.%, based on the total weight of the non-aqueous suspension concentrate.

In addition to the active substance and the liquid carrier, non-aqueous suspension concentrates typically contain surface-active substances, and also if necessary antifoaming agents, agents to modify the rheology and stabilizers (biocides).

Possible surface-active substances are preferably the previously named anionic and nonionic surfactants. The quantity of surface-active substances will as a rule be 1 to 30 wt.%, in particular 2 to 20 wt.%, based on the total weight of the non-aqueous SCs according to the invention. Preferably the surface-active substances include at least one anionic surface-active substance and at least one nonionic surface-active substance, and the proportion of anionic to nonionic surface-active substance typically lies in the range from 10:1 to 1:10.

The composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), according to the invention can also be formulated as solid plant protection agents. These include powder, scattering and dusting agents but also water-dispersible powders and granules, for example coated, impregnated and homogenous granules. Such formulations can be produced by mixing or simultaneous grinding of the particles of benzoxazinone (I), preferably of the form A of benzoxazinone (I) with a solid carrier and if necessary other additives, in particular surface-active substances. Granules can be produced by binding of the active substances to solid carriers. Solid carriers are mineral earths such as silicic acids, silica gels, silicates, talc, kaolin, limestone, lime, chalk, bole, loess, clay, dolomite, diatomaceous earth, calcium and magnesium sulfate, magnesium oxide, ground plastics, fertilizers such as ammonium sulfate, ammonium phosphate, ammonium nitrate, ureas and plant products such as cereal flour, tree bark, wood and nutshell flour, cellulose powder or other solid carriers. Solid formulations can also be produced by spray drying, if necessary in the presence of polymeric or inorganic drying aids, and if necessary in the presence of solid carriers. For the production of solid formulations of the particles of benzoxazinone (I), preferably of benzoxazinone (I) of form A, extrusion processes, fluidized bed granulation, spray granulation and comparable technologies are suitable.

Possible surface-active substances are the previously named surfactants and protective colloids. The quantity of surface-active substances will as a rule be 1 to 30 wt.%, in particular 2 to 20 wt.%, based on the total weight of the solid formulation according to the invention.

In such solid formulations, the quantity of active substance, i.e. the total quantity of benzoxazinone and of other active substances if necessary, usually lies in the range from 10 to 70 wt.%, in particular in the range from 20 to 50 wt.%, based on the total weight of the solid formulation.

The application of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), or the herbicidal agents containing them is effected, if the formulation is not already ready for use, in the form of aqueous spray fluids. These are prepared by dilution of the aforesaid formulations containing the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), with water. The spray fluids can also contain other components in dissolved, emulsified or suspended form, for example fertilizers, active substances of other herbicidal or growth-regulating active substance groups, other active substances, for example active substances for combating animal pests or phyto-pathogenic fungi or bacteria, and also mineral salts which are used for the elimination of nutritional and trace element deficiencies, and non-phytotoxic oils and oil concentrates. As a rule, these components are added to the spray fluid before, during or after the dilution of the formulations according to the invention.

The application of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), or of the plant protection agents containing them can be effected in a pre-emergence or in a post-emergence method. Also application techniques can be used wherein the herbicidal agents are sprayed using the spraying equipment in such a manner that the leaves of the sensitive crop plants are as far as possible not hit, while the active substances reach the leaves of undesired plants growing under them or the uncovered soil surface (post-directed, lay-by).

The quantities of benzoxazinone (I) applied are 0.001 to 3.0 kg active substance per hectare, preferably 0.01 to 1.0 kg active substance (a.S)/ha, depending on the treatment aim, season, target plants and growth stage.

In a further embodiment, the application of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), or the plant protection agent containing them can be effected by treatment of seed.

Treatment of seed essentially includes all techniques with which the person skilled in the art is familiar (seed dressing, seed coating, seed dusting, seed soaking, seed film coating, seed multilayer coating, seed encrusting, seed dripping and seed pelleting) on the basis of the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in form A of benzoxazinone (I), or agents prepared therefrom. Here the plant protection agents can be applied diluted or undiluted.

The term seed includes seed of all types, for example grains, seeds, fruits, tubers, cuttings and similar forms. Preferably, the term seed here describes grains and seeds.

As seed, seed of the crop plants mentioned above but also the seeds of transgenic plants or those obtained by conventional breeding methods can be used.

For the seed treatment, benzoxazinone (I) is normally used in quantities of 0.001 to 10 kg per 100 kg of seed.

To broaden the spectrum of action and to achieve synergistic effects, the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I), can be mixed and applied together with many members of other herbicidal or growth regulating active substance groups. In addition, it can be advantageous to formulate or apply the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A of benzoxazinone (I) together with safeners. With regard to such combinations, full reference is made to WO 2010/145992.
Suitable components for mixtures are, for example, 1,2,4-thiadiazoles, 1,3,4-thiadiazoles, amides, aminophosphoric acid and its derivatives, aminotriazoles, anilides, (het)aryloxyalkanoic acids and their derivatives, benzoic acid and its derivatives, benzothiadiazinones, 2-aroyl-1,3-cyclohexanediones, 2-hetaroyl-1,3-cyclohexanediones, hetaryl aryl ketones, benzylisoxazolidinones, meta-CF_3-phenyl derivatives, carbamates, quinolinecarboxylic acid and its derivatives, chloroacetanilides, cyclohexenone oxime ether derivatives, diazines, dichloropropionic acid and its derivatives, dihydrobenzofurans, dihydrofuran-3-ones, dinitroanilines, dinitrophenols, diphenyl ethers, dipyridyls, halocarboxylic acids and their derivatives, ureas, 3-phenyluracils, imidazoles, imidazolinones, N-phenyl-3,4,5,6-tetrahydrophthalimides, oxadiazoles, oxiranes, phenols, aryloxy- and hetaryloxyphenoxypropionic esters, phenylacetic acid and its derivatives, 2-phenylpropionic acid and its derivatives, pyrazoles, phenylpyrazoles, pyridazines, pyridinecarboxylic acid and its derivatives, pyrimidyl ethers, sulfonamides, sulfonylureas, triazines, triazinones, triazolinones, triazolecarboxamides, uracils, phenyl pyrazolines and isoxazolines and derivatives thereof.

In addition, it can be of value to apply the composition of benzoxazinone (I) comprising the benzoxazinone (I) in form of particles, preferably in the form A, alone or in combination with other herbicides also mixed with still further plant protection agents, together for example with agents for combating pests or phytopathogenic fungi or bacteria. Also of interest is the miscibility with mineral salt solutions which are used for the elimination of nutritional and trace element deficiencies. Additives such as non-phytotoxic oils and oil concentrates can also be added.

In one embodiment of the present invention the herbicidal combinations according to the present invention comprise at least the composition A (component A) and at least one further ac-

tive compound selected from herbicides B (component B), preferably herbicides B of class b1) to b15), and safeners C (component C).

In another embodiment of the present invention the the herbicidal combinations according to the present invention comprise at least the composition A and at least one further active compound B (herbicide B).

The further active compound B (herbicide B) is preferably selected from the herbicides of class b1) to b15):

b1) lipid biosynthesis inhibitors;

b2) acetolactate synthase inhibitors (ALS inhibitors);

b3) photosynthesis inhibitors;

b4) protoporphyrinogen-IX oxidase inhibitors,

b5) bleacher herbicides;

b6) enolpyruvyl shikimate 3-phosphate synthase inhibitors (EPSP inhibitors);

b7) glutamine synthetase inhibitors;

b8) 7,8-dihydropteroate synthase inhibitors (DHP inhibitors);

b9) mitose inhibitors;

b10) inhibitors of the synthesis of very long chain fatty acids (VLCFA inhibitors);

b11) cellulose biosynthesis inhibitors;

b12) decoupler herbicides;

b13) auxin herbicides;

b14) auxin transport inhibitors; and

b15) other herbicides selected from the group consisting of bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyldymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters;

including their agriculturally acceptable salts or derivatives.

Preference is given to those herbicidal combinations according to the present invention comprising at least one herbicide B selected from herbicides of class b2, b3, b4, b5, b6, b9 and b10.

Specific preference is given to those herbicidal combinations according to the present invention which comprise at least one herbicide B selected from the herbicides of class b4, b6, b9 and b10.

Particular preference is given to those herbicidal combinations according to the present invention which comprise at least one herbicide B selected from the herbicides of class b4, b6 and b10.

According to a first embodiment of the invention the herbicidal combinations contain at least one inhibitor of the lipid biosynthesis (herbicide b1). These are compounds which inhibit lipid biosynthesis. Inhibition of the lipid biosynthesis can be affected either through inhibition of acetyl CoA carboxylase (hereinafter termed ACC herbicides) or through a different mode of action (hereinafter termed non-ACC herbicides). The ACC herbicides belong to the group A of the HRAC classification system whereas the non-ACC herbicides belong to the group N of the HRAC classification.

According to a second embodiment of the invention the herbicidal combinations contain at least one ALS inhibitor (herbicide b2). The herbicidal activity of these compounds is based on the inhibition of acetolactate synthase und thus on the inhibiton of the branched chain aminoacid biosynthesis. These inhibitors belong to the group B of the HRAC classification system.

According to a third embodiment of the invention the herbicidal combinations contain at least one inhibitor of photosynthesis (herbicide b3). The herbicidal activity of these compounds is based either on the inhibition of the photosystem II in plants (so-called PSII inhibitors, groups C1, C2 and C3 of HRAC classification) or on diverting the electron transfer in photosystem I in plants (so-called PSI inhibitors, group D of HRAC classification) and thus on an inhibition of photosynthesis. Amongst these, PSII inhibitors are preferred.

According to a fourth embodiment of the invention the herbicidal combinations contain at least one inhibitor of protoporphyrinogen-IX-oxidase (herbicide b4). The herbicidal activity of these compounds is based on the inhibition of the protoporphyrinogen-IX-oxidase. These inhibitors belong to the group E of the HRAC classification system.

According to a fifth embodiment of the invention the herbicidal combinations contain at least one bleacher-herbicide (herbicide b5). The herbicidal activity of these compounds is based on the inhibition of the carotinoid biosynthesis. These include compounds which inhibit carotinoid biosynthesis by inhibition of phytoene desaturase (so-called PDS inhibitors, group F1 of HRAC classification), compounds which inhibit the 4-hydroxyphenylpyruvat-dioxygenase (HPPD inhibitors, group F2 of HRAC classification) and compounds which inhibit carotinoid biosynthesis by an unknown mode of action (bleacher - unknown target, group F3 of HRAC classification).

According to a sixth embodiment of the invention the herbicidal combinations contain at least one EPSP synthase inhibitor (herbicide b6). The herbicidal activity of these compounds is based on the inhibition of enolpyruvyl shikimate 3-phosphate synthase und thus on the inhibition of the aminoacid biosynthesis in plants. These inhibitors belong to the group G of the HRAC classification system.

According to a seventh embodiment of the invention the herbicidal combinations contain at least one glutamin synthetase inhibitor (herbicide b7). The herbicidal activity of these compounds is based on the inhibition of glutamin synthetase und thus on the inhibition of the ami-

noacid biosynthesis in plants. These inhibitors belong to the group H of the HRAC classification system.

According to an eighth embodiment of the invention the herbicidal combinations contain at least one DHP synthase inhibitor (herbicide b8). The herbicidal activity of these compounds is based on the inhibition of 7,8-dihydropteroate synthetase. These inhibitors belong to the group I of the HRAC classification system.

According to a ninth embodiment of the invention the herbicidal combinations contain at least one mitose inhibitor (herbicide b9). The herbicidal activity of these compounds is based on the disturbance or inhibition of microtubule formation or organization and thus on the mitosis inhibition. These inhibitors belong to the groups K1 and K2 of the HRAC classification system. Among these, compounds of the group K1, in particular dinitroanilines, are preferred.

According to a tenth embodiment of the invention the herbicidal combinations contain at least one VLCFA inhibitor (herbicide b10). The herbicidal activity of these compounds is based on the inhibition of the synthesis of very long chain fatty acids and thus on the disturbance or inhibition of cell division in plants. These inhibitors belong to the group K3 of the HRAC classification system.

According to an eleventh embodiment of the invention the herbicidal combinations contain at least one cellulose biosynthesis inhibitor (herbicide b11). The herbicidal activity of these compounds is based on the inhibition of the biosynthesis of cellulose and thus on the inhibition of the synthesis of cell walls in plants. These inhibitors belong to the group L of the HRAC classification system.

According to a twelfth embodiment of the invention the herbicidal combinations contain at least one decoupler herbicide (herbicide b12). The herbicidal activity of these compounds is based on the disruption of the cell membrane. These inhibitors belong to the group M of the HRAC classification system.

According to a thirtheenth embodiment of the invention the herbicidal combinations contain at least one auxin herbicide (herbicide b13). These include compounds which act like auxins, i.e. plant hormones, and inhibit the growth of the plants. These compounds belong to the group O of the HRAC classification system.

According to a fourteenth embodiment of the invention the herbicidal combinations contain at least one auxin transport inhibitor (herbicide b14). The herbicidal activity of these compounds is based on the inhibition of the auxin transport in plants. These compounds belong to the group P of the HRAC classification system.

As to the given mechanisms of action and classification of the active substances, see e.g. "HRAC, Classification of Herbicides According to Mode of Action", http://www.plantprotection.org/hrac/MOA.html).

Examples of herbicides B which can be used in combination with the composition A according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors:
ACC-herbicides such as alloxydim, alloxydim-sodium, butroxydim, clethodim, clodinafop, clodinafop-propargyl, cycloxydim, cyhalofop, cyhalofop-butyl, diclofop, diclofop-methyl, fenoxaprop, fenoxaprop-ethyl, fenoxaprop-P, fenoxaprop-P-ethyl, fluazifop, fluazifop-butyl, fluazifop-P, fluazifop-P-butyl, haloxyfop, haloxyfop-methyl, haloxyfop-P, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop, quizalofop-ethyl, quizalofop-tefuryl, quizalofop-P, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim and tralkoxydim, and non ACC herbicides such as benfuresate, butylate, cycloate, dalapon, dimepiperate, EPTC, esprocarb, ethofumesate, flupropanate, molinate, orbencarb, pebulate, prosulfocarb, TCA, thiobencarb, tiocarbazil, triallate and vernolate;

b2) from the group of the ALS inhibitors:
Sulfonylureas such as amidosulfuron, azimsulfuron, bensulfuron, bensulfuron-methyl, chlorimuron, chlorimuron-ethyl, chlorsulfuron, cinosulfuron, cyclosulfamuron, ethametsulfuron, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, flucetosulfuron, flupyrsulfuron, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron, halosulfuron-methyl, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, metsulfuron, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, primisulfuron, primisulfuron-methyl, propyrisulfuron, prosulfuron, pyrazosulfuron, pyrazosulfuron-ethyl, rimsulfuron, sulfometuron, sulfometuron-methyl, sulfosulfuron, thifensulfuron, thifensulfuron-methyl, triasulfuron, tribenuron, tribenuron-methyl, trifloxysulfuron, triflusulfuron, triflusulfuron-methyl and tritosulfuron, imidazolinones such as imazamethabenz, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin and imazethapyr, triazolopyrimidine herbicides and sulfonanilides such as cloransulam, cloransulam-methyl, diclosulam, flumetsulam, florasulam, metosulam, penoxsulam, pyrimisulfan and pyroxsulam, pyrimidinylbenzoates such as bispyribac, bispyribac-sodium, pyribenzoxim, pyriftalid, pyriminobac, pyriminobac-methyl, pyrithiobac, pyrithiobac-sodium, 4-[[[2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]phenyl]methyl]amino]-benzoic acid-1-methylethyl ester (CAS 420138-41-6), 4-[[[2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]phenyl]methyl]amino]-benzoic acid propyl ester (CAS 420138-40-5), N-(4-bromophenyl)-2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]-benzenemethanamine (CAS 420138-01-8) and sulfonylaminocarbonyl-triazolinone herbicides such as flucarbazone, flucarbazone-sodium, propoxycarbazon, propoxycarbazon- sodium, thiencarbazone and thiencarbazone-methyl. Among these, a preferred embodiment of the invention relates to those combinations comprising at least one imidazolinone herbicide;

b3) from the group of the photosynthesis inhibitors:
amicarbazone, inhibitors of the photosystem II, e.g. triazine herbicides, including of chlorotriazine, triazinones, triazindiones, methylthiotriazines and pyridazinones such as ametryn, atrazine, chloridazone, cyanazine, desmetryn, dimethametryn,hexazinone, metribuzin, prometon, prometryn, propazin, simazin, simetryn, terbumeton, terbuthylazin, terbutryn and trietazin, aryl urea such as chlorobromuron, chlorotoluron, chloroxuron, dimefuron, diuron, fluometuron, isoproturon, isouron, linuron, metamitron, methabenzthiazuron, metobenzuron, metoxuron, mono-

linuron, neburon, siduron, tebuthiuron and thiadiazuron, phenyl carbamates such as desmedipham, karbutilat, phenmedipham, phenmedipham-ethyl, nitrile herbicides such as bromofenoxim, bromoxynil and its salts and esters, ioxynil and its salts and esters, uraciles such as bromacil, lenacil and terbacil, and bentazon and bentazon-sodium, pyridatre, pyridafol, pentanochlor and propanil and inhibitors of the photosystem I such as diquat, diquat-dibromide, paraquat, paraquat-dichloride and paraquat-dimetilsulfate. Among these, a preferred embodiment of the invention relates to those combinations comprising at least one aryl urea herbicide. Among these, likewise a preferred embodiment of the invention relates to those combinations comprising at least one triazine herbicide. Among these, likewise a preferred embodiment of the invention relates to those combinations comprising at least one nitrile herbicide;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:
acifluorfen, acifluorfen-sodium, azafenidin, bencarbazone, benzfendizone, bifenox, butafenacil, carfentrazone, carfentrazone-ethyl, chlomethoxyfen, cinidon-ethyl, fluazolate, flufenpyr, flufenpyr-ethyl, flumiclorac, flumiclorac-pentyl, flumioxazin, fluoroglycofen, fluoroglycofen-ethyl, fluthiacet, fluthiacet-methyl, fomesafen, halosafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, profluazol, pyraclonil, pyraflufen, pyraflufen-ethyl, saflufenacil, sulfentrazone, thidiazimin, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 45100-03-7) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides:
PDS inhibitors: beflubutamid, diflufenican, fluridone, flurochloridone, flurtamone, norflurazon, picolinafen, and 4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7), HPPD inhibitors: benzobicyclon, benzofenap, isoxaflutole, mesotrione, pyrasulfotole, pyrazolynate, pyrazoxyfen, sulcotrione, tefuryltrione, tembotrione, topramezone and bicyclopyrone, bleacher, unknown target: aclonifen, amitrole, clomazone and flumeturon;

b6) from the group of the EPSP synthase inhibitors:
glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

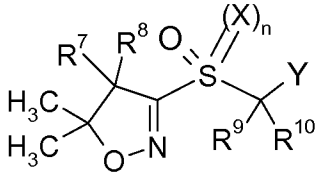
b7) from the group of the glutamine synthase inhibitors:
bilanaphos (bialaphos), bilanaphos-sodium, glufosinate, glufosinate-P and glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors:
asulam;

b9) from the group of the mitose inhibitors:
compounds of group K1: dinitroanilines such as benfluralin, butralin, dinitramine, ethalfluralin, fluchloralin, oryzalin, pendimethalin, prodiamine and trifluralin, phosphoramidates such as amiprophos, amiprophos-methyl, and butamiphos, benzoic acid herbicides such as chlorthal, chlorthal-dimethyl, pyridines such as dithiopyr and thiazopyr, benzamides such as propyzamide and tebutam; compounds of group K2: chlorpropham, propham and carbetamide, among these, compounds of group K1, in particular dinitroanilines are preferred;

b10) from the group of the VLCFA inhibitors:
chloroacetamides such as acetochlor, alachlor, butachlor, dimethachlor, dimethenamid, dimethenamid-P, metazachlor, metolachlor, metolachlor-S, pethoxamid, pretilachlor, propachlor, propisochlor and thenylchlor, oxyacetanilides such as flufenacet and mefenacet, acetanilides such as diphenamid, naproanilide and napropamide, tetrazolinones such fentrazamide, and other herbicides such as anilofos, cafenstrole, fenoxasulfone, ipfencarbazone, piperophos, pyroxasulfone and

isoxazoline compounds of the formula II,



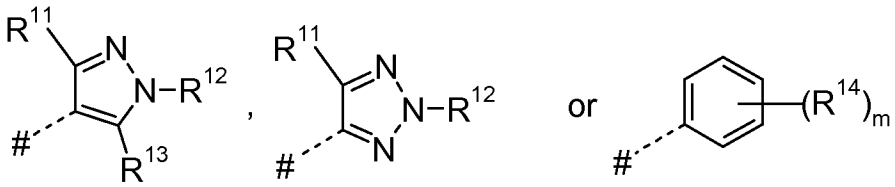
(II)

wherein R^7, R^8, R^9, R^{10}, W, Z and n have the following meanings:
R^7, R^8, R^9, R^{10} independently of one another hydrogen, halogen or C_1-C_4-alkyl;
X oxygen or NH;
Y phenyl or monocyclic 5-, 6-, 7-, 8-, 9- or 10-membered heterocyclyl containing, in addition to carbon ring members one, two or three same or different heteroatoms selected from oxygen, nitrogen and sulfur as ring members, wherein phenyl and heterocyclyl are unsubstituted or carry 1, 2 or 3 substituents R^{yy} selected from halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkyl and C_1-C_4-haloalkoxy;
preferably phenyl or 5- or 6-membered aromatic heterocyclyl (hetaryl) which contains, in addition to carbon ring members, one, two or three nitrogen atoms as ring members, wherein phenyl and hetaryl are unsubstituted or carry 1, 2 or 3 substituents R^{yy} ; and
n zero or one;

among the isoxazoline compounds of the formula II, preference is given to isoxazoline compounds of the formula II, wherein
R^7, R^8, R^9, R^{10} independently of one another are H, F, Cl or methyl;
X is oxygen;

n is 0 or 1; and

Y is phenyl, pyrazolyl or 1,2,3-triazolyl, wherein the three last-mentioned radicals are unsubstituted or carry one, two or three substituents R^{yy}, especially one of the following radicals



wherein

R^{11} is halogen, C_1-C_4-alkyl or C_1-C_4-haloalkyl;

R^{12} is C_1-C_4-alkyl;

R^{13} is halogen, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy;

R^{14} is halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl or C_1-C_4-haloalkoxy;

m is 0, 1, 2 or 3; and

denotes the point of attachment to the group $CR^{13}R^{14}$;

among the isoxazoline compounds of the formula II, particular preference is given to those isoxazoline compounds of the formula II, wherein

R^7 is hydrogen;

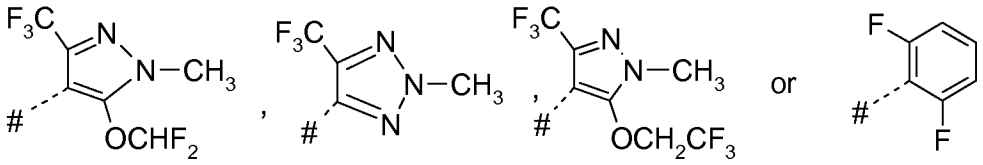
R^8 is fluorine;

R^9 is hydrogen or fluorine;

R^{10} is hydrogen or fluorine;

X is oxygen;

Y is one of the radicals of the formulae Y^1, Y^2, Y^3 or Y^4

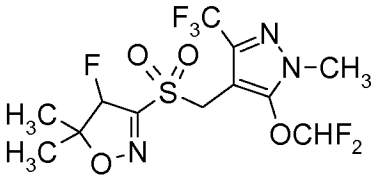


Y^1 Y^2 Y^3 Y^4

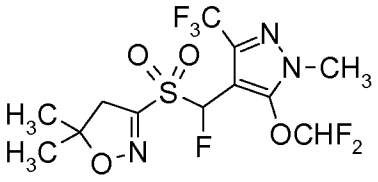
wherein # denotes the point of attachment to the group CR^9R^{10};

n is zero or 1, in particular 1; and

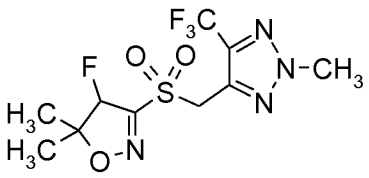
among these, especially prefered are the isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9



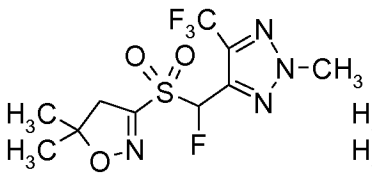
II.1



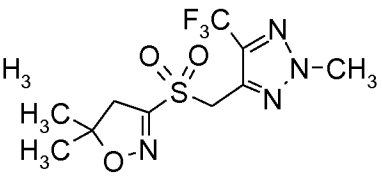
II.2



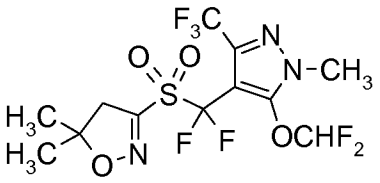
II.3



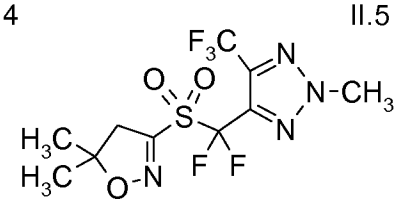
II.4



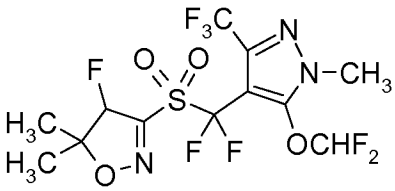
II.5



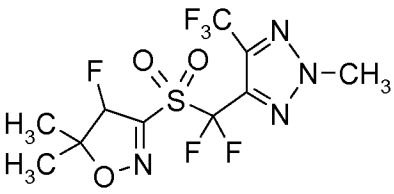
II.6



II.7



II.8

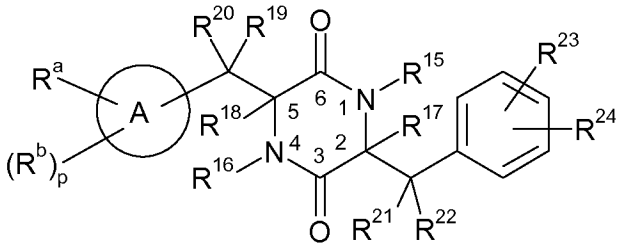


II.9

the isoxazoline compounds of the formula II are known in the art, e.g. from WO 2006/024820, WO 2006/037945, WO 2007/071900 and WO 2007/096576;

among the VLCFA inhibitors, preference is given to chloroacetamides and oxyacetamides, especially to pyroxasulfone;

b11) from the group of the cellulose biosynthesis inhibitors:
chlorthiamid, dichlobenil, flupoxam, isoxaben, 1-Cyclohexyl-5-pentafluorphenyloxy-1^4-[1,2,4,6]thiatriazin-3-ylamine and piperazine compounds of formula III,



III,

in which

A is phenyl or pyridyl where R^a is attached in the ortho-position to the point of attachment of A to a carbon atom;

R^a is CN, NO_2, C_1-C_4-alkyl, D-C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, O-D-C_3-C_6-cycloalkyl, $S(O)_qR^y$, C_2-C_6-alkenyl, D-C_3-C_6-cycloalkenyl, C_3-C_6-alkenyloxy, C_2-C_6-alkynyl, C_3-C_6-alkynyloxy, NR^AR^B, tri-C_1-C_4-alkylsilyl, D-C(=O)-R^{a1}, D-P(=O)(R^{a1})$_2$, phenyl, naphthyl, a 3- to 7-membered monocyclic or 9- or 10-membered bicyclic saturated, unsaturated or aromatic heterocycle which is attached

via carbon or nitrogen, which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, and which may be partially or fully substituted by groups R^{aa} and/or R^{a1}, and, if R^a is attached to a carbon atom, additionally halogen;

R^y is C_1-C_6-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, NR^AR^B or C_1-C_4-haloalkyl and q is 0, 1 or 2;

R^A,R^B independently of one another are hydrogen, C_1-C_6-alkyl, C_3-C_6-alkenyl and C_3-C_6-alkynyl; together with the nitrogen atom to which they are attached, R^A,R^B may also form a five- or six-membered saturated, partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be substituted by 1 to 3 groups R^{aa};

D is a covalent bond, C_1-C_4-alkylene, C_2-C_6-alkenyl or C_2-C_6-alkynyl;

R^{a1} is hydrogen, OH, C_1-C_8-Alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_8-alkenyl, C_5-C_6-cycloalkenyl, C_2-C_8-alkynyl, C_1-C_6-alkoxy, C_1-C_4-haloalkoxy, C_3-C_8-alkenyloxy, C_3-C_8-alkynyloxy, NR^AR^B, C_1-C_6-alkoxyamino, C_1-C_6-alkylsulfonylamino, C_1-C_6-alkylaminosulfonylamino, [di-(C_1-C_6)alkylamino]sulfonylamino, C_3-C_6-alkenylamino, C_3-C_6-alkynylamino, N-(C_2-C_6-alkenyl)-N-(C_1-C_6-alkyl)amino, N-(C_2-C_6-alkynyl)-N-(C_1-C_6-alkyl)amino, N-(C_1-C_6-alkoxy)-N-(C_1-C_6-alkyl)amino, N-(C_2-C_6-alkenyl)-N-(C_1-C_6-alkoxy)amino, N-(C_2-C_6-alkynyl)-N-(C_1-C_6-alkoxy)-amino, C_1-C_6-alkylsulfonyl, tri-C_1-C_4-alkylsilyl, phenyl, phenoxy, phenylamino or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa};

R^{aa} is halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, $S(O)_qR^y$, D-C(=O)-R^{a1} and tri-C_1-C_4-alkylsilyl;

R^b independently of one another are hydrogen, CN, NO_2, halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, benzyl or $S(O)_qR^y$,

R^b together with the group R^a or R^b attached to the adjacent ring atom may also form a five- or six-membered saturated or partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be partially or fully substituted by R^{aa};

p is 0, 1, 2 or 3;

R^{15} is hydrogen, OH, CN, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, $C(=O)R^{25}$, CON-R^AR^B, phenyl or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic aromatic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are attached via D^1 and are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa}, and also the following partially or fully R^{aa}-substituted groups: C_1-C_4-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, C_1-C_4-

alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, $C(=O)R^{25}$, $CONR^AR^B$;

preferably is hydrogen, OH, CN, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, $C(=O)R^{25}$, $CONR^AR^B$, phenyl or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic aromatic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are attached via D^1 and are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa}, and also the following partially or fully R^{aa}-substituted groups: C_1-C_4-alkyl, C_3-C_4-alkenyl and C_3-C_4-alkynyl;

R^{25} is hydrogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy;

D^1 is carbonyl or a group D;

where in groups R^{15}, R^a and their sub-substituents the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa} and/or R^{a1};

R^{16} is C_1-C_4-alkyl, C_3-C_4-alkenyl or C_3-C_4-alkynyl;

R^{17} is OH, NH_2, C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_3-C_6-alkenyl, C_3-C_6-alkynyl, C_1-C_4-hydroxyalkyl, C_1-C_4-cyanoalkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy-C_1-C_4-alkyl or $C(=O)R^{25}$;

R^{18} is hydrogen, halogen, C_1-C_4-alkyl or C_1-C_4-haloalkyl, or R^{18} and R^{19} together are a covalent bond;

R^{19}, R^{20}, R^{21}, R^{21} independently of one another are hydrogen, halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and C_3-C_6-cycloalkynyl;

R^{23}, R^{24} independently of one another are hydrogen, halogen, OH, haloalkyl, NR^AR^B, $NR^AC(O)R^{26}$, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, O-$C(O)R^{26}$, phenoxy or benzyloxy, where in groups R^{23} and R^{24} the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa};

R^{26} is C_1-C_4-alkyl or NR^AR^B;

among the isoxazoline compounds of the piperazin compounds of formula III, preference is given to the piperazine compounds of the formula III, wherein

A is phenyl or pyridyl where R^a is attached in the ortho-position to the point of attachment of A to a carbon atom;

R^a is CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy or D-$C(=O)$-R^{a1};

R^y is C_1-C_6-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, NR^AR^B or C_1-C_4-haloalkyl and q is 0, 1 or 2;

R^A,R^B independently of one another are hydrogen, C_1-C_6-alkyl, C_3-C_6-alkenyl and C_3-C_6-alkynyl; together with the nitrogen atom to which they are attached, R^A,R^B may also form a five- or six-membered saturated, partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3

heteroatoms selected from the group consisting of O, N and S, which ring may be substituted by 1 to 3 groups R^{aa};

D is a covalent bond or C_1-C_4-alkylene;

R^{a1} is hydrogen, OH, C_1-C_8-Alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl;

R^{aa} is halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, $S(O)_qR^y$, D-C(=O)-R^{a1} and tri-C_1-C_4-alkylsilyl;

R^b independently of one another is CN, NO_2, halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, benzyl or $S(O)_qR^y$,

R^b together with the group R^a or R^b attached to the adjacent ring atom may also form a five- or six-membered saturated or partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be partially or fully substituted by R^{aa};

p is 0 or 1;

R^{15} is hydrogen, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy or C(=O)R^{25}, which can be partially or fully substituted by R^{aa}-groups;

preferably is hydrogen, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy or C(=O)R^{25};

R^{25} is hydrogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy;

where in groups R^{15}, R^a and their sub-substituents the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa} and/or R^{a1};

R^{16} is C_1-C_4-alkyl;

R^{17} is OH, NH_2, C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl or C(=O)R^{25};

R^{18} is hydrogen, or R^{18} and R^{19} together are a covalent bond;

R^{19}, R^{20}, R^{21}, R^{21} independently of one another are hydrogen;

R^{23}, R^{24} independently of one another are hydrogen, halogen or OH;

b12) from the group of the decoupler herbicides:
dinoseb, dinoterb and DNOC and its salts;

b13) from the group of the auxin herbicides:
2,4-D and its salts and esters, 2,4-DB and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, benazolin, benazolin-ethyl, chloramben and its salts and esters, clomeprop, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr, fluroxypyr-butometyl, fluroxypyr-meptyl, MCPA and its salts and esters, MCPA-thioethyl, MCPB and its salts and esters, mecoprop and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, TBA (2,3,6) and its salts and esters, triclopyr and its salts and esters, and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr, diflufenzopyr-sodium, naptalam and naptalam-sodium;

b15) from the group of the other herbicides: bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

Preferred herbicides B which can be used in combination with the composition A according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors:
clethodim, clodinafop-propargyl, cycloxydim, cyhalofop-butyl, diclofop-methyl, fenoxaprop-P-ethyl, fluazifop-P-butyl, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim, tralkoxydim, benfuresate, dimepiperate, EPTC, esprocarb, ethofumesate, molinate, orbencarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors:
amidosulfuron, azimsulfuron, bensulfuron-methyl, bispyribac-sodium, chlorimuron-ethyl, chlorsulfuron, cloransulam-methyl, cyclosulfamuron, diclosulam, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, florasulam, flucarbazone-sodium, flucetosulfuron, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron-methyl, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, metosulam, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, penoxsulam, primisulfuron-methyl, propoxycarbazon-sodium, propyrisulfuron, prosulfuron, pyrazosulfuron-ethyl, pyribenzoxim, pyrimisulfan, pyriftalid, pyriminobac-methyl, pyrithiobac-sodium, pyroxsulam, rimsulfuron, sulfometuron-methyl, sulfosulfuron, thiencarbazone-methyl, thifensulfuron-methyl, triasulfuron, tribenuron-methyl, trifloxysulfuron, triflusulfuron-methyl and tritosulfuron;

b3) from the group of the photosynthesis inhibitors:
ametryn, amicarbazone, atrazine, bentazone, bentazone-sodium, bromoxynil and its salts and esters, chloridazone, chlorotoluron, cyanazine, desmedipham, diquat-dibromide, diuron, fluometuron, hexazinone, ioxynil and its salts and esters, isoproturon, lenacil, linuron, metamitron, methabenzthiazuron, metribuzin, paraquat, paraquat-dichloride, phenmedipham, propanil, pyridate, simazine, terbutryn, terbuthylazine and thidiazuron;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:

acifluorfen-sodium, bencarbazone, benzfendizone, butafenacil, carfentrazone-ethyl, cinidon-ethyl, flufenpyr-ethyl, flumiclorac-pentyl, flumioxazin, fluoroglycofen-ethyl, fomesafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, pyraflufen-ethyl, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 45100-03-7) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides:
aclonifen, beflubutamid, benzobicyclon, clomazone, diflufenican, flurochloridone, flurtamone, isoxaflutole, mesotrione, norflurazon, picolinafen, pyrasulfotole, pyrazolynate, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, 4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7), amitrole and flumeturon;

b6) from the group of the EPSP synthase inhibitors:
glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors:
glufosinate, glufosinate-P, glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors: asulam;

b9) from the group of the mitose inhibitors:
benfluralin, dithiopyr, ethalfluralin, oryzalin, pendimethalin, thiazopyr and trifluralin;

b10) from the group of the VLCFA inhibitors:
acetochlor, alachlor, anilofos, butachlor, cafenstrole, dimethenamid, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, naproanilide, napropamide, pretilachlor, fenoxasulfone, ipfencarbazone, pyroxasulfone thenylchlor and isoxazoline-compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: dichlobenil, flupoxam, isoxaben, 1-Cyclohexyl-5-pentafluorphenyloxy-1^4-[1,2,4,6]thiatriazin-3-ylamine and the piperazine compounds of formula III as mentioned above;

b13) from the group of the auxin herbicides:

2,4-D and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr-meptyl, MCPA and its salts and esters, MCPB and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, triclopyr and its salts and esters, and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyr-sodium;

b15) from the group of the other herbicides: bromobutide, cinmethylin, cumyluron, dalapon, difenzoquat, difenzoquat-metilsulfate, DSMA, dymron (= daimuron), flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, indanofan, indaziflam, metam, methylbromide, MSMA, oxaziclomefone, pyributicarb, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

Particularly preferred herbicides B which can be used in combination with the composition A according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors: clodinafop-propargyl, cycloxydim, cyhalofop-butyl, fenoxaprop-P-ethyl, pinoxaden, profoxydim, tepraloxydim, tralkoxydim, esprocarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors: bensulfuron-methyl, bispyribac-sodium, cyclosulfamuron, diclosulam, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, nicosulfuron, penoxsulam, propoxycarbazon-sodium, pyrazosulfuron-ethyl, pyroxsulam, rimsulfuron, sulfosulfuron, thiencarbazon-methyl and tritosulfuron;

b3) from the group of the photosynthesis inhibitors: ametryn, atrazine, diuron, fluometuron, hexazinone, isoproturon, linuron, metribuzin, paraquat, paraquat-dichloride, propanil, terbutryn and terbuthylazine;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors: flumioxazin, oxyfluorfen, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides: clomazone, diflufenican, flurochloridone, isoxaflutole, mesotrione, picolinafen, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, amitrole and flumeturon;

b6) from the group of the EPSP synthase inhibitors: glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors: glufosinate, glufosinate-P and glufosinate-ammonium;

b9) from the group of the mitose inhibitors: pendimethalin and trifluralin;

b10) from the group of the VLCFA inhibitors: acetochlor, cafenstrole, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, fenoxasulfone, ipfencarbazone and pyroxasulfone; likewise, preference is given to isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: isoxaben and the piperazine compounds of formula III as mentioned above;

b13) from the group of the auxin herbicides: 2,4-D and its salts and esters, aminopyralid and its salts and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, fluroxypyr-meptyl, quinclorac, quinmerac and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyr-sodium,

b15) from the group of the other herbicides: dymron (= daimuron), indanofan, indaziflam, oxaziclomefone and triaziflam.

Moreover, it may be useful to apply the composition A in combination with safeners. Safeners are chemical compounds which prevent or reduce damage on useful plants without having a major impact on the herbicidal action of the composition A towards unwanted plants. They can be applied either before sowings (e.g. on seed treatments, shoots or seedlings) or in the preemergence application or post-emergence application of the useful plant. The safeners and the composition A can be applied simultaneously or in succession.

Furthermore, the safeners C, the composition A and/or the herbicides B can be applied simultaneously or in succession.

Suitable safeners are e.g. (quinolin-8-oxy)acetic acids, 1-phenyl-5-haloalkyl-1H-1,2,4-triazol-3-carboxylic acids, 1-phenyl-4,5-dihydro-5-alkyl-1H-pyrazol-3,5-dicarboxylic acids, 4,5-dihydro-

5,5-diaryl-3-isoxazol carboxylic acids, dichloroacetamides, alpha-oximinophenylacetonitriles, acetophenonoximes, 4,6-dihalo-2-phenylpyrimidines, N-[[4-(aminocarbonyl)phenyl]sulfonyl]-2-benzoic amides, 1,8-naphthalic anhydride, 2-halo-4-(haloalkyl)-5-thiazol carboxylic acids, phosphorthiolates and N-alkyl-O-phenylcarbamates and their agriculturally acceptable salts and their agriculturally acceptable derivatives such amides, esters, and thioesters, provided they have an acid group.

Examples of preferred safeners C are benoxacor, cloquintocet, cyometrinil, cyprosulfamide, dichlormid, dicyclonon, dietholate, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, mephenate, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

Especially preferred safeners C are benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

Particularly preferred safeners C are benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro-[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

The active compounds B of groups b1) to b15) and the active compounds C are known herbicides and safeners, see, for example, The Compendium of Pesticide Common Names (http://www.alanwood.net/pesticides/); Farm Chemicals Handbook 2000 volume 86, Meister Publishing Company, 2000; B. Hock, C. Fedtke, R. R. Schmidt, Herbizide [Herbicides], Georg Thieme Verlag, Stuttgart 1995; W. H. Ahrens, Herbicide Handbook, 7th edition, Weed Science Society of America, 1994; and K. K. Hatzios, Herbicide Handbook, Supplement for the 7th edition, Weed Science Society of America, 1998. 2,2,5-Trimethyl-3-(dichloroacetyl)-1,3-oxazolidine [CAS No. 52836-31-4] is also referred to as R-29148. 4-(Dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane [CAS No. 71526-07-3] is also referred to as AD-67 and MON 4660. Further herbicidal compounds are known from WO 96/26202, WO 97/41116, WO 97/41117, WO 97/41118 and WO 01/83459 and also from W. Krämer et al. (ed.) "Modern Crop Protection Compounds", Vol. 1, Wiley VCH, 2007 and the literature cited therein.

The assignment of the active compounds to the respective mechanisms of action is based on current knowledge. If several mechanisms of action apply to one active compound, this substance was only assigned to one mechanism of action.

If the herbicides B and/or the safener C are capable of forming geometrical isomers, for example E/Z isomers, both the pure isomers and mixtures thereof may be used in the combinations according to the invention. If the herbicides B and/or the safener C have one of more centers of chirality and are thus present as enantiomers or diastereomers, both the pure enantiomers and diastereomers and mixtures thereof may be used in the combinations according to the invention.

If the herbicides B and/or the safener C have ionizable functional groups, they can also be employed in the form of their agriculturally acceptable salts. Suitable are, in general, the salts of those cations and the acid addition salts of those acids whose cations and anions, respectively, have no adverse effect on the activity of the active compounds.

Preferred cations are the ions of the alkali metals, preferably of lithium, sodium and potassium, of the alkaline earth metals, preferably of calcium and magnesium, and of the transition metals, preferably of manganese, copper, zinc and iron, further ammonium and substituted ammonium in which one to four hydrogen atoms are replaced by C_1-C_4-alkyl, hydroxy-C_1-C_4-alkyl, C_1-C_4-alkoxy-C_1-C_4-alkyl, hydroxy-C_1-C_4-alkoxy-C_1-C_4-alkyl, phenyl or benzyl, preferably ammonium, methylammonium, isopropylammonium, dimethylammonium, diisopropylammonium, trimethylammonium, tetramethylammonium, tetraethylammonium, tetrabutylammonium, 2-hydroxyethylammonium, 2-(2-hydroxyeth-1-oxy)eth-1-ylammonium, di(2-hydroxyeth-1-yl)-ammonium, benzyltrimethylammonium, benzyltriethylammonium, furthermore phosphonium ions, sulfonium ions, preferably tri(C_1-C_4-alkyl)sulfonium, such as trimethylsulfonium, and sulfoxonium ions, preferably tri(C_1-C_4-alkyl)sulfoxonium.

Anions of useful acid addition salts are primarily chloride, bromide, fluoride, iodide, hydrogensulfate, methylsulfate, sulfate, dihydrogenphosphate, hydrogenphosphate, nitrate, bicarbonate, carbonate, hexafluorosilicate, hexafluorophosphate, benzoate and also the anions of C_1-C_4-alkanoic acids, preferably formate, acetate, propionate and butyrate.

Active compounds B and C having a carboxyl group can be employed in the form of the acid, in the form of an agriculturally suitable salt or else in the form of an agriculturally acceptable derivative in the combinations according to the invention, for example as amides, such as mono- and di-C_1-C_6-alkylamides or arylamides, as esters, for example as allyl esters, propargyl esters, C_1-C_{10}-alkyl esters, alkoxyalkyl esters and also as thioesters, for example as C_1-C_{10}-alkylthio esters. Preferred mono- and di-C_1-C_6-alkylamides are the methyl and the dimethylamides. Preferred arylamides are, for example, the anilides and the 2-chloroanilides. Preferred alkyl esters are, for example, the methyl, ethyl, propyl, isopropyl, butyl, isobutyl, pentyl, mexyl (1-methylhexyl) or isooctyl (2-ethylhexyl) esters. Preferred C_1-C_4-alkoxy-C_1-C_4-alkyl esters are the straight-chain or branched C_1-C_4-alkoxy ethyl esters, for example the methoxyethyl, ethoxyethyl or butoxyethyl ester. An example of a straight-chain or branched C_1-C_{10}-alkylthio ester is the ethylthio ester.

According to a preferred embodiment of the invention, the herbicidal combination comprises as herbicidal active compound B or component B, at least one, preferably exactly one herbicide B.

According to another preferred embodiment of the invention, the herbicidal combination comprises as herbicidal active compound B or component B, at least two, preferably exactly two herbicides B different from each other.

According to another preferred embodiment of the invention, the herbicidal combination comprises as herbicidal active compound B or component B, at least three, preferably exactly three herbicides B different from each other.

According to another preferred embodiment of the invention, the herbicidal combination comprises as safening component C at least one, preferably exactly one safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component B, at least one, preferably exactly one herbicide B, and at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component B, preferably exactly two herbicides B different from each other, and at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component B, at least three, preferably exactly three herbicides B different from each other, and at least one, preferably exactly one, safener C.

According to a another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, and as component B, at least one, preferably exactly one herbicide B.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, and as component B, at least two, preferably exactly two herbicides B different from each other.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, and as component B, at least three, preferably exactly three herbicides B different from each other.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, and as component C at least one, preferably exactly one safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, as component B at least one, preferably exactly one herbicide B, and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, as component B preferably exactly two herbicides B different from each other, and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the herbicidal combination comprises as component A the composition A, wherein the particles of benzoxazinone (I) are in a crystalline form, more preferably in form A, and as component B, at least three, preferably exactly three herbicides B different from each other, and as component C at least one, preferably exactly one, safener C.

A first preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b1), in particular selected from the group consisting of clodinafop-propargyl, cycloxydim, cyhalofop-butyl, fenoxaprop-P-ethyl, pinoxaden, profoxydim, tepraloxydim, tralkoxydim, esprocarb, prosulfocarb, thiobencarb and triallate.

A second preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b2), in particular selected from the group consisting of bensulfuron-methyl, bispyribac-sodium, cyclosulfamuron, diclosulam, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, nicosulfuron, penoxsulam, propoxycarbazon-sodium, pyrazosulfuron-ethyl, pyroxsulam, rimsulfuron, sulfosulfuron, thiencarbazon-methyl and tritosulfuron.

A third preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b3), in particular selected from the group consisting of ametryn, atrazine, diuron, fluometuron, hexazinone, isoproturon, linuron, metribuzin, paraquat, paraquat-dichloride, propanil, terbutryn and terbuthylazine.

A fourth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b4), in particular selected from the group consisting of flumioxazin, oxyfluorfen, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione.

A fifth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b5), in particular selected from the group consisting of clomazone, diflufenican, flurochloridone, isoxaflutole, mesotrione, picolinafen, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, amitrole and flumeturon.

A sixth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b6), in particular selected from the group consisting of glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate).

A seventh preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b7), in particular selected from the group consisting of glufosinate, glufosinate-P and glufosinate-ammonium.

An eighth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b9), in particular selected from the group consisting of pendimethalin and trifluralin.

A ninth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b10), in particular selected from the group consisting of acetochlor, cafenstrole, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, fenoxasulfone and pyroxasulfone. Likewise, preference is given to combinations comprising in addition to the composition A, at least one and especially exactly one herbicidal compound from group b10), in particular selected from the group consisting of isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9, as defined above.

A tenth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b11), in particular isoxaben. Likewise, preference is given to combinations comprising in addition to the composition A, at least one and especially exactly one herbicidal compound from group b10), in particular selected from the group consisting of piperazine compounds of formula III as defined above.

An eleventh preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b13), in particular selected from the group consisting of

2,4-D and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, fluroxypyr-meptyl, quinclorac, quinmerac and aminocyclopyrachlor and its salts and esters.

A twelfth preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b14), in particular selected from the group consisting of diflufenzopyr and diflufenzopyr-sodium.

A 13th preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition to the composition A, at least one and especially exactly one herbicidal compound from group b15), in particular selected from the group consisting of dymron (= daimuron), indanofan, indaziflam, oxaziclomefone and triaziflam.

A 14th preferred embodiment of the invention relates to herbicidal combinations according to the invention comprising, in addition the composition A, at least one and especially exactly one herbicidal compound from the safeners C, in particular selected from the group consisting of benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

Further preferred embodiments relate to ternary herbicidal combinations which correspond to the binary herbicidal combinations of embodiments 1 to 14 and additionally comprise a safener C, in particular selected from the group consisting of benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

Here and below, the term “binary herbicidal combinations” includes herbicidal combinations comprising the composition A and one or more, for example 1, 2 or 3, herbicides B or one or more safeners.
Correspondingly, the term “ternary herbicidal combinations” includes herbicidal combinations comprising the composition A, one or more, for example 1, 2 or 3, herbicides B and one or more, for example 1, 2 or 3, safeners C.

In binary herbicidal combinations comprising the composition A as component A and at least one herbicide B, the weight ratio of the active components A:B is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

In binary herbicidal combinations comprising the composition A as component A and at least one safener C, the weight ratio of the active components A:C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

In ternary herbicidal combinations comprising the composition A as component A, at least one herbicide B and at least one safener C, the relative proportions by weight of the components A:B are generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1, the weight ratio of the components A:C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1, and the weight ratio of the components B:C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1. The weight ratio of components A + B to component C is preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

Particularly preferred herbicides B are the herbicides B as defined above; in particular the herbicides B.1 - B.141 listed below in table B:

Table B:

	Herbicide B
B.1	clethodim
B.2	clodinafop-propargyl
B.3	cycloxydim
B.4	cyhalofop-butyl
B.5	fenoxaprop-P-ethyl
B.6	metamifop
B.7	pinoxaden
B.8	profoxydim
B.9	sethoxydim
B.10	tepraloxydim
B.11	tralkoxydim
B.12	esprocarb
B.13	ethofumesate
B.14	molinate
B.15	prosulfocarb
B.16	thiobencarb
B.17	triallate

	Herbicide B
B.18	bensulfuron-methyl
B.19	bispyribac-sodium
B.20	cloransulam
B.21	chlorsulfuron
B.22	clorimuron
B.23	cyclosulfamuron
B.24	diclosulam
B.25	florasulam
B.26	flumetsulam
B.27	flupyrsulfuron-methyl-sodium
B.28	foramsulfuron
B.29	imazamox
B.30	imazapic
B.31	imazapyr
B.32	imazaquin
B.33	imazethapyr
B.34	imazosulfuron

	Herbicide B
B.35	iodosulfuron-methyl-sodium
B.36	mesosulfuron
B.37	metazosulfuron
B.38	metsulfuron
B.39	metosulam
B.40	nicosulfuron
B.41	penoxsulam
B.42	propoxycarbazon-sodium
B.43	pyrazosulfuron-ethyl
B.44	pyribenzoxim
B.45	pyriftalid
B.46	pyroxsulam
B.47	rimsulfuron
B.48	sulfosulfuron
B.49	thiencarbazone-methyl
B.50	thifensulfuron
B.51	tribenuron
B.52	tritosulfuron
B.53	ametryne
B.54	atrazine
B.55	bentazon
B.56	bromoxynil
B.57	diuron
B.58	fluometuron
B.59	hexazinone
B.60	isoproturon
B.61	linuron
B.62	metamitron
B.63	metribuzin
B.64	propanil
B.65	simazin
B.66	terbuthylazine
B.67	terbutryn
B.68	paraquat-dichloride
B.69	acifluorfen
B.70	butafenacil
B.71	carfentrazone-ethyl
B.72	flumioxazin
B.73	fomesafen
B.74	oxadiargyl
B.75	oxyfluorfen

	Herbicide B
B.76	saflufenacil
B.77	sulfentrazone
B.78	ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6)
B.79	3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione
B.80	benzobicyclon
B.81	clomazone
B.82	diflufenican
B.83	flurochloridone
B.84	isoxaflutole
B.85	mesotrione
B.86	norflurazone
B.87	picolinafen
B.88	sulcotrione
B.89	tefuryltrione
B.90	tembotrione
B.91	topramezone
B.92	bicyclopyrone
B.93	amitrole
B.94	fluometuron
B.95	glyphosate
B.96	glyphosate-isopropylammonium
B.97	glyphosate-trimesium (sulfosate)
B.98	glufosinate
B.99	glufosinate-P
B.100	glufosinate-ammonium
B.101	pendimethalin
B.102	trifluralin
B.103	acetochlor
B.104	butachlor
B.105	cafenstrole
B.106	dimethenamid-P
B.107	fentrazamide
B.108	flufenacet

	Herbicide B
B.109	mefenacet
B.110	metazachlor
B.111	metolachlor
B.112	S-metolachlor
B.113	pretilachlor
B.114	fenoxasulfone
B.115	isoxaben
B.116	pyroxasulfone
B.117	2,4-D
B.118	aminopyralid
B.119	clopyralid
B.120	dicamba
B.121	fluroxypyr-meptyl
B.122	MCPA
B.123	quinclorac
B.124	quinmerac
B.125	aminocyclopyrachlor

	Herbicide B
B.126	diflufenzopyr
B.127	diflufenzopyr-sodium
B.128	dymron
B.129	indanofan
B.130	indaziflam
B.131	oxaziclomefone
B.132	triaziflam
B.133	II.1
B.134	II.2
B.135	II.3
B.136	II.4
B.137	II.5
B.138	II.6
B.139	II.7
B.140	II.8
B.141	II.9

Particularly preferred safeners C, which, as component C, are constituent of the herbicidal combinations according to the invention are the safeners C as defined above; in particular the safeners C.1 - C.12 listed below in table C:

Table C

	Safener C
C.1	benoxacor
C.2	cloquintocet
C.3	cyprosulfamide
C.4	dichlormid
C.5	fenclorim
C.6	fenchlorazole
C.7	furilazole
C.8	isoxadifen
C.9	mefenpyr
C.10	4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3)
C.11	2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4)
C.12	naphtalic acid anhydride

The weight ratios of the individual components in the preferred herbicidal combinations mentioned below are within the limits given above, in particular within the preferred limits.

Particularly preferred are the herbicidal combinations mentioned below, comprising the composition A as defined and the substance(s) as defined in the respective row of table 1;
especially preferred comprising as only herbicidal active compounds the composition A as defined and the substance(s) as defined in the respective row of table 1;
most preferably comprising as only active compounds the composition A as defined and the substance(s) as defined in the respective row of table 1.

Particularly preferred are the herbicidal combinations 1.1 to 1.1833 comprising the composition A and the substance(s) as defined in the respective row of table 1:

Table 1(herbicidal combinations 1.1 to 1.1833):

comp. no.	herbicide B	safener C
1.1	B.1	--
1.2	B.2	--
1.3	B.3	--
1.4	B.4	--
1.5	B.5	--
1.6	B.6	--
1.7	B.7	--
1.8	B.8	--
1.9	B.9	--
1.10	B.10	--
1.11	B.11	--
1.12	B.12	--
1.13	B.13	--
1.14	B.14	--
1.15	B.15	--
1.16	B.16	--
1.17	B.17	--
1.18	B.18	--
1.19	B.19	--
1.20	B.20	--
1.21	B.21	--
1.22	B.22	--
1.23	B.23	--
1.24	B.24	--
1.25	B.25	--
1.26	B.26	--
1.27	B.27	--
1.28	B.28	--
1.29	B.29	--
1.30	B.30	--
1.31	B.31	--
1.32	B.32	--
1.33	B.33	--
1.34	B.34	--
1.35	B.35	--
1.36	B.36	--
1.37	B.37	--
1.38	B.38	--
1.39	B.39	--
1.40	B.40	--
1.41	B.41	--
1.42	B.42	--
1.43	B.43	--
1.44	B.44	--
1.45	B.45	--
1.46	B.46	--
1.47	B.47	--
1.48	B.48	--
1.49	B.49	--
1.50	B.50	--
1.51	B.51	--
1.52	B.52	--
1.53	B.53	--
1.54	B.54	--
1.55	B.55	--
1.56	B.56	--
1.57	B.57	--
1.58	B.58.	--
1.59	B.59	--
1.60	B.60	--
1.61	B.61	--
1.62	B.62	--
1.63	B.63	--
1.64	B.64	--
1.65	B.65	--
1.66	B.66	--
1.67	B.67	--
1.68	B.68	--
1.69	B.69	--
1.70	B.70	--
1.71	B.71	--
1.72	B.72	--
1.73	B.73	--
1.74	B.74	--
1.75	B.75	--
1.76	B.76	--
1.77	B.77	--
1.78	B.78	--

comp. no.	herbicide B	safener C
1.79	B.79	--
1.80	B.80	--
1.81	B.81	--
1.82	B.82	--
1.83	B.83	--
1.84	B.84	--
1.85	B.85	--
1.86	B.86	--
1.87	B.87	--
1.88	B.88	--
1.89	B.89	--
1.90	B.90	--
1.91	B.91	--
1.92	B.92	--
1.93	B.93	--
1.94	B.94	--
1.95	B.95	--
1.96	B.96	--
1.97	B.97	--
1.98	B.98	--
1.99	B.99	--
1.100	B.100	--
1.101	B.101	--
1.102	B.102	--
1.103	B.103	--
1.104	B.104	--
1.105	B.105	--
1.106	B.106	--
1.107	B.107	--
1.108	B.108	--
1.109	B.109	--
1.110	B.110	--
1.111	B.111	--
1.112	B.112	--
1.113	B.113	--
1.114	B.114	--
1.115	B.115	--
1.116	B.116	--
1.117	B.117	--
1.118	B.118	--
1.119	B.119	--
1.120	B.120	--
1.121	B.121	--
1.122	B.122	--
1.123	B.123	--
1.124	B.124	--
1.125	B.125	--
1.126	B.126	--
1.127	B.127	--
1.128	B.128	--
1.129	B.129	--
1.130	B.130	--
1.131	B.131	--
1.132	B.132	--
1.133	B.133	--
1.134	B.134	--
1.135	B.135	--
1.136	B.136	--
1.137	B.137	--
1.138	B.138	--
1.139	B.139	
1.140	B.140	--
1.141	B.141	--
1.142	B.1	C.1
1.143	B.2	C.1
1.144	B.3	C.1
1.145	B.4	C.1
1.146	B.5	C.1
1.147	B.6	C.1
1.148	B.7	C.1
1.149	B.8	C.1
1.150	B.9	C.1
1.151	B.10	C.1
1.152	B.11	C.1
1.153	B.12	C.1
1.154	B.13	C.1
1.155	B.14	C.1
1.156	B.15	C.1
1.157	B.16	C.1
1.158	B.17	C.1
1.159	B.18	C.1
1.160	B.19	C.1
1.161	B.20	C.1
1.162	B.21	C.1
1.163	B.22	C.1
1.164	B.23	C.1
1.165	B.24	C.1
1.166	B.25	C.1
1.167	B.26	C.1
1.168	B.27	C.1
1.169	B.28	C.1
1.170	B.29	C.1
1.171	B.30	C.1
1.172	B.31	C.1
1.173	B.32	C.1
1.174	B.33	C.1
1.175	B.34	C.1
1.176	B.35	C.1
1.177	B.36	C.1
1.178	B.37	C.1
1.179	B.38	C.1
1.180	B.39	C.1
1.181	B.40	C.1
1.182	B.41	C.1
1.183	B.42	C.1
1.184	B.43	C.1
1.185	B.44	C.1
1.186	B.45	C.1
1.187	B.46	C.1
1.188	B.47	C.1
1.189	B.48	C.1
1.190	B.49	C.1
1.191	B.50	C.1
1.192	B.51	C.1
1.193	B.52	C.1
1.194	B.53	C.1
1.195	B.54	C.1

comp. no.	herbi-cide B	safe-ner C
1.196	B.55	C.1
1.197	B.56	C.1
1.198	B.57	C.1
1.199	B.58.	C.1
1.200	B.59	C.1
1.201	B.60	C.1
1.202	B.61	C.1
1.203	B.62	C.1
1.204	B.63	C.1
1.205	B.64	C.1
1.206	B.65	C.1
1.207	B.66	C.1
1.208	B.67	C.1
1.209	B.68	C.1
1.210	B.69	C.1
1.211	B.70	C.1
1.212	B.71	C.1
1.213	B.72	C.1
1.214	B.73	C.1
1.215	B.74	C.1
1.216	B.75	C.1
1.217	B.76	C.1
1.218	B.77	C.1
1.219	B.78	C.1
1.220	B.79	C.1
1.221	B.80	C.1
1.222	B.81	C.1
1.223	B.82	C.1
1.224	B.83	C.1
1.225	B.84	C.1
1.226	B.85	C.1
1.227	B.86	C.1
1.228	B.87	C.1
1.229	B.88	C.1
1.230	B.89	C.1
1.231	B.90	C.1
1.232	B.91	C.1
1.233	B.92	C.1
1.234	B.93	C.1
1.235	B.94	C.1
1.236	B.95	C.1
1.237	B.96	C.1
1.238	B.97	C.1
1.239	B.98	C.1
1.240	B.99	C.1
1.241	B.100	C.1
1.242	B.101	C.1
1.243	B.102	C.1
1.244	B.103	C.1
1.245	B.104	C.1
1.246	B.105	C.1
1.247	B.106	C.1
1.248	B.107	C.1
1.249	B.108	C.1
1.250	B.109	C.1
1.251	B.110	C.1
1.252	B.111	C.1
1.253	B.112	C.1
1.254	B.113	C.1
1.255	B.114	C.1
1.256	B.115	C.1
1.257	B.116	C.1
1.258	B.117	C.1
1.259	B.118	C.1
1.260	B.119	C.1
1.261	B.120	C.1
1.262	B.121	C.1
1.263	B.122	C.1
1.264	B.123	C.1
1.265	B.124	C.1
1.266	B.125	C.1
1.267	B.126	C.1
1.268	B.127	C.1
1.269	B.128	C.1
1.270	B.129	C.1
1.271	B.130	C.1
1.272	B.131	C.1
1.273	B.132	C.1
1.274	B.133	C.1
1.275	B.134	C.1
1.276	B.135	C.1
1.277	B.136	C.1
1.278	B.137	C.1
1.279	B.138	C.1
1.280	B.139	C.1
1.281	B.140	C.1
1.282	B.141	C.1
1.283	B.1	C.2
1.284	B.2	C.2
1.285	B.3	C.2
1.286	B.4	C.2
1.287	B.5	C.2
1.288	B.6	C.2
1.289	B.7	C.2
1.290	B.8	C.2
1.291	B.9	C.2
1.292	B.10	C.2
1.293	B.11	C.2
1.294	B.12	C.2
1.295	B.13	C.2
1.296	B.14	C.2
1.297	B.15	C.2
1.298	B.16	C.2
1.299	B.17	C.2
1.300	B.18	C.2
1.301	B.19	C.2
1.302	B.20	C.2
1.303	B.21	C.2
1.304	B.22	C.2
1.305	B.23	C.2
1.306	B.24	C.2
1.307	B.25	C.2
1.308	B.26	C.2
1.309	B.27	C.2
1.310	B.28	C.2
1.311	B.29	C.2
1.312	B.30	C.2

comp. no.	herbicide B	safener C
1.313	B.31	C.2
1.314	B.32	C.2
1.315	B.33	C.2
1.316	B.34	C.2
1.317	B.35	C.2
1.318	B.36	C.2
1.319	B.37	C.2
1.320	B.38	C.2
1.321	B.39	C.2
1.322	B.40	C.2
1.323	B.41	C.2
1.324	B.42	C.2
1.325	B.43	C.2
1.326	B.44	C.2
1.327	B.45	C.2
1.328	B.46	C.2
1.329	B.47	C.2
1.330	B.48	C.2
1.331	B.49	C.2
1.332	B.50	C.2
1.333	B.51	C.2
1.334	B.52	C.2
1.335	B.53	C.2
1.336	B.54	C.2
1.337	B.55	C.2
1.338	B.56	C.2
1.339	B.57	C.2
1.340	B.58.	C.2
1.341	B.59	C.2
1.342	B.60	C.2
1.343	B.61	C.2
1.344	B.62	C.2
1.345	B.63	C.2
1.346	B.64	C.2
1.347	B.65	C.2
1.348	B.66	C.2
1.349	B.67	C.2
1.350	B.68	C.2
1.351	B.69	C.2
1.352	B.70	C.2
1.353	B.71	C.2
1.354	B.72	C.2
1.355	B.73	C.2
1.356	B.74	C.2
1.357	B.75	C.2
1.358	B.76	C.2
1.359	B.77	C.2
1.360	B.78	C.2
1.361	B.79	C.2
1.362	B.80	C.2
1.363	B.81	C.2
1.364	B.82	C.2
1.365	B.83	C.2
1.366	B.84	C.2
1.367	B.85	C.2
1.368	B.86	C.2
1.369	B.87	C.2
1.370	B.88	C.2
1.371	B.89	C.2
1.372	B.90	C.2
1.373	B.91	C.2
1.374	B.92	C.2
1.375	B.93	C.2
1.376	B.94	C.2
1.377	B.95	C.2
1.378	B.96	C.2
1.379	B.97	C.2
1.380	B.98	C.2
1.381	B.99	C.2
1.382	B.100	C.2
1.383	B.101	C.2
1.384	B.102	C.2
1.385	B.103	C.2
1.386	B.104	C.2
1.387	B.105	C.2
1.388	B.106	C.2
1.389	B.107	C.2
1.390	B.108	C.2
1.391	B.109	C.2
1.392	B.110	C.2
1.393	B.111	C.2
1.394	B.112	C.2
1.395	B.113	C.2
1.396	B.114	C.2
1.397	B.115	C.2
1.398	B.116	C.2
1.399	B.117	C.2
1.400	B.118	C.2
1.401	B.119	C.2
1.402	B.120	C.2
1.403	B.121	C.2
1.404	B.122	C.2
1.405	B.123	C.2
1.406	B.124	C.2
1.407	B.125	C.2
1.408	B.126	C.2
1.409	B.127	C.2
1.410	B.128	C.2
1.411	B.129	C.2
1.412	B.130	C.2
1.413	B.131	C.2
1.414	B.132	C.2
1.415	B.133	C.2
1.416	B.134	C.2
1.417	B.135	C.2
1.418	B.136	C.2
1.419	B.137	C.2
1.420	B.138	C.2
1.421	B.139	C.2
1.422	B.140	C.2
1.423	B.141	C.2
1.424	B.1	C.3
1.425	B.2	C.3
1.426	B.3	C.3
1.427	B.4	C.3
1.428	B.5	C.3
1.429	B.6	C.3

comp. no.	herbicide B	safener C
1.430	B.7	C.3
1.431	B.8	C.3
1.432	B.9	C.3
1.433	B.10	C.3
1.434	B.11	C.3
1.435	B.12	C.3
1.436	B.13	C.3
1.437	B.14	C.3
1.438	B.15	C.3
1.439	B.16	C.3
1.440	B.17	C.3
1.441	B.18	C.3
1.442	B.19	C.3
1.443	B.20	C.3
1.444	B.21	C.3
1.445	B.22	C.3
1.446	B.23	C.3
1.447	B.24	C.3
1.448	B.25	C.3
1.449	B.26	C.3
1.450	B.27	C.3
1.451	B.28	C.3
1.452	B.29	C.3
1.453	B.30	C.3
1.454	B.31	C.3
1.455	B.32	C.3
1.456	B.33	C.3
1.457	B.34	C.3
1.458	B.35	C.3
1.459	B.36	C.3
1.460	B.37	C.3
1.461	B.38	C.3
1.462	B.39	C.3
1.463	B.40	C.3
1.464	B.41	C.3
1.465	B.42	C.3
1.466	B.43	C.3
1.467	B.44	C.3
1.468	B.45	C.3
1.469	B.46	C.3
1.470	B.47	C.3
1.471	B.48	C.3
1.472	B.49	C.3
1.473	B.50	C.3
1.474	B.51	C.3
1.475	B.52	C.3
1.476	B.53	C.3
1.477	B.54	C.3
1.478	B.55	C.3
1.479	B.56	C.3
1.480	B.57	C.3
1.481	B.58.	C.3
1.482	B.59	C.3
1.483	B.60	C.3
1.484	B.61	C.3
1.485	B.62	C.3
1.486	B.63	C.3
1.487	B.64	C.3
1.488	B.65	C.3
1.489	B.66	C.3
1.490	B.67	C.3
1.491	B.68	C.3
1.492	B.69	C.3
1.493	B.70	C.3
1.494	B.71	C.3
1.495	B.72	C.3
1.496	B.73	C.3
1.497	B.74	C.3
1.498	B.75	C.3
1.499	B.76	C.3
1.500	B.77	C.3
1.501	B.78	C.3
1.502	B.79	C.3
1.503	B.80	C.3
1.504	B.81	C.3
1.505	B.82	C.3
1.506	B.83	C.3
1.507	B.84	C.3
1.508	B.85	C.3
1.509	B.86	C.3
1.510	B.87	C.3
1.511	B.88	C.3
1.512	B.89	C.3
1.513	B.90	C.3
1.514	B.91	C.3
1.515	B.92	C.3
1.516	B.93	C.3
1.517	B.94	C.3
1.518	B.95	C.3
1.519	B.96	C.3
1.520	B.97	C.3
1.521	B.98	C.3
1.522	B.99	C.3
1.523	B.100	C.3
1.524	B.101	C.3
1.525	B.102	C.3
1.526	B.103	C.3
1.527	B.104	C.3
1.528	B.105	C.3
1.529	B.106	C.3
1.530	B.107	C.3
1.531	B.108	C.3
1.532	B.109	C.3
1.533	B.110	C.3
1.534	B.111	C.3
1.535	B.112	C.3
1.536	B.113	C.3
1.537	B.114	C.3
1.538	B.115	C.3
1.539	B.116	C.3
1.540	B.117	C.3
1.541	B.118	C.3
1.542	B.119	C.3
1.543	B.120	C.3
1.544	B.121	C.3
1.545	B.122	C.3
1.546	B.123	C.3

comp. no.	herbi-cide B	safe-ner C
1.547	B.124	C.3
1.548	B.125	C.3
1.549	B.126	C.3
1.550	B.127	C.3
1.551	B.128	C.3
1.552	B.129	C.3
1.553	B.130	C.3
1.554	B.131	C.3
1.555	B.132	C.3
1.556	B.133	C.3
1.557	B.134	C.3
1.558	B.135	C.3
1.559	B.136	C.3
1.560	B.137	C.3
1.561	B.138	C.3
1.562	B.139	C.3
1.563	B.140	C.3
1.564	B.141	C.3
1.565	B.1	C.4
1.566	B.2	C.4
1.567	B.3	C.4
1.568	B.4	C.4
1.569	B.5	C.4
1.570	B.6	C.4
1.571	B.7	C.4
1.572	B.8	C.4
1.573	B.9	C.4
1.574	B.10	C.4
1.575	B.11	C.4
1.576	B.12	C.4
1.577	B.13	C.4
1.578	B.14	C.4
1.579	B.15	C.4
1.580	B.16	C.4
1.581	B.17	C.4
1.582	B.18	C.4
1.583	B.19	C.4
1.584	B.20	C.4
1.585	B.21	C.4
1.586	B.22	C.4
1.587	B.23	C.4
1.588	B.24	C.4
1.589	B.25	C.4
1.590	B.26	C.4
1.591	B.27	C.4
1.592	B.28	C.4
1.593	B.29	C.4
1.594	B.30	C.4
1.595	B.31	C.4
1.596	B.32	C.4
1.597	B.33	C.4
1.598	B.34	C.4
1.599	B.35	C.4
1.600	B.36	C.4
1.601	B.37	C.4
1.602	B.38	C.4
1.603	B.39	C.4
1.604	B.40	C.4
1.605	B.41	C.4
1.606	B.42	C.4
1.607	B.43	C.4
1.608	B.44	C.4
1.609	B.45	C.4
1.610	B.46	C.4
1.611	B.47	C.4
1.612	B.48	C.4
1.613	B.49	C.4
1.614	B.50	C.4
1.615	B.51	C.4
1.616	B.52	C.4
1.617	B.53	C.4
1.618	B.54	C.4
1.619	B.55	C.4
1.620	B.56	C.4
1.621	B.57	C.4
1.622	B.58.	C.4
1.623	B.59	C.4
1.624	B.60	C.4
1.625	B.61	C.4
1.626	B.62	C.4
1.627	B.63	C.4
1.628	B.64	C.4
1.629	B.65	C.4
1.630	B.66	C.4
1.631	B.67	C.4
1.632	B.68	C.4
1.633	B.69	C.4
1.634	B.70	C.4
1.635	B.71	C.4
1.636	B.72	C.4
1.637	B.73	C.4
1.638	B.74	C.4
1.639	B.75	C.4
1.640	B.76	C.4
1.641	B.77	C.4
1.642	B.78	C.4
1.643	B.79	C.4
1.644	B.80	C.4
1.645	B.81	C.4
1.646	B.82	C.4
1.647	B.83	C.4
1.648	B.84	C.4
1.649	B.85	C.4
1.650	B.86	C.4
1.651	B.87	C.4
1.652	B.88	C.4
1.653	B.89	C.4
1.654	B.90	C.4
1.655	B.91	C.4
1.656	B.92	C.4
1.657	B.93	C.4
1.658	B.94	C.4
1.659	B.95	C.4
1.660	B.96	C.4
1.661	B.97	C.4
1.662	B.98	C.4
1.663	B.99	C.4

comp. no.	herbicide B	safener C
1.664	B.100	C.4
1.665	B.101	C.4
1.666	B.102	C.4
1.667	B.103	C.4
1.668	B.104	C.4
1.669	B.105	C.4
1.670	B.106	C.4
1.671	B.107	C.4
1.672	B.108	C.4
1.673	B.109	C.4
1.674	B.110	C.4
1.675	B.111	C.4
1.676	B.112	C.4
1.677	B.113	C.4
1.678	B.114	C.4
1.679	B.115	C.4
1.680	B.116	C.4
1.681	B.117	C.4
1.682	B.118	C.4
1.683	B.119	C.4
1.684	B.120	C.4
1.685	B.121	C.4
1.686	B.122	C.4
1.687	B.123	C.4
1.688	B.124	C.4
1.689	B.125	C.4
1.690	B.126	C.4
1.691	B.127	C.4
1.692	B.128	C.4
1.693	B.129	C.4
1.694	B.130	C.4
1.695	B.131	C.4
1.696	B.132	C.4
1.697	B.133	C.4
1.698	B.134	C.4
1.699	B.135	C.4
1.700	B.136	C.4
1.701	B.137	C.4
1.702	B.138	C.4
1.703	B.139	C.4
1.704	B.140	C.4
1.705	B.141	C.4
1.706	B.1	C.5
1.707	B.2	C.5
1.708	B.3	C.5
1.709	B.4	C.5
1.710	B.5	C.5
1.711	B.6	C.5
1.712	B.7	C.5
1.713	B.8	C.5
1.714	B.9	C.5
1.715	B.10	C.5
1.716	B.11	C.5
1.717	B.12	C.5
1.718	B.13	C.5
1.719	B.14	C.5
1.720	B.15	C.5
1.721	B.16	C.5
1.722	B.17	C.5
1.723	B.18	C.5
1.724	B.19	C.5
1.725	B.20	C.5
1.726	B.21	C.5
1.727	B.22	C.5
1.728	B.23	C.5
1.729	B.24	C.5
1.730	B.25	C.5
1.731	B.26	C.5
1.732	B.27	C.5
1.733	B.28	C.5
1.734	B.29	C.5
1.735	B.30	C.5
1.736	B.31	C.5
1.737	B.32	C.5
1.738	B.33	C.5
1.739	B.34	C.5
1.740	B.35	C.5
1.741	B.36	C.5
1.742	B.37	C.5
1.743	B.38	C.5
1.744	B.39	C.5
1.745	B.40	C.5
1.746	B.41	C.5
1.747	B.42	C.5
1.748	B.43	C.5
1.749	B.44	C.5
1.750	B.45	C.5
1.751	B.46	C.5
1.752	B.47	C.5
1.753	B.48	C.5
1.754	B.49	C.5
1.755	B.50	C.5
1.756	B.51	C.5
1.757	B.52	C.5
1.758	B.53	C.5
1.759	B.54	C.5
1.760	B.55	C.5
1.761	B.56	C.5
1.762	B.57	C.5
1.763	B.58.	C.5
1.764	B.59	C.5
1.765	B.60	C.5
1.766	B.61	C.5
1.767	B.62	C.5
1.768	B.63	C.5
1.769	B.64	C.5
1.770	B.65	C.5
1.771	B.66	C.5
1.772	B.67	C.5
1.773	B.68	C.5
1.774	B.69	C.5
1.775	B.70	C.5
1.776	B.71	C.5
1.777	B.72	C.5
1.778	B.73	C.5
1.779	B.74	C.5
1.780	B.75	C.5

comp. no.	herbicide B	safener C
1.781	B.76	C.5
1.782	B.77	C.5
1.783	B.78	C.5
1.784	B.79	C.5
1.785	B.80	C.5
1.786	B.81	C.5
1.787	B.82	C.5
1.788	B.83	C.5
1.789	B.84	C.5
1.790	B.85	C.5
1.791	B.86	C.5
1.792	B.87	C.5
1.793	B.88	C.5
1.794	B.89	C.5
1.795	B.90	C.5
1.796	B.91	C.5
1.797	B.92	C.5
1.798	B.93	C.5
1.799	B.94	C.5
1.800	B.95	C.5
1.801	B.96	C.5
1.802	B.97	C.5
1.803	B.98	C.5
1.804	B.99	C.5
1.805	B.100	C.5
1.806	B.101	C.5
1.807	B.102	C.5
1.808	B.103	C.5
1.809	B.104	C.5
1.810	B.105	C.5
1.811	B.106	C.5
1.812	B.107	C.5
1.813	B.108	C.5
1.814	B.109	C.5
1.815	B.110	C.5
1.816	B.111	C.5
1.817	B.112	C.5
1.818	B.113	C.5
1.819	B.114	C.5
1.820	B.115	C.5
1.821	B.116	C.5
1.822	B.117	C.5
1.823	B.118	C.5
1.824	B.119	C.5
1.825	B.120	C.5
1.826	B.121	C.5
1.827	B.122	C.5
1.828	B.123	C.5
1.829	B.124	C.5
1.830	B.125	C.5
1.831	B.126	C.5
1.832	B.127	C.5
1.833	B.128	C.5
1.834	B.129	C.5
1.835	B.130	C.5
1.836	B.131	C.5
1.837	B.132	C.5
1.838	B.133	C.5
1.839	B.134	C.5
1.840	B.135	C.5
1.841	B.136	C.5
1.842	B.137	C.5
1.843	B.138	C.5
1.844	B.139	C.5
1.845	B.140	C.5
1.846	B.141	C.5
1.847	B.1	C.6
1.848	B.2	C.6
1.849	B.3	C.6
1.850	B.4	C.6
1.851	B.5	C.6
1.852	B.6	C.6
1.853	B.7	C.6
1.854	B.8	C.6
1.855	B.9	C.6
1.856	B.10	C.6
1.857	B.11	C.6
1.858	B.12	C.6
1.859	B.13	C.6
1.860	B.14	C.6
1.861	B.15	C.6
1.862	B.16	C.6
1.863	B.17	C.6
1.864	B.18	C.6
1.865	B.19	C.6
1.866	B.20	C.6
1.867	B.21	C.6
1.868	B.22	C.6
1.869	B.23	C.6
1.870	B.24	C.6
1.871	B.25	C.6
1.872	B.26	C.6
1.873	B.27	C.6
1.874	B.28	C.6
1.875	B.29	C.6
1.876	B.30	C.6
1.877	B.31	C.6
1.878	B.32	C.6
1.879	B.33	C.6
1.880	B.34	C.6
1.881	B.35	C.6
1.882	B.36	C.6
1.883	B.37	C.6
1.884	B.38	C.6
1.885	B.39	C.6
1.886	B.40	C.6
1.887	B.41	C.6
1.888	B.42	C.6
1.889	B.43	C.6
1.890	B.44	C.6
1.891	B.45	C.6
1.892	B.46	C.6
1.893	B.47	C.6
1.894	B.48	C.6
1.895	B.49	C.6
1.896	B.50	C.6
1.897	B.51	C.6

comp. no.	herbi-cide B	safe-ner C
1.898	B.52	C.6
1.899	B.53	C.6
1.900	B.54	C.6
1.901	B.55	C.6
1.902	B.56	C.6
1.903	B.57	C.6
1.904	B.58.	C.6
1.905	B.59	C.6
1.906	B.60	C.6
1.907	B.61	C.6
1.908	B.62	C.6
1.909	B.63	C.6
1.910	B.64	C.6
1.911	B.65	C.6
1.912	B.66	C.6
1.913	B.67	C.6
1.914	B.68	C.6
1.915	B.69	C.6
1.916	B.70	C.6
1.917	B.71	C.6
1.918	B.72	C.6
1.919	B.73	C.6
1.920	B.74	C.6
1.921	B.75	C.6
1.922	B.76	C.6
1.923	B.77	C.6
1.924	B.78	C.6
1.925	B.79	C.6
1.926	B.80	C.6
1.927	B.81	C.6
1.928	B.82	C.6
1.929	B.83	C.6
1.930	B.84	C.6
1.931	B.85	C.6
1.932	B.86	C.6
1.933	B.87	C.6
1.934	B.88	C.6
1.935	B.89	C.6
1.936	B.90	C.6
1.937	B.91	C.6
1.938	B.92	C.6
1.939	B.93	C.6
1.940	B.94	C.6
1.941	B.95	C.6
1.942	B.96	C.6
1.943	B.97	C.6
1.944	B.98	C.6
1.945	B.99	C.6
1.946	B.100	C.6
1.947	B.101	C.6
1.948	B.102	C.6
1.949	B.103	C.6
1.950	B.104	C.6
1.951	B.105	C.6
1.952	B.106	C.6
1.953	B.107	C.6
1.954	B.108	C.6
1.955	B.109	C.6
1.956	B.110	C.6
1.957	B.111	C.6
1.958	B.112	C.6
1.959	B.113	C.6
1.960	B.114	C.6
1.961	B.115	C.6
1.962	B.116	C.6
1.963	B.117	C.6
1.964	B.118	C.6
1.965	B.119	C.6
1.966	B.120	C.6
1.967	B.121	C.6
1.968	B.122	C.6
1.969	B.123	C.6
1.970	B.124	C.6
1.971	B.125	C.6
1.972	B.126	C.6
1.973	B.127	C.6
1.974	B.128	C.6
1.975	B.129	C.6
1.976	B.130	C.6
1.977	B.131	C.6
1.978	B.132	C.6
1.979	B.133	C.6
1.980	B.134	C.6
1.981	B.135	C.6
1.982	B.136	C.6
1.983	B.137	C.6
1.984	B.138	C.6
1.985	B.139	C.6
1.986	B.140	C.6
1.987	B.141	C.6
1.988	B.1	C.7
1.989	B.2	C.7
1.990	B.3	C.7
1.991	B.4	C.7
1.992	B.5	C.7
1.993	B.6	C.7
1.994	B.7	C.7
1.995	B.8	C.7
1.996	B.9	C.7
1.997	B.10	C.7
1.998	B.11	C.7
1.999	B.12	C.7
1.1000	B.13	C.7
1.1001	B.14	C.7
1.1002	B.15	C.7
1.1003	B.16	C.7
1.1004	B.17	C.7
1.1005	B.18	C.7
1.1006	B.19	C.7
1.1007	B.20	C.7
1.1008	B.21	C.7
1.1009	B.22	C.7
1.1010	B.23	C.7
1.1011	B.24	C.7
1.1012	B.25	C.7
1.1013	B.26	C.7
1.1014	B.27	C.7

comp. no.	herbi-cide B	safe-ner C
1.1015	B.28	C.7
1.1016	B.29	C.7
1.1017	B.30	C.7
1.1018	B.31	C.7
1.1019	B.32	C.7
1.1020	B.33	C.7
1.1021	B.34	C.7
1.1022	B.35	C.7
1.1023	B.36	C.7
1.1024	B.37	C.7
1.1025	B.38	C.7
1.1026	B.39	C.7
1.1027	B.40	C.7
1.1028	B.41	C.7
1.1029	B.42	C.7
1.1030	B.43	C.7
1.1031	B.44	C.7
1.1032	B.45	C.7
1.1033	B.46	C.7
1.1034	B.47	C.7
1.1035	B.48	C.7
1.1036	B.49	C.7
1.1037	B.50	C.7
1.1038	B.51	C.7
1.1039	B.52	C.7
1.1040	B.53	C.7
1.1041	B.54	C.7
1.1042	B.55	C.7
1.1043	B.56	C.7
1.1044	B.57	C.7
1.1045	B.58.	C.7
1.1046	B.59	C.7
1.1047	B.60	C.7
1.1048	B.61	C.7
1.1049	B.62	C.7
1.1050	B.63	C.7
1.1051	B.64	C.7
1.1052	B.65	C.7
1.1053	B.66	C.7
1.1054	B.67	C.7
1.1055	B.68	C.7
1.1056	B.69	C.7
1.1057	B.70	C.7
1.1058	B.71	C.7
1.1059	B.72	C.7
1.1060	B.73	C.7
1.1061	B.74	C.7
1.1062	B.75	C.7
1.1063	B.76	C.7
1.1064	B.77	C.7
1.1065	B.78	C.7
1.1066	B.79	C.7
1.1067	B.80	C.7
1.1068	B.81	C.7
1.1069	B.82	C.7
1.1070	B.83	C.7
1.1071	B.84	C.7
1.1072	B.85	C.7
1.1073	B.86	C.7
1.1074	B.87	C.7
1.1075	B.88	C.7
1.1076	B.89	C.7
1.1077	B.90	C.7
1.1078	B.91	C.7
1.1079	B.92	C.7
1.1080	B.93	C.7
1.1081	B.94	C.7
1.1082	B.95	C.7
1.1083	B.96	C.7
1.1084	B.97	C.7
1.1085	B.98	C.7
1.1086	B.99	C.7
1.1087	B.100	C.7
1.1088	B.101	C.7
1.1089	B.102	C.7
1.1090	B.103	C.7
1.1091	B.104	C.7
1.1092	B.105	C.7
1.1093	B.106	C.7
1.1094	B.107	C.7
1.1095	B.108	C.7
1.1096	B.109	C.7
1.1097	B.110	C.7
1.1098	B.111	C.7
1.1099	B.112	C.7
1.1100	B.113	C.7
1.1101	B.114	C.7
1.1102	B.115	C.7
1.1103	B.116	C.7
1.1104	B.117	C.7
1.1105	B.118	C.7
1.1106	B.119	C.7
1.1107	B.120	C.7
1.1108	B.121	C.7
1.1109	B.122	C.7
1.1110	B.123	C.7
1.1111	B.124	C.7
1.1112	B.125	C.7
1.1113	B.126	C.7
1.1114	B.127	C.7
1.1115	B.128	C.7
1.1116	B.129	C.7
1.1117	B.130	C.7
1.1118	B.131	C.7
1.1119	B.132	C.7
1.1120	B.133	C.7
1.1121	B.134	C.7
1.1122	B.135	C.7
1.1123	B.136	C.7
1.1124	B.137	C.7
1.1125	B.138	C.7
1.1126	B.139	C.7
1.1127	B.140	C.7
1.1128	B.141	C.7
1.1129	B.1	C.8
1.1130	B.2	C.8
1.1131	B.3	C.8

comp. no.	herbicide B	safener C
1.1132	B.4	C.8
1.1133	B.5	C.8
1.1134	B.6	C.8
1.1135	B.7	C.8
1.1136	B.8	C.8
1.1137	B.9	C.8
1.1138	B.10	C.8
1.1139	B.11	C.8
1.1140	B.12	C.8
1.1141	B.13	C.8
1.1142	B.14	C.8
1.1143	B.15	C.8
1.1144	B.16	C.8
1.1145	B.17	C.8
1.1146	B.18	C.8
1.1147	B.19	C.8
1.1148	B.20	C.8
1.1149	B.21	C.8
1.1150	B.22	C.8
1.1151	B.23	C.8
1.1152	B.24	C.8
1.1153	B.25	C.8
1.1154	B.26	C.8
1.1155	B.27	C.8
1.1156	B.28	C.8
1.1157	B.29	C.8
1.1158	B.30	C.8
1.1159	B.31	C.8
1.1160	B.32	C.8
1.1161	B.33	C.8
1.1162	B.34	C.8
1.1163	B.35	C.8
1.1164	B.36	C.8
1.1165	B.37	C.8
1.1166	B.38	C.8
1.1167	B.39	C.8
1.1168	B.40	C.8
1.1169	B.41	C.8
1.1170	B.42	C.8
1.1171	B.43	C.8
1.1172	B.44	C.8
1.1173	B.45	C.8
1.1174	B.46	C.8
1.1175	B.47	C.8
1.1176	B.48	C.8
1.1177	B.49	C.8
1.1178	B.50	C.8
1.1179	B.51	C.8
1.1180	B.52	C.8
1.1181	B.53	C.8
1.1182	B.54	C.8
1.1183	B.55	C.8
1.1184	B.56	C.8
1.1185	B.57	C.8
1.1186	B.58.	C.8
1.1187	B.59	C.8
1.1188	B.60	C.8
1.1189	B.61	C.8
1.1190	B.62	C.8
1.1191	B.63	C.8
1.1192	B.64	C.8
1.1193	B.65	C.8
1.1194	B.66	C.8
1.1195	B.67	C.8
1.1196	B.68	C.8
1.1197	B.69	C.8
1.1198	B.70	C.8
1.1199	B.71	C.8
1.1200	B.72	C.8
1.1201	B.73	C.8
1.1202	B.74	C.8
1.1203	B.75	C.8
1.1204	B.76	C.8
1.1205	B.77	C.8
1.1206	B.78	C.8
1.1207	B.79	C.8
1.1208	B.80	C.8
1.1209	B.81	C.8
1.1210	B.82	C.8
1.1211	B.83	C.8
1.1212	B.84	C.8
1.1213	B.85	C.8
1.1214	B.86	C.8
1.1215	B.87	C.8
1.1216	B.88	C.8
1.1217	B.89	C.8
1.1218	B.90	C.8
1.1219	B.91	C.8
1.1220	B.92	C.8
1.1221	B.93	C.8
1.1222	B.94	C.8
1.1223	B.95	C.8
1.1224	B.96	C.8
1.1225	B.97	C.8
1.1226	B.98	C.8
1.1227	B.99	C.8
1.1228	B.100	C.8
1.1229	B.101	C.8
1.1230	B.102	C.8
1.1231	B.103	C.8
1.1232	B.104	C.8
1.1233	B.105	C.8
1.1234	B.106	C.8
1.1235	B.107	C.8
1.1236	B.108	C.8
1.1237	B.109	C.8
1.1238	B.110	C.8
1.1239	B.111	C.8
1.1240	B.112	C.8
1.1241	B.113	C.8
1.1242	B.114	C.8
1.1243	B.115	C.8
1.1244	B.116	C.8
1.1245	B.117	C.8
1.1246	B.118	C.8
1.1247	B.119	C.8
1.1248	B.120	C.8

comp. no.	herbi-cide B	safe-ner C
1.1249	B.121	C.8
1.1250	B.122	C.8
1.1251	B.123	C.8
1.1252	B.124	C.8
1.1253	B.125	C.8
1.1254	B.126	C.8
1.1255	B.127	C.8
1.1256	B.128	C.8
1.1257	B.129	C.8
1.1258	B.130	C.8
1.1259	B.131	C.8
1.1260	B.132	C.8
1.1261	B.133	C.8
1.1262	B.134	C.8
1.1263	B.135	C.8
1.1264	B.136	C.8
1.1265	B.137	C.8
1.1266	B.138	C.8
1.1267	B.139	C.8
1.1268	B.140	C.8
1.1269	B.141	C.8
1.1270	B.1	C.9
1.1271	B.2	C.9
1.1272	B.3	C.9
1.1273	B.4	C.9
1.1274	B.5	C.9
1.1275	B.6	C.9
1.1276	B.7	C.9
1.1277	B.8	C.9
1.1278	B.9	C.9
1.1279	B.10	C.9
1.1280	B.11	C.9
1.1281	B.12	C.9
1.1282	B.13	C.9
1.1283	B.14	C.9
1.1284	B.15	C.9
1.1285	B.16	C.9
1.1286	B.17	C.9
1.1287	B.18	C.9
1.1288	B.19	C.9
1.1289	B.20	C.9
1.1290	B.21	C.9
1.1291	B.22	C.9
1.1292	B.23	C.9
1.1293	B.24	C.9
1.1294	B.25	C.9
1.1295	B.26	C.9
1.1296	B.27	C.9
1.1297	B.28	C.9
1.1298	B.29	C.9
1.1299	B.30	C.9
1.1300	B.31	C.9
1.1301	B.32	C.9
1.1302	B.33	C.9
1.1303	B.34	C.9
1.1304	B.35	C.9
1.1305	B.36	C.9
1.1306	B.37	C.9
1.1307	B.38	C.9
1.1308	B.39	C.9
1.1309	B.40	C.9
1.1310	B.41	C.9
1.1311	B.42	C.9
1.1312	B.43	C.9
1.1313	B.44	C.9
1.1314	B.45	C.9
1.1315	B.46	C.9
1.1316	B.47	C.9
1.1317	B.48	C.9
1.1318	B.49	C.9
1.1319	B.50	C.9
1.1320	B.51	C.9
1.1321	B.52	C.9
1.1322	B.53	C.9
1.1323	B.54	C.9
1.1324	B.55	C.9
1.1325	B.56	C.9
1.1326	B.57	C.9
1.1327	B.58.	C.9
1.1328	B.59	C.9
1.1329	B.60	C.9
1.1330	B.61	C.9
1.1331	B.62	C.9
1.1332	B.63	C.9
1.1333	B.64	C.9
1.1334	B.65	C.9
1.1335	B.66	C.9
1.1336	B.67	C.9
1.1337	B.68	C.9
1.1338	B.69	C.9
1.1339	B.70	C.9
1.1340	B.71	C.9
1.1341	B.72	C.9
1.1342	B.73	C.9
1.1343	B.74	C.9
1.1344	B.75	C.9
1.1345	B.76	C.9
1.1346	B.77	C.9
1.1347	B.78	C.9
1.1348	B.79	C.9
1.1349	B.80	C.9
1.1350	B.81	C.9
1.1351	B.82	C.9
1.1352	B.83	C.9
1.1353	B.84	C.9
1.1354	B.85	C.9
1.1355	B.86	C.9
1.1356	B.87	C.9
1.1357	B.88	C.9
1.1358	B.89	C.9
1.1359	B.90	C.9
1.1360	B.91	C.9
1.1361	B.92	C.9
1.1362	B.93	C.9
1.1363	B.94	C.9
1.1364	B.95	C.9
1.1365	B.96	C.9

comp. no.	herbicide B	safener C
1.1366	B.97	C.9
1.1367	B.98	C.9
1.1368	B.99	C.9
1.1369	B.100	C.9
1.1370	B.101	C.9
1.1371	B.102	C.9
1.1372	B.103	C.9
1.1373	B.104	C.9
1.1374	B.105	C.9
1.1375	B.106	C.9
1.1376	B.107	C.9
1.1377	B.108	C.9
1.1378	B.109	C.9
1.1379	B.110	C.9
1.1380	B.111	C.9
1.1381	B.112	C.9
1.1382	B.113	C.9
1.1383	B.114	C.9
1.1384	B.115	C.9
1.1385	B.116	C.9
1.1386	B.117	C.9
1.1387	B.118	C.9
1.1388	B.119	C.9
1.1389	B.120	C.9
1.1390	B.121	C.9
1.1391	B.122	C.9
1.1392	B.123	C.9
1.1393	B.124	C.9
1.1394	B.125	C.9
1.1395	B.126	C.9
1.1396	B.127	C.9
1.1397	B.128	C.9
1.1398	B.129	C.9
1.1399	B.130	C.9
1.1400	B.131	C.9
1.1401	B.132	C.9
1.1402	B.133	C.9
1.1403	B.134	C.9
1.1404	B.135	C.9
1.1405	B.136	C.9
1.1406	B.137	C.9
1.1407	B.138	C.9
1.1408	B.139	C.9
1.1409	B.140	C.9
1.1410	B.141	C.9
1.1411	B.1	C.10
1.1412	B.2	C.10
1.1413	B.3	C.10
1.1414	B.4	C.10
1.1415	B.5	C.10
1.1416	B.6	C.10
1.1417	B.7	C.10
1.1418	B.8	C.10
1.1419	B.9	C.10
1.1420	B.10	C.10
1.1421	B.11	C.10
1.1422	B.12	C.10
1.1423	B.13	C.10
1.1424	B.14	C.10
1.1425	B.15	C.10
1.1426	B.16	C.10
1.1427	B.17	C.10
1.1428	B.18	C.10
1.1429	B.19	C.10
1.1430	B.20	C.10
1.1431	B.21	C.10
1.1432	B.22	C.10
1.1433	B.23	C.10
1.1434	B.24	C.10
1.1435	B.25	C.10
1.1436	B.26	C.10
1.1437	B.27	C.10
1.1438	B.28	C.10
1.1439	B.29	C.10
1.1440	B.30	C.10
1.1441	B.31	C.10
1.1442	B.32	C.10
1.1443	B.33	C.10
1.1444	B.34	C.10
1.1445	B.35	C.10
1.1446	B.36	C.10
1.1447	B.37	C.10
1.1448	B.38	C.10
1.1449	B.39	C.10
1.1450	B.40	C.10
1.1451	B.41	C.10
1.1452	B.42	C.10
1.1453	B.43	C.10
1.1454	B.44	C.10
1.1455	B.45	C.10
1.1456	B.46	C.10
1.1457	B.47	C.10
1.1458	B.48	C.10
1.1459	B.49	C.10
1.1460	B.50	C.10
1.1461	B.51	C.10
1.1462	B.52	C.10
1.1463	B.53	C.10
1.1464	B.54	C.10
1.1465	B.55	C.10
1.1466	B.56	C.10
1.1467	B.57	C.10
1.1468	B.58.	C.10
1.1469	B.59	C.10
1.1470	B.60	C.10
1.1471	B.61	C.10
1.1472	B.62	C.10
1.1473	B.63	C.10
1.1474	B.64	C.10
1.1475	B.65	C.10
1.1476	B.66	C.10
1.1477	B.67	C.10
1.1478	B.68	C.10
1.1479	B.69	C.10
1.1480	B.70	C.10
1.1481	B.71	C.10
1.1482	B.72	C.10

comp. no.	herbicide B	safener C
1.1483	B.73	C.10
1.1484	B.74	C.10
1.1485	B.75	C.10
1.1486	B.76	C.10
1.1487	B.77	C.10
1.1488	B.78	C.10
1.1489	B.79	C.10
1.1490	B.80	C.10
1.1491	B.81	C.10
1.1492	B.82	C.10
1.1493	B.83	C.10
1.1494	B.84	C.10
1.1495	B.85	C.10
1.1496	B.86	C.10
1.1497	B.87	C.10
1.1498	B.88	C.10
1.1499	B.89	C.10
1.1500	B.90	C.10
1.1501	B.91	C.10
1.1502	B.92	C.10
1.1503	B.93	C.10
1.1504	B.94	C.10
1.1505	B.95	C.10
1.1506	B.96	C.10
1.1507	B.97	C.10
1.1508	B.98	C.10
1.1509	B.99	C.10
1.1510	B.100	C.10
1.1511	B.101	C.10
1.1512	B.102	C.10
1.1513	B.103	C.10
1.1514	B.104	C.10
1.1515	B.105	C.10
1.1516	B.106	C.10
1.1517	B.107	C.10
1.1518	B.108	C.10
1.1519	B.109	C.10
1.1520	B.110	C.10
1.1521	B.111	C.10
1.1522	B.112	C.10
1.1523	B.113	C.10
1.1524	B.114	C.10
1.1525	B.115	C.10
1.1526	B.116	C.10
1.1527	B.117	C.10
1.1528	B.118	C.10
1.1529	B.119	C.10
1.1530	B.120	C.10
1.1531	B.121	C.10
1.1532	B.122	C.10
1.1533	B.123	C.10
1.1534	B.124	C.10
1.1535	B.125	C.10
1.1536	B.126	C.10
1.1537	B.127	C.10
1.1538	B.128	C.10
1.1539	B.129	C.10
1.1540	B.130	C.10
1.1541	B.131	C.10
1.1542	B.132	C.10
1.1543	B.133	C.10
1.1544	B.134	C.10
1.1545	B.135	C.10
1.1546	B.136	C.10
1.1547	B.137	C.10
1.1548	B.138	C.10
1.1549	B.139	C.10
1.1550	B.140	C.10
1.1551	B.141	C.10
1.1552	B.1	C.11
1.1553	B.2	C.11
1.1554	B.3	C.11
1.1555	B.4	C.11
1.1556	B.5	C.11
1.1557	B.6	C.11
1.1558	B.7	C.11
1.1559	B.8	C.11
1.1560	B.9	C.11
1.1561	B.10	C.11
1.1562	B.11	C.11
1.1563	B.12	C.11
1.1564	B.13	C.11
1.1565	B.14	C.11
1.1566	B.15	C.11
1.1567	B.16	C.11
1.1568	B.17	C.11
1.1569	B.18	C.11
1.1570	B.19	C.11
1.1571	B.20	C.11
1.1572	B.21	C.11
1.1573	B.22	C.11
1.1574	B.23	C.11
1.1575	B.24	C.11
1.1576	B.25	C.11
1.1577	B.26	C.11
1.1578	B.27	C.11
1.1579	B.28	C.11
1.1580	B.29	C.11
1.1581	B.30	C.11
1.1582	B.31	C.11
1.1583	B.32	C.11
1.1584	B.33	C.11
1.1585	B.34	C.11
1.1586	B.35	C.11
1.1587	B.36	C.11
1.1588	B.37	C.11
1.1589	B.38	C.11
1.1590	B.39	C.11
1.1591	B.40	C.11
1.1592	B.41	C.11
1.1593	B.42	C.11
1.1594	B.43	C.11
1.1595	B.44	C.11
1.1596	B.45	C.11
1.1597	B.46	C.11
1.1598	B.47	C.11
1.1599	B.48	C.11

comp. no.	herbicide B	safener C
1.1600	B.49	C.11
1.1601	B.50	C.11
1.1602	B.51	C.11
1.1603	B.52	C.11
1.1604	B.53	C.11
1.1605	B.54	C.11
1.1606	B.55	C.11
1.1607	B.56	C.11
1.1608	B.57	C.11
1.1609	B.58.	C.11
1.1610	B.59	C.11
1.1611	B.60	C.11
1.1612	B.61	C.11
1.1613	B.62	C.11
1.1614	B.63	C.11
1.1615	B.64	C.11
1.1616	B.65	C.11
1.1617	B.66	C.11
1.1618	B.67	C.11
1.1619	B.68	C.11
1.1620	B.69	C.11
1.1621	B.70	C.11
1.1622	B.71	C.11
1.1623	B.72	C.11
1.1624	B.73	C.11
1.1625	B.74	C.11
1.1626	B.75	C.11
1.1627	B.76	C.11
1.1628	B.77	C.11
1.1629	B.78	C.11
1.1630	B.79	C.11
1.1631	B.80	C.11
1.1632	B.81	C.11
1.1633	B.82	C.11
1.1634	B.83	C.11
1.1635	B.84	C.11
1.1636	B.85	C.11
1.1637	B.86	C.11
1.1638	B.87	C.11
1.1639	B.88	C.11
1.1640	B.89	C.11
1.1641	B.90	C.11
1.1642	B.91	C.11
1.1643	B.92	C.11
1.1644	B.93	C.11
1.1645	B.94	C.11
1.1646	B.95	C.11
1.1647	B.96	C.11
1.1648	B.97	C.11
1.1649	B.98	C.11
1.1650	B.99	C.11
1.1651	B.100	C.11
1.1652	B.101	C.11
1.1653	B.102	C.11
1.1654	B.103	C.11
1.1655	B.104	C.11
1.1656	B.105	C.11
1.1657	B.106	C.11
1.1658	B.107	C.11
1.1659	B.108	C.11
1.1660	B.109	C.11
1.1661	B.110	C.11
1.1662	B.111	C.11
1.1663	B.112	C.11
1.1664	B.113	C.11
1.1665	B.114	C.11
1.1666	B.115	C.11
1.1667	B.116	C.11
1.1668	B.117	C.11
1.1669	B.118	C.11
1.1670	B.119	C.11
1.1671	B.120	C.11
1.1672	B.121	C.11
1.1673	B.122	C.11
1.1674	B.123	C.11
1.1675	B.124	C.11
1.1676	B.125	C.11
1.1677	B.126	C.11
1.1678	B.127	C.11
1.1679	B.128	C.11
1.1680	B.129	C.11
1.1681	B.130	C.11
1.1682	B.131	C.11
1.1683	B.132	C.11
1.1684	B.133	C.11
1.1685	B.134	C.11
1.1686	B.135	C.11
1.1687	B.136	C.11
1.1688	B.137	C.11
1.1689	B.138	C.11
1.1690	B.139	C.11
1.1691	B.140	C.11
1.1692	B.141	C.11
1.1693	B.1	C.12
1.1694	B.2	C.12
1.1695	B.3	C.12
1.1696	B.4	C.12
1.1697	B.5	C.12
1.1698	B.6	C.12
1.1699	B.7	C.12
1.1700	B.8	C.12
1.1701	B.9	C.12
1.1702	B.10	C.12
1.1703	B.11	C.12
1.1704	B.12	C.12
1.1705	B.13	C.12
1.1706	B.14	C.12
1.1707	B.15	C.12
1.1708	B.16	C.12
1.1709	B.17	C.12
1.1710	B.18	C.12
1.1711	B.19	C.12
1.1712	B.20	C.12
1.1713	B.21	C.12
1.1714	B.22	C.12
1.1715	B.23	C.12
1.1716	B.24	C.12

comp. no.	herbi-cide B	safe-ner C
1.1717	B.25	C.12
1.1718	B.26	C.12
1.1719	B.27	C.12
1.1720	B.28	C.12
1.1721	B.29	C.12
1.1722	B.30	C.12
1.1723	B.31	C.12
1.1724	B.32	C.12
1.1725	B.33	C.12
1.1726	B.34	C.12
1.1727	B.35	C.12
1.1728	B.36	C.12
1.1729	B.37	C.12
1.1730	B.38	C.12
1.1731	B.39	C.12
1.1732	B.40	C.12
1.1733	B.41	C.12
1.1734	B.42	C.12
1.1735	B.43	C.12
1.1736	B.44	C.12
1.1737	B.45	C.12
1.1738	B.46	C.12
1.1739	B.47	C.12
1.1740	B.48	C.12
1.1741	B.49	C.12
1.1742	B.50	C.12
1.1743	B.51	C.12
1.1744	B.52	C.12
1.1745	B.53	C.12
1.1746	B.54	C.12
1.1747	B.55	C.12
1.1748	B.56	C.12
1.1749	B.57	C.12
1.1750	B.58.	C.12
1.1751	B.59	C.12
1.1752	B.60	C.12
1.1753	B.61	C.12
1.1754	B.62	C.12
1.1755	B.63	C.12
1.1756	B.64	C.12
1.1757	B.65	C.12
1.1758	B.66	C.12
1.1759	B.67	C.12
1.1760	B.68	C.12
1.1761	B.69	C.12
1.1762	B.70	C.12
1.1763	B.71	C.12
1.1764	B.72	C.12
1.1765	B.73	C.12
1.1766	B.74	C.12
1.1767	B.75	C.12
1.1768	B.76	C.12
1.1769	B.77	C.12
1.1770	B.78	C.12
1.1771	B.79	C.12
1.1772	B.80	C.12
1.1773	B.81	C.12
1.1774	B.82	C.12
1.1775	B.83	C.12
1.1776	B.84	C.12
1.1777	B.85	C.12
1.1778	B.86	C.12
1.1779	B.87	C.12
1.1780	B.88	C.12
1.1781	B.89	C.12
1.1782	B.90	C.12
1.1783	B.91	C.12
1.1784	B.92	C.12
1.1785	B.93	C.12
1.1786	B.94	C.12
1.1787	B.95	C.12
1.1788	B.96	C.12
1.1789	B.97	C.12
1.1790	B.98	C.12
1.1791	B.99	C.12
1.1792	B.100	C.12
1.1793	B.101	C.12
1.1794	B.102	C.12
1.1795	B.103	C.12
1.1796	B.104	C.12
1.1797	B.105	C.12
1.1798	B.106	C.12
1.1799	B.107	C.12
1.1800	B.108	C.12
1.1801	B.109	C.12
1.1802	B.110	C.12
1.1803	B.111	C.12
1.1804	B.112	C.12
1.1805	B.113	C.12
1.1806	B.114	C.12
1.1807	B.115	C.12
1.1808	B.116	C.12
1.1809	B.117	C.12
1.1810	B.118	C.12
1.1811	B.119	C.12
1.1812	B.120	C.12
1.1813	B.121	C.12
1.1814	B.122	C.12
1.1815	B.123	C.12
1.1816	B.124	C.12
1.1817	B.125	C.12
1.1818	B.126	C.12
1.1819	B.127	C.12
1.1820	B.128	C.12
1.1821	B.129	C.12
1.1822	B.130	C.12
1.1823	B.131	C.12
1.1824	B.132	C.12
1.1825	B.133	C.12
1.1826	B.134	C.12
1.1827	B.135	C.12
1.1828	B.136	C.12
1.1829	B.137	C.12
1.1830	B.138	C.12
1.1831	B.139	C.12
1.1832	B.140	C.12
1.1833	B.141	C.12

The specific number for each single combination is deductible as follows:
Combination 1.777 for example comprises the composition A, flumioxazin (B.72) and fenclorim (C.5) (see table 1, entry 1.777; as well as table B, entry B.72 and table C, entry C.5).
Combination 7.777 for example comprises imazaquin (B32) (see the definition for combinations 7.1 to 7.1692 below), and the composition A, flumioxazin (B.72) and fenclorim (C.5) (see table 1, entry 1.777; as well as table B, entry B.77 and table C, entry C.5).

Also especially preferred are combinations 2.1 to 2.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.2 as further herbicide B.

Also especially preferred are combinations 3.1 to 3.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.7 as further herbicide B.

Also especially preferred are combinations 4.1 to 4.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.29 as further herbicide B.

Also especially preferred are combinations 5.1 to 5.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.30 as further herbicide B.

Also especially preferred are combinations 6.1 to 6.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.31 as further herbicide B.

Also especially preferred are combinations 7.1 to 7.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.32 as further herbicide B.

Also especially preferred are combinations 8.1 to 8.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.33 as further herbicide B.

Also especially preferred are combinations 9.1 to 9.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.40 as further herbicide B.

Also especially preferred are combinations 10.1 to 10.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.44 as further herbicide B.

Also especially preferred are combinations 11.1 to 11.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.45 as further herbicide B.

Also especially preferred are combinations 12.1 to 12.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.52 as further herbicide B.

Also especially preferred are combinations 13.1 to 13.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.53 as further herbicide B.

Also especially preferred are combinations 14.1 to 14.1833, which differ from the corre-

sponding combinations 1.1 to 1.1833 only in that they additionally comprise B.54 as further herbicide B.

Also especially preferred are combinations 15.1 to 15.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.55 as further herbicide B.

Also especially preferred are combinations 16.1 to 16.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.56 as further herbicide B.

Also especially preferred are combinations 17.1 to 17.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.57 as further herbicide B.

Also especially preferred are combinations 18.1 to 18.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.60 as further herbicide B.

Also especially preferred are combinations 19.1 to 19.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.65 as further herbicide B.

Also especially preferred are combinations 20.1 to 20.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.66 as further herbicide B.

Also especially preferred are combinations 21.1 to 21.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.69 as further herbicide B.

Also especially preferred are combinations 22.1 to 22.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.72 as further herbicide B.

Also especially preferred are combinations 23.1 to 23.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.73 as further herbicide B.

Also especially preferred are combinations 24.1 to 24.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.76 as further herbicide B.

Also especially preferred are combinations 25.1 to 25.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.77 as further herbicide B.

Also especially preferred are combinations 26.1 to 26.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.80 as further herbicide B.

Also especially preferred are combinations 27.1 to 27.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.81 as further herbicide B.

Also especially preferred are combinations 28.1 to 28.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.84 as further

herbicide B.

Also especially preferred are combinations 29.1 to 29.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.84 and B.54 as further herbicides B.

Also especially preferred are combinations 30.1 to 30.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.84 and B.60 as further herbicides B.

Also especially preferred are combinations 31.1 to 31.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.84 and B.66 as further herbicides B.

Also especially preferred are combinations 32.1 to 32.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 85 as further herbicide B.

Also especially preferred are combinations 33.1 to 33.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 85 and B.54 as further herbicides B.

Also especially preferred are combinations 34.1 to 34.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 85 and B.60 as further herbicides B.

Also especially preferred are combinations 35.1 to 35.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 85 and B.66 as further herbicides B.

Also especially preferred are combinations 36.1 to 36.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.87 as further herbicide B.

Also especially preferred are combinations 37.1 to 37.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 88 as further herbicide B.

Also especially preferred are combinations 38.1 to 38.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 88 and B.54 as further herbicides B.

Also especially preferred are combinations 39.1 to 39.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 88 and B.60 as further herbicides B.

Also especially preferred are combinations 40.1 to 40.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B. 88 and B.66 as further herbicides B.

Also especially preferred are combinations 41.1 to 41.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.90 as further herbicide B.

Also especially preferred are combinations 42.1 to 42.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.91 as further herbicide B.

Also especially preferred are combinations 43.1 to 43.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.91 and B.54 as further herbicides B.

Also especially preferred are combinations 44.1 to 44.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.91 and B.60 as further herbicides B.

Also especially preferred are combinations 45.1 to 45.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.91 and B.66 as further herbicides B.

Also especially preferred are combinations 46.1 to 46.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 as further herbicide B.

Also especially preferred are combinations 47.1 to 47.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.54 as further herbicides B.

Also especially preferred are combinations 48.1 to 48.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.76 as further herbicides B.

Also especially preferred are combinations 49.1 to 49.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.84 as further herbicides B.

Also especially preferred are combinations 50.1 to 50.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.103 as further herbicides B.

Also especially preferred are combinations 51.1 to 51.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.85 as further herbicides B.

Also especially preferred are combinations 52.1 to 52.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.88 as further herbicides B.

Also especially preferred are combinations 53.1 to 53.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.95 and B.91 as further herbicides B.

Also especially preferred are combinations 54.1 to 54.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.98 as further herbicide B.

Also especially preferred are combinations 55.1 to 55.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.101 as further herbicide B.

Also especially preferred are combinations 56.1 to 56.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.103 as further herbicide B.

Also especially preferred are combinations 57.1 to 57.1833, which differ from the corre-

sponding combinations 1.1 to 1.1833 only in that they additionally comprise B.106 as further herbicide B.

Also especially preferred are combinations 58.1 to 58.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.107 as further herbicide B.

Also especially preferred are combinations 59.1 to 59.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.108 as further herbicide B.

Also especially preferred are combinations 60.1 to 60.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.110 as further herbicide B.

Also especially preferred are combinations 61.1 to 61.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.112 as further herbicide B.

Also especially preferred are combinations 62.1 to 62.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.113 as further herbicide B.

Also especially preferred are combinations 63.1 to 63.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.117 as further herbicide B.

Also especially preferred are combinations 64.1 to 64.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.119 as further herbicide B.

Also especially preferred are combinations 65.1 to 65.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.120 as further herbicide B.

Also especially preferred are combinations 66.1 to 66.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.122 as further herbicide B.

Also especially preferred are combinations 67.1 to 67.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.123 as further herbicide B.

Also especially preferred are combinations 68.1 to 68.1833, which differ from the corresponding combinations 1.1 to 1.1833 only in that they additionally comprise B.130 as further herbicide B.

Also especially preferred are combinations 69.1 to 69.12 comprising the composition A, and as further compound the substance as defined in the respective row of table C:

Table C

comp. no.	safener C
69.1	C.1
69.2	C.2

comp. no.	safener C
69.3	C.3
69.4	C.4

comp. no.	safener C
69.5	C.5
69.6	C.6
69.7	C.7
69.8	C.8

comp. no.	safener C
69.9	C.9
69.10	C.10
69.11	C.11
69.12	C.12

According to one embodiment of the invention, in the ready-to-use preparations of combinations according to the invention in the form of plant protection agents, the components A (composition A) and B and/or C can be present formulated jointly or separately in suspended, emulsified or dissolved form. The use forms depend entirely on the intended applications.

Accordingly, a first embodiment of the invention relates to combinations in the form of a plant protection agent formulated as a 1-component combination comprising the composition A and at least one further active compound selected from the herbicides B and the safeners C and also a solid or liquid carrier and, if appropriate, one or more surfactants.

Accordingly, a second embodiment of the invention relates to combinations in the form of a plant protection agent formulated as a 2-component combination comprising a first formulation (component) comprising the composition A, a solid or liquid carrier and, if appropriate, one or more surfactants, and a second component comprising at least one further active compound selected from the herbicides B and safeners C, a solid or liquid carrier and, if appropriate, one or more surfactants.

The composition A and the at least one further active compound B and/or C can be applied jointly or separately, simultaneously or in succession, before, during or after the emergence of the plants. The order of the application of the components A, B and/or C is of minor importance. The only thing that is important is that the composition A and at least one further active component B and/or C are present simultaneously at the site of action, i.e. are at the same time in contact with or taken up by the plant to be controlled.

The required application rate of component B and, if appropriate, C without formulation auxiliaries depends on the structure of the plant stand, on the development stage of the plants, on the climatic conditions at the site of use and on the application technique. In general, the application rate of B and, if appropriate, C, is from 0.001 to 3 kg/ha, preferably from 0.005 to 2.5 kg/ha and in particular from 0.01 to 2 kg/ha of active substance (a.s.).

The required application rates of component B are generally in the range of from 0.0005 kg/ha to 2.5 kg/ha and preferably in the range of from 0.005 kg/ha to 2 kg/ha or 0.01 kg/ha to 1.5 kg/h of a.s.

The required application rates of component C are generally in the range of from 0.0005 kg/ha to 2.5 kg/ha and preferably in the range of from 0.005 kg/ha to 2 kg/ha or 0.01 kg/ha to 1.5 kg/h of a.s.

The combinations according to the invention are applied to the plants mainly by spraying the leaves. Here, the application can be carried out using, for example, water as carrier by customary spraying techniques using spray liquor amounts of from about 100 to 1000 l/ha (for example from 300 to 400 l/ha). The herbicidal combinations may also be applied by the low-volume or the ultra-low-volume method, or in the form of microgranules.

The combinations according to the invention can be applied pre- or post-emergence, or together with the seed of a crop plant. It is also possible to apply the combinations by applying seed, pretreated with a combination of the invention, of a crop plant. If the active components A and B and, if appropriate C, are less well tolerated by certain crop plants, application techniques may be used in which the herbicidal combinations are sprayed, with the aid of the spraying equipment, in such a way that as far as possible they do not come into contact with the leaves of the sensitive crop plants, while the active compounds reach the leaves of undesirable plants growing underneath, or the bare soil surface (post-directed, lay-by).

The following illustrations and examples serve to illustrate the invention and should not be regarded as limiting.

The particle size distribution has been determined by light scattering on a Malvern Mastersizer 2000 from Malvern Instruments Ldt. according to the European norm ISO 13320 using the Mie scattering model.

Example 1 (reference)

A suspension made of 422 parts per weight water, 60 parts propylene glycol, 167 parts Pluronic® PE 10500 18% Solution, 20 parts Tamol® DN, 2.5 parts Wacker Silicon SRE-PFL and 508 parts crystalline benzoxazinone (I) of modification A was circulated through a beadl mill until x_{80} < 2 µm. Subsequently, a suspension of 10 parts propylene glycol, 3 parts Rhodopol® G, 3 parts water, 2 parts Acticide® MBS and 2.5 parts Wacker Silicon SRE-PFL was added yielding a suspension concentrate (SC) containing 500 g/L benzoxazinone (I).
The particle sizes according to laser scattering were: x_{10} = 0.5 µm, x_{50} = 1.0 µm, x_{90} = 2.3 µm; x_{95} = 3.0 µm (i.e. 95 % per volume < 3 µm), x_{99} = 5.0 µm (i.e. 99 % per volume < 5 µm) and no detectable particles above 45 µm.

Example 2

Using the same recipe like in example 1 a suspension concentrate containing 500 g/L crystalline benzoxazinone (I) of modification A was manufactured, but instead of a bead mill a mechanical crushing mill was used.

In this SC formulation the particles are characterized as follows: x_{10} = 1.0 µm, x_{50} = 5.3 µm, x_{90} = 49 µm, x_{39} = 3.0 µm (i.e. 39 % per volume < 3 µm), x_{49} = 5.0 µm (i.e. 49 % per volume < 5 µm) and x_{88} = 45.0 µm (i.e. 12 % per volume > 45 µm).

Example 3

Using the same recipe like in example 1 a suspension concentrate containing 500 g/L crystalline benzoxazinone (I) of modification A was manufactured, but instead of a bead mill a rotor stator system was used.

In this SC formulation the particles are characterized as follows: x_{10} = 1.1 µm, x_{50} = 7.8 µm, x_{90} = 38 µm, x_{30} = 3.0 µm (i.e. 30 % per volume < 3 µm), x_{40} = 5.0 µm (i.e. 40 % per volume < 5 µm) and x_{93} = 45.0 µm (i.e. 7 % per volume > 45 µm).

Preparation of form A of benzoxazinone (I) by crystallization from a solution in an organic solvent with evaporation

Examples 4.1 to 4.10:

50 mg of benzoxazinone (I) were dissolved in 2-3 ml of the respective solvent in a test vessel. The test vessel was placed in a greenhouse and a nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline rods, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form A was identified.

Table 1:

Example	Solvent	Form	Crystal form
4.1	ethylbenzene	A	small rods
4.2	dichlorobenzene	A	small rods
4.3	chlorobenze	A	small rods
4.4	p-xylene	A	small rods
4.5	acetone	A	small rods
4.6	methylethylketone	A	small rods
4.7	methylbutylketone	A	small rods
4.8	methanol	A	small rods
4.9	ethanol	A	small rods
4.10	ispropanol	A	small rods

Preparation of form A of benzoxazinone (I) by crystallization from a slurry in a mixture of water and organic solvent

Example 4.11:
A mixture of forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and Ethanol (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 4.12:
Form B of benzoxazinone (I), obtained by example 16 (500 mg) were suspended in 3 ml of a mixture of water and tetrahydrofurane (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 4.13:
A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of toluene and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 4.14:
A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and 1,3-propanediol (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Preparation of form B of benzoxazinone (I) by crystallization from a slurry in a mixture of water and organic solvent

Example 4.15:
Form A of benzoxazinone (I), obtained by example 12 (500 mg) were suspended in 3 ml of a mixture of water and ethanol (1:1 v/v) and the slurry was stirred for 48 h at 90°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form B of benzoxazinone (I).

Example 4.16:
A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and 1,3-propanediol (1:1 v/v) and the slurry was

stirred for 48 h at 90°C. A slurry of crystalline material was obtained, which was filtered and analysed by PXRD and DSC. The obtained material was pure form B of benzoxazinone (I).

Preparation of form B of benzoxazinone (I) by crystallization from a solution in an organic solvent with evaporation

Example 4.17:
50 mg of benzoxazinone (I) were dissolved in 2-3 ml of toluene in a test vessel. The test vessel placed in a greenhouse and heated to 95°C and a nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline plates, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form B was identified.

Preparation of form B of benzoxazinone (I) by heating form A

Example 4.18:
500 mg of form A of benzoxazinone (I), obtained by example 12 were placed into an open vessel. The vessel was purged with nitrogen and sealed and then heated to 180°C for 2 h. The obtained material was isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form B was identified.

Preparation of a mixture of forms A and B of benzoxazinone (I)

50 mg of benzoxazinone (I) were dissolved in 2-3 ml of the respective solvent (e.g. 1-butanol, isobutanol) in a test vessel. The test vessel was placed in a greenhouse and heated to 90 °C. A nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline rods, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, a mixture of forms A and B was identified.

Figure 1 shows an X-ray powder diffraction diagram of form A. The X-ray diffraction diagram of form A was recorded by using Panalytical X´Pert Pro diffractometer (manufacturer: Panalytical) in reflection geometry in the range from 2θ =3°-35° with increments of 0,0167°C using Cu-Kα radiation (at 25°C). The recorded 2θ values were used to calculate the stated interplanar spacings d. The intensity of the peaks (y-axis: linear intensity counts) is plotted versus the 2θ angle (x-axis in degrees 2θ).

Figure 2 shows an X-ray powder diffraction diagram of form B. The X-ray diffraction diagram was recorded under the conditions stated for Figure 1.

Figure 3 shows an X-ray powder diffraction diagram of a mixture of forms A + B + C. The X-ray diffraction diagram was recorded under the conditions stated for Figure 1.

The single crystal X-ray diffraction data of Form A was collected on a Bruker AXS CCD Detector using graphite Cu-Kα radiation (at -173°C). The structure was solved using direct methods, refined and expanded by using Fourier techniques with SHELX software package (G. M. Sheldrick, SHELX-97, University of Göttingen, 1997). Absorption correction was performed with SADABS software.

DSC was performed on a Mettler Toledo DSC 822e module. Tha samples were placed in crimped but vented aluminium pans. The samples size in each case was 5 to 10 mg. The thermal behaviour was analized in the range 30 – 250 °C. The heating rate was 5°C/min. The samples were purged with a stream of nitrogen flowing at 150 ml/ during the experiment. Melting points values were confirmed by a Mettler Hot Stage in combination with a light microscope.

Use examples

Greenhouse test

The herbicidal action of the composition A and combinations according to the invention was demonstrated by the following greenhouse experiments:

The culture containers used were trays, consisting of individually separated plastic pots (each approx. 4cm in diameter) containing loamy sand with approximately 2,5% of organic matter as substrate. The seeds of the test plants were sown separately for each species, one seed per pot was used for corn (ZEAMX), the grass species (SETFA) was broadcasted over the pot and covered with a thin layer of soil.

For the pre-emergence treatment, the active compounds in the form of the respective suspension concentrate were diluted to comply with a rate of 50 g/ha benzoxazinone (I) and 200 l/ha water, and subsequently applied directly after sowing by drip application. A pipette was used, in total per pot a volume of 2ml was applied. The containers were irrigated gently to promote germination and growth and subsequently covered with transparent plastic hoods until the plants had rooted. This cover caused uniform germination of the test plants unless this was adversely affected by the active compounds.

The plants were kept at 15 - 35°C in the glasshouse.

The test period was approx. 10 days. During this time, the plants were tended and their response to the individual treatments was evaluated.

Evaluation was carried out using a scale from 0 to 100. 100 means no emergence of the plants, or complete destruction of at least the above-ground parts, and 0 means no damage or normal course of growth. A good herbicidal activity is given at values of at least 60, and very good herbicidal activity is given at values of at least 85. In parallel the crop injury / phytotoxicity was evaluated. The activity – selectivity window was calculated as quotient of activity and phytotoxicity obtained in the test.

A selectivity is present if the damage to the crop plant caused by the composition of benzoxazinone (I) according to the present invention is less compared to the damage caused by application of a benzoxazinone (I), wherein the particle size distribution is not according to that according to the present invention.

Example 5: Herbicidal action of the pre-emergence applied benzoxazinone (I) against SETFA and selectivity with regard to corn 10 days after treatment in the greenhouse

benzoxazinone (I)	application rate [g/ha]	damage to corn	herbicidal action against SETFA	Safety window
reference example 1	50	60	88	1.47
example 2	50	18	83	4.61

In this example, benzoxazinone (I) was formulated as a 500 g/l SC.
Prior to application, the formulated benzoxazinone (I) was diluted into water and the aqueous solution was used for the drip application.

Field test
The herbicidal action of the composition A and combinations according to the invention was demonstrated by the following field experiments:
A field trial was performed on a loamy sand soil with approximately 1.5-2,5% of organic matter. The test plants were sown separately for each species in rows, as crop corn (ZEAMX) was planted, as indicator weed species Brassica (BRSNW) was planted according to field trial practice.
For the pre-emergence treatment, the active compounds, suspended in water, were applied directly after sowing by means of finely distributing nozzles. 200 g/ha benzoxazinone (I) in the form of the respective SC formulations were diluted with 200 l/ha water for application.
To ensure adequate activation the plots were irrigated after the application with 15 mm of water. The test period was during the whole growing period of corn. After 19 days after application the response of the crop and the activity on the indicator weed species to the individual treatments were evaluated.

Evaluation was carried out using a scale from 0 to 100. 100 means no emergence of the plants, or complete destruction of at least the above-ground parts, and 0 means no damage or normal

course of growth. A good herbicidal activity is given at values of at least 60, and very good herbicidal activity is given at values of at least 85. In parallel the crop injury / phytotoxicity was evaluated. The activity – selectivity window was calculated as quotient of activity and phytotoxicity obtained in the test.

A safener action is present if the damage to the crop plant caused by the composition of benzoxazinone (I) according to the present invention is less compared to the damage caused by application of a benzoxazinone (I), wherein the particle size distribution is not according to that according to the present invention.

Example 6: Herbicidal action of the pre-emergence applied benzoxazinone (I) against SETFA and selectivity with regard to corn 19 days after treatment

benzoxazinone (I)	application rate [g/ha]	damage to corn	herbicidal action against SETFA	Safety window
reference example 1	100	7	93	13.29
example 3	100	4	93	23.25

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(54) Herbicidal compositions

(57) The present invention relates to compositions comprising the crystalline form A of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, and at least one further active compound selected from herbicides B and safeners C; and their use as herbicides, i.e. for controlling harmful plants, and also a method for controlling unwanted vegetation.

EP 2 868 196 A1

Description

[0001] The present invention relates to herbicidal compositions comprising the crystalline form A of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione and at least one further compound selected from herbicides B and safeners C.

[0002] In the case of crop protection compositions, it is desirable in principle to increase the specific activity of an active compound and the reliability of the effect. It is particularly desirable for the crop protection composition to control the harmful plants effectively, but at the same time to be compatible with the useful plants in question. Also desirable is a broad spectrum of activity allowing the simultaneous control of harmful plants. Frequently, this cannot be achieved using a single herbicidally active compound.

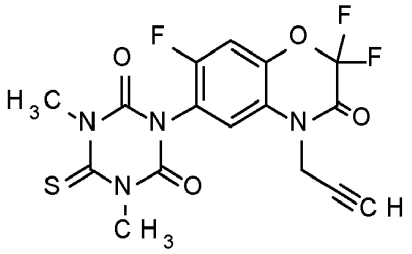
[0003] With many highly effective herbicides, there is the problem that their compatibility with useful plants, in particular dicotyledonous crop plants, such as cotton, oilseed rape and graminaceous plants, such as barley, millet, corn, rice, wheat and sugar cane, is not always satisfactory, i.e. in addition to the harmful plants, the crop plants, too, are damaged on a scale which cannot be tolerated. By reducing the application rates, the useful plants are spared; however, naturally, the extent of the control of harmful plants decreases, too.

[0004] Frequently, it is a problem that herbicides can only be applied within a narrow time frame in order to achieve the desired herbicidal action, which time frame may be unpredictably influenced by weather conditions.

[0005] It is known that special combinations of different specifically active herbicides result in enhanced activity of an herbicide component in the sense of a synergistic effect. In this manner, it is possible to reduce the application rates of herbicidally active compounds required for controlling the harmful plants.

[0006] Furthermore, it is known that in some cases joint application of specifically acting herbicides with organic active compounds, some of which may also have herbicidal activity, allows better crop plant compatibility to be achieved. In these cases, the active compounds act as antidotes or antagonists and are also referred to as safeners, since they reduce or even prevent damage to the crop plants.

[0007] 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione is the herbicidal active substance of the formula (I):



(I)

[0008] 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, which hereinafter is also termed as benzoxazinone (I), and a process for its production are known from WO 2010/145992. This process yields benzoxazinone of formula (I) as an amorphous solid.

[0009] By applying suitable crystallization conditions a crystalline, stable modification of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione can be prepared, which does not display the disadvantages of the amorphous benzoxazinone (I). This crystalline form is hereinafter described and termed "the crystalline form A of benzoxazinone (I)" or "form A".

[0010] The form A according to the invention can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram of form A recorded using Cu-Kα radiation (1.54178 Å) at 25 °C shows at least 3, often at least 5, in particular at least 7, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
8,6±0,2°	10,28
10,9±0,2°	8,16
12,9±0,2°	6,86
13,4±0,2°	6,63
14,0±0,2°	6,33

(continued)

2θ values	d [Å]
14,4±0,2°	6,14
15,5±0,2°	5,72
16,9±0,2°	5,25
18,2±0,2°	4,88
20,5±0,2°	4,33

[0011] It is an object of the present invention to provide herbicidal compositions which are highly active against unwanted harmful plants. At the same time, the compositions should have good compatibility with useful plants. In addition, the compositions according to the invention should have a broad spectrum of activity.

[0012] This and further objects are achieved by the herbicidal compositions below.

[0013] Accordingly, the present invention relates to herbicidal compositions comprising

A) the crystalline form A of benzoxazinone (I);
and at least one further active compound selected from

B) herbicides of class b1) to b15):

b1) lipid biosynthesis inhibitors;
b2) acetolactate synthase inhibitors (ALS inhibitors);
b3) photosynthesis inhibitors;
b4) protoporphyrinogen-IX oxidase inhibitors,
b5) bleacher herbicides;
b6) enolpyruvyl shikimate 3-phosphate synthase inhibitors (EPSP inhibitors);
b7) glutamine synthetase inhibitors;
b8) 7,8-dihydropteroate synthase inhibitors (DHP inhibitors);
b9) mitose inhibitors;
b10) inhibitors of the synthesis of very long chain fatty acids (VLCFA inhibitors);
b11) cellulose biosynthesis inhibitors;
b12) decoupler herbicides;
b13) auxin herbicides;
b14) auxin transport inhibitors; and
b15) other herbicides selected from the group consisting of bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters;
and

C) safeners;

including the agriculturally acceptable salts or derivatives of herbicides B and safeners C having a carboxyl group.

[0014] The invention relates in particular to compositions in the form of herbicidal active crop protection compositions comprising a herbicidally effective amount of an active compound combination comprising the crystalline form A of benzoxazinone (I) and at least one further compound selected from the herbicides B and the safeners C, as defined above, and also at least one liquid and/or solid carrier and/or one or more surfactants and, if desired, one or more further auxiliaries customary for crop protection compositions.

[0015] The invention also relates to compositions in the form of a crop protection composition formulated as a 1-component composition comprising an active compound combination comprising the crystalline form A of benzoxazinone (I) and at least one further active compound selected from the herbicides B and the safeners C, and at least one solid or liquid carrier and/or one or more surfactants and, if desired, one or more further auxiliaries customary for crop protection

compositions.

[0016] The invention also relates to compositions in the form of a crop protection composition formulated as a 2-component composition comprising a first component comprising the crystalline form A of benzoxazinone (I), a solid or liquid carrier and/or one or more surfactants, and a second component comprising at least one further active compound selected from the herbicides B and safeners C, a solid or liquid carrier and/or one or more surfactants, where additionally both components may also comprise further auxiliaries customary for crop protection compositions.

[0017] Surprisingly, the compositions according to the invention comprising the crystalline form A of benzoxazinone (I) and at least one herbicide B have better herbicidal activity, i.e. better activity against harmful plants, than would have been expected based on the herbicidal activity observed for the individual compounds, or a broader activity spectrum. The herbicidal activity to be expected for mixtures based on the individual compound can be calculated using Colby's formula (see below). If the activity observed exceeds the expected additive activity of the individual compounds, synergism is said to be present.

[0018] Moreover, the time frame, within which the desired herbicidal action can be achieved, may be expanded by the compositions according to the invention comprising the crystalline form A of benzoxazinone (I) and at least one herbicide B and optionally a safener C. This allows a more flexibly timed application of the compositons according to the present invention in comparison with the single compounds.

[0019] The compositions according to the invention comprising both the crystalline form A of benzoxazinone (I) and at least one of the safeners mentioned under C also have good herbicidal activity against harmful plants and better compatibility with useful plants.

[0020] Surprisingly, the compositions according to the invention comprising the crystalline form A of benzoxazinone (I), at least one herbicide B and at least one of the safeners mentioned under C have better herbicidal activity, i.e. better activity against harmful plants, than would have been expected based on the herbicidal activity observed for the individual compounds, or a broader activity spectrum, and show better compatibility with useful plants than compositions comprising only the crystalline form A of benzoxazinone (I) and one herbicide B.

[0021] The invention furthermore relates to a method for controlling unwanted vegetation, in particular where crop plants are cultivated.

[0022] The invention also relates to a method for the desiccation or defoliation of plants.

[0023] As used herein, the terms "controlling" and "combating" are synonyms.

As used herein, the terms "undesirable vegetation" and "harmful plants" are synonyms.

[0024] Further embodiments of the present invention are evident from the claims, the description and the examples. It is to be understood that the features mentioned above and still to be illustrated below of the subject matter of the invention can be applied not only in the combination given in each particular case but also in other combinations, without leaving the scope of the invention.

[0025] For the production of active substances on the industrial scale but also for the formulation of active substances, in many cases knowledge concerning the possible existence of crystalline modifications (also described as crystalline forms) or of solvates of the active substance in question, and knowledge of the specific properties of such modifications and solvates and of methods for their preparation are of decisive importance. A range of active substances can exist in different crystalline but also in amorphous modifications. Polymorphism is the term used in these cases. A polymorph is a solid, crystalline phase of a compound which is characterized by a specific, uniform packing and arrangement of the molecules in the solid.

[0026] Different modifications of one and the same active substance can sometimes have different properties, for example differences in the following properties: solubility, vapor pressure, dissolution rate, stability against a phase change into a different modification, stability during grinding, suspension stability, optical and mechanical properties, hygroscopicity, crystal form and size, filterability, density, melting point, stability to decomposition, color and sometimes even chemical reactivity or biological activity.

[0027] The applicant's own attempts to convert benzoxazinone (I) into a crystalline solid by crystallization at first resulted in amorphous products or in complex mixtures of different crystal modifications, which could only be handled with difficulty and whose stability against uncontrolled phase change was unsatisfactory.

[0028] By applying suitable crystallization conditions crystalline, stable modification of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione can be prepared, which does not display the disadvantages of the amorphous benzoxazinone (I). This crystalline form is hereinafter described and termed "the crystalline form A of benzoxazinone (I)" or "form A".

[0029] In addition, the crystalline form A according to the invention is easier to handle than the previously known amorphous benzoxazinone (I), since during production they are obtained in the form of discrete crystals. Compared to mixtures of different crystal modifications of benzoxazinone (I), the pure form A displays increased stability with regard to conversion into another modification. The term "pure form A" should be understood to mean that the proportion of the form A, based on the total quantity of benzoxazinone (I), is at least 90 wt.% and in particular at least 95 wt.%.

[0030] Accordingly, a first object of the present invention relates to the crystalline form A of benzoxazinone (I). Also

an object is a benzoxazinone (I), which at least 90 wt.% in particular at least 95 % consists of the crystalline form A.

[0031] The form A according to the invention can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram of form A recorded using Cu-Kα radiation (1.54178 Å) at 25 °C shows at least 3, often at least 5, in particular at least 7, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
8,6±0,2°	10,28
10,9±0,2°	8,16
12,9±0,2°	6,86
13,4±0,2°	6,63
14,0±0,2°	6,33
14,4±0,2°	6,14
15,5±0,2°	5,72
16,9±0,2°	5,25
18,2±0,2°	4,88
20,5±0,2°	4,33

[0032] Studies on single crystals of form A demonstrate that the underlying crystal structure is orthorhombic. The unit cell has the space group Pna2(1). The characteristic data of the crystal structure of form A (determined at -173 °C) are compiled in the following table.

Crystallographic characteristics of form A

Parameter	Form A
Crystal system	Orthorhombic
Space group	P n a 2_1
a	16.0815(4) Å
b	13.1360(3) Å
c	7.9675(2) Å
α	90°
β	90°
γ	90°
Volume	1683.11(7) $Å^3$
Z	4
Density (calculated)	1.63 g/cm^3
R-Factor (%)	2.97
a,b,c = Length of the edges of the unit cell α ,β,γ = Angles of the unit cell Z = Number of molecules, in the unit cell	

[0033] Form A displays a thermogram with a characteristic melting peak in the range from 150 to 185°C. The melting point, determined as the onset of the melting peak, typically lies in the range from about 170°C to 180°C, in particular in the range from 174 to 179°C.

The melting enthalpy is preferably in the range from 70 to 80 J/g. The values quoted here relate to values determined by differential calorimetry (differential scanning calorimetry: DSC, aluminum closed and vented cup, nitrogen flow 150 ml/min, heating rate 5 K/min).

[0034] The production of the form A of benzoxazinone (I) according to the invention may be effected by crystallization from a solution of benzoxazinone (I) in a suitable organic solvent. Suitable solvents for the crystallization of form A from a solution are organic solvents which are selected from C_1-C_3-alkanols, such as methanol, ethanol, n-propanol or isopropanol, C_1-C_4-dialkylketones, such as acetone, mono- or di-C_1-C_4-dialkylbenzenes such as ethylbenzene or xylenes, and mono- or dichlorobenzenes.

[0035] The production of the form A of benzoxazinone (I) according to the invention may be also be effected by crystallization from a slurry of benzoxazinone (I) in a suitable organic solvent. Suitable solvents for the crystallization of form A from a slurry are mixtures of water with water-miscible organic solvents which are selected from C_1-C_3-alkanols, in particular ethanol or isopropanol, C_2-C_4-alkandiols, such as 1,3-propanediol, C_1-C_4-dialkylketones, such as acetone and cyclic ethers having preferably 4 to 6 carbon atoms and 1 or 2 oxygen atoms, such as tetrahy-drofurane and 1,4-dioxane.

[0036] In order to obtain form A of benzoxazinone (I), the crystallization is effected at temperatures of below 60°C, in particular at most 50°C and more preferably at most 40°C. Crystallization of form A is preferably effected under controlled conditions, i.e. the conditions of the crystallization are chosen to achieve a slow crystallization rate.

[0037] For this, in a first step i) a solution or slurry of benzoxazinone (I) in one of the aforesaid solvents or solvent mixtures is prepared, and then in a second step ii) crystallization of the benzoxazinone (I) is effected at temperatures of below 60°C, in particular at most 50°C and more preferably at most 40°C, e.g. from -10 to 50°C, in particular from 0 to 40°C.

[0038] The concentration of benzoxazinone (I) in the solution or slurry used for the crystallization naturally depends on the nature of the solvent and the dissolution temperature and often lies in the range from 100 to 800 g/l. Suitable conditions can be determined by the person skilled in the art by routine experiments.

[0039] Preferably the solution or slurry used for the crystallization contains benzoxazinone (I) in a purity of at least 85%, often at least 90%, in particular at least 95%, i.e. the content of organic impurities which are not organic solvents is not more than 15 wt.%, often not more than 10 wt.%, and in particular not more than 5 wt.%, based on the benzoxazinone (I) present dissolved in the solvent.

[0040] The solution or slurry used for the crystallization is preferably essentially free from solvents other than those stated. In this context, "essentially free" means that the concentration of other solvents in the benzoxazinone (I) containing solution or slurry does not exceed 10 wt.%, often 5 wt.%, based on the total quantity of solvent.

[0041] The solution of benzoxazinone (I) can for example be prepared by the following methods:

(1) Dissolution of the benzoxazinone (I), preferably in a form different from form A, in one of the aforesaid polar organic solvents, or

(2) Preparation of the benzoxazinone (I) by a chemical reaction and transfer of the reaction mixture, if necessary after removal of reagents and/or side products, into an organic solvent suitable according to the invention.

[0042] For the preparation of the solution by dissolution of the benzoxazinone (I), essentially any known form of benzoxazinone (I) can be used. Often amorphous benzoxazinone (I) or a mixture of different crystalline modifications or a mixture of amorphous and crystalline benzoxazinone (I) will be used. Also suitable are other crystalline forms of benzoxazinone (I) and mixtures thereof, for example the form B described below and the form C also described below, not according to the invention, and mixtures of these forms as well as mixtures of form A with form B or form C of benzoxazinone (I).

[0043] The dissolution of the benzoxazinone (I) is usually effected at temperatures in the range from 10 to 100°C, in particular from 20 to 60°C.

[0044] The solution of the benzoxazinone (I) can also be prepared by transferring a reaction mixture obtained by a chemical reaction, which contains the benzoxazinone (I), if necessary after removal of reagents and/or side products, into an organic solvent suitable according to the invention. This can be effected in such a manner that the reaction is performed in an organic solvent or solvent mixture which consists at least partly, preferably at least 50 wt.%, of a solvent suitable for the crystallization and, if necessary a workup is performed during which excess reagents and any catalysts present and any unsuitable solvents present, for example water and/or methanol, are removed. The preparation of a solution of the benzoxazinone (I) by chemical reaction of a suitable precursor of benzoxazinone (I) can be effected by analogy to the methods which are described in the state of the art cited at the beginning, to which full reference is hereby made.

[0045] For the preparation of a slurry of the benzoxazinone (I), essentially any known form of benzoxazinone (I) can be used. Of course, in the preparation of form A usually a form of benzoxazinone (I) which is different from pure form A. However, benzoxazinone (I) may be used in a form already containing form A, thereby achieving a form A having a higher content of form A. Often amorphous benzoxazinone (I) or a mixture of different crystalline modifications or a mixture of amorphous and crystalline benzoxazinone (I) will be used. Also suitable are other crystalline forms of ben-

zoxazinone (I) and mixtures thereof, for example the form B described below and the form C also described below, not according to the invention, and mixtures of these forms as well as mixtures of form A with form B and/or form C of benzoxazinone (I).

[0046] The crystallization of form A of benzoxazinone (I) can be effected as follows, for example

- by cooling of the solution or slurry which contains the dissolved or dispersed benzoxazinone (I),
- by concentration of the solution or slurry which contains the dissolved or dispersed benzoxazinone (I), or
- by a combination of the aforesaid measures.

[0047] The crystallization is as a rule carried out until at least 80 wt.%, preferably at least 90 wt.%, of the benzoxazinone (I) used crystallizes out.

[0048] If the crystallization of form A is effected by cooling, the cooling rate is preferably less than 10 K/min.

[0049] The crystallization of form A can be promoted or accelerated by seeding with seed crystals of form A, for example by adding seed crystals of form A before or during the crystallization.

[0050] If seed crystals are added during the crystallization, the quantity thereof is typically 0.001 to 10 wt.%, often 0.005 to 5 wt.%, in particular 0.01 to 1 wt.% and especially 0.05 to 0.5 wt.%, based on the dissolved benzoxazinone (I).

[0051] If the crystallization is performed in the presence of seed crystals of form A, these are preferably only added at a temperature at which the saturation concentration of the benzoxazinone (I) in the solvent in question has been reached, i.e. at or below that temperature at which the dissolved quantity of benzoxazinone (I) forms a saturated solution in the solvent in question. The person skilled in the art can determine the temperature dependence of the saturation concentration in a solvent in routine experiments.

[0052] The isolation of the form A from the crystallization product, i.e. the separation of the form A from the mother liquor, is effected by usual techniques for the separation of solid components from liquids, for example by filtration, centrifugation or by decantation. As a rule, the isolated solid will be washed, for example with the solvent used for the crystallization, with water or with a mixture of the organic solvent used for the crystallization with water. The washing can be effected in one or more steps, washing with water often being used in the last washing step. The washing is typically effected at temperatures below 30°C, often below 25°C and in particular below 20°C, in order to keep the loss of valuable product as small as possible. Next, the form A obtained can be dried and then supplied for further processing. Often, however, the moist active substance obtained after washing, in particular an active substance moist with water, will be supplied directly for the further processing.

[0053] By means of the crystallization according to the invention, form A is obtained with a benzoxazinone (I) content of as a rule at least 90 wt.%, often 94 wt.%, in particular at least 96 wt.%. The content of form A, based on the total quantity of benzoxazinone (I), is typically at least 90% and often at least 95 % or at least 96%.

[0054] Therefore, a particular embodiment of the invention relates to 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, which consists of at least 90 wt.% and often at least 95 % or at least 96% of the crystalline form A.

[0055] The crystalline form A may be mixed with other forms of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, e.g. form B and/or form C, without loosing the benefits achieved by form A. Therefore, the invention also relates to a mixture of the crystalline form A of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione as described herein and 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione in a form which is different from form A, where the total amount of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione in the mixture is at least 90 % by weight, preferably at least 94 % by weight, based on the total weight of the mixture. The mixture can likewise be used for preparing formulations as described hereinafter and can likewise be used as form A itself. In the mixture, the amout of form A will generally be at least 50 % by weight, in particular at least 60 % by weight, e.g. form 50 to 95 % by weight, in particular from 60 to 90 % by weight, based on the total amount of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione contained in the mixture.

[0056] The preparation of benzoxazinone (I) used for the production of the form A can be effected by the process described in WO 2010/145992, to which full reference is hereby made.

[0057] In connection with the study on the crystallization of benzoxazinone (I), two further crystalline modifications B and C were found. While modification B can be obtained in pure form, modification C was occasionally obtained as a mixture with forms A and B. Form B can be stably formulated and is part of another patent application.

[0058] The form B can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram of form B recorded using Cu-Kα radiation (1.54178 Å) at 25°C shows at least 3, often at least 5, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
9,0±0,2°	9,85
10,9±0,2°	8,10
11,5±0,2°	7,69
12,9±0,2°	6,87
13,5±0,2°	6,56
14,9±0,2°	5,96
16,4±0,2°	5,42
16,5±0,2°	5,36
17,5±0,2°	5,06
20,3±0,2°	4,39

[0059] Form B displays a thermogram with a characteristic melting peak in the range from 190 to 220°C. The melting point, determined as the onset of the melting peak, typically lies in the range from about 200°C to 210°C, in particular in the range from 203 to 208°C.

[0060] The melting enthalpy is preferably in the range from 30 to 40 J/g. The values quoted here relate to values determined by differential calorimetry (differential scanning calorimetry: DSC, aluminum closed and vented cup, nitrogen flow 150 ml/min, heating rate 5 K/min).

[0061] The production of the modification B can be principally effected analogously to the production of the modification A by running the crystallization at temperatures exceeding 60°C, in particular at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C.

[0062] Form B can bee obtained e.g. by crystallization from a solution or slurry of benzoxazinone (I) in toluene at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C. Apart from that crystallization from a solution of benzoxazinone (I) to obtain form B can be performed by analogy to the crystallization of form A, in particular regarding preparation of the solution, concentrations and measures of effecting crystallization, provided that crystallization is effected in the above temperature range.

[0063] Form B can bee obtained e.g. by crystallization from a slurry of benzoxazinone (I) in a mixture of water and a water-miscible solvent, selected from C_1-C_3-alkanols, in particular methanol or isopropanol, C_2-C_4-alkandiols, such as 1,3-propanediol, C_1-C_4-dialkylketones, such as acetone and cyclic ethers having preferably 4 to 6 carbon atoms and 1 or 2 oxygen atoms such as tetra-hydrofurane and 1,4-dioxane at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C. Apart from that crystallization from a slurry of benzoxazinone (I) to obtain form B can be performed by analogy to the crystallization of form A, in particular regarding preparation of the slurry, concentrations and measures of effecting crystallization, provided that crystallization is effected in the above temperature range.

[0064] Pure form B is also obtained by heating the crystalline benzoxazinone (I), e.g. form A of benzoxazinone (I) or mixtures of forms A + B + C to temperatures of at least 160°C, in particular at least 170°C, e.g. temperatures in the range from 160°C to 210°C or in the range from 170 to 200°C.

[0065] By means of the crystallization the form B can be obtained with a benzoxazinone (I) content of as a rule at least 90 wt.%, often 94 wt.%, in particular at least 96 wt.%. The content of form B, based on the total quantity of benzoxazinone (I), is typically at least 90% and often at least 95 % or at least 96%.

[0066] In the mixture of forms A, B and C, form C can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram recorded using Cu-Kα radiation (1.54178 Å) at 25°C shows at least 3, often at least 5, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
7,6±0,2°	11,64
9,6±0,2°	9,17
11,8±0,2°	7,48
12,4±0,2°	7,11

(continued)

2θ values	d [Å]
15,2±0,2°	5,81
15,9±0,2°	5,57
16,1±0,2°	5,52
19,1±0,2°	4,64

[0067] To broaden the spectrum of action and to achieve synergistic effects, the crystalline form A of benzoxazinone (I) can be mixed with a large number of representatives of other herbicidal or growth-regulating active ingredient groups and then applied concomitantly. Suitable components for mixtures are, for example, 1,2,4-thiadiazoles, 1,3,4-thiadiazoles, amides, aminophosphoric acid and its derivatives, aminotriazoles, anilides, (het)aryloxyalkanoic acids and their derivatives, benzoic acid and its derivatives, benzothiadiazinones, 2-aroyl-1,3-cyclohexanediones, 2-hetaroyl-1,3-cyclohexanediones, hetaryl aryl ketones, benzylisoxazolidinones, meta-CF_3-phenyl derivatives, carbamates, quinolinecarboxylic acid and its derivatives, chloroacetanilides, cyclohexenone oxime ether derivatives, diazines, dichloropropionic acid and its derivatives, dihydrobenzofurans, dihydrofuran-3-ones, dinitroanilines, dinitrophenols, diphenyl ethers, dipyridyls, halocarboxylic acids and their derivatives, ureas, 3-phenyluracils, imidazoles, imidazolinones, N-phenyl-3,4,5,6-tetrahydrophthalimides, oxadiazoles, oxiranes, phenols, aryloxy- and hetaryloxyphenoxypropionic esters, phenylacetic acid and its derivatives, 2-phenylpropionic acid and its derivatives, pyrazoles, phenylpyrazoles, pyridazines, pyridinecarboxylic acid and its derivatives, pyrimidyl ethers, sulfonamides, sulfonylureas, triazines, triazinones, triazolinones, triazolecarboxamides, uracils, phenyl pyrazolines and isoxazolines and derivatives thereof.

[0068] It is furthermore be beneficial to apply the crystalline form A of benzoxazinone (I) alone or in combination with other herbicides, or else in the form of a mixture with other crop protection agents, for example together with agents for controlling pests or phytopathogenic fungi or bacteria.

Also of interest is the miscibility with mineral salt solutions, which are employed for treating nutritional and trace element deficiencies. Other additives such as non-phytotoxic oils and oil concentrates may also be added.

[0069] In one embodiment of the present invention the compositions according to the present invention comprise the crystalline form A of benzoxazinone (I) and at least one further herbicide B.

[0070] The further herbicide B is selected from the herbicides of class b1) to b15):

b1) lipid biosynthesis inhibitors;
b2) acetolactate synthase inhibitors (ALS inhibitors);
b3) photosynthesis inhibitors;
b4) protoporphyrinogen-IX oxidase inhibitors,
b5) bleacher herbicides;
b6) enolpyruvyl shikimate 3-phosphate synthase inhibitors (EPSP inhibitors);
b7) glutamine synthetase inhibitors;
b8) 7,8-dihydropteroate synthase inhibitors (DHP inhibitors);
b9) mitose inhibitors;
b10) inhibitors of the synthesis of very long chain fatty acids (VLCFA inhibitors);
b11) cellulose biosynthesis inhibitors;
b12) decoupler herbicides;
b13) auxin herbicides;
b14) auxin transport inhibitors; and
b15) other herbicides selected from the group consisting of bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

[0071] Preference is given to those compositions according to the present invention comprising at least one herbicide B selected from herbicides of class b2, b3, b4, b5, b6, b9 and b10.

[0072] Specific preference is given to those compositions according to the present invention which comprise at least one herbicide B selected from the herbicides of class b4, b6, b9 and b10.

[0073] Particular preference is given to those compositions according to the present invention which comprise at least one herbicide B selected from the herbicides of class b4, b6 and b10.

[0074] According to a first embodiment of the invention the compositions contain at least one inhibitor of the lipid biosynthesis (herbicide b1). These are compounds which inhibit lipid biosynthesis. Inhibition of the lipid biosynthesis can be affected either through inhibition of acetyl CoA carboxylase (hereinafter termed ACC herbicides) or through a different mode of action (hereinafter termed non-ACC herbicides). The ACC herbicides belong to the group A of the HRAC classification system whereas the non-ACC herbicides belong to the group N of the HRAC classification.

[0075] According to a second embodiment of the invention the compositions contain at least one ALS inhibitor (herbicide b2). The herbicidal activity of these compounds is based on the inhibition of acetolactate synthase und thus on the inhibiton of the branched chain aminoacid biosynthesis. These inhibitors belong to the group B of the HRAC classification system.

[0076] According to a third embodiment of the invention the compositions contain at least one inhibitor of photosynthesis (herbicide b3). The herbicidal activity of these compounds is based either on the inhibition of the photosystem II in plants (so-called PSII inhibitors, groups C1, C2 and C3 of HRAC classification) or on diverting the electron transfer in photosystem I in plants (so-called PSI inhibitors, group D of HRAC classification) and thus on an inhibition of photosynthesis. Amongst these, PSII inhibitors are preferred.

[0077] According to a fourth embodiment of the invention the compositions contain at least one inhibitor of protoporphyrinogen-IX-oxidase (herbicide b4). The herbicidal activity of these compounds is based on the inhibition of the protoporphyrinogen-IX-oxidase. These inhibitors belong to the group E of the HRAC classification system.

[0078] According to a fifth embodiment of the invention the compositions contain at least one bleacher-herbicide (herbicide b5). The herbicidal activity of these compounds is based on the inhibition of the carotinoid biosynthesis. These include compounds which inhibit carotinoid biosynthesis by inhibition of phytoene desaturase (so-called PDS inhibitors, group F1 of HRAC classification), compounds which inhibit the 4-hydroxyphenylpyruvat-dioxygenase (HPPD inhibitors, group F2 of HRAC classification) and compounds which inhibit carotinoid biosynthesis by an unknown mode of action (bleacher - unknown target, group F3 of HRAC classification).

[0079] According to a sixth embodiment of the invention the compositions contain at least one EPSP synthase inhibitor (herbicide b6). The herbicidal activity of these compounds is based on the inhibition of enolpyruvyl shikimate 3-phosphate synthase und thus on the inhibition of the aminoacid biosynthesis in plants. These inhibitors belong to the group G of the HRAC classification system.

[0080] According to a seventh embodiment of the invention the compositions contain at least one glutamin synthetase inhibitor (herbicide b7). The herbicidal activity of these compounds is based on the inhibition of glutamin synthetase und thus on the inhibition of the aminoacid biosynthesis in plants. These inhibitors belong to the group H of the HRAC classification system.

[0081] According to an eighth embodiment of the invention the compositions contain at least one DHP synthase inhibitor (herbicide b8). The herbicidal activity of these compounds is based on the inhibition of 7,8-dihydropteroate synthetase. These inhibitors belong to the group I of the HRAC classification system.

[0082] According to a ninth embodiment of the invention the compositions contain at least one mitose inhibitor (herbicide b9). The herbicidal activity of these compounds is based on the disturbance or inhibition of microtubule formation or organization and thus on the mitosis inhibition. These inhibitors belong to the groups K1 and K2 of the HRAC classification system. Among these, compounds of the group K1, in particular dinitroanilines, are preferred.

[0083] According to a tenth embodiment of the invention the compositions contain at least one VLCFA inhibitor (herbicide b10). The herbicidal activity of these compounds is based on the inhibition of the synthesis of very long chain fatty acids and thus on the disturbance or inhibition of cell division in plants. These inhibitors belong to the group K3 of the HRAC classification system.

[0084] According to an eleventh embodiment of the invention the compositions contain at least one cellulose biosynthesis inhibitor (herbicide b11). The herbicidal activity of these compounds is based on the inhibition of the biosynthesis of cellulose and thus on the inhibition of the synthesis of cell walls in plants. These inhibitors belong to the group L of the HRAC classification system.

[0085] According to a twelfth embodiment of the invention the compositions contain at least one decoupler herbicide (herbicide b12). The herbicidal activity of these compounds is based on the disruption of the cell membrane. These inhibitors belong to the group M of the HRAC classification system.

[0086] According to a thirtheenth embodiment of the invention the compositions contain at least one auxin herbicide (herbicide b13). These include compounds which act like auxins, i.e. plant hormones, and inhibit the growth of the plants. These compounds belong to the group O of the HRAC classification system.

[0087] According to a fourteenth embodiment of the invention the compositions contain at least one auxin transport inhibitor (herbicide b14). The herbicidal activity of these compounds is based on the inhibition of the auxin transport in plants. These compounds belong to the group P of the HRAC classification system.

As to the given mechanisms of action and classification of the active substances, see e.g. "HRAC, Classification of

Herbicides According to Mode of Action", http://www.plantprotection.org/hrac/MOA.html).

[0088] Examples of herbicides B which can be used in combination with the crystalline form A of benzoxazinone (I) according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors:

ACC-herbicides such as alloxydim, alloxydim-sodium, butroxydim, clethodim, clodinafop, clodinafop-propargyl, cycloxydim, cyhalofop, cyhalofop-butyl, diclofop, diclofop-methyl, fenoxaprop, fenoxaprop-ethyl, fenoxaprop-P, fenoxaprop-P-ethyl, fluazifop, fluazifop-butyl, fluazifop-P, fluazifop-P-butyl, haloxyfop, haloxyfop-methyl, haloxyfop-P, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop, quizalofop-ethyl, quizalofop-tefuryl, quizalofop-P, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim and tralkoxydim, and non ACC herbicides such as benfuresate, butylate, cycloate, dalapon, dimepiperate, EPTC, esprocarb, ethofumesate, flupropanate, molinate, orbencarb, pebulate, prosulfocarb, TCA, thiobencarb, tiocarbazil, triallate and vernolate;

b2) from the group of the ALS inhibitors:

Sulfonylureas such as amidosulfuron, azimsulfuron, bensulfuron, bensulfuron-methyl, chlorimuron, chlorimuron-ethyl, chlorsulfuron, cinosulfuron, cyclosulfamuron, ethametsulfuron, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, flucetosulfuron, flupyrsulfuron, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron, halosulfuron-methyl, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, metsulfuron, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, primisulfuron, primisulfuron-methyl, propy-risulfuron, prosulfuron, pyrazosulfuron, pyrazosulfuron-ethyl, rimsulfuron, sulfometuron, sulfometuron-methyl, sulfosulfuron, thifensulfuron, thifensulfuron-methyl, triasulfuron, tribenuron, tribenuron-methyl, trifloxysulfuron, triflusulfuron, triflusulfuron-methyl and tritosulfuron, imidazolinones such as imazamethabenz, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin and imazethapyr, triazolopyrimidine herbicides and sulfonanilides such as cloransulam, cloransulam-methyl, diclosulam, flumetsulam, florasulam, metosulam, penoxsulam, pyrimisulfan and pyroxsulam,
pyrimidinylbenzoates such as bispyribac, bispyribac-sodium, pyribenzoxim, pyriftalid, pyriminobac, pyriminobac-methyl, pyrithiobac, pyrithiobac-sodium, 4-[[[2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]phenyl]methyl]amino]-benzoic acid-1-methylethyl ester (CAS 420138-41-6), 4-[[[2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]phenyl]methyl]amino]-benzoic acid propyl ester (CAS 420138-40-5), N-(4-bromophenyl)-2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]benzenemethanamine (CAS 420138-01-8) and sulfonylaminocarbonyl-triazolinone herbicides such as flucarbazone, flucarbazone-sodium, propoxycarbazon, propoxycarbazon- sodium, thiencarbazone and thiencarbazone-methyl. Among these, a preferred embodiment of the invention relates to those compositions comprising at least one imidazolinone herbicide;

b3) from the group of the photosynthesis inhibitors:

amicarbazone, inhibitors of the photosystem II, e.g. triazine herbicides, including of chlorotriazine, triazinones, triazindiones, methylthiotriazines and pyridazinones such as ametryn, atrazine, chloridazone, cyanazine, desmetryn, dimethametryn,hexazinone, metribuzin, prometon, prometryn, propazin, simazin, simetryn, terbumeton, terbuthylazin, terbutryn and trietazin, aryl urea such as chlorobromuron, chlorotoluron, chloroxuron, dimefuron, diuron, fluometuron, isoproturon, isouron, linuron, metamitron, methabenzthiazuron, metobenzuron, metoxuron, monolinuron, neburon, siduron, tebuthiuron and thiadiazuron, phenyl carbamates such as desmedipham, karbutilat, phenmedipham, phenmedipham-ethyl, nitrile herbicides such as bromofenoxim, bromoxynil and its salts and esters, ioxynil and its salts and esters, uraciles such as bromacil, lenacil and terbacil, and bentazon and bentazon-sodium, pyridatre, pyridafol, pentanochlor and propanil and inhibitors of the photosystem I such as diquat, diquat-dibromide, paraquat, paraquat-dichloride and paraquat-dimetilsulfate. Among these, a preferred embodiment of the invention relates to those compositions comprising at least one aryl urea herbicide. Among these, likewise a preferred embodiment of the invention relates to those compositions comprising at least one triazine herbicide. Among these, likewise a preferred embodiment of the invention relates to those compositions comprising at least one nitrile herbicide;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:

acifluorfen, acifluorfen-sodium, azafenidin, bencarbazone, benzfendizone, bifenox, butafenacil, carfentrazone, carfentrazone-ethyl, chlomethoxyfen, cinidon-ethyl, fluazolate, flufenpyr, flufenpyr-ethyl, flumiclorac, flumi-

clorac-pentyl, flumioxazin, fluoroglycofen, fluoroglycofen-ethyl, fluthiacet, fluthiacet-methyl, fomesafen, halosafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, profluazol, pyraclonil, pyraflufen, pyraflufen-ethyl, saflufenacil, sulfentrazone, thidiazimin, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 45100-03-7) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides:

PDS inhibitors: beflubutamid, diflufenican, fluridone, flurochloridone, flurtamone, norflurazon, picolinafen, and 4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7), HPPD inhibitors: benzobicyclon, benzofenap, isoxaflutole, mesotrione, pyrasulfotole, pyrazolynate, pyrazoxyfen, sulcotrione, tefuryltrione, tembotrione, topramezone and bicyclopyrone, bleacher, unknown target: aclonifen, amitrole, clomazone and flumeturon;

b6) from the group of the EPSP synthase inhibitors:

glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors:

bilanaphos (bialaphos), bilanaphos-sodium, glufosinate, glufosinate-P and glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors:

asulam;

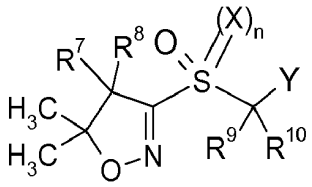
b9) from the group of the mitose inhibitors:

compounds of group K1: dinitroanilines such as benfluralin, butralin, dinitramine, ethalfluralin, fluchloralin, oryzalin, pendimethalin, prodiamine and trifluralin, phosphoramidates such as amiprophos, amiprophos-methyl, and butamiphos, benzoic acid herbicides such as chlorthal, chlorthal-dimethyl, pyridines such as dithiopyr and thiazopyr, benzamides such as propyzamide and tebutam; compounds of group K2: chlorpropham, propham and carbetamide, among these, compounds of group K1, in particular dinitroanilines are preferred;

b10) from the group of the VLCFA inhibitors:

chloroacetamides such as acetochlor, alachlor, butachlor, dimethachlor, dimethenamid, dimethenamid-P, metazachlor, metolachlor, metolachlor-S, pethoxamid, pretilachlor, propachlor, propisochlor and thenylchlor, oxyacetanilides such as flufenacet and mefenacet, acetanilides such as diphenamid, naproanilide and napropamide, tetrazolinones such fentrazamide, and other herbicides such as anilofos, cafenstrole, fenoxasulfone, ipfencarbazone, piperophos, pyroxasulfone and

isoxazoline compounds of the formula II,



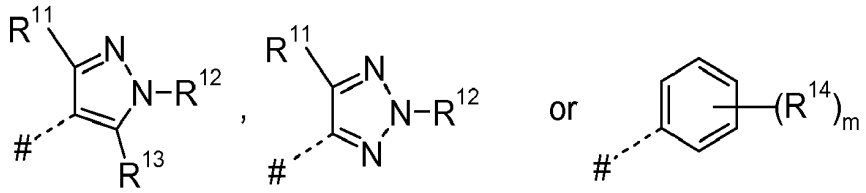
(II)

wherein R^7, R^8, R^9, R^{10}, W, Z and n have the following meanings:

R^7, R^8, R^9, R^{10}		independently of one another hydrogen, halogen or C_1-C_4-alkyl;
X		oxygen or NH;
Y		phenyl or monocyclic 5-, 6-, 7-, 8-, 9- or 10-membered heterocyclyl containing, in addition to carbon ring members one, two or three same or different heteroatoms selected from oxygen, nitrogen and sulfur as ring members, wherein phenyl and heterocyclyl are unsubstituted or carry 1, 2 or 3 substituents R^{yy} selected from halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkyl and C_1-C_4-haloalkoxy; preferably phenyl or 5- or 6-membered aromatic heterocyclyl (hetaryl) which contains, in addition to carbon ring members, one, two or three nitrogen atoms as ring members, wherein phenyl and hetaryl are unsubstituted or carry 1, 2 or 3 substituents R^{yy} ; and
n		zero or one;

among the isoxazoline compounds of the formula II, preference is given to isoxazoline compounds of the formula II, wherein

R^7, R^8, R^9, R^{10}		independently of one another are H, F, Cl or methyl;
X		is oxygen;
n		is 0 or 1; and
Y		is phenyl, pyrazolyl or 1,2,3-triazolyl, wherein the three last-mentioned radicals are unsubstituted or carry one, two or three substituents R^{yy}, especially one of the following radicals

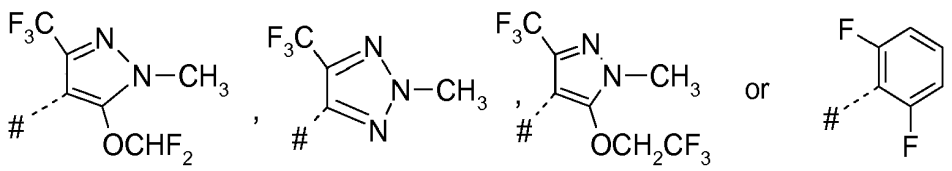


wherein

R^{11}	is halogen, C_1-C_4-alkyl or C_1-C_4-haloalkyl;
R^{12}	is C_1-C_4-alkyl;
R^{13}	is halogen, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy;
R^{14}	is halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl or C_1-C_4-haloalkoxy;
m	is 0, 1, 2 or 3; and
#	denotes the point of attachment to the group $CR^{13}R^{14}$;

among the isoxazoline compounds of the formula II, particular preference is given to those isoxazoline compounds of the formula II, wherein

R^7	is hydrogen;
R^8	is fluorine;
R^9	is hydrogen or fluorine;
R^{10}	is hydrogen or fluorine;
X	is oxygen;
Y	is one of the radicals of the formulae Y^1, Y^2, Y^3 or Y^4

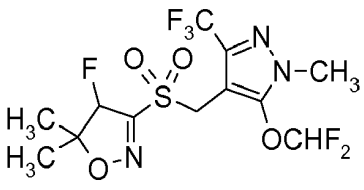


Y^1 Y^2 Y^3 Y^4

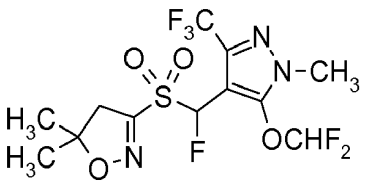
wherein # denotes the point of attachment to the group CR^9R^{10};

n is zero or 1, in particular 1; and

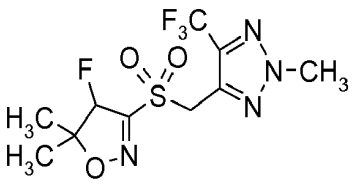
among these, especially prefered are the isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9



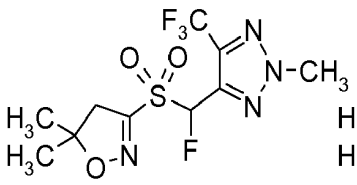
II.1



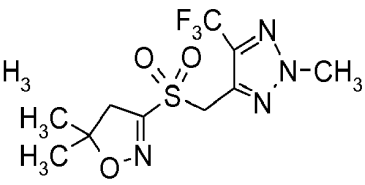
II.2



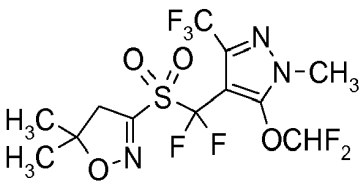
II.3



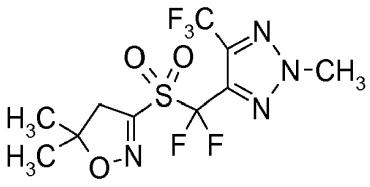
II.4



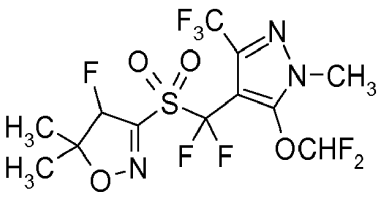
II.5



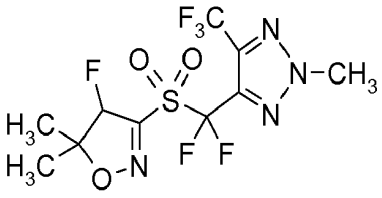
II.6



II.7



II.8

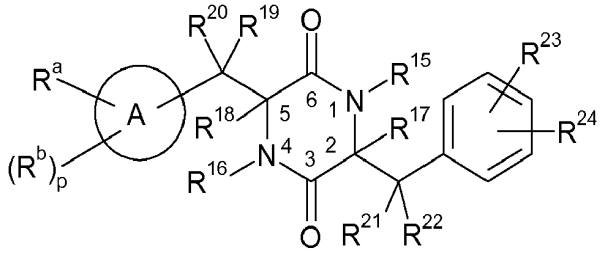


II.9

the isoxazoline compounds of the formula II are known in the art, e.g. from WO 2006/024820, WO 2006/037945, WO 2007/071900 and WO 2007/096576;
among the VLCFA inhibitors, preference is given to chloroacetamides and oxyacetamides, especially to pyroxasulfone;

b11) from the group of the cellulose biosynthesis inhibitors:

chlorthiamid, dichlobenil, flupoxam, isoxaben, 1-Cyclohexyl-5-pentafluorphenyloxy-1^4-[1,2,4,6]thiatriazin-3-ylamine and piperazine compounds of formula III,



III,

in which

A is phenyl or pyridyl where R^a is attached in the ortho-position to the point of attachment of A to a carbon atom;

R^a is CN, NO_2, C_1-C_4-alkyl, D-C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, O-D-C_3-C_6-cycloalkyl, $S(O)_qR^y$, C_2-C_6-alkenyl, D-C_3-C_6-cycloalkenyl, C_3-C_6-alkenyloxy, C_2-C_6-alkynyl, C_3-C_6-alkynyloxy, NR^AR^B, tri-C_1-C_4-alkylsilyl, D-C(=O)-R^{a1}, D-P(=O)$(R^{a1})_2$, phenyl, naphthyl, a 3- to 7-membered monocyclic or 9- or 10-membered bicyclic saturated, unsaturated or aromatic heterocycle which is attached via carbon or nitrogen, which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, and which may be partially or fully substituted by groups R^{aa} and/or R^{a1}, and, if R^a is attached to a carbon atom, additionally halogen; R^y is C_1-C_6-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, NR^AR^B or C_1-C_4-haloalkyl and q is 0, 1 or 2;

R^A,R^B independently of one another are hydrogen, C_1-C_6-alkyl, C_3-C_6-alkenyl and C_3-C_6-alkynyl; together with the nitrogen atom to which they are attached, R^A,R^B may also form a five- or six-membered saturated, partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be substituted by 1 to 3 groups R^{aa};

D is a covalent bond, C_1-C_4-alkylene, C_2-C_6-alkenyl or C_2-C_6-alkynyl;

R^{a1} is hydrogen, OH, C_1-C_8-Alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_8-alkenyl, C_5-C_6-cycloalkenyl, C_2-C_8-alkynyl, C_1-C_6-alkoxy, C_1-C_4-haloalkoxy, C_3-C_8-alkenyloxy, C_3-C_8-alkynyloxy, NR^AR^B, C_1-C_6-alkoxyamino, C_1-C_6-alkylsulfonylamino, C_1-C_6-alkylaminosulfonylamino, [di-(C_1-C_6)alkylamino]sulfonylamino, C_3-C_6-alkenylamino, C_3-C_6-alkynylamino, N-(C_2-C_6-alkenyl)-N-(C_1-C_6-alkyl)amino, N-(C_2-C_6-alkynyl)-N-(C_1-C_6-alkyl)amino, N-(C_1-C_6-alkoxy)-N-(C_1-C_6-alkyl)amino, N-(C_2-C_6-alkenyl)-N-(C_1-C_6-alkoxy)amino, N-(C_2-C_6-alkynyl)-N-(C_1-C_6-alkoxy)-amino, C_1-C_6-alkylsulfonyl, tri-C_1-C_4-alkylsilyl, phenyl, phenoxy, phenylamino or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa};

R^{aa} is halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, $S(O)_qR^y$, D-C(=O)-R^{a1} and tri-C_1-C_4-alkylsilyl;

R^b independently of one another are hydrogen, CN, NO_2, halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, benzyl or $S(O)_qR^y$,

R^b together with the group R^a or R^b attached to the adjacent ring atom may also form a five- or six-membered saturated or partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be partially or fully substituted by R^{aa};

p is 0, 1, 2 or 3;

R^{15} is hydrogen, OH, CN, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, C(=O)R^{25}, CON-R^AR^B, phenyl or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic aromatic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are attached via D^1 and are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa}, and also the following partially or fully R^{aa}-substituted groups: C_1-C_4-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, C_1-C_4-alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, C(=O)R^{25}, $CONR^AR^B$;

preferably is hydrogen, OH, CN, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, C(=O)R^{25}, $CONR^AR^B$, phenyl or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic aromatic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are attached via D^1 and are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa}, and also the following partially or fully

R^{aa}-substituted groups: C_1-C_4-alkyl, C_3-C_4-alkenyl and C_3-C_4-alkynyl;
R^{25} is hydrogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy;
D^1 is carbonyl or a group D;
where in groups R^{15}, R^a and their sub-substituents the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa} and/or R^{a1};
R^{16} is C_1-C_4-alkyl, C_3-C_4-alkenyl or C_3-C_4-alkynyl;
R^{17} is OH, NH_2, C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_3-C_6-alkenyl, C_3-C_6-alkynyl, C_1-C_4-hydroxyalkyl, C_1-C_4-cyanoalkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy-C_1-C_4-alkyl or C(=O)R^{25};
R^{18} is hydrogen, halogen, C_1-C_4-alkyl or C_1-C_4-haloalkyl, or R^{18} and R^{19} together are a covalent bond;
R^{19}, R^{20}, R^{21}, R^{21} independently of one another are hydrogen, halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and C_3-C_6-cycloalkynyl;
R^{23}, R^{24} independently of one another are hydrogen, halogen, OH, haloalkyl, NR^AR^B, $NR^AC(O)R^{26}$, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, O-C(O)R^{26}, phenoxy or benzyloxy, where in groups R^{23} and R^{24} the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa};
R^{26} is C_1-C_4-alkyl or NR^AR^B;

among the isoxazoline compounds of the piperazin compounds of formula III, preference is given to the piperazine compounds of the formula III, wherein

A	is phenyl or pyridyl where R^a is attached in the ortho-position to the point of attachment of A to a carbon atom;
R^a	is CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy or D-C(=O)-R^{a1};
	R^y is C_1-C_6-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, NR^AR^B or C_1-C_4-haloalkyl and q is 0, 1 or 2;
	R^A,R^B independently of one another are hydrogen, C_1-C_6-alkyl, C_3-C_6-alkenyl and C_3-C_6-alkynyl; together with the nitrogen atom to which they are attached, R^A,R^B may also form a five- or six-membered saturated, partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be substituted by 1 to 3 groups R^{aa};
	D is a covalent bond or C_1-C_4-alkylene;
	R^{a1} is hydrogen, OH, C_1-C_8-Alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl;
	R^{aa} is halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, $S(O)_qR^y$, D-C(=O)-R^{a1} and tri-C_1-C_4-alkylsilyl;
R^b	independently of one another is CN, NO_2, halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, benzyl or $S(O)_qR^y$, R^b together with the group R^a or R^b attached to the adjacent ring atom may also form a five- or six-membered saturated or partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be partially or fully substituted by R^{aa};
p	is 0 or 1;
R^{15}	is hydrogen, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy or C(=O)R^{25}, which can be partially or fully substituted by R^{aa}-groups; preferably is hydrogen, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy or C(=O)R^{25};
	R^{25} is hydrogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy; where in groups R^{15}, R^a and their sub-substituents the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa} and/or R^{a1};
R^{16}	is C_1-C_4-alkyl;
R^{17}	is OH, NH_2, C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl or C(=O)R^{25};
R^{18}	is hydrogen, or R^{18} and R^{19} together are a covalent bond;
R^{19}, R^{20}, R^{21}, R^{21}	independently of one another are hydrogen;
R^{23}, R^{24}	independently of one another are hydrogen, halogen or OH;

b12) from the group of the decoupler herbicides:

dinoseb, dinoterb and DNOC and its salts;

b13) from the group of the auxin herbicides:

2,4-D and its salts and esters, 2,4-DB and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, benazolin, benazolin-ethyl, chloramben and its salts and esters, clomeprop, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr, fluroxypyr-butometyl, fluroxypyr-meptyl, MCPA and its salts and esters, MCPA-thioethyl, MCPB and its salts and esters, mecoprop and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, TBA (2,3,6) and its salts and esters, triclopyr and its salts and esters, and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr, diflufenzopyr-sodium, naptalam and naptalam-sodium;

b15) from the group of the other herbicides: bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

[0089] Preferred herbicides B which can be used in combination with the crystalline form A of benzoxazinone (I) according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors:

clethodim, clodinafop-propargyl, cycloxydim, cyhalofop-butyl, diclofop-methyl, fenoxaprop-P-ethyl, fluazifop-P-butyl, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim, tralkoxydim, benfuresate, dimepiperate, EPTC, esprocarb, ethofumesate, molinate, orbencarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors:

amidosulfuron, azimsulfuron, bensulfuron-methyl, bispyribac-sodium, chlorimuron-ethyl, chlorsulfuron, cloransulam-methyl, cyclosulfamuron, diclosulam, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, florasulam, flucarbazone-sodium, flucetosulfuron, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron-methyl, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, metosulam, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, penoxsulam, primisulfuron-methyl, propoxycarbazon-sodium, propyrisulfuron, prosulfuron, pyrazosulfuron-ethyl, pyribenzoxim, pyrimisulfan, pyriftalid, pyriminobac-methyl, pyrithiobac-sodium, pyroxsulam, rimsulfuron, sulfometuron-methyl, sulfosulfuron, thiencarbazone-methyl, thifensulfuron-methyl, triasulfuron, tribenuron-methyl, trifloxysulfuron, triflusulfuron-methyl and tritosulfuron;

b3) from the group of the photosynthesis inhibitors:

ametryn, amicarbazone, atrazine, bentazone, bentazone-sodium, bromoxynil and its salts and esters, chloridazone, chlorotoluron, cyanazine, desmedipham, diquat-dibromide, diuron, fluometuron, hexazinone, ioxynil and its salts and esters, isoproturon, lenacil, linuron, metamitron, methabenzthiazuron, metribuzin, paraquat, paraquat-dichloride, phenmedipham, propanil, pyridate, simazine, terbutryn, terbuthylazine and thidiazuron;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:

acifluorfen-sodium, bencarbazone, benzfendizone, butafenacil, carfentrazone-ethyl, cinidon-ethyl, flufenpyr-ethyl, flumiclorac-pentyl, flumioxazin, fluoroglycofen-ethyl, fomesafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, pyraflufen-ethyl, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carbox-

amide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 45100-03-7) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides:

aclonifen, beflubutamid, benzobicyclon, clomazone, diflufenican, flurochloridone, flurtamone, isoxaflutole, mesotrione, norflurazon, picolinafen, pyrasulfotole, pyrazolynate, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, 4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7), amitrole and flumeturon;

b6) from the group of the EPSP synthase inhibitors:

glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors:

glufosinate, glufosinate-P, glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors: asulam;

b9) from the group of the mitose inhibitors:

benfluralin, dithiopyr, ethalfluralin, oryzalin, pendimethalin, thiazopyr and trifluralin;

b10) from the group of the VLCFA inhibitors:

acetochlor, alachlor, anilofos, butachlor, cafenstrole, dimethenamid, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, naproanilide, napropamide, pretilachlor, fenoxasulfone, ipfencarbazone, pyroxasulfone thenylchlor and isoxazoline-compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: dichlobenil, flupoxam, isoxaben, 1-Cyclohexyl-5-pentafluorphenyloxy-1^4-[1,2,4,6]thiatriazin-3-ylamine and the piperazine compounds of formula III as mentioned above;

b13) from the group of the auxin herbicides:

2,4-D and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr-meptyl, MCPA and its salts and esters, MCPB and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, triclopyr and its salts and esters, and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyr-sodium;

b15) from the group of the other herbicides: bromobutide, cinmethylin, cumyluron, dalapon, difenzoquat, difenzoquat-metilsulfate, DSMA, dymron (= daimuron), flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, indanofan, indaziflam, metam, methylbromide, MSMA, oxaziclomefone, pyributicarb, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

[0090] Particularly preferred herbicides B which can be used in combination with the crystalline form A of benzoxazinone (I) according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors: clodinafop-propargyl, cycloxydim, cyhalofop-butyl, fenoxaprop-P-ethyl, pinoxaden, profoxydim, tepraloxydim, tralkoxydim, esprocarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors: bensulfuron-methyl, bispyribac-sodium, cyclosulfamuron, diclosulam, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, nicosulfuron, penoxsulam, propoxycarbazon-sodium, pyrazosulfuron-ethyl, pyroxsulam, rimsulfuron, sulfosulfuron, thiencarbazon-methyl and tritosulfuron;

b3) from the group of the photosynthesis inhibitors: ametryn, atrazine, diuron, fluometuron, hexazinone, isoproturon, linuron, metribuzin, paraquat, paraquat-dichloride, propanil, terbutryn and terbuthylazine;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors: flumioxazin, oxyfluorfen, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides: clomazone, diflufenican, flurochloridone, isoxaflutole, mesotrione, picolinafen, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, amitrole and flumeturon;

b6) from the group of the EPSP synthase inhibitors: glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors: glufosinate, glufosinate-P and glufosinate-ammonium;

b9) from the group of the mitose inhibitors: pendimethalin and trifluralin;

b10) from the group of the VLCFA inhibitors: acetochlor, cafenstrole, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, fenoxasulfone, ipfencarbazone and pyroxasulfone; likewise, preference is given to isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: isoxaben and the piperazine compounds of formula III as mentioned above;

b13) from the group of the auxin herbicides: 2,4-D and its salts and esters, aminopyralid and its salts and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, fluroxypyr-meptyl, quinclorac, quinmerac and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyr-sodium,

b15) from the group of the other herbicides: dymron (= daimuron), indanofan, indaziflam, oxaziclomefone and triaziflam.

[0091] Moreover, it may be useful to apply the crystalline form A of benzoxazinone (I) in combination with safeners. Safeners are chemical compounds which prevent or reduce damage on useful plants without having a major impact on the herbicidal action of the crystalline form A of benzoxazinone (I) towards unwanted plants. They can be applied either before sowings (e.g. on seed treatments, shoots or seedlings) or in the pre-emergence application or post-emergence application of the useful plant. The safeners and the crystalline form A of benzoxazinone (I) can be applied simultaneously or in succession.

[0092] Furthermore, the safeners C, the crystalline form A of benzoxazinone (I) and/or the herbicides B can be applied simultaneously or in succession.

[0093] Suitable safeners are e.g. (quinolin-8-oxy)acetic acids, 1-phenyl-5-haloalkyl-1H-1,2,4-triazol-3-carboxylic acids, 1-phenyl-4,5-dihydro-5-alkyl-1 H-pyrazol-3,5-dicarboxylic acids, 4,5-dihydro-5,5-diaryl-3-isoxazol carboxylic acids, dichloroacetamides, alpha-oximinophenylacetonitriles, acetophenonoximes, 4,6-dihalo-2-phenylpyrimidines, N-[[4-(aminocarbonyl)phenyl]sulfonyl]-2-benzoic amides, 1,8-naphthalic anhydride, 2-halo-4-(haloalkyl)-5-thiazol carboxylic acids, phosphorthiolates and N-alkyl-O-phenylcarbamates and their agriculturally acceptable salts and their agriculturally acceptable derivatives such amides, esters, and thioesters, provided they have an acid group.

[0094] Examples of preferred safeners C are benoxacor, cloquintocet, cyometrinil, cyprosulfamide, dichlormid, dicyclonon, dietholate, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, mephenate, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trime-

thyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

[0095] Especially preferred safeners C are benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

[0096] Particularly preferred safeners C are benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro-[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

[0097] The herbicides B of groups b1) to b15) and the safeners C are known herbicides and safeners, see, for example, The Compendium of Pesticide Common Names (http://www.alanwood.net/pesticides/); Farm Chemicals Handbook 2000 volume 86, Meister Publishing Company, 2000; B. Hock, C. Fedtke, R. R. Schmidt, Herbizide [Herbicides], Georg Thieme Verlag, Stuttgart 1995; W. H. Ahrens, Herbicide Handbook, 7th edition, Weed Science Society of America, 1994; and K. K. Hatzios, Herbicide Handbook, Supplement for the 7th edition, Weed Science Society of America, 1998. 2,2,5-Trimethyl-3-(dichloroacetyl)-1,3-oxazolidine [CAS No. 52836-31-4] is also referred to as R-29148. 4-(Dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane [CAS No. 71526-07-3] is also referred to as AD-67 and MON 4660. Further herbicidally active compounds are known from WO 96/26202, WO 97/41116, WO 97/41117, WO 97/41118 and WO 01/83459 and also from W. Krämer et al. (ed.) "Modern Crop Protection Compounds", Vol. 1, Wiley VCH, 2007 and the literature cited therein.

[0098] The assignment of the active compounds to the respective mechanisms of action is based on current knowledge. If several mechanisms of action apply to one active compound, this substance was only assigned to one mechanism of action.

[0099] If the herbicides B and/or the safener C are capable of forming geometrical isomers, for example E/Z isomers, both the pure isomers and mixtures thereof may be used in the compositions according to the invention.

[0100] If the herbicides B and/or the safener C have one of more centers of chirality and are thus present as enantiomers or diastereomers, both the pure enantiomers and diastereomers and mixtures thereof may be used in the compositions according to the invention.

[0101] If the herbicides B and/or the safener C have ionizable functional groups, they can also be employed in the form of their agriculturally acceptable salts. Suitable are, in general, the salts of those cations and the acid addition salts of those acids whose cations and anions, respectively, have no adverse effect on the activity of the active compounds.

[0102] Preferred cations are the ions of the alkali metals, preferably of lithium, sodium and potassium, of the alkaline earth metals, preferably of calcium and magnesium, and of the transition metals, preferably of manganese, copper, zinc and iron, further ammonium and substituted ammonium in which one to four hydrogen atoms are replaced by C_1-C_4-alkyl, hydroxy-C_1-C_4-alkyl, C_1-C_4-alkoxy-C_1-C_4-alkyl, hydroxy-C_1-C_4-alkoxy-C_1-C_4-alkyl, phenyl or benzyl, preferably ammonium, methylammonium, isopropylammonium, dimethylammonium, diisopropylammonium, trimethylammonium, tetramethylammonium, tetraethylammonium, tetrabutylammonium, 2-hydroxyethylammonium, 2-(2-hydroxyeth-1-oxy)eth-1-ylammonium, di(2-hydroxyeth-1-yl)-ammonium, benzyltrimethylammonium, benzyltriethylammonium, furthermore phosphonium ions, sulfonium ions, preferably tri(C_1-C_4-alkyl)sulfonium, such as trimethylsulfonium, and sulfoxonium ions, preferably tri(C_1-C_4-alkyl)sulfoxonium.

[0103] Anions of useful acid addition salts are primarily chloride, bromide, fluoride, iodide, hydrogensulfate, methylsulfate, sulfate, dihydrogenphosphate, hydrogenphosphate, nitrate, bicarbonate, carbonate, hexafluorosilicate, hexafluorophosphate, benzoate and also the anions of C_1-C_4-alkanoic acids, preferably formate, acetate, propionate and butyrate.

[0104] Herbicides B and safeners C having a carboxyl group can be employed in the form of the acid, in the form of an agriculturally suitable salt or else in the form of an agriculturally acceptable derivative in the compositions according to the invention, for example as amides, such as mono- and di-C_1-C_6-alkylamides or arylamides, as esters, for example as allyl esters, propargyl esters, C_1-C_{10}-alkyl esters, alkoxyalkyl esters and also as thioesters, for example as C_1-C_{10}-alkylthio esters. Preferred mono- and di-C_1-C_6-alkylamides are the methyl and the dimethylamides. Preferred arylamides are, for example, the anilides and the 2-chloroanilides. Preferred alkyl esters are, for example, the methyl, ethyl, propyl, isopropyl, butyl, isobutyl, pentyl, mexyl (1-methylhexyl) or isooctyl (2-ethylhexyl) esters. Preferred C_1-C_4-alkoxy-C_1-C_4-alkyl esters are the straight-chain or branched C_1-C_4-alkoxy ethyl esters, for example the methoxyethyl, ethoxyethyl or butoxyethyl ester. An example of a straight-chain or branched C_1-C_{10}-alkylthio ester is the ethylthio ester.

[0105] According to a preferred embodiment of the invention, the composition comprises as herbicide B at least one, preferebly exactly one herbicide B.

[0106] According to another preferred embodiment of the invention, the composition comprises as herbicide B, at least two, preferebly exactly two herbicides B different from each other.

[0107] According to another preferred embodiment of the invention, the composition comprises as herbicide B, at least three, preferebly exactly three herbicides B different from each other.

[0108] According to another preferred embodiment of the invention, the composition comprises as safener C at least

one, preferebly exactly one safener C.

[0109] According to another preferred embodiment of the invention, the composition comprises as herbicide B, at least one, preferebly exactly one herbicide B, and at lest one, preferebly exactly one, safener C.

[0110] According to another preferred embodiment of the invention, the composition comprises as herbicide B, preferebly exactly two herbicides B different from each other, and at lest one, preferebly exactly one, safener C.

[0111] According to another preferred embodiment of the invention, the composition comprises as herbicide B, at least three, preferebly exactly three herbicides B different from each other, and at lest one, preferebly exactly one, safener C.

[0112] A first preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b1), in particular selected from the group consisting of clodinafop-propargyl, cycloxydim, cyhalofop-butyl, fenoxaprop-P-ethyl, pinoxaden, profoxydim, tepraloxydim, tralkoxydim, esprocarb, prosulfocarb, thiobencarb and triallate.

[0113] A second preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b2), in particular selected from the group consisting of bensulfuron-methyl, bispyribac-sodium, cyclosulfamuron, diclosulam, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, nicosulfuron, penoxsulam, propoxycarbazon-sodium, pyrazosulfuron-ethyl, pyroxsulam, rimsulfuron, sulfosulfuron, thiencarbazon-methyl and tritosulfuron.

[0114] A third preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b3), in particular selected from the group consisting of ametryn, atrazine, diuron, fluometuron, hexazinone, isoproturon, linuron, metribuzin, paraquat, paraquat-dichloride, propanil, terbutryn and terbuthylazine.

[0115] A fourth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b4), in particular selected from the group consisting of flumioxazin, oxyfluorfen, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione.

[0116] A fifth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b5), in particular selected from the group consisting of clomazone, diflufenican, flurochloridone, isoxaflutole, mesotrione, picolinafen, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, amitrole and flumeturon.

[0117] A sixth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b6), in particular selected from the group consisting of glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate).

[0118] A seventh preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b7), in particular selected from the group consisting of glufosinate, glufosinate-P and glufosinate-ammonium.

[0119] An eighth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b9), in particular selected from the group consisting of pendimethalin and trifluralin.

[0120] A nineth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b10), in particular selected from the group consisting of acetochlor, cafenstrole, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, fenoxasulfone and pyroxasulfone. Likewise, preference is given to compositions comprising in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b10), in particular selected from the group consisting of isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9, as defined above.

[0121] A tenth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b11), in particular isoxaben. Likewise, preference is given to compositions comprising in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b11), in particular selected from the group consisting of piperazine compounds of formula III as defined above.

[0122] An eleventh preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b13), in particular selected from the group consisting of 2,4-D and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and

its salts and esters, fluroxypyr-meptyl, quinclorac, quinmerac and aminocyclopyrachlor and its salts and esters.

[0123] A twelfth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b14), in particular selected from the group consisting of diflufenzopyr and diflufenzopyr-sodium.

[0124] A 13th preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one herbicide B from group b15), in particular selected from the group consisting of dymron (= daimuron), indanofan, indaziflam, oxaziclomefone and triaziflam.

[0125] A 14th preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form A of benzoxazinone (I), at least one and especially exactly one safener C, in particular selected from the group consisting of benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

[0126] Further preferred embodiments relate to ternary compositions which correspond to the binary compositions of embodiments 1 to 14 and additionally comprise a safener C, in particular selected from the group consisting of benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

[0127] Here and below, the term "binary compositions" includes compositions comprising the crystalline form A of benzoxazinone (I), and either one or more, for example 1, 2 or 3, herbicides B or one or more safeners C.
Correspondingly, the term "ternary compositions" includes compositions comprising the crystalline form A of benzoxazinone (I), one or more, for example 1, 2 or 3, herbicides B, and one or more, for example 1, 2 or 3, safeners C.

[0128] In binary compositions comprising the crystalline form A of benzoxazinone (I) and at least one herbicide B, the weight ratio of the crystalline form A of benzoxazinone (I) : herbicide B is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

[0129] In binary compositions comprising the crystalline form A of benzoxazinone (I) and at least one safener C, the weight ratio of the crystalline form A of benzoxazinone (I) : safener C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

[0130] In ternary compositions comprising the crystalline form A of benzoxazinone (I), at least one herbicide B and at least one safener C, the relative proportions by weight of the crystalline form A of benzoxazinone (I) : herbicide B are generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1, the weight ratio of the crystalline form A of benzoxazinone (I) : safener C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1, and the weight ratio of the herbicide B : safener C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1. The weight ratio of the crystalline form A of benzoxazinone (I) + herbicide B to safener C is preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

[0131] Particularly preferred herbicides B are the herbicides B as defined above; in particular the herbicides B.1 - B.141 listed below in table B:

Table B:

	Herbicide B
B.1	clethodim
B.2	clodinafop-propargyl
B.3	cycloxydim
B.4	cyhalofop-butyl
B.5	fenoxaprop-P-ethyl
B.6	metamifop
B.7	pinoxaden
B.8	profoxydim
B.9	sethoxydim
B.10	tepraloxydim
B.11	tralkoxydim
B.12	esprocarb
B.13	ethofumesate
B.14	molinate
B.15	prosulfocarb
B.16	thiobencarb
B.17	triallate
B.18	bensulfuron-methyl
B.19	bispyribac-sodium
B.20	cloransulam
B.21	chlorsulfuron
B.22	clorimuron
B.23	cyclosulfamuron
B.24	diclosulam

	Herbicide B
B.25	florasulam
B.26	flumetsulam
B.27	flupyrsulfuron-methyl-sodium
B.28	foramsulfuron
B.29	imazamox
B.30	imazapic
B.31	imazapyr
B.32	imazaquin
B.33	imazethapyr
B.34	imazosulfuron
B.35	iodosulfuron-methyl-sodium
B.36	mesosulfuron
B.37	metazosulfuron
B.38	metsulfuron
B.39	metosulam
B.40	nicosulfuron
B.41	penoxsulam
B.42	propoxycarbazon-sodium
B.43	pyrazosulfuron-ethyl
B.44	pyribenzoxim
B.45	pyriftalid
B.46	pyroxsulam
B.47	rimsulfuron
B.48	sulfosulfuron

	Herbicide B
B.49	thiencarbazone-methyl
B.50	thifensulfuron
B.51	tribenuron
B.52	tritosulfuron
B.53	ametryne
B.54	atrazine
B.55	bentazon
B.56	bromoxynil
B.57	diuron
B.58	fluometuron
B.59	hexazinone
B.60	isoproturon
B.61	linuron
B.62	metamitron
B.63	metribuzin
B.64	propanil
B.65	simazin
B.66	terbuthylazine
B.67	terbutryn
B.68	paraquat-dichloride
B.69	acifluorfen
B.70	butafenacil
B.71	carfentrazone-ethyl
B.72	flumioxazin
B.73	fomesafen
B.74	oxadiargyl
B.75	oxyfluorfen
B.76	saflufenacil
B.77	sulfentrazone
B.78	ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyl-oxy]acetate (CAS 353292-31-6)
B.79	3-[7-fluoro-3-oxo-4-(prop-2-yn-yl)-3,4-dihydro-2H-benzo[1,4]-oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione
B.80	benzobicyclon
B.81	clomazone

	Herbicide B
B.82	diflufenican
B.83	flurochloridone
B.84	isoxaflutole
B.85	mesotrione
B.86	norflurazone
B.87	picolinafen
B.88	sulcotrione
B.89	tefuryltrione
B.90	tembotrione
B.91	topramezone
B.92	bicyclopyrone
B.93	amitrole
B.94	fluometuron
B.95	glyphosate
B.96	glyphosate-isopropylammonium
B.97	glyphosate-trimesium (sulfosate)
B.98	glufosinate
B.99	glufosinate-P
B.100	glufosinate-ammonium
B.101	pendimethalin
B.102	trifluralin
B.103	acetochlor
B.104	butachlor
B.105	cafenstrole
B.106	dimethenamid-P
B.107	fentrazamide
B.108	flufenacet
B.109	mefenacet
B.110	metazachlor
B.111	metolachlor
B.112	S-metolachlor
B.113	pretilachlor
B.114	fenoxasulfone
B.115	isoxaben
B.116	pyroxasulfone
B.117	2,4-D
B.118	aminopyralid
B.119	clopyralid
B.120	dicamba

	Herbicide B
B.121	fluroxypyr-meptyl
B.122	MCPA
B.123	quinclorac
B.124	quinmerac
B.125	aminocyclopyrachlor
B.126	diflufenzopyr
B.127	diflufenzopyr-sodium
B.128	dymron
B.129	indanofan
B.130	indaziflam
B.131	oxaziclomefone

	Herbicide B
B.132	triaziflam
B.133	II.1
B.134	II.2
B.135	II.3
B.136	II.4
B.137	II.5
B.138	II.6
B.139	II.7
B.140	II.8
B.141	II.9

[0132] Particularly preferred safeners C according to the invention are the safeners C as defined above; in particular the safeners C.1 - C.12, especially C. 1- C.11 listed below in table C:

Table C

	Safener C
C.1	benoxacor
C.2	cloquintocet
C.3	cyprosulfamide
C.4	dichlormid
C.5	fenclorim
C.6	fenchlorazole
C.7	furilazole
C.8	isoxadifen
C.9	mefenpyr
C.10	4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3)
C.11	2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4)
C.12	naphtalic acid anhydride

[0133] The weight ratios of the individual components in the preferred mixtures mentioned below are within the limits given above, in particular within the preferred limits.

[0134] Particularly preferred are the compositions mentioned below,
comprising the crystalline form A of benzoxazinone (I)as defined and and the substance(s) as defined in the respective row of table 1;
especially preferred comprising as only herbicidal active compounds the crystalline form A of benzoxazinone (I) as defined and and the substance(s) as defined in the respective row of table 1;
most preferably comprising as only active compounds the crystalline form A of benzoxazinone (I)as defined and the substance(s) as defined in the respective row of table 1.

[0135] Particularly preferred are compositions1.1 to 1.1833, especially 1.1 to 1.1692, comprising the crystalline form A of benzoxazinone (I)and the substance(s) as defined in the respective row of table 1:

Table 1(compositions 1.1 to 1.1833):

comp. no.	herbicide B	safener C
1.1	B.1	--
1.2	B.2	--
1.3	B.3	--
1.4	B.4	--
1.5	B.5	--
1.6	B.6	--
1.7	B.7	--
1.8	B.8	--
1.9	B.9	--
1.10	B.10	--
1.11	B.11	--
1.12	B.12	--
1.13	B.13	--
1.14	B.14	--
1.15	B.15	--
1.16	B.16	--
1.17	B.17	--
1.18	B.18	--
1.19	B.19	--
1.20	B.20	--
1.21	B.21	--
1.22	B.22	--
1.23	B.23	--
1.24	B.24	--
1.25	B.25	--
1.26	B.26	--
1.27	B.27	--
1.28	B.28	--
1.29	B.29	--
1.30	B.30	--
1.31	B.31	--
1.32	B.32	--
1.33	B.33	--
1.34	B.34	--
1.35	B.35	--
1.36	B.36	--
1.37	B.37	--
1.38	B.38	--
1.39	B.39	--
1.40	B.40	--
1.41	B.41	--
1.42	B.42	--
1.43	B.43	--
1.44	B.44	--
1.45	B.45	--
1.46	B.46	--
1.47	B.47	--
1.48	B.48	--
1.49	B.49	--
1.50	B.50	--
1.51	B.51	--
1.52	B.52	--
1.53	B.53	--
1.54	B.54	--
1.55	B.55	--
1.56	B.56	--
1.57	B.57	--
1.58	B.58.	--
1.59	B.59	--
1.60	B.60	--
1.61	B.61	--
1.62	B.62	--
1.63	B.63	--
1.64	B.64	--
1.65	B.65	--
1.66	B.66	--
1.67	B.67	--
1.68	B.68	--
1.69	B.69	--
1.70	B.70	--
1.71	B.71	--
1.72	B.72	--
1.73	B.73	--
1.74	B.74	--
1.75	B.75	--
1.76	B.76	--
1.77	B.77	--
1.78	B.78	--
1.79	B.79	--
1.80	B.80	--
1.81	B.81	--
1.82	B.82	--
1.83	B.83	--
1.84	B.84	--
1.85	B.85	--
1.86	B.86	--
1.87	B.87	--

comp. no.	herbicide B	safener C
1.88	B.88	--
1.89	B.89	--
1.90	B.90	--
1.91	B.91	--
1.92	B.92	--
1.93	B.93	--
1.94	B.94	--
1.95	B.95	--
1.96	B.96	--
1.97	B.97	--
1.98	B.98	--
1.99	B.99	--
1.100	B.100	--
1.101	B.101	--
1.102	B.102	--
1.103	B.103	--
1.104	B.104	--
1.105	B.105	--
1.106	B.106	--
1.107	B.107	--
1.108	B.108	--
1.109	B.109	--
1.110	B.110	--
1.111	B.111	--
1.112	B.112	--
1.113	B.113	--
1.114	B.114	--
1.115	B.115	--
1.116	B.116	--
1.117	B.117	--
1.118	B.118	--
1.119	B.119	--
1.120	B.120	--
1.121	B.121	--
1.122	B.122	--
1.123	B.123	--
1.124	B.124	--
1.125	B.125	--

comp. no.	herbicide B	safener C
1.126	B.126	--
1.127	B.127	--
1.128	B.128	--
1.129	B.129	--
1.130	B.130	--
1.131	B.131	--
1.132	B.132	--
1.133	B.133	--
1.134	B.134	--
1.135	B.135	--
1.136	B.136	--
1.137	B.137	--
1.138	B.138	--
1.139	B.139	
1.140	B.140	--
1.141	B.141	--
1.142	B.1	C.1
1.143	B.2	C.1
1.144	B.3	C.1
1.145	B.4	C.1
1.146	B.5	C.1
1.147	B.6	C.1
1.148	B.7	C.1
1.149	B.8	C.1
1.150	B.9	C.1
1.151	B.10	C.1
1.152	B.11	C.1
1.153	B.12	C.1
1.154	B.13	C.1
1.155	B.14	C.1
1.156	B.15	C.1
1.157	B.16	C.1
1.158	B.17	C.1
1.159	B.18	C.1
1.160	B.19	C.1
1.161	B.20	C.1
1.162	B.21	C.1
1.163	B.22	C.1

comp. no.	herbicide B	safener C
1.164	B.23	C.1
1.165	B.24	C.1
1.166	B.25	C.1
1.167	B.26	C.1
1.168	B.27	C.1
1.169	B.28	C.1
1.170	B.29	C.1
1.171	B.30	C.1
1.172	B.31	C.1
1.173	B.32	C.1
1.174	B.33	C.1
1.175	B.34	C.1
1.176	B.35	C.1
1.177	B.36	C.1
1.178	B.37	C.1
1.179	B.38	C.1
1.180	B.39	C.1
1.181	B.40	C.1
1.182	B.41	C.1
1.183	B.42	C.1
1.184	B.43	C.1
1.185	B.44	C.1
1.186	B.45	C.1
1.187	B.46	C.1
1.188	B.47	C.1
1.189	B.48	C.1
1.190	B.49	C.1
1.191	B.50	C.1
1.192	B.51	C.1
1.193	B.52	C.1
1.194	B.53	C.1
1.195	B.54	C.1
1.196	B.55	C.1
1.197	B.56	C.1
1.198	B.57	C.1
1.199	B.58.	C.1
1.200	B.59	C.1
1.201	B.60	C.1

comp. no.	herbicide B	safener C
1.202	B.61	C.1
1.203	B.62	C.1
1.204	B.63	C.1
1.205	B.64	C.1
1.206	B.65	C.1
1.207	B.66	C.1
1.208	B.67	C.1
1.209	B.68	C.1
1.210	B.69	C.1
1.211	B.70	C.1
1.212	B.71	C.1
1.213	B.72	C.1
1.214	B.73	C.1
1.215	B.74	C.1
1.216	B.75	C.1
1.217	B.76	C.1
1.218	B.77	C.1
1.219	B.78	C.1
1.220	B.79	C.1
1.221	B.80	C.1
1.222	B.81	C.1
1.223	B.82	C.1
1.224	B.83	C.1
1.225	B.84	C.1
1.226	B.85	C.1
1.227	B.86	C.1
1.228	B.87	C.1
1.229	B.88	C.1
1.230	B.89	C.1
1.231	B.90	C.1
1.232	B.91	C.1
1.233	B.92	C.1
1.234	B.93	C.1
1.235	B.94	C.1
1.236	B.95	C.1
1.237	B.96	C.1
1.238	B.97	C.1
1.239	B.98	C.1
1.240	B.99	C.1
1.241	B.100	C.1
1.242	B.101	C.1
1.243	B.102	C.1
1.244	B.103	C.1
1.245	B.104	C.1
1.246	B.105	C.1
1.247	B.106	C.1
1.248	B.107	C.1
1.249	B.108	C.1
1.250	B.109	C.1
1.251	B.110	C.1
1.252	B.111	C.1
1.253	B.112	C.1
1.254	B.113	C.1
1.255	B.114	C.1
1.256	B.115	C.1
1.257	B.116	C.1
1.258	B.117	C.1
1.259	B.118	C.1
1.260	B.119	C.1
1.261	B.120	C.1
1.262	B.121	C.1
1.263	B.122	C.1
1.264	B.123	C.1
1.265	B.124	C.1
1.266	B.125	C.1
1.267	B.126	C.1
1.268	B.127	C.1
1.269	B.128	C.1
1.270	B.129	C.1
1.271	B.130	C.1
1.272	B.131	C.1
1.273	B.132	C.1
1.274	B.133	C.1
1.275	B.134	C.1
1.276	B.135	C.1
1.277	B.136	C.1
1.278	B.137	C.1
1.279	B.138	C.1
1.280	B.139	C.1
1.281	B.140	C.1
1.282	B.141	C.1
1.283	B.1	C.2
1.284	B.2	C.2
1.285	B.3	C.2
1.286	B.4	C.2
1.287	B.5	C.2
1.288	B.6	C.2
1.289	B.7	C.2
1.290	B.8	C.2
1.291	B.9	C.2
1.292	B.10	C.2
1.293	B.11	C.2
1.294	B.12	C.2
1.295	B.13	C.2
1.296	B.14	C.2
1.297	B.15	C.2
1.298	B.16	C.2
1.299	B.17	C.2
1.300	B.18	C.2
1.301	B.19	C.2
1.302	B.20	C.2
1.303	B.21	C.2
1.304	B.22	C.2
1.305	B.23	C.2
1.306	B.24	C.2
1.307	B.25	C.2
1.308	B.26	C.2
1.309	B.27	C.2
1.310	B.28	C.2
1.311	B.29	C.2
1.312	B.30	C.2
1.313	B.31	C.2
1.314	B.32	C.2
1.315	B.33	C.2

comp. no.	herbicide B	safener C
1.316	B.34	C.2
1.317	B.35	C.2
1.318	B.36	C.2
1.319	B.37	C.2
1.320	B.38	C.2
1.321	B.39	C.2
1.322	B.40	C.2
1.323	B.41	C.2
1.324	B.42	C.2
1.325	B.43	C.2
1.326	B.44	C.2
1.327	B.45	C.2
1.328	B.46	C.2
1.329	B.47	C.2
1.330	B.48	C.2
1.331	B.49	C.2
1.332	B.50	C.2
1.333	B.51	C.2
1.334	B.52	C.2
1.335	B.53	C.2
1.336	B.54	C.2
1.337	B.55	C.2
1.338	B.56	C.2
1.339	B.57	C.2
1.340	B.58.	C.2
1.341	B.59	C.2
1.342	B.60	C.2
1.343	B.61	C.2
1.344	B.62	C.2
1.345	B.63	C.2
1.346	B.64	C.2
1.347	B.65	C.2
1.348	B.66	C.2
1.349	B.67	C.2
1.350	B.68	C.2
1.351	B.69	C.2
1.352	B.70	C.2
1.353	B.71	C.2
1.354	B.72	C.2
1.355	B.73	C.2
1.356	B.74	C.2
1.357	B.75	C.2
1.358	B.76	C.2
1.359	B.77	C.2
1.360	B.78	C.2
1.361	B.79	C.2
1.362	B.80	C.2
1.363	B.81	C.2
1.364	B.82	C.2
1.365	B.83	C.2
1.366	B.84	C.2
1.367	B.85	C.2
1.368	B.86	C.2
1.369	B.87	C.2
1.370	B.88	C.2
1.371	B.89	C.2
1.372	B.90	C.2
1.373	B.91	C.2
1.374	B.92	C.2
1.375	B.93	C.2
1.376	B.94	C.2
1.377	B.95	C.2
1.378	B.96	C.2
1.379	B.97	C.2
1.380	B.98	C.2
1.381	B.99	C.2
1.382	B.100	C.2
1.383	B.101	C.2
1.384	B.102	C.2
1.385	B.103	C.2
1.386	B.104	C.2
1.387	B.105	C.2
1.388	B.106	C.2
1.389	B.107	C.2
1.390	B.108	C.2
1.391	B.109	C.2
1.392	B.110	C.2
1.393	B.111	C.2
1.394	B.112	C.2
1.395	B.113	C.2
1.396	B.114	C.2
1.397	B.115	C.2
1.398	B.116	C.2
1.399	B.117	C.2
1.400	B.118	C.2
1.401	B.119	C.2
1.402	B.120	C.2
1.403	B.121	C.2
1.404	B.122	C.2
1.405	B.123	C.2
1.406	B.124	C.2
1.407	B.125	C.2
1.408	B.126	C.2
1.409	B.127	C.2
1.410	B.128	C.2
1.411	B.129	C.2
1.412	B.130	C.2
1.413	B.131	C.2
1.414	B.132	C.2
1.415	B.133	C.2
1.416	B.134	C.2
1.417	B.135	C.2
1.418	B.136	C.2
1.419	B.137	C.2
1.420	B.138	C.2
1.421	B.139	C.2
1.422	B.140	C.2
1.423	B.141	C.2
1.424	B.1	C.3
1.425	B.2	C.3
1.426	B.3	C.3
1.427	B.4	C.3
1.428	B.5	C.3
1.429	B.6	C.3

comp. no.	herbicide B	safener C
1.430	B.7	C.3
1.431	B.8	C.3
1.432	B.9	C.3
1.433	B.10	C.3
1.434	B.11	C.3
1.435	B.12	C.3
1.436	B.13	C.3
1.437	B.14	C.3
1.438	B.15	C.3
1.439	B.16	C.3
1.440	B.17	C.3
1.441	B.18	C.3
1.442	B.19	C.3
1.443	B.20	C.3
1.444	B.21	C.3
1.445	B.22	C.3
1.446	B.23	C.3
1.447	B.24	C.3
1.448	B.25	C.3
1.449	B.26	C.3
1.450	B.27	C.3
1.451	B.28	C.3
1.452	B.29	C.3
1.453	B.30	C.3
1.454	B.31	C.3
1.455	B.32	C.3
1.456	B.33	C.3
1.457	B.34	C.3
1.458	B.35	C.3
1.459	B.36	C.3
1.460	B.37	C.3
1.461	B.38	C.3
1.462	B.39	C.3
1.463	B.40	C.3
1.464	B.41	C.3
1.465	B.42	C.3
1.466	B.43	C.3
1.467	B.44	C.3
1.468	B.45	C.3
1.469	B.46	C.3
1.470	B.47	C.3
1.471	B.48	C.3
1.472	B.49	C.3
1.473	B.50	C.3
1.474	B.51	C.3
1.475	B.52	C.3
1.476	B.53	C.3
1.477	B.54	C.3
1.478	B.55	C.3
1.479	B.56	C.3
1.480	B.57	C.3
1.481	B.58.	C.3
1.482	B.59	C.3
1.483	B.60	C.3
1.484	B.61	C.3
1.485	B.62	C.3
1.486	B.63	C.3
1.487	B.64	C.3
1.488	B.65	C.3
1.489	B.66	C.3
1.490	B.67	C.3
1.491	B.68	C.3
1.492	B.69	C.3
1.493	B.70	C.3
1.494	B.71	C.3
1.495	B.72	C.3
1.496	B.73	C.3
1.497	B.74	C.3
1.498	B.75	C.3
1.499	B.76	C.3
1.500	B.77	C.3
1.501	B.78	C.3
1.502	B.79	C.3
1.503	B.80	C.3
1.504	B.81	C.3
1.505	B.82	C.3
1.506	B.83	C.3
1.507	B.84	C.3
1.508	B.85	C.3
1.509	B.86	C.3
1.510	B.87	C.3
1.511	B.88	C.3
1.512	B.89	C.3
1.513	B.90	C.3
1.514	B.91	C.3
1.515	B.92	C.3
1.516	B.93	C.3
1.517	B.94	C.3
1.518	B.95	C.3
1.519	B.96	C.3
1.520	B.97	C.3
1.521	B.98	C.3
1.522	B.99	C.3
1.523	B.100	C.3
1.524	B.101	C.3
1.525	B.102	C.3
1.526	B.103	C.3
1.527	B.104	C.3
1.528	B.105	C.3
1.529	B.106	C.3
1.530	B.107	C.3
1.531	B.108	C.3
1.532	B.109	C.3
1.533	B.110	C.3
1.534	B.111	C.3
1.535	B.112	C.3
1.536	B.113	C.3
1.537	B.114	C.3
1.538	B.115	C.3
1.539	B.116	C.3
1.540	B.117	C.3
1.541	B.118	C.3
1.542	B.119	C.3
1.543	B.120	C.3

comp. no.	herbicide B	safener C
1.544	B.121	C.3
1.545	B.122	C.3
1.546	B.123	C.3
1.547	B.124	C.3
1.548	B.125	C.3
1.549	B.126	C.3
1.550	B.127	C.3
1.551	B.128	C.3
1.552	B.129	C.3
1.553	B.130	C.3
1.554	B.131	C.3
1.555	B.132	C.3
1.556	B.133	C.3
1.557	B.134	C.3
1.558	B.135	C.3
1.559	B.136	C.3
1.560	B.137	C.3
1.561	B.138	C.3
1.562	B.139	C.3
1.563	B.140	C.3
1.564	B.141	C.3
1.565	B.1	C.4
1.566	B.2	C.4
1.567	B.3	C.4
1.568	B.4	C.4
1.569	B.5	C.4
1.570	B.6	C.4
1.571	B.7	C.4
1.572	B.8	C.4
1.573	B.9	C.4
1.574	B.10	C.4
1.575	B.11	C.4
1.576	B.12	C.4
1.577	B.13	C.4
1.578	B.14	C.4
1.579	B.15	C.4
1.580	B.16	C.4
1.581	B.17	C.4
1.582	B.18	C.4
1.583	B.19	C.4
1.584	B.20	C.4
1.585	B.21	C.4
1.586	B.22	C.4
1.587	B.23	C.4
1.588	B.24	C.4
1.589	B.25	C.4
1.590	B.26	C.4
1.591	B.27	C.4
1.592	B.28	C.4
1.593	B.29	C.4
1.594	B.30	C.4
1.595	B.31	C.4
1.596	B.32	C.4
1.597	B.33	C.4
1.598	B.34	C.4
1.599	B.35	C.4
1.600	B.36	C.4
1.601	B.37	C.4
1.602	B.38	C.4
1.603	B.39	C.4
1.604	B.40	C.4
1.605	B.41	C.4
1.606	B.42	C.4
1.607	B.43	C.4
1.608	B.44	C.4
1.609	B.45	C.4
1.610	B.46	C.4
1.611	B.47	C.4
1.612	B.48	C.4
1.613	B.49	C.4
1.614	B.50	C.4
1.615	B.51	C.4
1.616	B.52	C.4
1.617	B.53	C.4
1.618	B.54	C.4
1.619	B.55	C.4
1.620	B.56	C.4
1.621	B.57	C.4
1.622	B.58.	C.4
1.623	B.59	C.4
1.624	B.60	C.4
1.625	B.61	C.4
1.626	B.62	C.4
1.627	B.63	C.4
1.628	B.64	C.4
1.629	B.65	C.4
1.630	B.66	C.4
1.631	B.67	C.4
1.632	B.68	C.4
1.633	B.69	C.4
1.634	B.70	C.4
1.635	B.71	C.4
1.636	B.72	C.4
1.637	B.73	C.4
1.638	B.74	C.4
1.639	B.75	C.4
1.640	B.76	C.4
1.641	B.77	C.4
1.642	B.78	C.4
1.643	B.79	C.4
1.644	B.80	C.4
1.645	B.81	C.4
1.646	B.82	C.4
1.647	B.83	C.4
1.648	B.84	C.4
1.649	B.85	C.4
1.650	B.86	C.4
1.651	B.87	C.4
1.652	B.88	C.4
1.653	B.89	C.4
1.654	B.90	C.4
1.655	B.91	C.4
1.656	B.92	C.4
1.657	B.93	C.4

comp. no.	herbicide B	safener C
1.658	B.94	C.4
1.659	B.95	C.4
1.660	B.96	C.4
1.661	B.97	C.4
1.662	B.98	C.4
1.663	B.99	C.4
1.664	B.100	C.4
1.665	B.101	C.4
1.666	B.102	C.4
1.667	B.103	C.4
1.668	B.104	C.4
1.669	B.105	C.4
1.670	B.106	C.4
1.671	B.107	C.4
1.672	B.108	C.4
1.673	B.109	C.4
1.674	B.110	C.4
1.675	B.111	C.4
1.676	B.112	C.4
1.677	B.113	C.4
1.678	B.114	C.4
1.679	B.115	C.4
1.680	B.116	C.4
1.681	B.117	C.4
1.682	B.118	C.4
1.683	B.119	C.4
1.684	B.120	C.4
1.685	B.121	C.4
1.686	B.122	C.4
1.687	B.123	C.4
1.688	B.124	C.4
1.689	B.125	C.4
1.690	B.126	C.4
1.691	B.127	C.4
1.692	B.128	C.4
1.693	B.129	C.4
1.694	B.130	C.4
1.695	B.131	C.4
1.696	B.132	C.4
1.697	B.133	C.4
1.698	B.134	C.4
1.699	B.135	C.4
1.700	B.136	C.4
1.701	B.137	C.4
1.702	B.138	C.4
1.703	B.139	C.4
1.704	B.140	C.4
1.705	B.141	C.4
1.706	B.1	C.5
1.707	B.2	C.5
1.708	B.3	C.5
1.709	B.4	C.5
1.710	B.5	C.5
1.711	B.6	C.5
1.712	B.7	C.5
1.713	B.8	C.5
1.714	B.9	C.5
1.715	B.10	C.5
1.716	B.11	C.5
1.717	B.12	C.5
1.718	B.13	C.5
1.719	B.14	C.5
1.720	B.15	C.5
1.721	B.16	C.5
1.722	B.17	C.5
1.723	B.18	C.5
1.724	B.19	C.5
1.725	B.20	C.5
1.726	B.21	C.5
1.727	B.22	C.5
1.728	B.23	C.5
1.729	B.24	C.5
1.730	B.25	C.5
1.731	B.26	C.5
1.732	B.27	C.5
1.733	B.28	C.5
1.734	B.29	C.5
1.735	B.30	C.5
1.736	B.31	C.5
1.737	B.32	C.5
1.738	B.33	C.5
1.739	B.34	C.5
1.740	B.35	C.5
1.741	B.36	C.5
1.742	B.37	C.5
1.743	B.38	C.5
1.744	B.39	C.5
1.745	B.40	C.5
1.746	B.41	C.5
1.747	B.42	C.5
1.748	B.43	C.5
1.749	B.44	C.5
1.750	B.45	C.5
1.751	B.46	C.5
1.752	B.47	C.5
1.753	B.48	C.5
1.754	B.49	C.5
1.755	B.50	C.5
1.756	B.51	C.5
1.757	B.52	C.5
1.758	B.53	C.5
1.759	B.54	C.5
1.760	B.55	C.5
1.761	B.56	C.5
1.762	B.57	C.5
1.763	B.58.	C.5
1.764	B.59	C.5
1.765	B.60	C.5
1.766	B.61	C.5
1.767	B.62	C.5
1.768	B.63	C.5
1.769	B.64	C.5
1.770	B.65	C.5
1.771	B.66	C.5

comp. no.	herbicide B	safener C
1.772	B.67	C.5
1.773	B.68	C.5
1.774	B.69	C.5
1.775	B.70	C.5
1.776	B.71	C.5
1.777	B.72	C.5
1.778	B.73	C.5
1.779	B.74	C.5
1.780	B.75	C.5
1.781	B.76	C.5
1.782	B.77	C.5
1.783	B.78	C.5
1.784	B.79	C.5
1.785	B.80	C.5
1.786	B.81	C.5
1.787	B.82	C.5
1.788	B.83	C.5
1.789	B.84	C.5
1.790	B.85	C.5
1.791	B.86	C.5
1.792	B.87	C.5
1.793	B.88	C.5
1.794	B.89	C.5
1.795	B.90	C.5
1.796	B.91	C.5
1.797	B.92	C.5
1.798	B.93	C.5
1.799	B.94	C.5
1.800	B.95	C.5
1.801	B.96	C.5
1.802	B.97	C.5
1.803	B.98	C.5
1.804	B.99	C.5
1.805	B.100	C.5
1.806	B.101	C.5
1.807	B.102	C.5
1.808	B.103	C.5
1.809	B.104	C.5
1.810	B.105	C.5
1.811	B.106	C.5
1.812	B.107	C.5
1.813	B.108	C.5
1.814	B.109	C.5
1.815	B.110	C.5
1.816	B.111	C.5
1.817	B.112	C.5
1.818	B.113	C.5
1.819	B.114	C.5
1.820	B.115	C.5
1.821	B.116	C.5
1.822	B.117	C.5
1.823	B.118	C.5
1.824	B.119	C.5
1.825	B.120	C.5
1.826	B.121	C.5
1.827	B.122	C.5
1.828	B.123	C.5
1.829	B.124	C.5
1.830	B.125	C.5
1.831	B.126	C.5
1.832	B.127	C.5
1.833	B.128	C.5
1.834	B.129	C.5
1.835	B.130	C.5
1.836	B.131	C.5
1.837	B.132	C.5
1.838	B.133	C.5
1.839	B.134	C.5
1.840	B.135	C.5
1.841	B.136	C.5
1.842	B.137	C.5
1.843	B.138	C.5
1.844	B.139	C.5
1.845	B.140	C.5
1.846	B.141	C.5
1.847	B.1	C.6
1.848	B.2	C.6
1.849	B.3	C.6
1.850	B.4	C.6
1.851	B.5	C.6
1.852	B.6	C.6
1.853	B.7	C.6
1.854	B.8	C.6
1.855	B.9	C.6
1.856	B.10	C.6
1.857	B.11	C.6
1.858	B.12	C.6
1.859	B.13	C.6
1.860	B.14	C.6
1.861	B.15	C.6
1.862	B.16	C.6
1.863	B.17	C.6
1.864	B.18	C.6
1.865	B.19	C.6
1.866	B.20	C.6
1.867	B.21	C.6
1.868	B.22	C.6
1.869	B.23	C.6
1.870	B.24	C.6
1.871	B.25	C.6
1.872	B.26	C.6
1.873	B.27	C.6
1.874	B.28	C.6
1.875	B.29	C.6
1.876	B.30	C.6
1.877	B.31	C.6
1.878	B.32	C.6
1.879	B.33	C.6
1.880	B.34	C.6
1.881	B.35	C.6
1.882	B.36	C.6
1.883	B.37	C.6
1.884	B.38	C.6
1.885	B.39	C.6

comp. no.	herbicide B	safener C
1.886	B.40	C.6
1.887	B.41	C.6
1.888	B.42	C.6
1.889	B.43	C.6
1.890	B.44	C.6
1.891	B.45	C.6
1.892	B.46	C.6
1.893	B.47	C.6
1.894	B.48	C.6
1.895	B.49	C.6
1.896	B.50	C.6
1.897	B.51	C.6
1.898	B.52	C.6
1.899	B.53	C.6
1.900	B.54	C.6
1.901	B.55	C.6
1.902	B.56	C.6
1.903	B.57	C.6
1.904	B.58.	C.6
1.905	B.59	C.6
1.906	B.60	C.6
1.907	B.61	C.6
1.908	B.62	C.6
1.909	B.63	C.6
1.910	B.64	C.6
1.911	B.65	C.6
1.912	B.66	C.6
1.913	B.67	C.6
1.914	B.68	C.6
1.915	B.69	C.6
1.916	B.70	C.6
1.917	B.71	C.6
1.918	B.72	C.6
1.919	B.73	C.6
1.920	B.74	C.6
1.921	B.75	C.6
1.922	B.76	C.6
1.923	B.77	C.6
1.924	B.78	C.6
1.925	B.79	C.6
1.926	B.80	C.6
1.927	B.81	C.6
1.928	B.82	C.6
1.929	B.83	C.6
1.930	B.84	C.6
1.931	B.85	C.6
1.932	B.86	C.6
1.933	B.87	C.6
1.934	B.88	C.6
1.935	B.89	C.6
1.936	B.90	C.6
1.937	B.91	C.6
1.938	B.92	C.6
1.939	B.93	C.6
1.940	B.94	C.6
1.941	B.95	C.6
1.942	B.96	C.6
1.943	B.97	C.6
1.944	B.98	C.6
1.945	B.99	C.6
1.946	B.100	C.6
1.947	B.101	C.6
1.948	B.102	C.6
1.949	B.103	C.6
1.950	B.104	C.6
1.951	B.105	C.6
1.952	B.106	C.6
1.953	B.107	C.6
1.954	B.108	C.6
1.955	B.109	C.6
1.956	B.110	C.6
1.957	B.111	C.6
1.958	B.112	C.6
1.959	B.113	C.6
1.960	B.114	C.6
1.961	B.115	C.6
1.962	B.116	C.6
1.963	B.117	C.6
1.964	B.118	C.6
1.965	B.119	C.6
1.966	B.120	C.6
1.967	B.121	C.6
1.968	B.122	C.6
1.969	B.123	C.6
1.970	B.124	C.6
1.971	B.125	C.6
1.972	B.126	C.6
1.973	B.127	C.6
1.974	B.128	C.6
1.975	B.129	C.6
1.976	B.130	C.6
1.977	B.131	C.6
1.978	B.132	C.6
1.979	B.133	C.6
1.980	B.134	C.6
1.981	B.135	C.6
1.982	B.136	C.6
1.983	B.137	C.6
1.984	B.138	C.6
1.985	B.139	C.6
1.986	B.140	C.6
1.987	B.141	C.6
1.988	B.1	C.7
1.989	B.2	C.7
1.990	B.3	C.7
1.991	B.4	C.7
1.992	B.5	C.7
1.993	B.6	C.7
1.994	B.7	C.7
1.995	B.8	C.7
1.996	B.9	C.7
1.997	B.10	C.7
1.998	B.11	C.7
1.999	B.12	C.7

comp. no.	herbicide B	safener C
1.1000	B.13	C.7
1.1001	B.14	C.7
1.1002	B.15	C.7
1.1003	B.16	C.7
1.1004	B.17	C.7
1.1005	B.18	C.7
1.1006	B.19	C.7
1.1007	B.20	C.7
1.1008	B.21	C.7
1.1009	B.22	C.7
1.1010	B.23	C.7
1.1011	B.24	C.7
1.1012	B.25	C.7
1.1013	B.26	C.7
1.1014	B.27	C.7
1.1015	B.28	C.7
1.1016	B.29	C.7
1.1017	B.30	C.7
1.1018	B.31	C.7
1.1019	B.32	C.7
1.1020	B.33	C.7
1.1021	B.34	C.7
1.1022	B.35	C.7
1.1023	B.36	C.7
1.1024	B.37	C.7
1.1025	B.38	C.7
1.1026	B.39	C.7
1.1027	B.40	C.7
1.1028	B.41	C.7
1.1029	B.42	C.7
1.1030	B.43	C.7
1.1031	B.44	C.7
1.1032	B.45	C.7
1.1033	B.46	C.7
1.1034	B.47	C.7
1.1035	B.48	C.7
1.1036	B.49	C.7
1.1037	B.50	C.7
1.1038	B.51	C.7
1.1039	B.52	C.7
1.1040	B.53	C.7
1.1041	B.54	C.7
1.1042	B.55	C.7
1.1043	B.56	C.7
1.1044	B.57	C.7
1.1045	B.58.	C.7
1.1046	B.59	C.7
1.1047	B.60	C.7
1.1048	B.61	C.7
1.1049	B.62	C.7
1.1050	B.63	C.7
1.1051	B.64	C.7
1.1052	B.65	C.7
1.1053	B.66	C.7
1.1054	B.67	C.7
1.1055	B.68	C.7
1.1056	B.69	C.7
1.1057	B.70	C.7
1.1058	B.71	C.7
1.1059	B.72	C.7
1.1060	B.73	C.7
1.1061	B.74	C.7
1.1062	B.75	C.7
1.1063	B.76	C.7
1.1064	B.77	C.7
1.1065	B.78	C.7
1.1066	B.79	C.7
1.1067	B.80	C.7
1.1068	B.81	C.7
1.1069	B.82	C.7
1.1070	B.83	C.7
1.1071	B.84	C.7
1.1072	B.85	C.7
1.1073	B.86	C.7
1.1074	B.87	C.7
1.1075	B.88	C.7
1.1076	B.89	C.7
1.1077	B.90	C.7
1.1078	B.91	C.7
1.1079	B.92	C.7
1.1080	B.93	C.7
1.1081	B.94	C.7
1.1082	B.95	C.7
1.1083	B.96	C.7
1.1084	B.97	C.7
1.1085	B.98	C.7
1.1086	B.99	C.7
1.1087	B.100	C.7
1.1088	B.101	C.7
1.1089	B.102	C.7
1.1090	B.103	C.7
1.1091	B.104	C.7
1.1092	B.105	C.7
1.1093	B.106	C.7
1.1094	B.107	C.7
1.1095	B.108	C.7
1.1096	B.109	C.7
1.1097	B.110	C.7
1.1098	B.111	C.7
1.1099	B.112	C.7
1.1100	B.113	C.7
1.1101	B.114	C.7
1.1102	B.115	C.7
1.1103	B.116	C.7
1.1104	B.117	C.7
1.1105	B.118	C.7
1.1106	B.119	C.7
1.1107	B.120	C.7
1.1108	B.121	C.7
1.1109	B.122	C.7
1.1110	B.123	C.7
1.1111	B.124	C.7
1.1112	B.125	C.7
1.1113	B.126	C.7

comp. no.	herbicide B	safener C
1.1114	B.127	C.7
1.1115	B.128	C.7
1.1116	B.129	C.7
1.1117	B.130	C.7
1.1118	B.131	C.7
1.1119	B.132	C.7
1.1120	B.133	C.7
1.1121	B.134	C.7
1.1122	B.135	C.7
1.1123	B.136	C.7
1.1124	B.137	C.7
1.1125	B.138	C.7
1.1126	B.139	C.7
1.1127	B.140	C.7
1.1128	B.141	C.7
1.1129	B.1	C.8
1.1130	B.2	C.8
1.1131	B.3	C.8
1.1132	B.4	C.8
1.1133	B.5	C.8
1.1134	B.6	C.8
1.1135	B.7	C.8
1.1136	B.8	C.8
1.1137	B.9	C.8
1.1138	B.10	C.8
1.1139	B.11	C.8
1.1140	B.12	C.8
1.1141	B.13	C.8
1.1142	B.14	C.8
1.1143	B.15	C.8
1.1144	B.16	C.8
1.1145	B.17	C.8
1.1146	B.18	C.8
1.1147	B.19	C.8
1.1148	B.20	C.8
1.1149	B.21	C.8
1.1150	B.22	C.8
1.1151	B.23	C.8

comp. no.	herbicide B	safener C
1.1152	B.24	C.8
1.1153	B.25	C.8
1.1154	B.26	C.8
1.1155	B.27	C.8
1.1156	B.28	C.8
1.1157	B.29	C.8
1.1158	B.30	C.8
1.1159	B.31	C.8
1.1160	B.32	C.8
1.1161	B.33	C.8
1.1162	B.34	C.8
1.1163	B.35	C.8
1.1164	B.36	C.8
1.1165	B.37	C.8
1.1166	B.38	C.8
1.1167	B.39	C.8
1.1168	B.40	C.8
1.1169	B.41	C.8
1.1170	B.42	C.8
1.1171	B.43	C.8
1.1172	B.44	C.8
1.1173	B.45	C.8
1.1174	B.46	C.8
1.1175	B.47	C.8
1.1176	B.48	C.8
1.1177	B.49	C.8
1.1178	B.50	C.8
1.1179	B.51	C.8
1.1180	B.52	C.8
1.1181	B.53	C.8
1.1182	B.54	C.8
1.1183	B.55	C.8
1.1184	B.56	C.8
1.1185	B.57	C.8
1.1186	B.58.	C.8
1.1187	B.59	C.8
1.1188	B.60	C.8
1.1189	B.61	C.8

comp. no.	herbicide B	safener C
1.1190	B.62	C.8
1.1191	B.63	C.8
1.1192	B.64	C.8
1.1193	B.65	C.8
1.1194	B.66	C.8
1.1195	B.67	C.8
1.1196	B.68	C.8
1.1197	B.69	C.8
1.1198	B.70	C.8
1.1199	B.71	C.8
1.1200	B.72	C.8
1.1201	B.73	C.8
1.1202	B.74	C.8
1.1203	B.75	C.8
1.1204	B.76	C.8
1.1205	B.77	C.8
1.1206	B.78	C.8
1.1207	B.79	C.8
1.1208	B.80	C.8
1.1209	B.81	C.8
1.1210	B.82	C.8
1.1211	B.83	C.8
1.1212	B.84	C.8
1.1213	B.85	C.8
1.1214	B.86	C.8
1.1215	B.87	C.8
1.1216	B.88	C.8
1.1217	B.89	C.8
1.1218	B.90	C.8
1.1219	B.91	C.8
1.1220	B.92	C.8
1.1221	B.93	C.8
1.1222	B.94	C.8
1.1223	B.95	C.8
1.1224	B.96	C.8
1.1225	B.97	C.8
1.1226	B.98	C.8
1.1227	B.99	C.8

comp. no.	herbicide B	safener C
1.1228	B.100	C.8
1.1229	B.101	C.8
1.1230	B.102	C.8
1.1231	B.103	C.8
1.1232	B.104	C.8
1.1233	B.105	C.8
1.1234	B.106	C.8
1.1235	B.107	C.8
1.1236	B.108	C.8
1.1237	B.109	C.8
1.1238	B.110	C.8
1.1239	B.111	C.8
1.1240	B.112	C.8
1.1241	B.113	C.8
1.1242	B.114	C.8
1.1243	B.115	C.8
1.1244	B.116	C.8
1.1245	B.117	C.8
1.1246	B.118	C.8
1.1247	B.119	C.8
1.1248	B.120	C.8
1.1249	B.121	C.8
1.1250	B.122	C.8
1.1251	B.123	C.8
1.1252	B.124	C.8
1.1253	B.125	C.8
1.1254	B.126	C.8
1.1255	B.127	C.8
1.1256	B.128	C.8
1.1257	B.129	C.8
1.1258	B.130	C.8
1.1259	B.131	C.8
1.1260	B.132	C.8
1.1261	B.133	C.8
1.1262	B.134	C.8
1.1263	B.135	C.8
1.1264	B.136	C.8
1.1265	B.137	C.8

comp. no.	herbicide B	safener C
1.1266	B.138	C.8
1.1267	B.139	C.8
1.1268	B.140	C.8
1.1269	B.141	C.8
1.1270	B.1	C.9
1.1271	B.2	C.9
1.1272	B.3	C.9
1.1273	B.4	C.9
1.1274	B.5	C.9
1.1275	B.6	C.9
1.1276	B.7	C.9
1.1277	B.8	C.9
1.1278	B.9	C.9
1.1279	B.10	C.9
1.1280	B.11	C.9
1.1281	B.12	C.9
1.1282	B.13	C.9
1.1283	B.14	C.9
1.1284	B.15	C.9
1.1285	B.16	C.9
1.1286	B.17	C.9
1.1287	B.18	C.9
1.1288	B.19	C.9
1.1289	B.20	C.9
1.1290	B.21	C.9
1.1291	B.22	C.9
1.1292	B.23	C.9
1.1293	B.24	C.9
1.1294	B.25	C.9
1.1295	B.26	C.9
1.1296	B.27	C.9
1.1297	B.28	C.9
1.1298	B.29	C.9
1.1299	B.30	C.9
1.1300	B.31	C.9
1.1301	B.32	C.9
1.1302	B.33	C.9
1.1303	B.34	C.9

comp. no.	herbicide B	safener C
1.1304	B.35	C.9
1.1305	B.36	C.9
1.1306	B.37	C.9
1.1307	B.38	C.9
1.1308	B.39	C.9
1.1309	B.40	C.9
1.1310	B.41	C.9
1.1311	B.42	C.9
1.1312	B.43	C.9
1.1313	B.44	C.9
1.1314	B.45	C.9
1.1315	B.46	C.9
1.1316	B.47	C.9
1.1317	B.48	C.9
1.1318	B.49	C.9
1.1319	B.50	C.9
1.1320	B.51	C.9
1.1321	B.52	C.9
1.1322	B.53	C.9
1.1323	B.54	C.9
1.1324	B.55	C.9
1.1325	B.56	C.9
1.1326	B.57	C.9
1.1327	B.58.	C.9
1.1328	B.59	C.9
1.1329	B.60	C.9
1.1330	B.61	C.9
1.1331	B.62	C.9
1.1332	B.63	C.9
1.1333	B.64	C.9
1.1334	B.65	C.9
1.1335	B.66	C.9
1.1336	B.67	C.9
1.1337	B.68	C.9
1.1338	B.69	C.9
1.1339	B.70	C.9
1.1340	B.71	C.9
1.1341	B.72	C.9

comp. no.	herbicide B	safener C
1.1342	B.73	C.9
1.1343	B.74	C.9
1.1344	B.75	C.9
1.1345	B.76	C.9
1.1346	B.77	C.9
1.1347	B.78	C.9
1.1348	B.79	C.9
1.1349	B.80	C.9
1.1350	B.81	C.9
1.1351	B.82	C.9
1.1352	B.83	C.9
1.1353	B.84	C.9
1.1354	B.85	C.9
1.1355	B.86	C.9
1.1356	B.87	C.9
1.1357	B.88	C.9
1.1358	B.89	C.9
1.1359	B.90	C.9
1.1360	B.91	C.9
1.1361	B.92	C.9
1.1362	B.93	C.9
1.1363	B.94	C.9
1.1364	B.95	C.9
1.1365	B.96	C.9
1.1366	B.97	C.9
1.1367	B.98	C.9
1.1368	B.99	C.9
1.1369	B.100	C.9
1.1370	B.101	C.9
1.1371	B.102	C.9
1.1372	B.103	C.9
1.1373	B.104	C.9
1.1374	B.105	C.9
1.1375	B.106	C.9
1.1376	B.107	C.9
1.1377	B.108	C.9
1.1378	B.109	C.9
1.1379	B.110	C.9
1.1380	B.111	C.9
1.1381	B.112	C.9
1.1382	B.113	C.9
1.1383	B.114	C.9
1.1384	B.115	C.9
1.1385	B.116	C.9
1.1386	B.117	C.9
1.1387	B.118	C.9
1.1388	B.119	C.9
1.1389	B.120	C.9
1.1390	B.121	C.9
1.1391	B.122	C.9
1.1392	B.123	C.9
1.1393	B.124	C.9
1.1394	B.125	C.9
1.1395	B.126	C.9
1.1396	B.127	C.9
1.1397	B.128	C.9
1.1398	B.129	C.9
1.1399	B.130	C.9
1.1400	B.131	C.9
1.1401	B.132	C.9
1.1402	B.133	C.9
1.1403	B.134	C.9
1.1404	B.135	C.9
1.1405	B.136	C.9
1.1406	B.137	C.9
1.1407	B.138	C.9
1.1408	B.139	C.9
1.1409	B.140	C.9
1.1410	B.141	C.9
1.1411	B.1	C.10
1.1412	B.2	C.10
1.1413	B.3	C.10
1.1414	B.4	C.10
1.1415	B.5	C.10
1.1416	B.6	C.10
1.1417	B.7	C.10
1.1418	B.8	C.10
1.1419	B.9	C.10
1.1420	B.10	C.10
1.1421	B.11	C.10
1.1422	B.12	C.10
1.1423	B.13	C.10
1.1424	B.14	C.10
1.1425	B.15	C.10
1.1426	B.16	C.10
1.1427	B.17	C.10
1.1428	B.18	C.10
1.1429	B.19	C.10
1.1430	B.20	C.10
1.1431	B.21	C.10
1.1432	B.22	C.10
1.1433	B.23	C.10
1.1434	B.24	C.10
1.1435	B.25	C.10
1.1436	B.26	C.10
1.1437	B.27	C.10
1.1438	B.28	C.10
1.1439	B.29	C.10
1.1440	B.30	C.10
1.1441	B.31	C.10
1.1442	B.32	C.10
1.1443	B.33	C.10
1.1444	B.34	C.10
1.1445	B.35	C.10
1.1446	B.36	C.10
1.1447	B.37	C.10
1.1448	B.38	C.10
1.1449	B.39	C.10
1.1450	B.40	C.10
1.1451	B.41	C.10
1.1452	B.42	C.10
1.1453	B.43	C.10
1.1454	B.44	C.10
1.1455	B.45	C.10

comp. no.	herbicide B	safener C
1.1456	B.46	C.10
1.1457	B.47	C.10
1.1458	B.48	C.10
1.1459	B.49	C.10
1.1460	B.50	C.10
1.1461	B.51	C.10
1.1462	B.52	C.10
1.1463	B.53	C.10
1.1464	B.54	C.10
1.1465	B.55	C.10
1.1466	B.56	C.10
1.1467	B.57	C.10
1.1468	B.58.	C.10
1.1469	B.59	C.10
1.1470	B.60	C.10
1.1471	B.61	C.10
1.1472	B.62	C.10
1.1473	B.63	C.10
1.1474	B.64	C.10
1.1475	B.65	C.10
1.1476	B.66	C.10
1.1477	B.67	C.10
1.1478	B.68	C.10
1.1479	B.69	C.10
1.1480	B.70	C.10
1.1481	B.71	C.10
1.1482	B.72	C.10
1.1483	B.73	C.10
1.1484	B.74	C.10
1.1485	B.75	C.10
1.1486	B.76	C.10
1.1487	B.77	C.10
1.1488	B.78	C.10
1.1489	B.79	C.10
1.1490	B.80	C.10
1.1491	B.81	C.10
1.1492	B.82	C.10
1.1493	B.83	C.10
1.1494	B.84	C.10
1.1495	B.85	C.10
1.1496	B.86	C.10
1.1497	B.87	C.10
1.1498	B.88	C.10
1.1499	B.89	C.10
1.1500	B.90	C.10
1.1501	B.91	C.10
1.1502	B.92	C.10
1.1503	B.93	C.10
1.1504	B.94	C.10
1.1505	B.95	C.10
1.1506	B.96	C.10
1.1507	B.97	C.10
1.1508	B.98	C.10
1.1509	B.99	C.10
1.1510	B.100	C.10
1.1511	B.101	C.10
1.1512	B.102	C.10
1.1513	B.103	C.10
1.1514	B.104	C.10
1.1515	B.105	C.10
1.1516	B.106	C.10
1.1517	B.107	C.10
1.1518	B.108	C.10
1.1519	B.109	C.10
1.1520	B.110	C.10
1.1521	B.111	C.10
1.1522	B.112	C.10
1.1523	B.113	C.10
1.1524	B.114	C.10
1.1525	B.115	C.10
1.1526	B.116	C.10
1.1527	B.117	C.10
1.1528	B.118	C.10
1.1529	B.119	C.10
1.1530	B.120	C.10
1.1531	B.121	C.10
1.1532	B.122	C.10
1.1533	B.123	C.10
1.1534	B.124	C.10
1.1535	B.125	C.10
1.1536	B.126	C.10
1.1537	B.127	C.10
1.1538	B.128	C.10
1.1539	B.129	C.10
1.1540	B.130	C.10
1.1541	B.131	C.10
1.1542	B.132	C.10
1.1543	B.133	C.10
1.1544	B.134	C.10
1.1545	B.135	C.10
1.1546	B.136	C.10
1.1547	B.137	C.10
1.1548	B.138	C.10
1.1549	B.139	C.10
1.1550	B.140	C.10
1.1551	B.141	C.10
1.1552	B.1	C.11
1.1553	B.2	C.11
1.1554	B.3	C.11
1.1555	B.4	C.11
1.1556	B.5	C.11
1.1557	B.6	C.11
1.1558	B.7	C.11
1.1559	B.8	C.11
1.1560	B.9	C.11
1.1561	B.10	C.11
1.1562	B.11	C.11
1.1563	B.12	C.11
1.1564	B.13	C.11
1.1565	B.14	C.11
1.1566	B.15	C.11
1.1567	B.16	C.11
1.1568	B.17	C.11
1.1569	B.18	C.11

comp. no.	herbicide B	safener C
1.1570	B.19	C.11
1.1571	B.20	C.11
1.1572	B.21	C.11
1.1573	B.22	C.11
1.1574	B.23	C.11
1.1575	B.24	C.11
1.1576	B.25	C.11
1.1577	B.26	C.11
1.1578	B.27	C.11
1.1579	B.28	C.11
1.1580	B.29	C.11
1.1581	B.30	C.11
1.1582	B.31	C.11
1.1583	B.32	C.11
1.1584	B.33	C.11
1.1585	B.34	C.11
1.1586	B.35	C.11
1.1587	B.36	C.11
1.1588	B.37	C.11
1.1589	B.38	C.11
1.1590	B.39	C.11
1.1591	B.40	C.11
1.1592	B.41	C.11
1.1593	B.42	C.11
1.1594	B.43	C.11
1.1595	B.44	C.11
1.1596	B.45	C.11
1.1597	B.46	C.11
1.1598	B.47	C.11
1.1599	B.48	C.11
1.1600	B.49	C.11
1.1601	B.50	C.11
1.1602	B.51	C.11
1.1603	B.52	C.11
1.1604	B.53	C.11
1.1605	B.54	C.11
1.1606	B.55	C.11
1.1607	B.56	C.11
1.1608	B.57	C.11
1.1609	B.58.	C.11
1.1610	B.59	C.11
1.1611	B.60	C.11
1.1612	B.61	C.11
1.1613	B.62	C.11
1.1614	B.63	C.11
1.1615	B.64	C.11
1.1616	B.65	C.11
1.1617	B.66	C.11
1.1618	B.67	C.11
1.1619	B.68	C.11
1.1620	B.69	C.11
1.1621	B.70	C.11
1.1622	B.71	C.11
1.1623	B.72	C.11
1.1624	B.73	C.11
1.1625	B.74	C.11
1.1626	B.75	C.11
1.1627	B.76	C.11
1.1628	B.77	C.11
1.1629	B.78	C.11
1.1630	B.79	C.11
1.1631	B.80	C.11
1.1632	B.81	C.11
1.1633	B.82	C.11
1.1634	B.83	C.11
1.1635	B.84	C.11
1.1636	B.85	C.11
1.1637	B.86	C.11
1.1638	B.87	C.11
1.1639	B.88	C.11
1.1640	B.89	C.11
1.1641	B.90	C.11
1.1642	B.91	C.11
1.1643	B.92	C.11
1.1644	B.93	C.11
1.1645	B.94	C.11
1.1646	B.95	C.11
1.1647	B.96	C.11
1.1648	B.97	C.11
1.1649	B.98	C.11
1.1650	B.99	C.11
1.1651	B.100	C.11
1.1652	B.101	C.11
1.1653	B.102	C.11
1.1654	B.103	C.11
1.1655	B.104	C.11
1.1656	B.105	C.11
1.1657	B.106	C.11
1.1658	B.107	C.11
1.1659	B.108	C.11
1.1660	B.109	C.11
1.1661	B.110	C.11
1.1662	B.111	C.11
1.1663	B.112	C.11
1.1664	B.113	C.11
1.1665	B.114	C.11
1.1666	B.115	C.11
1.1667	B.116	C.11
1.1668	B.117	C.11
1.1669	B.118	C.11
1.1670	B.119	C.11
1.1671	B.120	C.11
1.1672	B.121	C.11
1.1673	B.122	C.11
1.1674	B.123	C.11
1.1675	B.124	C.11
1.1676	B.125	C.11
1.1677	B.126	C.11
1.1678	B.127	C.11
1.1679	B.128	C.11
1.1680	B.129	C.11
1.1681	B.130	C.11
1.1682	B.131	C.11
1.1683	B.132	C.11

comp. no.	herbicide B	safener C
1.1684	B.133	C.11
1.1685	B.134	C.11
1.1686	B.135	C.11
1.1687	B.136	C.11
1.1688	B.137	C.11
1.1689	B.138	C.11
1.1690	B.139	C.11
1.1691	B.140	C.11
1.1692	B.141	C.11
1.1693	B.1	C.12
1.1694	B.2	C.12
1.1695	B.3	C.12
1.1696	B.4	C.12
1.1697	B.5	C.12
1.1698	B.6	C.12
1.1699	B.7	C.12
1.1700	B.8	C.12
1.1701	B.9	C.12
1.1702	B.10	C.12
1.1703	B.11	C.12
1.1704	B.12	C.12
1.1705	B.13	C.12
1.1706	B.14	C.12
1.1707	B.15	C.12
1.1708	B.16	C.12
1.1709	B.17	C.12
1.1710	B.18	C.12
1.1711	B.19	C.12
1.1712	B.20	C.12
1.1713	B.21	C.12
1.1714	B.22	C.12
1.1715	B.23	C.12
1.1716	B.24	C.12
1.1717	B.25	C.12
1.1718	B.26	C.12
1.1719	B.27	C.12
1.1720	B.28	C.12
1.1721	B.29	C.12

comp. no.	herbicide B	safener C
1.1722	B.30	C.12
1.1723	B.31	C.12
1.1724	B.32	C.12
1.1725	B.33	C.12
1.1726	B.34	C.12
1.1727	B.35	C.12
1.1728	B.36	C.12
1.1729	B.37	C.12
1.1730	B.38	C.12
1.1731	B.39	C.12
1.1732	B.40	C.12
1.1733	B.41	C.12
1.1734	B.42	C.12
1.1735	B.43	C.12
1.1736	B.44	C.12
1.1737	B.45	C.12
1.1738	B.46	C.12
1.1739	B.47	C.12
1.1740	B.48	C.12
1.1741	B.49	C.12
1.1742	B.50	C.12
1.1743	B.51	C.12
1.1744	B.52	C.12
1.1745	B.53	C.12
1.1746	B.54	C.12
1.1747	B.55	C.12
1.1748	B.56	C.12
1.1749	B.57	C.12
1.1750	B.58.	C.12
1.1751	B.59	C.12
1.1752	B.60	C.12
1.1753	B.61	C.12
1.1754	B.62	C.12
1.1755	B.63	C.12
1.1756	B.64	C.12
1.1757	B.65	C.12
1.1758	B.66	C.12
1.1759	B.67	C.12

comp. no.	herbicide B	safener C
1.1760	B.68	C.12
1.1761	B.69	C.12
1.1762	B.70	C.12
1.1763	B.71	C.12
1.1764	B.72	C.12
1.1765	B.73	C.12
1.1766	B.74	C.12
1.1767	B.75	C.12
1.1768	B.76	C.12
1.1769	B.77	C.12
1.1770	B.78	C.12
1.1771	B.79	C.12
1.1772	B.80	C.12
1.1773	B.81	C.12
1.1774	B.82	C.12
1.1775	B.83	C.12
1.1776	B.84	C.12
1.1777	B.85	C.12
1.1778	B.86	C.12
1.1779	B.87	C.12
1.1780	B.88	C.12
1.1781	B.89	C.12
1.1782	B.90	C.12
1.1783	B.91	C.12
1.1784	B.92	C.12
1.1785	B.93	C.12
1.1786	B.94	C.12
1.1787	B.95	C.12
1.1788	B.96	C.12
1.1789	B.97	C.12
1.1790	B.98	C.12
1.1791	B.99	C.12
1.1792	B.100	C.12
1.1793	B.101	C.12
1.1794	B.102	C.12
1.1795	B.103	C.12
1.1796	B.104	C.12
1.1797	B.105	C.12

comp. no.	herbicide B	safener C
1.1798	B.106	C.12
1.1799	B.107	C.12
1.1800	B.108	C.12
1.1801	B.109	C.12
1.1802	B.110	C.12
1.1803	B.111	C.12
1.1804	B.112	C.12
1.1805	B.113	C.12
1.1806	B.114	C.12
1.1807	B.115	C.12
1.1808	B.116	C.12
1.1809	B.117	C.12
1.1810	B.118	C.12
1.1811	B.119	C.12
1.1812	B.120	C.12
1.1813	B.121	C.12
1.1814	B.122	C.12
1.1815	B.123	C.12
1.1816	B.124	C.12
1.1817	B.125	C.12
1.1818	B.126	C.12
1.1819	B.127	C.12
1.1820	B.128	C.12
1.1821	B.129	C.12
1.1822	B.130	C.12
1.1823	B.131	C.12
1.1824	B.132	C.12
1.1825	B.133	C.12
1.1826	B.134	C.12
1.1827	B.135	C.12
1.1828	B.136	C.12
1.1829	B.137	C.12
1.1830	B.138	C.12
1.1831	B.139	C.12
1.1832	B.140	C.12
1.1833	B.141	C.12

[0136] Also especially preferred are compositions 69.1 to 69.12, preferably compositions 69.1 to 69.11, comprising the crystalline form A of benzoxazinone (I) and as further compound the substance as defined in the respective row of table C:

Table C

comp. no.	safener C
69.1	C.1
69.2	C.2
69.3	C.3
69.4	C.4
69.5	C.5
69.6	C.6
69.7	C.7
69.8	C.8
69.9	C.9
69.10	C.10
69.11	C.11
69.12	C.12

[0137] The specific number for each single composition is deductible as follows:

Composition 1.777 for example comprises the crystalline form A of benzoxazinone (I), flumioxazin (B.72) and fenclorim (C.5) (see table 1, entry 1.777; as well as table B, entry B.72 and table C, entry C.5).
Composition 7.777 for example comprises imazaquin (B32) (see the definition for compositions 7.1 to 7.1692 below), and the crystalline form A of benzoxazinone (I), flumioxazin (B.72) and fenclorim (C.5) (see table 1, entry 1.777; as well as table B, entry B.77 and table C, entry C.5).

[0138] Also especially preferred are compositions 2.1 to 2.1833, preferably compositions 2.1 to 2.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.2 as further herbicide B.

[0139] Also especially preferred are compositions 3.1 to 3.1833, preferably compositions 3.1 to 3.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.7 as further herbicide B.

[0140] Also especially preferred are compositions 4.1 to 4.1833, preferably compositions 4.1 to 4.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.29 as further herbicide B.

[0141] Also especially preferred are compositions 5.1 to 5.1833, preferably compositions 5.1 to 5.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.30 as further herbicide B.

[0142] Also especially preferred are compositions 6.1 to 6.1833, preferably compositions 6.1 to 6.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.31 as further herbicide B.

[0143] Also especially preferred are compositions 7.1 to 7.1833, preferably compositions 7.17 to 7.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.32 as further herbicide B.

[0144] Also especially preferred are compositions 8.1 to 8.1833, preferably compositions 8.1 to 8.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.33 as further herbicide B.

[0145] Also especially preferred are compositions 9.1 to 9.1833, preferably compositions 9.1 to 9.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.40 as further herbicide B.

[0146] Also especially preferred are compositions 10.1 to 10.1833, preferably compositions 10.1. to 10.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.44 as further herbicide B.

[0147] Also especially preferred are compositions 11.1 to 11.1833, preferably compositions 11.1 to 11.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.45 as further herbicide B.

[0148] Also especially preferred are compositions 12.1 to 12.1833, preferably compositions 12.1 to 12.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.52 as further herbicide B.

[0149] Also especially preferred are compositions 13.1 to 13.1833, preferably compositions 13.1 to 13.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.53 as further herbicide B.

[0150] Also especially preferred are compositions 14.1 to 14.1833, preferably compositions 14.1 to 14.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.54 as further herbicide B.

[0151] Also especially preferred are compositions 15.1 to 15.1833, preferably compositions 15.1 to 15.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.55 as further herbicide B.

[0152] Also especially preferred are compositions 16.1 to 16.1833, preferably compositions 16.1 to 16.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.56 as further herbicide B.

[0153] Also especially preferred are compositions 17.1 to 17.1833, preferably compositions 17.1 to 17.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.57 as further herbicide B.

[0154] Also especially preferred are compositions 18.1 to 18.1833, preferably compositions 18.1 to 18.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.60 as further herbicide B.

[0155] Also especially preferred are compositions 19.1 to 19.1833, preferably compositions 19.1 to 19.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.65 as further herbicide B.

[0156] Also especially preferred are compositions 20.1 to 20.1833, preferably compositions 20.1 to 20.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.66 as further herbicide B.

[0157] Also especially preferred are compositions 21.1 to 21.1833, preferably compositions 21.1 to 21.1692, which

differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.69 as further herbicide B.

[0158] Also especially preferred are compositions 22.1 to 22.1833, preferably compositions 22.1 to 22.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.72 as further herbicide B.

[0159] Also especially preferred are compositions 23.1 to 23.1833, preferably compositions 23.1 to 23.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.73 as further herbicide B.

[0160] Also especially preferred are compositions 24.1 to 24.1833, preferably compositions 24.1 to 24.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.76 as further herbicide B.

[0161] Also especially preferred are compositions 25.1 to 25.1833, preferably compositions 25.1 to 25.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.77 as further herbicide B.

[0162] Also especially preferred are compositions 26.1 to 26.1833, preferably compositions 26.1 to 26.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.80 as further herbicide B.

[0163] Also especially preferred are compositions 27.1 to 27.1833, preferably compositions 27.1 to 27.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.81 as further herbicide B.

[0164] Also especially preferred are compositions 28.1 to 28.1833, preferably compositions 28.1 to 28.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.84 as further herbicide B.

[0165] Also especially preferred are compositions 29.1 to 29.1833, preferably compositions 29.1 to 29.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.84 and B.54 as further herbicides B.

[0166] Also especially preferred are compositions 30.1 to 30.1833, preferably compositions 30.1 to 30.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.84 and B.60 as further herbicides B.

[0167] Also especially preferred are compositions 31.1 to 31.1833, preferably compositions 31.1 to 31.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.84 and B.66 as further herbicides B.

[0168] Also especially preferred are compositions 32.1 to 32.1833, preferably compositions 32.1 to 32.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 85 as further herbicide B.

[0169] Also especially preferred are compositions 33.1 to 33.1833, preferably compositions 33.1 to 33.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 85 and B.54 as further herbicides B.

[0170] Also especially preferred are compositions 34.1 to 34.1833, preferably compositions 34.1 to 34.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 85 and B.60 as further herbicides B.

[0171] Also especially preferred are compositions 35.1 to 35.1833, preferably compositions 35.1 to 35.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 85 and B.66 as further herbicides B.

[0172] Also especially preferred are compositions 36.1 to 36.1833, preferably compositions 36.1 to 36.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.87 as further herbicide B.

[0173] Also especially preferred are compositions 37.1 to 37.1833, preferably compositions 37.1 to 37.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 88 as further herbicide B.

[0174] Also especially preferred are compositions 38.1 to 38.1833, preferably compositions 38.1 to 38.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 88 and B.54 as further herbicides B.

[0175] Also especially preferred are compositions 39.1 to 39.1833, preferably compositions 39.1 to 39.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 88 and B.60 as further herbicides B.

[0176] Also especially preferred are compositions 40.1 to 40.1833, preferably compositions 40.1 to 40.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they addi-

tionally comprise B. 88 and B.66 as further herbicides B.

[0177] Also especially preferred are compositions 41.1 to 41.1833, preferably compositions 41.1 to 41.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.90 as further herbicide B.

[0178] Also especially preferred are compositions 42.1 to 42.1833, preferably compositions 42.1 to 42.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.91 as further herbicide B.

[0179] Also especially preferred are compositions 43.1 to 43.1833, preferably compositions 43.1 to 43.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.91 and B.54 as further herbicides B.

[0180] Also especially preferred are compositions 44.1 to 44.1833, preferably compositions 44.1 to 44.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.91 and B.60 as further herbicides B.

[0181] Also especially preferred are compositions 45.1 to 45.1833, preferably compositions 45.1 to 45.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.91 and B.66 as further herbicides B.

[0182] Also especially preferred are compositions 46.1 to 46.1833, preferably compositions 46.1 to 46.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 as further herbicide B.

[0183] Also especially preferred are compositions 47.1 to 47.1833, preferably compositions 47.1 to 47.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.54 as further herbicides B.

[0184] Also especially preferred are compositions 48.1 to 48.1833, preferably compositions 48.1 to 48.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.76 as further herbicides B.

[0185] Also especially preferred are compositions 49.1 to 49.1833, preferably compositions 49.1 to 49.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.84 as further herbicides B.

[0186] Also especially preferred are compositions 50.1 to 50.1833, preferably compositions 50.1 to 50.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.103 as further herbicides B.

[0187] Also especially preferred are compositions 51.1 to 51.1833, preferably compositions 51.1 to 51.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.85 as further herbicides B.

[0188] Also especially preferred are compositions 52.1 to 52.1833, preferably compositions 52.1 to 52.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.88 as further herbicides B.

[0189] Also especially preferred are compositions 53.1 to 53.1833, preferably compositions 53.1 to 53.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.91 as further herbicides B.

[0190] Also especially preferred are compositions 54.1 to 54.1833, preferably compositions 54.1 to 54.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.98 as further herbicide B.

[0191] Also especially preferred are compositions 55.1 to 55.1833, preferably compositions 55.1 to 55.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.101 as further herbicide B.

[0192] Also especially preferred are compositions 56.1 to 56.1833, preferably compositions 56.1 to 56.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.103 as further herbicide B.

[0193] Also especially preferred are compositions 57.1 to 57.1833, preferably compositions 57.1 to 57.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.106 as further herbicide B.

[0194] Also especially preferred are compositions 58.1 to 58.1833, preferably compositions 58.1 to 58.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.107 as further herbicide B.

[0195] Also especially preferred are compositions 59.1 to 59.1833, preferably compositions 59.1 to 59.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.108 as further herbicide B.

[0196] Also especially preferred are compositions 60.1 to 60.1833, preferably compositions 60.1 to 60.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.110 as further herbicide B.

[0197] Also especially preferred are compositions 61.1 to 61.1833, preferably compositions 61.1 to 61.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.112 as further herbicide B.

[0198] Also especially preferred are compositions 62.1 to 62.1833, preferably compositions 62.1 to 62.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 11.1 to 1.1692, only in that they additionally comprise B.113 as further herbicide B.

[0199] Also especially preferred are compositions 63.1 to 63.1833, preferably compositions 63.1 to 63.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.117 as further herbicide B.

[0200] Also especially preferred are compositions 64.1 to 64.1833, preferably compositions 64.1 to 64.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.119 as further herbicide B.

[0201] Also especially preferred are compositions 65.1 to 65.1833, preferably compositions 65.1 to 65.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.120 as further herbicide B.

[0202] Also especially preferred are compositions 66.1 to 66.1833, preferably compositions 66.1 to 66.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.122 as further herbicide B.

[0203] Also especially preferred are compositions 67.1 to 67.1833, preferably compositions 67.1 to 67.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.123 as further herbicide B.

[0204] Also especially preferred are compositions 68.1 to 68.1833, preferably compositions 68.1 to 68.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.130 as further herbicide B.

[0205] The invention also relates to agrochemical compositions comprising an auxiliary and at least one composition according to the invention.

[0206] The crystalline form A of benzoxazinone (I), and the herbicidal compositions comprising the crystalline form A of benzoxazinone (I), can be used, for example, in the form of ready-to-spray aqueous solutions, powders, suspensions, also highly concentrated aqueous, oily or other suspensions or dispersions, emulsions, oil dispersions, pastes, dusts, materials for broadcasting, or granules, by means of spraying, atomizing, dusting, spreading, watering or treatment of the seed or mixing with the seed. The use forms depend on the intended purpose; in any case, they should ensure the finest possible distribution of the active ingredients according to the invention.

[0207] The agrochemical compositions comprise an herbicidal effective amount of the crystalline form A of benzoxazinone (I)and at least one further active compound selected from herbicides B and safeners C, and auxiliaries which are customary for the formulation of crop protection agents.

[0208] Examples of auxiliaries customary for the formulation of crop protection agents are inert auxiliaries, solid carriers, surfactants (such as dispersants, protective colloids, emulsifiers, wetting agents and tackifiers), organic and inorganic thickeners, bactericides, antifreeze agents, antifoams, optionally colorants and, for seed formulations, adhesives.

[0209] The person skilled in the art is sufficiently familiar with the recipes for such formulations.

[0210] Examples of thickeners (i.e. compounds which impart to the formulation modified flow properties, i.e. high viscosity in the state of rest and low viscosity in motion) are polysaccharides, such as xanthan gum (Kelzan® from Kelco), Rhodopol® 23 (Rhone Poulenc) or Veegum® (from R.T. Vanderbilt), and also organic and inorganic sheet minerals, such as Attaclay® (from Engelhard).

[0211] Examples of antifoams are silicone emulsions (such as, for example, Silikon® SRE, Wacker or Rhodorsil® from Rhodia), long-chain alcohols, fatty acids, salts of fatty acids, organofluorine compounds and mixtures thereof.

[0212] Bactericides can be added for stabilizing the aqueous herbicidal formulations. Examples of bactericides are bactericides based on diclorophen and benzyl alcohol hemiformal (Proxel® from ICI or Acticide® RS from Thor Chemie and Kathon® MK from Rohm & Haas), and also isothiazolinone derivates, such as alkylisothiazolinones and benzisothiazolinones (Acticide MBS from Thor Chemie).

[0213] Examples of antifreeze agents are ethylene glycol, propylene glycol, urea or glycerol.

[0214] Examples of colorants are both sparingly water-soluble pigments and water-soluble dyes. Examples which may be mentioned are the dyes known under the names Rhodamin B, C.I. Pigment Red 112 and C.I. Solvent Red 1, and also pigment blue 15:4, pigment blue 15:3, pigment blue 15:2, pigment blue 15:1, pigment blue 80, pigment yellow 1, pigment yellow 13, pigment red 112, pigment red 48:2, pigment red 48:1, pigment red 57:1, pigment red 53:1, pigment orange 43, pigment orange 34, pigment orange 5, pigment green 36, pigment green 7, pigment white 6, pigment brown

25, basic violet 10, basic violet 49, acid red 51, acid red 52, acid red 14, acid blue 9, acid yellow 23, basic red 10, basic red 108.

[0215] Examples of adhesives are polyvinylpyrrolidone, polyvinyl acetate, polyvinyl alcohol and tylose.

[0216] Suitable inert auxiliaries are, for example, the following:

mineral oil fractions of medium to high boiling point, such as kerosene and diesel oil,
furthermore coal tar oils and oils of vegetable or animal origin, aliphatic, cyclic and aromatic hydrocarbons, for example paraffin, tetrahydronaphthalene, alkylated naphthalenes and their derivatives, alkylated benzenes and their derivatives, alcohols such as methanol, ethanol, propanol, butanol and cyclohexanol, ketones such as cyclohexanone or strongly polar solvents,
for example amines such as N-methylpyrrolidone, and water.

[0217] Suitable carriers include liquid and solid carriers.

[0218] Liquid carriers include e.g. non-aqueous solvents such as cyclic and aromatic hydrocarbons, e.g. paraffins, tetrahydronaphthalene, alkylated naphthalenes and their derivatives, alkylated benzenes and their derivatives, alcohols such as methanol, ethanol, propanol, butanol and cyclohexanol, ketones such as cyclohexanone, strongly polar solvents, e.g. amines such as N-methylpyrrolidone, and water as well as mixtures thereof.

[0219] Solid carriers include e.g. mineral earths such as silicas, silica gels, silicates, talc, kaolin, limestone, lime, chalk, bole, loess, clay, dolomite, diatomaceous earth, calcium sulfate, magnesium sulfate and magnesium oxide, ground synthetic materials, fertilizers such as ammonium sulfate, ammonium phosphate, ammonium nitrate and ureas, and products of vegetable origin, such as cereal meal, tree bark meal, wood meal and nutshell meal, cellulose powders, or other solid carriers.

[0220] Suitable surfactants (adjuvants, wetting agents, tackifiers, dispersants and also emulsifiers) are the alkali metal salts, alkaline earth metal salts and ammonium salts of aromatic sulfonic acids, for example lignosulfonic acids (e.g. Borrespers-types, Borregaard), phenolsulfonic acids, naphthalenesulfonic acids (Morwet types, Akzo Nobel) and dibutylnaphthalenesulfonic acid (Nekal types, BASF SE), and of fatty acids, alkyl- and alkylarylsulfonates, alkyl sulfates, lauryl ether sulfates and fatty alcohol sulfates, and salts of sulfated hexa-, hepta- and octadecanols, and also of fatty alcohol glycol ethers, condensates of sulfonated naphthalene and its derivatives with formaldehyde, condensates of naphthalene or of the naphthalenesulfonic acids with phenol and formaldehyde, polyoxyethylene octylphenol ether, ethoxylated isooctyl-, octyl- or nonylphenol, alkylphenyl or tributylphenyl polyglycol ether, alkylaryl polyether alcohols, isotridecyl alcohol, fatty alcohol/ethylene oxide condensates, ethoxylated castor oil, polyoxyethylene alkyl ethers or polyoxypropylene alkyl ethers, lauryl alcohol polyglycol ether acetate, sorbitol esters, lignosulfite waste liquors and proteins, denaturated proteins, polysaccharides (e.g. methylcellulose), hydrophobically modified starches, polyvinyl alcohol (Mowiol types Clariant), polycarboxylates (BASF SE, Sokalan types), polyalkoxylates, polyvinylamine (BASF SE, Lupamine types), polyethyleneimine (BASF SE, Lupasol types), polyvinylpyrrolidone and copolymers thereof.

[0221] Powders, materials for broadcasting and dusts can be prepared by mixing or concomitant grinding the active ingredients together with a solid carrier.

[0222] Granules, for example coated granules, impregnated granules and homogeneous granules, can be prepared by binding the active ingredients to solid carriers.

[0223] Aqueous use forms can be prepared from emulsion concentrates, suspensions, pastes, wettable powders or water-dispersible granules by adding water.

[0224] To prepare emulsions, pastes or oil dispersions, the crystalline form A of benzoxazinone (I), either as such or dissolved in an oil or solvent, can be homogenized in water by means of a wetting agent, tackifier, dispersant or emulsifier. Alternatively, it is also possible to prepare concentrates comprising active compound, wetting agent, tackifier, dispersant or emulsifier and, if desired, solvent or oil, which are suitable for dilution with water.

[0225] The the crystalline form A of benzoxazinone (I) and the compostions according to the present invention can, for example, be formulated as follows:

1. Products for dilution with water

A Water-soluble concentrates
10 parts by weight of active compound are dissolved in 90 parts by weight of water or a water-soluble solvent. As an alternative, wetters or other adjuvants are added. The active compound dissolves upon dilution with water. This gives a formulation with an active compound content of 10% by weight.

B Dispersible concentrates
20 parts by weight of active compound are dissolved in 70 parts by weight of cyclohexanone with addition of 10 parts by weight of a dispersant, for example polyvinylpyrrolidone. Dilution with water gives a dispersion. The active compound content is 20% by weight.

C Emulsifiable concentrates

15 parts by weight of active compound are dissolved in 75 parts by weight of an organic solvent (e.g. alkylaromatics) with addition of calcium dodecylbenzenesulfonate and castor oil ethoxylate (in each case 5 parts by weight). Dilution with water gives an emulsion. The formulation has an active compound content of 15% by weight.

D Emulsions

25 parts by weight of active compound are dissolved in 35 parts by weight of an organic solvent (eg. alkylaromatics) with addition of calcium dodecylbenzenesulfonate and castor oil ethoxylate (in each case 5 parts by weight). This mixture is introduced into 30 parts by weight of water by means of an emulsifier (Ultraturrax) and made into a homogeneous emulsion. Dilution with water gives an emulsion. The formulation has an active compound content of 25% by weight.

E Suspensions

In an agitated ball mill, 20 parts by weight of active compound are comminuted with addition of 10 parts by weight of dispersants and wetters and 70 parts by weight of water or an organic solvent to give a fine active compound suspension. Dilution with water gives a stable suspension of the active compound. The active compound content in the formulation is 20% by weight.

F Water-dispersible granules and water-soluble granules

50 parts by weight of active compound are ground finely with addition of 50 parts by weight of dispersants and wetters and made into water-dispersible or water-soluble granules by means of technical appliances (for example extrusion, spray tower, fluidized bed). Dilution with water gives a stable dispersion or solution of the active compound. The formulation has an active compound content of 50% by weight.

G Water-dispersible powders and water-soluble powders

75 parts by weight of active compound are ground in a rotor-stator mill with addition of 25 parts by weight of dispersants, wetters and silica gel. Dilution with water gives a stable dispersion or solution of the active compound. The active compound content of the formulation is 75% by weight.

H Gel formulations

In a ball mill, 20 parts by weight of active compound, 10 parts by weight of dispersant, 1 part by weight of gelling agent and 70 parts by weight of water or of an organic solvent are mixed to give a fine suspension. Dilution with water gives a stable suspension with active compound content of 20% by weight.

2. Products to be applied undiluted

I Dusts

5 parts by weight of active compound are ground finely and mixed intimately with 95 parts by weight of finely divided kaolin. This gives a dusting powder with an active compound content of 5% by weight.

J Granules (GR, FG, GG, MG)

0.5 parts by weight of active compound are ground finely and associated with 99.5 parts by weight of carriers. Current methods here are extrusion, spray-drying or the fluidized bed. This gives granules to be applied undiluted with an active compound content of 0.5% by weight.

K ULV solutions (UL)

10 parts by weight of active compound are dissolved in 90 parts by weight of an organic solvent, for example xylene. This gives a product to be applied undiluted with an active compound content of 10% by weight.

[0226] Aqueous use forms can be prepared from emulsion concentrates, suspensions, pastes, wettable powders or water-dispersible granules by adding water.

[0227] The concentrations of the active compounds, especially of the crystalline form A of benzoxazinone (I) in the ready-to-use preparations (formulations) can be varied within wide ranges. In general, the formulations comprise approximately from 0.001 to 98% by weight, preferably 0.01 to 95% by weight of at least one active ingredient. The active ingredients are employed in a purity of from 90% to 100%, preferably 95% to 100% (according to NMR spectrum).

[0228] In the formulation of the crystalline form A of benzoxazinone (I) according to the present invention the active ingredients, e.g. the the crystalline form A of benzoxazinone (I), are present in suspended, emulsified or dissolved form. The formulation according to the invention can be in the form of aqueous solutions, powders, suspensions, also highly-concentrated aqueous, oily or other suspensions or dispersions, aqueous emulsions, aqueous microemulsions, aqueous suspo-emulsions, oil dispersions, pastes, dusts, materials for spreading or granules.

[0229] According to one embodiment of the invention, in the ready-to-use preparations of herbicidal compositions, i.e. in the compositions according to the invention in the form of crop protection compositions, the crystalline form A of benzoxazinone (I)) and herbicides B and/or safeners C can be present formulated jointly or separately in suspended, emulsified or dissolved form. The use forms depend entirely on the intended applications.

[0230] Accordingly, a first embodiment of the invention relates to compositions in the form of a crop protection com-

position formulated as a 1-component composition comprising the crystalline form A of benzoxazinone (I) and at least one further active compound selected from the herbicides B and the safeners C and also a solid or liquid carrier and, if appropriate, one or more surfactants.

[0231] Accordingly, a second embodiment of the invention relates to compositions in the form of a crop protection composition formulated as a 2-component composition comprising a first formulation (component) comprising the crystalline form A of benzoxazinone (I), a solid or liquid carrier and, if appropriate, one or more surfactants, and a second component comprising at least one further active compound selected from the herbicides B and safeners C, a solid or liquid carrier and, if appropriate, one or more surfactants.

[0232] The crystalline form A of benzoxazinone (I) and the at least one further herbicide B and/or safener C can be applied jointly or separately, simultaneously or in succession, before, during or after the emergence of the plants. The order of the application of the crystalline form A of benzoxazinone (I), herbicide B and/or safener C is of minor importance. The only thing that is important is that the crystalline form A of benzoxazinone (I) and the at least one further herbicide B and/or safener C are present simultaneously at the site of action, i.e. are at the same time in contact with or taken up by the plant to be controlled.

[0233] The crystalline form A of benzoxazinone (I) and the compositions according to the imvention are suitable as herbicides. They are suitable as such or as an appropriately formulated composition (agrochemical composition) comprising as herbicide the crystalline form A of benzoxazinone (I), and herbicides B and/or safeners C.

The compositions according to the invention control vegetation on non-crop areas very efficiently, especially at high rates of application. They act against broad-leaved weeds and grass weeds in crops such as wheat, rice, maize, soya and cotton without causing any significant damage to the crop plants. This effect is mainly observed at low rates of application.

[0234] The crystalline form A of benzoxazinone (I) and the compositions according to the invention comprising them are applied to the plants mainly by spraying the leaves. Here, the application can be carried out using, for example, water as carrier by customary spraying techniques using spray liquor amounts of from about 100 to 1000 l/ha (for example from 300 to 400 l/ha). The herbicidal compositions may also be applied by the low-volume or the ultra-low-volume method, or in the form of microgranules.

[0235] The crystalline form A of benzoxazinone (I) and the compositions according to the present invention can be applied pre-, post-emergence or pre-plant, or together with the seed of a crop plant.

[0236] It is also possible to apply the compounds and compositions according to the invention by applying seed, pretreated with the herbicidal compositions or active compounds, of a crop plant. If the crystalline form A of benzoxazinone (I), herbicides B, and/or safeners C are less well tolerated by certain crop plants, application techniques may be used in which the herbicidal compositions are sprayed, with the aid of the spraying equipment, in such a way that as far as possible they do not come into contact with the leaves of the sensitive crop plants, while the active ingredients reach the leaves of undesirable plants growing underneath, or the bare soil surface (post-directed, lay-by).

[0237] In a further embodiment, the crystalline form A of benzoxazinone (I) or the herbicidal compositions comprising them can be applied by treating seed. The treatment of seeds comprises essentially all procedures familiar to the person skilled in the art (seed dressing, seed coating, seed dusting, seed soaking, seed film coating, seed multilayer coating, seed encrusting, seed dripping and seed pelleting) based on the crystalline form A of benzoxazinone (I) according to the invention or the compositions prepared therefrom. Here, the herbicidal compositions can be applied diluted or undiluted.

[0238] The term "seed" comprises seed of all types, such as, for example, corns, seeds, fruits, tubers, seedlings and similar forms. Here, preferably, the term seed describes corns and seeds. The seed used can be seed of the useful plants mentioned above, but also the seed of transgenic plants or plants obtained by customary breeding methods.

[0239] The required application rate of pure active compound composition, i.e. crystalline form A of benzoxazinone (I) and herbicide B, and, if appropriate, safener C without formulation auxiliaries depends on the composition of the plant stand, on the development stage of the plants, on the climatic conditions at the site of use and on the application technique.

[0240] The rates of application of the crystalline form A of benzoxazinone (I) according to the present invention are from 0.1 g/ha to 3000 g/ha, preferably 10 g/ha to 1000 g/ha of active substance (a.s.), depending on the control target, the season, the target plants and the growth stage.

[0241] In another embodiment of the invention, the application rates of the crystalline form A of benzoxazinone (I) are in the range from 0.1 g/ha to 5000 g/ha and preferably in the range from 1 g/ha to 2500 g/ha or from 5 g/ha to 2000 g/ha of active substance (a.s.).

[0242] In another embodiment of the invention, the application rate of the crystalline form A of benzoxazinone (I) is 0.1 to 1000 g/ha, preferably1 to 750 g/ha, more preferably 5 to 500 g/ha, of active substance.

[0243] In another embodiment of the invention the required application rate of the crystalline form A of benzoxazinone (I), is generally in the range of from 0.0005 kg/ha to 2.5 kg/ha and preferably in the range of from 0.005 kg/ha to 2 kg/ha or 0.01 kg/ha to 1.5 kg/h of a.s.

[0244] To treat the seed, the crystalline form A of benzoxazinone (I) is generally employed in amounts of from 0.001

to 10 kg per 100 kg of seed.

[0245] In general, the application rate of the crystalline form A of benzoxazinone (I) and herbicides B and, if appropriate, safeners C, is from 0.001 to 3 kg/ha, preferably from 0.005 to 2.5 kg/ha and in particular from 0.01 to 2 kg/ha of active substance (a.s.).

[0246] The required application rates of herbicides B are generally in the range of from 0.0005 kg/ha to 2.5 kg/ha and preferably in the range of from 0.005 kg/ha to 2 kg/ha or 0.01 kg/ha to 1.5 kg/h of a.s.

[0247] The required application rates of safeners C are generally in the range of from 0.0005 kg/ha to 2.5 kg/ha and preferably in the range of from 0.005 kg/ha to 2 kg/ha or 0.01 kg/ha to 1.5 kg/h of a.s.

[0248] Depending on the application method in question, the compositions according to the invention can additionally be employed in a further number of crop plants for eliminating undesirable plants. Examples of suitable crops are the following:

Allium cepa, Ananas comosus, Arachis hypogaea, Asparagus officinalis, Avena sativa, Beta vulgaris spec. altissima, Beta vulgaris spec. rapa, Brassica napus var. napus, Brassica napus var. napobrassica, Brassica rapa var. silvestris, Brassica oleracea, Brassica nigra, Camellia sinensis, Carthamus tinctorius, Carya illinoinensis, Citrus limon, Citrus sinensis, Coffea arabica (Coffea canephora, Coffea liberica), Cucumis sativus, Cynodon dactylon, Daucus carota, Elaeis guineensis, Fragaria vesca, Glycine max, Gossypium hirsutum, (Gossypium arboreum, Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hevea brasiliensis, Hordeum vulgare, Humulus lupulus, Ipomoea batatas, Juglans regia, Lens culinaris, Linum usitatissimum, Lycopersicon lycopersicum, Malus spec., Manihot esculenta, Medicago sativa, Musa spec., Nicotiana tabacum (N. rustica), Olea europaea, Oryza sativa, Phaseolus lunatus, Phaseolus vulgaris, Picea abies, Pinus spec., Pistacia vera, Pisum sativum, Prunus avium, Prunus persica, Pyrus communis, Prunus armeniaca, Prunus cerasus, Prunus dulcis and Prunus domestica, Ribes sylvestre, Ricinus communis, Saccharum officinarum, Secale cereale, Sinapis alba, Solanum tuberosum, Sorghum bicolor (s. vulgare), Theobroma cacao, Trifolium pratense, Triticum aestivum, Triticale, Triticum durum, Vicia faba, Vitis vinifera and Zea mays.

[0249] Preferred crops are the following: Arachis hypogaea, Beta vulgaris spec. altissima, Brassica napus var. napus, Brassica oleracea, Citrus limon, Citrus sinensis, Coffea arabica (Coffea canephora, Coffea liberica), Cynodon dactylon, Glycine max, Gossypium hirsutum, (Gossypium arboreum, Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hordeum vulgare, Juglans regia, Lens culinaris, Linum usitatissimum, Lycopersicon lycopersicum, Malus spec., Medicago sativa, Nicotiana tabacum (N.rustica), Olea europaea, Oryza sativa , Phaseolus lunatus, Phaseolus vulgaris, Pistacia vera, Pisum sativum, Prunus dulcis, Saccharum officinarum, Secale cereale, Solanum tuberosum, Sorghum bicolor (s. vulgare), Triticale, Triticum aestivum, Triticum durum, Vicia faba, Vitis vinifera and Zea mays.

[0250] Especially preferred crops of cereals, corn, soybeans, rice, oilseed rape, cotton, potatoes, peanuts or permanent crops, and also in crops which are resistant to one or more herbicides or to attack by insects owing to genetic engineering or breeding.

[0251] The compositions according to the invention can also be used in genetically modified plants. The term "genetically modified plants" is to be understood as plants, which genetic material has been modified by the use of recombinant DNA techniques in a way that under natural circumstances it cannot readily be obtained by cross breeding, mutations or natural recombination. Typically, one or more genes have been integrated into the genetic material of a genetically modified plant in order to improve certain properties of the plant. Such genetic modifications also include but are not limited to targeted post-transitional modification of protein(s), oligo- or polypeptides e. g. by glycosylation or polymer additions such as prenylated, acetylated or farne-sylated moieties or PEG moieties. Plants that have been modified by breeding, mutagenesis or genetic engineering, e.g. have been rendered tolerant to applications of specific classes of herbicides, such as hydroxyphenylpyruvate dioxygenase (HPPD) inhibitors; acetolactate synthase (ALS) inhibitors, such as sulfonyl ureas (see e.g. US 6,222,100, WO 01/82685, WO 00/26390, WO 97/41218, WO 98/02526, WO 98/02527, WO 04/106529, WO 05/20673, WO 03/14357, WO 03/13225, WO 03/14356, WO 04/16073) or imidazolinones (see e. g. US 6,222,100, WO 01/82685, WO 00/026390, WO 97/41218, WO 98/002526, WO 98/02527, WO 04/106529, WO 05/20673, WO 03/014357, WO 03/13225, WO 03/14356, WO 04/16073); enolpyruvylshikimate-3-phosphate synthase (EPSPS) inhibitors, such as glyphosate (see e.g. WO 92/00377); glutamine synthetase (GS) inhibitors, such as glufosinate (see e.g. EP-A 242 236, EP-A 242 246) or oxynil herbicides (see e. g. US 5,559,024) as a result of conventional methods of breeding or genetic engineering. Several cultivated plants have been rendered tolerant to herbicides by conventional methods of breeding (mutagenesis), e. g. Clearfield® summer rape (Canola, BASF SE, Germany) being tolerant to imidazolinones, e. g. imazamox. Genetic engineering methods have been used to render cultivated plants such as soybean, cotton, corn, beets and rape, tolerant to herbicides such as glypho-sate and glufosinate, some of which are commercially available under the trade names RoundupReady® (glyphosate-tolerant, Monsanto, U.S.A.) and LibertyLink® (glufosinate-tolerant, Bayer CropScience, Germany).

[0252] Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize

one or more insecticidal proteins, especially those known from the bacterial genus Bacillus, particularly from Bacillus thuringiensis, such as ä-endotoxins, e. g. Cry-lA(b), CrylA(c), CrylF, CrylF(a2), CrylIA(b), CrylIIA, CrylIIB(b1) or Cry9c; vegetative insecticidal proteins (VIP), e. g. VIP1, VIP2, VIP3 or VIP3A; insecticidal proteins of bacteria colonizing nematodes, e. g. Photorhabdus spp. or Xenorhabdus spp.; toxins produced by animals, such as scorpion toxins, arachnid toxins, wasp toxins, or other insect-specific neurotoxins; toxins produced by fungi, such Streptomycetes toxins, plant lectins, such as pea or barley lectins; aggluti-nins; proteinase inhibitors, such as trypsin inhibitors, serine protease inhibitors, patatin, cystatin or papain inhibitors; ribosome-inactivating proteins (RIP), such as ricin, maize-RIP, abrin, luffin, saporin or bryodin; steroid metabolism enzymes, such as 3-hydroxy-steroid oxidase, ecdysteroid-IDP-glycosyl-transferase, cholesterol oxidases, ecdysone inhibitors or HMG-CoA-reductase; ion channel blockers, such as blockers of sodium or calcium channels; juvenile hormone esterase; diuretic hormone receptors (helicokinin receptors); stilbene synthase, bibenzyl synthase, chitinases or glucanases. In the context of the present invention these insecticidal proteins or toxins are to be under-stood expressly also as pre-toxins, hybrid proteins, truncated or otherwise modified proteins. Hybrid proteins are characterized by a new combination of protein domains, (see, e. g. WO 02/015701). Further examples of such toxins or genetically modified plants capable of synthesizing such toxins are dis-closed, e. g., in EP-A 374 753, WO 93/007278, WO 95/34656, EP-A 427 529, EP-A 451 878, WO 03/18810 und WO 03/52073. The methods for producing such genetically modified plants are generally known to the person skilled in the art and are described, e. g. in the publications mentioned above. These insecticidal proteins contained in the genetically modified plants impart to the plants producing these proteins tolerance to harmful pests from all taxonomic groups of arthropods, especially to beetles (Coeloptera), two-winged insects (Diptera), and moths (Lepidoptera) and to nematodes (Nematoda). Genetically modified plants capable to synthesize one or more insecticidal pro-teins are, e. g., described in the publications mentioned above, and some of which are commercially available such as YieldGard® (corn cultivars producing the Cry1Ab toxin), YieldGard® Plus (corn cultivars producing Cry1Ab and Cry3Bb1 toxins), Starlink® (corn cultivars producing the Cry9c toxin), Herculex® RW (corn cultivars producing Cry34Ab1, Cry35Ab1 and the enzyme Phosphinothricin-N-Acetyltransferase [PAT]); NuCOTN® 33B (cotton cultivars producing the Cry1Ac toxin), Bollgard® I (cotton culti-vars producing the Cry1Ac toxin), Bollgard® II (cotton cultivars producing Cry1Ac and Cry2Ab2 toxins); VIPCOT® (cotton cultivars producing a VIP-toxin); NewLeaf® (potato cultivars producing the Cry3A toxin); Bt-Xtra®, NatureGard®, KnockOut®, BiteGard®, Protecta®, Bt11 (e. g. Agrisure® CB) and Bt176 from Syngenta Seeds SAS, France, (corn cultivars producing the Cry1Ab toxin and PAT enzyme), MIR604 from Syngenta Seeds SAS, France (corn cultivars producing a modified version of the Cry3A toxin, c.f. WO 03/018810), MON 863 from Monsanto Europe S.A., Belgium (corn cultivars produ-cing the Cry3Bb1 toxin), IPC 531 from Monsanto Europe S.A., Belgium (cotton cultivars producing a modified version of the Cry1Ac toxin) and 1507 from Pioneer Overseas Corporation, Belgium (corn cultivars producing the Cry1 F toxin and PAT enzyme).

[0253] Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more proteins to in-crease the resistance or tolerance of those plants to bacterial, viral or fungal pathogens. Examples of such proteins are the so-called "pathogenesis-related proteins" (PR proteins, see, e.g. EP-A 392 225), plant disease resistance genes (e. g. potato culti-vars, which express resistance genes acting against Phytophthora infestans derived from the Mexican wild potato Solanum bulbocastanum) or T4-lyso-zym (e.g. potato cultivars capable of synthesizing these proteins with increased resistance against bacteria such as Erwinia amylvora). The methods for producing such genetically modi-fied plants are generally known to the person skilled in the art and are described, e.g. in the publications mentioned above.

[0254] Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more proteins to increase the productivity (e.g. bio mass production, grain yield, starch content, oil content or protein content), tolerance to drought, salinity or other growth-limiting environ-mental factors or tolerance to pests and fungal, bacterial or viral pathogens of those plants.

[0255] Furthermore, plants are also covered that contain by the use of recombinant DNA techniques a modified amount of substances of content or new substances of content, specifically to improve human or animal nutrition, e. g. oil crops that produce health-promoting long-chain omega-3 fatty acids or unsaturated omega-9 fatty acids (e. g. Nexera® rape, DOW Agro Sciences, Canada).

[0256] Furthermore, plants are also covered that contain by the use of recombinant DNA techniques a modified amount of substances of content or new substances of content, specifically to improve raw material production, e.g. potatoes that produce increased amounts of amylopectin (e.g. Amflora® potato, BASF SE, Germany).

[0257] The compositions according to the invention can also be used in crop plants which are resistant to one or more herbicides owing to genetic engineering or breeding, which are resistant to one or more pathogens such as plant pathogenous fungi owing to genetic engineering or breeding, or which are resistant to attack by insects owing to genetic engineering or breeding.

[0258] Suitable are for example crop plants, preferably corn, wheat, sunflower, sugarcane, cotton, rice, canola, oilseed rape or soybeans, which crops are resistant to herbicidal PPO inhibitors, or crop plants which, owing to introduction of the gene for Bt toxin by genetic modification, are resistant to attack by certain insects.

[0259] Furthermore, it has been found that the compositions according to the invention are also suitable for the defo-

liation and/or desiccation of plant parts, for which crop plants such as cotton, potato, oilseed rape, sunflower, soybean or field beans, in particular cotton, are suitable. In this regard, there have been found compositions for the desiccation and/or defoliation of plants, processes for preparing these compositions and methods for desiccating and/or defoliating plants using the crystalline form A of benzoxazinone (I).

As desiccants, the crystalline form A of benzoxazinone (I) are particularly suitable for desiccating the above-ground parts of crop plants such as potato, oilseed rape, sunflower and soybean, but also cereals. This makes possible the fully mechanical harvesting of these important crop plants.

Also of economic interest is to facilitate harvesting, which is made possible by concentrating within a certain period of time the dehiscence, or reduction of adhesion to the tree, in citrus fruit, olives and other species and varieties of pernicious fruit, stone fruit and nuts. The same mechanism, i.e. the promotion of the development of abscission tissue between fruit part or leaf part and shoot part of the plants is also essential for the controlled defoliation of useful plants, in particular cotton.

Moreover, a shortening of the time interval in which the individual cotton plants mature leads to an increased fiber quality after harvesting.

[0260] For the defoliation and/or desiccation of plant parts, it is of no importance whether the crystalline form A of benzoxazinone (I) and herbicides B and, if appropriate, safeners C are formulated and applied jointly or separately, and in which order application is carried out in case of separate application.

Examples

[0261] The following illustrations and examples serve to illustrate the invention and should not be regarded as limiting.

Figure 1 shows an X-ray powder diffraction diagram of form A. The X-ray diffraction diagram of form A was recorded by using Panalytical X'Pert Pro diffractometer (manufacturer: Panalytical) in reflection geometry in the range from 2θ =3°-35° with increments of 0,0167°C using Cu-Kα radiation (at 25°C). The recorded 2θ values were used to calculate the stated interplanar spacings d. The intensity of the peaks (y-axis: linear intensity counts) is plotted versus the 2θ angle (x-axis in degrees 2θ).

Figure 2 shows an X-ray powder diffraction diagram of form B. The X-ray diffraction diagram was recorded under the conditions stated for Figure 1.

Figure 3 shows an X-ray powder diffraction diagram of a mixture of forms A + B + C. The X-ray diffraction diagram was recorded under the conditions stated for Figure 1.

[0262] The single crystal X-ray diffraction data of Form A was collected on a Bruker AXS CCD Detector using graphite Cu-Kα radiation (at -173°C). The structure was solved using direct methods, refined and expanded by using Fourier techniques with SHELX software package (G. M. Shel-drick, SHELX-97, University of Göttingen, 1997). Absorption correction was performed with SA-DABS software.

[0263] DSC was performed on a Mettler Toledo DSC 822e module. Tha samples were placed in crimped but vented aluminium pans. The samples size in each case was 5 to 10 mg. The thermal behaviour was analized in the range 30 - 250 °C. The heating rate was 5°C/min. The samples were purged with a stream of nitrogen flowing at 150 ml/ during the experiment. Melting points values were confirmed by a Mettler Hot Stage in combination with a light microscope.

Preparation of form A of benzoxazinone (I) by crystallization from a solution in an organic solvent with evaporation

Examples 1 to 10:

[0264] 50 mg of benzoxazinone (I) were dissolved in 2-3 ml of the respective solvent in a test vessel. The test vessel was placed in a greenhouse and a nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline rods, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form A was identified.

Table 1:

Example	Solvent	Form	Crystal form
1	ethylbenzene	A	small rods
2	dichlorobenzene	A	small rods

(continued)

Example	Solvent	Form	Crystal form
3	chlorobenze	A	small rods
4	p-xylene	A	small rods
5	acetone	A	small rods
6	methylethylketone	A	small rods
7	methylbutylketone	A	small rods
8	methanol	A	small rods
9	ethanol	A	small rods
10	ispropanol	A	small rods

Preparation of form A of benzoxazinone (I) by crystallization from a slurry in a mixture of water and organic solvent

Example 11:

[0265] A mixture of forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and Ethanol (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 12:

[0266] Form B of benzoxazinone (I), obtained by example 16 (500 mg) were suspended in 3 ml of a mixture of water and tetrahydrofurane (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 13:

[0267] A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of toluene and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 14:

[0268] A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and 1,3-propanediol (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Preparation of form B of benzoxazinone (I) by crystallization from a slurry in a mixture of water and organic solvent

Example 15 (not according to the invention):

[0269] Form A of benzoxazinone (I), obtained by example 12 (500 mg) were suspended in 3 ml of a mixture of water and ethanol (1:1 v/v) and the slurry was stirred for 48 h at 90°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form B of benzoxazinone (I).

Example 16 (not according to the invention):

[0270] A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and 1,3-propanediol (1:1 v/v) and the slurry was stirred for 48 h at 90°C. A slurry of crystalline material was obtained, which was filtered and analysed by PXRD and DSC. The obtained material was pure form B of benzoxazinone (I).

Preparation of form B of benzoxazinone (I) by crystallization from a solution in an organic solvent with evaporation

Example 17 (not according to the invention):

[0271] 50 mg of benzoxazinone (I) were dissolved in 2-3 ml of toluene in a test vessel. The test vessel placed in a greenhouse and heated to 95°C and a nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline plates, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form B was identified.

Preparation of form B of benzoxazinone (I) by heating form A

Example 18 (not according to the invention):

[0272] 500 mg of form A of benzoxazinone (I), obtained by example 12 were placed into an open vessel. The vessel was purged with nitrogen and sealed and than heated to 180°C for 2 h. The obtained material was isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form B was identified.

Preparation of a mixture of forms A and B of benzoxazinone (I)

Comparative Example 1

[0273] 50 mg of benzoxazinone (I) were dissolved in 2-3 ml of the respective solvent (e.g. 1-butanol, isobutanol) in a test vessel. The test vessel was placed in a greenhouse and heated to 90 °C. A nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline rods, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, a mixture of forms A and B was identified.

Use examples

[0274] The herbicidal activity of the crystalline form A of benzoxazinone (I) and the compositions according to the invention was demonstrated by the following greenhouse experiments:

[0275] The culture containers used were plastic flowerpots containing loamy sand with approximately 3.0% of humus as the substrate. The seeds of the test plants were sown separately for each species.

[0276] For the pre-emergence treatment, the active ingredients, which had been suspended or emulsified in water, were applied directly after sowing by means of finely distributing nozzles. The containers were irrigated gently to promote germination and growth and subsequently covered with transparent plastic hoods until the plants had rooted. This cover caused uniform germination of the test plants, unless this has been impaired by the active ingredients.

[0277] For the post-emergence treatment, the test plants were first grown to a height of 3 to 15 cm, depending on the plant habit, and only then treated with the active ingredients which had been suspended or emulsified in water. For this purpose, the test plants were either sown directly and grown in the same containers, or they were first grown separately as seedlings and transplanted into the test containers a few days prior to treatment.

[0278] Depending on the species, the plants were kept at 10 - 25°C or 20 - 35°C. The test period extended over 2 to 4 weeks. During this time, the plants were tended, and their response to the individual treatments was evaluated.

[0279] Evaluation was carried out using a scale from 0 to 100. 100 means no emergence of the plants, or complete destruction of at least the aerial moieties, and 0 means no damage, or normal course of growth. A good herbicidal activity is given at values of at least 70 and a very good herbicidal activity is given at values of at least 85.

[0280] In the examples, using the method of S. R. Colby (1967) "Calculating synergistic and antagonistic responses of herbicide combinations", Weeds 15, p. 22ff., the value E, which is expected if the activity of the individual active compounds is only additive, was calculated.

$$E = X + Y - (X \cdot Y/100)$$

where

X = percent activity using active compound A at an application rate a;
Y = percent activity using active compound B at an application rate b;
E = expected activity (in %) by A + B at application rates a + b.

[0281] If the value found experimentally is higher than the value E calculated according to Colby, a synergistic effect is present.

[0282] The results of these tests are given in the use examples and demonstrate the synergistic effect of the mixtures comprising the crystalline form A of benzoxazinone (I) and at least one herbicide B. In this context, a.s. means active substance, based on 100 % active ingredient.

Claims

1. Herbicidal compositions comprising

A) the crystalline form A of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, which in an X-ray powder diffraction diagram at 25°C and Cu-Kα radiation displays at least 3 of the following reflections, quoted as 2θ values: 8.6 $\pm$ 0.2°, 10.9 $\pm$ 0.2°, 12,9 $\pm$ 0.2°, 13.4 $\pm$ 0.2°, 14.0 $\pm$ 0.2°, 14.4 $\pm$ 0.2°, 15.5 $\pm$ 0.2°, 16.9 $\pm$ 0.2°, 18.2 $\pm$ 0.2° and 20.5 $\pm$ 0.2°;
and at least one further active compound selected from
B) herbicides of class b1) to b15):

b1) lipid biosynthesis inhibitors;
b2) acetolactate synthase inhibitors (ALS inhibitors);
b3) photosynthesis inhibitors;
b4) protoporphyrinogen-IX oxidase inhibitors,
b5) bleacher herbicides;
b6) enolpyruvyl shikimate 3-phosphate synthase inhibitors (EPSP inhibitors);
b7) glutamine synthetase inhibitors;
b8) 7,8-dihydropteroate synthase inhibitors (DHP inhibitors);
b9) mitose inhibitors;
b10) inhibitors of the synthesis of very long chain fatty acids (VLCFA inhibitors);
b11) cellulose biosynthesis inhibitors;
b12) decoupler herbicides;
b13) auxin herbicides;
b14) auxin transport inhibitors; and
b15) other herbicides selected from the group consisting of bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters; and

C) safeners;
including the agriculturally acceptable salts or derivatives of components B and C having a carboxyl group.

2. A composition as claimed in claim 1, wherein the 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione has a content of at least 90 wt.% of the crystalline form A.

3. A composition according to claims 1 or 2, wherein at last one herbicide B is selected from the group consisting of:

b1) from the group of the lipid biosynthesis inhibitors:

clethodim, clodinafop-propargyl, cycloxydim, cyhalofop-butyl, diclofop-methyl, fenoxaprop-P-ethyl, fluazifop-P-butyl, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim, tralkoxydim, benfuresate, dimepiperate, EPTC, esprocarb, ethofumesate, molinate, orbencarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors:

amidosulfuron, azimsulfuron, bensulfuron-methyl, bispyribac-sodium, chlorimuron-ethyl, chlorsulfuron, cloransulam-methyl, cyclosulfamuron, diclosulam, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, florasulam, flucarbazone-sodium, flucetosulfuron, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron-methyl, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, metosulam, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, penoxsulam, primisulfuron-methyl, propoxycarbazon-sodium, propyrisulfuron, prosulfuron, pyrazosulfuron-ethyl, pyribenzoxim, pyrimisulfan, pyriftalid, pyriminobac-methyl, pyrithiobac-sodium, pyroxsulam, rimsulfuron, sulfometuron-methyl, sulfosulfuron, thiencarbazone-methyl, thifensulfuron-methyl, triasulfuron, tribenuron-methyl, trifloxysulfuron, triflusulfuron-methyl and tritosulfuron;

b3) from the group of the photosynthesis inhibitors:

ametryn, amicarbazone, atrazine, bentazone, bentazone-sodium, bromoxynil and its salts and esters, chloridazone, chlorotoluron, cyanazine, desmedipham, diquat-dibromide, diuron, fluometuron, hexazinone, ioxynil and its salts and esters, isoproturon, lenacil, linuron, metamitron, methabenzthiazuron, metribuzin, paraquat, paraquat-dichloride, phenmedipham, propanil, pyridate, simazine, terbutryn, terbuthylazine and thidiazuron;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:

acifluorfen-sodium, bencarbazone, benzfendizone, butafenacil, carfentrazone-ethyl, cinidon-ethyl, flufenpyr-ethyl, flumiclorac-pentyl, flumioxazin, fluoroglycofen-ethyl, fomesafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, pyraflufen-ethyl, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 45100-03-7) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides:

aclonifen, beflubutamid, benzobicyclon, clomazone, diflufenican, flurochloridone, flurtamone, isoxaflutole, mesotrione, norflurazon, picolinafen, pyrasulfotole, pyrazolynate, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, 4-(3-trifluoromethyl-phenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7), amitrole and flumeturon;

b6) from the group of the EPSP synthase inhibitors:

glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors:

glufosinate, glufosinate-P, glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors: asulam;
b9) from the group of the mitose inhibitors:

benfluralin, dithiopyr, ethalfluralin, oryzalin, pendimethalin, thiazopyr and trifluralin;

b10) from the group of the VLCFA inhibitors:

acetochlor, alachlor, anilofos, butachlor, cafenstrole, dimethenamid, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, naproanilide, napropamide, pretilachlor, fenoxasulfone, ipfencarbazone, pyroxasulfone thenylchlor and isoxazoline-compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: dichlobenil, flupoxam, isoxaben, 1-Cyclohexyl-5-pentafluorphenyloxy-1^4-[1,2,4,6]thiatriazin-3-ylamine and the piperazine compounds of formula III as mentioned above;
b13) from the group of the auxin herbicides:

2,4-D and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr-meptyl, MCPA and its salts and esters, MCPB and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, triclopyr and its salts and esters, and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyr-sodium;
b15) from the group of the other herbicides: bromobutide, cinmethylin, cumyluron, dalapon, difenzoquat, difenzoquat-metilsulfate, DSMA, dymron (= daimuron), flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, indanofan, indaziflam, metam, methylbromide, MSMA, oxaziclomefone, pyributicarb, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

4. A composition according to any of claims 1 to 3, wherein the herbicide B is selected from the group consisting of b2, b3, b4, b5, b6, b9 and b10.

5. A composition according to any of claims 1 to 4, wherein the safener C is selected from the group consisting of benoxacor, cloquintocet, cyometrinil, cyprosulfamide, dichlormid, dicyclonon, dietholate, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, mephenate, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

6. A composition as claimed in any of claims 1 to 5, wherein the weight ratio of component A to component B is in the range of from 1:500 to 500:1.

7. A composition as claimed in any of claims 1 to 6, wherein the weight ratio of component A to component C is in the range of 1:500 to 500:1.

8. An agrochemical composition comprising a composition as claimed in any of claims 1 to 7 and auxiliaries customary for formulating crop protection agents.

9. A process for the preparation of agrochemical compositions, which comprises mixing a herbicidal active amount of at least one composition as claimed in any of claims 1 to 8 and auxiliaries customary for formulating crop protection agents.

10. A method for controlling unwanted vegetation, wherein an herbicidal effective amount of a composition according to any of claims 1 to 8 is allowed to act on plants, their habitat or seed.

11. The use of the compositions as claimed in any of claims 1 to 8 as herbicides or for the desiccation/defoliation of plants.

12. The use as claimed in claim 11 for controlling unwanted vegetation in crops.

Figure 1

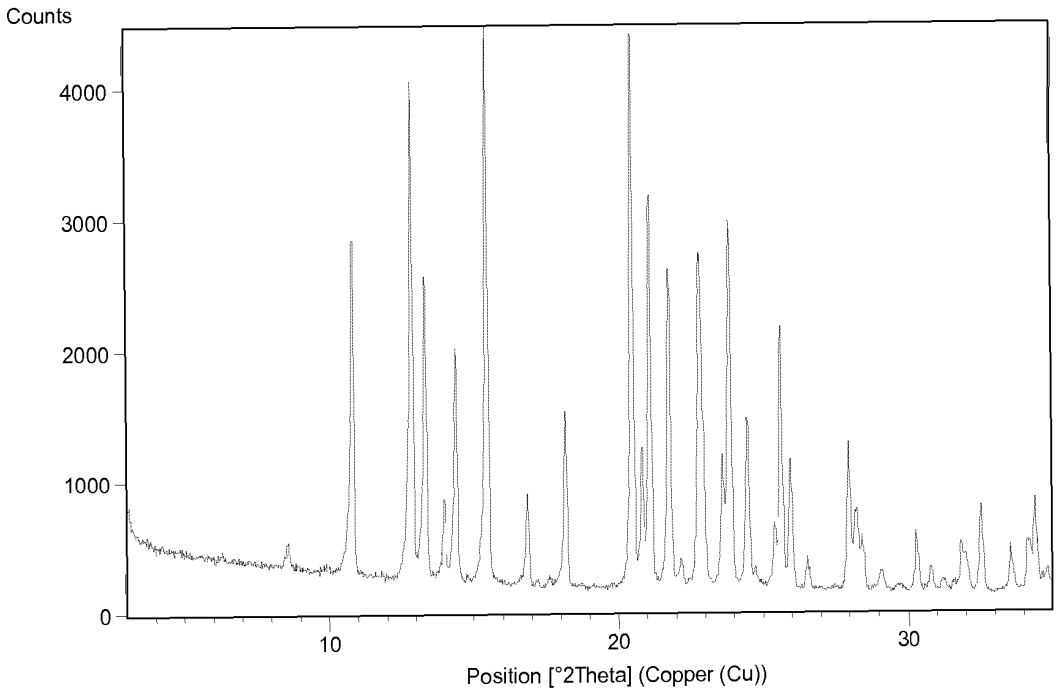


Figure 2

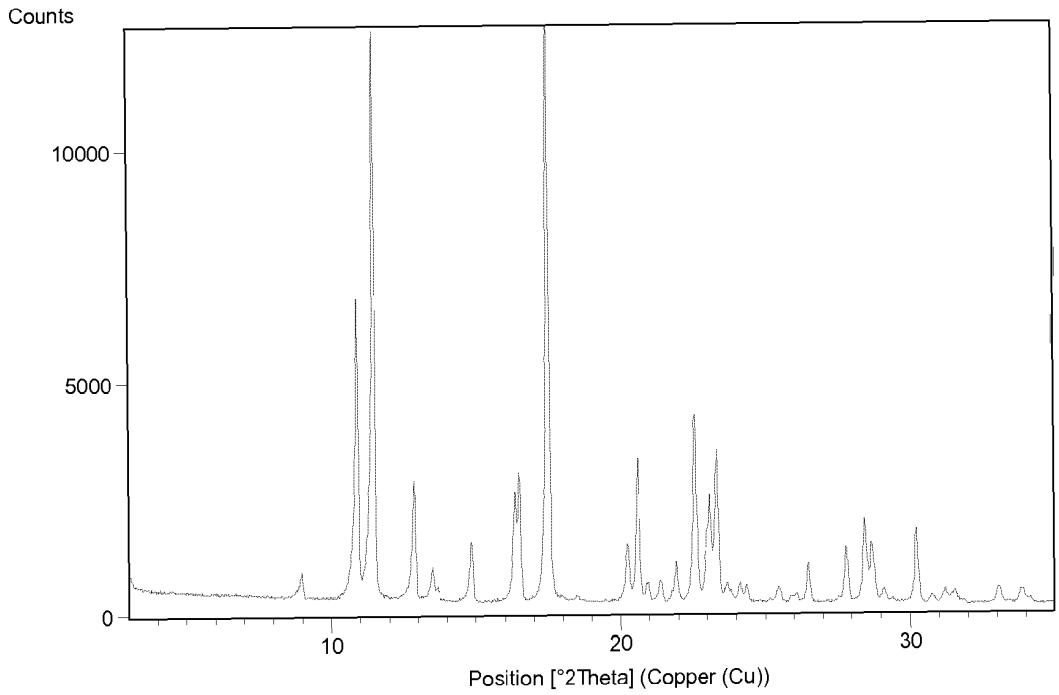
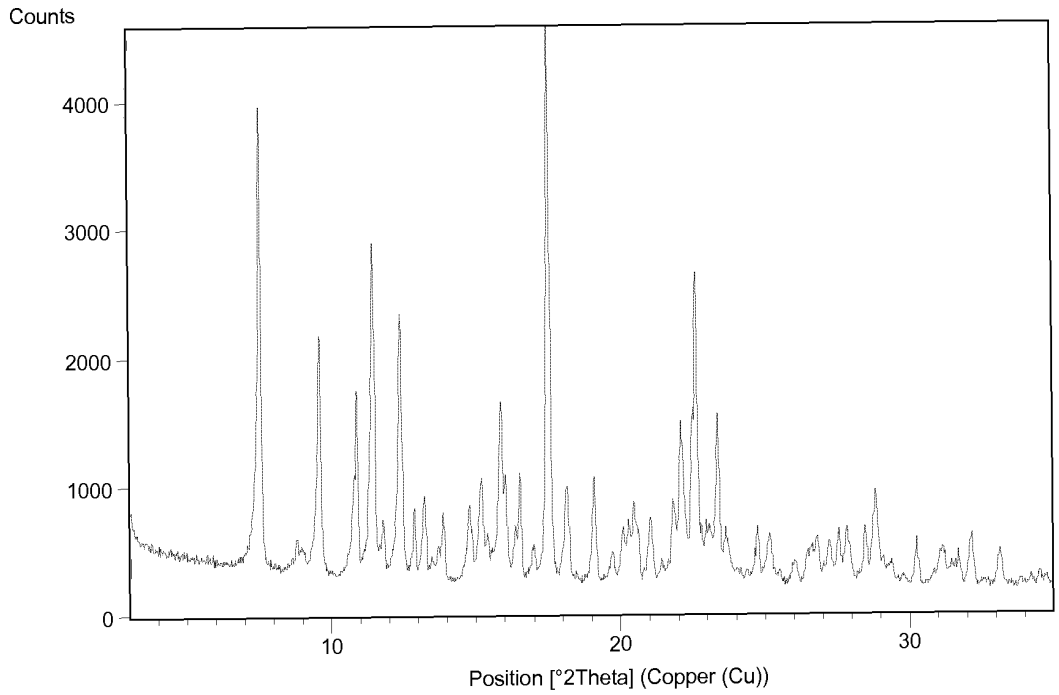


Figure 3


Counts
4000
3000
2000
1000
0
10
20
30
Position [°2Theta] (Copper (Cu))

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EUROPEAN SEARCH REPORT

Application Number
EP 14 18 9386

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	WO 2010/145992 A1 (BASF SE [DE]; WITSCHEL MATTHIAS [DE]; NEWTON TREVOR WILLIAM [DE]; SEIT) 23 December 2010 (2010-12-23) * page 91, paragraph 4.8 * * page 92,, lines 30-34 * * pages 94-97; examples 2.1-2.10 * * page 60, lines 21-23 * * pages 61-78; table 1 *	1-12	INV. A01N43/84 A01N25/12 A01P13/00
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TECHNICAL FIELDS SEARCHED (IPC)

A01N

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	26 February 2015	Sawicki, Marcin

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 14 18 9386

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26-02-2015

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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(54) Herbicidal compositions

(57) The present invention relates to compositions comprising the crystalline form B of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, and at least one further active compound selected from herbicides B and safeners C; and their use as herbicides, i.e. for controlling harmful plants, and also a method for controlling unwanted vegetation.

EP 2 868 197 A1

Description

[0001] The present invention relates to herbicidal compositions comprising the crystalline form B of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione and at least one further compound selected from herbicides B and safeners C.

[0002] In the case of crop protection compositions, it is desirable in principle to increase the specific activity of an active compound and the reliability of the effect. It is particularly desirable for the crop protection composition to control the harmful plants effectively, but at the same time to be compatible with the useful plants in question. Also desirable is a broad spectrum of activity allowing the simultaneous control of harmful plants. Frequently, this cannot be achieved using a single herbicidally active compound.

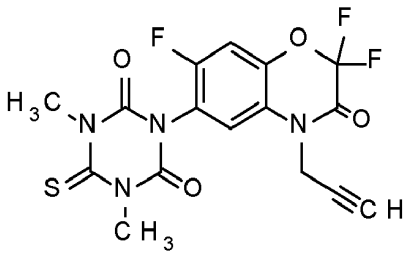
[0003] With many highly effective herbicides, there is the problem that their compatibility with useful plants, in particular dicotyledonous crop plants, such as cotton, oilseed rape and graminaceous plants, such as barley, millet, corn, rice, wheat and sugar cane, is not always satisfactory, i.e. in addition to the harmful plants, the crop plants, too, are damaged on a scale which cannot be tolerated. By reducing the application rates, the useful plants are spared; however, naturally, the extent of the control of harmful plants decreases, too.

[0004] Frequently, it is a problem that herbicides can only be applied within a narrow time frame in order to achieve the desired herbicidal action, which time frame may be unpredictably influenced by weather conditions.

[0005] It is known that special combinations of different specifically active herbicides result in enhanced activity of an herbicide component in the sense of a synergistic effect. In this manner, it is possible to reduce the application rates of herbicidally active compounds required for controlling the harmful plants.

[0006] Furthermore, it is known that in some cases joint application of specifically acting herbicides with organic active compounds, some of which may also have herbicidal activity, allows better crop plant compatibility to be achieved. In these cases, the active compounds act as antidotes or antagonists and are also referred to as safeners, since they reduce or even prevent damage to the crop plants.

[0007] 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione is the herbicidal active substance of the formula I:



(I)

[0008] 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, which hereinafter is also termed as benzoxazinone (I), and a process for its production are known from WO 2010/145992. This process yields benzoxazinone (I) as an amorphous solid.

[0009] By applying suitable crystallization conditions crystalline, stable modification of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione can be prepared, which does not display the disadvantages of the amorphous benzoxazinone (I). This crystalline form is hereinafter described and termed "the crystalline form B of benzoxazinone (I)" or "form B".

[0010] The form B according to the invention can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram of form B recorded using Cu-Kα radiation (1.54178 Å) at 25 °C shows at least 3, often at least 5, in particular at least 7, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
9,0±0,2°	9,85
10,9±0,2°	8,10
11,5±0,2°	7,69
12,9±0,2°	6,87
13,5±0,2°	6,56

(continued)

2θ values	d [Å]
14,9±0,2°	5,96
16,4±0,2°	5,42
16,5±0,2°	5,36
17,5±0,2°	5,06
20,3±0,2°	4,39

[0011] It is an object of the present invention to provide herbicidal compositions which are highly active against unwanted harmful plants. At the same time, the compositions should have good compatibility with useful plants. In addition, the compositions according to the invention should have a broad spectrum of activity.

[0012] This and further objects are achieved by the herbicidal compositions below.

[0013] Accordingly, the present invention relates to herbicidal compositions comprising

A) the crystalline form B of benzoxazinone (I);
and at least one further active compound selected from

B) herbicides of class b1) to b15):

b1) lipid biosynthesis inhibitors;
b2) acetolactate synthase inhibitors (ALS inhibitors);
b3) photosynthesis inhibitors;
b4) protoporphyrinogen-IX oxidase inhibitors,
b5) bleacher herbicides;
b6) enolpyruvyl shikimate 3-phosphate synthase inhibitors (EPSP inhibitors);
b7) glutamine synthetase inhibitors;
b8) 7,8-dihydropteroate synthase inhibitors (DHP inhibitors);
b9) mitose inhibitors;
b10) inhibitors of the synthesis of very long chain fatty acids (VLCFA inhibitors);
b11) cellulose biosynthesis inhibitors;
b12) decoupler herbicides;
b13) auxin herbicides;
b14) auxin transport inhibitors; and
b15) other herbicides selected from the group consisting of bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters;

and

C) safeners;
including the agriculturally acceptable salts or derivatives of herbicides B and safeners C having a carboxyl group.

[0014] The invention relates in particular to compositions in the form of herbicidal active crop protection compositions comprising a herbicidally effective amount of an active compound combination comprising the crystalline form B of benzoxazinone (I) and at least one further compound selected from the herbicides B and the safeners C, as defined above, and also at least one liquid and/or solid carrier and/or one or more surfactants and, if desired, one or more further auxiliaries customary for crop protection compositions.

[0015] The invention also relates to compositions in the form of a crop protection composition formulated as a 1-component composition comprising an active compound combination comprising the crystalline form B of benzoxazinone (I) and at least one further active compound selected from the herbicides B and the safeners C, and at least one solid

or liquid carrier and/or one or more surfactants and, if desired, one or more further auxiliaries customary for crop protection compositions.

[0016] The invention also relates to compositions in the form of a crop protection composition formulated as a 2-component composition comprising a first component comprising the crystalline form B of benzoxazinone (I), a solid or liquid carrier and/or one or more surfactants, and a second component comprising at least one further active compound selected from the herbicides B and safeners C, a solid or liquid carrier and/or one or more surfactants, where additionally both components may also comprise further auxiliaries customary for crop protection compositions.

[0017] Surprisingly, the compositions according to the invention comprising the crystalline form B of benzoxazinone (I) and at least one herbicide B have better herbicidal activity, i.e. better activity against harmful plants, than would have been expected based on the herbicidal activity observed for the individual compounds, or a broader activity spectrum. The herbicidal activity to be expected for mixtures based on the individual compound can be calculated using Colby's formula (see below). If the activity observed exceeds the expected additive activity of the individual compounds, synergism is said to be present.

[0018] Moreover, the time frame, within which the desired herbicidal action can be achieved, may be expanded by the compositions according to the invention comprising the crystalline form B of benzoxazinone (I) and at least one herbicide B and optionally a safener C. This allows a more flexibly timed application of the compositons according to the present invention in comparison with the single compounds.

[0019] The compositions according to the invention comprising both the crystalline form B of benzoxazinone (I) and at least one of the safeners mentioned under C also have good herbicidal activity against harmful plants and better compatibility with useful plants.

[0020] Surprisingly, the compositions according to the invention comprising the crystalline form B of benzoxazinone (I), at least one herbicide B and at least one of the safeners mentioned under C have better herbicidal activity, i.e. better activity against harmful plants, than would have been expected based on the herbicidal activity observed for the individual compounds, or a broader activity spectrum, and show better compatibility with useful plants than compositions comprising only the crystalline form B of benzoxazinone (I) and one herbicide B.

[0021] The invention furthermore relates to a method for controlling unwanted vegetation, in particular where crop plants are cultivated.

[0022] The invention also relates to a method for the desiccation or defoliation of plants.

[0023] As used herein, the terms "controlling" and "combating" are synonyms.

As used herein, the terms "undesirable vegetation" and "harmful plants" are synonyms.

[0024] Further embodiments of the present invention are evident from the claims, the description and the examples. It is to be understood that the features mentioned above and still to be illustrated below of the subject matter of the invention can be applied not only in the combination given in each particular case but also in other combinations, without leaving the scope of the invention.

[0025] For the production of active substances on the industrial scale but also for the formulation of active substances, in many cases knowledge concerning the possible existence of crystalline modifications (also described as crystalline forms) or of solvates of the active substance in question, and knowledge of the specific properties of such modifications and solvates and of methods for their preparation are of decisive importance. A range of active substances can exist in different crystalline but also in amorphous modifications. Polymorphism is the term used in these cases. A polymorph is a solid, crystalline phase of a compound which is characterized by a specific, uniform packing and arrangement of the molecules in the solid.

[0026] Different modifications of one and the same active substance can sometimes have different properties, for example differences in the following properties: solubility, vapor pressure, dissolution rate, stability against a phase change into a different modification, stability during grinding, suspension stability, optical and mechanical properties, hygroscopicity, crystal form and size, filterability, density, melting point, stability to decomposition, color and sometimes even chemical reactivity or biological activity.

[0027] The applicant's own attempts to convert benzoxazinone (I) into a crystalline solid by crystallization at first resulted in amorphous products or in complex mixtures of different crystal modifications, which could only be handled with difficulty and whose stability against uncontrolled phase change was unsatisfactory.

[0028] By applying suitable crystallization conditions crystalline, stable modification of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione can be prepared, which does not display the disadvantages of the amorphous benzoxazinone (I). This crystalline form is hereinafter described and termed "the crystalline form B of benzoxazinone (I)" or "form B".

[0029] In addition, the crystalline form B according to the invention is easier to handle than the previously known amorphous benzoxazinone (I), since during production they are obtained in the form of discrete crystals. Compared to mixtures of different crystal modifications of benzoxazinone (I), the pure form B displays increased stability with regard to conversion into another modification. The term "pure form B" should be understood to mean that the proportion of the form B, based on the total quantity of benzoxazinone (I), is at least 90 wt.% and in particular at least 95 wt.%.

[0030] Accordingly, a first object of the present invention relates to the crystalline form B of benzoxazinone (I). Also an object is a benzoxazinone (I), which at least 90 wt.% in particular at least 95 % consists of the crystalline form B.

[0031] The form B according to the invention can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram of form B recorded using Cu-Kα radiation (1.54178 Å) at 25 °C shows at least 3, often at least 5, in particular at least 7, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
9,0±0,2°	9,85
10,9±0,2°	8,10
11,5±0,2°	7,69
12,9±0,2°	6,87
13,5±0,2°	6,56
14,9±0,2°	5,96
16,4±0,2°	5,42
16,5±0,2°	5,36
17,5±0,2°	5,06
20,3±0,2°	4,39

[0032] Form B displays a thermogram with a characteristic melting peak in the range from 190 to 220°C. The melting point, determined as the onset of the melting peak, typically lies in the range from about 200°C to 210°C, in particular in the range from 203 to 208°C. The melting enthalpy is preferably in the range from 30 to 40 J/g. The values quoted here relate to values determined by differential calorimetry (differential scanning calorimetry: DSC, aluminum closed and vented cup, nitrogen flow 150 ml/min, heating rate 5 K/min).

[0033] The production of the modification B can be principally effected by running the crystallization at temperatures exceeding 60°C, in particular at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C.

[0034] Form B can bee obtained e.g. by crystallization from a solution or slurry of benzoxazinone (I) in an organic solvent selected from toluene, monochlorobenzen or dichlorobenzene at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C.

[0035] Form B can bee obtained e.g. by crystallization from a slurry of benzoxazinone (I) in a mixture of water and a water-miscible solvent, selected from C_1-C_3-alkanols, in particular methanol or isopropanol, C_2-C_4-alkandiols, such as 1,3-propanediol, C_1-C_4-dialkylketones, such as acetone and cyclic ethers having preferably 4 to 6 carbon atoms and 1 or 2 oxygen atoms such as tetra-hydrofurane and 1,4-dioxane at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C. Apart from that crystallization from a slurry of benzoxazinone (I) to obtain form B can be performed by analogy to the crystallization of form A, in particular regarding preparation of the slurry, concentrations and measures of effecting crystallization, provided that crystallization is effected in the above temperature range.

[0036] Pure form B is also obtained by heating the crystalline benzoxazinone (I), e.g. form A of benzoxazinone (I) or mixtures of forms A + B + C to temperatures of at least 160°C, in particular at least 170°C, e.g. temperatures in the range from 160°C to 210°C or in the range from 170 to 200°C.

[0037] In order to obtain form B of benzoxazinone (I), the crystallization is effected at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C. Crystallization of form B is preferably effected under controlled conditions, i.e. the conditions of the crystallization are chosen to achieve a slow crystallization rate.

[0038] For this, in a first step i) a solution or slurry of benzoxazinone (I) in one of the aforesaid solvents or solvent mixtures is prepared, and then in a second step ii) crystallization of the benzoxazinone (I) is effected at temperatures of at least 80°C or at least 90°C, e.g. from 80 to 130°C or from 90 to 120°C.

[0039] The concentration of benzoxazinone (I) in the solution or slurry used for the crystallization naturally depends on the nature of the solvent and the dissolution temperature and often lies in the range from 100 to 800 g/l. Suitable conditions can be determined by the person skilled in the art by routine experiments.

[0040] Preferably the solution or slurry used for the crystallization contains benzoxazinone (I) in a purity of at least 85%, often at least 90%, in particular at least 95%, i.e. the content of organic impurities which are not organic solvents is not more than 15 wt.%, often not more than 10 wt.%, and in particular not more than 5 wt.%, based on the benzoxazinone (I) present dissolved in the solvent.

[0041] The solution or slurry used for the crystallization is preferably essentially free from solvents other than those stated. In this context, "essentially free" means that the concentration of other solvents in the benzoxazinone (I) containing solution or slurry does not exceed 10 wt.%, often 5 wt.%, based on the total quantity of solvent.

[0042] The solution of benzoxazinone (I) can for example be prepared by the following methods:

(1) Dissolution of the benzoxazinone (I), preferably in a form different from form B, in one of the aforesaid polar organic solvents, or

(2) Preparation of the benzoxazinone (I) by a chemical reaction and transfer of the reaction mixture, if necessary after removal of reagents and/or side products, into an organic solvent suitable according to the invention.

[0043] For the preparation of the solution by dissolution of the benzoxazinone (I), essentially any known form of benzoxazinone (I) can be used. Often amorphous benzoxazinone (I) or a mixture of different crystalline modifications or a mixture of amorphous and crystalline benzoxazinone (I) will be used. Also suitable are other crystalline forms of benzoxazinone (I) and mixtures thereof, for example the form A described below and the form C also described below, not according to the invention, and mixtures of these forms as well as mixtures of form B with form A or form C of benzoxazinone (I).

[0044] The dissolution of the benzoxazinone (I) is usually effected at temperatures in the range from 85 to 200°C, in particular from 90 to 150°C.

[0045] The solution of the benzoxazinone (I) can also be prepared by transferring a reaction mixture obtained by a chemical reaction, which contains the benzoxazinone (I), if necessary after removal of reagents and/or side products, into an organic solvent suitable according to the invention. This can be effected in such a manner that the reaction is performed in an organic solvent or solvent mixture which consists at least partly, preferably at least 50 wt.%, of a solvent suitable for the crystallization and, if necessary a workup is performed during which excess reagents and any catalysts present and any unsuitable solvents present, for example water and/or methanol, are removed. The preparation of a solution of the benzoxazinone (I) by chemical reaction of a suitable precursor of benzoxazinone (I) can be effected by analogy to the methods which are described in the state of the art cited at the beginning, to which full reference is hereby made.

[0046] For the preparation of a slurry of the benzoxazinone (I), essentially any known form of benzoxazinone (I) can be used. Of course, in the preparation of form B usually a form of benzoxazinone (I) which is different from pure form B. However, benzoxazinone (I) may be used in a form already containing form B, thereby achieving a form B having a higher content of form B. Often a mixture of different crystalline modifications or a mixture of amorphous and crystalline benzoxazinone (I) will be used. Also suitable are other crystalline forms of benzoxazinone (I) and mixtures thereof, for example the form A described below and the form C also described below, not according to the invention, and mixtures of these forms as well as mixtures of form B with form A and/or form C of benzoxazinone (I).

[0047] The crystallization of form B of benzoxazinone (I) can be effected as follows, for example

- by cooling of a hot saturated solution or slurry which contains the dissolved or suspended benzoxazinone (I), to a temperature in the range from 80 to 100°C
- by concentration of a hot saturated solution or slurry which contains the dissolved or dispersed benzoxazinone (I), or
- by a combination of the aforesaid measures.

[0048] The crystallization is as a rule carried out until at least 80 wt.%, preferably at least 90 wt.%, of the benzoxazinone (I) used crystallizes out.

[0049] If the crystallization of form B is effected by cooling, the cooling rate is preferably less than 10 K/min.

[0050] The crystallization of form B can be promoted or accelerated by seeding with seed crystals of form B, for example by adding seed crystals of form B before or during the crystallization.

[0051] If seed crystals are added during the crystallization, the quantity thereof is typically 0.001 to 10 wt.%, often 0.005 to 5 wt.%, in particular 0.01 to 1 wt.% and especially 0.05 to 0.5 wt.%, based on the dissolved benzoxazinone (I).

[0052] If the crystallization is performed in the presence of seed crystals of form B, these are preferably only added at a temperature at which the saturation concentration of the benzoxazinone (I) in the solvent in question has been reached, i.e. at or below that temperature at which the dissolved quantity of benzoxazinone (I) forms a saturated solution in the solvent in question. The person skilled in the art can determine the temperature dependence of the saturation concentration in a solvent in routine experiments.

[0053] The isolation of the form B from the crystallization product, i.e. the separation of the form B from the mother liquor, is effected by usual techniques for the separation of solid components from liquids, for example by filtration, centrifugation or by decantation. As a rule, the isolated solid will be washed, for example with the solvent used for the crystallization, with water or with a mixture of the organic solvent used for the crystallization with water. The washing

can be effected in one or more steps, washing with water often being used in the last washing step. The washing is typically effected at temperatures below 30°C, often below 25°C and in particular below 20°C, in order to keep the loss of valuable product as small as possible. Next, the form B obtained can be dried and then supplied for further processing. Often, however, the moist active substance obtained after washing, in particular an active substance moist with water, will be supplied directly for the further processing.

[0054] By means of the crystallization according to the invention, form B is obtained with a benzoxazinone (I) content of as a rule at least 90 wt.%, often 94 wt.%, in particular at least 96 wt.%. The content of form B, based on the total quantity of benzoxazinone (I), is typically at least 90% and often at least 95 % or at least 96%.

[0055] Therefore, a particular embodiment of the invention relates to 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, which consists of at least 90 wt.% and often at least 95 % or at least 96% of the crystalline form B.

[0056] The crystalline form B may be mixed with other forms of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, e.g. form B and/or form C, without loosing the benefits achieved by form B. Therefore, the invention also relates to a mixture of the crystalline form B of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione as described herein and 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione in a form which is different from form B, where the total amount of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione in the mixture is at least 90 % by weight, preferably at least 94 % by weight, based on the total weight of the mixture. The mixture can likewise be used for preparing formulations as described hereinafter and can likewise be used as form B itself. In the mixture, the amout of form B will generally be at least 50 % by weight, in particular at least 60 % by weight, e.g. form 50 to 95 % by weight, in particular from 60 to 90 % by weight, based on the total amount of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione contained in the mixture.

[0057] The preparation of benzoxazinone (I) used for the production of the form B can be effected by the process described in WO 2010/145992, to which full reference is hereby made.

[0058] In connection with the study on the crystallization of benzoxazinone (I), two further crystalline modifications A and C were found. While modification A can be obtained in pure form, modification C was occasionally obtained as a mixture with forms A and B. Form A can be stably formulated and is part of another patent application.

[0059] The form A can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram of form A recorded using Cu-Kα radiation (1.54178 Å) at 25 °C shows at least 3, often at least 5, in particular at least 7, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
8,6±0,2°	10,28
10,9±0,2°	8,16
12,9±0,2°	6,86
13,4±0,2°	6,63
14,0±0,2°	6,33
14,4±0,2°	6,14
15,5±0,2°	5,72
16,9±0,2°	5,25
18,2±0,2°	4,88
20,5±0,2°	4,33

[0060] Studies on single crystals of form A demonstrate that the underlying crystal structure is orthorhombic. The unit cell has the space group Pna2(1). The characteristic data of the crystal structure of form A (determined at -173 °C) are compiled in the following table.

[0061] Crystallographic characteristics of form A

Parameter	Form A
Crystal system	Orthorhombic
Space group	P n a 2_1
a	16.0815(4) Å
b	13.1360(3) Å
c	7.9675(2) Å
α	90°
β	90°
γ	90°
Volume	1683.11(7) Å3
Z	4
Density (calculated)	1.63 g/cm^3
R-Factor (%)	2.97
a,b,c = Length of the edges of the unit cell α ,β,γ = Angles of the unit cell Z = Number of molecules, in the unit cell	

[0062] Form A displays a thermogram with a characteristic melting peak in the range from 150 to 185°C. The melting point, determined as the onset of the melting peak, typically lies in the range from about 170°C to 180°C, in particular in the range from 174 to 179°C.
The melting enthalpy is preferably in the range from 70 to 80 J/g. The values quoted here relate to values determined by differential calorimetry (differential scanning calorimetry: DSC, aluminum closed and vented cup, nitrogen flow 150 ml/min, heating rate 5 K/min).

[0063] The production of the form A of benzoxazinone (I) according to the invention may be effected by crystallization from a solution of benzoxazinone (I) in a suitable organic solvent. Suitable solvents for the crystallization of form A from a solution are organic solvents which are selected from C_1-C_3-alkanols, such as methanol, ethanol, n-propanol or isopropanol, C_1-C_4-dialkylketones, such as acetone, mono- or di-C_1-C_4-dialkylbenzenes such as ethylbenzene or xylenes, and mono- or dichlorobenzenes.

[0064] The production of the form A of benzoxazinone (I) according to the invention may be also be effected by crystallization from a slurry of benzoxazinone (I) in a suitable organic solvent. Suitable solvents for the crystallization of form A from a slurry are mixtures of water with water-miscible organic solvents which are selected from C_1-C_3-alkanols, in particular ethanol or isopropanol, C_2-C_4-alkandiols, such as 1,3-propanediol, C_1-C_4-dialkylketones, such as acetone and cyclic ethers having preferably 4 to 6 carbon atoms and 1 or 2 oxygen atoms, such as tetrahy-drofurane and 1,4-dioxane.

[0065] In order to obtain form A of benzoxazinone (I), the crystallization is effected at temperatures of below 60°C, in particular at most 50°C and more preferably at most 40°C. Crystallization of form A is preferably effected under controlled conditions, i.e. the conditions of the crystallization are chosen to achieve a slow crystallization rate.

[0066] For this, in a first step i) a solution or slurry of benzoxazinone (I) in one of the aforesaid solvents or solvent mixtures is prepared, and then in a second step ii) crystallization of the benzoxazinone (I) is effected at temperatures of below 60°C, in particular at most 50°C and more preferably at most 40°C, e.g. from -10 to 50°C, in particular from 0 to 40°C.

[0067] The concentration of benzoxazinone (I) in the solution or slurry used for the crystallization naturally depends on the nature of the solvent and the dissolution temperature and often lies in the range from 100 to 800 g/l. Suitable conditions can be determined by the person skilled in the art by routine experiments.

[0068] Apart from that crystallization from a slurry of benzoxazinone (I) to obtain form A can be performed by analogy to the crystallization of form B, in particular regarding preparation of the slurry, concentrations and measures of effecting crystallization, provided that crystallization is effected at temperatures of below 60°C, in particular at most 50°C and more preferably at most 40°C, e.g. from -10 to 50°C, in particular from 0 to 40°C.

[0069] By means of the crystallization according to the invention, form A is obtained with a benzoxazinone (I) content of as a rule at least 90 wt.%, often 94 wt.%, in particular at least 96 wt.%. The content of form A, based on the total

quantity of benzoxazinone (I), is typically at least 90% and often at least 95 % or at least 96%.

[0070] In the mixture of forms A, B and C, form C can be identified by X-ray powder diffractometry on the basis of its diffraction diagram. Thus an X-ray powder diffraction diagram recorded using Cu-Kα radiation (1.54178 Å) at 25°C shows at least 3, often at least 5, and especially all of the reflections quoted in the following table as 2θ values or as interplanar spacings d:

2θ values	d [Å]
7,6±0,2°	11,64
9,6±0,2°	9,17
11,8±0,2°	7,48
12,4±0,2°	7,11
15,2±0,2°	5,81
15,9±0,2°	5,57
16,1±0,2°	5,52
19,1±0,2°	4,64

[0071] To broaden the spectrum of action and to achieve synergistic effects, the crystalline form B of benzoxazinone (I) can be mixed with a large number of representatives of other herbicidal or growth-regulating active ingredient groups and then applied concomitantly. Suitable components for mixtures are, for example, 1,2,4-thiadiazoles, 1,3,4-thiadiazoles, amides, aminophosphoric acid and its derivatives, aminotriazoles, anilides, (het)aryloxyalkanoic acids and their derivatives, benzoic acid and its derivatives, benzothiadiazinones, 2-aroyl-1,3-cyclohexanediones, 2-hetaroyl-1,3-cyclohexanediones, hetaryl aryl ketones, benzylisoxazolidinones, meta-CF_3-phenyl derivatives, carbamates, quinolinecarboxylic acid and its derivatives, chloroacetanilides, cyclohexenone oxime ether derivatives, diazines, dichloropropionic acid and its derivatives, dihydrobenzofurans, dihydrofuran-3-ones, dinitroanilines, dinitrophenols, diphenyl ethers, dipyridyls, halocarboxylic acids and their derivatives, ureas, 3-phenyluracils, imidazoles, imidazolinones, N-phenyl-3,4,5,6-tetrahydrophthalimides, oxadiazoles, oxiranes, phenols, aryloxy- and hetaryloxyphenoxypropionic esters, phenylacetic acid and its derivatives, 2-phenylpropionic acid and its derivatives, pyrazoles, phenylpyrazoles, pyridazines, pyridinecarboxylic acid and its derivatives, pyrimidyl ethers, sulfonamides, sulfonylureas, triazines, triazinones, triazolinones, triazolecarboxamides, uracils, phenyl pyrazolines and isoxazolines and derivatives thereof.

[0072] It is furthermore be beneficial to apply the crystalline form B of benzoxazinone (I) alone or in combination with other herbicides, or else in the form of a mixture with other crop protection agents, for example together with agents for controlling pests or phytopathogenic fungi or bacteria.

Also of interest is the miscibility with mineral salt solutions, which are employed for treating nutritional and trace element deficiencies. Other additives such as non-phytotoxic oils and oil concentrates may also be added.

[0073] In one embodiment of the present invention the compositions according to the present invention comprise the crystalline form B of benzoxazinone (I) and at least one further herbicide B.

[0074] The further herbicide B is selected from the herbicides of class b1) to b15):

b1) lipid biosynthesis inhibitors;
b2) acetolactate synthase inhibitors (ALS inhibitors);
b3) photosynthesis inhibitors;
b4) protoporphyrinogen-IX oxidase inhibitors,
b5) bleacher herbicides;
b6) enolpyruvyl shikimate 3-phosphate synthase inhibitors (EPSP inhibitors);
b7) glutamine synthetase inhibitors;
b8) 7,8-dihydropteroate synthase inhibitors (DHP inhibitors);
b9) mitose inhibitors;
b10) inhibitors of the synthesis of very long chain fatty acids (VLCFA inhibitors);
b11) cellulose biosynthesis inhibitors;
b12) decoupler herbicides;
b13) auxin herbicides;
b14) auxin transport inhibitors; and
b15) other herbicides selected from the group consisting of bromobutide, chlorflurenol, chlorflurenol-methyl, cin-

methylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

[0075] Preference is given to those compositions according to the present invention comprising at least one herbicide B selected from herbicides of class b2, b3, b4, b5, b6, b9 and b10.

[0076] Specific preference is given to those compositions according to the present invention which comprise at least one herbicide B selected from the herbicides of class b4, b6, b9 and b10.

[0077] Particular preference is given to those compositions according to the present invention which comprise at least one herbicide B selected from the herbicides of class b4, b6 and b10.

[0078] According to a first embodiment of the invention the compositions contain at least one inhibitor of the lipid biosynthesis (herbicide b1). These are compounds which inhibit lipid biosynthesis. Inhibition of the lipid biosynthesis can be affected either through inhibition of acetyl CoA carboxylase (hereinafter termed ACC herbicides) or through a different mode of action (hereinafter termed non-ACC herbicides). The ACC herbicides belong to the group A of the HRAC classification system whereas the non-ACC herbicides belong to the group N of the HRAC classification.

[0079] According to a second embodiment of the invention the compositions contain at least one ALS inhibitor (herbicide b2). The herbicidal activity of these compounds is based on the inhibition of acetolactate synthase und thus on the inhibiton of the branched chain aminoacid biosynthesis. These inhibitors belong to the group B of the HRAC classification system.

[0080] According to a third embodiment of the invention the compositions contain at least one inhibitor of photosynthesis (herbicide b3). The herbicidal activity of these compounds is based either on the inhibition of the photosystem II in plants (so-called PSII inhibitors, groups C1, C2 and C3 of HRAC classification) or on diverting the electron transfer in photosystem I in plants (so-called PSI inhibitors, group D of HRAC classification) and thus on an inhibition of photosynthesis. Amongst these, PSII inhibitors are preferred.

[0081] According to a fourth embodiment of the invention the compositions contain at least one inhibitor of protoporphyrinogen-IX-oxidase (herbicide b4). The herbicidal activity of these compounds is based on the inhibition of the protoporphyrinogen-IX-oxidase. These inhibitors belong to the group E of the HRAC classification system.

[0082] According to a fifth embodiment of the invention the compositions contain at least one bleacher-herbicide (herbicide b5). The herbicidal activity of these compounds is based on the inhibition of the carotinoid biosynthesis. These include compounds which inhibit carotinoid biosynthesis by inhibition of phytoene desaturase (so-called PDS inhibitors, group F1 of HRAC classification), compounds which inhibit the 4-hydroxyphenylpyruvat-dioxygenase (HPPD inhibitors, group F2 of HRAC classification) and compounds which inhibit carotinoid biosynthesis by an unknown mode of action (bleacher - unknown target, group F3 of HRAC classification).

[0083] According to a sixth embodiment of the invention the compositions contain at least one EPSP synthase inhibitor (herbicide b6). The herbicidal activity of these compounds is based on the inhibition of enolpyruvyl shikimate 3-phosphate synthase und thus on the inhibition of the aminoacid biosynthesis in plants. These inhibitors belong to the group G of the HRAC classification system.

[0084] According to a seventh embodiment of the invention the compositions contain at least one glutamin synthetase inhibitor (herbicide b7). The herbicidal activity of these compounds is based on the inhibition of glutamin synthetase und thus on the inhibition of the aminoacid biosynthesis in plants. These inhibitors belong to the group H of the HRAC classification system.

[0085] According to an eighth embodiment of the invention the compositions contain at least one DHP synthase inhibitor (herbicide b8). The herbicidal activity of these compounds is based on the inhibition of 7,8-dihydropteroate synthetase. These inhibitors belong to the group I of the HRAC classification system.

[0086] According to a ninth embodiment of the invention the compositions contain at least one mitose inhibitor (herbicide b9). The herbicidal activity of these compounds is based on the disturbance or inhibition of microtubule formation or organization and thus on the mitosis inhibition. These inhibitors belong to the groups K1 and K2 of the HRAC classification system. Among these, compounds of the group K1, in particular dinitroanilines, are preferred.

[0087] According to a tenth embodiment of the invention the compositions contain at least one VLCFA inhibitor (herbicide b10). The herbicidal activity of these compounds is based on the inhibition of the synthesis of very long chain fatty acids and thus on the disturbance or inhibition of cell division in plants. These inhibitors belong to the group K3 of the HRAC classification system.

[0088] According to an eleventh embodiment of the invention the compositions contain at least one cellulose biosynthesis inhibitor (herbicide b11). The herbicidal activity of these compounds is based on the inhibition of the biosynthesis of cellulose and thus on the inhibition of the synthesis of cell walls in plants. These inhibitors belong to the group L of

the HRAC classification system.

[0089] According to a twelfth embodiment of the invention the compositions contain at least one decoupler herbicide (herbicide b12). The herbicidal activity of these compounds is based on the disruption of the cell membrane. These inhibitors belong to the group M of the HRAC classification system.

[0090] According to a thirtheenth embodiment of the invention the compositions contain at least one auxin herbicide (herbicide b13). These include compounds which act like auxins, i.e. plant hormones, and inhibit the growth of the plants. These compounds belong to the group O of the HRAC classification system.

[0091] According to a fourteenth embodiment of the invention the compositions contain at least one auxin transport inhibitor (herbicide b14). The herbicidal activity of these compounds is based on the inhibition of the auxin transport in plants. These compounds belong to the group P of the HRAC classification system.

[0092] As to the given mechanisms of action and classification of the active substances, see e.g. "HRAC, Classification of Herbicides According to Mode of Action",
http://www.plantprotection.org/hrac/MOA.html).

[0093] Examples of herbicides B which can be used in combination with the crystalline form B of benzoxazinone (I) according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors:

ACC-herbicides such as alloxydim, alloxydim-sodium, butroxydim, clethodim, clodinafop, clodinafop-propargyl, cycloxydim, cyhalofop, cyhalofop-butyl, diclofop, diclofop-methyl, fenoxaprop, fenoxaprop-ethyl, fenoxaprop-P, fenoxaprop-P-ethyl, fluazifop, fluazifop-butyl, fluazifop-P, fluazifop-P-butyl, haloxyfop, haloxyfop-methyl, haloxyfop-P, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop, quizalofop-ethyl, quizalofop-tefuryl, quizalofop-P, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim and tralkoxydim, and non ACC herbicides such as benfuresate, butylate, cycloate, dalapon, dimepiperate, EPTC, esprocarb, ethofumesate, flupropanate, molinate, orbencarb, pebulate, prosulfocarb, TCA, thiobencarb, tiocarbazil, triallate and vernolate;

b2) from the group of the ALS inhibitors:

Sulfonylureas such as amidosulfuron, azimsulfuron, bensulfuron, bensulfuron-methyl, chlorimuron, chlorimuron-ethyl, chlorsulfuron, cinosulfuron, cyclosulfamuron, ethametsulfuron, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, flucetosulfuron, flupyrsulfuron, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron, halosulfuron-methyl, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, metsulfuron, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, primisulfuron, primisulfuron-methyl, propy-risulfuron, prosulfuron, pyrazosulfuron, pyrazosulfuron-ethyl, rimsulfuron, sulfometuron, sulfometuron-methyl, sulfosulfuron, thifensulfuron, thifensulfuron-methyl, triasulfuron, tribenuron, tribenuron-methyl, trifloxysulfuron, triflusulfuron, triflusulfuron-methyl and tritosulfuron, imidazolinones such as imazamethabenz, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin and imazethapyr, triazolopyrimidine herbicides and sulfonanilides such as cloransulam, cloransulam-methyl, diclosulam, flumetsulam, florasulam, metosulam, penoxsulam, pyrimisulfan and pyroxsulam, pyrimidinylbenzoates such as bispyribac, bispyribac-sodium, pyribenzoxim, pyriftalid, pyriminobac, pyriminobac-methyl, pyrithiobac, pyrithiobac-sodium, 4-[[[2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]phenyl]methyl]amino]-benzoic acid-1-methylethyl ester (CAS 420138-41-6), 4-[[[2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]phenyl]methyl]amino]-benzoic acid propyl ester (CAS 420138-40-5), N-(4-bromophenyl)-2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]benzenemethanamine (CAS 420138-01-8), and sulfonylaminocarbonyl-triazolinone herbicides such as flucarbazone, flucarbazone-sodium, propoxycarbazon, propoxycarbazon- sodium, thiencarbazone and thiencarbazone-methyl. Among these, a preferred embodiment of the invention relates to those compositions comprising at least one imidazolinone herbicide;

b3) from the group of the photosynthesis inhibitors:

amicarbazone, inhibitors of the photosystem II, e.g. triazine herbicides, including of chlorotriazine, triazinones, triazindiones, methylthiotriazines and pyridazinones such as ametryn, atrazine, chloridazone, cyanazine, desmetryn, dimethametryn,hexazinone, metribuzin, prometon, prometryn, propazin, simazin, simetryn, terbumeton, terbuthylazin, terbutryn and trietazin, aryl urea such as chlorobromuron, chlorotoluron, chloroxuron, dimefuron, diuron, fluometuron, isoproturon, isouron, linuron, metamitron, methabenzthiazuron, metobenzuron, metoxuron, monolinuron, neburon, siduron, tebuthiuron and thiadiazuron, phenyl carbamates such as desmedipham, karbutilat, phenmedipham, phenmedipham-ethyl, nitrile herbicides such as bromofenoxim, bromoxynil and its salts and esters, ioxynil and its salts and esters, uraciles such as bromacil, lenacil and terbacil, and bentazon and

bentazon-sodium, pyridatre, pyridafol, pentanochlor and propanil and inhibitors of the photosystem I such as diquat, diquat-dibromide, paraquat, paraquat-dichloride and paraquat-dimetilsulfate. Among these, a preferred embodiment of the invention relates to those compositions comprising at least one aryl urea herbicide. Among these, likewise a preferred embodiment of the invention relates to those compositions comprising at least one triazine herbicide. Among these, likewise a preferred embodiment of the invention relates to those compositions comprising at least one nitrile herbicide;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:

acifluorfen, acifluorfen-sodium, azafenidin, bencarbazone, benzfendizone, bifenox, butafenacil, carfentrazone, carfentrazone-ethyl, chlomethoxyfen, cinidon-ethyl, fluazolate, flufenpyr, flufenpyr-ethyl, flumiclorac, flumiclorac-pentyl, flumioxazin, fluoroglycofen, fluoroglycofen-ethyl, fluthiacet, fluthiacet-methyl, fomesafen, halosafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, profluazol, pyraclonil, pyraflufen, pyraflufen-ethyl, saflufenacil, sulfentrazone, thidiazimin, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 45100-03-7) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides:

PDS inhibitors: beflubutamid, diflufenican, fluridone, flurochloridone, flurtamone, norflurazon, picolinafen, and 4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7), HPPD inhibitors: benzobicyclon, benzofenap, isoxaflutole, mesotrione, pyrasulfotole, pyrazolynate, pyrazoxyfen, sulcotrione, tefuryltrione, tembotrione, topramezone and bicyclopyrone, bleacher, unknown target: aclonifen, amitrole, clomazone and flumeturon;

b6) from the group of the EPSP synthase inhibitors:

glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors:

bilanaphos (bialaphos), bilanaphos-sodium, glufosinate, glufosinate-P and glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors:

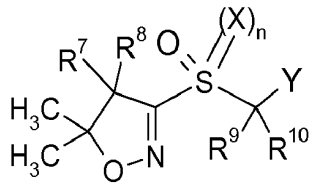
asulam;

b9) from the group of the mitose inhibitors:

compounds of group K1: dinitroanilines such as benfluralin, butralin, dinitramine, ethalfluralin, fluchloralin, oryzalin, pendimethalin, prodiamine and trifluralin, phosphoramidates such as amiprophos, amiprophos-methyl, and butamiphos, benzoic acid herbicides such as chlorthal, chlorthal-dimethyl, pyridines such as dithiopyr and thiazopyr, benzamides such as propyzamide and tebutam; compounds of group K2: chlorpropham, propham and carbetamide, among these, compounds of group K1, in particular dinitroanilines are preferred;

b10) from the group of the VLCFA inhibitors:

chloroacetamides such as acetochlor, alachlor, butachlor, dimethachlor, dimethenamid, dimethenamid-P, metazachlor, metolachlor, metolachlor-S, pethoxamid, pretilachlor, propachlor, propisochlor and thenylchlor, oxyacetanilides such as flufenacet and mefenacet, acetanilides such as diphenamid, naproanilide and napropamide, tetrazolinones such fentrazamide, and other herbicides such as anilofos, cafenstrole, fenoxasulfone, ipfencarbazone, piperophos, pyroxasulfone and
isoxazoline compounds of the formula II,



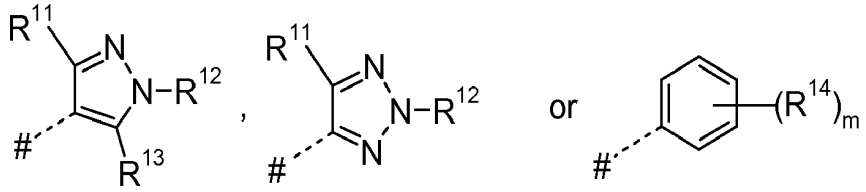
(II)

wherein R^7, R^8, R^9, R^{10}, W, Z and n have the following meanings:

R^7, R^8, R^9, R^{10}		independently of one another hydrogen, halogen or C_1-C_4-alkyl;
X		oxygen or NH;
Y		phenyl or monocyclic 5-, 6-, 7-, 8-, 9- or 10-membered heterocyclyl containing, in addition to carbon ring members one, two or three same or different heteroatoms selected from oxygen, nitrogen and sulfur as ring members, wherein phenyl and heterocyclyl are unsubstituted or carry 1, 2 or 3 substituents R^{yy} selected from halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkyl and C_1-C_4-haloalkoxy; preferably phenyl or 5- or 6-membered aromatic heterocyclyl (hetaryl) which contains, in addition to carbon ring members, one, two or three nitrogen atoms as ring members, wherein phenyl and hetaryl are unsubstituted or carry 1, 2 or 3 substituents R^{yy}; and
n		zero or one;

among the isoxazoline compounds of the formula II, preference is given to isoxazoline compounds of the formula II, wherein

R^7, R^8, R^9, R^{10}	independently of one another are H, F, Cl or methyl;
X	is oxygen;
n	is 0 or 1; and
Y	is phenyl, pyrazolyl or 1,2,3-triazolyl, wherein the three last-mentioned radicals are unsubstituted or carry one, two or three substituents R^{yy}, especially one of the following radicals

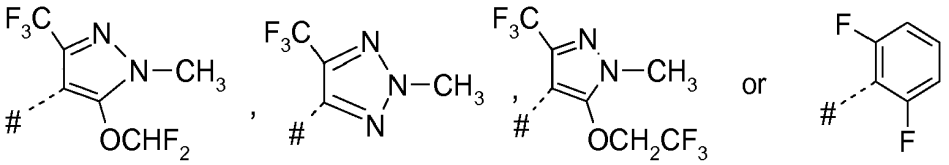


wherein

R^{11}	is halogen, C_1-C_4-alkyl or C_1-C_4-haloalkyl;
R^{12}	is C_1-C_4-alkyl;
R^{13}	is halogen, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy;
R^{14}	is halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl or C_1-C_4-haloalkoxy;
m	is 0, 1, 2 or 3; and
#	denotes the point of attachment to the group $CR^{13}R^{14}$;

among the isoxazoline compounds of the formula II, particular preference is given to those isoxazoline compounds of the formula II, wherein

R^7	is hydrogen;
R^8	is fluorine;
R^9	is hydrogen or fluorine;
R^{10}	is hydrogen or fluorine;
X	is oxygen;
Y	is one of the radicals of the formulae Y^1, Y^2, Y^3 or Y^4

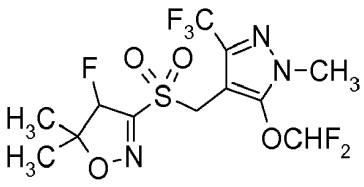


Y1 Y2 Y3 Y4

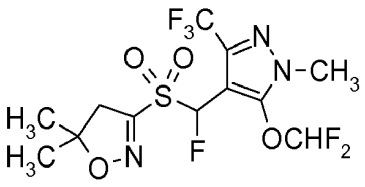
wherein # denotes the point of attachment to the group CR^9R^{10};

n is zero or 1, in particular 1; and

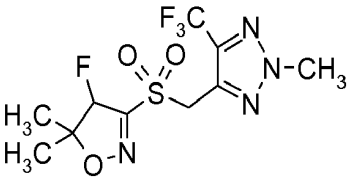
among these, especially prefered are the isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9



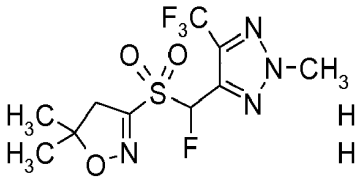
II.1



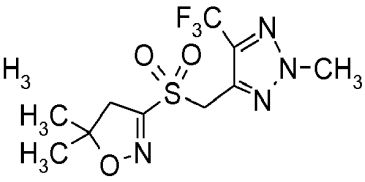
II.2



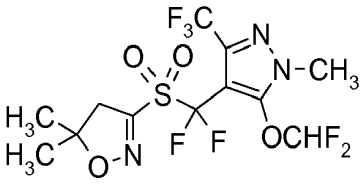
II.3



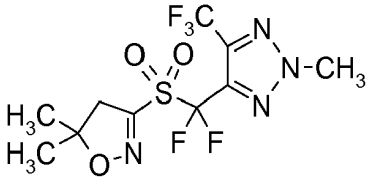
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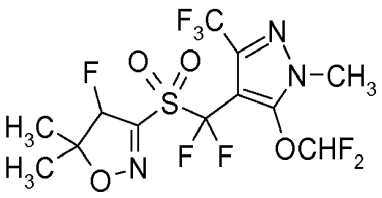
II.5



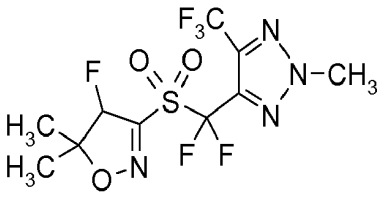
II.6



II.7



II.8



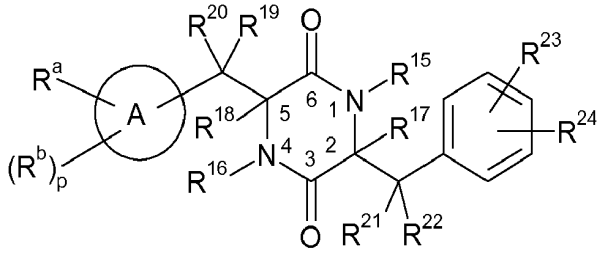
II.9

the isoxazoline compounds of the formula II are known in the art, e.g. from WO 2006/024820, WO 2006/037945, WO 2007/071900 and WO 2007/096576;

among the VLCFA inhibitors, preference is given to chloroacetamides and oxyacetamides, especially to pyroxasulfone;

b11) from the group of the cellulose biosynthesis inhibitors:

chlorthiamid, dichlobenil, flupoxam, isoxaben, 1-Cyclohexyl-5-pentafluorphenyloxy-1^4-[1,2,4,6]thiatriazin-3-ylamine and piperazine compounds of formula III,



III,

in which

A is phenyl or pyridyl where R^a is attached in the ortho-position to the point of attachment of A to a carbon atom;

R^a is CN, NO_2, C_1-C_4-alkyl, D-C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, O-D-C_3-C_6-cycloalkyl, $S(O)_qR^y$, C_2-C_6-alkenyl, D-C_3-C_6-cycloalkenyl, C_3-C_6-alkenyloxy, C_2-C_6-alkynyl, C_3-C_6-alkynyloxy, NR^AR^B, tri-C_1-C_4-alkylsilyl, D-C(=O)-R^{a1}, D-P(=O)$(R^{a1})_2$, phenyl, naphthyl, a 3- to 7-membered monocyclic or 9- or 10-membered bicyclic saturated, unsaturated or aromatic heterocycle which is attached via carbon or nitrogen, which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, and which may be partially or fully substituted by groups R^{aa} and/or R^{a1}, and, if R^a is attached to a carbon atom, additionally halogen;
R^y is C_1-C_6-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, NR^AR^B or C_1-C_4-haloalkyl and q is 0, 1 or 2;
R^A,R^B independently of one another are hydrogen, C_1-C_6-alkyl, C_3-C_6-alkenyl and C_3-C_6-alkynyl; together with the nitrogen atom to which they are attached, R^A,R^B may also form a five- or six-membered saturated, partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be substituted by 1 to 3 groups R^{aa};
D is a covalent bond, C_1-C_4-alkylene, C_2-C_6-alkenyl or C_2-C_6-alkynyl;
R^{a1} is hydrogen, OH, C_1-C_8-Alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_8-alkenyl, C_5-C_6-cycloalkenyl, C_2-C_8-alkynyl, C_1-C_6-alkoxy, C_1-C_4-haloalkoxy, C_3-C_8-alkenyloxy, C_3-C_8-alkynyloxy, NR^AR^B, C_1-C_6-alkoxyamino, C_1-C_6-alkylsulfonylamino, C_1-C_6-alkylaminosulfonylamino, [di-(C_1-C_6)alkylamino]sulfonylamino, C_3-C_6-alkenylamino, C_3-C_6-alkynylamino, N-(C_2-C_6-alkenyl)-N-(C_1-C_6-alkyl)amino, N-(C_2-C_6-alkynyl)-N-(C_1-C_6-alkyl)amino, N-(C_1-C_6-alkoxy)-N-(C_1-C_6-alkyl)amino, N-(C_2-C_6-alkenyl)-N-(C_1-C_6-alkoxy)amino, N-(C_2-C_6-alkynyl)-N-(C_1-C_6-alkoxy)-amino, C_1-C_6-alkylsulfonyl, tri-C_1-C_4-alkylsilyl, phenyl, phenoxy, phenylamino or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa};
R^{aa} is halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, $S(O)_qR^y$, D-C(=O)-R^{a1} and tri-C_1-C_4-alkylsilyl;

R^b independently of one another are hydrogen, CN, NO_2, halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, benzyl or $S(O)_qR^y$,
R^b together with the group R^a or R^b attached to the adjacent ring atom may also form a five- or six-membered saturated or partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be partially or fully substituted by R^{aa};

p is 0, 1, 2 or 3;

R^{15} is hydrogen, OH, CN, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, $C(=O)R^{25}$, CON-

	R^AR^B, phenyl or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic aromatic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are attached via D^1 and are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa}, and also the following partially or fully R^{aa}-substituted groups: C_1-C_4-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, C_1-C_4-alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, $C(=O)R^{25}$, $CONR^AR^B$; preferably is hydrogen, OH, CN, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, NR^AR^B, $S(O)_nR^y$, $S(O)_nNR^AR^B$, $C(=O)R^{25}$, $CONR^AR^B$, phenyl or a 5- or 6-membered monocyclic or 9- or 10-membered bicyclic aromatic heterocycle which contains 1, 2, 3 or 4 heteroatoms selected from the group consisting of O, N and S, where the cyclic groups are attached via D^1 and are unsubstituted or substituted by 1, 2, 3 or 4 groups R^{aa}, and also the following partially or fully R^{aa}-substituted groups: C_1-C_4-alkyl, C_3-C_4-alkenyl and C_3-C_4-alkynyl;
	R^{25} is hydrogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy;
	D^1 is carbonyl or a group D;
	where in groups R^{15}, R^a and their sub-substituents the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa} and/or R^{a1};
R^{16}	is C_1-C_4-alkyl, C_3-C_4-alkenyl or C_3-C_4-alkynyl;
R^{17}	is OH, NH_2, C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_3-C_6-alkenyl, C_3-C_6-alkynyl, C_1-C_4-hydroxyalkyl, C_1-C_4-cyanoalkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy-C_1-C_4-alkyl or $C(=O)R^{25}$;
R^{18}	is hydrogen, halogen, C_1-C_4-alkyl or C_1-C_4-haloalkyl, or R^{18} and R^{19} together are a covalent bond;
R^{19}, R^{20}, R^{21}, R^{21}	independently of one another are hydrogen, halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and C_3-C_6-cycloalkynyl;
R^{23}, R^{24}	independently of one another are hydrogen, halogen, OH, haloalkyl, NR^AR^B, $NR^AC(O)R^{26}$, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, O-$C(O)R^{26}$, phenoxy or benzyloxy, where in groups R^{23} and R^{24} the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa};
R^{26}	is C_1-C_4-alkyl or NR^AR^B;

among the isoxazoline compounds of the piperazin compounds of formula III, preference is given to the piperazine compounds of the formula III, wherein

A	is phenyl or pyridyl where R^a is attached in the ortho-position to the point of attachment of A to a carbon atom;
R^a	is CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy or D-$C(=O)$-R^{a1};
	R^y is C_1-C_6-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkynyl, NR^AR^B or C_1-C_4-haloalkyl and q is 0, 1 or 2;
	R^A,R^B independently of one another are hydrogen, C_1-C_6-alkyl, C_3-C_6-alkenyl and C_3-C_6-alkynyl;
	together with the nitrogen atom to which they are attached, R^A,R^B may also form a five- or six-membered saturated, partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be substituted by 1 to 3 groups R^{aa};
	D is a covalent bond or C_1-C_4-alkylene;
	R^{a1} is hydrogen, OH, C_1-C_8-Alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl;
	R^{aa} is halogen, OH, CN, NO_2, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, $S(O)_qR^y$, D-$C(=O)$-R^{a1} and tri-C_1-C_4-alkylsilyl;
R^b	independently of one another is CN, NO_2, halogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_4-alkenyl, C_3-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, benzyl or $S(O)_qR^y$, R^b together with the group R^a or R^b attached to the adjacent ring atom may also form a five- or six-membered saturated or partially or fully unsaturated ring which, in addition to carbon atoms, may contain 1, 2 or 3 heteroatoms selected from the group consisting of O, N and S, which ring may be partially or fully substituted by R^{aa};
p	is 0 or 1;
R^{15}	is hydrogen, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy or $C(=O)R^{25}$, which can be partially or fully substituted by R^{aa}-groups; preferably is hydrogen, C_1-C_{12}-alkyl, C_3-C_{12}-alkenyl, C_3-C_{12}-alkynyl, C_1-C_4-alkoxy or $C(=O)R^{25}$;
	R^{25} is hydrogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy or C_1-C_4-haloalkoxy; where in groups

	R^{15}, R^a and their sub-substituents the carbon chains and/or the cyclic groups may carry 1, 2, 3 or 4 substituents R^{aa} and/or R^{a1};
R^{16}	is C_1-C_4-alkyl;
R^{17}	is OH, NH_2, C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl or $C(=O)R^{25}$;
R^{18}	is hydrogen, or R^{18} and R^{19} together are a covalent bond;
R^{19}, R^{20}, R^{21}, R^{21}	independently of one another are hydrogen;
R^{23}, R^{24}	independently of one another are hydrogen, halogen or OH;

b12) from the group of the decoupler herbicides:

dinoseb, dinoterb and DNOC and its salts;

b13) from the group of the auxin herbicides:

2,4-D and its salts and esters, 2,4-DB and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, benazolin, benazolin-ethyl, chloramben and its salts and esters, clomeprop, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr, fluroxypyr-butometyl, fluroxypyr-meptyl, MCPA and its salts and esters, MCPA-thioethyl, MCPB and its salts and esters, mecoprop and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, TBA (2,3,6) and its salts and esters, triclopyr and its salts and esters, and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr, diflufenzopyr-sodium, naptalam and naptalam-sodium;

b15) from the group of the other herbicides: bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

[0094] Preferred herbicides B which can be used in combination with the crystalline form B of benzoxazinone (I) according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors:

clethodim, clodinafop-propargyl, cycloxydim, cyhalofop-butyl, diclofop-methyl, fenoxaprop-P-ethyl, fluazifop-P-butyl, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim, tralkoxydim, benfuresate, dimepiperate, EPTC, esprocarb, ethofumesate, molinate, orbencarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors:

amidosulfuron, azimsulfuron, bensulfuron-methyl, bispyribac-sodium, chlorimuron-ethyl, chlorsulfuron, cloransulam-methyl, cyclosulfamuron, diclosulam, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, florasulam, flucarbazone-sodium, flucetosulfuron, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron-methyl, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, metosulam, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, penoxsulam, primisulfuron-methyl, propoxycarbazon-sodium, propyrisul-furon, prosulfuron, pyrazosulfuron-ethyl, pyribenzoxim, pyrimisulfan, pyriftalid, pyriminobac-methyl, pyrithiobac-sodium, pyroxsulam, rimsulfuron, sulfometuron-methyl, sulfosulfuron, thiencarbazone-methyl, thifensulfuron-methyl, triasulfuron, tribenuron-methyl, trifloxysulfuron, triflusulfuron-methyl and tritosulfuron;

b3) from the group of the photosynthesis inhibitors:

ametryn, amicarbazone, atrazine, bentazone, bentazone-sodium, bromoxynil and its salts and esters, chlori-

dazone, chlorotoluron, cyanazine, desmedipham, diquat-dibromide, diuron, fluometuron, hexazinone, ioxynil and its salts and esters, isoproturon, lenacil, linuron, metamitron, methabenzthiazuron, metribuzin, paraquat, paraquat-dichloride, phenmedipham, propanil, pyridate, simazine, terbutryn, terbuthylazine and thidiazuron;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:

acifluorfen-sodium, bencarbazone, benzfendizone, butafenacil, carfentrazone-ethyl, cinidon-ethyl, flufenpyr-ethyl, flumiclorac-pentyl, flumioxazin, fluoroglycofen-ethyl, fomesafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, pyraflufen-ethyl, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 45100-03-7) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides:

aclonifen, beflubutamid, benzobicyclon, clomazone, diflufenican, flurochloridone, flurtamone, isoxaflutole, mesotrione, norflurazon, picolinafen, pyrasulfotole, pyrazolynate, sulcotrione, te-furyltrione, tembotrione, topramezone, bicyclopyrone, 4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7), amitrole and flumeturon;

b6) from the group of the EPSP synthase inhibitors:

glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors:

glufosinate, glufosinate-P, glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors: asulam;

b9) from the group of the mitose inhibitors:

benfluralin, dithiopyr, ethalfluralin, oryzalin, pendimethalin, thiazopyr and trifluralin;

b10) from the group of the VLCFA inhibitors:

acetochlor, alachlor, anilofos, butachlor, cafenstrole, dimethenamid, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, naproanilide, napropamide, pretilachlor, fenoxasulfone, ipfencarbazone, pyroxasulfone thenylchlor and isoxazoline-compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: dichlobenil, flupoxam, isoxaben, 1-Cyclohexyl-5-pentafluorphenyloxy-1^4-[1,2,4,6]thiatriazin-3-ylamine and the piperazine compounds of formula III as mentioned above;

b13) from the group of the auxin herbicides:

2,4-D and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr-meptyl, MCPA and its salts and esters, MCPB and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, triclopyr and its salts and esters, and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyr-sodium;

b15) from the group of the other herbicides: bromobutide, cinmethylin, cumyluron, dalapon, difenzoquat, difenzoquat-metilsulfate, DSMA, dymron (= daimuron), flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, indanofan, indaziflam, metam, methylbromide, MSMA, oxaziclomefone, pyributicarb, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

[0095] Particularly preferred herbicides B which can be used in combination with the crystalline form B of benzoxazinone (I) according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors: clodinafop-propargyl, cycloxydim, cyhalofop-butyl, fenoxaprop-P-ethyl, pinoxaden, profoxydim, tepraloxydim, tralkoxydim, esprocarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors: bensulfuron-methyl, bispyribac-sodium, cyclosulfamuron, diclosulam, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, nicosulfuron, penoxsulam, propoxycarbazon-sodium, pyrazosulfuron-ethyl, pyroxsulam, rimsulfuron, sulfosulfuron, thiencarbazon-methyl and tritosulfuron;

b3) from the group of the photosynthesis inhibitors: ametryn, atrazine, diuron, fluometuron, hexazinone, isoproturon, linuron, metribuzin, paraquat, paraquat-dichloride, propanil, terbutryn and terbuthylazine;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors: flumioxazin, oxyfluorfen, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides: clomazone, diflufenican, flurochloridone, isoxaflutole, mesotrione, picolinafen, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, amitrole and flumeturon;

b6) from the group of the EPSP synthase inhibitors: glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors: glufosinate, glufosinate-P and glufosinate-ammonium;

b9) from the group of the mitose inhibitors: pendimethalin and trifluralin;

b10) from the group of the VLCFA inhibitors: acetochlor, cafenstrole, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, fenoxasulfone, ipfencarbazone and pyroxasulfone; likewise, preference is given to isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: isoxaben and the piperazine compounds of formula III as mentioned above;

b13) from the group of the auxin herbicides: 2,4-D and its salts and esters, aminopyralid and its salts and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, fluroxypyr-meptyl, quinclorac, quinmerac and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyr-sodium,

b15) from the group of the other herbicides: dymron (= daimuron), indanofan, indaziflam, oxaziclomefone and triaziflam.

[0096] Moreover, it may be useful to apply the crystalline form B of benzoxazinone (I) in combination with safeners. Safeners are chemical compounds which prevent or reduce damage on useful plants without having a major impact on the herbicidal action of the crystalline form B of benzoxazinone (I) towards unwanted plants. They can be applied either before sowings (e.g. on seed treatments, shoots or seedlings) or in the pre-emergence application or post-emergence application of the useful plant. The safeners and the crystalline form B of benzoxazinone (I) can be applied simultaneously

or in succession.

[0097] Furthermore, the safeners C, the crystalline form B of benzoxazinone (I) and/or the herbicides B can be applied simultaneously or in succession.

[0098] Suitable safeners are e.g. (quinolin-8-oxy)acetic acids, 1-phenyl-5-haloalkyl-1H-1,2,4-triazol-3-carboxylic acids, 1-phenyl-4,5-dihydro-5-alkyl-1 H-pyrazol-3,5-dicarboxylic acids, 4,5-dihydro-5,5-diaryl-3-isoxazol carboxylic acids, dichloroacetamides, alpha-oximinophenylacetonitriles, acetophenonoximes, 4,6-dihalo-2-phenylpyrimidines, N-[[4-(aminocarbonyl)phenyl]sulfonyl]-2-benzoic amides, 1,8-naphthalic anhydride, 2-halo-4-(haloalkyl)-5-thiazol carboxylic acids, phosphorthiolates and N-alkyl-O-phenylcarbamates and their agriculturally acceptable salts and their agriculturally acceptable derivatives such amides, esters, and thioesters, provided they have an acid group.

[0099] Examples of preferred safeners C are benoxacor, cloquintocet, cyometrinil, cyprosulfamide, dichlormid, dicyclonon, dietholate, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, mephenate, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

[0100] Especially preferred safeners C are benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

[0101] Particularly preferred safeners C are benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro-[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

[0102] The herbicides B of groups b1) to b15) and the safeners C are known herbicides and safeners, see, for example, The Compendium of Pesticide Common Names (http://www.alanwood.net/pesticides/); Farm Chemicals Handbook 2000 volume 86, Meister Publishing Company, 2000; B. Hock, C. Fedtke, R. R. Schmidt, Herbizide [Herbicides], Georg Thieme Verlag, Stuttgart 1995; W. H. Ahrens, Herbicide Handbook, 7th edition, Weed Science Society of America, 1994; and K. K. Hatzios, Herbicide Handbook, Supplement for the 7th edition, Weed Science Society of America, 1998. 2,2,5-Trimethyl-3-(dichloroacetyl)-1,3-oxazolidine [CAS No. 52836-31-4] is also referred to as R-29148. 4-(Dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane [CAS No. 71526-07-3] is also referred to as AD-67 and MON 4660. Further herbicidally active compounds are known from WO 96/26202, WO 97/41116, WO 97/41117, WO 97/41118 and WO 01/83459 and also from W. Krämer et al. (ed.) "Modern Crop Protection Compounds", Vol. 1, Wiley VCH, 2007 and the literature cited therein.

[0103] The assignment of the active compounds to the respective mechanisms of action is based on current knowledge. If several mechanisms of action apply to one active compound, this substance was only assigned to one mechanism of action.

[0104] If the herbicides B and/or the safener C are capable of forming geometrical isomers, for example E/Z isomers, both the pure isomers and mixtures thereof may be used in the compositions according to the invention.

[0105] If the herbicides B and/or the safener C have one of more centers of chirality and are thus present as enantiomers or diastereomers, both the pure enantiomers and diastereomers and mixtures thereof may be used in the compositions according to the invention.

[0106] If the herbicides B and/or the safener C have ionizable functional groups, they can also be employed in the form of their agriculturally acceptable salts. Suitable are, in general, the salts of those cations and the acid addition salts of those acids whose cations and anions, respectively, have no adverse effect on the activity of the active compounds.

[0107] Preferred cations are the ions of the alkali metals, preferably of lithium, sodium and potassium, of the alkaline earth metals, preferably of calcium and magnesium, and of the transition metals, preferably of manganese, copper, zinc and iron, further ammonium and substituted ammonium in which one to four hydrogen atoms are replaced by C_1-C_4-alkyl, hydroxy-C_1-C_4-alkyl, C_1-C_4-alkoxy-C_1-C_4-alkyl, hydroxy-C_1-C_4-alkoxy-C_1-C_4-alkyl, phenyl or benzyl, preferably ammonium, methylammonium, isopropylammonium, dimethylammonium, diisopropylammonium, trimethylammonium, tetramethylammonium, tetraethylammonium, tetrabutylammonium, 2-hydroxyethylammonium, 2-(2-hydroxyeth-1-oxy)eth-1-ylammonium, di(2-hydroxyeth-1-yl)-ammonium, benzyltrimethylammonium, benzyltriethylammonium, furthermore phosphonium ions, sulfonium ions, preferably tri(C_1-C_4-alkyl)sulfonium, such as trimethylsulfonium, and sulfoxonium ions, preferably tri(C_1-C_4-alkyl)sulfoxonium.

[0108] Anions of useful acid addition salts are primarily chloride, bromide, fluoride, iodide, hydrogensulfate, methylsulfate, sulfate, dihydrogenphosphate, hydrogenphosphate, nitrate, bicarbonate, carbonate, hexafluorosilicate, hexafluorophosphate, benzoate and also the anions of C_1-C_4-alkanoic acids, preferably formate, acetate, propionate and butyrate.

[0109] Herbicides B and safeners C having a carboxyl group can be employed in the form of the acid, in the form of an agriculturally suitable salt or else in the form of an agriculturally acceptable derivative in the compositions according to the invention, for example as amides, such as mono- and di-C_1-C_6-alkylamides or arylamides, as esters, for example as allyl esters, propargyl esters, C_1-C_{10}-alkyl esters, alkoxyalkyl esters and also as thioesters, for example as C_1-C_{10}-alkylthio esters. Preferred mono- and di-C_1-C_6-alkylamides are the methyl and the dimethylamides. Preferred

arylamides are, for example, the anilides and the 2-chloroanilides. Preferred alkyl esters are, for example, the methyl, ethyl, propyl, isopropyl, butyl, isobutyl, pentyl, mexyl (1-methylhexyl) or isooctyl (2-ethylhexyl) esters. Preferred C_1-C_4-alkoxy-C_1-C_4-alkyl esters are the straight-chain or branched C_1-C_4-alkoxy ethyl esters, for example the methoxyethyl, ethoxyethyl or butoxyethyl ester. An example of a straight-chain or branched C_1-C_{10}-alkylthio ester is the ethylthio ester.

[0110] According to a preferred embodiment of the invention, the composition comprises as herbicide B at least one, preferebly exactly one herbicide B.

[0111] According to another preferred embodiment of the invention, the composition comprises as herbicide B, at least two, preferebly exactly two herbicides B different from each other.

[0112] According to another preferred embodiment of the invention, the composition comprises as herbicide B, at least three, preferebly exactly three herbicides B different from each other.

[0113] According to another preferred embodiment of the invention, the composition comprises as safener C at least one, preferebly exactly one safener C.

[0114] According to another preferred embodiment of the invention, the composition comprises as herbicide B, at least one, preferebly exactly one herbicide B, and at lest one, preferebly exactly one, safener C.

[0115] According to another preferred embodiment of the invention, the composition comprises as herbicide B, preferebly exactly two herbicides B different from each other, and at lest one, preferebly exactly one, safener C.

[0116] According to another preferred embodiment of the invention, the composition comprises as herbicide B, at least three, preferebly exactly three herbicides B different from each other, and at lest one, preferebly exactly one, safener C.

[0117] A first preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b1), in particular selected from the group consisting of clodinafop-propargyl, cycloxydim, cyhalofop-butyl, fenoxaprop-P-ethyl, pinoxaden, profoxydim, tepraloxydim, tralkoxydim, esprocarb, prosulfocarb, thiobencarb and triallate.

[0118] A second preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b2), in particular selected from the group consisting of bensulfuron-methyl, bispyribac-sodium, cyclosulfamuron, diclosulam, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, nicosulfuron, penoxsulam, propoxycarbazon-sodium, pyrazosulfuron-ethyl, pyroxsulam, rimsulfuron, sulfosulfuron, thiencarbazon-methyl and tritosulfuron.

[0119] A third preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b3), in particular selected from the group consisting of ametryn, atrazine, diuron, fluometuron, hexazinone, isoproturon, linuron, metribuzin, paraquat, paraquat-dichloride, propanil, terbutryn and terbuthylazine.

[0120] A fourth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b4), in particular selected from the group consisting of flumioxazin, oxyfluorfen, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione.

[0121] A fifth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b5), in particular selected from the group consisting of clomazone, diflufenican, flurochloridone, isoxaflutole, mesotrione, picolinafen, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, amitrole and flumeturon.

[0122] A sixth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b6), in particular selected from the group consisting of glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate).

[0123] A seventh preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b7), in particular selected from the group consisting of glufosinate, glufosinate-P and glufosinate-ammonium.

[0124] An eighth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b9), in particular selected from the group consisting of pendimethalin and trifluralin.

[0125] A nineth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b10), in particular selected from the group consisting of acetochlor, cafenstrole, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, fenoxasulfone and pyroxasulfone. Likewise, preference is

given to compositions comprising in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b10), in particular selected from the group consisting of isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9, as defined above.

[0126] A tenth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b11), in particular isoxaben. Likewise, preference is given to compositions comprising in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b11), in particular selected from the group consisting of piperazine compounds of formula III as defined above.

[0127] An eleventh preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b13), in particular selected from the group consisting of 2,4-D and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, fluroxypyr-meptyl, quinclorac, quinmerac and aminocyclopyrachlor and its salts and esters.

[0128] A twelfth preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b14), in particular selected from the group consisting of diflufenzopyr and diflufenzopyr-sodium.

[0129] A 13th preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one herbicide B from group b15), in particular selected from the group consisting of dymron (= daimuron), indanofan, indaziflam, oxaziclomefone and triaziflam.

[0130] A 14th preferred embodiment of the invention relates to compositions according to the invention comprising, in addition to the crystalline form B of benzoxazinone (I), at least one and especially exactly one safener C, in particular selected from the group consisting of benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

[0131] Further preferred embodiments relate to ternary compositions which correspond to the binary compositions of embodiments 1 to 14 and additionally comprise a safener C, in particular selected from the group consisting of benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

[0132] Here and below, the term "binary compositions" includes compositions comprising the crystalline form B of benzoxazinone (I), and either one or more, for example 1, 2 or 3, herbicides B or one or more safeners C.

[0133] Correspondingly, the term "ternary compositions" includes compositions comprising the crystalline form B of benzoxazinone (I), one or more, for example 1, 2 or 3, herbicides B, and one or more, for example 1, 2 or 3, safeners C.

[0134] In binary compositions comprising the crystalline form B of benzoxazinone (I) and at least one herbicide B, the weight ratio of the crystalline form B of benzoxazinone (I) : herbicide B is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

[0135] In binary compositions comprising the crystalline form B of benzoxazinone (I) and at least one safener C, the weight ratio of the crystalline form B of benzoxazinone (I) : safener C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

[0136] In ternary compositions comprising the crystalline form B of benzoxazinone (I), at least one herbicide B and at least one safener C, the relative proportions by weight of the crystalline form B of benzoxazinone (I) : herbicide B are generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1, the weight ratio of the crystalline form B of benzoxazinone (I) : safener C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1, and the weight ratio of the herbicide B : safener C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1. The weight ratio of the crystalline form B of benzoxazinone (I) + herbicide B to safener C is preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

[0137] Particularly preferred herbicides B are the herbicides B as defined above; in particular the herbicides B.1 - B.141 listed below in table B:

Table B:

	Herbicide B
B.1	clethodim
B.2	clodinafop-propargyl
B.3	cycloxydim
B.4	cyhalofop-butyl
B.5	fenoxaprop-P-ethyl
B.6	metamifop

	Herbicide B
B.7	pinoxaden
B.8	profoxydim
B.9	sethoxydim
B.10	tepraloxydim
B.11	tralkoxydim
B.12	esprocarb

	Herbicide B
B.13	ethofumesate
B.14	molinate
B.15	prosulfocarb
B.16	thiobencarb
B.17	triallate
B.18	bensulfuron-methyl
B.19	bispyribac-sodium
B.20	cloransulam
B.21	chlorsulfuron
B.22	clorimuron
B.23	cyclosulfamuron
B.24	diclosulam
B.25	florasulam
B.26	flumetsulam
B.27	flupyrsulfuron-methyl-sodium
B.28	foramsulfuron
B.29	imazamox
B.30	imazapic
B.31	imazapyr
B.32	imazaquin
B.33	imazethapyr
B.34	imazosulfuron
B.35	iodosulfuron-methyl-sodium
B.36	mesosulfuron
B.37	metazosulfuron
B.38	metsulfuron
B.39	metosulam
B.40	nicosulfuron
B.41	penoxsulam
B.42	propoxycarbazon-sodium
B.43	pyrazosulfuron-ethyl
B.44	pyribenzoxim
B.45	pyriftalid
B.46	pyroxsulam
B.47	rimsulfuron
B.48	sulfosulfuron
B.49	thiencarbazone-methyl
B.50	thifensulfuron
B.51	tribenuron
B.52	tritosulfuron

	Herbicide B
B.53	ametryne
B.54	atrazine
B.55	bentazon
B.56	bromoxynil
B.57	diuron
B.58	fluometuron
B.59	hexazinone
B.60	isoproturon
B.61	linuron
B.62	metamitron
B.63	metribuzin
B.64	propanil
B.65	simazin
B.66	terbuthylazine
B.67	terbutryn
B.68	paraquat-dichloride
B.69	acifluorfen
B.70	butafenacil
B.71	carfentrazone-ethyl
B.72	flumioxazin
B.73	fomesafen
B.74	oxadiargyl
B.75	oxyfluorfen
B.76	saflufenacil
B.77	sulfentrazone
B.78	ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyl-oxy]acetate (CAS 353292-31-6)
B.79	3-[7-fluoro-3-oxo-4-(prop-2-yn-yl)-3,4-dihydro-2H-benzo[1,4]-oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione
B.80	benzobicyclon
B.81	clomazone
B.82	diflufenican
B.83	flurochloridone
B.84	isoxaflutole
B.85	mesotrione

	Herbicide B
B.86	norflurazone
B.87	picolinafen
B.88	sulcotrione
B.89	tefuryltrione
B.90	tembotrione
B.91	topramezone
B.92	bicyclopyrone
B.93	amitrole
B.94	fluometuron
B.95	glyphosate
B.96	glyphosate-isopropylammonium
B.97	glyphosate-trimesium (sulfosate)
B.98	glufosinate
B.99	glufosinate-P
B.100	glufosinate-ammonium
B.101	pendimethalin
B.102	trifluralin
B.103	acetochlor
B.104	butachlor
B.105	cafenstrole
B.106	dimethenamid-P
B.107	fentrazamide
B.108	flufenacet
B.109	mefenacet
B.110	metazachlor
B.111	metolachlor
B.112	S-metolachlor
B.113	pretilachlor

	Herbicide B
B.114	fenoxasulfone
B.115	isoxaben
B.116	pyroxasulfone
B.117	2,4-D
B.118	aminopyralid
B.119	clopyralid
B.120	dicamba
B.121	fluroxypyr-meptyl
B.122	MCPA
B.123	quinclorac
B.124	quinmerac
B.125	aminocyclopyrachlor
B.126	diflufenzopyr
B.127	diflufenzopyr-sodium
B.128	dymron
B.129	indanofan
B.130	indaziflam
B.131	oxaziclomefone
B.132	triaziflam
B.133	II.1
B.134	II.2
B.135	II.3
B.136	II.4
B.137	II.5
B.138	II.6
B.139	II.7
B.140	II.8
B.141	II.9

[0138] Particularly preferred safeners C according to the invention are the safeners C as defined above; in particular the safeners C.1 - C.12, especially C.1 - C.11 listed below in table C:

Table C

	Safener C
C.1	benoxacor
C.2	cloquintocet
C.3	cyprosulfamide

(continued)

	Safener C
C.4	dichlormid
C.5	fenclorim
C.6	fenchlorazole
C.7	furilazole
C.8	isoxadifen
C.9	mefenpyr
C.10	4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3)
C.11	2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4)
C.12	naphtalic acid anhydride

[0139] The weight ratios of the individual components in the preferred mixtures mentioned below are within the limits given above, in particular within the preferred limits.

[0140] Particularly preferred are the compositions mentioned below,
comprising the crystalline form B of benzoxazinone (I)as defined and and the substance(s) as defined in the respective row of table 1;
especially preferred comprising as only herbicidal active compounds the crystalline form B of benzoxazinone (I) as defined and and the substance(s) as defined in the respective row of table 1;
most preferably comprising as only active compounds the crystalline form B of benzoxazinone (I)as defined and the substance(s) as defined in the respective row of table 1.

[0141] Particularly preferred are compositions 1.1 to 1.1833, especially 1.1 to 1.1692, comprising the crystalline form B of benzoxazinone (I) and the substance(s) as defined in the respective row of table 1:

Table 1(compositions 1.1 to 1.1833):

comp. no.	herbicide B	safener C	comp. no.	herbicide B	safener C	comp. no.	herbicide B	safener C
1.1	B.1	--	1.12	B.12	--	1.23	B.23	--
1.2	B.2	--	1.13	B.13	--	1.24	B.24	--
1.3	B.3	--	1.14	B.14	--	1.25	B.25	--
1.4	B.4	--	1.15	B.15	--	1.26	B.26	--
1.5	B.5	--	1.16	B.16	--	1.27	B.27	--
1.6	B.6	--	1.17	B.17	--	1.28	B.28	--
1.7	B.7	--	1.18	B.18	--	1.29	B.29	--
1.8	B.8	--	1.19	B.19	--	1.30	B.30	--
1.9	B.9	--	1.20	B.20	--	1.31	B.31	--
1.10	B.10	--	1.21	B.21	--	1.32	B.32	--
1.11	B.11	--	1.22	B.22	--	1.33	B.33	--

comp. no.	herbicide B	safener C
1.34	B.34	--
1.35	B.35	--
1.36	B.36	--
1.37	B.37	--
1.38	B.38	--
1.39	B.39	--
1.40	B.40	--
1.41	B.41	--
1.42	B.42	--
1.43	B.43	--
1.44	B.44	--
1.45	B.45	--
1.46	B.46	--
1.47	B.47	--
1.48	B.48	--
1.49	B.49	--
1.50	B.50	--
1.51	B.51	--
1.52	B.52	--
1.53	B.53	--
1.54	B.54	--
1.55	B.55	--
1.56	B.56	--
1.57	B.57	--
1.58	B.58.	--
1.59	B.59	--
1.60	B.60	--
1.61	B.61	--
1.62	B.62	--
1.63	B.63	--
1.64	B.64	--
1.65	B.65	--
1.66	B.66	--
1.67	B.67	--
1.68	B.68	--
1.69	B.69	--
1.70	B.70	--
1.71	B.71	--

comp. no.	herbicide B	safener C
1.72	B.72	--
1.73	B.73	--
1.74	B.74	--
1.75	B.75	--
1.76	B.76	--
1.77	B.77	--
1.78	B.78	--
1.79	B.79	--
1.80	B.80	--
1.81	B.81	--
1.82	B.82	--
1.83	B.83	--
1.84	B.84	--
1.85	B.85	--
1.86	B.86	--
1.87	B.87	--
1.88	B.88	--
1.89	B.89	--
1.90	B.90	--
1.91	B.91	--
1.92	B.92	--
1.93	B.93	--
1.94	B.94	--
1.95	B.95	--
1.96	B.96	--
1.97	B.97	--
1.98	B.98	--
1.99	B.99	--
1.100	B.100	--
1.101	B.101	--
1.102	B.102	--
1.103	B.103	--
1.104	B.104	--
1.105	B.105	--
1.106	B.106	--
1.107	B.107	--
1.108	B.108	--
1.109	B.109	--

comp. no.	herbicide B	safener C
1.110	B.110	--
1.111	B.111	--
1.112	B.112	--
1.113	B.113	--
1.114	B.114	--
1.115	B.115	--
1.116	B.116	--
1.117	B.117	--
1.118	B.118	--
1.119	B.119	--
1.120	B.120	--
1.121	B.121	--
1.122	B.122	--
1.123	B.123	--
1.124	B.124	--
1.125	B.125	--
1.126	B.126	--
1.127	B.127	--
1.128	B.128	--
1.129	B.129	--
1.130	B.130	--
1.131	B.131	--
1.132	B.132	--
1.133	B.133	--
1.134	B.134	--
1.135	B.135	--
1.136	B.136	--
1.137	B.137	--
1.138	B.138	--
1.139	B.139	
1.140	B.140	--
1.141	B.141	--
1.142	B.1	C.1
1.143	B.2	C.1
1.144	B.3	C.1
1.145	B.4	C.1
1.146	B.5	C.1
1.147	B.6	C.1

comp. no.	herbicide B	safener C
1.148	B.7	C.1
1.149	B.8	C.1
1.150	B.9	C.1
1.151	B.10	C.1
1.152	B.11	C.1
1.153	B.12	C.1
1.154	B.13	C.1
1.155	B.14	C.1
1.156	B.15	C.1
1.157	B.16	C.1
1.158	B.17	C.1
1.159	B.18	C.1
1.160	B.19	C.1
1.161	B.20	C.1
1.162	B.21	C.1
1.163	B.22	C.1
1.164	B.23	C.1
1.165	B.24	C.1
1.166	B.25	C.1
1.167	B.26	C.1
1.168	B.27	C.1
1.169	B.28	C.1
1.170	B.29	C.1
1.171	B.30	C.1
1.172	B.31	C.1
1.173	B.32	C.1
1.174	B.33	C.1
1.175	B.34	C.1
1.176	B.35	C.1
1.177	B.36	C.1
1.178	B.37	C.1
1.179	B.38	C.1
1.180	B.39	C.1
1.181	B.40	C.1
1.182	B.41	C.1
1.183	B.42	C.1
1.184	B.43	C.1
1.185	B.44	C.1
1.186	B.45	C.1
1.187	B.46	C.1
1.188	B.47	C.1
1.189	B.48	C.1
1.190	B.49	C.1
1.191	B.50	C.1
1.192	B.51	C.1
1.193	B.52	C.1
1.194	B.53	C.1
1.195	B.54	C.1
1.196	B.55	C.1
1.197	B.56	C.1
1.198	B.57	C.1
1.199	B.58.	C.1
1.200	B.59	C.1
1.201	B.60	C.1
1.202	B.61	C.1
1.203	B.62	C.1
1.204	B.63	C.1
1.205	B.64	C.1
1.206	B.65	C.1
1.207	B.66	C.1
1.208	B.67	C.1
1.209	B.68	C.1
1.210	B.69	C.1
1.211	B.70	C.1
1.212	B.71	C.1
1.213	B.72	C.1
1.214	B.73	C.1
1.215	B.74	C.1
1.216	B.75	C.1
1.217	B.76	C.1
1.218	B.77	C.1
1.219	B.78	C.1
1.220	B.79	C.1
1.221	B.80	C.1
1.222	B.81	C.1
1.223	B.82	C.1
1.224	B.83	C.1
1.225	B.84	C.1
1.226	B.85	C.1
1.227	B.86	C.1
1.228	B.87	C.1
1.229	B.88	C.1
1.230	B.89	C.1
1.231	B.90	C.1
1.232	B.91	C.1
1.233	B.92	C.1
1.234	B.93	C.1
1.235	B.94	C.1
1.236	B.95	C.1
1.237	B.96	C.1
1.238	B.97	C.1
1.239	B.98	C.1
1.240	B.99	C.1
1.241	B.100	C.1
1.242	B.101	C.1
1.243	B.102	C.1
1.244	B.103	C.1
1.245	B.104	C.1
1.246	B.105	C.1
1.247	B.106	C.1
1.248	B.107	C.1
1.249	B.108	C.1
1.250	B.109	C.1
1.251	B.110	C.1
1.252	B.111	C.1
1.253	B.112	C.1
1.254	B.113	C.1
1.255	B.114	C.1
1.256	B.115	C.1
1.257	B.116	C.1
1.258	B.117	C.1
1.259	B.118	C.1
1.260	B.119	C.1
1.261	B.120	C.1

comp. no.	herbicide B	safener C
1.262	B.121	C.1
1.263	B.122	C.1
1.264	B.123	C.1
1.265	B.124	C.1
1.266	B.125	C.1
1.267	B.126	C.1
1.268	B.127	C.1
1.269	B.128	C.1
1.270	B.129	C.1
1.271	B.130	C.1
1.272	B.131	C.1
1.273	B.132	C.1
1.274	B.133	C.1
1.275	B.134	C.1
1.276	B.135	C.1
1.277	B.136	C.1
1.278	B.137	C.1
1.279	B.138	C.1
1.280	B.139	C.1
1.281	B.140	C.1
1.282	B.141	C.1
1.283	B.1	C.2
1.284	B.2	C.2
1.285	B.3	C.2
1.286	B.4	C.2
1.287	B.5	C.2
1.288	B.6	C.2
1.289	B.7	C.2
1.290	B.8	C.2
1.291	B.9	C.2
1.292	B.10	C.2
1.293	B.11	C.2
1.294	B.12	C.2
1.295	B.13	C.2
1.296	B.14	C.2
1.297	B.15	C.2
1.298	B.16	C.2
1.299	B.17	C.2
1.300	B.18	C.2
1.301	B.19	C.2
1.302	B.20	C.2
1.303	B.21	C.2
1.304	B.22	C.2
1.305	B.23	C.2
1.306	B.24	C.2
1.307	B.25	C.2
1.308	B.26	C.2
1.309	B.27	C.2
1.310	B.28	C.2
1.311	B.29	C.2
1.312	B.30	C.2
1.313	B.31	C.2
1.314	B.32	C.2
1.315	B.33	C.2
1.316	B.34	C.2
1.317	B.35	C.2
1.318	B.36	C.2
1.319	B.37	C.2
1.320	B.38	C.2
1.321	B.39	C.2
1.322	B.40	C.2
1.323	B.41	C.2
1.324	B.42	C.2
1.325	B.43	C.2
1.326	B.44	C.2
1.327	B.45	C.2
1.328	B.46	C.2
1.329	B.47	C.2
1.330	B.48	C.2
1.331	B.49	C.2
1.332	B.50	C.2
1.333	B.51	C.2
1.334	B.52	C.2
1.335	B.53	C.2
1.336	B.54	C.2
1.337	B.55	C.2
1.338	B.56	C.2
1.339	B.57	C.2
1.340	B.58.	C.2
1.341	B.59	C.2
1.342	B.60	C.2
1.343	B.61	C.2
1.344	B.62	C.2
1.345	B.63	C.2
1.346	B.64	C.2
1.347	B.65	C.2
1.348	B.66	C.2
1.349	B.67	C.2
1.350	B.68	C.2
1.351	B.69	C.2
1.352	B.70	C.2
1.353	B.71	C.2
1.354	B.72	C.2
1.355	B.73	C.2
1.356	B.74	C.2
1.357	B.75	C.2
1.358	B.76	C.2
1.359	B.77	C.2
1.360	B.78	C.2
1.361	B.79	C.2
1.362	B.80	C.2
1.363	B.81	C.2
1.364	B.82	C.2
1.365	B.83	C.2
1.366	B.84	C.2
1.367	B.85	C.2
1.368	B.86	C.2
1.369	B.87	C.2
1.370	B.88	C.2
1.371	B.89	C.2
1.372	B.90	C.2
1.373	B.91	C.2
1.374	B.92	C.2
1.375	B.93	C.2

comp. no.	herbicide B	safener C
1.376	B.94	C.2
1.377	B.95	C.2
1.378	B.96	C.2
1.379	B.97	C.2
1.380	B.98	C.2
1.381	B.99	C.2
1.382	B.100	C.2
1.383	B.101	C.2
1.384	B.102	C.2
1.385	B.103	C.2
1.386	B.104	C.2
1.387	B.105	C.2
1.388	B.106	C.2
1.389	B.107	C.2
1.390	B.108	C.2
1.391	B.109	C.2
1.392	B.110	C.2
1.393	B.111	C.2
1.394	B.112	C.2
1.395	B.113	C.2
1.396	B.114	C.2
1.397	B.115	C.2
1.398	B.116	C.2
1.399	B.117	C.2
1.400	B.118	C.2
1.401	B.119	C.2
1.402	B.120	C.2
1.403	B.121	C.2
1.404	B.122	C.2
1.405	B.123	C.2
1.406	B.124	C.2
1.407	B.125	C.2
1.408	B.126	C.2
1.409	B.127	C.2
1.410	B.128	C.2
1.411	B.129	C.2
1.412	B.130	C.2
1.413	B.131	C.2
1.414	B.132	C.2
1.415	B.133	C.2
1.416	B.134	C.2
1.417	B.135	C.2
1.418	B.136	C.2
1.419	B.137	C.2
1.420	B.138	C.2
1.421	B.139	C.2
1.422	B.140	C.2
1.423	B.141	C.2
1.424	B.1	C.3
1.425	B.2	C.3
1.426	B.3	C.3
1.427	B.4	C.3
1.428	B.5	C.3
1.429	B.6	C.3
1.430	B.7	C.3
1.431	B.8	C.3
1.432	B.9	C.3
1.433	B.10	C.3
1.434	B.11	C.3
1.435	B.12	C.3
1.436	B.13	C.3
1.437	B.14	C.3
1.438	B.15	C.3
1.439	B.16	C.3
1.440	B.17	C.3
1.441	B.18	C.3
1.442	B.19	C.3
1.443	B.20	C.3
1.444	B.21	C.3
1.445	B.22	C.3
1.446	B.23	C.3
1.447	B.24	C.3
1.448	B.25	C.3
1.449	B.26	C.3
1.450	B.27	C.3
1.451	B.28	C.3
1.452	B.29	C.3
1.453	B.30	C.3
1.454	B.31	C.3
1.455	B.32	C.3
1.456	B.33	C.3
1.457	B.34	C.3
1.458	B.35	C.3
1.459	B.36	C.3
1.460	B.37	C.3
1.461	B.38	C.3
1.462	B.39	C.3
1.463	B.40	C.3
1.464	B.41	C.3
1.465	B.42	C.3
1.466	B.43	C.3
1.467	B.44	C.3
1.468	B.45	C.3
1.469	B.46	C.3
1.470	B.47	C.3
1.471	B.48	C.3
1.472	B.49	C.3
1.473	B.50	C.3
1.474	B.51	C.3
1.475	B.52	C.3
1.476	B.53	C.3
1.477	B.54	C.3
1.478	B.55	C.3
1.479	B.56	C.3
1.480	B.57	C.3
1.481	B.58.	C.3
1.482	B.59	C.3
1.483	B.60	C.3
1.484	B.61	C.3
1.485	B.62	C.3
1.486	B.63	C.3
1.487	B.64	C.3
1.488	B.65	C.3
1.489	B.66	C.3

comp. no.	herbicide B	safener C
1.490	B.67	C.3
1.491	B.68	C.3
1.492	B.69	C.3
1.493	B.70	C.3
1.494	B.71	C.3
1.495	B.72	C.3
1.496	B.73	C.3
1.497	B.74	C.3
1.498	B.75	C.3
1.499	B.76	C.3
1.500	B.77	C.3
1.501	B.78	C.3
1.502	B.79	C.3
1.503	B.80	C.3
1.504	B.81	C.3
1.505	B.82	C.3
1.506	B.83	C.3
1.507	B.84	C.3
1.508	B.85	C.3
1.509	B.86	C.3
1.510	B.87	C.3
1.511	B.88	C.3
1.512	B.89	C.3
1.513	B.90	C.3
1.514	B.91	C.3
1.515	B.92	C.3
1.516	B.93	C.3
1.517	B.94	C.3
1.518	B.95	C.3
1.519	B.96	C.3
1.520	B.97	C.3
1.521	B.98	C.3
1.522	B.99	C.3
1.523	B.100	C.3
1.524	B.101	C.3
1.525	B.102	C.3
1.526	B.103	C.3
1.527	B.104	C.3
1.528	B.105	C.3
1.529	B.106	C.3
1.530	B.107	C.3
1.531	B.108	C.3
1.532	B.109	C.3
1.533	B.110	C.3
1.534	B.111	C.3
1.535	B.112	C.3
1.536	B.113	C.3
1.537	B.114	C.3
1.538	B.115	C.3
1.539	B.116	C.3
1.540	B.117	C.3
1.541	B.118	C.3
1.542	B.119	C.3
1.543	B.120	C.3
1.544	B.121	C.3
1.545	B.122	C.3
1.546	B.123	C.3
1.547	B.124	C.3
1.548	B.125	C.3
1.549	B.126	C.3
1.550	B.127	C.3
1.551	B.128	C.3
1.552	B.129	C.3
1.553	B.130	C.3
1.554	B.131	C.3
1.555	B.132	C.3
1.556	B.133	C.3
1.557	B.134	C.3
1.558	B.135	C.3
1.559	B.136	C.3
1.560	B.137	C.3
1.561	B.138	C.3
1.562	B.139	C.3
1.563	B.140	C.3
1.564	B.141	C.3
1.565	B.1	C.4
1.566	B.2	C.4
1.567	B.3	C.4
1.568	B.4	C.4
1.569	B.5	C.4
1.570	B.6	C.4
1.571	B.7	C.4
1.572	B.8	C.4
1.573	B.9	C.4
1.574	B.10	C.4
1.575	B.11	C.4
1.576	B.12	C.4
1.577	B.13	C.4
1.578	B.14	C.4
1.579	B.15	C.4
1.580	B.16	C.4
1.581	B.17	C.4
1.582	B.18	C.4
1.583	B.19	C.4
1.584	B.20	C.4
1.585	B.21	C.4
1.586	B.22	C.4
1.587	B.23	C.4
1.588	B.24	C.4
1.589	B.25	C.4
1.590	B.26	C.4
1.591	B.27	C.4
1.592	B.28	C.4
1.593	B.29	C.4
1.594	B.30	C.4
1.595	B.31	C.4
1.596	B.32	C.4
1.597	B.33	C.4
1.598	B.34	C.4
1.599	B.35	C.4
1.600	B.36	C.4
1.601	B.37	C.4
1.602	B.38	C.4
1.603	B.39	C.4

comp. no.	herbicide B	safener C
1.604	B.40	C.4
1.605	B.41	C.4
1.606	B.42	C.4
1.607	B.43	C.4
1.608	B.44	C.4
1.609	B.45	C.4
1.610	B.46	C.4
1.611	B.47	C.4
1.612	B.48	C.4
1.613	B.49	C.4
1.614	B.50	C.4
1.615	B.51	C.4
1.616	B.52	C.4
1.617	B.53	C.4
1.618	B.54	C.4
1.619	B.55	C.4
1.620	B.56	C.4
1.621	B.57	C.4
1.622	B.58.	C.4
1.623	B.59	C.4
1.624	B.60	C.4
1.625	B.61	C.4
1.626	B.62	C.4
1.627	B.63	C.4
1.628	B.64	C.4
1.629	B.65	C.4
1.630	B.66	C.4
1.631	B.67	C.4
1.632	B.68	C.4
1.633	B.69	C.4
1.634	B.70	C.4
1.635	B.71	C.4
1.636	B.72	C.4
1.637	B.73	C.4
1.638	B.74	C.4
1.639	B.75	C.4
1.640	B.76	C.4
1.641	B.77	C.4
1.642	B.78	C.4
1.643	B.79	C.4
1.644	B.80	C.4
1.645	B.81	C.4
1.646	B.82	C.4
1.647	B.83	C.4
1.648	B.84	C.4
1.649	B.85	C.4
1.650	B.86	C.4
1.651	B.87	C.4
1.652	B.88	C.4
1.653	B.89	C.4
1.654	B.90	C.4
1.655	B.91	C.4
1.656	B.92	C.4
1.657	B.93	C.4
1.658	B.94	C.4
1.659	B.95	C.4
1.660	B.96	C.4
1.661	B.97	C.4
1.662	B.98	C.4
1.663	B.99	C.4
1.664	B.100	C.4
1.665	B.101	C.4
1.666	B.102	C.4
1.667	B.103	C.4
1.668	B.104	C.4
1.669	B.105	C.4
1.670	B.106	C.4
1.671	B.107	C.4
1.672	B.108	C.4
1.673	B.109	C.4
1.674	B.110	C.4
1.675	B.111	C.4
1.676	B.112	C.4
1.677	B.113	C.4
1.678	B.114	C.4
1.679	B.115	C.4
1.680	B.116	C.4
1.681	B.117	C.4
1.682	B.118	C.4
1.683	B.119	C.4
1.684	B.120	C.4
1.685	B.121	C.4
1.686	B.122	C.4
1.687	B.123	C.4
1.688	B.124	C.4
1.689	B.125	C.4
1.690	B.126	C.4
1.691	B.127	C.4
1.692	B.128	C.4
1.693	B.129	C.4
1.694	B.130	C.4
1.695	B.131	C.4
1.696	B.132	C.4
1.697	B.133	C.4
1.698	B.134	C.4
1.699	B.135	C.4
1.700	B.136	C.4
1.701	B.137	C.4
1.702	B.138	C.4
1.703	B.139	C.4
1.704	B.140	C.4
1.705	B.141	C.4
1.706	B.1	C.5
1.707	B.2	C.5
1.708	B.3	C.5
1.709	B.4	C.5
1.710	B.5	C.5
1.711	B.6	C.5
1.712	B.7	C.5
1.713	B.8	C.5
1.714	B.9	C.5
1.715	B.10	C.5
1.716	B.11	C.5
1.717	B.12	C.5

comp. no.	herbicide B	safener C
1.718	B.13	C.5
1.719	B.14	C.5
1.720	B.15	C.5
1.721	B.16	C.5
1.722	B.17	C.5
1.723	B.18	C.5
1.724	B.19	C.5
1.725	B.20	C.5
1.726	B.21	C.5
1.727	B.22	C.5
1.728	B.23	C.5
1.729	B.24	C.5
1.730	B.25	C.5
1.731	B.26	C.5
1.732	B.27	C.5
1.733	B.28	C.5
1.734	B.29	C.5
1.735	B.30	C.5
1.736	B.31	C.5
1.737	B.32	C.5
1.738	B.33	C.5
1.739	B.34	C.5
1.740	B.35	C.5
1.741	B.36	C.5
1.742	B.37	C.5
1.743	B.38	C.5
1.744	B.39	C.5
1.745	B.40	C.5
1.746	B.41	C.5
1.747	B.42	C.5
1.748	B.43	C.5
1.749	B.44	C.5
1.750	B.45	C.5
1.751	B.46	C.5
1.752	B.47	C.5
1.753	B.48	C.5
1.754	B.49	C.5
1.755	B.50	C.5
1.756	B.51	C.5
1.757	B.52	C.5
1.758	B.53	C.5
1.759	B.54	C.5
1.760	B.55	C.5
1.761	B.56	C.5
1.762	B.57	C.5
1.763	B.58.	C.5
1.764	B.59	C.5
1.765	B.60	C.5
1.766	B.61	C.5
1.767	B.62	C.5
1.768	B.63	C.5
1.769	B.64	C.5
1.770	B.65	C.5
1.771	B.66	C.5
1.772	B.67	C.5
1.773	B.68	C.5
1.774	B.69	C.5
1.775	B.70	C.5
1.776	B.71	C.5
1.777	B.72	C.5
1.778	B.73	C.5
1.779	B.74	C.5
1.780	B.75	C.5
1.781	B.76	C.5
1.782	B.77	C.5
1.783	B.78	C.5
1.784	B.79	C.5
1.785	B.80	C.5
1.786	B.81	C.5
1.787	B.82	C.5
1.788	B.83	C.5
1.789	B.84	C.5
1.790	B.85	C.5
1.791	B.86	C.5
1.792	B.87	C.5
1.793	B.88	C.5
1.794	B.89	C.5
1.795	B.90	C.5
1.796	B.91	C.5
1.797	B.92	C.5
1.798	B.93	C.5
1.799	B.94	C.5
1.800	B.95	C.5
1.801	B.96	C.5
1.802	B.97	C.5
1.803	B.98	C.5
1.804	B.99	C.5
1.805	B.100	C.5
1.806	B.101	C.5
1.807	B.102	C.5
1.808	B.103	C.5
1.809	B.104	C.5
1.810	B.105	C.5
1.811	B.106	C.5
1.812	B.107	C.5
1.813	B.108	C.5
1.814	B.109	C.5
1.815	B.110	C.5
1.816	B.111	C.5
1.817	B.112	C.5
1.818	B.113	C.5
1.819	B.114	C.5
1.820	B.115	C.5
1.821	B.116	C.5
1.822	B.117	C.5
1.823	B.118	C.5
1.824	B.119	C.5
1.825	B.120	C.5
1.826	B.121	C.5
1.827	B.122	C.5
1.828	B.123	C.5
1.829	B.124	C.5
1.830	B.125	C.5
1.831	B.126	C.5

comp. no.	herbicide B	safener C
1.832	B.127	C.5
1.833	B.128	C.5
1.834	B.129	C.5
1.835	B.130	C.5
1.836	B.131	C.5
1.837	B.132	C.5
1.838	B.133	C.5
1.839	B.134	C.5
1.840	B.135	C.5
1.841	B.136	C.5
1.842	B.137	C.5
1.843	B.138	C.5
1.844	B.139	C.5
1.845	B.140	C.5
1.846	B.141	C.5
1.847	B.1	C.6
1.848	B.2	C.6
1.849	B.3	C.6
1.850	B.4	C.6
1.851	B.5	C.6
1.852	B.6	C.6
1.853	B.7	C.6
1.854	B.8	C.6
1.855	B.9	C.6
1.856	B.10	C.6
1.857	B.11	C.6
1.858	B.12	C.6
1.859	B.13	C.6
1.860	B.14	C.6
1.861	B.15	C.6
1.862	B.16	C.6
1.863	B.17	C.6
1.864	B.18	C.6
1.865	B.19	C.6
1.866	B.20	C.6
1.867	B.21	C.6
1.868	B.22	C.6
1.869	B.23	C.6
1.870	B.24	C.6
1.871	B.25	C.6
1.872	B.26	C.6
1.873	B.27	C.6
1.874	B.28	C.6
1.875	B.29	C.6
1.876	B.30	C.6
1.877	B.31	C.6
1.878	B.32	C.6
1.879	B.33	C.6
1.880	B.34	C.6
1.881	B.35	C.6
1.882	B.36	C.6
1.883	B.37	C.6
1.884	B.38	C.6
1.885	B.39	C.6
1.886	B.40	C.6
1.887	B.41	C.6
1.888	B.42	C.6
1.889	B.43	C.6
1.890	B.44	C.6
1.891	B.45	C.6
1.892	B.46	C.6
1.893	B.47	C.6
1.894	B.48	C.6
1.895	B.49	C.6
1.896	B.50	C.6
1.897	B.51	C.6
1.898	B.52	C.6
1.899	B.53	C.6
1.900	B.54	C.6
1.901	B.55	C.6
1.902	B.56	C.6
1.903	B.57	C.6
1.904	B.58.	C.6
1.905	B.59	C.6
1.906	B.60	C.6
1.907	B.61	C.6
1.908	B.62	C.6
1.909	B.63	C.6
1.910	B.64	C.6
1.911	B.65	C.6
1.912	B.66	C.6
1.913	B.67	C.6
1.914	B.68	C.6
1.915	B.69	C.6
1.916	B.70	C.6
1.917	B.71	C.6
1.918	B.72	C.6
1.919	B.73	C.6
1.920	B.74	C.6
1.921	B.75	C.6
1.922	B.76	C.6
1.923	B.77	C.6
1.924	B.78	C.6
1.925	B.79	C.6
1.926	B.80	C.6
1.927	B.81	C.6
1.928	B.82	C.6
1.929	B.83	C.6
1.930	B.84	C.6
1.931	B.85	C.6
1.932	B.86	C.6
1.933	B.87	C.6
1.934	B.88	C.6
1.935	B.89	C.6
1.936	B.90	C.6
1.937	B.91	C.6
1.938	B.92	C.6
1.939	B.93	C.6
1.940	B.94	C.6
1.941	B.95	C.6
1.942	B.96	C.6
1.943	B.97	C.6
1.944	B.98	C.6
1.945	B.99	C.6

comp. no.	herbicide B	safener C
1.946	B.100	C.6
1.947	B.101	C.6
1.948	B.102	C.6
1.949	B.103	C.6
1.950	B.104	C.6
1.951	B.105	C.6
1.952	B.106	C.6
1.953	B.107	C.6
1.954	B.108	C.6
1.955	B.109	C.6
1.956	B.110	C.6
1.957	B.111	C.6
1.958	B.112	C.6
1.959	B.113	C.6
1.960	B.114	C.6
1.961	B.115	C.6
1.962	B.116	C.6
1.963	B.117	C.6
1.964	B.118	C.6
1.965	B.119	C.6
1.966	B.120	C.6
1.967	B.121	C.6
1.968	B.122	C.6
1.969	B.123	C.6
1.970	B.124	C.6
1.971	B.125	C.6
1.972	B.126	C.6
1.973	B.127	C.6
1.974	B.128	C.6
1.975	B.129	C.6
1.976	B.130	C.6
1.977	B.131	C.6
1.978	B.132	C.6
1.979	B.133	C.6
1.980	B.134	C.6
1.981	B.135	C.6
1.982	B.136	C.6
1.983	B.137	C.6
1.984	B.138	C.6
1.985	B.139	C.6
1.986	B.140	C.6
1.987	B.141	C.6
1.988	B.1	C.7
1.989	B.2	C.7
1.990	B.3	C.7
1.991	B.4	C.7
1.992	B.5	C.7
1.993	B.6	C.7
1.994	B.7	C.7
1.995	B.8	C.7
1.996	B.9	C.7
1.997	B.10	C.7
1.998	B.11	C.7
1.999	B.12	C.7
1.1000	B.13	C.7
1.1001	B.14	C.7
1.1002	B.15	C.7
1.1003	B.16	C.7
1.1004	B.17	C.7
1.1005	B.18	C.7
1.1006	B.19	C.7
1.1007	B.20	C.7
1.1008	B.21	C.7
1.1009	B.22	C.7
1.1010	B.23	C.7
1.1011	B.24	C.7
1.1012	B.25	C.7
1.1013	B.26	C.7
1.1014	B.27	C.7
1.1015	B.28	C.7
1.1016	B.29	C.7
1.1017	B.30	C.7
1.1018	B.31	C.7
1.1019	B.32	C.7
1.1020	B.33	C.7
1.1021	B.34	C.7
1.1022	B.35	C.7
1.1023	B.36	C.7
1.1024	B.37	C.7
1.1025	B.38	C.7
1.1026	B.39	C.7
1.1027	B.40	C.7
1.1028	B.41	C.7
1.1029	B.42	C.7
1.1030	B.43	C.7
1.1031	B.44	C.7
1.1032	B.45	C.7
1.1033	B.46	C.7
1.1034	B.47	C.7
1.1035	B.48	C.7
1.1036	B.49	C.7
1.1037	B.50	C.7
1.1038	B.51	C.7
1.1039	B.52	C.7
1.1040	B.53	C.7
1.1041	B.54	C.7
1.1042	B.55	C.7
1.1043	B.56	C.7
1.1044	B.57	C.7
1.1045	B.58.	C.7
1.1046	B.59	C.7
1.1047	B.60	C.7
1.1048	B.61	C.7
1.1049	B.62	C.7
1.1050	B.63	C.7
1.1051	B.64	C.7
1.1052	B.65	C.7
1.1053	B.66	C.7
1.1054	B.67	C.7
1.1055	B.68	C.7
1.1056	B.69	C.7
1.1057	B.70	C.7
1.1058	B.71	C.7
1.1059	B.72	C.7

comp. no.	herbicide B	safener C
1.1060	B.73	C.7
1.1061	B.74	C.7
1.1062	B.75	C.7
1.1063	B.76	C.7
1.1064	B.77	C.7
1.1065	B.78	C.7
1.1066	B.79	C.7
1.1067	B.80	C.7
1.1068	B.81	C.7
1.1069	B.82	C.7
1.1070	B.83	C.7
1.1071	B.84	C.7
1.1072	B.85	C.7
1.1073	B.86	C.7
1.1074	B.87	C.7
1.1075	B.88	C.7
1.1076	B.89	C.7
1.1077	B.90	C.7
1.1078	B.91	C.7
1.1079	B.92	C.7
1.1080	B.93	C.7
1.1081	B.94	C.7
1.1082	B.95	C.7
1.1083	B.96	C.7
1.1084	B.97	C.7
1.1085	B.98	C.7
1.1086	B.99	C.7
1.1087	B.100	C.7
1.1088	B.101	C.7
1.1089	B.102	C.7
1.1090	B.103	C.7
1.1091	B.104	C.7
1.1092	B.105	C.7
1.1093	B.106	C.7
1.1094	B.107	C.7
1.1095	B.108	C.7
1.1096	B.109	C.7
1.1097	B.110	C.7
1.1098	B.111	C.7
1.1099	B.112	C.7
1.1100	B.113	C.7
1.1101	B.114	C.7
1.1102	B.115	C.7
1.1103	B.116	C.7
1.1104	B.117	C.7
1.1105	B.118	C.7
1.1106	B.119	C.7
1.1107	B.120	C.7
1.1108	B.121	C.7
1.1109	B.122	C.7
1.1110	B.123	C.7
1.1111	B.124	C.7
1.1112	B.125	C.7
1.1113	B.126	C.7
1.1114	B.127	C.7
1.1115	B.128	C.7
1.1116	B.129	C.7
1.1117	B.130	C.7
1.1118	B.131	C.7
1.1119	B.132	C.7
1.1120	B.133	C.7
1.1121	B.134	C.7
1.1122	B.135	C.7
1.1123	B.136	C.7
1.1124	B.137	C.7
1.1125	B.138	C.7
1.1126	B.139	C.7
1.1127	B.140	C.7
1.1128	B.141	C.7
1.1129	B.1	C.8
1.1130	B.2	C.8
1.1131	B.3	C.8
1.1132	B.4	C.8
1.1133	B.5	C.8
1.1134	B.6	C.8
1.1135	B.7	C.8
1.1136	B.8	C.8
1.1137	B.9	C.8
1.1138	B.10	C.8
1.1139	B.11	C.8
1.1140	B.12	C.8
1.1141	B.13	C.8
1.1142	B.14	C.8
1.1143	B.15	C.8
1.1144	B.16	C.8
1.1145	B.17	C.8
1.1146	B.18	C.8
1.1147	B.19	C.8
1.1148	B.20	C.8
1.1149	B.21	C.8
1.1150	B.22	C.8
1.1151	B.23	C.8
1.1152	B.24	C.8
1.1153	B.25	C.8
1.1154	B.26	C.8
1.1155	B.27	C.8
1.1156	B.28	C.8
1.1157	B.29	C.8
1.1158	B.30	C.8
1.1159	B.31	C.8
1.1160	B.32	C.8
1.1161	B.33	C.8
1.1162	B.34	C.8
1.1163	B.35	C.8
1.1164	B.36	C.8
1.1165	B.37	C.8
1.1166	B.38	C.8
1.1167	B.39	C.8
1.1168	B.40	C.8
1.1169	B.41	C.8
1.1170	B.42	C.8
1.1171	B.43	C.8
1.1172	B.44	C.8
1.1173	B.45	C.8

comp. no.	herbicide B	safener C
1.1174	B.46	C.8
1.1175	B.47	C.8
1.1176	B.48	C.8
1.1177	B.49	C.8
1.1178	B.50	C.8
1.1179	B.51	C.8
1.1180	B.52	C.8
1.1181	B.53	C.8
1.1182	B.54	C.8
1.1183	B.55	C.8
1.1184	B.56	C.8
1.1185	B.57	C.8
1.1186	B.58.	C.8
1.1187	B.59	C.8
1.1188	B.60	C.8
1.1189	B.61	C.8
1.1190	B.62	C.8
1.1191	B.63	C.8
1.1192	B.64	C.8
1.1193	B.65	C.8
1.1194	B.66	C.8
1.1195	B.67	C.8
1.1196	B.68	C.8
1.1197	B.69	C.8
1.1198	B.70	C.8
1.1199	B.71	C.8
1.1200	B.72	C.8
1.1201	B.73	C.8
1.1202	B.74	C.8
1.1203	B.75	C.8
1.1204	B.76	C.8
1.1205	B.77	C.8
1.1206	B.78	C.8
1.1207	B.79	C.8
1.1208	B.80	C.8
1.1209	B.81	C.8
1.1210	B.82	C.8
1.1211	B.83	C.8
1.1212	B.84	C.8
1.1213	B.85	C.8
1.1214	B.86	C.8
1.1215	B.87	C.8
1.1216	B.88	C.8
1.1217	B.89	C.8
1.1218	B.90	C.8
1.1219	B.91	C.8
1.1220	B.92	C.8
1.1221	B.93	C.8
1.1222	B.94	C.8
1.1223	B.95	C.8
1.1224	B.96	C.8
1.1225	B.97	C.8
1.1226	B.98	C.8
1.1227	B.99	C.8
1.1228	B.100	C.8
1.1229	B.101	C.8
1.1230	B.102	C.8
1.1231	B.103	C.8
1.1232	B.104	C.8
1.1233	B.105	C.8
1.1234	B.106	C.8
1.1235	B.107	C.8
1.1236	B.108	C.8
1.1237	B.109	C.8
1.1238	B.110	C.8
1.1239	B.111	C.8
1.1240	B.112	C.8
1.1241	B.113	C.8
1.1242	B.114	C.8
1.1243	B.115	C.8
1.1244	B.116	C.8
1.1245	B.117	C.8
1.1246	B.118	C.8
1.1247	B.119	C.8
1.1248	B.120	C.8
1.1249	B.121	C.8
1.1250	B.122	C.8
1.1251	B.123	C.8
1.1252	B.124	C.8
1.1253	B.125	C.8
1.1254	B.126	C.8
1.1255	B.127	C.8
1.1256	B.128	C.8
1.1257	B.129	C.8
1.1258	B.130	C.8
1.1259	B.131	C.8
1.1260	B.132	C.8
1.1261	B.133	C.8
1.1262	B.134	C.8
1.1263	B.135	C.8
1.1264	B.136	C.8
1.1265	B.137	C.8
1.1266	B.138	C.8
1.1267	B.139	C.8
1.1268	B.140	C.8
1.1269	B.141	C.8
1.1270	B.1	C.9
1.1271	B.2	C.9
1.1272	B.3	C.9
1.1273	B.4	C.9
1.1274	B.5	C.9
1.1275	B.6	C.9
1.1276	B.7	C.9
1.1277	B.8	C.9
1.1278	B.9	C.9
1.1279	B.10	C.9
1.1280	B.11	C.9
1.1281	B.12	C.9
1.1282	B.13	C.9
1.1283	B.14	C.9
1.1284	B.15	C.9
1.1285	B.16	C.9
1.1286	B.17	C.9
1.1287	B.18	C.9

comp. no.	herbicide B	safener C
1.1288	B.19	C.9
1.1289	B.20	C.9
1.1290	B.21	C.9
1.1291	B.22	C.9
1.1292	B.23	C.9
1.1293	B.24	C.9
1.1294	B.25	C.9
1.1295	B.26	C.9
1.1296	B.27	C.9
1.1297	B.28	C.9
1.1298	B.29	C.9
1.1299	B.30	C.9
1.1300	B.31	C.9
1.1301	B.32	C.9
1.1302	B.33	C.9
1.1303	B.34	C.9
1.1304	B.35	C.9
1.1305	B.36	C.9
1.1306	B.37	C.9
1.1307	B.38	C.9
1.1308	B.39	C.9
1.1309	B.40	C.9
1.1310	B.41	C.9
1.1311	B.42	C.9
1.1312	B.43	C.9
1.1313	B.44	C.9
1.1314	B.45	C.9
1.1315	B.46	C.9
1.1316	B.47	C.9
1.1317	B.48	C.9
1.1318	B.49	C.9
1.1319	B.50	C.9
1.1320	B.51	C.9
1.1321	B.52	C.9
1.1322	B.53	C.9
1.1323	B.54	C.9
1.1324	B.55	C.9
1.1325	B.56	C.9
1.1326	B.57	C.9
1.1327	B.58.	C.9
1.1328	B.59	C.9
1.1329	B.60	C.9
1.1330	B.61	C.9
1.1331	B.62	C.9
1.1332	B.63	C.9
1.1333	B.64	C.9
1.1334	B.65	C.9
1.1335	B.66	C.9
1.1336	B.67	C.9
1.1337	B.68	C.9
1.1338	B.69	C.9
1.1339	B.70	C.9
1.1340	B.71	C.9
1.1341	B.72	C.9
1.1342	B.73	C.9
1.1343	B.74	C.9
1.1344	B.75	C.9
1.1345	B.76	C.9
1.1346	B.77	C.9
1.1347	B.78	C.9
1.1348	B.79	C.9
1.1349	B.80	C.9
1.1350	B.81	C.9
1.1351	B.82	C.9
1.1352	B.83	C.9
1.1353	B.84	C.9
1.1354	B.85	C.9
1.1355	B.86	C.9
1.1356	B.87	C.9
1.1357	B.88	C.9
1.1358	B.89	C.9
1.1359	B.90	C.9
1.1360	B.91	C.9
1.1361	B.92	C.9
1.1362	B.93	C.9
1.1363	B.94	C.9
1.1364	B.95	C.9
1.1365	B.96	C.9
1.1366	B.97	C.9
1.1367	B.98	C.9
1.1368	B.99	C.9
1.1369	B.100	C.9
1.1370	B.101	C.9
1.1371	B.102	C.9
1.1372	B.103	C.9
1.1373	B.104	C.9
1.1374	B.105	C.9
1.1375	B.106	C.9
1.1376	B.107	C.9
1.1377	B.108	C.9
1.1378	B.109	C.9
1.1379	B.110	C.9
1.1380	B.111	C.9
1.1381	B.112	C.9
1.1382	B.113	C.9
1.1383	B.114	C.9
1.1384	B.115	C.9
1.1385	B.116	C.9
1.1386	B.117	C.9
1.1387	B.118	C.9
1.1388	B.119	C.9
1.1389	B.120	C.9
1.1390	B.121	C.9
1.1391	B.122	C.9
1.1392	B.123	C.9
1.1393	B.124	C.9
1.1394	B.125	C.9
1.1395	B.126	C.9
1.1396	B.127	C.9
1.1397	B.128	C.9
1.1398	B.129	C.9
1.1399	B.130	C.9
1.1400	B.131	C.9
1.1401	B.132	C.9

comp. no.	herbicide B	safener C
1.1402	B.133	C.9
1.1403	B.134	C.9
1.1404	B.135	C.9
1.1405	B.136	C.9
1.1406	B.137	C.9
1.1407	B.138	C.9
1.1408	B.139	C.9
1.1409	B.140	C.9
1.1410	B.141	C.9
1.1411	B.1	C.10
1.1412	B.2	C.10
1.1413	B.3	C.10
1.1414	B.4	C.10
1.1415	B.5	C.10
1.1416	B.6	C.10
1.1417	B.7	C.10
1.1418	B.8	C.10
1.1419	B.9	C.10
1.1420	B.10	C.10
1.1421	B.11	C.10
1.1422	B.12	C.10
1.1423	B.13	C.10
1.1424	B.14	C.10
1.1425	B.15	C.10
1.1426	B.16	C.10
1.1427	B.17	C.10
1.1428	B.18	C.10
1.1429	B.19	C.10
1.1430	B.20	C.10
1.1431	B.21	C.10
1.1432	B.22	C.10
1.1433	B.23	C.10
1.1434	B.24	C.10
1.1435	B.25	C.10
1.1436	B.26	C.10
1.1437	B.27	C.10
1.1438	B.28	C.10
1.1439	B.29	C.10
1.1440	B.30	C.10
1.1441	B.31	C.10
1.1442	B.32	C.10
1.1443	B.33	C.10
1.1444	B.34	C.10
1.1445	B.35	C.10
1.1446	B.36	C.10
1.1447	B.37	C.10
1.1448	B.38	C.10
1.1449	B.39	C.10
1.1450	B.40	C.10
1.1451	B.41	C.10
1.1452	B.42	C.10
1.1453	B.43	C.10
1.1454	B.44	C.10
1.1455	B.45	C.10
1.1456	B.46	C.10
1.1457	B.47	C.10
1.1458	B.48	C.10
1.1459	B.49	C.10
1.1460	B.50	C.10
1.1461	B.51	C.10
1.1462	B.52	C.10
1.1463	B.53	C.10
1.1464	B.54	C.10
1.1465	B.55	C.10
1.1466	B.56	C.10
1.1467	B.57	C.10
1.1468	B.58.	C.10
1.1469	B.59	C.10
1.1470	B.60	C.10
1.1471	B.61	C.10
1.1472	B.62	C.10
1.1473	B.63	C.10
1.1474	B.64	C.10
1.1475	B.65	C.10
1.1476	B.66	C.10
1.1477	B.67	C.10
1.1478	B.68	C.10
1.1479	B.69	C.10
1.1480	B.70	C.10
1.1481	B.71	C.10
1.1482	B.72	C.10
1.1483	B.73	C.10
1.1484	B.74	C.10
1.1485	B.75	C.10
1.1486	B.76	C.10
1.1487	B.77	C.10
1.1488	B.78	C.10
1.1489	B.79	C.10
1.1490	B.80	C.10
1.1491	B.81	C.10
1.1492	B.82	C.10
1.1493	B.83	C.10
1.1494	B.84	C.10
1.1495	B.85	C.10
1.1496	B.86	C.10
1.1497	B.87	C.10
1.1498	B.88	C.10
1.1499	B.89	C.10
1.1500	B.90	C.10
1.1501	B.91	C.10
1.1502	B.92	C.10
1.1503	B.93	C.10
1.1504	B.94	C.10
1.1505	B.95	C.10
1.1506	B.96	C.10
1.1507	B.97	C.10
1.1508	B.98	C.10
1.1509	B.99	C.10
1.1510	B.100	C.10
1.1511	B.101	C.10
1.1512	B.102	C.10
1.1513	B.103	C.10
1.1514	B.104	C.10
1.1515	B.105	C.10

comp. no.	herbicide B	safener C
1.1516	B.106	C.10
1.1517	B.107	C.10
1.1518	B.108	C.10
1.1519	B.109	C.10
1.1520	B.110	C.10
1.1521	B.111	C.10
1.1522	B.112	C.10
1.1523	B.113	C.10
1.1524	B.114	C.10
1.1525	B.115	C.10
1.1526	B.116	C.10
1.1527	B.117	C.10
1.1528	B.118	C.10
1.1529	B.119	C.10
1.1530	B.120	C.10
1.1531	B.121	C.10
1.1532	B.122	C.10
1.1533	B.123	C.10
1.1534	B.124	C.10
1.1535	B.125	C.10
1.1536	B.126	C.10
1.1537	B.127	C.10
1.1538	B.128	C.10
1.1539	B.129	C.10
1.1540	B.130	C.10
1.1541	B.131	C.10
1.1542	B.132	C.10
1.1543	B.133	C.10
1.1544	B.134	C.10
1.1545	B.135	C.10
1.1546	B.136	C.10
1.1547	B.137	C.10
1.1548	B.138	C.10
1.1549	B.139	C.10
1.1550	B.140	C.10
1.1551	B.141	C.10
1.1552	B.1	C.11
1.1553	B.2	C.11
1.1554	B.3	C.11
1.1555	B.4	C.11
1.1556	B.5	C.11
1.1557	B.6	C.11
1.1558	B.7	C.11
1.1559	B.8	C.11
1.1560	B.9	C.11
1.1561	B.10	C.11
1.1562	B.11	C.11
1.1563	B.12	C.11
1.1564	B.13	C.11
1.1565	B.14	C.11
1.1566	B.15	C.11
1.1567	B.16	C.11
1.1568	B.17	C.11
1.1569	B.18	C.11
1.1570	B.19	C.11
1.1571	B.20	C.11
1.1572	B.21	C.11
1.1573	B.22	C.11
1.1574	B.23	C.11
1.1575	B.24	C.11
1.1576	B.25	C.11
1.1577	B.26	C.11
1.1578	B.27	C.11
1.1579	B.28	C.11
1.1580	B.29	C.11
1.1581	B.30	C.11
1.1582	B.31	C.11
1.1583	B.32	C.11
1.1584	B.33	C.11
1.1585	B.34	C.11
1.1586	B.35	C.11
1.1587	B.36	C.11
1.1588	B.37	C.11
1.1589	B.38	C.11
1.1590	B.39	C.11
1.1591	B.40	C.11
1.1592	B.41	C.11
1.1593	B.42	C.11
1.1594	B.43	C.11
1.1595	B.44	C.11
1.1596	B.45	C.11
1.1597	B.46	C.11
1.1598	B.47	C.11
1.1599	B.48	C.11
1.1600	B.49	C.11
1.1601	B.50	C.11
1.1602	B.51	C.11
1.1603	B.52	C.11
1.1604	B.53	C.11
1.1605	B.54	C.11
1.1606	B.55	C.11
1.1607	B.56	C.11
1.1608	B.57	C.11
1.1609	B.58.	C.11
1.1610	B.59	C.11
1.1611	B.60	C.11
1.1612	B.61	C.11
1.1613	B.62	C.11
1.1614	B.63	C.11
1.1615	B.64	C.11
1.1616	B.65	C.11
1.1617	B.66	C.11
1.1618	B.67	C.11
1.1619	B.68	C.11
1.1620	B.69	C.11
1.1621	B.70	C.11
1.1622	B.71	C.11
1.1623	B.72	C.11
1.1624	B.73	C.11
1.1625	B.74	C.11
1.1626	B.75	C.11
1.1627	B.76	C.11
1.1628	B.77	C.11
1.1629	B.78	C.11

comp. no.	herbicide B	safener C
1.1630	B.79	C.11
1.1631	B.80	C.11
1.1632	B.81	C.11
1.1633	B.82	C.11
1.1634	B.83	C.11
1.1635	B.84	C.11
1.1636	B.85	C.11
1.1637	B.86	C.11
1.1638	B.87	C.11
1.1639	B.88	C.11
1.1640	B.89	C.11
1.1641	B.90	C.11
1.1642	B.91	C.11
1.1643	B.92	C.11
1.1644	B.93	C.11
1.1645	B.94	C.11
1.1646	B.95	C.11
1.1647	B.96	C.11
1.1648	B.97	C.11
1.1649	B.98	C.11
1.1650	B.99	C.11
1.1651	B.100	C.11
1.1652	B.101	C.11
1.1653	B.102	C.11
1.1654	B.103	C.11
1.1655	B.104	C.11
1.1656	B.105	C.11
1.1657	B.106	C.11
1.1658	B.107	C.11
1.1659	B.108	C.11
1.1660	B.109	C.11
1.1661	B.110	C.11
1.1662	B.111	C.11
1.1663	B.112	C.11
1.1664	B.113	C.11
1.1665	B.114	C.11
1.1666	B.115	C.11
1.1667	B.116	C.11
1.1668	B.117	C.11
1.1669	B.118	C.11
1.1670	B.119	C.11
1.1671	B.120	C.11
1.1672	B.121	C.11
1.1673	B.122	C.11
1.1674	B.123	C.11
1.1675	B.124	C.11
1.1676	B.125	C.11
1.1677	B.126	C.11
1.1678	B.127	C.11
1.1679	B.128	C.11
1.1680	B.129	C.11
1.1681	B.130	C.11
1.1682	B.131	C.11
1.1683	B.132	C.11
1.1684	B.133	C.11
1.1685	B.134	C.11
1.1686	B.135	C.11
1.1687	B.136	C.11
1.1688	B.137	C.11
1.1689	B.138	C.11
1.1690	B.139	C.11
1.1691	B.140	C.11
1.1692	B.141	C.11
1.1693	B.1	C.12
1.1694	B.2	C.12
1.1695	B.3	C.12
1.1696	B.4	C.12
1.1697	B.5	C.12
1.1698	B.6	C.12
1.1699	B.7	C.12
1.1700	B.8	C.12
1.1701	B.9	C.12
1.1702	B.10	C.12
1.1703	B.11	C.12
1.1704	B.12	C.12
1.1705	B.13	C.12
1.1706	B.14	C.12
1.1707	B.15	C.12
1.1708	B.16	C.12
1.1709	B.17	C.12
1.1710	B.18	C.12
1.1711	B.19	C.12
1.1712	B.20	C.12
1.1713	B.21	C.12
1.1714	B.22	C.12
1.1715	B.23	C.12
1.1716	B.24	C.12
1.1717	B.25	C.12
1.1718	B.26	C.12
1.1719	B.27	C.12
1.1720	B.28	C.12
1.1721	B.29	C.12
1.1722	B.30	C.12
1.1723	B.31	C.12
1.1724	B.32	C.12
1.1725	B.33	C.12
1.1726	B.34	C.12
1.1727	B.35	C.12
1.1728	B.36	C.12
1.1729	B.37	C.12
1.1730	B.38	C.12
1.1731	B.39	C.12
1.1732	B.40	C.12
1.1733	B.41	C.12
1.1734	B.42	C.12
1.1735	B.43	C.12
1.1736	B.44	C.12
1.1737	B.45	C.12
1.1738	B.46	C.12
1.1739	B.47	C.12
1.1740	B.48	C.12
1.1741	B.49	C.12
1.1742	B.50	C.12
1.1743	B.51	C.12

comp. no.	herbicide B	safener C
1.1744	B.52	C.12
1.1745	B.53	C.12
1.1746	B.54	C.12
1.1747	B.55	C.12
1.1748	B.56	C.12
1.1749	B.57	C.12
1.1750	B.58.	C.12
1.1751	B.59	C.12
1.1752	B.60	C.12
1.1753	B.61	C.12
1.1754	B.62	C.12
1.1755	B.63	C.12
1.1756	B.64	C.12
1.1757	B.65	C.12
1.1758	B.66	C.12
1.1759	B.67	C.12
1.1760	B.68	C.12
1.1761	B.69	C.12
1.1762	B.70	C.12
1.1763	B.71	C.12
1.1764	B.72	C.12
1.1765	B.73	C.12
1.1766	B.74	C.12
1.1767	B.75	C.12
1.1768	B.76	C.12
1.1769	B.77	C.12
1.1770	B.78	C.12
1.1771	B.79	C.12
1.1772	B.80	C.12
1.1773	B.81	C.12
1.1774	B.82	C.12
1.1775	B.83	C.12
1.1776	B.84	C.12
1.1777	B.85	C.12
1.1778	B.86	C.12
1.1779	B.87	C.12
1.1780	B.88	C.12
1.1781	B.89	C.12
1.1782	B.90	C.12
1.1783	B.91	C.12
1.1784	B.92	C.12
1.1785	B.93	C.12
1.1786	B.94	C.12
1.1787	B.95	C.12
1.1788	B.96	C.12
1.1789	B.97	C.12
1.1790	B.98	C.12
1.1791	B.99	C.12
1.1792	B.100	C.12
1.1793	B.101	C.12
1.1794	B.102	C.12
1.1795	B.103	C.12
1.1796	B.104	C.12
1.1797	B.105	C.12
1.1798	B.106	C.12
1.1799	B.107	C.12
1.1800	B.108	C.12
1.1801	B.109	C.12
1.1802	B.110	C.12
1.1803	B.111	C.12
1.1804	B.112	C.12
1.1805	B.113	C.12
1.1806	B.114	C.12
1.1807	B.115	C.12
1.1808	B.116	C.12
1.1809	B.117	C.12
1.1810	B.118	C.12
1.1811	B.119	C.12
1.1812	B.120	C.12
1.1813	B.121	C.12
1.1814	B.122	C.12
1.1815	B.123	C.12
1.1816	B.124	C.12
1.1817	B.125	C.12
1.1818	B.126	C.12
1.1819	B.127	C.12
1.1820	B.128	C.12
1.1821	B.129	C.12
1.1822	B.130	C.12
1.1823	B.131	C.12
1.1824	B.132	C.12
1.1825	B.133	C.12
1.1826	B.134	C.12
1.1827	B.135	C.12
1.1828	B.136	C.12
1.1829	B.137	C.12
1.1830	B.138	C.12
1.1831	B.139	C.12
1.1832	B.140	C.12
1.1833	B.141	C.12

[0142] Also especially preferred are compositions 69.1 to 69.12, preferably compositions 69.1 to 69.11, comprising the crystalline form B of benzoxazinone (I) and as further compound the substance as defined in the respective row of table C:

Table C

comp. no.	safener C		comp. no.	safener C
69.1	C.1		69.7	C.7
69.2	C.2		69.8	C.8
69.3	C.3		69.9	C.9
69.4	C.4		69.10	C.10
69.5	C.5		69.11	C.11
69.6	C.6		69.12	C.12

[0143] The specific number for each single composition is deductible as follows:

Composition 1.777 for example comprises the crystalline form B of benzoxazinone (I), flumioxazin (B.72) and fenclorim (C.5) (see table 1, entry 1.777; as well as table B, entry B.72 and table C, entry C.5).
Composition 7.777 for example comprises imazaquin (B.32) (see the definition for compositions 7.1 to 7.1692 below), and the crystalline form B of benzoxazinone (I), flumioxazin (B.72) and fenclorim (C.5) (see table 1, entry 1.777; as well as table B, entry B.77 and table C, entry C.5).

[0144] Also especially preferred are compositions 2.1 to 2.1833, preferably compositions 2.1 to 2.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.2 as further herbicide B.

[0145] Also especially preferred are compositions 3.1 to 3.1833, preferably compositions 3.1 to 3.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.7 as further herbicide B.

[0146] Also especially preferred are compositions 4.1 to 4.1833, preferably compositions 4.1 to 4.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.29 as further herbicide B.

[0147] Also especially preferred are compositions 5.1 to 5.1833, preferably compositions 5.1 to 5.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.30 as further herbicide B.

[0148] Also especially preferred are compositions 6.1 to 6.1833, preferably compositions 6.1 to 6.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.31 as further herbicide B.

[0149] Also especially preferred are compositions 7.1 to 7.1833, preferably compositions 7.17 to 7.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.32 as further herbicide B.

[0150] Also especially preferred are compositions 8.1 to 8.1833, preferably compositions 8.1 to 8.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.33 as further herbicide B.

[0151] Also especially preferred are compositions 9.1 to 9.1833, preferably compositions 9.1 to 9.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.40 as further herbicide B.

[0152] Also especially preferred are compositions 10.1 to 10.1833, preferably compositions 10.1. to 10.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.44 as further herbicide B.

[0153] Also especially preferred are compositions 11.1 to 11.1833, preferably compositions 11.1 to 11.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.45 as further herbicide B.

[0154] Also especially preferred are compositions 12.1 to 12.1833, preferably compositions 12.1 to 12.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.52 as further herbicide B.

[0155] Also especially preferred are compositions 13.1 to 13.1833, preferably compositions 13.1 to 13.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.53 as further herbicide B.

[0156] Also especially preferred are compositions 14.1 to 14.1833, preferably compositions 14.1 to 14.1692, which

differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.54 as further herbicide B.

[0157] Also especially preferred are compositions 15.1 to 15.1833, preferably compositions 15.1 to 15.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.55 as further herbicide B.

[0158] Also especially preferred are compositions 16.1 to 16.1833, preferably compositions 16.1 to 16.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.56 as further herbicide B.

[0159] Also especially preferred are compositions 17.1 to 17.1833, preferably compositions 17.1 to 17.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.57 as further herbicide B.

[0160] Also especially preferred are compositions 18.1 to 18.1833, preferably compositions 18.1 to 18.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.60 as further herbicide B.

[0161] Also especially preferred are compositions 19.1 to 19.1833, preferably compositions 19.1 to 19.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.65 as further herbicide B.

[0162] Also especially preferred are compositions 20.1 to 20.1833, preferably compositions 20.1 to 20.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.66 as further herbicide B.

[0163] Also especially preferred are compositions 21.1 to 21.1833, preferably compositions 21.1 to 21.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.69 as further herbicide B.

[0164] Also especially preferred are compositions 22.1 to 22.1833, preferably compositions 22.1 to 22.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.72 as further herbicide B.

[0165] Also especially preferred are compositions 23.1 to 23.1833, preferably compositions 23.1 to 23.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.73 as further herbicide B.

[0166] Also especially preferred are compositions 24.1 to 24.1833, preferably compositions 24.1 to 24.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.76 as further herbicide B.

[0167] Also especially preferred are compositions 25.1 to 25.1833, preferably compositions 25.1 to 25.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.77 as further herbicide B.

[0168] Also especially preferred are compositions 26.1 to 26.1833, preferably compositions 26.1 to 26.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.80 as further herbicide B.

[0169] Also especially preferred are compositions 27.1 to 27.1833, preferably compositions 27.1 to 27.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.81 as further herbicide B.

[0170] Also especially preferred are compositions 28.1 to 28.1833, preferably compositions 28.1 to 28.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.84 as further herbicide B.

[0171] Also especially preferred are compositions 29.1 to 29.1833, preferably compositions 29.1 to 29.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.84 and B.54 as further herbicides B.

[0172] Also especially preferred are compositions 30.1 to 30.1833, preferably compositions 30.1 to 30.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.84 and B.60 as further herbicides B.

[0173] Also especially preferred are compositions 31.1 to 31.1833, preferably compositions 31.1 to 31.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.84 and B.66 as further herbicides B.

[0174] Also especially preferred are compositions 32.1 to 32.1833, preferably compositions 32.1 to 32.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 85 as further herbicide B.

[0175] Also especially preferred are compositions 33.1 to 33.1833, preferably compositions 33.1 to 33.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they addi-

tionally comprise B. 85 and B.54 as further herbicides B.

[0176] Also especially preferred are compositions 34.1 to 34.1833, preferably compositions 34.1 to 34.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 85 and B.60 as further herbicides B.

[0177] Also especially preferred are compositions 35.1 to 35.1833, preferably compositions 35.1 to 35.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 85 and B.66 as further herbicides B.

[0178] Also especially preferred are compositions 36.1 to 36.1833, preferably compositions 36.1 to 36.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.87 as further herbicide B.

[0179] Also especially preferred are compositions 37.1 to 37.1833, preferably compositions 37.1 to 37.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 88 as further herbicide B.

[0180] Also especially preferred are compositions 38.1 to 38.1833, preferably compositions 38.1 to 38.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 88 and B.54 as further herbicides B.

[0181] Also especially preferred are compositions 39.1 to 39.1833, preferably compositions 39.1 to 39.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 88 and B.60 as further herbicides B.

[0182] Also especially preferred are compositions 40.1 to 40.1833, preferably compositions 40.1 to 40.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B. 88 and B.66 as further herbicides B.

[0183] Also especially preferred are compositions 41.1 to 41.1833, preferably compositions 41.1 to 41.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.90 as further herbicide B.

[0184] Also especially preferred are compositions 42.1 to 42.1833, preferably compositions 42.1 to 42.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.91 as further herbicide B.

[0185] Also especially preferred are compositions 43.1 to 43.1833, preferably compositions 43.1 to 43.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.91 and B.54 as further herbicides B.

[0186] Also especially preferred are compositions 44.1 to 44.1833, preferably compositions 44.1 to 44.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.91 and B.60 as further herbicides B.

[0187] Also especially preferred are compositions 45.1 to 45.1833, preferably compositions 45.1 to 45.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.91 and B.66 as further herbicides B.

[0188] Also especially preferred are compositions 46.1 to 46.1833, preferably compositions 46.1 to 46.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 as further herbicide B.

[0189] Also especially preferred are compositions 47.1 to 47.1833, preferably compositions 47.1 to 47.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.54 as further herbicides B.

[0190] Also especially preferred are compositions 48.1 to 48.1833, preferably compositions 48.1 to 48.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.76 as further herbicides B.

[0191] Also especially preferred are compositions 49.1 to 49.1833, preferably compositions 49.1 to 49.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.84 as further herbicides B.

[0192] Also especially preferred are compositions 50.1 to 50.1833, preferably compositions 50.1 to 50.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.103 as further herbicides B.

[0193] Also especially preferred are compositions 51.1 to 51.1833, preferably compositions 51.1 to 51.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.85 as further herbicides B.

[0194] Also especially preferred are compositions 52.1 to 52.1833, preferably compositions 52.1 to 52.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.88 as further herbicides B.

[0195] Also especially preferred are compositions 53.1 to 53.1833, preferably compositions 53.1 to 53.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.95 and B.91 as further herbicides B.

[0196] Also especially preferred are compositions 54.1 to 54.1833, preferably compositions 54.1 to 54.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.98 as further herbicide B.

[0197] Also especially preferred are compositions 55.1 to 55.1833, preferably compositions 55.1 to 55.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.101 as further herbicide B.

[0198] Also especially preferred are compositions 56.1 to 56.1833, preferably compositions 56.1 to 56.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.103 as further herbicide B.

[0199] Also especially preferred are compositions 57.1 to 57.1833, preferably compositions 57.1 to 57.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.106 as further herbicide B.

[0200] Also especially preferred are compositions 58.1 to 58.1833, preferably compositions 58.1 to 58.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.107 as further herbicide B.

[0201] Also especially preferred are compositions 59.1 to 59.1833, preferably compositions 59.1 to 59.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.108 as further herbicide B.

[0202] Also especially preferred are compositions 60.1 to 60.1833, preferably compositions 60.1 to 60.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.110 as further herbicide B.

[0203] Also especially preferred are compositions 61.1 to 61.1833, preferably compositions 61.1 to 61.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.112 as further herbicide B.

[0204] Also especially preferred are compositions 62.1 to 62.1833, preferably compositions 62.1 to 62.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 11.1 to 1.1692, only in that they additionally comprise B.113 as further herbicide B.

[0205] Also especially preferred are compositions 63.1 to 63.1833, preferably compositions 63.1 to 63.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.117 as further herbicide B.

[0206] Also especially preferred are compositions 64.1 to 64.1833, preferably compositions 64.1 to 64.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.119 as further herbicide B.

[0207] Also especially preferred are compositions 65.1 to 65.1833, preferably compositions 65.1 to 65.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.120 as further herbicide B.

[0208] Also especially preferred are compositions 66.1 to 66.1833, preferably compositions 66.1 to 66.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.122 as further herbicide B.

[0209] Also especially preferred are compositions 67.1 to 67.1833, preferably compositions 67.1 to 67.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.123 as further herbicide B.

[0210] Also especially preferred are compositions 68.1 to 68.1833, preferably compositions 68.1 to 68.1692, which differ from the corresponding compositions 1.1 to 1.1833, preferably compositions 1.1 to 1.1692, only in that they additionally comprise B.130 as further herbicide B.

[0211] The invention also relates to agrochemical compositions comprising an auxiliary and at least one composition according to the invention.

[0212] The crystalline form B of benzoxazinone (I), and the herbicidal compositions comprising the crystalline form B of benzoxazinone (I), can be used, for example, in the form of ready-to-spray aqueous solutions, powders, suspensions, also highly concentrated aqueous, oily or other suspensions or dispersions, emulsions, oil dispersions, pastes, dusts, materials for broadcasting, or granules, by means of spraying, atomizing, dusting, spreading, watering or treatment of the seed or mixing with the seed. The use forms depend on the intended purpose; in any case, they should ensure the finest possible distribution of the active ingredients according to the invention.

[0213] The agrochemical compositions comprise an herbicidal effective amount of the crystalline form B of benzoxazinone (I)and at least one further active compound selected from herbicides B and safeners C, and auxiliaries which

are customary for the formulation of crop protection agents.

[0214] Examples of auxiliaries customary for the formulation of crop protection agents are inert auxiliaries, solid carriers, surfactants (such as dispersants, protective colloids, emulsifiers, wetting agents and tackifiers), organic and inorganic thickeners, bactericides, antifreeze agents, antifoams, optionally colorants and, for seed formulations, adhesives.

[0215] The person skilled in the art is sufficiently familiar with the recipes for such formulations.

[0216] Examples of thickeners (i.e. compounds which impart to the formulation modified flow properties, i.e. high viscosity in the state of rest and low viscosity in motion) are polysaccharides, such as xanthan gum (Kelzan® from Kelco), Rhodopol® 23 (Rhone Poulenc) or Veegum® (from R.T. Vanderbilt), and also organic and inorganic sheet minerals, such as Attaclay® (from Engelhard).

[0217] Examples of antifoams are silicone emulsions (such as, for example, Silikon® SRE, Wacker or Rhodorsil® from Rhodia), long-chain alcohols, fatty acids, salts of fatty acids, organofluorine compounds and mixtures thereof.

[0218] Bactericides can be added for stabilizing the aqueous herbicidal formulations. Examples of bactericides are bactericides based on diclorophen and benzyl alcohol hemiformal (Proxel® from ICI or Acticide® RS from Thor Chemie and Kathon® MK from Rohm & Haas), and also isothiazolinone derivates, such as alkylisothiazolinones and benzisothiazolinones (Acticide MBS from Thor Chemie).

[0219] Examples of antifreeze agents are ethylene glycol, propylene glycol, urea or glycerol.

[0220] Examples of colorants are both sparingly water-soluble pigments and water-soluble dyes. Examples which may be mentioned are the dyes known under the names Rhodamin B, C.I. Pigment Red 112 and C.I. Solvent Red 1, and also pigment blue 15:4, pigment blue 15:3, pigment blue 15:2, pigment blue 15:1, pigment blue 80, pigment yellow 1, pigment yellow 13, pigment red 112, pigment red 48:2, pigment red 48:1, pigment red 57:1, pigment red 53:1, pigment orange 43, pigment orange 34, pigment orange 5, pigment green 36, pigment green 7, pigment white 6, pigment brown 25, basic violet 10, basic violet 49, acid red 51, acid red 52, acid red 14, acid blue 9, acid yellow 23, basic red 10, basic red 108.

[0221] Examples of adhesives are polyvinylpyrrolidone, polyvinyl acetate, polyvinyl alcohol and tylose.

[0222] Suitable inert auxiliaries are, for example, the following:

mineral oil fractions of medium to high boiling point, such as kerosene and diesel oil,
furthermore coal tar oils and oils of vegetable or animal origin, aliphatic, cyclic and aromatic hydrocarbons, for example paraffin, tetrahydronaphthalene, alkylated naphthalenes and their derivatives, alkylated benzenes and their derivatives, alcohols such as methanol, ethanol, propanol, butanol and cyclohexanol, ketones such as cyclohexanone or strongly polar solvents,
for example amines such as N-methylpyrrolidone, and water.

[0223] Suitable carriers include liquid and solid carriers.

Liquid carriers include e.g. non-aqueous solvents such as cyclic and aromatic hydrocarbons, e.g. paraffins, tetrahydronaphthalene, alkylated naphthalenes and their derivatives, alkylated benzenes and their derivatives, alcohols such as methanol, ethanol, propanol, butanol and cyclohexanol, ketones such as cyclohexanone, strongly polar solvents, e.g. amines such as N-methylpyrrolidone, and water as well as mixtures thereof.

[0224] Solid carriers include e.g. mineral earths such as silicas, silica gels, silicates, talc, kaolin, limestone, lime, chalk, bole, loess, clay, dolomite, diatomaceous earth, calcium sulfate, magnesium sulfate and magnesium oxide, ground synthetic materials, fertilizers such as ammonium sulfate, ammonium phosphate, ammonium nitrate and ureas, and products of vegetable origin, such as cereal meal, tree bark meal, wood meal and nutshell meal, cellulose powders, or other solid carriers.

[0225] Suitable surfactants (adjuvants, wetting agents, tackifiers, dispersants and also emulsifiers) are the alkali metal salts, alkaline earth metal salts and ammonium salts of aromatic sulfonic acids, for example lignosulfonic acids (e.g. Borrespers-types, Borregaard), phenolsulfonic acids, naphthalenesulfonic acids (Morwet types, Akzo Nobel) and dibutylnaphthalenesulfonic acid (Nekal types, BASF SE), and of fatty acids, alkyl- and alkylarylsulfonates, alkyl sulfates, lauryl ether sulfates and fatty alcohol sulfates, and salts of sulfated hexa-, hepta- and octadecanols, and also of fatty alcohol glycol ethers, condensates of sulfonated naphthalene and its derivatives with formaldehyde, condensates of naphthalene or of the naphthalenesulfonic acids with phenol and formaldehyde, polyoxyethylene octylphenol ether, ethoxylated isooctyl-, octyl- or nonylphenol, alkylphenyl or tributylphenyl polyglycol ether, alkylaryl polyether alcohols, isotridecyl alcohol, fatty alcohol/ethylene oxide condensates, ethoxylated castor oil, polyoxyethylene alkyl ethers or polyoxypropylene alkyl ethers, lauryl alcohol polyglycol ether acetate, sorbitol esters, lignosulfite waste liquors and proteins, denaturated proteins, polysaccharides (e.g. methylcellulose), hydrophobically modified starches, polyvinyl alcohol (Mowiol types Clariant), polycarboxylates (BASF SE, Sokalan types), polyalkoxylates, polyvinylamine (BASF SE, Lupamine types), polyethyleneimine (BASF SE, Lupasol types), polyvinylpyrrolidone and copolymers thereof.

[0226] Powders, materials for broadcasting and dusts can be prepared by mixing or concomitant grinding the active ingredients together with a solid carrier.

[0227] Granules, for example coated granules, impregnated granules and homogeneous granules, can be prepared by binding the active ingredients to solid carriers.

[0228] Aqueous use forms can be prepared from emulsion concentrates, suspensions, pastes, wettable powders or water-dispersible granules by adding water.

To prepare emulsions, pastes or oil dispersions, the crystalline form B of benzoxazinone (I), either as such or dissolved in an oil or solvent, can be homogenized in water by means of a wetting agent, tackifier, dispersant or emulsifier. Alternatively, it is also possible to prepare concentrates comprising active compound, wetting agent, tackifier, dispersant or emulsifier and, if desired, solvent or oil, which are suitable for dilution with water.

The crystalline form B of benzoxazinone (I) and the compostions according to the present invention can, for example, be formulated as follows:

1. Products for dilution with water

A Water-soluble concentrates

[0229] 10 parts by weight of active compound are dissolved in 90 parts by weight of water or a water-soluble solvent. As an alternative, wetters or other adjuvants are added. The active compound dissolves upon dilution with water. This gives a formulation with an active compound content of 10% by weight.

B Dispersible concentrates

[0230] 20 parts by weight of active compound are dissolved in 70 parts by weight of cyclohexanone with addition of 10 parts by weight of a dispersant, for example polyvinylpyrrolidone. Dilution with water gives a dispersion. The active compound content is 20% by weight.

C Emulsifiable concentrates

[0231] 15 parts by weight of active compound are dissolved in 75 parts by weight of an organic solvent (e.g. alkylaromatics) with addition of calcium dodecylbenzenesulfonate and castor oil ethoxylate (in each case 5 parts by weight). Dilution with water gives an emulsion. The formulation has an active compound content of 15% by weight.

D Emulsions

[0232] 25 parts by weight of active compound are dissolved in 35 parts by weight of an organic solvent (eg. alkylaromatics) with addition of calcium dodecylbenzenesulfonate and castor oil ethoxylate (in each case 5 parts by weight). This mixture is introduced into 30 parts by weight of water by means of an emulsifier (Ultraturrax) and made into a homogeneous emulsion. Dilution with water gives an emulsion. The formulation has an active compound content of 25% by weight.

E Suspensions

[0233] In an agitated ball mill, 20 parts by weight of active compound are comminuted with addition of 10 parts by weight of dispersants and wetters and 70 parts by weight of water or an organic solvent to give a fine active compound suspension. Dilution with water gives a stable suspension of the active compound. The active compound content in the formulation is 20% by weight.

F Water-dispersible granules and water-soluble granules

[0234] 50 parts by weight of active compound are ground finely with addition of 50 parts by weight of dispersants and wetters and made into water-dispersible or water-soluble granules by means of technical appliances (for example extrusion, spray tower, fluidized bed). Dilution with water gives a stable dispersion or solution of the active compound. The formulation has an active compound content of 50% by weight.

G Water-dispersible powders and water-soluble powders

[0235] 75 parts by weight of active compound are ground in a rotor-stator mill with addition of 25 parts by weight of dispersants, wetters and silica gel. Dilution with water gives a stable dispersion or solution of the active compound. The active compound content of the formulation is 75% by weight.

H Gel formulations

[0236] In a ball mill, 20 parts by weight of active compound, 10 parts by weight of dispersant, 1 part by weight of gelling agent and 70 parts by weight of water or of an organic solvent are mixed to give a fine suspension. Dilution with water gives a stable suspension with active compound content of 20% by weight.

2. Products to be applied undiluted

I Dusts

[0237] 5 parts by weight of active compound are ground finely and mixed intimately with 95 parts by weight of finely divided kaolin. This gives a dusting powder with an active compound content of 5% by weight.

J Granules (GR, FG, GG, MG)

[0238] 0.5 parts by weight of active compound are ground finely and associated with 99.5 parts by weight of carriers. Current methods here are extrusion, spray-drying or the fluidized bed. This gives granules to be applied undiluted with an active compound content of 0.5% by weight.

K ULV solutions (UL)

[0239] 10 parts by weight of active compound are dissolved in 90 parts by weight of an organic solvent, for example xylene. This gives a product to be applied undiluted with an active compound content of 10% by weight.

[0240] Aqueous use forms can be prepared from emulsion concentrates, suspensions, pastes, wettable powders or water-dispersible granules by adding water.

[0241] The concentrations of the active compounds, especially of the crystalline form B of benzoxazinone (I) in the ready-to-use preparations (formulations) can be varied within wide ranges. In general, the formulations comprise approximately from 0.001 to 98% by weight, preferably 0.01 to 95% by weight of at least one active ingredient. The active ingredients are employed in a purity of from 90% to 100%, preferably 95% to 100% (according to NMR spectrum).

[0242] In the formulation of the crystalline form B of benzoxazinone (I) according to the present invention the active ingredients, e.g. the the crystalline form B of benzoxazinone (I), are present in suspended, emulsified or dissolved form. The formulation according to the invention can be in the form of aqueous solutions, powders, suspensions, also highly-concentrated aqueous, oily or other suspensions or dispersions, aqueous emulsions, aqueous microemulsions, aqueous suspo-emulsions, oil dispersions, pastes, dusts, materials for spreading or granules.

[0243] According to one embodiment of the invention, in the ready-to-use preparations of herbicidal compositions, i.e. in the compositions according to the invention in the form of crop protection compositions, the crystalline form B of benzoxazinone (I) and herbicides B and/or safeners C can be present formulated jointly or separately in suspended, emulsified or dissolved form. The use forms depend entirely on the intended applications.

[0244] Accordingly, a first embodiment of the invention relates to compositions in the form of a crop protection composition formulated as a 1-component composition comprising the crystalline form B of benzoxazinone (I) and at least one further active compound selected from the herbicides B and the safeners C and also a solid or liquid carrier and, if appropriate, one or more surfactants.

[0245] Accordingly, a second embodiment of the invention relates to compositions in the form of a crop protection composition formulated as a 2-component composition comprising a first formulation (component) comprising the crystalline form B of benzoxazinone (I), a solid or liquid carrier and, if appropriate, one or more surfactants, and a second component comprising at least one further active compound selected from the herbicides B and safeners C, a solid or liquid carrier and, if appropriate, one or more surfactants.

[0246] The crystalline form B of benzoxazinone (I) and the at least one further herbicide B and/or safener C can be applied jointly or separately, simultaneously or in succession, before, during or after the emergence of the plants. The order of the application of the crystalline form B of benzoxazinone (I), herbicide B and/or safener C is of minor importance. The only thing that is important is that the crystalline form B of benzoxazinone (I) and the at least one further herbicide B and/or safener C are present simultaneously at the site of action, i.e. are at the same time in contact with or taken up by the plant to be controlled.

[0247] The crystalline form B of benzoxazinone (I) and the compositions according to the invention are suitable as herbicides. They are suitable as such or as an appropriately formulated composition (agrochemical composition) comprising as herbicide the crystalline form B of benzoxazinone (I), and herbicides B and/or safeners C.

The compositions according to the invention control vegetation on non-crop areas very efficiently, especially at high rates of application. They act against broad-leaved weeds and grass weeds in crops such as wheat, rice, maize, soya

and cotton without causing any significant damage to the crop plants. This effect is mainly observed at low rates of application.

[0248] The crystalline form B of benzoxazinone (I) and the compositions according to the invention comprising them are applied to the plants mainly by spraying the leaves. Here, the application can be carried out using, for example, water as carrier by customary spraying techniques using spray liquor amounts of from about 100 to 1000 l/ha (for example from 300 to 400 l/ha). The herbicidal compositions may also be applied by the low-volume or the ultra-low-volume method, or in the form of microgranules.

[0249] The crystalline form B of benzoxazinone (I) and the compositions according to the present invention can be applied pre-, post-emergence or pre-plant, or together with the seed of a crop plant.

[0250] It is also possible to apply the compounds and compositions according to the invention by applying seed, pretreated with the herbicidal compositions or active compounds, of a crop plant. If the crystalline form B of benzoxazinone (I), herbicides B, and/or safeners C are less well tolerated by certain crop plants, application techniques may be used in which the herbicidal compositions are sprayed, with the aid of the spraying equipment, in such a way that as far as possible they do not come into contact with the leaves of the sensitive crop plants, while the active ingredients reach the leaves of undesirable plants growing underneath, or the bare soil surface (post-directed, lay-by).

[0251] In a further embodiment, the crystalline form B of benzoxazinone (I) or the herbicidal compositions comprising them can be applied by treating seed. The treatment of seeds comprises essentially all procedures familiar to the person skilled in the art (seed dressing, seed coating, seed dusting, seed soaking, seed film coating, seed multilayer coating, seed encrusting, seed dripping and seed pelleting) based on the crystalline form B of benzoxazinone (I) according to the invention or the compositions prepared therefrom. Here, the herbicidal compositions can be applied diluted or undiluted.

[0252] The term "seed" comprises seed of all types, such as, for example, corns, seeds, fruits, tubers, seedlings and similar forms. Here, preferably, the term seed describes corns and seeds. The seed used can be seed of the useful plants mentioned above, but also the seed of transgenic plants or plants obtained by customary breeding methods.

[0253] The required application rate of pure active compound composition, i.e. crystalline form B of benzoxazinone (I) and herbicide B, and, if appropriate, safener C without formulation auxiliaries depends on the composition of the plant stand, on the development stage of the plants, on the climatic conditions at the site of use and on the application technique.

[0254] The rates of application of the crystalline form B of benzoxazinone (I) according to the present invention are from 0.1 g/ha to 3000 g/ha, preferably 10 g/ha to 1000 g/ha of active substance (a.s.), depending on the control target, the season, the target plants and the growth stage.

[0255] In another embodiment of the invention, the application rates of the crystalline form B of benzoxazinone (I) are in the range from 0.1 g/ha to 5000 g/ha and preferably in the range from 1 g/ha to 2500 g/ha or from 5 g/ha to 2000 g/ha of active substance (a.s.).

[0256] In another embodiment of the invention, the application rate of the crystalline form B of benzoxazinone (I) is 0.1 to 1000 g/ha, preferably 1 to 750 g/ha, more preferably 5 to 500 g/ha, of active substance.

[0257] In another embodiment of the invention the required application rate of the crystalline form B of benzoxazinone (I), is generally in the range of from 0.0005 kg/ha to 2.5 kg/ha and preferably in the range of from 0.005 kg/ha to 2 kg/ha or 0.01 kg/ha to 1.5 kg/h of a.s.

[0258] To treat the seed, the crystalline form B of benzoxazinone (I) is generally employed in amounts of from 0.001 to 10 kg per 100 kg of seed.

[0259] In general, the application rate of the crystalline form B of benzoxazinone (I) and herbicides B and, if appropriate, safeners C, is from 0.001 to 3 kg/ha, preferably from 0.005 to 2.5 kg/ha and in particular from 0.01 to 2 kg/ha of active substance (a.s.).

[0260] The required application rates of herbicides B are generally in the range of from 0.0005 kg/ha to 2.5 kg/ha and preferably in the range of from 0.005 kg/ha to 2 kg/ha or 0.01 kg/ha to 1.5 kg/h of a.s.

[0261] The required application rates of safeners C are generally in the range of from 0.0005 kg/ha to 2.5 kg/ha and preferably in the range of from 0.005 kg/ha to 2 kg/ha or 0.01 kg/ha to 1.5 kg/h of a.s.

[0262] Depending on the application method in question, the compositions according to the invention can additionally be employed in a further number of crop plants for eliminating undesirable plants. Examples of suitable crops are the following:

Allium cepa, Ananas comosus, Arachis hypogaea, Asparagus officinalis, Avena sativa, Beta vulgaris spec. altissima, Beta vulgaris spec. rapa, Brassica napus var. napus, Brassica napus var. napobrassica, Brassica rapa var. silvestris, Brassica oleracea, Brassica nigra, Camellia sinensis, Carthamus tinctorius, Carya illinoinensis, Citrus limon, Citrus sinensis, Coffea arabica (Coffea canephora, Coffea liberica), Cucumis sativus, Cynodon dactylon, Daucus carota, Elaeis guineensis, Fragaria vesca, Glycine max, Gossypium hirsutum, (Gossypium arboreum, Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hevea brasiliensis, Hordeum vulgare, Humulus lupulus, Ipomoea batatas, Juglans regia, Lens culinaris, Linum usitatissimum, Lycopersicon lycopersicum, Malus spec., Manihot

esculenta, Medicago sativa, Musa spec., Nicotiana tabacum (N. rustica), Olea europaea, Oryza sativa, Phaseolus lunatus, Phaseolus vulgaris, Picea abies, Pinus spec., Pistacia vera, Pisum sativum, Prunus avium, Prunus persica, Pyrus communis, Prunus armeniaca, Prunus cerasus, Prunus dulcis and Prunus domestica, Ribes sylvestre, Ricinus communis, Saccharum officinarum, Secale cereale, Sinapis alba, Solanum tuberosum, Sorghum bicolor (s. vulgare), Theobroma cacao, Trifolium pratense, Triticum aestivum, Triticale, Triticum durum, Vicia faba, Vitis vinifera and Zea mays.

[0263] Preferred crops are the following: Arachis hypogaea, Beta vulgaris spec. altissima, Brassica napus var. napus, Brassica oleracea, Citrus limon, Citrus sinensis, Coffea arabica (Coffea canephora, Coffea liberica), Cynodon dactylon, Glycine max, Gossypium hirsutum, (Gossypium arboreum, Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hordeum vulgare, Juglans regia, Lens culinaris, Linum usitatissimum, Lycopersicon lycopersicum, Malus spec., Medicago sativa, Nicotiana tabacum (N.rustica), Olea europaea, Oryza sativa , Phaseolus lunatus, Phaseolus vulgaris, Pistacia vera, Pisum sativum, Prunus dulcis, Saccharum officinarum, Secale cereale, Solanum tuberosum, Sorghum bicolor (s. vulgare), Triticale, Triticum aestivum, Triticum durum, Vicia faba, Vitis vinifera and Zea mays.

[0264] Especially preferred crops of cereals, corn, soybeans, rice, oilseed rape, cotton, potatoes, peanuts or permanent crops, and also in crops which are resistant to one or more herbicides or to attack by insects owing to genetic engineering or breeding.

[0265] The compositions according to the invention can also be used in genetically modified plants. The term "genetically modified plants" is to be understood as plants, which genetic material has been modified by the use of recombinant DNA techniques in a way that under natural circumstances it cannot readily be obtained by cross breeding, mutations or natural recombination. Typically, one or more genes have been integrated into the genetic material of a genetically modified plant in order to improve certain properties of the plant. Such genetic modifications also include but are not limited to targeted post-transitional modification of protein(s), oligo- or polypeptides e. g. by glycosylation or polymer additions such as prenylated, acetylated or farnesylated moieties or PEG moieties. Plants that have been modified by breeding, mutagenesis or genetic engineering, e.g. have been rendered tolerant to applications of specific classes of herbicides, such as hydroxyphenylpyruvate dioxygenase (HPPD) inhibitors; acetolactate synthase (ALS) inhibitors, such as sulfonyl ureas (see e.g. US 6,222,100, WO 01/82685, WO 00/26390, WO 97/41218, WO 98/02526, WO 98/02527, WO 04/106529, WO 05/20673, WO 03/14357, WO 03/13225, WO 03/14356, WO 04/16073) or imidazolinones (see e. g. US 6,222,100, WO 01/82685, WO 00/026390, WO 97/41218, WO 98/002526, WO 98/02527, WO 04/106529, WO 05/20673, WO 03/014357, WO 03/13225, WO 03/14356, WO 04/16073); enolpyruvylshikimate-3-phosphate synthase (EPSPS) inhibitors, such as glyphosate (see e.g. WO 92/00377); glutamine synthetase (GS) inhibitors, such as glufosinate (see e.g. EP-A 242 236, EP-A 242 246) or oxynil herbicides (see e. g. US 5,559,024) as a result of conventional methods of breeding or genetic engineering. Several cultivated plants have been rendered tolerant to herbicides by conventional methods of breeding (mutagenesis), e. g. Clearfield® summer rape (Canola, BASF SE, Germany) being tolerant to imidazolinones, e. g. imazamox. Genetic engineering methods have been used to render cultivated plants such as soybean, cotton, corn, beets and rape, tolerant to herbicides such as glypho-sate and glufosinate, some of which are commercially available under the trade names RoundupReady® (glyphosate-tolerant, Monsanto, U.S.A.) and LibertyLink® (glufosinate-tolerant, Bayer CropScience, Germany).

[0266] Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more insecticidal proteins, especially those known from the bacterial genus Bacillus, particularly from Bacillus thuringiensis, such as ä-endotoxins, e. g. Cry-lA(b), CrylA(c), CrylF, CrylF(a2), CrylIA(b), CrylIIA, CrylIIB(b1) or Cry9c; vegetative insecticidal proteins (VIP), e. g. VIP1, VIP2, VIP3 or VIP3A; insecticidal proteins of bacteria colonizing nematodes, e. g. Photorhabdus spp. or Xenorhabdus spp.; toxins produced by animals, such as scorpion toxins, arachnid toxins, wasp toxins, or other insect-specific neurotoxins; toxins produced by fungi, such Streptomycetes toxins, plant lectins, such as pea or barley lectins; aggluti-nins; proteinase inhibitors, such as trypsin inhibitors, serine protease inhibitors, patatin, cystatin or papain inhibitors; ribosome-inactivating proteins (RIP), such as ricin, maize-RIP, abrin, luffin, saporin or bryodin; steroid metabolism enzymes, such as 3-hydroxy-steroid oxidase, ecdysteroid-IDP-glycosyl-transferase, cholesterol oxidases, ecdysone inhibitors or HMG-CoA-reductase; ion channel blockers, such as blockers of sodium or calcium channels; juvenile hormone esterase; diuretic hormone receptors (helicokinin receptors); stilbene synthase, bibenzyl synthase, chitinases or glucanases. In the context of the present invention these insecticidal proteins or toxins are to be under-stood expressly also as pre-toxins, hybrid proteins, truncated or otherwise modified proteins. Hybrid proteins are characterized by a new combination of protein domains, (see, e. g. WO 02/015701). Further examples of such toxins or genetically modified plants capable of synthesizing such toxins are dis-closed, e. g., in EP-A 374 753, WO 93/007278, WO 95/34656, EP-A 427 529, EP-A 451 878, WO 03/18810 und WO 03/52073. The methods for producing such genetically modified plants are generally known to the person skilled in the art and are described, e. g. in the publications mentioned above. These insecticidal proteins contained in the genetically modified plants impart to the plants producing these proteins tolerance to harmful pests from all taxonomic groups of arthropods, especially to beetles (Coeloptera), two-winged insects (Diptera), and moths (Lepidoptera) and to nematodes (Nematoda). Genetically

modified plants capable to synthesize one or more insecticidal pro-teins are, e. g., described in the publications mentioned above, and some of which are commercially available such as YieldGard® (corn cultivars producing the Cry1Ab toxin), YieldGard® Plus (corn cultivars producing Cry1Ab and Cry3Bb1 toxins), Starlink® (corn cultivars producing the Cry9c toxin), Herculex® RW (corn cultivars producing Cry34Ab1, Cry35Ab1 and the enzyme Phosphinothricin-N-Acetyltransferase [PAT]); NuCOTN® 33B (cotton cultivars producing the Cry1Ac toxin), Bollgard® I (cotton culti-vars producing the Cry1Ac toxin), Bollgard® II (cotton cultivars producing Cry1Ac and Cry2Ab2 toxins); VIPCOT® (cotton cultivars producing a VIP-toxin); NewLeaf® (potato cultivars producing the Cry3A toxin); Bt-Xtra®, NatureGard®, KnockOut®, BiteGard®, Protecta®, Bt11 (e. g. Agrisure® CB) and Bt176 from Syngenta Seeds SAS, France, (corn cultivars producing the Cry1Ab toxin and PAT enzyme), MIR604 from Syngenta Seeds SAS, France (corn cultivars producing a modified version of the Cry3A toxin, c.f. WO 03/018810), MON 863 from Monsanto Europe S.A., Belgium (corn cultivars produ-cing the Cry3Bb1 toxin), IPC 531 from Monsanto Europe S.A., Belgium (cotton cultivars producing a modified version of the Cry1Ac toxin) and 1507 from Pioneer Overseas Corporation, Belgium (corn cultivars producing the Cry1 F toxin and PAT enzyme).

[0267] Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more proteins to in-crease the resistance or tolerance of those plants to bacterial, viral or fungal pathogens. Examples of such proteins are the so-called "pathogenesis-related proteins" (PR proteins, see, e.g. EP-A 392 225), plant disease resistance genes (e. g. potato culti-vars, which express resistance genes acting against Phytophthora infestans derived from the Mexican wild potato Solanum bulbocastanum) or T4-lyso-zym (e.g. potato cultivars capable of synthesizing these proteins with increased resistance against bacteria such as Erwinia amylvora). The methods for producing such genetically modi-fied plants are generally known to the person skilled in the art and are described, e.g. in the publications mentioned above.

[0268] Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more proteins to increase the productivity (e.g. bio mass production, grain yield, starch content, oil content or protein content), tolerance to drought, salinity or other growth-limiting environ-mental factors or tolerance to pests and fungal, bacterial or viral pathogens of those plants.

[0269] Furthermore, plants are also covered that contain by the use of recombinant DNA techniques a modified amount of substances of content or new substances of content, specifically to improve human or animal nutrition, e. g. oil crops that produce health-promoting long-chain omega-3 fatty acids or unsaturated omega-9 fatty acids (e. g. Nexera® rape, DOW Agro Sciences, Canada).

[0270] Furthermore, plants are also covered that contain by the use of recombinant DNA techniques a modified amount of substances of content or new substances of content, specifically to improve raw material production, e.g. potatoes that produce increased amounts of amylopectin (e.g. Amflora® potato, BASF SE, Germany).

[0271] The compositions according to the invention can also be used in crop plants which are resistant to one or more herbicides owing to genetic engineering or breeding, which are resistant to one or more pathogens such as plant pathogenous fungi owing to genetic engineering or breeding, or which are resistant to attack by insects owing to genetic engineering or breeding.

Suitable are for example crop plants, preferably corn, wheat, sunflower, sugarcane, cotton, rice, canola, oilseed rape or soybeans, which crops are resistant to herbicidal PPO inhibitors, or crop plants which, owing to introduction of the gene for Bt toxin by genetic modification, are resistant to attack by certain insects.

[0272] Furthermore, it has been found that the compositions according to the invention are also suitable for the defoliation and/or desiccation of plant parts, for which crop plants such as cotton, potato, oilseed rape, sunflower, soybean or field beans, in particular cotton, are suitable. In this regard, there have been found compositions for the desiccation and/or defoliation of plants, processes for preparing these compositions and methods for desiccating and/or defoliating plants using the crystalline form B of benzoxazinone (I).

As desiccants, the crystalline form B of benzoxazinone (I) are particularly suitable for desiccating the above-ground parts of crop plants such as potato, oilseed rape, sunflower and soybean, but also cereals. This makes possible the fully mechanical harvesting of these important crop plants.

Also of economic interest is to facilitate harvesting, which is made possible by concentrating within a certain period of time the dehiscence, or reduction of adhesion to the tree, in citrus fruit, olives and other species and varieties of pernicious fruit, stone fruit and nuts. The same mechanism, i.e. the promotion of the development of abscission tissue between fruit part or leaf part and shoot part of the plants is also essential for the controlled defoliation of useful plants, in particular cotton.

Moreover, a shortening of the time interval in which the individual cotton plants mature leads to an increased fiber quality after harvesting.

[0273] For the defoliation and/or desiccation of plant parts, it is of no importance whether the crystalline form B of benzoxazinone (I) and herbicides B and, if appropriate, safeners C are formulated and applied jointly or separately, and in which order application is carried out in case of separate application.

Examples

[0274] The following illustrations and examples serve to illustrate the invention and should not be regarded as limiting.

Figure 1 shows an X-ray powder diffraction diagram of form B. The X-ray diffraction diagram of form B was recorded by using Panalytical X'Pert Pro diffractometer (manufacturer: Panalytical) in reflection geometry in the range from 2θ =3°-35° with increments of 0,0167°C using Cu-Kα radiation (at 25°C). The recorded 2θ values were used to calculate the stated interplanar spacings d. The intensity of the peaks (y-axis: linear intensity counts) is plotted versus the 2θ angle (x-axis in degrees 2θ).

Figure 2 shows an X-ray powder diffraction diagram of form A. The X-ray diffraction diagram was recorded under the conditions stated for Figure 1.

Figure 3 shows an X-ray powder diffraction diagram of a mixture of forms A + B + C. The X-ray diffraction diagram was recorded under the conditions stated for Figure 1.

[0275] The single crystal X-ray diffraction data of Form A was collected on a Bruker AXS CCD Detector using graphite Cu-Kα radiation (at -173°C). The structure was solved using direct methods, refined and expanded by using Fourier techniques with SHELX software package (G. M. Shel-drick, SHELX-97, University of Göttingen, 1997). Absorption correction was performed with SA-DABS software.

[0276] DSC was performed on a Mettler Toledo DSC 822e module. Tha samples were placed in crimped but vented aluminium pans. The samples size in each case was 5 to 10 mg. The thermal behaviour was analized in the range 30 - 250 °C. The heating rate was 5°C/min. The samples were purged with a stream of nitrogen flowing at 150 ml/ during the experiment. Melting points values were confirmed by a Mettler Hot Stage in combination with a light microscope.

Preparation of form B of benzoxazinone (I) by crystallization from a slurry in a mixture of water and organic solvent

Example 1:

[0277] Form A of benzoxazinone (I), obtained by example 16 (500 mg) were suspended in 3 ml of a mixture of water and ethanol (1:1 v/v) and the slurry was stirred for 48 h at 90°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form B of benzoxazinone (I).

Example 2:

[0278] A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and 1,3-propanediol (1:1 v/v) and the slurry was stirred for 48 h at 90°C. A slurry of crystalline material was obtained, which was filtered and analysed by PXRD and DSC. The obtained material was pure form B of benzoxazinone (I).

Preparation of form B of benzoxazinone (I) by crystallization from a solution in an organic solvent with evaporation

Example 3:

[0279] 50 mg of benzoxazinone (I) were dissolved in 2-3 ml of toluene in a test vessel. The test vessel placed in a greenhouse and heated to 95°C and a nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline plates, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form B was identified.

Preparation of form B of benzoxazinone (I) by heating form A

Example 4:

[0280] 500 mg of form A of benzoxazinone (I), obtained by example 16 were placed into an open vessel. The vessel was purged with nitrogen and sealed and than heated to 180°C for 2 h. The obtained material was isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form B was identified.

Preparation of form A of benzoxazinone (I) by crystallization from a solution in an organic solvent with evaporation

Examples 5 to 14 (not according to the invention):

[0281] 50 mg of benzoxazinone (I) were dissolved in 2-3 ml of the respective solvent in a test vessel. The test vessel was placed in a greenhouse and a nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline rods, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, form A was identified.

Table 1:

Example	Solvent	Form	Crystal form
5	ethylbenzene	A	small rods
6	dichlorobenzene	A	small rods
7	chlorobenze	A	small rods
8	p-xylene	A	small rods
9	acetone	A	small rods
10	methylethylketone	A	small rods
11	methylbutylketone	A	small rods
12	methanol	A	small rods
13	ethanol	A	small rods
14	ispropanol	A	small rods

Preparation of form A of benzoxazinone (I) by crystallization from a slurry in a mixture of water and organic solvent

Example 15 (not according to the invention):

[0282] A mixture of forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and Ethanol (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 16 (not according to the invention):

[0283] Form B of benzoxazinone (I), obtained by example 16 (500 mg) were suspended in 3 ml of a mixture of water and tetrahydrofurane (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 17 (not according to the invention):

[0284] A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of toluene and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Example 18 (not according to the invention):

[0285] A mixture forms A and B of benzoxazinone (I), obtained by comparative example 1 (500 mg) were suspended in 3 ml of a mixture of water and 1,3-propanediol (1:1 v/v) and the slurry was stirred for 48 h at 23°C. A slurry of crystalline material was obtained, which was filtered and analysed by XRPD and DSC. The obtained material was pure form A of benzoxazinone (I).

Preparation of a mixture of forms A and B of benzoxazinone (I)

Comparative Example 1

[0286] 50 mg of benzoxazinone (I) were dissolved in 2-3 ml of the respective solvent (e.g. 1-butanol, isobutanol) in a test vessel. The test vessel was placed in a greenhouse and heated to 90 °C. A nitrogen flow (5 l/min) was passed over the surface of the solvent. In this manner, benzoxazinone (I) was obtained in the form of small crystalline rods, which were isolated and analyzed by X-ray powder diffraction (XRPD). On the basis of the characteristic reflections, a mixture of forms A and B was identified.

Use examples

[0287] The herbicidal activity of the crystalline form B of benzoxazinone (I) and the compositions according to the invention was demonstrated by the following greenhouse experiments:

The culture containers used were plastic flowerpots containing loamy sand with approximately 3.0% of humus as the substrate. The seeds of the test plants were sown separately for each species.

[0288] For the pre-emergence treatment, the active ingredients, which had been suspended or emulsified in water, were applied directly after sowing by means of finely distributing nozzles. The containers were irrigated gently to promote germination and growth and subsequently covered with transparent plastic hoods until the plants had rooted. This cover caused uniform germination of the test plants, unless this has been impaired by the active ingredients.

[0289] For the post-emergence treatment, the test plants were first grown to a height of 3 to 15 cm, depending on the plant habit, and only then treated with the active ingredients which had been suspended or emulsified in water. For this purpose, the test plants were either sown directly and grown in the same containers, or they were first grown separately as seedlings and transplanted into the test containers a few days prior to treatment.

[0290] Depending on the species, the plants were kept at 10 - 25°C or 20 - 35°C. The test period extended over 2 to 4 weeks. During this time, the plants were tended, and their response to the individual treatments was evaluated.

[0291] Evaluation was carried out using a scale from 0 to 100. 100 means no emergence of the plants, or complete destruction of at least the aerial moieties, and 0 means no damage, or normal course of growth. A good herbicidal activity is given at values of at least 70 and a very good herbicidal activity is given at values of at least 85.

[0292] In the examples, using the method of S. R. Colby (1967) "Calculating synergistic and antagonistic responses of herbicide combinations", Weeds 15, p. 22ff., the value E, which is expected if the activity of the individual active compounds is only additive, was calculated.

$$E = X + Y - (X \cdot Y/100)$$

where
X = percent activity using active compound A at an application rate a;
Y = percent activity using active compound B at an application rate b;
E = expected activity (in %) by A + B at application rates a + b.

[0293] If the value found experimentally is higher than the value E calculated according to Colby, a synergistic effect is present.

[0294] The results of these tests are given in the use examples and demonstrate the synergistic effect of the mixtures comprising the crystalline form B of benzoxazinone (I) and at least one herbicide B. In this context, a.s. means active substance, based on 100 % active ingredient.

Claims

1. Herbicidal compositions comprising

A) the crystalline form B of 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione, which in an X-ray powder diffraction diagram at 25°C and Cu-Kα radiation displays at least 3 of the following reflections, quoted as 2θ values: 9.0 $\pm$ 0.2°, 10.9 $\pm$ 0.2°, 11.5 $\pm$ 0.2°, 12.9 $\pm$ 0.2°, 13.5 $\pm$ 0.2°, 14.9 $\pm$ 0.2°, 16.4 $\pm$ 0.2°, 16.5 $\pm$ 0.2°, 17.5 $\pm$ 0.2° and 20.3 $\pm$ 0.2°.;

and at least one further active compound selected from
B) herbicides of class b1) to b15):

b1) lipid biosynthesis inhibitors;
b2) acetolactate synthase inhibitors (ALS inhibitors);
b3) photosynthesis inhibitors;
b4) protoporphyrinogen-IX oxidase inhibitors,
b5) bleacher herbicides;
b6) enolpyruvyl shikimate 3-phosphate synthase inhibitors (EPSP inhibitors);
b7) glutamine synthetase inhibitors;
b8) 7,8-dihydropteroate synthase inhibitors (DHP inhibitors);
b9) mitose inhibitors;
b10) inhibitors of the synthesis of very long chain fatty acids (VLCFA inhibitors);
b11) cellulose biosynthesis inhibitors;
b12) decoupler herbicides;
b13) auxin herbicides;
b14) auxin transport inhibitors; and
b15) other herbicides selected from the group consisting of bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters;

and

C) safeners;

including the agriculturally acceptable salts or derivatives of herbicides B and safeners C having a carboxyl group.

2. A composition as claimed in claim 1, wherein the 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione has a content of at least 94 wt.% of the crystalline form B.

3. A composition according to claims 1 or 2, wherein at last one herbicide B is selected from the group consisting of:

b1) from the group of the lipid biosynthesis inhibitors:

clethodim, clodinafop-propargyl, cycloxydim, cyhalofop-butyl, diclofop-methyl, fenoxaprop-P-ethyl, fluazifop-P-butyl, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim, tralkoxydim, benfuresate, dimepiperate, EPTC, esprocarb, ethofumesate, molinate, orbencarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors:

amidosulfuron, azimsulfuron, bensulfuron-methyl, bispyribac-sodium, chlorimuron-ethyl, chlorsulfuron, cloransulam-methyl, cyclosulfamuron, diclosulam, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, florasulam, flucarbazone-sodium, flucetosulfuron, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron-methyl, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, metosulam, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, penoxsulam, primisulfuron-methyl, propoxycarbazon-sodium, propyrisulfuron, prosulfuron, pyrazosulfuron-ethyl, pyribenzoxim, pyrimisulfan, pyriftalid, pyriminobac-methyl, pyrithiobac-sodium, pyroxsulam, rimsulfuron, sulfometuron-methyl, sulfosulfuron, thiencarbazone-methyl, thifensulfuron-methyl, triasulfuron, tribenuron-methyl, trifloxysulfuron, triflusulfuron-methyl and tritosulfuron;

b3) from the group of the photosynthesis inhibitors:

ametryn, amicarbazone, atrazine, bentazone, bentazone-sodium, bromoxynil and its salts and esters, chloridazone, chlorotoluron, cyanazine, desmedipham, diquat-dibromide, diuron, fluometuron, hexazinone, ioxynil and its salts and esters, isoproturon, lenacil, linuron, metamitron, methabenzthiazuron, metribuzin, paraquat, paraquat-dichloride, phenmedipham, propanil, pyridate, simazine, terbutryn, terbuthylazine and thidiazuron;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:

acifluorfen-sodium, bencarbazone, benzfendizone, butafenacil, carfentrazone-ethyl, cinidon-ethyl, flufenpyr-ethyl, flumiclorac-pentyl, flumioxazin, fluoroglycofen-ethyl, fomesafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, pyraflufen-ethyl, saflufenacil, sulfentrazone, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 45100-03-7) and 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione;

b5) from the group of the bleacher herbicides:

aclonifen, beflubutamid, benzobicyclon, clomazone, diflufenican, flurochloridone, flurtamone, isoxaflutole, mesotrione, norflurazon, picolinafen, pyrasulfotole, pyrazolynate, sulcotrione, tefuryltrione, tembotrione, topramezone, bicyclopyrone, 4-(3-trifluoromethyl-phenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7), amitrole and flumeturon;

b6) from the group of the EPSP synthase inhibitors:

glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors:

glufosinate, glufosinate-P, glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors: asulam;
b9) from the group of the mitose inhibitors:

benfluralin, dithiopyr, ethalfluralin, oryzalin, pendimethalin, thiazopyr and trifluralin;

b10) from the group of the VLCFA inhibitors:

acetochlor, alachlor, anilofos, butachlor, cafenstrole, dimethenamid, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, naproanilide, napropamide, pretilachlor, fenoxasulfone, ipfencarbazone, pyroxasulfone thenylchlor and isoxazoline-compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: dichlobenil, flupoxam, isoxaben, 1-Cyclohexyl-5-pentafluorphenyloxy-1^4-[1,2,4,6]thiatriazin-3-ylamine and the piperazine compounds of formula III as mentioned above;
b13) from the group of the auxin herbicides:

2,4-D and its salts and esters, aminopyralid and its salts such as aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr-meptyl, MCPA and its salts and esters, MCPB and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, triclopyr and its salts and esters, and aminocyclopyrachlor and its salts and esters;

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyrsodium;

b15) from the group of the other herbicides: bromobutide, cinmethylin, cumyluron, dalapon, difenzoquat, difenzoquat-metilsulfate, DSMA, dymron (= daimuron), flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, indanofan, indaziflam, metam, methylbromide, MSMA, oxaziclomefone, pyributicarb, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters.

4. A composition according to any of claims 1 to 3, wherein the herbicide B is selected from the group consisting of b2, b3, b4, b5, b6, b9 and b10.

5. A composition according to any of claims 1 to 4, wherein the safener C is selected from the group consisting of benoxacor, cloquintocet, cyometrinil, cyprosulfamide, dichlormid, dicyclonon, dietholate, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, mephenate, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

6. A composition as claimed in any of claims 1 to 5, wherein the weight ratio of the crystalline form B to herbicide B is in the range of from 1:500 to 500:1.

7. A composition as claimed in any of claims 1 to 6, wherein the weight ratio of the crystalline form B to safener C is in the range of 1:500 to 500:1.

8. An agrochemical composition comprising a composition as claimed in any of claims 1 to 7 and auxiliaries customary for formulating crop protection agents.

9. A process for the preparation of agrochemical compositions, which comprises mixing a herbicidal active amount of at least one composition as claimed in any of claims 1 to 8 and auxiliaries customary for formulating crop protection agents.

10. A method for controlling unwanted vegetation, wherein an herbicidal effective amount of a composition according to any of claims 1 to 8 is allowed to act on plants, their habitat or seed.

11. The use of the compositions as claimed in any of claims 1 to 8 as herbicides or for the desiccation/defoliation of plants.

12. The use as claimed in claim 11 for controlling unwanted vegetation in crops.

Figure 1

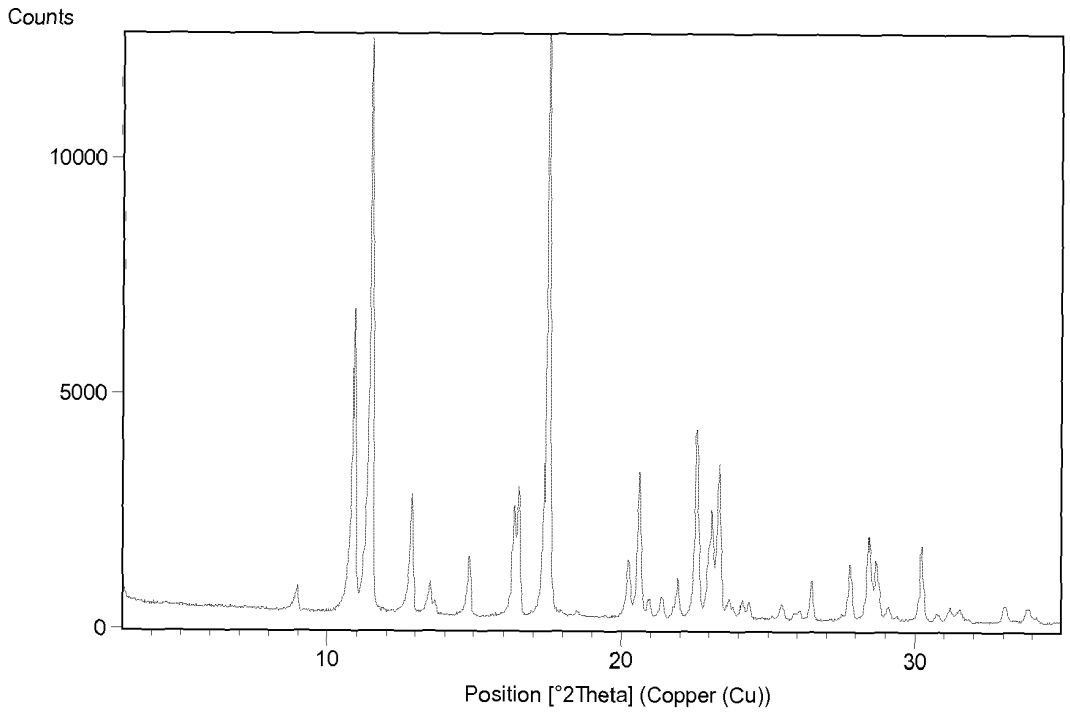


Figure 2

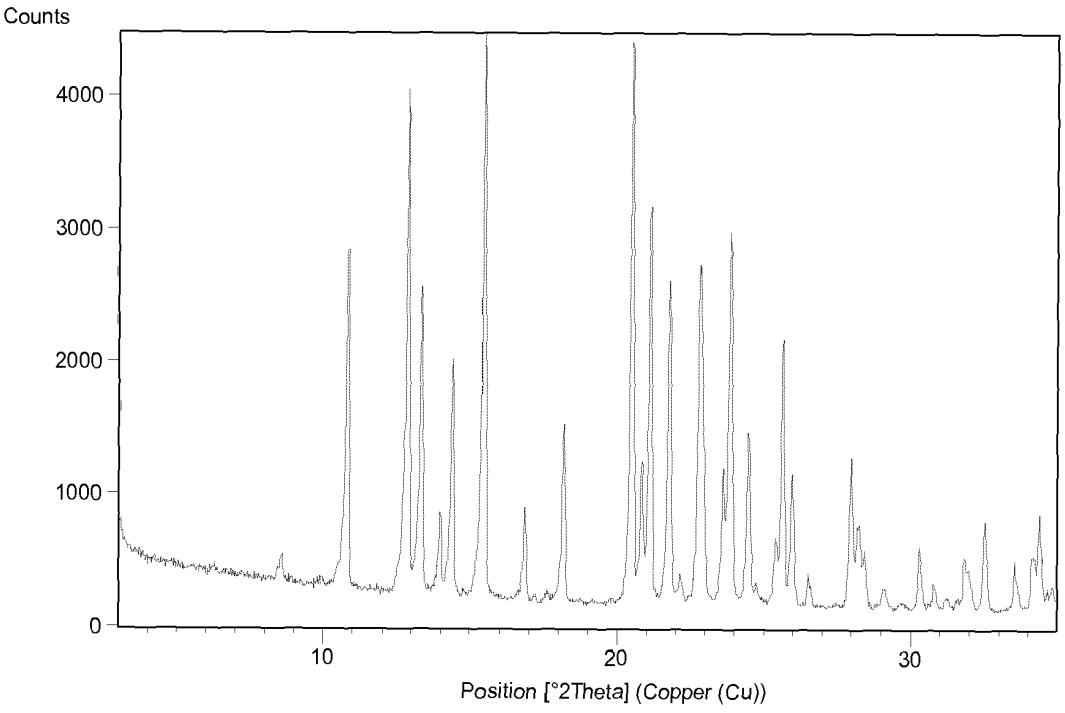
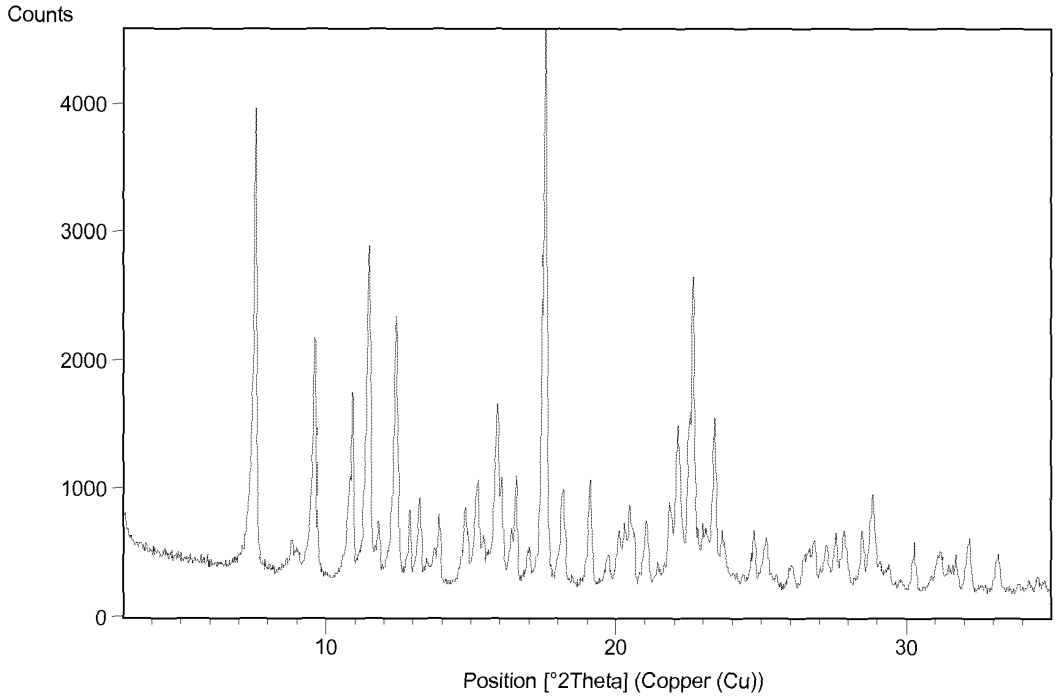


Figure 3


Counts
4000
3000
2000
1000
0
10
20
30
Position [°2Theta] (Copper (Cu))

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EUROPEAN SEARCH REPORT

Application Number
EP 14 19 0204

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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X	WO 2010/145992 A1 (BASF SE [DE]; WITSCHEL MATTHIAS [DE]; NEWTON TREVOR WILLIAM [DE]; SEIT) 23 December 2010 (2010-12-23) * page 3, line 9 - page 4, line 20 * * page 11, line 1 - line 4 * * examples 2.1-2.10 *	1-12	
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Place of search	Date of completion of the search	Examiner
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D : document cited in the application
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& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

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03-03-2015

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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United States Patent [19]

Takematsu et al.

[11] **4,265,654**

[45] **May 5, 1981**

[54] **HERBICIDAL COMPOSITIONS**

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[73] Assignee: **Meiji Seika Kaisha Ltd.,** Tokyo, Japan

[21] Appl. No.: **971,636**

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[30] **Foreign Application Priority Data**

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Dec. 28, 1977 [JP] Japan 52-157422
Dec. 29, 1977 [JP] Japan 52-158932
Mar. 30, 1978 [JP] Japan 53-36059

[51] **Int. Cl.**[3] **A01N 57/12**

[52] **U.S. Cl.** **71/86;** 71/92; 71/94; 71/115; 71/120

[58] **Field of Search** 71/86

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Primary Examiner—Catherine L. Mills
Attorney, Agent, or Firm—Frishauf, Holtz, Goodman & Woodward

[57] **ABSTRACT**

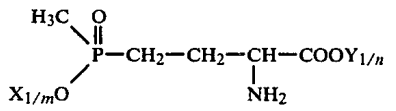
2-Amino-4-methylphosphinobutyric acid or its metal salts, or acid-addition salts thereof are used as perennial weeds and brush controlling agents. The L-isomer is twice effective than the racemic acid. The perennial weeds and brush controlling effect may be obtained by foliar application over a prolonged period.

11 Claims, No Drawings

HERBICIDAL COMPOSITIONS

The invention relates to herbicidal compositions and methods for controlling perennial weeds and brush.

More particularly, it relates to the application of herbicidal compositions for controlling perennial weeds and brush which comprise a compound represented by formula (I):



(I)

wherein, X and Y are same or different and each represents hydrogen atom, mono- or divalent metal atom, ammonium, mono-, di- or tri-lower alkylammonium, mono-, di- or tri-ethanolammonium or mono-, di- or tri-lower alkenylammonium or an acid-addition salt thereof.

It also relates to herbicidal compositions for controlling perennial weeds and brush which comprises an L-isomer of the compound of formula (I) or an acid-addition salt thereof and to the application thereof.

It further relates to herbicidal compositions for controlling perennial weeds and brush which comprise a compound of formula (I) or an acid-addition salt thereof and a herbicide or herbicides selected from the group consisting of choline a salt of maleic hydrazide, a phenoxy series herbicide, a benzoic acid series herbicide, 2,3,6-trichlorophenylacetic acid or a salt thereof, (3,5,6-trichloro-2-pyridyl)oxy-acetic acid or a salt thereof, N-phosphonomethylglycine or a salt thereof, ethylcarbamoylphosphoric acid or a salt thereof, 2-(1-allyloxyaminobutylidene)-5,5-dimethyl-4-methoxycarbonyl-cyclohexane-1,3-dione, 3-(3,4-dichlorophenyl)-1-methoxy-1-methylurea, 3-amino-1,2,4-triazole, choline or a salt thereof, and diethylamine or a salt thereof and to the application thereof.

It still further relates to herbicidal compositions for controlling perennial weeds and brush which comprise an L-isomer of the compound of formula (I) or an acid-addition salt thereof and a herbicide or herbicides recited above and to the application thereof.

In this specification, mono- or di-valent metal atom means, for example, sodium, potassium, lithium, copper, magnesium, calcium, zinc, nickel and manganese atom.

Lower alkylammonium means an alkylammonium having from 1 to 5 carbon atoms such as methylammonium, ethylammonium, propylammonium, isopropylammonium, butylammonium, isobutylammonium and pentylammonium.

Di-lower alkylammonium includes, for example, dimethylammonium, diethylammonium, dipropylammonium, diisopropylammonium, dibutylammonium and dipentylammonium.

Lower alkenylammonium contain in its respective alkenyl groups, for example, 3 or 4 carbon atoms and a double bond.

Acids which form a salt with the compound of formula (I) include inorganic acids such as hydrochloric acid, sulfuric acid, hydrobromic acid, phosphoric acid, perchloric acid and nitric acid, and organic acids such as acetic acid, propionic acid, citric acid, tartaric acid, chloroacetic acid, trichloroacetic acid and trifluoroacetic acid.

Cholines mean choline and salts thereof with an inorganic acid such as hydrochloric acid, phosphoric acid or carbonic acid, or with an organic acid such as acetic acid, oxalic acid or ascorbic acid.

Diethylamines mean diethylamine and salts thereof with an inorganic acid such as hydrochloric acid, phosphoric acid or carbonic acid, or with an organic acid such as acetic acid, oxalic acid or ascorbic acid.

Phenoxy series herbicides include, for example, 2,4-dichlorophenoxyacetic acid or salts or esters such as allyl ester or ethyl ester thereof, 2-methyl-4-chlorophenoxyacetic acid or salts or esters such as allyl ester or ethyl ester thereof, α-(3,4-dichlorophenoxy)propionic acid or salts thereof, 2-(2-methyl-4-chlorophenoxy)propionic acid or salts thereof, γ-(2-methyl-4-chlorophenoxy)butyric acid or salts thereof, 2-(2,4,5-trichlorophenoxy)propionic acid or salts thereof and α-[4-(3,5-dichloropyridyl-2-oxy)phenoxy]propionic acid or salts thereof.

Benzoic acid series herbicides include, for example, 2,3,6-trichlorobenzoic acid or salts thereof, 3,6-dichloro-2-methoxybenzoic acid or salts thereof and 3-amino-2,5-dichlorobenzoic acid or salts thereof.

In recent years, the growth of perennial weeds has been increasing in paddy field, upland, orchard and meadow.

The propagation of perennial weeds by means of their undergound part is so rapid and strong that it may not readily be controlled. In crop land, they propagate with their clonal propagation organ of the underground part finely divided and distributed by cultivation, agitation and movement of soil. As perennial weeds are generally large in size and propagate fluorishingly and own the basis of life under the ground, they predominate over crops in the competition for nutrients, water and light. Heretofore, N-phosphonomethylglycine (hereinafter referred to as glyphosate) is known as the controlling agent for perennial weeds; but it has a disadvantage in that it is not particularly effective for broad-leaved weeds. Therefore, there have been desired controlling agents against a broad spectrum of weeds. It has been also a serious problem to control brush in non-crop land, meadow and forest land. For instance, large perennial weeds such as miyakozasa (*Sasa nipponica* Makino et Shibata) and eulalia (*Miscanthus sinensis* Andress.) and brush such as kumaichigo (*Rubus crataegifolius* Bunge), chestnut (*Castanea crenata* Sieb et Zucc.) and Japanese bush cranberry (*Viburnum dilatatum* Thunb.) predominate over Japanese cedar (*Cryptomeria japonica* D. Don) and Japanese cypress (*Chamaecyparis obtusa* Endl.) in forest land in the competition for nutrients, water and light. Also at meadow, the control of brush around there is a problem.

There are few herbicides effective for brush because of difficulty in controlling it. Namely, unlike herbaceous plants, brush has a hard bark to prevent the penetration of a controlling agent; it is generally larger than herbaceous plants; and it has a developed reproduction mechanism, or branches even after defoliation.

While known herbicides are all synthetic substances, there have been desired readily degradable herbicides in view of environmental pollution. 2-amino-4-methylphosphinobutyric acid, which is one of the compounds represented by formula (I) and hereinafter referred to as AMPB, as an antibiotic substance obtained by the methods disclosed in Japanese Patent Publication Specifications Nos. 48-85538 and 49-31890, as laid open to public inspection and entitled "Novel method of producing

α-amino-γ-methylphosphinobutyric acid". The compound has the above mentioned desirable characteristic that is metabolized and degraded safely in nature's cycle.

AMPB is known to control a wide variety of phytopathogenic microorganisms at a low concentration and may be used as an agricultural fungicide, as disclosed in Japanese Patent Publication Specification No. 49-14644 as laid open to public inspection. After further studies on the biological activities and utilities of the substance, it has been found that it has a superior herbicidal activity when applied to about ten times higher concentration than for controlling phytopathogenic microorganisms. Namely, AMPB is effective for controlling growing perennial weeds and brush by killing the underground part by foliar application and by strong inhibiting reproduction. The inventors have found, after detailed investigation of the characteristics of the action of AMPBs against perennial weeds and brush for a long period, that AMPBs possess contact killing effect, and at the same time, the following superior characteristics. To wit, when AMPBs are applied to foliage of perennial weeds, they move to the underground part such as rhizome, tuber, bulb, corm or root which is the basis of life of perennial weeds and kill the underground part.

As the results, perennial weeds are controlled by foliar application, preventing reproduction by the underground part. This has been an immportant but difficult problem to solved. Similarly, brush is controlled by foliar application of AMPBs which move to every part of the brush, thus killing it and preventing reproduction thereof. The newly found reproduction-preventing effect of AMPBs against perennial weeds and brush makes AMPBs advantageous over glyphosate.

For instance, while glyphosate shows poor controlling effect against broad-leaved perennial weeds, AMPBs show quite broad spectrum effect and control against almost all perennial weeds.

Further, AMPBs show quicker penetration and absorption into plants, better resistance to rainfall and control is effected more rapidly than when using glyphosate. Although known contact herbicides may kill perennial weeds and brush at their juvenile stage, they fail to control them when the underground part develops and reproduction takes place.

Contrary to this, it was confirmed that AMPBs may kill large weeds and brush. Furthermore, there has been no previous knowledge of the selective herbicidal activity of AMPBs. The inventors have found, after testings for various crops and trees, that Japanese cypress which is a useful tree and occupies 25 percent of forest land in Japan is quite resistant to AMPBs and that AMPBs may be used for controlling bottom weeds in Japanese cypress forest land to kill perennial weeds and brush and inhibit their reproduction over a long period of time.

Perennial weeds and brush may be found generally in non-crop land, orchard, forest land and meadow. As mentioned above, AMPBs have a strong activity against almost all of perennial weeds and brush, except Japanese cypress, and therefore, they may be used alone particularly to control and prevent the reproduction of perennial weeds and brush.

Accordingly, AMPBs may be used for the development of forest land and bottom weeds control of perennial weeds and brush in Japanese cypress forest land. They may also be used at meadow, orchard and non-crop land for controlling perennial weeds and brush. Further, they may be effectively used in a paddy field for controlling perennial lowland weeds. Furthermore, they may be used upland for controlling perennial weeds before sowing, as they may be inactivated in soil comparatively rapidly.

As is clear in formula (I), AMPB has an asymmetric carbon atom at 2-position, and therefore, there exist stereo-isomers. After further studies of upperground part-killing activity and reproduction-inhibiting activity of AMPBs, the inventors have found that L-isomer of AMPB (hereinafter referred to as L-AMPB) has twice the activity of AMPB (hereinafter some times referred to as DL-AMPB) and that the essence of the herbicidal activity of DL-AMPB resides in L-AMPB. The mode of action of DL-AMPB has been studied by using microorganisms and it has been clear that DL-AMPB inhibits glutamine synthetase competitively [Helevetica Chemica Acts, 55, Fase 1, pp 224–239 (1972)]. It may be considered that DL-AMPB is taken into the enzyme in place of the substrate as a kind of unusual amino acid and suspends the function of the enzyme, thus exhibiting the herbicidal activity.

As generally recognized, naturally occuring amino acids are all L-form, and enzymes comprising the amino acids have a high specificity. It is therefore presumed that, among DL-AMPB, L-AMPB is taken into the enzyme in place of the substrate and exhibits herbicidal activity. The presumption coincides with the fact that L-AMPB is twice as effective as DL-AMPB, as found by the inventors.

The amount of AMPBs needed for killing and inhibiting reproduction of perennial weeds and brush will vary, depending on climatic conditions such as temperature and light intensity, and species of weeds and woody weeds to be treated.

DL-AMPBs are usually applied in amounts of 50 g./10 are to 1200 g./10 are to perennial weeds of less than 1 meter height, such as wormwood (*Artemisia princeps*), curly dock (*Rumex japonicus* Houtt.) and purple nutsedge (*Cyperus rotundus* L.); 150 g./10 are to 1500 g./10 are to perennial weeds of more than 1 meter height, such as miyakozasa and eulalia, and small brush such as torch azalea (Rhododendron Kaempferi Planch.) and kumaichigo; and 300 g./10 are to 3000 g./10 are to large brush, such as chestnut and oak (*Quercus serrata* Thunb), and to large stump for controlling the emergence of new buds, by which perennial weeds and woody weeds may be killed and the reproduction thereof may be prevented. The treatment may be possible throughout year, but it is generally performed in spring or summer at growing stage, or in autumn.

As a result of our investigation to make the best use of the characteristics of the herbicidal composition according to the invention, we have found that, on application of the composition according to the invention to foliage and stems of perennial weeds and brush in autumn, the emergence of new buds of perennial weeds and brush would be strongly controlled in the next spring (see Tables 12 through 16), and thus succeeded in broadening the range of seasons over which the composition according to the invention appropriately is employed, by using the method mentioned above. While the appropriate seasons for treatment by ordinary herbicidal composition are mainly from spring to summer and a herbicide suitable for treatment in autumn has been limited to DPX-1108 etc., the invention provides a newly discovered composition which is excellent for treatment in autumn.

The following are examples of compounds of formula (I) and acid-addition salts thereof to be employed in the invention: AMPB; its sodium, potassium, lithium, ammonium, magnesium, calcium, nickel, manganese, zinc, copper, methylammonium, ethylammonium, propylammonium, isopropylammonium, n-butyl-ammonium, allylammonium and ethanolammonium salts, and the corresponding di-salts; and its hydrochloric, hydrobromic, nitric, perchloric, sulfuric, acetic, propionic, citric, tartaric, chloroacetic, trichloroacetic and trifluoroacetic acid salts.

Thereof, AMPB and its sodium, disodium, potassium, dipotassium, isopropylammonium, n-butylammonium and diammonium salts are preferred.

From the foregoing description, it is to be understood that L-AMPB and the salts thereof are especially preferred.

Although AMPBs, particularly L-AMPs show a strong reproduction-inhibiting activity by foliar application besides contact killing activity, the effect is not necessarily satisfactory depending on circumstances. In order to utilize the above mentioned superior characteristics of AMPBs, the inventors have further investigated and found that the translocating weeding effect, i.e. reproduction-inhibiting effect of AMPBs, which is one of their characteristics, could be surprisingly enhanced by using them together with a translocating herbicide or slow acting type herbicide, or with a synergist such as choline or diethylamine. For instance, as shown in Table 4, 0.025% of monosodium salt of L-AMPB kills 40% of bitter dock (*Rumex obtusifolius* L.) but fails to inhibit its reproduction.

0.1% of 2,4-dichlorophenoxyacetic acid (hereinafter referred to as 2,4-D) brings about the curvature of foliage of bitter dock but fails to kill it or inhibit its reproduction. Contrary to these, a mixture of 0.025% of monosodium salt of L-AMPB and 0.1% of 2,4-D exhibits a synergistic effect and kills bitter dock thoroughly, thus inhibiting its reproduction completely. Similar effects may be observed in case of noshiba (*Zoysia japonica* Steud.) which is a perennial weed of Family Gramineae. Namely, 0.05% of monosodium salt of L-AMPB kills 50% of noshiba, which is reproduced three months after the treatment to such an extent that is comparable to non-treated area. 0.1% of 2,4-D is almost ineffective for controlling gramineous weeds. Contrary to these, a mixture of 0.05% of monosodium salt of L-AMPB and 0.1% of 2,4-D enhances the activity of the former remarkably and kills the upperground part throughly. No reproduction is observed at all three months after the treatment. Thus, substances having auxinlike activity represented by 2,4-D enhance the contact killing activity and translocating killing activity of L-AMPB, when admixed therewith, against both broad-leaved and narrow-leaved perennial weeds, especially with respect to reproduction-inhibiting activity.

Similar results may be obtained using the choline salt of maleic acid hydrazide (hereinafter referred to as CMH).

Namely, 0.3% of CMH itself shows almost no effect of killing the upperpart and inhibiting the reporduction of bitter dock. Whereas, a mixture of 0.3% of CMH and 0.05% of the monosodium salt of AMPB kills about 90% of the upperground part and yellows the remaining leaves which lose the activity and cease the subsequent growth, thus showing no reproduction. In general, the effect of L-AMPB may be enhanced from two to five times when used in combination with CMH. Similar results may be obtained by using mixtures of AMPBs with a translocating herbicide or with choline or diethylamine as the synergist, enhancing the effect of AMPBs surprisingly.

Another characteristic of mixtures of AMPBs with the above mentioned herbicides or synergists is to broaden the species of weeds whose reproduction is inhibited. In order for AMPBs to show the characteristics of inhibiting the reproduction at their maximum, it is essential that they translocate to the underground part, after the foliar treatment and before the death of the upperground part.

However, in case of weeds showing a rapid killing effect such as hedge bindweed (*Calystegis hederacea* Wall.), the foliage gets killed before the translocation of AMPBs, thus making it difficult to inhibit the reproduction at the underground part. When AMPBs are used together with the translocated herbicide or slow acting herbicide mentioned above, they enhance the effect of the herbicides, and as the result, exhibit a superior reproduction-inhibiting effect against far broader species of weeds than use of AMPBs alone.

Among mixtures of the invention, the mixture of AMPBs with CMH is most excellent in view of its broad weeding spectrum and the thoroughness of its effect.

CMH is known to control perennial weeds by autumn treatment, as disclosed in Japanese Patent Publication Specification No. 49-55835, as laid open to public inspection.

However, a practical defect of CMH is that the timely treatment therewith is restricted to autumn and that cutting of upperground part is required after treatment when it is used in spring or summer. If CMH is used in combination with AMPBs, the latter kill the upperground part gradually, during which period both active ingredients are translocated to underground part and kill it by a synergistic action. Thus, the reproduction-inhibiting activity of CMH may be exhibited at its maximum and the timeliness of treatment therewith may be extended throughout the year. The practical utility of CMH has thus been improved.

Still another characteristic of mixtures of AMPBs with herbicides mentioned above is that they are quite effective for controlling bottom weeds of Japanese cypress forest land, particularly perennial weeds and brush.

In particular, both CMH and AMPBs show no phytotoxicity to Japanese cypress, and therefore, the combination is quite useful for the practical control of bottom weeds of Japanese cypress afforested land.

As described above, the joint use of AMPBs with the herbicides mentioned above brings about practical preferable characteristics, based upon which the following usages may be considered. Namely, mixtures of AMPBs, with the herbicides may be used for controlling a wide variety of annual weeds, perennial weeds and brush, particularly perennial lowland weeds in paddy fields after harvesting; perennial weeds in upland before sowing; perennial weeds and brush in forest land to enable planting; perennial weeds and brush in meadow; perennial weeds and brush in non-crop land such as factory, railroad, park, public facilities, riverbed, bank, highway, golf links and resting crop land; and water weeds and algae by means of foliar application in water.

Like CMH, ammonium ethylcarbamoylphosphate (hereinafter referred to as DPX-1108), cholines and

diethylamines exhibit no phytotoxicity to Japanese cypress, and therefore, may be used in combination with AMPBs to control bottom weeds of Japanese cypress forest land. The mixture of AMPBs and CMH is also very useful for controlling perennial weeds in upland before sowing which are difficult to be controlled.

When AMPBs or L-AMPBs are mixed with other herbicide recited above, the ratio will vary from 1:0.1–20 by weight; but it will vary depending on the herbicide to be mixed therewith, as indicated in the following Table 1. Upon application, the composition may be diluted with water to a concentration indicated in the Table and treated at a rate of from 25 to 250 liter per 10 are, preferably from 50 to 150 liter per are.

TABLE 1

Composition	Mixing ratio (wt.)	Application concentration (%)
AMPBs	1	0.01–1.0
AMPBs:CMH	1:1.0–10.0	0.01–1.0:0.2–1.0
AMPBs:NP-48	1:0.5–5.0	0.01–1.0:0.05–0.5
AMPBs:SL-501	1:0.5–5.0	0.01–1.0:0.05–0.5
AMPBs:2,4-D	1:0.2–4.0	0.01–1.0:0.05–0.4
AMPBs:Dowco-233	1:0.1–3.0	0.01–1.0:0.02–0.2
AMPBs:linuron	1:0.4–4.0	0.01–1.0:0.05–0.5
AMPBs:DPX-1108	1:0.5–5.0	0.01–1.0:0.1–0.6
AMPBs:glyphosate	1:0.3–3.0	0.01–1.0:0.03–0.5
AMPBs:cholines	1:1.0–2.4*	0.01–1.0:0.01–0.8
AMPBs:diethylamines	1:1.0–2.4*	0.01–1.0:0.01–0.5
L-AMPBs:CMH	1:1.0–20.0	0.005–0.5:0.005–10.0
L-AMPBs:2,4-D	1:0.3–8.0	0.005–0.5:0.0015–4.0
L-AMPBs:MCP	1:0.3–8.0	0.005–0.5:0.0015–4.0
L-AMPBs:3,4-DP	1:0.5–8.0	0.005–0.5:0.0025–4.0
L-AMPBs:MCPP	1:0.3–8.0	0.005–0.5:0.0015–4.0
L-AMPBs:MCPB	1:0.3–8.0	0.005–0.5:0.0015–4.0
L-AMPBs:2,4,5-T	1:0.3–8.0	0.005–0.5:0.0015–4.0
L-AMPBs:SL-501	1:0.5–10.0	0.005–0.5:0.0025–5.0
L-AMPBs:2,3,6-TBA	1:0.3–8.0	0.005–0.5:0.0015–4.0
L-AMPBs:Banvel-D	1:0.3–8.0	0.005–0.5:0.0015–4.0
L-AMPBs:amiben	1:0.3–8.0	0.005–0.5:0.0015–4.0
L-AMPBs:TPA	1:0.3–8.0	0.005–0.5:0.0015–4.0
L-AMPBs:Dowco-233	1:0.2–6.0	0.005–0.5:0.001–3.0
L-AMPBs:glyphosate	1:0.3–5.0	0.005–0.5:0.0015–2.5
L-AMPBs:DPX-1108	1:0.5–20.0	0.005–0.5:0.025–10.0
L-AMPBs:NP-48	1:0.5–15.0	0.005–0.5:0.0025–7.5
L-AMPBs:linuron	1:0.5–15.0	0.005–0.5:0.0025–7.5
L-AMPBS:ATA	1:0.3–10.0	0.005–0.5:0.0015–5.0
L-AMPBs:cholines	1:0.5–5	0.005–0.5:0.0025–2.5
L-AMPBs:diethylamines	1:0.3–3	0.005–0.5:0.0015–1.5

*molar ratio
NP-48: 2-(1-allyloxyamino butylidene)-5,5-dimethyl-4-methoxycarbonylcyclohexane-1,3-dione
SL-501: α-[4-(3,5-dichloropyridyl-2-hydroxy)phenoxy]-propionic acid
Dowco-233: 3,5,6-trichloro-2-pyridyloxyacetic acid
linuron: 3-(3,4-dichlorophenyl)-1-methoxy-1-methylurea
MCP: 2-methyl-4-chlorophenoxyacetic acid
3,4-DP: α-(3,4-dichlorophenoxy)propionic acid
MCPP: 2-(2-methyl-4-chlorophenoxy)propionic acid
MCPB: γ-(2-methyl-4-chlorophenoxy)butyric acid
2,4,5-T: 2-(2,4,5-trichlorophenoxy)propionic acid
2,3,6-TBA: 2,3,6-trichlorobenzoic acid
Banvel-D: 3,6-dichloro-2-methoxybenzoic acid
amiben: 3-amino-2,5-dichlorobenzoic acid
TPA: 2,3,6-trichlorophenylacetic acid
ATA: 3-amino-1,2,4-triazole

AMPBs or L-AMPBs, or mixtures thereof with above mentioned herbicides or synergists may be formulated into water-soluble powder, liquid formulation, wettable powder, emulsion, dust or granules, with appropriate diluents. The formulations may contain surfactants such as polyoxyethylene octylphenyl ether, polyoxyethylene dodecyl ether, polyoxyethylene fatty acid ester and polyoxyethylene alkylaryl ether to improve spreading, adhesion and dispersion and to enable certain and enhanced effects.

The following are examples of formulation, to which the scope of the invention may not be restricted:

FORMULATION 1

Liquid formulation

30.0% by weight of monosodium salt of AMPB, 15.0% of polyoxyethylene octylphenyl ether, 0.15% of mehtyl p-hydroxybenzoate and 54.85% of water are mixed and dissolved to make the formulation. Upon application, it is diluted with water and subjected to foliar treatment.

FORMULATION 2

Wettable Powder

50.0% of monosodum salt of L-AMPB, 45.0% of diatomaceous earth and 5.0% of nonionic/anionic surfactant are finely pulverized and mixed homogeneously to make the formulation.

Upon application, it is diluted with water and subjected to foliar treatment.

FORMULATION 3

Dust

5.0% of monoisopropylamine salt of AMPB, 10.0% of CMH and 85.0% of talc are pulverized and blended homogeneously to make the formulation. Upon application, it is subjected to foliar treatment, as such, in amount of 0.4–6 kg. per 10 are.

FORMULATION 4

Liquid Formulation

10.0% of monosodium salt of L-AMPB, 20.0% of CMH, 15.0% of polyoxyethylene octylphenyl ether, 0.15% of methyl p-hydroxybenzoate and 54.85% of water are thoroughly mixed and dissolved to make the formualation. Upon application, it is diluted with water and subjected to foliar treatment.

The following are examples of the invention.

EXAMPLE 1

Salts of DL-AMPB or L-AMPB, or mixtures thereof with CMH were diluted to concentrations indicated in Table 2 and sprayed by foliar application to bitter dock transplanted to pots of diameter of 20 cm. in amount of 100 liter per 10 are.

Killing index of upperground part after 21 days (0: no effect, 5: death), as well as killing index and reproduction-inhibiting effect at underground part after 4 months (−: no reproduction, +++: maximum reproduction) were determined.

The detail of this assessment made in this Example was as follows:

Killing index	Foiliage Damage (%)
0	0
1	20%
2	40%
3	60%
4	80%
5	100%

Four months after treatment, evaluation was made for inhibition of reproduction expressed in terms of symbols ranging from (−) to (+++) where (−) means no reproduction, namely complete suppression of reproduction, (±) remarkable suppression of reproduction; (+) considerable suppression of reproduction;

(++) medium suppression of reproduction; and (+++) no suppression of reproduction.

As the surfactant, 0.1% of polyoxyethylene octylphenyl ether was added to each spraying solution. The results are shown in Table 2.

TABLE 2

	After 21 days		After 4 months			
	AMPB concentration (wt. %)					
	0.025	0.05		0.025		0.05
DL-AMPB Na salt	0	2	0	+++	0	+++
DL-AMPB di-Na salt	0	2	0	+++	0	+++
DL-AMPB K salt	0	2	0	+++	0	+++
DL-AMPB di-K salt	0	2	0	+++	0	+++
DL-AMPB i-$PrNH_2$ salt	1	2.5	0	+++	0	+++
DL-AMPB n-$BuNH_2$ salt	1	2.5	0	+++	0	+++
L-AMPB Na salt	2	3	0	+++	2	++
L-AMPB di-Na salt	2	3	0	+++	2	+
L-AMPB L salt	2	3	0	+++	2	++
L-AMPB di-K salt	2	3	0	+++	2	++
L-AMPB i-$PrNH_2$ salt	2.5	3.5	0	+++	2.5	+
L-AMPB n-$BuNH_2$ salt	2.5	3.5	0	+++	2.5	++
CMH (0.3%)		1		0		+++
DL-AMPB Na + CMH (0.3%)	2	3.5	1	+++	4	±
DL-AMPB di-Na + CMH (0.3%)	2	3.5	1	+++	4	±
DL-AMPB K + CMH (0.3%)	2	3.5	1	+++	4	±
DL-AMPB di-K + CMH (0.3%)	2	3.5	1	+++	4	±
DL-AMPB i-$PrNH_2$ + CMH (0.3%)	2.5	4	1.5	+++	4.5	±
DLAMPB n-$BuNH_2$ + CMH (0.3%)	2.5	4	1.5	+++	4.5	±
L-AMPB Na + CMH (0.3%)	3.5	4.5	4	±	5	−
L-AMPB di-Na + CMH (0.3%)	3.5	4.5	4	±	5	−
L-AMPB K + CMH (0.3%)	3.5	4.5	4	±	5	−
L-AMPB di-K + CMH (0.3%)	3.5	4.5	4	±	5	−
L-AMPB i-$PrNH_2$ + CMH (0.3%)	4	5	4.5	±	5	−
L-AMPB n-$BuNH_2$ + CMH (0.3%)	4	5	4.5	±	5	−
None		0		0		+++

As shown in Table 2, 0.05% of DL-AMPB alone killed upperground part after 21 days considerably, while 0.05% of L-AMPB alone not only killed upperground part after 21 days and 4 months considerably but also inhibited the reproduction to some extent. The mixtures of L-AMPB with CMH exhibited about twice killing and reproduction-inhibiting effects as compared with the mixtures of DL-AMPB with CMH. In comparison of the mixtures of L-AMPB with CMH against L-AMPB alone, 0.025% of L-AMPB killed 40–50% of bitter dock after 21 days but failed to inhibit the reproduction. 0.3% of CMH showed neither killing effect nor reproduction-inhibiting effect. Whereas, the mixtures of 0.025% of L-AMPB with 0.3% of CMH killed 80–90% of bitter dock after 4 months, yellowed the remaining leaves and deprived them of the activity, finally leading to death and inhibition of reproduction. As mentioned above, the effects of the mixtures of L-AMPB with CMH were more remarkable than the mixtures of DL-AMPB with CMH, which however, could be used sufficiently for the practical control of bitter dock.

EXAMPLE 2

Sodium salts of DL-AMPB or L-AMPB, or glyhosate were sprayed by foliar application to naturally growing perennial weeds in amount of 150 liter per 10 are. As the surfactant, 0.1% of polyoxyethylene octylphenyl ether was added to each spraying solution. Killing index and reproduction-inhibiting effect was determined after 21 days and 4 months, respectively, in accordance with the same evaluation standards as in Example 1. The heights or lengths of weeds were 100 cm. for azumanezasa, 50 cm. for wormwood, 30 cm. for bitter dock, 20–30 cm. for yabugarashi (*Cayratia japonica* Houtt.), about 70 cm. for needle grass (*Imperata cylindrica* Beauv.), about 5 m. for kudzu (*Pueraria thunbergiana* Benth.), 40 cm. for inuwarabi (*Athyrium niponicum* Hance), 40–50 cm. for warunasubi (*Solanum carolinense* L.) and 15 cm. for hedge bindweed, respectively.

The weeds were all several years old after germination. The results are shown in Table 3.

TABLE 3

Concentration (%) (g./10 are)			After 21 days A	B	C	D	E	F	G	H	I	J
DL-AMPB Na salt	0.05	(75)	1	2	2	1	2	1	1	2	0	2
	0.1	(150)	3	4	3	3	4	3	2	4	1	5
	0.2	(300)	5	5	5	5	5	5	3	5	3	5
L-AMPB Na salt	0.05	(75)	2.5	4	3	3	3	3	3	3	1	3
	0.1	(150)	4.5	5	5	5	5	4.5	4	5	3	5
	0.2	(300)	5	5	5	5	5	5	5	5	5	5
glyphosate isopropyl-amino salt	0.05	(75)	0	0	0	0	0	1	0	1	0	1
	0.1	(150)	1	1	1	1	1	3	2	3	2	2
	0.2	(300)	3	4	3	2	4	5	3	4	4	4
None			0	0	0	0	0	0	0	0	0	0
Concentration (%) (g./10 are)			After 4 months A	B	C	D	E	F	G	H	I	J
	0.05	(75)	+++	++	++	+++	++	+++	+++	+++	+++	+++

TABLE 3-continued

DL-AMPB Na salt	0.1	(150)	+	+	++	+++	++	++	++	+++	+++	+++
	0.2	(300)	−	−	−	++	−	−	−	+	+	++
	0.05	(75)	++	+	+	++	++	++	++	+++	+++	+++
L-AMPB Na salt	0.1	(150)	−	−	−	+	−	−	−	+	+	++
	0.2	(300)	−	−	−	±	−	−	−	±	−	+
	0.05	(75)	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++
glyphosate isopropyl-amino salt	0.1	(150)	++	++	++	+++	++	++	++	+++	+++	++
	0.2	(300)	+	+	+	++	±	+	+	+	+	+++
None			+++	+++	+++	+++	+++	+++	+++	+++	+++	+++

A: azumanezasa
B: wormwood
C: bitter dock
D: yabugarashi
E: needle grass
F: kudzu
G: inuwarabi
H: warunasubi
I: purple nutsedge
J: hedge bindweed

EXAMPLE 3.

Naturally growing bitter dock which is several years old after germination and noshiba which is a perennial, gramineous weed were transplanted to pots. After taking of roots, each spraying solution indicated in Table 4 was sprayed by foliar application in amount of 100 liter per 10 are. Killing index after 21 days and reproduction-inhibiting effect after 3 months were determined in accordance with the same evaluation standard as in Example 1, and the results are shown in Table 4. In the Table, A means the sodium salt of DL-AMPB and LA means the sodium salt of L-AMPB.

TABLE 4

Concentration (%)		After 21 days		After 3 months	
		bitter dock	noshiba	bitter dock	noshiba
	A 0.05	2	1.5	+++	+++
	A 0.1	3.5	2.5	++	++
2,4-D Na salt	0.1	1	0	+++	+++
2,4-D Na salt	0.2	2	0	+++	+++
2,4-D Na salt	0.1 + A 0.05	5	3.5	++	++
2,4-D Na salt	0.1 + A 0.1	5	4	+	+
2,4-D Na salt	0.2 + A 0.05	5	4.5	−	−
2,4-D Na salt	0.2 + A 0.1	5	4.5	−	−
CMH	0.3	0	0	+++	+*
CMH	0.6	0	0	+++	+*
CMH	0.3 + A 0.05	4.5	3.5	−	−
CMH	0.3 + A 0.1	4.5	4	−	−
CMH	0.6 + A 0.05	5	5	−	−
CMH	0.6 + A 0.1	5	5	−	−
DPX-1108 ammonium salt	0.15	0	0	+++	++*
DPX-1108 ammonium salt	0.3	0	0	+++	+*
DPX-1108 ammonium salt	0.15 + A 0.05	1	2	++	+
DPX-1108 ammonium salt	0.15 + A 0.1	1	2.5	+	+
DPX-1108 ammonium salt	0.3 + A 0.05	4	4	−	−
DPX-1108 ammonium salt	0.3 + A 0.1	4	4.5	−	−

TABLE 4-continued

Concentration (%)		After 21 days		After 3 months	
		bitter dock	noshiba	bitter dock	noshiba
SL-501 Na salt	0.15	1	2	+++	++
SL-501 Na salt	0.3	1	3	+++	++
SL-501 Na salt	0.15 + A 0.05	2	4	++	+
SL-501 Na salt	0.15 + A 0.1	2	4.5	++	+
SL-501 Na salt	0.3 + A 0.05	3	4.5	±	−
SL-501 Na salt	0.3 + A 0.1	3	5	±	−
Dowco-233 triethylamine salt	0.05	3	0	+	+++
Dowco-233 triethylamine salt	0.1	4	0	+	+++
Dowco-233 triethylamine salt	0.05 + A 0.05	5	2.5	+	+
Dowco-233 triethylamine salt	0.05 + A 0.1	5	3	+	+
Dowco-233 triethylamine salt	0.1 + A 0.05	5	5	−	−
Dowco-233 triethylamine salt	0.1 + A 0.1	5	5	−	−
NP-48	0.15	1	2	+++	++
NP-48	0.3	1	3.5	+++	++
NP-48	0.15 + A 0.05	2	4	+++	+
NP-48	0.15 + A 0.1	2	4	++	+
NP-48	0.3 + A 0.05	3	4.5	±	−
NP-48	0.3 + A 0.1	3	5	±	−
linuron	0.1	4	2	+++	+++
linuron	0.3	4	5	+++	+++
linuron	0.1 + A 0.05	5	3	++	+
linuron	0.1 + A 0.1	5	5	++	+
linuron	0.3 + A 0.05	5	4	−	−
linuron	0.3 + A 0.1	5	5	−	−
glyphosate isopropyl-amine salt	0.05	1.5	1	+++	+++
glyphosate isopropyl-amine salt	0.1	2.5	2	++	++
glyphosate isopropyl-amine salt	0.05 + A 0.05	4	3.5	+	+
glyphosate isopropyl-amine salt	0.05 + A 0.1	5	5	−	−
glyphosate	0.1 + A 0.05	5	4.5	−	−

TABLE 4-continued

Concentration (%)		After 21 days bitter dock	After 21 days noshiba	After 3 months bitter dock	After 3 months noshiba
isopropyl-amine salt glyphosate	0.1 + A 0.1	5	5	–	–
isopropyl-amine salt choline . HCl	0.1	0	0	+++	+++
choline . HCl	0.2	0	0	+++	+++
choline . HCl	0.1 + A 0.05	3.5	3	±	±
choline . HCl	0.1 + A 0.1	4.5	4	–	–
choline . HCl	0.2 + A 0.05	5	5	–	–
choline . HCl	0.2 + A 0.1	5	5	–	–
diethylamine . HCl	0.1	0	0	+++	+++
diethylamine . HCl	0.2	0	0	+++	+++
diethylamine . HCl	0.1 + A 0.05	3	2.5	±	±
diethylamine . HCl	0.1 + A 0.1	4	4	–	–
diethylamine . HCl	0.2 + A 0.05	5	5	–	–
diethylamine . HCl	0.2 + A 0.1	5	5	–	–
	LA 0.025	2	1.5	+++	+++
	LA 0.05	3.5	2.5	++	+++
CMH	0.3	0	0	+++	++*
CMH	0.6	0	0	+++	+*
CMH	0.3 + LA 0.025	4.5	3.5	–	–
CMH	0.3 + LA 0.05	4.5	4	–	–
CMH	0.6 + LA 0.025	5	5	–	–
CMH	0.6 + LA 0.05	5	5	–	–
2,4-D Na salt	0.1	1	0	+++	+++
2,4-D Na salt	0.2	2	0	+++	++*
2,4-D Na salt	0.1 + LA 0.025	5	3.5	–	+
2,4-D Na salt	0.1 + LA 0.05	5	5	–	–
2,4-D Na salt	0.2 + LA 0.025	5	5	–	–
2,4-D Na salt	0.2 + LA 0.05	5	5	–	–
MCP Na salt	0.1	1	0	+++	+++
MCP Na salt	0.2	2	0	+++	+++
MCP Na salt	0.1 + LA 0.025	4.5	3	+	+
MCP Na salt	0.1 + LA 0.05	4.5	4	–	–
MCP Na salt	0.2 + LA 0.025	5	5	–	–
MCP Na salt	0.2 + LA 0.05	5	5	–	–
3,4-DP	0.1	1	0	+++	+++
3,4-DP	0.2	2	0	+++	+++
3,4-DP	0.1 + LA 0.025	4	3	+	+
3,4-DP	0.1 + LA 0.05	4	4.5	–	–
3,4-DP	0.2 + LA 0.025	5	5	–	–
3,4-DP	0.2 + LA 0.05	5	5	–	–
MCPP Na salt	0.1	1	0	+++	+++
MCPP Na salt	0.2	2	0	+++	+++
MCPP Na salt	0.1 + LA 0.025	4.5	3	+	+
MCPP Na salt	0.1 + LA 0.05	4.5	4	–	–
MCPP Na salt	0.2 + LA 0.025	5	5	–	–

TABLE 4-continued

Concentration (%)		After 21 days bitter dock	After 21 days noshiba	After 3 months bitter dock	After 3 months noshiba
MCPP Na salt	0.2 + LA 0.05	5	5	–	–
MCPB Na Salt	0.1	1	0	+++	+++
MCPB Na salt	0.2	2	0	+++	+++
MCPB Na salt	0.1 + LA 0.025	4.5	3	+	+
MCPB Na salt	0.1 + LA 0.05	4.5	4	–	–
MCPB Na salt	0.2 + LA 0.025	5	5	–	–
MCPB Na salt	0.2 + La 0.05	5	5	–	–
2,4,5-T Na salt	0.1	1	0	+++	+++
2,4,5-T Na salt	0.2	2	0	+++	+++
2,4,5-T Na salt	0.1 + LA 0.025	4.5	4	±	±
2,4,5-T Na salt	0.1 + LA 0.05	4.5	4	–	–
2,4,5-T Na salt	0.2 + LA 0.025	5	5	–	–
2,4,5-T Na salt	0.2 + LA 0.05	5	5	–	–
SL-501 Na salt	0.1	0.5	2	+++	++
SL-501 Na salt	0.2	2	3	+++	++
SL-501 Na salt	0.1 + LA 0.025	2.5	4	++	–
SL-501 Na salt	0.1 + LA 0.05	3.5	4.5	++	–
SL-501 Na salt	0.2 + LA 0.025	3.5	4.5	±	–
SL-501 Na salt	0.2 + LA 0.05	4.5	5	±	–
2,3,6-TBA Na salt	0.1	1	0	+++	+++
2,3,6-TBA Na salt	0.2	2	0	+++	+++
2,3,6-TBA Na salt	0.1 + LA 0.025	4	3	+	+
2,3,6-TBA Na salt	0.1 + LA 0.05	4	3	–	–
2,3,6-TBA Na salt	0.2 + LA 0.025	5	5	–	–
2,3,6-TBA Na salt	0.2 + LA 0.05	5	5	–	–
Banvel-D dimethyl-amine	0.1	1	0	+++	+++
Banvel-D dimethyl-amine	0.2	2	0	+++	+++
Banvel-D dimethyl-amine	0.1 + LA 0.025	4	3	+	+
Banvel-D dimethyl-amine	0.1 + LA 0.05	4	4	–	–
Banvel-D dimethyl-amine	0.2 + LA 0.025	5	5	–	–
Banvel-D dimethyl-amine	0.2 + LA 0.05	5	5	–	–
Amiben Na salt	0.1	1	0	+++	+++
Amiben Na salt	0.2	2	0	+++	+++
Amiben Na salt	0.1 + LA 0.025	4	3	+	+
Amiben Na salt	0.1 + LA 0.05	4	3	–	–
Amiben Na salt	0.2 + LA 0.025	5	5	–	–

TABLE 4-continued

Concentration (%)		After 21 days bitter dock	After 21 days noshiba	After 3 months bitter dock	After 3 months noshiba
Amiben Na salt	0.2 + LA 0.05	5	5	–	–
TPA Na salt	0.1	1	0	+++	+++
TPA Na salt	0.2	2	0	+++	+++
TPA Na salt	0.1 + LA 0.025	4	3	+	+
TPA Na salt	0.1 + LA 0.05	4	3	–	–
TPA Na salt	0.2 + LA 0.025	5	5	–	–
TPA Na salt	0.2 + LA 0.05	5	5	–	–
Dowco-233 triethylamine salt	0.05	3	0	+	+++
Dowco-233 triethylamine salt	0.1	4	0	+	+++
Dowco-233 triethylamine salt	0.05 + LA 0.025	5	2.5	±	±
Dowco-233 triethylamine salt	0.05 + LA 0.05	5	3.5	–	–
Dowco-233 triethylamine salt	0.1 + LA 0.025	5	5	–	–
Dowco-233 triethylamine salt	0.1 + LA 0.05	5	5	–	–
glyphosate isopropyl-amine salt	0.05	1.5	1	+++	+++
glyphosate isopropyl-amine salt	0.1	2.5	2	++	++
glyphosate isopropyl-amine salt	0.05 + LA 0.025	4	3.5	+	+
glyphosate isopropyl-amine salt	0.05 + LA 0.05	5	5	–	–
glyphosate isopropyl-amine salt	0.1 + LA 0.025	5	4.5	–	–
glyphosate isopropyl-amine salt	0.1 + LA 0.05	5	5	–	–
DPX-1108 ammonium salt	0.2	0	0	+++	++*
DPX-1108 ammonium salt	0.4	0	0	+++	+*
DPX-1108 ammonium salt	0.2 + LA 0.025	2	2.5	+	+
DPX-1108 ammonium salt	0.2 + LA 0.05	3	3.5	–	–
DPX-1108 ammonium salt	0.4 + LA 0.025	4.5	4.5	–	–
DPX-1108 ammonium salt	0.4 + LA 0.05	4.5	4.5	–	–
NP-48	0.15	1	2	+++	++
NP-48	0.3	1	3.5	+++	++
NP-48	0.15 + LA 0.025	2.5	4	++	–
NP-48	0.15 + LA 0.05	3	4.5	+	–
NP-48	0.3 + LA 0.025	3.5	5	±	–
NP-48	0.3 + LA 0.05	4	5	±	–
linuron	0.1	3	2	+++	+++
linuron	0.3	4	4	+++	+++
linuron	0.1 + LA 0.025	5	4	++	+
linuron	0.1 + LA 0.05	5	5	–	–
linuron	0.3 + LA 0.025	5	5	–	–
linuron	0.3 + LA 0.05	5	5	–	–
ATA	0.05	2	2	+++	+++
ATA	0.1	4	4	+++	+++
ATA	0.05 + LA 0.025	4	4	++ ++ ++	±
ATA	0.05 + LA 0.05	5	5	–	–
ATA	0.1 + LA 0.025	5	5	–	–
ATA	0.1 + LA 0.05	5	5	–	–
choline . HCl	0.1	0	0	+++	+++
choline . HCl	0.2	0	0	+++	+++
choline . HCl	0.1 + LA 0.025	3.5	3	±	±
choline . HCl	0.1 + LA 0.05	4.5	4	–	–
choline . HCl	0.2 + LA 0.025	5	5	–	–
choline . HCl	0.2 + LA 0.05	5	5	–	–
diethyl-amine . HCl	0.1	0	0	+++	+++
diethyl-amine . HCl	0.2	0	0	+++	+++
diethyl-amine . HCl	0.1 + LA 0.025	3	2.5	±	±
diethyl-amine . HCl	0.1 + LA 0.05	4	4	–	–
diethyl-amine . HCl	0.2 + LA 0.025	5	5	–	–
diethyl-amine . HCl	0.2 + LA 0.05	5	5	–	–
None		0	0	+++	+++

*suppression of elongation of upperground part.

EXAMPLE 4.

Sodium salt of DL-AMPB, L-AMPB, CMH or mixtures thereof were diluted and sprayed by foliar application to naturally growing perennial weeds in amount of 150 liter per 10 are.

Each spraying solution contained 0.1% of polyoxyehtylene octylphenyl ether as the surfactant. Killing index after 21 days and reproduction-inhibiting effect after 4 months were determined in accordance with the same evaluation standards as in Example 1 and the results are shown in Tables 5 and 6. In the Tables, symbols A, B, C, D, E, F, G, H, I and J have the same meanings as in Example 2.

TABLE 5

Concentration (%)	After 21 days A	B	C	D	E	F	G	H	I	J
DL-AMPB 0.05	2	4	3	3	4	3	1	3	1	5
DL-AMPB 0.1	4	5	4	4	5	4.5	2	4	2	5
DL-AMPB 0.2	5	5	5	5	5	5	3	5	3	5
DL-AMPB 0.4	5	5	5	5	5	5	4.5	5	4.5	5
CMH 0.3	0	1	0	0	0	0	0	0	0	1

TABLE 5-continued

CMH 0.6	2	2	0	1	1	1	0	1	0	3
DLAMPB 0.05 + CMH 0.3	3	5	4	3	4.5	3	1	3.5	1.5	5
DLAMPB 0.05 + CMH 0.6	4	5	4.5	4	5	5	1	3.5	1.5	5
DL-AMPB 0.1 + CMH 0.3	4.5	5	5	4.5	5	5	4	4.5	4	5
DL-AMPB 0.1 + CMH 0.6	5	5	5	5	5	5	4	4.5	4	5
DL-AMPB 0.2 + CMH 0.3	5	5	5	5	5	5	5	5	5	5
DL-AMPB 0.2 + CMH 0.6	5	5	5	5	5	5	5	5	5	5
None	0	0	0	0	0	0	0	0	0	0

	After 4 months									
Concentration (%)	A	B	C	D	E	F	G	H	I	J
DL-AMPB 0.05	++	+	++	+++	+	++	+	+++	+++	+++
DL-AMPB 0.1	+	−	+	+++	±	+	−	++	+++	+++
DL-AMPB 0.2	−	−	−	+++	±	±	−	+	++	+++
DL-AMPB 0.4	−	−	−	++	−	−	−	+	++	++
CMH 0.3	++	++	+++	+++	+++	+++	+++	++	++	++
CMH 0.6	+	+	+++	+++	+++	++	+++	++	++	++
DLAMPB 0.05 + CMH 0.3	+	−	−	++	±	+	+	+	++	−
DLAMPB 0.05 + CMH 0.6	−	−	−	+	±	±	+	+	++	−
DL-AMPB 0.1 + CMH 0.3	−	−	−	±	−	−	−	−	±	−
DL-AMPB 0.1 + CMH 0.6	−	−	−	±	−	−	−	−	±	−
DL-AMPB 0.2 + CMH 0.3	−	−	−	−	−	−	−	−	−	−
DL-AMPB 0.2 + CMH 0.6	−	−	−	−	−	−	−	−	−	−
None	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++

TABLE 6

		After 21 days									
Concentration (%)		A	B	C	D	E	F	G	H	I	J
L-AMPB	0.025	2	4	3	3	4	3	1	3	1	5
L-AMPB	0.05	4	5	4	4	5	4.5	2	4	2	5
L-AMPB	0.1	5	5	5	5	5	5	3	5	3	5
L-AMPB	0.2	5	5	5	5	5	5	4.5	5	4.5	5
CMH	0.3	0	1	0	0	0	0	0	0	0	1
CMH	0.6	2	2	0	1	1	1	0	1	0	3
L-AMP 0.025 + CMH	0.3	3	5	4	3	4.5	4	3	4	2	5
L-AMP 0.025 + CMH	0.6	4	5	4.5	4	5	5	3	4	2	5
L-AMP 0.05 + CMH	0.3	4.5	5	5	4.5	5	5	4	5	4	5
L-AMP 0.05 + CMH	0.6	5	5	5	5	5	5	4	5	4.5	5
L-AMP 0.1 + CMH	0.3	5	5	5	5	5	5	5	5	5	5
L-AMP 0.1 + CMH	0.6	5	5	5	5	5	5	5	5	5	5
None		0	0	0	0	0	0	0	0	0	0

	After 4 months									
Concentration (%)	A	B	C	D	E	F	G	H	I	J
L-AMPB 0.025	++	+	++	+++	+	++	+	+++	+++	+++
L-AMPB 0.05	+	−	+	+++	±	+	−	++	+++	+++
L-AMPB 0.1	−	−	−	+++	±	±	−	+	++	+++
L-AMPB 0.2	−	−	−	++	−	−	−	+	++	++
CMH 0.3	++	++	+++	+++	+++	+++	+++	++	++	++
CMH 0.6	+	+	+++	+++	+++	++	++	++	++	++
L-AMP 0.025 + CMH 0.3	+	−	−	++	±	+	+	+	++	−
L-AMP 0.025 + CMH 0.6	−	−	−	+	±	±	+	+	++	−
L-AMP 0.05 + CMH 0.3	−	−	−	±	−	−	−	−	±	−
L-AMP 0.05 + CMH 0.6	−	−	−	±	−	−	−	−	−	−
L-AMP 0.1 + CMH 0.3	−	−	−	−	−	−	−	−	−	−
L-AMP 0.1 + CMH 0.6	−	−	−	−	−	−	−	−	−	−
None	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++

As shown in Tables 5 and 6 the reproduction-inhibiting activity of AMPB was surprisingly enhanced and the weeding spectrum was broadened by mixing it with CMH.

EXAMPLE 5

Sodium salt of DL-AMPB, 1-AMPB, CMH or mixtures thereof were diluted and sprayed by foliar application in amount of 150 liter per 10 are on Japanese cypress forest land.

Killing index after 30 days and 3 months was determined in accordance with the same evaluation standard as in Example 1, and the results are shown in Tables 7 and 8.

TABLE 7

	After 30 days					After 3 months				
Concentration (%)	K	L	M	N	O	K	L	M	N	O
DL-AMPB 0.125	0	5	3	3	4	0	4	2	2	3
DL-AMPB 0.25	0	5	4	4	4	0	5	3	3	4
DL-AMPB 0.5	0	5	5	5	5	0	5	4.5	4.5	5
CMH 0.25	0	0	0	0	0	0	0	0	0	0
CMH 0.5	0	1	1	1	1	0	0	1	0	1
CMH 1.0	0	3	3	2	2	0	1	2	1	2
DL-AMPB 0.125 + CMH 0.25	0	5	3	3.5	4	0	5	4.5	4	4.5
DL-AMPB 0.125 + CMH 0.5	0	5	4	4	4.5	0	5	5	4.5	5
DL-AMPB 0.125 + CMH 1.0	0	5	4	4	4.5	0	5	5	5	5
DL-AMPB 0.25 + CMH 0.25	0	5	4.5	4.5	4	0	5	5	4.5	5
DL-AMPB 0.25 +	0	5	5	5	5	0	5	5	5	5

TABLE 7-continued

Concentration (%)	After 30 days K	L	M	N	O	After 3 months K	L	M	N	O
CMH 0.5										
DL-AMPB 0.25 + CMH 1.0	0	5	5	5	5	0	5	5	5	5
DL-AMPB 0.5 + CMH 0.25	0	5	5	5	5	0	5	5	5	5
DL-AMPB 0.5 + CMH 0.5	0	5	5	5	5	0	5	5	5	5
DL-AMPB 0.5 + CMH 1.0	0	5	5	5	5	0	5	5	5	5
None	0	0	0	0	0	0	0	0	0	0

TABLE 8

Concentration (%)	After 30 days K	L	M	N	O	After 3 months K	L	M	N	O
L-AMPB 0.063	0	5	3	3	4	0	4	2	2	3
L-AMPB 0.125	0	5	4	4	4	0	5	3	3	4
L-AMPB 0.25	0	5	5	5	5	0	5	4.5	4.5	5
CMH 0.25	0	0	0	0	0	0	0	0	0	0
CMH 0.5	0	1	1	1	1	0	0	1	0	1
CMH 1.0	0	3	3	2	2	0	1	2	1	2
L-AMPB 0.63 + CMH 0.25	0	5	3	3.5	4	0	5	4.5	4	4.5
L-AMPB 0.63 + CMH 0.5	0	5	4	4	4.5	0	5	5	4.5	5
L-AMPB 0.63 + CMH 1.0	0	5	4	4	4.5	0	5	5	5	5
L-AMPB 0.125 + CMH 0.25	0	5	4.5	4.5	4	0	5	5	4.5	5
L-AMPB 0.125 + CMH 0.5	0	5	5	5	5	0	5	5	5	5
L-AMPB 0.125 + CMH 1.0	0	5	5	5	5	0	5	5	5	5
L-AMPB 0.25 + CMH 0.25	0	5	5	5	5	0	5	5	5	5
L-AMPB 0.25 + CMH 0.5	0	5	5	5	5	0	5	5	5	5
L-AMPB 0.25 + CMH 1.0	0	5	5	5	5	0	5	5	5	5
None	0	0	0	0	0	0	0	0	0	0

TABLE 8-continued

Concentration (%)	After 30 days K	L	M	N	O	After 3 months K	L	M	N	O
CMH 1.0	0	5	5	5	5	0	5	5	5	5
L-AMPB 0.25 + CMH 0.25	0	5	5	5	5	0	5	5	5	5
L-AMPB 0.25 + CMH 0.5	0	5	5	5	5	0	5	5	5	5
L-AMPB 0.25 + CMH 1.0	0	5	5	5	5	0	5	5	5	5
None	0	0	0	0	0	0	0	0	0	0

K: Japanese cypress
L: chestnut
M: miyakozasa
N: eulalia
O: kumaichigo

EXAMPLE 6

Sodium salts of DL-AMPB or L-AMPB, or glyphosate were sprayed by foliar application in amount of 150 liter per 10 are at a naturally growing brush. Each spraying solution contained 0.1% of polyoxyethylene octylphenyl ether as the surfactant. Killing index after 1 month and 3 months as well as reproductioninhibiting effect after 3 months were determined in the same evaluation standards as in Example 1, and the results are shown in Table 9.

TABLE 9

Concentration (%) (g./10 are)			After 1 month P	Q	R	S	T	U	V	After 3 months Killing index P	Q	R	S	T	U	V
DL-AMPB	0.05	(75)	0	1	1	1	1	1	1	0	0	0	0	0	0	0
	0.1	(150)	1	3	3	3	3	3	3	1	1	1	1	1	1	1
	0.2	(300)	3	5	5	5	4	5	5	2	5	5	5	5	5	5
L-AMPB	0.05	(75)	2	3.5	4	3.5	3	3	3	1	1.5	1	2	1.5	1	1
	0.1	(150)	4	5	5	5	4	5	5	3	5	4	5	5	5	5
	0.2	(300)	5	5	5	5	5	5	5	4	5	5	5	5	5	5
glyphosate isopropylamine salt	0.05	(75)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.1	(150)	0	1	0	0	1	1	1	0	0	0	0	0	0	0
	0.2	(300)	1.5	2	0	1	2	2	2	1	1	0	0	1	0	0
None			0	0	0	0	0	0	0	0	0	0	0	0	0	0

Concentration (%) (g./10 are)			After 3 months Reproduction-inhibiting effect P	Q	R	S	T	U	V
DL-AMPB	0.05	(75)	+++	+++	+++	+++	+++	+++	+++
	0.1	(150)	++	+++	++	++	++	++	++
	0.2	(300)	++	−	−	−	−	−	−
L-AMPB	0.05	(75)	+++	++	+++	++	++	+++	++
	0.1	(150)	++	−	+	−	−	−	−
	0.2	(300)	±	−	−	−	−	−	−
glyphosate isopropylamine salt	0.05	(75)	+++	+++	+++	+++	+++	+++	+++
	0.1	(150)	+++	+++	+++	+++	+++	+++	+++
	0.2	(300)	++	++	+++	+++	++	+++	+++
None			+++	+++	+++	+++	+++	+++	+++

P: Japanese bush cranberry
Q: kiichigo (*Rubus palmatsu Thunb. forma coptophyllus Makino*)
R: Japanese prickly ash (*Xanthoxylum piperitum DC.*)
S: lace shrub (*Stephanandra incisa Zabel*)
T: yamazakura (*Prunus donarium Sieb. var. spontanae Makino*)
U: torch azalea
V: oak

EXAMPLE 7

Sodium salt of DL-AMPB or CMH, or mixtures thereof were sprayed by foliar application to shrubs of about 60–70 cm. height indicated in Table 8. Each

spraying solution contained 0.1% of polyoxyethylene octylphenyl ether as the surfactant. Killing index after 21 days and reproduction-inhibiting effect after 4 months were determined in accordance with the same evaluation standards as in Example 1, and the results are shown in Table 10.

TABLE 10

Concentration (%)		After 21 days W	X	Y	Z	L	After 4 months W	X	Y	Z	L
DL-AMPB	0.1	4	4	0	1	4	+	+	+++	+++	+
DL-AMPB	0.2	5	5	0	2	5	−	−	+++	+	−
DL-AMPB	0.4	5	5	0	4	5	−	−	+++	±	−
CMH	0.3	0	0	0	0	0	++	++	+++	+	+
CMH	0.6	0	0	0	0	0	+	+	+++	−	−
DL-AMPB 0.1 + CMH	0.3	5	5	0	2	5	−	−	+++	±	−
DL-AMPB 0.1 + CMH	0.6	5	5	0	2	5	−	−	+++	−	−
DL-AMPB 0.2 + CMH	0.3	5	5	0	3	5	−	−	+++	−	−
DL-AMPB 0.2 + CMH	0.6	5	5	0	3	5	−	−	+++	−	−
DL-AMPB 0.4 + CMH	0.3	5	5	0	4.5	5	−	−	+++	−	−
DL-AMPB 0.4 + CMH	0.6	5	5	0	4.5	5	−	−	+++	−	−
None	0	0	0	0	0	0	+++	+++	+++	+++	+++

W: Japanese red pine (*Pinus densiflora* Sieb. et. Zucc.)
X: Japanese larch (*Larix leptolepis* Murray)
Y: Japanese cypress
Z: Japanese cedar
L: chestnut

EXAMPLE 8

Sodium salt of DL-AMPB, L-AMPB, CMH, or mixtures thereof were sprayed by foliar application to naturally growing shrubs on October 25, in amount of 150 liter per 10 are.

Each test area was 4 m^2 and each spraying solution contained 0.1% of polyoxyethylene octylphenyl ether as the surfactant. The reproduction-inhibiting effect was determined on May 23 of the next year in accordance with the same evaluation standard as in Example 1. The results are shown in Tables 12 and 13.

TABLE 12

Concentration (%)	Reproduction-inhibiting effect	Remarks
DL-AMPB Na 0.125	3.5	A′ = 5, B′ = 3, U = 5, A = 4.5
DL-AMPB Na 0.25	4	C′ = 5, D′ = 4.5, B′ = 3.5
DL-AMPB Na 0.5	5	A′ = 5, D′ = 5, U = 5
CMH 0.5	0.5–1	D′ = 0.5, U = 1.5–2, E′ = 1.5
CMH 1.0	1	C′ = 3.5–4, U = 3.5–4, D′ = 0.5, others = slightly inhibited
CMH 2.0	1–1.5	L = 3.5, D′ = 1, F′ = 1, others = slightly inhibited
DL-AMPB Na 0.125 + CMH 0.5	4.5	almost not reproduced incl. of G′ and E′, A = 4.5–5
DL-AMPB Na 0.125 + CMH 1.0	4.5	H′, U and A = almost not reproduced
DL-AMPB Na 0.125 + CMH 2.0	5	A, B′, A′, L′ and others = inhibited

TABLE 13

Concentration (%)	Reproduction-inhibiting effect	Remarks
L-AMPB Na 0.0625	3.5	A′ = 5, B′ = 3, U = 5, A = 4.5
L-AMPB 0.125	4	C′ = 5, D′ = 4.5, B = 3.5
L-AMPB 0.25	5	A′ = 5, D′ = 5, U = 5
CMH 0.5	0.5–1	D′ = 0.5, U = 1.5–2, E′ = 1.5
CMH 1.0	1	C′ = 3.5–4, U = 3.5–4, D′ = 0.5, others = slightly inhibited
CMH 2.0	1–1.5	L = 3.5, D′ = 1, F′ = 1, others = slightly inhibited
L-AMPB Na 0.0625 + CMH 0.5	4.5	almost not reproduced incl. of G′ and E′, A = 4.5–5
L-AMPB Na 0.0625 + CMH 1.0	4.5	H′, U and A = almost not reproduced
L-AMPB Na 0.0625 + CMH 2.0	5	A, B′, A′, L′ and others = inhibited
L-AMPB Na 0.125 + CMH 0.5	4.5	D′, U, A and B′ = almost not reproduced
L-AMPB Na 0.125 + CMH 1.0	4.5	B′, U, D′ = almost not reproduced
L-AMPB Na 0.125 + CMH 2.0	5	not reproduced
L-AMPB Na 0.25 + CMH 0.5	5	H′ = slightly resistant others = not reproduced
L-AMPB Na 0.25 + CMH 1.0	5	not reproduced

TABLE 13-continued

Concentration (%)	Reproduction-inhibiting effect	Remarks
L-AMPB Na 0.25 + CMH 2.0	5	not reproduced
None	0	A' = 30 cm., H' = 20 cm., D' = 50 cm., A = 75 cm., U = 10-20 cm., B' = 25 cm.
DL-AMPB Na 0.25 + CMH 0.5	4.5	D', U, A and B' = almost not reproduced
DL-AMPB Na 0.25 + CMH 1.0	4.5	B', U, D' = almost not reproduced
DL-AMPB Na 0.25 + CMH 2.0	5	not reproduced
DL-AMPB Na 0.5 + CMH 0.5	5	H' = slightly resistant others = not reproduced
DL-AMPB Na 0.5 + CMH 1.0	5	not reproduced
DL-AMPB Na 0.5 + CMH 2.0	5	not reproduced
None	0	A' = 30 cm., H' = 20 cm., D' = 50 cm., A = 75 cm., U = 10-20 cm., B' = 25 cm.

A': koajisai (*Hydrangea hirta* Sieb. et Zucc.)
B': toneriko (*Fraxinus japonica* Blume)
C': mizunara (*Quercus crispula* Blume)
D': tree clethra (*Clethra barbinervis* Sieb. et. Zucc.)
E': Japanese witch hazel (*Hamamemis japonica* Sieb. et. Zucc.)
F': yamaurushi (*Rhus trichocarpa* Miq.)
G': Japanese snowbell (*Styrax japonica* Sieb. et. Zucc.)
H': nejiki (Lyonia Neziki Nakai et Hara)
L': painted maple (*Acer mono* Maxim.)
A, L and U: same meanings as in Examples 2, 5 and 6.

EXAMPLE 9

In order to evaluate the effects of AMPBs against evergreen shrubs, sodium salt of L-AMPB, maleic hydrazide (MH) and mixtures thereof were sprayed by foliar application to Japanese privet (*Ligustrum japonica* Thunb., hereinafter referred to as I'), mokkoku (*Ternstroemia japonica* Thunb., hereinafter referred to as J') and Japanese hawthorn (*Rhaphiolepsis umbellata* Makino var. Mertensii Makino, hereinafter referred to as K') in amount of 100 liter per 10 are. Each spraying solution contained 0.1% of polyoxyethylene octylphenyl ether as the surfactant.

The application and the investigation were carried out on December 14, and May 22 of the next year, respectively, and the reproduction-inhibiting effect was determined in accordance with the same evaluation standard as in Example 1. The results are shown in Tables 14 and 15.

TABLE 14

Concentration (%)	I'	J'	K'
L-AMPB Na 0.125	4	5	5
L-AMPB Na 0.25	5	5	5
MH 0.5	1	1	1
MH 1.0	2	1.5	1.5
MH 2.0	2.5	2	2
L-AMPB Na 0.125 + MH 0.5	5	5	5
L-AMPB Na 0.125 + MH 1.0	5	5	5
L-AMPB Na 0.125 + MH 2.0	5	5	5
L-AMPB Na 0.25 + MH 0.5	5	5	5
L-AMPB Na 0.25 + MH 1.0	5	5	5
L-AMPB Na 0.25 + MH 2.0	5	5	5

TABLE 14-continued

Concentration (%)	I'	J'	K'
None	0	0	0

TABLE 15.

Concentration (%)	I'	J'	K'
DL-AMPB Na 0.25	4	5	5
DL-AMPB Na 0.5	5	5	5
MH 0.5	1	1	1
MH 1.0	2	1.5	1.5
MH 2.0	2.5	2	2
DL-AMPB Na 0.25 + MH 0.5	5	5	5
DL-AMPB Na 0.25 + MH 1.0	5	5	5
DL-AMPB Na 0.25 + MH 2.0	5	5	5
DL-AMPB Na 0.5 + MH 0.5	5	5	5
DL-AMPB Na 0.5 + MH 1.0	5	5	5
DL-AMPB Na 0.5 + MH 2.0	5	5	5
None	0	0	0

EXAMPLE 10

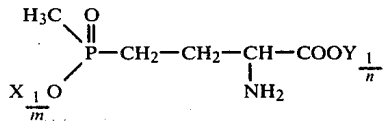
Sodium salts of DL-AMPB or L-AMPB, or glyphosate were sprayed by foliar application in amount of 100 liter per 10 are to flatstage (*Cyperus serotinus* Rottb.) grown in 1/5000 are Wagner pots, in the end of October. Each spraying solution contained 0.1% of polyoxyethylene octylphenyl ether as the surfactant. After three months, the tubers were cut off and subjected to germination test in tall petri dishes. 21 days after initiation of the germination test, the germination-inhibiting effect (0: no harm, 5: no emergence) was determined. The results are shown in Table 16.

TABLE 16.

Concentration (%)	Germination-inhibiting effect
DL-AMPB Na 0.1	5
DL-AMPB Na 0.3	5
L-AMPB Na 0.1	5
L-AMPB Na 0.3	5
glyphosate 0.1 isopropyl-amine salt	3
glyphosate 0.3 isopropyl-amine salt	5
None	0

We claim:

1. A method for controlling perennial weeds which comprises applying heribicidal compositions containing a herbicidally effective amount of the L-isomer of a compound of the formula



wherein X and Y are the same or different and each represents a hydrogen atom, a mono- or di-valent metal atom, a mono-, di- or tri-lower-alkylammonium, a mono-, di- or tri-ethanolammonium, or a mono-, di or tri-lower-alkenylammonium, and m and n represent valencies of X and Y, respectively or an acid-addition salt thereof to land selected from the group consisting of crop land, non-crop land, orchard, forest land and meadow.

2. The method of claim 1, wherein the perennial weeds are selected from the group consisting of azumanezasa (*Pleioblatus chino,* Makino), miyakozasa (*Sasa niponica* Makino et Shibata), needle grass (*Imperata cylindrica* (L) Beauv), eulalia (*Miscanthus sinensis* Andress.), mizugayatsuri (*Cyperus serotinus*), wormwood (*Artemisia princeps* Pamp.), bitter dock, yabugarashi (*Cayratia japonica* Houtt.), kudzu (*Pueraria thunbergiana* Benth.), warunasubi (*Solanum carolinense* (L)), inuwarbai (*Athyrium niponicum* Hance) and hedge bindweed.

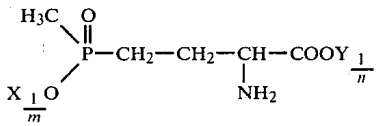
3. The method of claim 2, wherein the perennial weeds are selected from the group consisting of needle grass (*Imperata cylindrica* (L) Beauv.), eulalia (*Miscanthus sinensis* Andress.), mizugayatsuri (*Cyperus serotinus*), wormwood (*Artemisia princeps* Pamp), bitter dock, kudzu (*Pueraria thunbergiana* Benth.) and inuwarabi (*Athyrium niponicum* Hance).

4. The method of claim 1 wherein said herbicidal compositions are applied to Japanese cypress (*Chamecyparis obtusa Eudl.*) forest land to control perennial weeds without phytotoxicity to said Japanese cypress.

5. The method of claim 1 wherein said herbicidal compositions are applied to perennial weeds in autumn to control the emergence of new buds thereof during the following spring.

6. The method of claim 1 wherein X and Y are each independently selected from the group consisting of a hydrogen atom, sodium atom, potassium atom, isopropylammonium, n-butylammonium or ammonium.

7. A method for controlling brush which comprises applying herbicidal compositions containing a herbicidally effective amount of the L-isomer of a compound of the formula



wherein X and Y are the same or different and each represents a hydrogen atom, a mono- or divalent metal atom, a mono-, di- or tri-lower-alkylammonium, a mono-, di or tri-ethanolammonium, or a mono-, di- or tri-lower-alkenylammonium, and m and n represent valencies of X and Y, respectively or an acid-addition salt thereof to land selected from the group consisting of crop land, non-crop land, orchard, forest land and meadow.

8. The method of claim 7, wherein said brush is selected from the group consisting of kumaichigo, kiichigo (*Rubus palmatsu Thunb. forma coptophyllus* Makino), chestnut, Japanese bush cranberry, oak, Japanese pickly ash (*Xanthoxylum piperitum DC.*), lace shrub (*Stephanandra incisa Zabel*), yamazakura (*Prumus donarium Sieb. var. spontanae* Makino) and torch azalea.

9. The method of claim 7 wherein said herbicidal compositions are applied to Japanese cypress (*Chamecyparis obtusa Eudl.*) forest land to control brush without phytotoxicity to said Japanese cypress.

10. A method according to claim 7 wherein said herbicidal compositions are applied to brush in autumn to control the emergence of new buds thereof during the following spring.

11. The method of claim 7 wherein X and Y are each independently selected from the group consisting of a hydrogen atom, sodium atom, potassium atom, isopropylammonium, n-butylammonium or ammonium.

* * * * *

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Distribution and metabolism of D/L-, L- and D-glufosinate in transgenic, glufosinate-tolerant crops of maize (*Zea mays* L ssp *mays*) and oilseed rape (*Brassica napus* L var *napus*)†

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Abstract: The aim of the present study was to determine whether post-emergence application of glufosinate to transgenic crops could lead to an increase in residues or to the formation of new, hitherto unknown metabolites. Transgenic oilseed rape and maize plants were treated separately with L-glufosinate, D-glufosinate or the racemic mixture. Whereas about 90% of the applied D-glufosinate was washed off by rain and only 5–6% was metabolised, 13–35% of the applied L-glufosinate remained in the form of metabolites and unchanged herbicide in both transgenic maize and oilseed rape. The main metabolite was *N*-acetyl-L-glufosinate with total residues of 91% in oilseed rape and 67% in maize, together with small amounts, of 5% in oilseed rape and 28% in maize, of different methylphosphinyl fatty acids. These metabolites were probably formed from L-glufosinate by deamination and subsequent decarboxylation. The residues were distributed in all fractions of the plants, with the highest contents in treated leaves and the lowest in the grains (0.07–0.3% in maize and 0.4–0.6% in oilseed rape). There was no indication of an accumulation of total residues or of residue levels above the official tolerances for glufosinate.
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Keywords: glufosinate metabolism; herbicide resistance; phosphinothricin; transgenic plants

1 INTRODUCTION

The non-selective herbicide glufosinate (DL-homo-alanin-4-yl-(methyl)phosphinic acid) consists of a racemate of the L- and D-enantiomers. It is used under the trade name Basta® in non-transgenic crops and will be registered under the trade name Liberty Link® for application in transgenic crops. L-Glufosinate, the active ingredient of this broad-spectrum herbicide, is a natural phytotoxin and acts as a potent inhibitor of glutamine synthetase which controls ammonia assimilation in higher plants.[1–3] Inhibition of this enzyme leads to accumulation of ammonia and to a deficiency of several amino acids, finally resulting in the death of the whole plant. The D-enantiomer of glufosinate does not inhibit glutamine synthetase and therefore is not herbicidal.

Glufosinate was first developed as a non-selective foliar herbicide for weed control, eg in orchards and vineyards. In these cases the herbicide was applied to the weeds without contacting the cultivated plants because of its high phytotoxicity. As glufosinate is mainly taken up by leaves, the fruits remained nearly free of residues.

By means of genetic engineering, herbicide tolerance in crop plants was achieved by transfer of the resistance genes PAT or BAR into previously susceptible plants. Both genes encode for the enzyme phosphinothricin *N*-acetyltransferase, which confers resistance to glufosinate by *N*-acetylation and thereby inactivates the herbicide.[4] In contrast to its use on sensitive plants, the main application in glufosinate-tolerant crops will be post-emergence application. Under these conditions there may be reason to suspect that herbicide tolerance will lead to an increased herbicide uptake and the formation of new, hitherto unknown residues in crop plants.

Metabolism studies of glufosinate, L-glufosinate and D-glufosinate have been performed up to now

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only with cell cultures of both non-transgenic and transgenic plants of different species.[5–7] Comparative investigation in cell cultures of non-transgenic and transgenic oilseed rape and maize after separate application of glufosinate and its enantiomers showed that L-glufosinate was partly metabolised, whilst D-glufosinate was found to be stable.[5] The main metabolite in non-transgenic rape and maize cells was 4-methylphosphinyl-2-oxo-butanoic acid (PPO) together with small amounts of 3-methylphosphinylpropionic acid (MPP), 4-methylphosphinyl-2-hydroxybutanoic acid (MHB), 4-methylphosphinylbutanoic acid (MPB) and 2-methylphosphinylacetic acid (MPA). An additional metabolite formed only in transgenic cells was 2-acetamido-4-methylbutanoic acid (*N*-acetyl-L-glufosinate; NAG).

In contrast to cell cultures, there have been no publications on the metabolism of glufosinate in transgenic crops under outdoor conditions. The aim of the present study, therefore, was to determine whether post-emergence application of glufosinate can lead to an increase in residues or to the formation of new metabolites, and whether there are differences in the behaviour of D-glufosinate and L-glufosinate. Hence residues of glufosinate and their distribution in transgenic oilseed rape and maize were determined after separate application of ^{14}C-labelled glufosinate, L-glufosinate and D-glufosinate under outdoor conditions.

2 MATERIALS AND METHODS

2.1 Chemicals and plant material

Seeds from transgenic oilseed rape (GS 49/90 61c) and transgenic maize (Prestige LL), non-labelled and ^{14}C-labelled glufosinate, the reference substances and the formulation blank were provided by Bayer CropScience GmbH, Frankfurt, Germany. The specific radioactivities of the ^{14}C-labelled substances were: [3,4-^{14}C]-DL-homoalanin-4-yl-(methyl)phosphinic acid (glufosinate; 785.8 MBq g^{-1}; 795.6 MBq g^{-1}; 2032 MBq g^{-1}; 4860 MBq g^{-1}), [3,4-^{14}C]-D-homoalanin-4-yl-(methyl)phosphinic acid (D-glufosinate; 2081 MBq g^{-1}), ammonium [3,4-^{14}C]-L-homoalanin-4-yl-(methyl)phosphinate (L-glufosinate-ammonium; 1239 MBq g^{-1}; 4637 MBq g^{-1}; 1589 MBq g^{-1}), disodium [3,4-^{14}C]-L-2-acetamido-4-methylphosphinatobutyrate (disodium salt of NAG; 4071 MBq g^{-1}), [2-^{14}C]-2-methylphosphinylacetic acid (MPA; 905.1 MBq g^{-1}), [2,3-^{14}C]-3-methylphosphinylpropionic acid (MPP; 2752 MBq g^{-1}), [3,4-^{14}C]-4-methylphosphinylbutanoic acid (MPB; 334.7 MBq g^{-1}), disodium [3,4-^{14}C]-DL-2-hydroxy-4-(methyl)phosphinylbutyrate (disodium salt of MHB; 3.392 MBq g^{-1}), [3,4-^{14}C]-4-methylphosphinyl-2-oxo-butanoic acid (PPO; 141 MBq g^{-1}). Radiolabelled DL-glufosinate and D-glufosinate were converted to their ammonium salts before use.

2.2 Experimental conditions

Twelve maize and twenty rape plants, respectively, were each sown in four 0.25-m^2 containers (50 × 50 × 60 cm^3) filled with natural soil and cultured under outdoor conditions. Three maize and five rape plants were cultured as untreated controls. The maize was sown in May, the oilseed rape in September.

The ^{14}C-labelled test substances were mixed with a formulation blank in each experiment and applied with a pencil to all the leaves on the plants at the 4–6 leaf stage. To ensure the detectability of metabolites in all plant parts, the amounts used were 0.6–1.5 MBq per plant representing 75–670 g ha^{-1} AI. Such rates are comparable to those used in agricultural practice, allowing for about 40% plant cover. Experiments were carried out during three vegetation periods. The two enantiomers and glufosinate were applied separately in different years as follows:

Maize:
- First year: glufosinate (1 MBq in 5.6 mg AI per plant),
- Second year: L-glufosinate (1.45 MBq in 1.2 mg AI per plant),
- Third year: D-glufosinate (1.5 MBq in 1.2 mg AI per plant);

Rape:
- Second year: glufosinate (0.7 MBq in 0.9 mg AI per plant),
- Third year: L-glufosinate (0.62 MBq in 0.37 mg AI per plant).

2.3 Sampling and fractionation of the plants

Plants were collected at harvest time (about 4 months after treatment) and dissected into treated leaves, untreated leaves, stems and grains, plus ears and spathaceous bracts for maize, and pods for oilseed rape. Treated leaves falling off before harvesting were collected and added to the fraction of treated leaves.

2.4 Extraction and clean-up procedures

Aliquots (three parallel samples) of the plant materials pooled from the four replicates (for oilseed rape, 20 g of each fraction; for maize, grains 30 g, treated leaves 5 g, untreated leaves, stems, cobs and spathaceous bract 10 g) were homogenized in a Waring Blender, extracted with distilled water + methanol (9 + 1, by volume) by homogenizing with an Ultraturrax tissue homogenizer for 5 min, and centrifuged at 11 000 *g* for 10 min. Maize grains were ground with a mill before extraction with the tissue homogenizer. The extraction procedure was repeated three times and the extracts were combined. Aqueous extracts were analysed for extractable ^{14}C-radioactivity by scintillation counting and the ^{14}C-activity of the non-extractable residue was determined by combustion as described in a recent publication.[5] Before further clean-up, the volume of the extracts was reduced to 40 ml using rotary evaporation and freeze drying. Grain extracts were additionally treated with an equal volume of acetone

to remove the polysaccharides, then centrifuged. The fat content of the supernatant was removed by extraction with dichloromethane and the supernatant concentrated for further clean-up by anionic exchange (Dowex 1 × 8). ^{14}C-Glufosinate and its metabolites were eluted with aqueous formic acid (1 + 1, by volume). The eluates were evaporated to dryness and dissolved in the HPLC solvent system 1 (2 ml). The solvent systems used were (1) aqueous KH_2PO_4 (20 mM; pH 1.95) + methanol (9 + 1, by volume), and (2) aqueous KH_2PO_4 (7.5 mM; pH 1.95) + methanol (3 + 7, by volume). HPLC separation of glufosinate and its metabolites and their identification by comparative chromatography were performed as reported previously.[5]

The validation of the extraction and clean-up procedure with reference compounds added to extracts of untreated plants showed that, with the exception of PPO, all compounds tested remained stable during the clean-up procedure. The mean overall recoveries of glufosinate and its metabolites were 78% from maize plants and 85% from rape plants.

3 RESULTS AND DISCUSSION

3.1 Dissipation and distribution of glufosinate

In order to determine whether degradation and translocation of the applied glufosinate takes place in transgenic plants and whether differences in the metabolism of the L- and D-enantiomers exist in tolerant crops, such as transgenic oilseed rape and maize, the plants were treated separately with L-glufosinate and D-glufosinate and the racemic mixture. The total residues of the applied compounds in the various plant parts at harvest time, expressed as a percentage of the radioactivity applied, are summarised in Table 1.

The results show that the largest portion of the applied herbicide, 84–90% in maize and 53–65% in oilseed rape, disappeared from the plants in the course of the growing season. These losses were mainly due to precipitation, as was shown by measurement of ^{14}C-radioactivity in the soils (data not shown). Furthermore, the different residue contents of oilseed rape and maize indicate that, in addition to rainfall, the leaf surface characteristics and different leaf morphology of maize and oilseed rape may have influenced both the amount of glufosinate taken up and the amount removed by precipitation. The upright position and the wax layer of maize leaves may explain why the amount of total residues removed by rain from maize leaves was greater than that from the broad-leaved rape plants.

With respect to the distribution of glufosinate, L-glufosinate and D-glufosinate residues in plants, the highest amounts were found in treated leaves, accounting for 4–13% in maize and 11–15% in oilseed rape. The smallest residue content was detected in the kernels, accounting for 0.07–0.3% in maize and 0.4–0.6% in oilseed rape. The amounts in stems, untreated leaves, ears, spathaceous bracts and pods successively decreased in both plant species as their distance from the treated leaves increased. An accumulation of degradation products in the kernels was not observed. The high decrease of the residues from treated leaves towards kernels is also evident from the data in Table 2, in which, in contrast to Table 1, the total residues are expressed in mg kg^{-1} (dry weight) of the sample. Total residues following treatment with glufosinate accounted for 0.1 mg kg^{-1} in rape seeds and 0.06 mg kg^{-1} in maize kernels and therefore did not exceed the maximum permitted levels for glufosinate of 1.0 mg kg^{-1} in rape and 0.1 mg kg^{-1} in maize. The inconsistencies between the data for total residues as percentage of applied herbicide (Table 1) and the tissue concentrations expressed in mg kg^{-1} values (Table 2) are possibly due to dilution effects and variations in the biomasses of the plant parts in the different growth periods and years.

3.2 Degradation products and metabolism pathway

In both oilseed rape and maize more than 95% of the residues were extractable with water, whereas only 1% were extractable with organic solvent; non-extractable

Table 1. Dissipation and distribution of ^{14}C-labelled residues of glufosinate (GA), L-glufosinate (LGA) and D-glufosinate (DGA) in intact transgenic maize and oilseed rape plants at harvest time

	Total residues (% of applied radioactivity)				
	Transgenic maize			Transgenic rape	
Fraction	GA	LGA	DGA	GA	LGA
Leaves treated	13.2	9.0	3.5	15.1	10.8
Leaves untreated	0.7	2.4	4.4	11.5	3.7
Stems	1.2	1.1	0.9	13.9	14.8
Ears	0.3	0.2	0.2	—	—
Spathaceous bracts	0.5	0.2	0.1	—	—
Pods	—	—	—	6.2	4.9
Grains	0.07	0.3	0.1	0.6	0.4
Sum	16.0	13.2	9.2	47.3	34.6

Table 2. Total residues of glufosinate (GA) and its metabolites at harvest time in different plant fractions of transgenic maize and oilseed rape plants after application of ^{14}C-labelled glufosinate (GA), L-glufosinate (LGA) and D-glufosinate (DGA)

	Total residues (mg kg^{-1} dry weight)				
	Transgenic maize			Transgenic rape	
Fraction	GA	LGA	DGA	GA	LGA
Leaves treated	65.8	8.4	3.5	43.6	45.6
Leaves untreated	1.9	0.4	1.2	13.8	6.5
Stems	2.8	0.4	0.2	7.6	4.1
Ears	0.5	0.05	0.1	—	—
Spathaceous bracts	0.7	0.1	0.09	—	—
Pods	—	—	—	3.5	3.4
Grains	0.06	0.02	0.02	0.1	0.03

residues accounted for less than 4%. These results are consistent with the results obtained for the metabolism in cell cultures.[5–7] Since non-extractable residues and compounds soluble in organic solvents did not seem to be crucial in the metabolism of glufosinate, only the aqueous phase of plant extracts was investigated further.

Distribution of glufosinate, L-glufosinate, D-glufosinate and their metabolites in the different plant fractions are summarised in Table 3 (maize) and Table 4 (oilseed rape). Data are presented as percentage of total residues detected in the plants and not as percentage of the foliar application rate.

After application of either glufosinate or the L-enantiomer, the same metabolites were formed in comparable amounts in both crop plants, indicating that it is mainly the L-enantiomer from the racemic mixture which is taken up and transformed. The main metabolite both from glufosinate and L-glufosinate was NAG, with overall amounts of 62–67% in maize and 66–91% in oilseed rape. Small amounts of the parent compound were also detected in both crops, accounting for 4–11% in maize and 2–20% in oilseed rape. The methylphosphinyl fatty acid metabolites (MPFs), such as MPB, MHB and MPP and traces of MPA, accounted for 19–27% in maize, but for only 5–11% in oilseed rape. Traces of PPO were also found in some samples of maize (data not shown). In some of the samples a compound as yet unidentified was also detected in very small amounts, as in the cell culture studies.[5] The amounts of each metabolite detected were below 1.5% of the total residues in plants in every fraction, with a few exceptions: 14% of MPP was detected in treated leaves and 4% in untreated leaves of maize after application of glufosinate and L-glufosinate, respectively, up to 4% of MHB was measured in treated leaves of oilseed rape after treatment with L-glufosinate.

After application of the D-enantiomer alone in maize, not more than 9% of the applied compound was found at harvest time in the total plant (Table 1). Nearly half of this low amount was metabolised to NAG, about 27% was converted to methylphosphinyl fatty acids and 24% remained as unchanged herbicide in maize (Table 3). These results show that D-glufosinate is metabolised to a minor extent in transgenic plants under outdoor conditions in contrast to sterile cell cultures.[5] Because D-glufosinate is not a substrate for PAT, the formation of NAG may have been due to conversion of D-glufosinate to the L-enantiomer by micro-organisms, which then provides a substrate for further metabolism by micro-organisms and plants. Since the residues of D-glufosinate were below 10% after application of the racemic mixture and also after application of pure D-glufosinate, it is suggested that about 90% of the applied D-glufosinate was not taken up by the plants but washed off by rain.

On the basis of these results and the recent findings obtained with cell cultures,[5] the degradation scheme shown in Fig 1 is proposed for the metabolism of L-glufosinate in transgenic, glufosinate-resistant oilseed rape and maize crops. The main transformation pathway of glufosinate is the inactivation of L-glufosinate by acetylation. In this way 65–90% of the L-glufosinate taken up by transgenic plants is inactivated. Moreover, the stepwise degradation of non-acetylated L-glufosinate by deamination and

Table 4. Distribution of glufosinate (GA), L-glufosinate (LGA), NAG and methylphosphinyl fatty acids (MPFs) in the different fractions of oilseed rape plants after application of glufosinate and L-glufosinate

	GA[a] (% of total residues in plants)			LGA[b] (% of total residues in plants)		
	GA	NAG	MPFs	LGA	NAG	MPFs
Leaves treated	6.6	23.7	1.2	1.4	27.1	2.0
Leaves untreated	4.7	18.1	1.1	0.4	9.7	0.7
Stems	4.6	20.0	3.0	0.5	39.8	1.9
Pods	3.9	3.6	5.8	0.1	13.5	0.8
Grains	0.1	0.4	0.2	0.01	0.4	0.1
Sum	19.9	65.8	11.3	2.4	90.5	5.5

[a] 47.3% of the radioactivity applied.
[b] 34.7% of the radioactivity applied.

Table 3. Distribution of glufosinate (GA), L-glufosinate (LGA), D-glufosinate (DGA), NAG and methylphosphinyl fatty acids (MPFs) in the different fractions of the maize plants after application of glufosinate and its enantiomers

	GA[a] (% of total residues in plants)			LGA[b] (% of total residues in plants)			DGA[c] (% of total residues in plants)		
Fraction	GA	NAG	MPFs	LGA	NAG	MPFs	DGA	NAG	MPFs
Leaves treated	9.5	56.2	15.1	2.6	53.2	15.2	14.9	13.7	12.2
Leaves untreated	0.4	1.8	1.2	0.4	5.4	5.4	7.7	27.5	8.5
Stems	0.5	5.0	1.4	0.8	2.5	4.2	1.2	4.1	4.0
Ears	0.07	1.5	0.2	0.2	0.3	0.4	0.1	0.8	1.1
Spathaceous bracts	0.3	2.3	0.3	0.2	0.03	0.6	0.06	0.4	0.4
Grains	0.02	0.1	0.3	0.2	0.2	1.6	0.03	0.5	0.4
Sum	10.8	66.9	18.5	4.4	61.6	27.4	24.0	47.0	26.6

[a] 16% of the applied radioactivity.
[b] 13.2% of the applied radioactivity.
[c] 9.2% of the applied radioactivity.

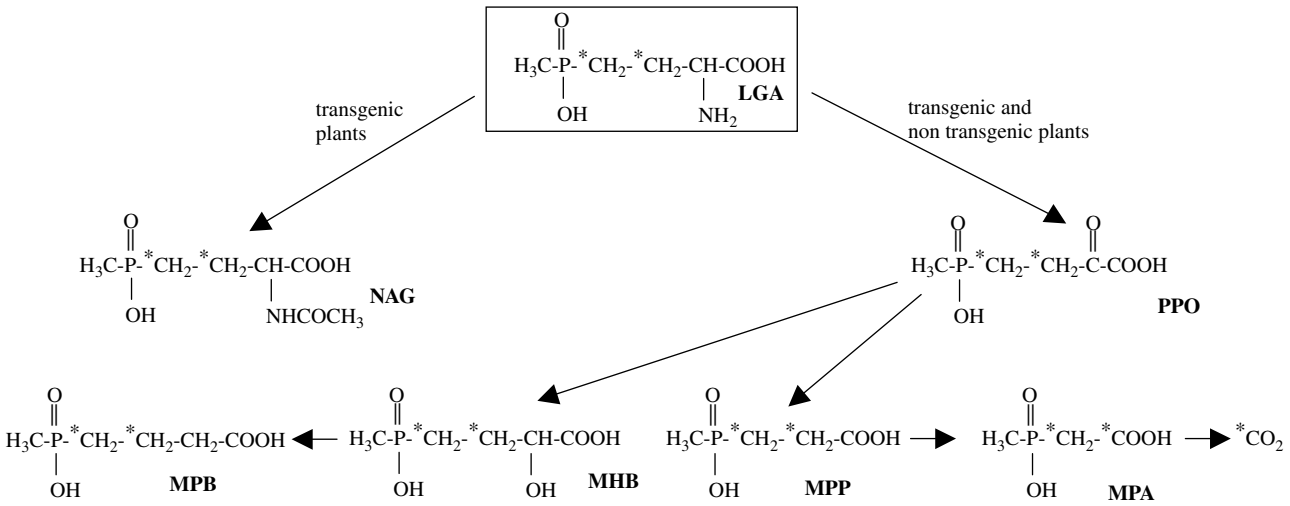


Figure 1. Pathway of L-glufosinate metabolism in transgenic, glufosinate-tolerant oilseed rape and maize crops. *C indicates the site of ^{14}C-label.

subsequent decarboxylation, which had been detected in cell cultures of non-transgenic plants,[5–7] also occurs to a minor extent in transgenic crops, as shown by the detection of different methylphosphinyl fatty acids. The formation of these metabolites is obviously not the consequence of a further degradation of NAG. In contrast to degradation of glufosinate in soil,[8,9] degradation in plants is not complete and ends generally with MPP and to a very small extent with MPA. Dröge-Laser *et al*[10] described MPP and MHB as the final stable products. In all fractions of both plant species examined, the metabolites found were the same and only the amounts decreased from treated leaves to the kernels. In contrast, studies with sterile plant cell cultures showed the possibility of degradation to MPA and MPB.[5,7] Our experiments with crop plants under outdoor conditions also indicate that MPA and MPB are formed in transgenic maize and oilseed rape. Under outdoor conditions, however, the effect of micro-organisms cannot be excluded.

3.3 Kinetics of glufosinate uptake and acetylation

The kinetics of L-glufosinate uptake and metabolism were studied in young, transgenic rape plants. The residues of L-glufosinate both in and on the plants were determined at short time intervals immediately after application at the 16-leaf stage. Leaves were washed with distilled water before extraction. The results in Table 5 show that the uptake of L-glufosinate was very fast and nearly complete after 24 h, with a maximum content of 44% of the applied herbicide. Simultaneously the removable residues on the leave surfaces decreased from 82% to 43% of the applied herbicide. The further dissipation to 0% by day 21 is probably due to precipitation and the activity of micro-organisms rather than to further uptake, since herbicide residues inside the plants remained at a constant level.

Not only the uptake but also the inactivation of L-glufosinate by acetylation was very fast in transgenic plants, as shown in Fig 2. Immediately after application, 60% of the residues detected inside the plants consisted of NAG, in addition to 26% of L-glufosinate. Up to day 3 the amount of NAG increased to 85%, whereas the amount of L-glufosinate decreased to 5%. This level remained unchanged up to the end of the study on day 21. The first metabolite, detected after 3 h, was MPP, probably formed from the non-acetylated L-glufosinate (data not shown). Furthermore minor amounts of MPP and MHB could be detected between day 1 and day 21. Because of the rapid formation of NAG, the glufosinate-tolerance of transgenic crops is supposed to be due entirely to the acetylation of L-glufosinate and not

Table 5. Kinetics of L-glufosinate uptake in transgenic oilseed rape plants

Time	Removable residues on leaves[a]	Residues in rape leaves[a]
0 h	100	0.0
1 h	81.9	4.0
3 h	88.6	4.5
1 day	42.6	44.3
3 days	14.0	43.6
21 days	—	39.1

[a] Percentage of the applied ^{14}C-L-glufosinate.

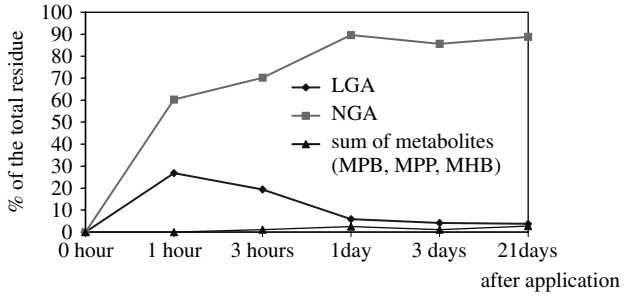


Figure 2. Kinetics of L-glufosinate metabolism in transgenic oilseed rape plants.

to its degradation via different methylphosphinyl fatty acids, which occurs also in non-transgenic, herbicide-sensitive plants.

4 CONCLUSIONS

In all experiments 65–90% of the glufosinate, L-glufosinate and D-glufosinate applied to the leaves were lost, mainly by precipitation and microbiological activity, and therefore pose no risk to the consumer. The same applies to the residues in the treated leaves. These contaminations generally reach the soil after the leaves fall off before harvest and thus might not enter the human food chain. Apart from the residues in the treated leaves, a maximum of 5% of the applied L-glufosinate remained in maize crops and about 30% in oilseed rape crops in the form of the initial substance and degradation products. The main metabolite was the non-phytotoxic NAG, accounting for 91% of the total residues in oilseed rape and 62% in maize. This compound seems to be stable in transgenic plants. In addition to NAG, lower amounts of various methylphosphinyl fatty acids, 6% in oilseed rape and 27% in maize, were also detected in transgenic plants. These metabolites were probably formed from the remaining non-acetylated L-glufosinate and distributed in all fractions of the plants, the highest contents being found in treated leaves and the lowest in the grains (0.07–0.3% in maize and 0.4–0.6% in rape). An accumulation of the degradation products in the kernels was not detected. The proportion of non-extractable residues was less than 2%. All residues of D-glufosinate and metabolites of L-glufosinate were non-herbicidal and the total residues in the grains of oilseed rape and maize remained below 0.1 mg kg^{-1}.

These results indicate that post-emergence application of glufosinate to transgenic crops is not expected to result in the formation of previously unknown metabolites or in residues above the maximum permissible levels for glufosinate.

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Monograph and review

Progresses in Biosynthesis of L-Phosphinothricin[1]

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Abstract: L-phosphinothricin is the active ingredient of the broad-spectrum, low toxic and nonselective herbicide glufosinate-ammonium, and also the second largest transgene crop resistant herbicide worldwide. Phosphinothricin consists of two isomers, but only the L-enantiomer has herbicidal activity. Biotechnological methods for preparation of optical pure L-phosphinothricin were reviewed in this article from the view of substrates and enzymes involved. Feasibility and development direction of industrial production of L-phosphinothricin by biotechnological methods was discussed on the basis of comparison of their advantages and disadvantages.

Keyword: L-phosphinothricin; biosynthesis; enantiomer;

CLC number: TQ457.29; Literature ID code: A; doi:10.3969/j.issn.1671-5284.2009.03.001

Classification Code：TQ457.29

In 1971, Bayer's research isolated a bactericidal tripeptide compound, bialaphos from Streptomyces hygroscopicus fermentation broth. Its structure was identified and it was found that [1], the tripeptide was consisted of two-molecule L-alanine and a kind of amino acid that was not known at the time. The German Hearst Company synthesized this unknown amino acid for the first time with a chemical method and named it as phosphinothricin and it was also found that this natural amino acid had high herbicidal activity. Phosphinothricin is very similar with glutamic acid in its molecular structure so that it can reversibly bind to the active site of glutamine synthetase (Gs) so as to inhibit the synthesis routes of glutamine to lead to disorder of nitrogen metabolization, excessive accumulation of ammonia and chloroplast disintegration. Thus, photosynthesis is inhibited and ultimately plants die [2].

In recent years, with the continuous development and application of new varieties of herbicide-tolerant transgenic crops, as the world's second largest herbicide-tolerant herbicide of transgenic crops, the market size of phosphinothricin has continued to grow. In 1999, the global sales of phosphinothricin was less than USD 100 million, but by 2006 the global sales of phosphinothricin was about USD 500 million. According to authoritative data, the global sales of phosphinothricin will reach USD 1 billion by 2010. Hence, its international market prospect is very broad.

Phosphinothricin has two different enantiomers, but only L- Phosphinothricin is phytotoxic and is easily decomposed in soil, has low toxicity to humans and animals, broad herbicidal spectra and little damage to the environment. Currently, phosphinothricin sold on the market is generally a racemic mixture. If the phosphinothricin product can be used in the pure optical isomer form of L-configuration, the used amount of phosphinothricin can be reduced by 50%, which is very significant for improving non-atomistic economy, reducing the cost of use and reducing environmental pressures.

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Till now, there have been many reports on the chemical synthesis of L-phosphinothricin [3-6]. However, the chemical synthesis of L-phosphinothricin is generally lengthy, the synthesis route is complicated, the yield is low and the chiral resolving agent is expensive. In contrast, the biological method has the advantages of strict stereoselectivity, mild reaction conditions, high yield and easy separation and purification of the product. Thus, exploration of availability of the biological method for producing L-phosphinothricin has great industrial value and significant social benefits.

1. Preparation method

Through the analysis and induction of literatures, it is available to classify the process of biological production of L-phosphinothricin from the starting materials and routes, including the following three categories: (1) it is obtained by direct hydrolysis of the enzymatic method with L-phosphinothricin derivatives as substrates; (2) it is obtained by selective resolution of enzyme with the precursor of racemic phosphinothricin as a substrate; and (3) it is obtained from asymmetric synthesis of enzyme with 2-carbonyl-tetra-(hydroxymethylphosphoryl) butyric acid as a substrate. In this, the enzymes involved are mainly the following 7 species: (l) protease; (2) phosphodiesterase I; (3) deacetylase; (4) amidase; (5)α-chymotrypsin; (6) glutamic dehydrogenase; and (7) transaminase.

1.1 Using L-phosphinothricin derivatives as substrates

1.1.1 Protease-based preparation method

The simplest method for preparing L-phosphinothricin by biological method is to directly hydrolyze bialaphos (l) using protease. Bialaphos is a natural tripeptide compound. Under catalysis of protease, two-molecule L-alanine are removed from bialaphos to form L- phosphinothricin (L-2) (Fig. 1).

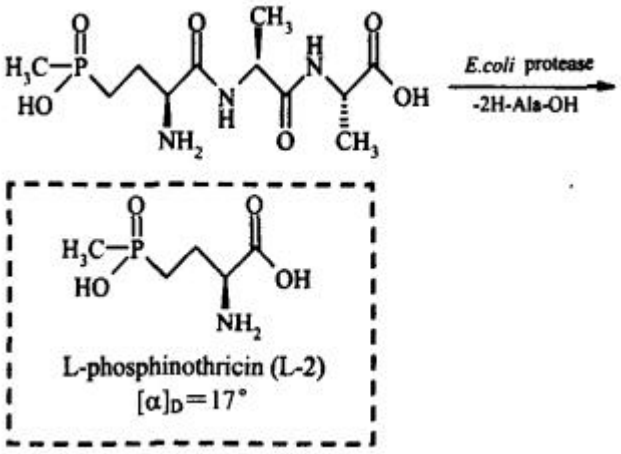


Figure 1: Protease-catalyzed hydrolysis of Bialaphos

1.1.2 Preparation method based on synergistic hydrolysis of three enzymes

The chiral compound is prone to racemization during the chemical reaction, which is very disadvantageous for the preparation of L-phosphinothricin using a chiral starting material. Natchevl [7] prepared L-3-acetylamino-4-(hydroxymethylphosphono) butanamide from L-3-amino-2-cyclopentamide by Michaelis-Beeker reaction (Fig. 2). Racemization happened during the process of acid-catalyzed hydrolysis of L-3-acetylamino-(hydroxymethylphosphono) butyramide to remove acetic acid. The product is racemic phosphinothricin. However, after three action steps of phosphodiesterase I, acylase I and glutaminase, its optical activity was maintained and L-phosphinothricin is obtained. The total yield of the three-step reaction is 75.5%.

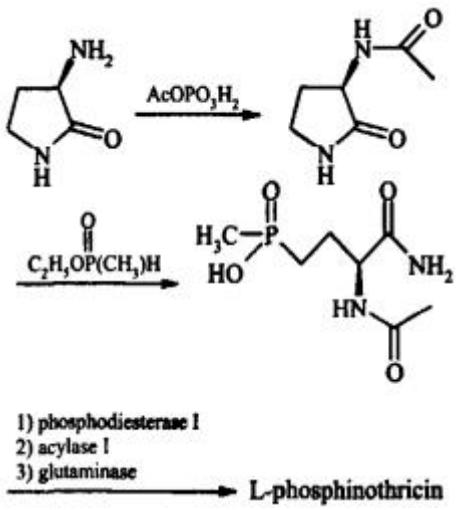


Figure 2: preparation of L-phosphinothricin by synergistic hydrolysis of phosphodiesterase I, acylase I and glutaminase

The method requires synergistic action of three enzymes. Hence, the process route is long and it must be started from chiral raw materials, which increases the production cost and is not easily used in actual production.

1.2 Using precursor of racemic phosphinothricin as a substrate

In practical industrial applications, the preparation of L-phosphinothricin is difficult and costly. A relatively economically viable method is the use of enzymatically catalyzed resolution of racemic phosphinothricin derivatives to obtain L-phosphinothricin.

1.2.1 Resolution method based on α-chymotrypsin

Natcbev [8] introduced a method for preparation of L-phosphinothricin by resolution of bialaphos ethyl ester with α-chymotrypsin (Fig. 3). The method firstly includes three steps, viz. racemic phosphinothricin is synthesized to obtain diammonium diacetate followed by hydrolysis of its ester group on C terminal using a basic mesintericopeptidase and then the peptide bond is hydrolyzed byα-chymotrypsin. In this step, α-chymotrypsin can selectively hydrolyze L-bialaphos ethyl ester ethyl ester to form L-phosphinothricin ethyl ester. Finally, the ester group on P terminal is hydrolyzed by phosphodiesterase I to obtain L-phosphinothricin.

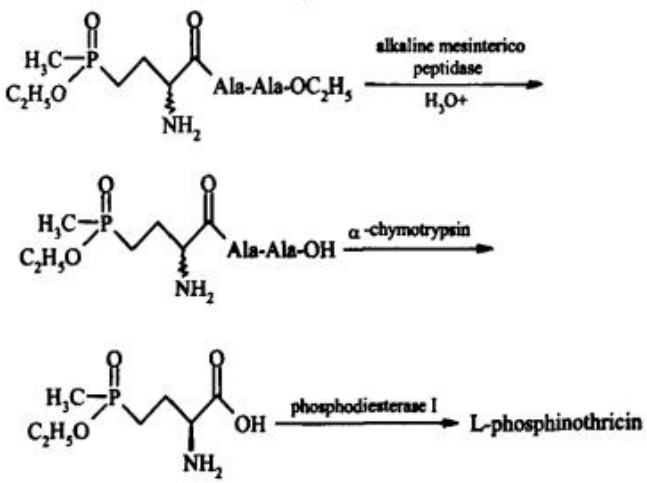


Figure 3: Preparation of L phosphinothricin byα-chymotrypsin resolution

Although L-phosphinothricin with higher purity can be prepared by the above method, the D-configuration enantiomer in the raw material can not be recycled and reused after being derivatized so that the raw material is wasted and production cost is increased.

1.2.2 Deacetylase-based resolution method

US patent (US4389488) [91] introduced the preparation of L-phosphinothricin by resolution of N-phenylacetyl-phosphinothricin using penicillin acylase of E.coli and found that the penicillin acylase had an excellent resolution effect on the L-phosphinothricin derivatives with aryl-substituted N terminal and a poor resolution effect on the L-phosphinothricin derivatives with aliphatic-substituted N terminal. However, the cost of preparing N-phenylacetyl-phosphinothricin is relatively high, so the development of N-acetyl- phosphinothricin as a resolution substrate has become an ideal alternative route. The key to developing an alternative route for N-acetyl-phosphinothricin is to select biological enzymes with higher stereoselectivity. Some scholars have found that deacetylase has an ideal resolution effect on acetyl-substituted amino acids. In US patent (US 6686181)[10], the processes of selecting and purifying deacetylase (recombinase) and preparing L-phosphinothricin with the purified enzyme are introduced (Fig. 4). The L-phosphinothricin with enantiomeric excess (ee) about 100% can be obtained at temperature of 37 °C and pH of 8.0 after being catalyzed for 48h by deacetylase while the substrate concentration is less than 100 mmol/L. The enantiomeric excess (ee) of the product is 66% while the substrate concentration is up to 500 mmol/L. The deacetylase is used in the column reactor after being immobilized, the reaction is carried out for 10 d by dropping a substrate, the accumulative concentration substrate is up to 500 mmol/L and the conversion rate of the L-configurated acetylated phosphinothricin is 83%.

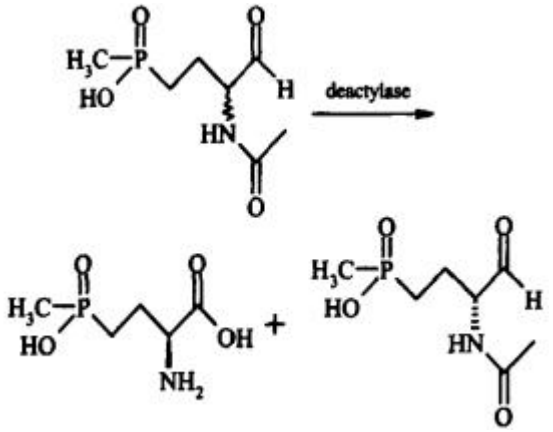


Figure 4: Preparation of L- phosphinothricin by deacetylase resolving N-terminal acetylated phosphinothricin

1.2.3 Amidase-based resolution method

The amidase (EC3.5.1.4) in certain microorganisms is stereoselective and can selectively hydrolyze an enantiomer in a racemic amide to the corresponding carboxylic acid. Thus, it has a wide range of applications in preparing the chiral amino acid field.

W Lothar et al. [11] introduced the preparation of L-phosphinothricin using amidase (Fig. 5). They prepared L-phosphinothricin by using Entero-bacter aerogenes 9164 L-amidase screened from soil to hydrolyze (R,S) -2-amino-4-(hydroxymethylphosphono)-butanamide. Meanwhile, NH_3 is released. After shaking at 28 °C for 15 h, the ee value of L-phosphinothricin in the conversion solution is 95.7 %.

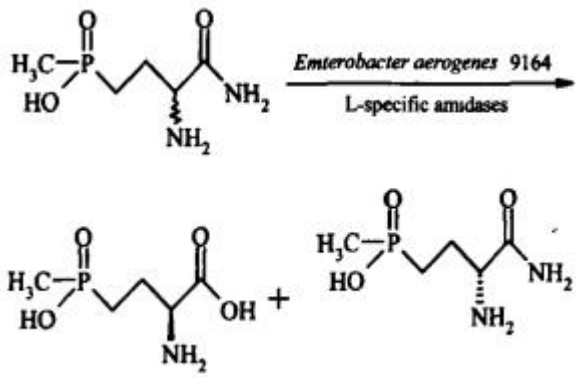


Figure 5: L-Amidase-catalyzed preparation of L-phosphinothricin

The theoretical yield of the amidase resolution method is 50%. Hence, unreacted D-PTA must be recovered. D-PTA is extracted with an organic solvent at appropriate pH (between 9 and 11) and then racemized in certain conditions to be reused as a starting material.

1.3 Preparation method using 2-carbonyl-4-(hydroxymethylphosphono)butyric acid as a raw material

1.3.1 Preparation method based on glutamic acid dehydrogenase

Glutamic acid hydrogenase is a key enzyme in the synthesis of glutamic acid and is involved in the synthesis and decomposition of glutamic acid. According to the report of Fang JM et al. [12], by using glutamic acid dehydrogenase, 2-carbonyl-(hydroxymethylphosphono)butyric acid is reduced to L-phosphinothricin in ammonium phosphate buffer (Fig. 6). Coenzyme NADH is required to participate during the reaction and meanwhile the energy required for the reaction is provided by the glucose oxidation process. The reaction was carried out at pH of 7.5 and the reaction is terminated after 6 days. The yield of L-phosphinothricin is only 25% and the ee value is 89.2%.

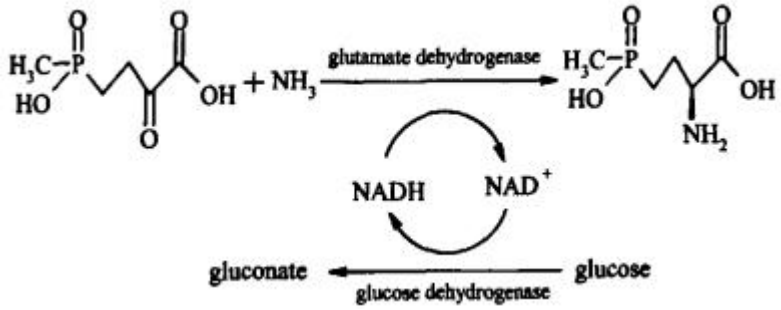


Figure 6: Synthesis of L-phosphinothricin by glutamic acid deaminase

In the process of synthesizing L-phosphinothricin by the above ammonia assimilation route, the utilization efficiency of glutamic acid dehydrogenase is very low (enzyme activity is only 0.5-1 U/mg), the product yield is low and the coenzyme NADH needs to be regenerated. Therefore, it is difficult for industrial production.

1.3.2 Transaminase-based biosynthesis

The α-amino acid can be produced by transamination with the corresponding a-keto acid catalyzed by an aminotransferase. Aminotransferase is a kind of enzyme widely present in living organisms. The substrate is not strictly specific and does not require coenzyme. Therefore, the preparation process of phosphinothricin using aminotransferase relative to glutamic acid dehydrogenase has a clear advantage.

When studying the metabolic route of L-phosphinothricin in soil microorganisms, it is found that L-phosphinothricin is decomposed into a-keto acid, i.e. 2-hydroxy-4-(hydroxymethylphosphono) butyric acid by transamination. Transamination is a reversible reaction and 2-carbonyl-4-(hydroxymethylphosphono) butyric acid can also be converted to L-phosphinothricin by reverse reaction under the catalysis of a transaminase. From this idea, A Schulz et al. [13] used the transaminase separated from E. coli K-12, 2-carbonyl-4 - (transmethylmethylphosphono) butyric acid as a substrate and L-glutamic acid as an amino donor to obtain L-phosphinothricin through transamination (Fig. 7). The highest concentration of the product is 76.1 g/L. The transaminase is immobilized and put in the bioreactor. The highest product production rate of the reactor us 50 g/(L•h), and the ee value of L-phosphinothricin is over 99.9%.

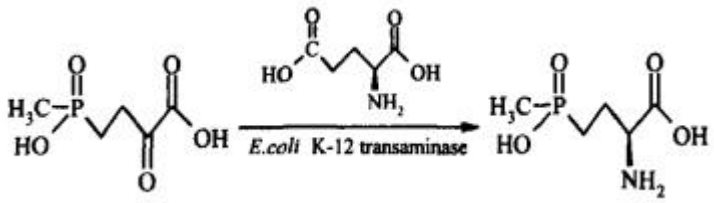


Figure 7: Preparation of L-phosphinothricin by transamination

There is a reaction equilibrium in the reversible reaction. In order to shift the equilibrium toward the product to increase the conversion rate of the transamination reaction, it is necessary to add an excess amount of L-glutamic acid, which causes waste of raw materials and increases the difficulty of separation of the product due to the unreacted L-glutamic acid [14]. One way to solve this problem is to use L-aspartic acid instead of L-glutamic acid. L-aspartic acid is converted to oxaloacetate by transamination and oxaloacetate is easily decomposed into pyruvic acid so as to break the equilibrium of the transamination reaction. In view of this, K Bartsch [15] produced oxaloacetate transaminase capable of specifically converting 2-carbonyl-4-(hydroxymethylphosphono) butyric acid. When the substrate concentration is 552 mmol/L, the conversion of the reaction reaches 75% after 4 hours of heat preservation at high temperature (80 °C) under the catalysis of the oxaloacetate transaminase. The L-aspartic acid was completely converted.

2. Outlook

Bayer is the world's largest producer and market share of L-phosphinothricin and has advanced production technology. Although patent of the compound L-phosphinothricin has expired, it is still a monopolized period for the L-phosphinothricin market due to production costs and technical barriers. The production technology of L-phosphinothricin products is difficult and the process route is complicated. There are no large-scale production enterprises in China. The production of L-phosphinothricin has not been reported so far.

Although there have been many reports on the chemical synthesis of L-phosphinothricin, there are often two defects in this type of methods: firstly, chiral precursors are generally used and the chiral precursors are easily racemized in subsequent reactions; secondly, the L-phosphinothricin prepared by chemical method has a low enantiomeric excess, and it is difficult to reach the standard of optically pure isomer. Therefore, the use of enzyme catalysts with high selectivity, specificity and simple process, the development of a simple, efficient and environmentally friend biological preparation method will be an important breakthrough and development direction for the production of L-phosphinothricin in the future. From the current processes, the most industrialized biological methods are the selective hydrolysis by

amidase and aminotransferase asymmetric synthesis. However, in order to achieve industrialization, there is still a need to reduce the cost of substrate synthesis and breakthrough in the recycling of substrates and auxiliary substrates, the improvement of enzyme activity and stereoselectivity and the recycling and reuse of products and so on.

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(19) United States

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Minowa et al.

(54) METHOD FOR PRODUCING L-2-AMINO-4-(HYDROXYMETHYL-PHOSPHINYL)-BUTANOIC ACID

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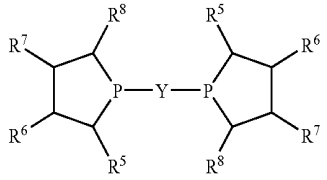
(57) **ABSTRACT**

Disclosed is a method for efficiently and highly selectively producing L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid, which is useful as a herbicide, through a catalytic asymmetric synthesis reaction. Specifically disclosed is a method for producing L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid which is characterized in that a dehydroamino acid is subjected to an asymmetric hydrogenation by using a rhodium catalyst represented by the formula (2) below and having an optically active cyclic phosphine ligand, and then the resulting product is subjected to hydrolysis:

$$[Rh(R^4)(L)]X \quad (2)$$

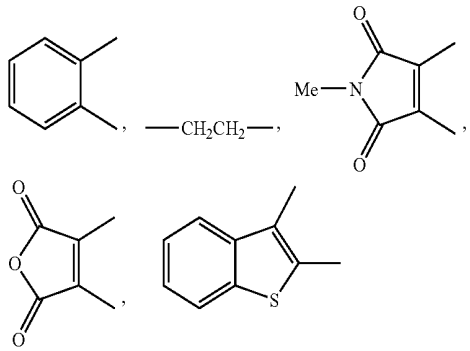
[where R^4 represents 1,5-cyclooctadien or norbornadien; L represents a substance represented by the following formula (6):

(6)



(wherein R^5 and R^8 respectively represent a C_{1-4} alkyl group; R^6 and R^7 respectively represent hydrogen atom or hydroxyl group; and Y represents a group selected from groups represented by the following formula (7):

(7)



(where Me represents methyl group)).].

METHOD FOR PRODUCING L-2-AMINO-4-(HYDROXYMETHYLPHOSPHINYL)-BUTANOIC ACID

TECHNICAL FIELD

[0001] This invention relates to a method for producing L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid (abbreviated as L-AMPB herein) which is useful as a herbicide.

BACKGROUND ART

[0002] D,L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid (abbreviated as DL-AMPB herein) is a well known compound having a herbicidal activity, and is used as an effective herbicide having a broad-spectrum (JP Patent Kokai JP-A-52-139727). However, it has been shown that the herbicidal activity of DL-AMPB is about one-half that of L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid (abbreviated as L-AMPB herein), and the essence of the activity is L-AMPB (JP Patent Kokai JP-A-55-000025, JP Patent Kokai JP-A-59-219297). Therefore, there is a strong desire to develop an efficient method for producing L-AMPB selectively.

[0003] Conventionally known methods for producing L-AMPB include (a) methods making use of microorganisms, enzymes, and (b) asymmetric synthesis methods. As the methods (a), there are disclosures such as a method for producing L-AMPB from 4-(hydroxymethylphosphinyl)-2-oxobutanoic acid with transaminase (JP Patent Kohyo JP-A-2003-528572) and a method for subjecting N-acetyl-DL-AMPB to enzymatic racemic resolution to produce L-AMPB (JP Patent Kohyo JP-A-2003-505031). However, in all of these methods, there are problems such that the reaction needs to be carried out at a low substrate concentration, complicated processes of aftertreatment and purification are required, and further an equimolar or more amount of expensive optically active amino acid(s) must be used in the transamination. There are disclosures, as the asymmetric synthesis methods (b), such as a method for alkylating (R)-3-isopropyl-2,5-dialkoxy-3,6-dihydropyrazine to synthesize L-AMPB (JP Patent Kokai JP-A-62-132891, and Tetrahedron Lett. 1255 (1987)) and a method for converting L-vinylglycine into L-AMPB stereospecifically (Tetrahedron Lett. 8263 (1992)). However, expensive optically active amino acids such as D-valine and L-vinylglycine need to be used for a starting material in these methods. Therefore, there are problems concerning inexpensive supply of raw material (s) in large quantities. Moreover, there are disclosed asymmetric synthesis methods such as a method for producing L-AMPB by subjecting 2-acetamide-4-(hydroxymethylphosphinyl)-butenoic acid to asymmetric hydrogenation reaction (JP Patent Kokai JP-A-62-226993, and J. Org. Chem. 56, 1783 (1991)). In this method, the asymmetric hydrogenation reaction is carried out using a rhodium catalyst comprising an optically active diphenylphosphine compound as a ligand. Therefore, it is thought that this method is efficient in terms of the use of chiral source in a catalytic amount. However, there is a problem such that optical yield is not high in this method.

[0004] On the other hand, asymmetric hydrogenation reaction to convert dehydroamino acid into amino acid using the rhodium catalyst in general is well known already (Chem. Rev., 103, 3029-3070 (2003)). However, most of the reactions are asymmetric reductions against dehydroamino acid having alkyl group and aryl group at side chain(s), and reactions using dehydroamino acid having highly polar substituent at side chain(s) are scarcely exemplified.

[0005] [Patent Publication 1] JP Patent Kokai JP-A-52-139727

[0006] [Patent Publication 2] JP Patent Kokai JP-A-55-000025

[0007] [Patent Publication 3] JP Patent Kokai JP-A-59-219297

[0008] [Patent Publication 4] JP Patent Kohyo JP-A-2003-505031

[0009] [Patent Publication 5] JP Patent Kokai JP-A-62-132891

[0010] [Patent Publication 6] JP Patent Kokai JP-A-62-226993

[0011] [Non-patent Document 1] Tetrahedron Lett. 1255 (1987)

[0012] [Non-patent Document 2] Tetrahedron 8263 (1992)

[0013] [Non-patent Document 3] J. Org. Chem. 56, 1783 (1991)

[0014] [Non-patent Document 4] Chem. Rev., 103, 3029-3070 (2003)

DISCLOSURE OF THE INVENTION

Problem to be Solved by the Invention

[0015] It is an object of the present invention to provide an efficient method for producing L-AMPB, which is useful as a herbicide, in high enantiomeric excess through catalytic asymmetric synthesis reaction.

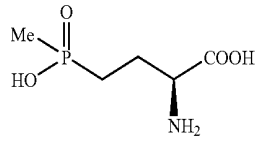
Means to Solve the Problem

[0016] The present inventors have conducted studies on asymmetric catalysts in asymmetric hydrogenation reaction of 2-acetylamide-4-(hydroxymethylphosphinyl)-butenoic acid and, as a result, found that L-AMPB is efficiently obtained in a high enantiomeric excess in case of using a rhodium catalyst having an optically active cyclic phosphine ligand. This finding has led to the completion of the present invention.

[0017] That is, the present invention is set forth as follows.

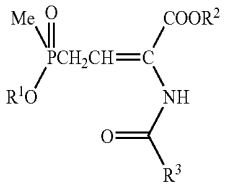
[0018] A method for producing L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid represented by the following formula (5):

(5)



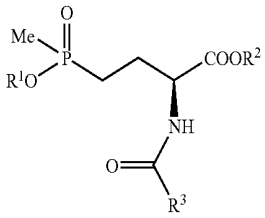
comprising the steps of:

[0019] subjecting a compound represented by the following formula (1):



(1)

[where R^1 and R^2 represent identically or differently hydrogen atom or C_{1-4} alkyl group, and R^3 represents C_{1-4} alkyl group, aryl group, C_{1-4} alkyloxy group or aryloxy group]
to hydrogenation reaction under hydrogen atmosphere in the presence of asymmetric catalyst to produce a compound represented by the following formula (4):



(4)

[where R^1, R^2 and R^3 have the same meaning as the formula (1)];

[0020] and subjecting the produced compound represented by the formula (4) to hydrolysis;

[0021] said asymmetric catalyst being represented by the following formula (2):

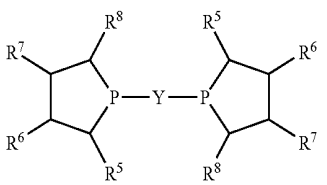
$$[Rh(R^4)(L)]X \quad (2)$$

[where R^4 represents 1,5-cyclooctadiene or norbornadiene, L represents an optically active cyclic phosphine ligand represented by the following formula (6) or (8), and X represents BF_4, ClO_4, PF_6, SbF_6, BPh_4, or OTf (where Tf represents trifluoromethanesulfonyl group)]
or the following formula (3):

$$[Rh(L)(Z)]_2 \quad (3)$$

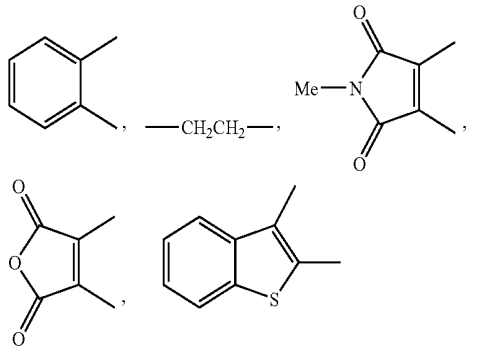
[where L has the same meaning as in the formula (2), and Z represents halogen atom];

[0022] said formula (6) being:



(6)

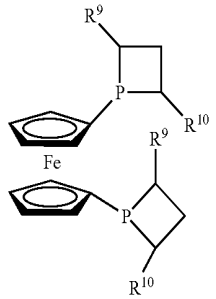
[where R^5 and R^8 represent C_{1-4} alkyl group, and R^6 and R^7 represent hydrogen atom or hydroxyl group, and Y represents a group selected from the groups represented by the following formula (7):



(7)

[where Me represents methyl group]];

[0023] said formula (8) being



(8)

[where R^9 and R^{10} represent C_{1-4} alkyl group].

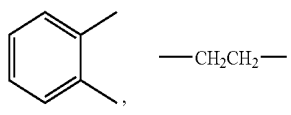
[0024] Moreover, in one preferred embodiment of the present invention, L in the formula (2) or (3) can be a ligand represented by the formula (8), and, in another preferred embodiment of the present invention, L in the formula (2) or (3) can be a ligand represented by the formula (6).

[0025] In a further preferred embodiment of the present invention, L can be 1,2-bis(2,5-dimethyl phosphorano) benzene, 1,2-bis(2,5-diethyl phosphorano) benzene, 1,2-bis(2,5-diisopropyl phosphorano) benzene, 1,2-bis(2,5-dimethyl-3,4-dihydroxyphosphorano) benzene, 1,2-bis(2,5-dimethyl phosphorano) ethane, or 1,2-bis(2,5-diethyl phosphorano) ethane.

[0026] In a preferred embodiment of the present invention, the asymmetric catalyst represented by the formula (2) can be used.

[0027] In a preferred embodiment of the present invention, the asymmetric catalyst represented by the formula (2) can be used, and L in the formula (2) can be a ligand represented by the formula (6).

[0028] In a preferred embodiment of the present invention, L in the formula (2) or (3) can be a ligand represented by the formula (6), and Y in the ligand represented by the formula (6) can be a group selected from the groups represented by the following formula (9):



(9)

[0029] In a further preferred embodiment of the present invention, L can be 1,2-bis(2,5-dimethyl phosphorano) benzene, 1,2-bis(2,5-diethyl phosphorano) benzene, 1,2-bis(2,5-diisopropyl phosphorano) benzene, 1,2-bis(2,5-dimethyl-3,4-dihydroxyphosphorano) benzene, 1,2-bis(2,5-dimethyl phosphorano) ethane, or 1,2-bis(2,5-diethyl phosphorano) ethane.

[0030] In a preferred embodiment of the present invention, the asymmetric catalyst represented by the formula (2), wherein X is OTf or BF_4, can be used.

[0031] In a preferred embodiment of the present invention, R^1 and R^2 can be hydrogen atom and R^3 can be C_{1-4} alkyl group, in the formula (1).

EFFECT OF THE INVENTION

[0032] According to the method of the present invention, L-AMPB, which is useful as a herbicide, can be efficiently produced in high enantiomeric excess, 92% ee or more.

PREFERRED MODE(S) FOR CARRYING OUT THE INVENTION

[0033] The groups represented by R^1, R^2 and R^3 in the compounds represented by the formulae (1) and (4) used in the present invention are explained.

[0034] C_{1-4} alkyl groups represented by R^1, R^2 and R^3 or C_{1-4} alkyl groups existing on the substituent represented by R^1, R^2 and R^3 are specifically exemplified by methyl group, ethyl group, n-propyl group, isopropyl group, n-butyl group, 2-butyl group, isobutyl group, and t-butyl group.

[0035] Aryl groups represented by R^1, R^2 and R^3 or aryl groups on the groups represented by R^1, R^2 and R^3 are specifically exemplified by phenyl group, naphthyl group, and anthracenyl group.

[0036] The compound represented by the formula (1) can be synthesized by the method described in JP Patent Kokai JP-A-62-226993 or J. Org. Chem. 56, 1783 (1991).

[0037] In the compound represented by the formula (1), it is preferable that R^1 and R^2 are hydrogen atom, and R^3 is C_{1-4} alkyl group.

[0038] Concrete examples of the compounds represented by the formula (1) include the following compounds:

[0039] 2-acetamide-4-(hydroxymethylphosphinyl)-butenoic acid,

[0040] 2-propionylamide-4-(hydroxymethylphosphinyl)-butenoic acid,

[0041] 2-benzoylamide-4-(hydroxymethylphosphinyl)-butenoic acid,

[0042] 2-t-butoxycarbonylamide-4-(hydroxymethylphosphinyl)-butenoic acid,

[0043] 2-benzyloxycarbonylamide-4-(hydroxymethylphosphinyl)-butenoic acid,

[0044] 2-acetamide-4-(methoxy(methyl)phosphinyl)-butenoic acid methyl ester,

[0045] 2-propionylamide-4-(methoxy(methyl)phosphinyl)-butenoic acid methyl ester,

[0046] 2-benzoylamide-4-(methoxy(methyl)phosphinyl)-butenoic acid methyl ester,

[0047] 2-t-butoxycarbonylamide-4-(methoxy(methyl) phosphinyl)-butenoic acid methyl ester,

[0048] 2-benzyloxycarbonylamide-4-(methoxy(methyl) phosphinyl)-butenoic acid methyl ester,

[0049] 2-acetamide-4-(methoxy(methyl)phosphinyl)-butenoic acid methyl ester,

[0050] 2-propionylamide-4-(methoxy(methyl)phosphinyl)-butenoic acid,

[0051] 2-benzoylamide-4-(methoxy(methyl)phosphinyl)-butenoic acid,

[0052] 2-t-butoxycarbonylamide-4-(methoxy(methyl) phosphinyl)-butenoic acid,

[0053] 2-benzyloxycarbonylamide-4-(methoxy(methyl) phosphinyl)-butenoic acid,

[0054] 2-acetamide-4-(hydroxymethylphosphinyl)-butenoic acid methyl ester,

[0055] 2-propionylamide-4-(hydroxymethylphosphinyl)-butenoic acid methyl ester,

[0056] 2-benzoylamide-4-(hydroxymethylphosphinyl)-butenoic acid methyl ester,

[0057] 2-t-butoxycarbonylamide-4-(hydroxymethylphosphinyl)-butenoic acid methyl ester, and

[0058] 2-benzyloxycarbonylamide-4-(hydroxymethylphosphinyl)-butenoic acid methyl ester.

[0059] The groups represented by R^5, R^8, R^9, R^{10}, and Z in the asymmetric catalysts represented by the formulae (2) and (3) used in the present invention are explained.

[0060] C_{1-4} alkyl groups represented by R^5, R^8, R^9 and R^{10} are concretely exemplified by methyl group, ethyl group, n-propyl group, isopropyl group, n-butyl group, 2-butyl group, isobutyl group, and t-butyl group.

[0061] Halogen atoms represented by Z are concretely exemplified by chlorine atom, bromine atom, and iodine atom.

[0062] With respect to a combination(s) of R^5, R^6, R^7, and R^8 in the ligand represented by the formula (6) used in the present invention, it is preferable that R^5 and R^8 are C_{1-4} alkyl group, and R^6 and R^7 are hydrogen atom; or R^5 and R^8 are C_{1-4} alkyl group, and R^6 and R^7 are hydroxy group.

[0063] Moreover, the asymmetric ligand represented by L can be synthesized by the method described in J. Am. Chem. Soc., 113, 8518 (1991), J. Org. Chem., 63, 8031 (1998), J. Org. Chem. 65, 3489 (2000), Angew. Chem. Int. Ed. 39, 1981 (2000), or J. Org. Chem. 68, 1701 (2003), or is commercially available.

[0064] L is, preferably, a ligand represented by the formula (6) or (8), more preferably, a ligand represented by the formula (6). Further, Y is preferably a group selected from the groups represented by the formula (9). Especially preferably, L is exemplified by the ligand represented by the formula (6), wherein Y is phenyl group, and R^5 and R^8 are C_{1-4} alkyl group, and R^6 and R^7 are hydrogen atom.

[0065] Concrete examples of L include, for example, 1,2-bis(2,5-dimethyl phosphorano) benzene, 1,2-bis(2,5-diethyl phosphorano) benzene, 1,2-bis(2,5-diisopropyl phosphorano) benzene, 1,2-bis(2,5-dimethyl-3,4-dihydroxy phosphorano) benzene, 1,2-bis(2,5-dimethyl phosphorano) ethane, 1,2-bis(2,5-diethyl phosphorano) ethane, 1,1'-bis(2,4-dimethyl phosphothano) ferrocene, 1,1'-bis(2,4-diethyl phosphothano) ferrocene, 2,3-bis(2,5-dimethyl phosphoranyl)maleic anhydride, 2,3-bis(2,5-dimethyl phosphoranyl) maleic-N-methylimide, 2,3-bis(2,5-dimethyl phosphorano) benzo[b]thiophene, and 2,3-bis(2,5-diethyl phosphorano) benzo[b]thiophene, etc. Preferably, 1,2-bis(2,5-dimethyl phosphorano) benzene, 1,2-bis(2,5-diethyl phosphorano) benzene, 1,2-bis(2,5-diisopropyl phosphorano) benzene, 1,2-bis(2,5-dimethyl-3,4-dihydroxy phosphorano) benzene, 1,2-bis(2,5-dimethyl phosphorano) ethane, or 1,2-bis(2,5-diethyl phosphorano) ethane is selected. More concrete examples of L include (S,S)-1,2-bis(2,5-dimethyl phosphorano) benzene

(abbreviated as (S,S)-Me-DUPHOS™), (S,S)-1,2-bis(2,5-diethyl phosphorano) benzene (abbreviated as (S,S)-Et-DUPHOS™), (R,R)-1,2-bis(2,5-diisopropyl phosphorano) benzene (abbreviated as (R,R)-iPr-DUPHOS™), (S,S,S,S)-1,2-bis(2,5-dimethyl-3,4-dihydroxy phosphorano) benzene (abbreviated as (S,S,S,S)-ROPHOS®), (S,S)-1,2-bis(2,5-dimethyl phosphorano) ethane (abbreviated as (S,S)-Me-BPE), (S,S)-1,2-bis(2,5-diethyl phosphorano) ethane (abbreviated as (S,S)-Et-BPE), 1,1'-bis(2,4-dimethyl phosphothano) ferrocene (abbreviated as Me-FerroTANE®), (S,S)-1,1'-bis(2,4-diethyl phosphothano) ferrocene (abbreviated as (S,S)-Et-FerroTANE®), (S,S)-2,3-bis(2,5-dimethyl phosphoranyl) maleic anhydride, (S,S)-2,3-bis(2,5-dimethyl phosphoranyl) maleic-N-methylimide, (S,S)-2,3-bis(2,5-dimethyl phosphorano) benzo[b]thiophene, and (S,S)-2,3-bis (2,5-diethyl phosphorano) benzo[b]thiophene. Preferably, (S,S)-Me-DUPHOS™, (S,S)-Et-DUPHOS™, (R,R)-iPr-DUPHOS™, (S,S,S,S)-ROPHOS®, (S,S)-Me-BPE, or (S,S)-Et-BPE is selected.

[0066] The asymmetric catalysts represented by the formulae (2) and (3) can be synthesized by the method described in J. Am. Chem. Soc., 93, 3089 (1971), J. Am. Chem. Soc., 99, 5946 (1977), Chemical Society of Japan, "JIKKEN KAGAKU KOZA (Course of Study of Experimental Chemical) 4th ed.", Organic metallic complex, 18, 339-344 (1991) Maruzen, or can be purchased from a market.

[0067] With respect to the asymmetric catalyst, the compound represented by the formula (2) is preferably used.

[0068] The asymmetric catalyst represented by the formula (2) or (3) is concretely exemplified by $[Rh(L)Cl]_2$, $[Rh(L)Br]_2$, $[Rh(L)I]_2$, $[Rh(cod)L]BF_4$, [Rh(cod)L]OTf, $[Rh(cod)L]BPh_4$, $[Rh(cod)L]ClO_4$, $[Rh(cod)L]PF_6$, $[Rh(nbd)L]BF_4$, [Rh(nbd)L]OTf, $[Rh(nbd)L]BPh_4$, $[Rh(nbd)L]ClO_4$, and $[Rh(nbd)L]PF_6$, etc. More preferably, $[Rh(cod)L]BF_4$, [Rh(cod)L]OTf, $[Rh(nbd)L]BF_4$, or [Rh(nbd)L]OTf is selected (in this case where, especially preferably, L is exemplified by the ligand represented by the formula (6), wherein Y is phenyl group, R^5 and R^8 are C_{1-4} alkyl group, and R^6 and R^7 are hydrogen atom). Here, cod and nbd represent 1,5-cyclooctadiene and norbornadiene, respectively.

[0069] In the method of subjecting the compound represented by the formula (1) to hydrogenation reaction using the asymmetric catalyst represented by the formula (2) or (3), to produce the compound represented by the formula (4), solvents to be used are exemplified by methanol, ethanol, n-propanol, isopropanol, n-butanol, s-butanol, t-butanol, n-pentanol, methoxyethanol, trifluoroethanol, diethylether, tetrahydrofuran, dimethoxyethane, dioxane, water, methylene chloride, chloroform, benzene, toluene, acetone, acetonitrile, N,N-dimethylformamide, dimethylsulfoxide and a combination(s) of two or more kinds of these solvents. Preferably, methanol, ethanol, n-propanol, n-butanol, n-pentanol, water or a combination of two or more kinds of these solvents is selected. The reaction concentration is selected within the range of from 1 to 60% by mass, preferably from 5 to 40% by mass. The amount of use of asymmetric catalyst is selected such that the ratio of the compound represented by the formula (1)/asymmetric catalyst represented by the formula (2) or (3) in molar ratio is within the range of from 10 to 100000, preferably from 100 to 10000. The reaction temperature is selected within the range of from 0 to 100° C., preferably from 15 to 60° C. The hydrogen pressure is selected within the range of from a hydrogen atmosphere to 100 atmospheres, preferably from 1 to 10 atmospheres. The reaction time differs depending on the sort or the used amount of the catalyst. The reaction time is ordinarily selected within the range of from 1 minute to 48 hours, preferably from 10 minutes to 24 hours.

[0070] In the reaction of subjecting the compound represented by the formula (4) to hydrolysis to produce the compound represented by the formula (5), solvents to be used are exemplified by water, and acids to be used are exemplified by mineral acids such as hydrochloric acid and sulfuric acid. The concentration in case of using hydrochloric acid is ordinarily selected within the range of from 6 to 12M, and the concentration in case of using sulfuric acid is ordinarily selected within the range of from 2 to 18M. The reaction temperature is selected within the range of from 20 to 150° C., preferably from 50 to 120° C. The reaction time is selected within the range of from 2 to 12 hours, preferably from 4 to 8 hours.

EXAMPLES

[0071] Hereinafter, the present invention is concretely explained by referring to Examples. However, the present invention is not limited to these Examples.

[0072] In the following Examples, (+)-1,2-bis((2S,5S)-2,5-dimethyl phosphorano benzene(cyclooctadiene)rhodium(I) trifluoromethanesulfonate is abbreviated as [Rh((S,S)-Me-DUPHOS™)(cod)]OTf, and (+)-1,2-bis((2S, 5S)-2,5-diethyl phosphorano benzene(cyclooctadiene)rhodium(I) trifluoromethanesulfonate is abbreviated as [Rh((S,S)-Et-DUPHOS™)(cod)]OTf, and bis(1,5-cyclooctadiene)rhodium(I) trifluoromethanesulfonate is abbreviated as $[Rh(cod)_2]OTf$, and (−)-1,2-bis((2S,5S)-2,5-diisopropyl phosphorano benzene is abbreviated as (S,S)-iPr-DUPHOS™, and (+)-1,2-bis ((2S, 5S)-2,5-dimethyl-(3S,4S)-3,4-dihydroxy phosphorano)benzene bis(trifluoromethanesulfonate) is abbreviated as (S, S, S, S)-ROPHOS®-bis(OTf), and (−)-1,1'-bis((2S, 4S)-2,4-diethyl phosphothano)ferrocene(1,5-cyclooctadiene)rhodium(I) tetrafluoroborate is abbreviated as [Rh((S,S)-Et-FerroTANE®)(cod)]BF_4. Here, [Rh((S,S)-Me-DUPHOS™)(cod)]OTf, [Rh((S,S)-Et-DUPHOS™)(cod)]OTf, $[Rh(cod)_2]OTf$, (S,S)-iPr-DUPHOS™, (S,S,S,S)-ROPHOS®-bis(OTf) and [Rh((S,S)-Et-FerroTANE®)(cod)]BF_4, which are manufactured by Strem Co., were used.

Determination of Enantiomeric Excess

[0073] The enantiomeric excess for the produced compound (5) was determined using high performance liquid chromatography (HPLC) under the following conditions. The D-form is firstly eluted, and the L-form is secondly eluted.
Column: SUMICHIRAL OA6100 (4.6×150 mm),
Mobile phase: 2 mM copper sulfate aqueous solution

Detection: UV254 nm

[0074] Flow rate: 1.0 ml/min
Column temperature: 30° C.

Example 1

Production of L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid

[0075] 300 mg of 2-acetamino-4-(hydroxymethylphosphinyl)-butenoic acid, 9.0 mg of [Rh((S,S)-Me-DUPHOS™)(cod)]OTf, and 10 ml of methanol were put in a stainless autoclave under argon atmosphere, and then stirred at room temperature for 22 hours under a hydrogen pressure of 0.3

MPa. After the conclusion of the reaction, the solvent was concentrated under reduced pressure, and to the residue thus obtained was added 10 ml of 6N hydrochloric acid, and the mixture thus obtained was refluxed for 12 hours. The solvent was distilled away under reduced pressure, and 4 ml of propyleneoxide was added, and the mixture thus obtained was stirred for 1 hour. After the concentration under reduced pressure, the residue thus obtained was purified with ion-exchange resin (Dowex® 1×4 Ac, 200-400 mesh: eluent 10% acetic acid aqueous solution) to obtain 211 mg of objective L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid as a solid. HPLC analysis (retention time: D-form 4.0 minutes, L-form 5.5 minutes) indicated that the enantiomeric excess of this product was 92.9% ee.

[0076] ^{1}H-NMR (D_2O) δ: 1.28 (3H, d, J=13.9 Hz), 1.57-1.78 (2H, m), 1.95-2.11 (2H, m), 3.89 (1H, t, J=6.1 Hz).

[0077] APIMASS: m/z 182$[M+H]^+$.

Example 2

Production of L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid

[0078] When the reaction was carried out in the same manner as in Example 1 except that 10 ml of n-butanol was used as a solvent instead of 10 ml of methanol in Example 1, 215 mg of objective L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid was obtained. HPLC analysis indicated that the enantiomeric excess of this product was 92.7% ee.

Example 3

Production of L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid

[0079] When the reaction was carried out in the same manner as in Example 1 except that 9.8 mg of [Rh((S,S)-Et-DUPHOS™)(cod)]OTf was used as a catalyst instead of 9.0 mg of [Rh((S,S)-Me-DUPHOS™)(cod)]OTf in Example 1 and 10 ml of n-butanol was used as a solvent instead of 10 ml of methanol, 180 mg of objective L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid was obtained. HPLC analysis indicated that the enantiomeric excess of this product was 95.6% ee.

Example 4

Production of D-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid

[0080] When the reaction was carried out in the same manner as in Example 1 except that 6.4 mg of $[Rh(cod)_2]$OTf and 5.7 mg of (S,S)-iPr-DUPHOS™ were used as a catalyst instead of 9.0 mg of [Rh((S,S)-Me-DUPHOS™)(cod)]OTf in Example 1 and 10 ml of n-propanol was used as a solvent instead of 10 ml of methanol, 218 mg of objective D-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid was obtained. HPLC analysis indicated that the enantiomeric excess of this product was 93.6% ee.

Example 5

Production of L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid

[0081] When the reaction was carried out in the same manner as in Example 1 except that 6.4 mg of $[Rh(cod)_2]$OTf and 9.1 mg of (S,S,S,S)-ROPHOS®-bis(OTf) were used as a catalyst instead of 9.0 mg of [Rh((S,S)-Me-DUPHOS™)(cod)]OTf in Example 1 and 27.5 mg of triethylamine was added as an additive with a reaction time being from 22 to 44 hours, 190 mg of objective L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid was obtained. HPLC analysis indicated that the enantiomeric excess of this product was 92.4% ee.

Example 6

Production of L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid

[0082] When the reaction was carried out in the same manner as in Example 1 except that 10.1 mg of [Rh((S,S)-Et-FerroTANE®)(cod)]BF_4 was used as a catalyst instead of 9.0 mg of [Rh((S,S)-Me-DUPHOS™)(cod)]OTf in Example 1 and 10 ml of n-propanol was used as a solvent instead of 10 ml of methanol, 221 mg of objective L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid was obtained. HPLC analysis indicated that the enantiomeric excess of this product was 92.0% ee.

Example 7

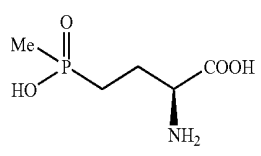
Production of L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid

[0083] When the reaction was carried out in the same manner as in Example 1 except that 340 mg of methyl 2-acetamino-4-(methoxy(methyl)phosphinyl)-butenoate was used as a raw material instead of 300 mg of 2-acetamino-4-(hydroxymethylphosphinyl)-butenoic acid in Example 1 and 9.8 mg of [Rh((S,S)-Et-DUPHOS™)(cod)]OTf was used as a catalyst instead of 9.0 mg of [Rh((S,S)-Me-DUPHOS™)(cod)]OTf, 159 mg of objective L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid was obtained. HPLC analysis indicated that the enantiomeric excess of this product was 92.1% ee.

INDUSTRIAL APPLICABILITY

[0084] In the method of the present invention, a compound represented by the formula (1) is subjected to asymmetric hydrogenation reaction using a rhodium catalyst having an optically active cyclic phosphine ligand to synthesize L-AMPB selectively. Therefore, the method of the present invention is an excellent method for synthesizing an optically active substance inexpensively, effectively, and high-selectively as compared to the conventional methods for synthesizing the optically active substance.

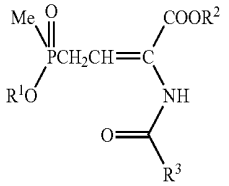
1. A method for producing L-2-amino-4-(hydroxymethylphosphinyl)-butanoic acid represented by formula (5):



(5)

comprising:

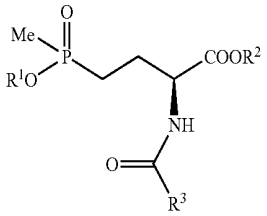
subjecting a compound represented by formula (1):



(1)

wherein R^1 and R^2 represent, identically or differently, a hydrogen atom or a C_{1-4} alkyl group, and R^3 represents a C_{1-4} alkyl group, an aryl group, a C_{1-4} alkyloxy group, or an aryloxy group,

to a hydrogenation reaction under a hydrogen atmosphere in the presence of an asymmetric catalyst to produce a compound represented by formula (4):



(4)

wherein R^1, R^2, and R^3 have the same meaning as in formula (1); and

subjecting the produced compound represented by formula (4) to hydrolysis;

said asymmetric catalyst being represented by formula (2):

$$[Rh(R^4)(L)]X \quad (2)$$

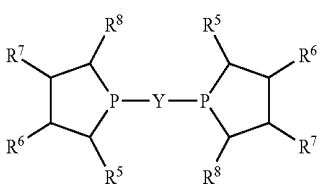
wherein R^4 represents 1,5-cyclooctadiene or norbornadiene, L represents an optically active cyclic phosphine ligand represented by formula (6) or (8), and X represents BF_4, ClO_4, PF_6, SbF_6, BPh_4, or OTf wherein Tf represents a trifluoromethanesulfonyl group;

or formula (3):

$$[Rh(L)(Z)]_2 \quad (3)$$

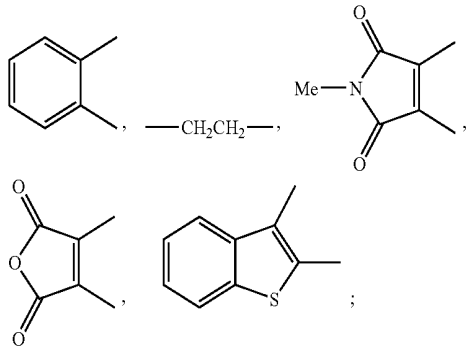
wherein L has the same meaning as in formula (2), and Z represents a halogen atom;

said formula (6) being:



(6)

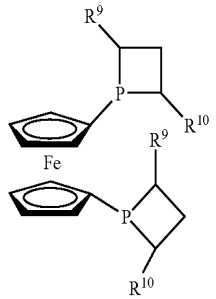
wherein R^5 and R^8 represent C_{1-4} alkyl groups, and R^6 and R^7, identically or differently, represent a hydrogen atom or a hydroxyl group, and Y represents a group selected from the groups represented by formulae (7):



(7)

wherein Me represents a methyl group;

said formula (8) being



(8)

wherein R^9 and R^{10} represent C_{1-4} alkyl groups.

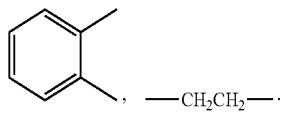
2. The method according to claim **1**, wherein L in formula (2) or (3) is a ligand represented by the formula (8).

3. The method according to claim **1**, wherein L in formula (2) or (3) is a ligand represented by formula (6).

4. The method according to claim **1**, wherein the asymmetric catalyst represented by formula (2) is used.

5. The method according to claim **1**, wherein the asymmetric catalyst represented by formula (2) is used and L in formula (2) is a ligand represented by formula (6).

6. The method according to claim **1**, wherein L in formula (2) or (3) is a ligand represented by formula (6) and Y in the ligand represented by the formula (6) is a group selected from the groups represented by formulae (9):



(9)

7. The method according to claim **1**, wherein in the asymmetric catalyst represented by formula (2), X is OTf or BF_4.

8. The method according to claim **1**, wherein in formula (1), R^1 and R^2 are hydrogen atoms and R^3 is a C_{1-4} alkyl group.

9. The method according to claim **6**, wherein L is 1,2-bis (2,5-dimethyl phosphorano) benzene, 1,2-bis(2,5-diethyl phosphorano) benzene, 1,2-bis(2,5-diisopropyl phosphorano) benzene, 1,2-bis(2,5-dimethyl-3,4-dihydroxyphospho-

rano) benzene, 1,2-bis(2,5-dimethyl phosphorano) ethane, or 1,2-bis(2,5-diethyl phosphorano) ethane.

10. The method according to claim **2**, wherein in the asymmetric catalyst represented by formula (2), X is OTf or BF_4.

11. The method according to claim **3**, wherein in the asymmetric catalyst represented by formula (2), X is OTf or BF_4.

12. The method according to claim **4**, wherein in the asymmetric catalyst represented by formula (2), X is OTf or BF_4.

13. The method according to claim **5**, wherein in the asymmetric catalyst represented by formula (2), X is OTf or BF_4.

14. The method according to claim **6**, wherein in the asymmetric catalyst represented by formula (2), X is OTf or BF_4.

15. The method according to claim **2**, wherein in formula (1), R^1 and R^2 are hydrogen atoms and R^3 is a C_{1-4} alkyl group.

16. The method according to claim **3**, wherein in formula (1), R^1 and R^2 are hydrogen atoms and R^3 is a C_{1-4} alkyl group.

17. The method according to claim **4**, wherein in formula (1), R^1 and R^2 are hydrogen atoms and R^3 is a C_{1-4} alkyl group.

18. The method according to claim **5**, wherein in formula (1), R^1 and R^2 are hydrogen atoms and R^3 is a C_{1-4} alkyl group.

19. The method according to claim **6**, wherein in formula (1), R^1 and R^2 are hydrogen atoms and R^3 is a C_{1-4} alkyl group.

20. The method according to claim **7**, wherein in formula (1), R^1 and R^2 are hydrogen atoms and R^3 is a C_{1-4} alkyl group.

* * * * *

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(54) HERBICIDAL COMPOSITION

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(57) **ABSTRACT**

A herbicidal synergistic composition for controlling broad-leaved weeds and grasses in crops of useful plants resistant to protoporphyrinogen oxidase inhibitors, comprising, in addition to customary inert formulation auxiliaries, as active compounds a) a herbicide which inhibits the action of protoporphyrinogen oxidases and b) at least one further pesticide selected from the group consisting of co-herbicides, fungicides and insecticides/acaricides.

HERBICIDAL COMPOSITION

[0001] The present invention relates to a novel herbicidal synergistic composition comprising a herbicidal active compound combination which is suitable for selectively controlling undesirable vegetation in crops of useful plants resistant to protoporphyrinogen oxidase inhibitors, for example maize, sugar beet, soya beans, rape, cotton, sunflowers, cereals, rice and sugar cane.

[0002] The invention furthermore relates to a process for controlling undesirable vegetation using the herbicidal composition, and to the use of the composition mentioned for this purpose.

[0003] Suitable active compounds are a) a herbicide which inhibits the action of protoporphyrinogen oxidases in plants (=protoporphyrinogen oxidase inhibitors), and b) at least one further pesticide selected from the group consisting of herbicides, fungicides and insecticides/acaricides.

[0004] Preference is given to a composition which comprises a protoporphyrinogen oxidase inhibitor and at least one further co-herbicide.

[0005] The pesticides under a) and b) are known and described, for example, in 'The Pesticide Manual', Editor C. D. S. Tomlin, 11th Edition, British Crop Protection Council, 1997, U.S. Pat. No. 5,446,197, U.S. Pat. No. 5,176,735 and WO 95/34659.

[0006] WO 98/33927, WO 98/29554 and U.S. Pat. No. 5,767,373 describe genetically transformed plants which are resistant to certain herbicides which inhibit protoporphyrinogen biosynthesis.

[0007] Surprisingly, it has now been found, that a combination, the ratios in which may vary, of protoporphyrinogen-oxidase-inhibiting active compounds under a) with one or more of the active compounds listed under b), all of which are known and most of which are also commercially available, unfolds synergistic action capable of controlling most of the broad-leaved weeds and grasses preferably occurring in crops of useful plants resistant to protoporphyrinogen oxidase inhibitors, both by the pre-emergence and the post-emergence method, without causing any significant damage to the useful plant.

[0008] According to the present invention, we therefore propose a novel synergistic composition for selectively controlling weeds in crops of useful plants resistant to protoporphyrinogen oxidase inhibitors which, in addition to customary inert formulation auxiliaries, comprises, as active compound, a mixture of

[0009] a) a herbicide which inhibits the action of protoporphyrinogen oxidases, and

[0010] b) at least one further pesticide selected from the group consisting of co-herbicides, fungicides and insecticides/acaricides.

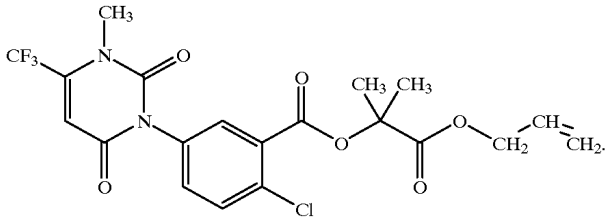
[0011] Preferred herbicidal compositions for controlling broad-leaved weeds and grasses in crops of useful plants resistant to protoporphyrinogen oxidase inhibitors comprise a herbicide a) which inhibits the action of protoporphyrinogen oxidases and at least one further co-herbicide b).

[0012] Preferred groups of protoporphyrinogen-oxidase-inhibiting herbicides under a) are, for example, diphenyl ethers, imides and phenylpyrazoles, and fluazolate (MON 48500/BAY 11500) and thidiazimin (S1305).

[0013] Among the diphenyl ethers, particularly preferred protoporphyrinogen oxidase inhibitors are, for example, acifluorphen (7), aclonifen (8), bifenox (69), chlornitrophen (S868), ethoxyfen (HC-252; 391), fluoroglycofen-ethyl (344), fomesafen (365), lactofen (442) and oxyfluorfen (547).

[0014] Among the imides, particularly preferred protoporphyrinogen oxidase inhibitors are, for example, azafenidin (37), carfentrazon-ethyl (112), cinidon-ethyl, flumiclorac-pentyl (340), flumioxazin (341), fluthiacet-methyl (359), oxadiargyl (538), oxadiazon (539), pentoxazone (KPP 314; 560), sulfentrazone (665), flumipropyn (S1060), flupropacil, benzfendizone or the compound of the formula A

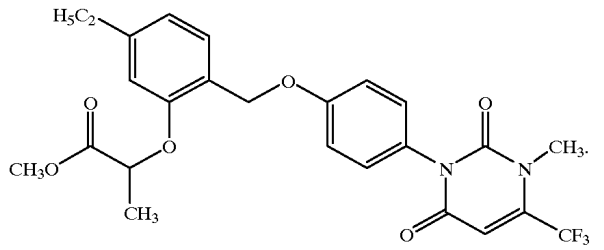
(A)



[0015] Among the phenylpyrazoles, particularly preferred protoporphyrinogen oxidase inhibitors are, for example, nipyraclofen (S1190) or pyraflufen-ethyl (ET 751; 617).

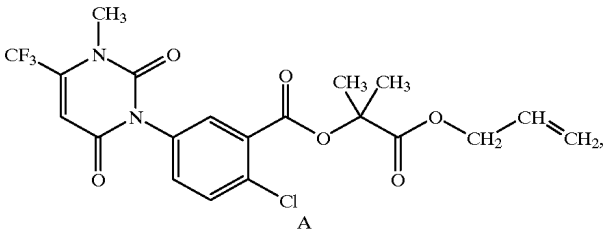
[0016] The compound of the formula A and its preparation are described, for example, in U.S. Pat. No. 5,183,492, whereas all other preferred diphenyl ethers, imides and phenylpyrazoles and also thidiazimins are described in the 'Pesticide Manual', 11th Edition, Editor C. D. S. Tomlin, British Crop Protection Council, 1997, under the entry number given in brackets, for example, acifluorfen (7) is described therein under the entry number 7. Fluazolate is known under the name MON 48500/BAY 11500 and the registration number (Reg.No.) [174514-07-9].

[0017] Cinidon-ethyl corresponds to the compound ethyl 2-chloro-3-[2-chloro-5-(cyclohex-1-en-1,2-dicarboximido)phenyl]acrylate, known under Reg. No. [132057-06-8]. Flupropacil corresponds to the compound isopropyl 2-chloro-5-(1,2,3,6-tetrahydro-3-methyl-2,6-dioxo-4-trifluoromethylpyrimidin-1-yl)benzoate, known under Reg. No. [120890-70-2]. Benzfendizone is the name proposed by the ISO in AGROW No. 324 of Mar. 12, 1999, for the compound of the formula



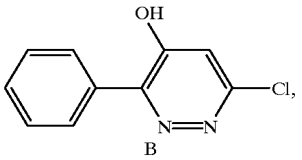
[0018] Preferred co-herbicides under b) are, for example, atrazine (34), terbuthylazine (692), (S)-metolachlor, metolachlor (493), terbutryn (693), simazine (651), dimethenamid or (S)-dimethenamid, flufenacet (=fluthiamide, 51), acetochlor (6), alachlor (14), isoxaflutole (436), isoxachlortole, mesotrione, sulcotrione (664), metosulam (495), flumetsulam (339), pendimethalin (557), bromoxynil (88), bentazone (65), carfentrazone-ethyl (112), clomazone (150), nicosulfuron (519), rimsulfuron (644), halosulfuron-methyl (389), metribuzin (497), flumiclorac-pentyl (340), prosulfuron (613), primisulfuron-methyl (589), dicamba (210), fluthiacet-methyl (359), pyridate (626), 2,4-D (192), clopyralide (153), diflufenzopyr (BAS 65400H, 50), fluroxypyr (354), MCPA (455), MCPB (457), mecoprop (MCPP, 459), metobenzuron (491), thifensulfuron-methyl (704), aclonifen (8), EPTC (274), cyanazine (168), propaquizafop (602), metamitron (474), pyramin (chloridazon, 126), phenmedipham (563), desmedipham (206), ethofumesate (285), triasulfuron (723), chloridazon (126), lenacil (443), triallate (722), fluazifop (327), sethoxydim (648), quizalofop (640), fenoxaprop(P-ethyl) (S1044), clethodim (146), oxasulfuron (542), acifluorfen (7), benazolin-ethyl (55), sulfentrazone (665), chlorimuron-ethyl (127), cloransulam-methyl (155), clopyralid (153), fomesafen (365), imazamox (412), imazaquin (414), imazethapyr (415), imazapyr (413), lactofen (442), thidiazuron (703), tribufos (729), trifluralin (740), dimethachlor (238), napropamide (513), quinmerac (636), metazachlor (475), carbetamide (108), dimefuron (236), propyzamide (611), ethametsulfuron-methyl (280), tebutam (682), fluometuron (342), prometryn (597), norflurazon (526), pyrithiobac-sodium (632), MSMA (methylarsonic acid, 486), DSMA (486), diuron (260), flurochloridone (353), dithiopyr (259), thiazopyr (702), oxyfluorfen (547), ethalfluralin (279), clodinafop (147), amidosulfuron (21), diclofop-methyl (219), diflufenican (232), ethoxysulfuron (287), fentrazamide, flazasulfuron (325), florasulam, fluazolate (=MON 48500), flucarbazone, flupyrsulfuron-methyl sodium (348), flurtamone (356), iodosulfuron, isoproturon (433), chlortoluron (134), chlorsulfuron (139), metsulfuron-methyl (498), sulfosulfuron (668), tribenuron-methyl (728), 2,4-DB (199), 2,4-DP (dichlorprop, 216), bifenox (69), ethametsulfuron-methyl (280), flamprop-M (324), imazamethabenz-methyl (411), ioxynil (425), tralkoxydim (717), fluoroglycofen-ethyl (344), methabenzthiazuron (477), isoxaben (435), prosulfocarb (612), difenzoquat-metilsulfate (229), pretilachlor (588), cinosulfuron (145), fenclorim (304), bensulfuron-methyl (62), imazosulfuron (416), pyrazosulfuron-ethyl (620), azimsulfuron (39), esprocarb (278), mefenacet (461), molinate (501), propanil (600), pyrazolate (618), cyhalofop-butyl (178), bispyribac-sodium (76), pyriminobac-methyl (630), cafenstrole (102), oxadiargyl (538), oxadiazon (539), bromobutide (85), MY-100, dymron (daimuron, 195), NB 061, MK243 (indanofan, 422), HW-52 (etobenzanid, 291), AC 014, ametryn (20), hexazinone (400), asulam (33), azafenidin (37), tebuthiuron (683), glyphosate (383), glufosinate (382), sulfosate (383), and the compounds of the formulae

(A)



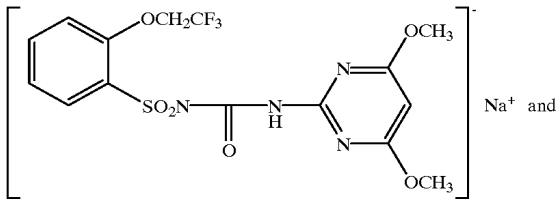
A

(B)



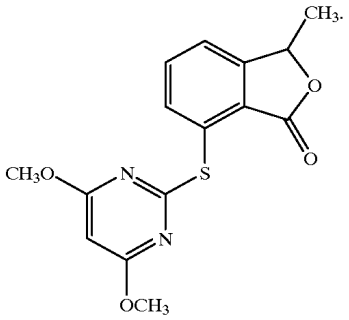
B

(C)



C

(D)



D

[0019] The compound of the formula B is described, for example, in Zeitschrift für Pflanzenkrankheiten and Pflanzenschutz, Special Issue X, 355-360 (1984).

[0020] The compound of the formula C is described, for example, in WO 97/41112.

[0021] The compound of the formula D is described, for example, in EP-B-0 447 506 in Table 1 as Example 12.

[0022] (S)-Metolachlor and (S)-dimethenamid are described, for example, in WO 97/34485. Mesotrion is described, for example, in U.S. Pat. No. 5,006,158. Iodosulfuron and isoxachlortole are known, for example, from 'AGROW' No. 296 of Jan. 16, 1998, page 22. Fentrazamide is described in 'The 1997 British Crop Protection Conference—Weeds, Conference Proceedings Vol. 1, 2-8, pages 67 to 72.

[0023] Florasulam is the name proposed by ISO in AGROW No. 304 of May 15, 1998, page 21, for the triazolepyrimidinesulfonanilide herbicide developed by Dow Agro Sciences.

[0024] Flucarbazone corresponds to the compound N-(2-trifluoromethoxyphenylsulfonyl)-4,5-dihydro-3-methoxy-4-methyl-5-oxo-1H-1,2,4-triazole-1-carboxamide known under Reg. No. [145026-88-6].

[0025] MY-100 (Oxaziclomefone) corresponds to the compound 3-[1-(3,5-dichlorophenyl)-1-methylethyl]-3,4-dihydro-6-methyl-5-phenyl-2H-1,3-oxazin-4-one known under Reg. No. [153197-14-9].

[0026] NB 061 is known under the code BAY YRC 2388 (=fentrazamide).

[0027] AC014 (=cyclosulfamuron) corresponds to the compound 1-[2-(cyclopropylcarbonyl)anilinsulfonyl]-3-(4,6-dimethoxypyrimidin-2-yl)urea known under Reg. No. [136849-15-5].

[0028] All other preferred co-herbicides under b) are described, for example, in 'Pesticide Manual', 11th Edition, Editor C. D. S. Tomlin, British Crop Protection Council, 1997, under the entry number given in brackets, for example, atrazine (34) is described therein under the entry number 34.

[0029] Some of the herbicides mentioned can be present both in the form of esters, usually alkyl esters having 1 to 8 carbon atoms, or of salts or free acids. When such herbicides are mentioned, all customary derivatives, as cited preferably in the abovementioned 'Pesticide Manual' or another reference, shall count as having been disclosed as well.

[0030] It is highly surprising that the combination of the protoporphyrinogen-oxidase-inhibiting active compound under a) with at least one co-herbicide under b) exceeds the additive effect on the weeds to be controlled which was to be expected in principle, thus widening the activity limits of both active compounds in particular in two respects: on the one hand, the application rates of the individual compounds a) and b) are reduced, with the activity remaining equally high. On the other hand, the composition according to the invention also achieves a high degree of weed control where the individual substances in the range of low application rates have become economically useless. The consequence of this is a considerable widening of the weed spectrum as is necessary and desired in the case of an unintentional overdose of active compound. Furthermore, the composition according to the invention permits more flexibility with respect to successor crops while maintaining excellent weed control in useful plants resistant to protoporphyrinogen oxidase inhibitors.

[0031] The composition according to the invention can be used against a large number of economically important weeds, such as Stellaria, Nasturtium, Agrostis, Digitaria, Avena, Setaria, Sinapis, Lolium, Solanum, Phaseolus, Echinochloa, Scirpus, Monochoria, Sagittaria, Bromus, Alopecurus, Sorghum halepense, Rottboellia, Cyperus, Abutilon, Sida, Xanthium, Amaranthus, Chenopodium, Ipomoea, Chrysanthemum, Galium, Viola and Veronica. The composition according to the invention is suitable for all economically customary application methods, for example pre-emergent application, post-emergent application and seed dressing. The composition according to the invention is preferably suitable for controlling weeds in crops of useful plants resistant to protoporphyrinogen oxidase inhibitors, such as maize, sugar beet, soya beans, rape, cotton, sunflowers, cereals, rice and sugar cane. Such useful plants and their preparation are described, for example, in WO95134659 and WO98/33927.

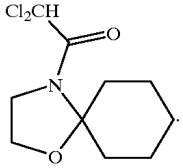
[0032] The composition according to the invention comprises the protoporphyrinogen oxidase inhibitor a) and a co-herbicide b) in any mixing ratio, usually with an excess of one component over the other one. Preferred mixing ratios of active compound a) and co-herbicide b) are between 1:2000 and 2000:1, in particular between 1:200 and 200:1.

[0033] Preferred herbicidal compositions for controlling broad-leaved weeds and grasses in crops of maize resistant to protoporphyrinogen oxidase inhibitors comprise, as co-herbicide b), a compound selected from the group consisting of atrazine, terbuthylazine, (S)-metolachlor, metolachlor, terbutryn, simazine, dimethenamid or (S)-dimethenamid, flufenacet, acetochlor, alachlor, isoxaflutole, isoxachlortole, mesotrione, sulcotrione, metosulam, flumetsulam, pendimethalin, bromoxynil, bentazone, carfentrazone-ethyl, clomazone, nicosulfuron, rimsulfuron, halosulfuron-methyl, metribuzin, flumiclorac-pentyl, prosulfuron, primisulfuron-methyl, dicamba, fluthiacet-methyl, pyridate, 2,4-D, clopyralide, diflufenzopyr, fluroxypyr, MCPA, MCPB, MCPP, metobenzuron, thifensulfuron-methyl, aclonifen, EPTC, glyphosate, glufosinate, sulfosate and cyanazine, and also compounds of the formulae A and B.

[0034] Among these, preference is given to those compositions which comprise as co-herbicide b) a compound selected from the group consisting of (S)-metolachlor, metolachlor, dimethenamid and (S)-dimethenamid, acetochlor and alachlor.

[0035] Advantageously, these compositions may comprise as additional component c) a safener of the benzoxazine type, in particular benoxacor (61), or MON 4660, flurazole (350), dichlormid (213) or furilazole (377).

[0036] These safeners under c) are described, for example, in 'Pesticide Manual', 11th Edition, Editor C. D. S. Tomlin, British Crop Protection Council, 1997, under the entry number given in brackets, benoxacor (61), for example, is described therein under the entry number 61. MON 4660 is a safener from Monsanto of the following formula



[0037] Preferred herbicidal compositions for controlling broad-leaved weeds and grasses in crops of sugar beet resistant to protoporphyrinogen oxidase inhibitors comprise as co-herbicide b) a compound selected from the group consisting of metolachlor, (S)-metolachlor, propaquizafop, metamitron, pyramin, phenmedipham, desmedipham, etho-

fumesate, triasulfuron, chloridazon, lenacil, triallate, fluazifop, sethoxydim, quizalofop, fenoxaprop, glyphosate, glufosinate, sulfosate and clethodim.

[0038] Preferred herbicidal compositions for controlling broad-leaved weeds and grasses in crops of soya resistant to protoporphyrinogen oxidase inhibitors comprise as co-herbicide b) a compound selected from the group consisting of (S)-metolachlor, metolachlor, oxasulfuron, fluthiacet-methyl, propaquizafop, alachlor, dimethenamid or (S)-dimethenamid, acifluorfen, benazolin-ethyl, bentazone, carfentrazone-ethyl, sulfentrazone, chlorimuron-ethyl, cloransulam-methyl, thifensulfuron-methyl, clopyralid, flumiclorac-pentyl, flumetsulam, fomesafen, imazamox, imazaquin, imazethapyr, imazapyr, lactofen, pyridate, sethoxydim, fluazifop, quizalofop, clethodim, fenoxaprop(P-ethyl), thidiazuron, tribufos, pendimethalin, glyphosate, glufosinate, sulfosate and trifluralin.

[0039] Preferred herbicidal compositions for controlling broad-leaved weeds and grasses in crops of rape resistant to protoporphyrinogen oxidase inhibitors comprise as co-herbicide b) a compound selected from the group consisting of dimethachlor, propaquizafop, clomazone, napropamide, quinmerac, metazachlor, carbetamide, dimefuron, propyzamide, clopyralid, ethametsulfuron-methyl, sethoxydim, fluazifop, quizalofop, clethodim, fenoxaprop(P-ethyl), glyphosate, glufosinate, sulfosate and tebutam.

[0040] Preferred herbicidal compositions for controlling broad-leaved weeds and grasses in crops of cotton resistant to protoporphyrinogen oxidase inhibitors comprise as co-herbicide b) a compound selected from the group consisting of fluometuron, prometryn, metolachlor, (S)-metolachlor, norflurazon, propaquizafop, pyrithiobac-sodium, trifluralin, pendimethalin, bromoxynil, clomazone, MSMA, DMSA, fluazifop, quizalofop, fenoxaprop(P-ethyl), sethoxydim, clethodim, diuron, cyanazine, alachlor, acetochlor, flurochloridone, dithiopyr, thiazopyr, lactofen, oxyfluorfen, glyphosate, glufosinate, sulfosate and ethalfluralin, and also the compound of the formula C.

[0041] Preferred herbicidal compositions for controlling broad-leaved weeds and grasses in crops of sunflowers resistant to protoporphyrinogen oxidase inhibitors comprise as co-herbicide b) a compound selected from the group consisting of metolachlor, (S)-metolachlor, pendimethalin, aclonifen, flurochloridon, prometryn, sethoxydim, fluazifop, quizalofop, clethodim, fenoxaprop(P-ethyl), terbutryn, acetochlor, glyphosate, glufosinate, sulfosate and trifluralin.

[0042] Preferred herbicide compositions for controlling broad-leaved weeds and grasses in crops of cereals resistant to protoporphyrinogen oxidase inhibitors comprise as co-herbicide b) a compound selected from the group consisting of triasulfuron, prosulfuron, clodinafop, terbutryne, amidosulfuron, bromoxynil, carfentrazone-ethyl, dicamba, diclofop-methyl, diflufenican, ethoxysulfuron, fenoxaprop(P-ethyl), fentrazamide, flazasulfuron, florasulam, fluazolate, flucarbazone, flufenacet, flupyrsulfuron-methyl sodium, flurtamone, iodosulfuron, isoproturon, chlortoluron, MCPA, MCPB, mecoprop (MCPP), chlorsulfuron, metsulfuron-methyl, sulfosulfuron, thifensulfuron-methyl, tribenuron-methyl, 2,4-D, 2,4-DB, 2,4-DP, bifenox, ethametsulfuron-methyl, flamprop-M, imazamethabenz-methyl, ioxynil, bromoxynil, metosulam, pyridate, quinmerac, tralkoxydim, fluoroglycofen-ethyl, methabenzthiazuron, ethalfluralin, pendimethalin, trifluralin, isoxaben, prosulfocarb, triallate, clopyralid, fluroxypyr, benazolin-ethyl, glyphosate, glufosinate, sulfosate and difenzoquat-metilsulfate.

[0043] Among these, preference is given to those compositions which comprise as co-herbicide b) a compound selected from the group consisting of triasulfuron, prosulfuron, clodinafop, amidosulfuron, diclofop-methyl, fenoxaprop(P-ethyl), flazasulfuron, flupyrsulfuron-methyl sodium, iodosulfuron, mecoprop (MCPP), chlorsulfuron, metsulfuron-methyl, sulfosulfuron and thifensulfuron-methyl. Advantageously, these compositions may comprise as additional component c) a safener of the quinoline type, in particular cloquintocet-mexyl (154).

[0044] Preferred herbicidal compositions for controlling broad-leaved weeds and grasses in crops of rice resistant to protoporphyrinogen oxidase inhibitors comprise as co-herbicide b) a compound selected from the group consisting of pretilachlor, cinosulfuron, triasulfuron, fenclorim, clodinafop, bensulfuron-methyl, imazosulfuron, pyrazosulfuron-ethyl, metsulfuron-methyl, azimsulfuron, halosulfuron-methyl, esprocarb, mefenacet, molinate, propanil, pyrazolate, cyhalofop-butyl, fenoxaprop(P-ethyl), bispyribac-sodium, pyriminobac-methyl, cafenstrole, oxadiargyl, oxadiazon, bromobutide, MY-100, dymron, NB 061, MK243, HW-52, glyphosate, glufosinate, sulfosate and AC 014, and also the compound of the formula D.

[0045] Preferred herbicidal compositions for controlling broad-leaved weeds and grasses in crops of sugar cane resistant to protoporphyrinogen oxidase inhibitors comprise as co-herbicide b) a compound selected from the group consisting of atrazine, ametryn, dicamba, terbutryn, prosulfuron, hexazinone, asulam, diuron, 2,4-D, halosulfuron-methyl, flazasulfuron, isoxaflutole, azafenidin, tebuthiuron, sulcotrione, pendimethalin, clomazone, metribuzin, thiazopyr, glyphosate, glufosinate, sulfosate and ethoxysulfuron, and also the compound of the formula C.

[0046] The following combinations of the compounds under a) with the co-herbicides under b) have been found to be very particularly effective synergistic compositions in crops of maize resistant to protoporphyrinogen oxidase inhibitors:

[0047] Acifluorfen+atrazine; acifluorfen+terbuthylazine; acifluorfen+(S)-metolachlor; acifluorfen +metolachlor; acifluorfen+compound of the formula A; acifluorfen+terbutryn; acifluorfen +simazine; acifluorfen+dimethenamid or (S)-dimethenamid; acifluorfen+flufenacet; acifluorfen+acetochlor; acifluorfen+alachlor; acifluorfen+isoxaflutole; acifluorfen+isoxachlortole; acifluorfen+mesotrione; acifluorfen+sulcotrione; acifluorfen+metosulam; acifluorfen+flumetsulam; acifluorfen+pendimethalin; acifluorfen+bromoxynil; acifluorfen +bentazone; acifluorfen+carfentrazone; acifluorfen+clomazone; acifluorfen+nicosulfuron; acifluorfen+rimsulfuron; acifluorfen+halosulfuron; acifluorfen+metribuzin; acifluorfen+flumiclorac; acifluorfen+prosulfuron; acifluorfen+primisulfuron; acifluorfen+dicamba; acifluorfen+fluthiacet; acifluorfen+pyridate; acifluorfen+compound of the formula B; acifluorfen+2,4-D; acifluorfen+clopyralide; acifluorfen+diflufenzopyr; acifluorfen+fluroxypyr; acifluorfen+MCPA; acifluorfen+MCPB; acifluorfen+MCPP; acifluorfen+metobenzuron; acifluorfen+thifensulfuron; acifluorfen+aclonifen; acifluorfen +EPTC; acifluorfen+cyanazine; acifluorfen+glyphosate; acifluorfen+

glufosinate; acifluorfen+sulfosate; aclonifen+atrazine; aclonifen+terbuthylazine; aclonifen+(S)-metolachlor; aclonifen+metolachlor; aclonifen+compound of the formula A; aclonifen+terbutryn; aclonifen+simazine; aclonifen+dimethenamid or (S)-dimethenamid; aclonifen+flufenacet; aclonifen+acetochlor; aclonifen+alachlor; aclonifen+isoxaflutole; aclonifen+isoxachlortole; aclonifen+mesotrione; aclonifen+sulcotrione; aclonifen+metosulam; aclonifen+flumetsulam; aclonifen+pendimethalin; aclonifen+bromoxynil; aclonifen+bentazone; aclonifen+carfentrazone; aclonifen+clomazone; aclonifen+nicosulfuron; aclonifen+rimsulfuron; aclonifen+halosulfuron; aclonifen+metribuzin; aclonifen+flumiclorac; aclonifen+prosulfuron; aclonifen+primisulfuron; aclonifen+dicamba; aclonifen+fluthiacet; aclonifen+pyridate; aclonifen+compound of the formula B; aclonifen+2,4-D; aclonifen+clopyralide; aclonifen+diflufenzopyr; aclonifen+fluroxypyr; aclonifen+MCPA; aclonifen+MCPB; aclonifen+MCPP; aclonifen+metobenzuron; aclonifen+thifensulfuron; aclonifen+EPTC; aclonifen+cyanazine; aclonifen+glyphosate; aclonifen+glufosinate; aclonifen+sulfosate; bifenox+atrazine; bifenox+terbuthylazine; bifenox+(S)-metolachlor; bifenox+metolachlor, bifenox+compound of the formula A; bifenox+terbutryn; bifenox+simazine; bifenox+dimethenamid or (S)-dimethenamid; bifenox+flufenacet; bifenox+acetochlor; bifenox+alachlor; bifenox+isoxaflutole; bifenox +isoxachlortole; bifenox+mesotrione; bifenox+sulcotrione; bifenox+metosulam; bifenox +flumetsulam; bifenox+pendimethalin; bifenox+bromoxynil; bifenox+bentazone; bifenox +carfentrazone; bifenox+clomazone; bifenox+nicosulfuron; bifenox+rimsulfuron; bifenox+halosulfuron; bifenox+metribuzin; bifenox+flumiclorac; bifenox+prosulfuron; bifenox+primisulfuron; bifenox+dicamba; bifenox+fluthiacet; bifenox+pyridate; bifenox +compound of the formula B; bifenox+2,4-D; bifenox+clopyralide; bifenox+diflufenzopyr; bifenox+fluroxypyr; bifenox+MCPA; bifenox+MCPB; bifenox+MCPP; bifenox+metobenzuron; bifenox+thifensulfuron; bifenox+aclonifen; bifenox+EPTC; bifenox+cyanazine; bifenox+glyphosate; bifenox+glufosinate; bifenox+sulfosate; chlomitrofen+atrazine; chlomitrofen+terbuthylazine; chlomitrofen+(S)-metolachlor; chlomitrofen+metolachlor; chlomitrofen+compound of the formula A; chlomitrofen+terbutryn; chlomitrofen+simazine; chlomitrofen+dimethenamid or (S)-dimethenamid; chlomitrofen+flufenacet; chlomitrofen+acetochlor; chlomitrofen+alachlor; chlomitrofen+isoxaflutole; chlomitrofen+isoxachlortole; chlomitrofen+mesotrione; chlomitrofen+sulcotrione; chlomitrofen+metosulam; chlomitrofen+flumetsulam; chlomitrofen+pendimethalin; chlomitrofen+bromoxynil; chlomitrofen+bentazone; chlomitrofen+carfentrazone; chlomitrofen+clomazone; chlomitrofen+nicosulfuron; chlomitrofen+rimsulfuron; chlomitrofen+halosulfuron; chlomitrofen+metribuzin; chlomitrofen+flumiclorac; chlomitrofen+prosulfuron; chlomitrofen+primisulfuron; chlomitrofen+dicamba; chlomitrofen+fluthiacet; chlomitrofen+pyridate; chlomitrofen+compound of the formula B; chlomitrofen+2,4-D; chlomitrofen+clopyralide; chlomitrofen+diflufenzopyr; chlomitrofen+fluroxypyr; chlomitrofen+MCPA; chlomitrofen+MCPB; chlomitrofen+MCPP; chlomitrofen+metobenzuron; chlomitrofen+thifensulfuron; chlomitrofen+aclonifen; chlomitrofen+EPTC; chlomitrofen+cyanazine; chlomitrofen+glyphosate; chlomitrofen+glufosinate; chlomitrofen+sulfosate; ethoxyfen+atrazine; ethoxyfen+terbuthylazine; ethoxyfen+(S)-metolachlor; ethoxyfen+metolachlor; ethoxyfen+compound of the formula A; ethoxyfen+terbutryn; ethoxyfen+simazine; ethoxyfen+dimethenamid or (S)-dimethenamid; ethoxyfen+flufenacet; ethoxyfen+acetochlor; ethoxyfen+alachlor; ethoxyfen+isoxaflutole; ethoxyfen+isoxachlortole; ethoxyfen+mesotrione; ethoxyfen+sulcotrione; ethoxyfen+metosulam; ethoxyfen+flumetsulam; ethoxyfen+pendimethalin; ethoxyfen+bromoxynil; ethoxyfen+bentazone; ethoxyfen+carfentrazone; ethoxyfen+clomazone; ethoxyfen+nicosulfuron; ethoxyfen+rimsulfuron; ethoxyfen+halosulfuron; ethoxyfen+metribuzin; ethoxyfen+flumiclorac; ethoxyfen+prosulfuron; ethoxyfen+primisulfuron; ethoxyfen+dicamba; ethoxyfen+fluthiacet; ethoxyfen+pyridate; ethoxyfen+compound of the formula B; ethoxyfen+2,4-D; ethoxyfen +clopyralide; ethoxyfen+diflufenzopyr; ethoxyfen+fluroxypyr; ethoxyfen+MCPA; ethoxyfen+MCPB; ethoxyfen+MCPP; ethoxyfen+metobenzuron; ethoxyfen+thifensulfuron; ethoxyfen+aclonifen; ethoxyfen+EPTC; ethoxyfen+cyanazine; ethoxyfen +glyphosate; ethoxyfen+glufosinate; ethoxyfen+sulfosate; fluoroglycofen+atrazine; fluoroglycofen+terbuthylazine; fluoroglycofen+(S)-metolachlor; fluoroglycofen+metolachlor; fluoroglycofen+compound of the formula A; fluoroglycofen+terbutryn; fluoroglycofen+simazine; fluoroglycofen+dimethenamid or (S)-dimethenamid; fluoroglycofen+flufenacet; fluoroglycofen+acetochlor; fluoroglycofen+alachlor; fluoroglycofen+isoxaflutole; fluoroglycofen+isoxachlortole; fluoroglycofen+mesotrione; fluoroglycofen+sulcotrione; fluoroglycofen+metosulam; fluoroglycofen+flumetsulam; fluoroglycofen+pendimethalin; fluoroglycofen+bromoxynil; fluoroglycofen+bentazone; fluoroglycofen+carfentrazone; fluoroglycofen+clomazone; fluoroglycofen+nicosulfuron; fluoroglycofen+rimsulfuron; fluoroglycofen+halosulfuron; fluoroglycofen+metribuzin; fluoroglycofen+flumiclorac; fluoroglycofen+prosulfuron; fluoroglycofen+primisulfuron; fluoroglycofen+dicamba; fluoroglycofen+fluthiacet; fluoroglycofen+pyridate; fluoroglycofen+compound of the formula B; fluoroglycofen+2,4-D; fluoroglycofen+clopyralide; fluoroglycofen+diflufenzopyr; fluoroglycofen+fluroxypyr; fluoroglycofen+MCPA; fluoroglycofen+MCPB; fluoroglycofen+MCPP; fluoroglycofen+metobenzuron; fluoroglycofen+thifensulfuron; fluoroglycofen+aclonifen; fluoroglycofen+EPTC; fluoroglycofen+cyanazine; fluoroglycofen+glyphosate; fluoroglycofen+glufosinate; fluoroglycofen+sulfosate; fomesafen+atrazine; fomesafen+terbuthylazine; fomesafen+(S)-metolachlor; fomesafen+metolachlor; fomesafen+compound of the formula A; fomesafen+terbutryn; fomesafen+simazine; fomesafen+dimethenamid or (S)-dimethenamid; fomesafen+flufenacet; fomesafen+acetochlor; fomesafen+alachlor; fomesafen+isoxaflutole; fomesafen+isoxachlortole; fomesafen+mesotrione; fomesafen +sulcotrione; fomesafen+metosulam; fomesafen+flumetsulam; fomesafen+pendimethalin; fomesafen+bromoxynil; fomesafen+bentazone; fomesafen+carfentrazone; fomesafen+clomazone; fomesafen+nicosulfuron; fomesafen+rimsulfuron; fomesafen+halosulfuron; fomesafen+metribuzin; fomesafen+flumiclorac; fomesafen+prosulfuron; fomesafen+primisulfuron; fomesafen+dicamba; fomesafen+fluthiacet; fomesafen+pyridate; fomesafen+compound of the formula B; fomesafen+2,4-D; fomesafen+clopyralide; fomesafen+diflufenzopyr; fomesafen+fluroxypyr; fomesafen +MCPA; fomesafen+MCPB; fomesafen+MCPP; fomesafen+metobenzuron; fomesafen +thifensulfuron; fomesafen+aclonifen; fomesafen+EPTC;

fomesafen+cyanazine; fomesafen+glyphosate; fomesafen+glufosinate; fomesafen+sulfosate; lactofen+atrazine; lactofen+terbuthylazine; lactofen+(S)-metolachlor; lactofen+metolachlor; lactofen+compound of the formula A; lactofen+terbutryn; lactofen+simazine; lactofen+dimethenamid or (S)-dimethenamid; lactofen+flufenacet; lactofen+acetochlor; lactofen+alachlor; lactofen+isoxaflutole; lactofen+isoxachlortole; lactofen+mesotrione; lactofen+sulcotrione; lactofen+metosulam; lactofen+flumetsulam; lactofen+pendimethalin; lactofen+bromoxynil; lactofen+bentazone; lactofen+carfentrazone; lactofen+clomazone; lactofen+nicosulfuron; lactofen+rimsulfuron; lactofen+halosulfuron; lactofen +metribuzin; lactofen+flumiclorac; lactofen+prosulfuron; lactofen+primisulfuron; lactofen+dicamba; lactofen+fluthiacet; lactofen+pyridate; lactofen+compound of the formula B; lactofen+2,4-D; lactofen+clopyralide; lactofen+diflufenzopyr; lactofen+fluroxypyr; lactofen+MCPA; lactofen+MCPB; lactofen+MCPP; lactofen+metobenzuron; lactofen+thifensulfuron; lactofen+aclonifen; lactofen+EPTC; lactofen+cyanazine; lactofen+glyphosate; lactofen+glufosinate; lactofen+sulfosate; oxyfluorfen+atrazine; oxyfluorfen+terbuthylazine; oxyfluorfen+(S)-metolachlor; oxyfluorfen+metolachlor; oxyfluorfen+compound of the formula A; oxyfluorfen+terbutryn; oxyfluorfen+simazine; oxyfluorfen+dimethenamid or (S)-dimethenamid; oxyfluorfen+flufenacet; oxyfluorfen+acetochlor; oxyfluorfen+alachlor; oxyfluorfen+isoxaflutole; oxyfluorfen+isoxachlortole; oxyfluorfen+mesotrione; oxyfluorfen+sulcotrione; oxyfluorfen+metosulam; oxyfluorfen+flumetsulam; oxyfluorfen+pendimethalin; oxyfluorfen+bromoxynil; oxyfluorfen+bentazone; oxyfluorfen+carfentrazone; oxyfluorfen+clomazone; oxyfluorfen+nicosulfuron; oxyfluorfen+rimsulfuron; oxyfluorfen+halosulfuron; oxyfluorfen+metribuzin; oxyfluorfen+flumiclorac; oxyfluorfen+prosulfuron; oxyfluorfen+primisulfuron; oxyfluorfen +dicamba; oxyfluorfen+fluthiacet; oxyfluorfen+pyridate; oxyfluorfen+compound of the formula B; oxyfluorfen+2,4-D; oxyfluorfen+clopyralide; oxyfluorfen+diflufenzopyr; oxyfluorfen+fluroxypyr; oxyfluorfen+MCPA; oxyfluorfen+MCPB; oxyfluorfen+MCPP; oxyfluorfen+metobenzuron; oxyfluorfen+thifensulfuron; oxyfluorfen+aclonifen; oxyfluorfen+EPTC; oxyfluorfen+cyanazine; oxyfluorfen+glyphosate; oxyfluorfen+glufosinate; oxyfluorfen+sulfosate; azafenidin+atrazine; azafenidin+terbuthylazine; azafenidin+(S)-metolachlor; azafenidin+metolachlor; azafenidin+compound of the formula A; azafenidin+terbutryn; azafenidin+simazine; azafenidin+dimethenamid or (S)-dimethenamid; azafenidin+flufenacet; azafenidin+acetochlor; azafenidin+alachlor; azafenidin+isoxaflutole; azafenidin+isoxachlortole; azafenidin+mesotrione; azafenidin+sulcotrione; azafenidin+metosulam; azafenidin+flumetsulam; azafenidin+pendimethalin; azafenidin+bromoxynil; azafenidin+bentazone; azafenidin+carfentrazone; azafenidin+clomazone; azafenidin+nicosulfuron; azafenidin+rimsulfuron; azafenidin+halosulfuron; azafenidin+metribuzin; azafenidin+flumiclorac; azafenidin+prosulfuron; azafenidin+primisulfuron; azafenidin+dicamba; azafenidin+fluthiacet; azafenidin+pyridate; azafenidin+compound of the formula B; azafenidin+2,4-D; azafenidin+clopyralide; azafenidin+diflufenzopyr; azafenidin+fluroxypyr; azafenidin+MCPA; azafenidin+MCPB; azafenidin+MCPP; azafenidin+metobenzuron; azafenidin+thifensulfuron; azafenidin+aclonifen; azafenidin+EPTC; azafenidin+cyanazine; azafenidin+glyphosate; azafenidin +glufosinate; azafenidin+sulfosate; carfentrazone-ethyl+atrazine; carfentrazone-ethyl+terbuthylazine; carfentrazone-ethyl+(S)-metolachlor; carfentrazone-ethyl+metolachlor; carfentrazone-ethyl+compound of the formula A; carfentrazone-ethyl+terbutryn; carfentrazone-ethyl+simazine; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid; carfentrazone-ethyl+flufenacet; carfentrazone-ethyl+acetochlor; carfentrazone-ethyl+alachlor; carfentrazone-ethyl+isoxaflutole; carfentrazone-ethyl+isoxachlortole; carfentrazone-ethyl+mesotrione; carfentrazone-ethyl+sulcotrione; carfentrazone-ethyl+metosulam; carfentrazone-ethyl+flumetsulam; carfentrazone-ethyl+pendimethalin; carfentrazone-ethyl+bromoxynil; carfentrazone-ethyl+bentazone; carfentrazone-ethyl+clomazone; carfentrazone-ethyl+nicosulfuron; carfentrazone-ethyl+rimsulfuron; carfentrazone-ethyl+halosulfuron; carfentrazone-ethyl+metribuzin; carfentrazone-ethyl+flumiclorac; carfentrazone-ethyl+prosulfuron; carfentrazone-ethyl+primisulfuron; carfentrazone-ethyl+dicamba; carfentrazone-ethyl+fluthiacet; carfentrazone-ethyl+pyridate; carfentrazone-ethyl+compound of the formula B; carfentrazone-ethyl+2,4-D; carfentrazone-ethyl+clopyralide; carfentrazone-ethyl+diflufenzopyr; carfentrazone-ethyl+fluroxypyr; carfentrazone-ethyl+MCPA; carfentrazone-ethyl+MCPB; carfentrazone-ethyl+MCPP; carfentrazone-ethyl+metobenzuron; carfentrazone-ethyl+thifensulfuron; carfentrazone-ethyl+aclonifen; carfentrazone-ethyl+EPTC; carfentrazone-ethyl+cyanazine; carfentrazone-ethyl+glyphosate; carfentrazone-ethyl+glufosinate; carfentrazone-ethyl+sulfosate; compound of the formula A+atrazine; compound of the formula A+terbuthylazine; compound of the formula A+(S)-metolachlor; compound of the formula A+metolachlor; compound of the formula A+terbutryn; compound of the formula A+simazine; compound of the formula A+dimethenamid or (S)-dimethenamid; compound of the formula A+flufenacet; compound of the formula A+acetochlor; compound of the formula A+alachlor; compound of the formula A+isoxaflutole; compound of the formula A+isoxachlortole; compound of the formula A+mesotrione; compound of the formula A+sulcotrione; compound of the formula A+metosulam; compound of the formula A+flumetsulam; compound of the formula A+pendimethalin; compound of the formula A+bromoxynil; compound of the formula A+bentazone; compound of the formula A+carfentrazone; compound of the formula A+clomazone; compound of the formula A+nicosulfuron; compound of the formula A+rimsulfuron; compound of the formula A+halosulfuron; compound of the formula A+metribuzin; compound of the formula A+flumiclorac; compound of the formula A+prosulfuron; compound of the formula A+primisulfuron; compound of the formula A+dicamba; compound of the formula A+fluthiacet; compound of the formula A+pyridate; compound of the formula A+compound of the formula B; compound of the formula A+2,4-D; compound of the formula A+clopyralide; compound of the formula A+diflufenzopyr; compound of the formula A+fluroxypyr; compound of the formula A+MCPA; compound of the formula A+MCPB; compound of the formula A+MCPP; compound of the formula A+metobenzuron; compound of the formula A+thifensulfuron; compound of the formula A+aclonifen; compound of the formula A+EPTC; compound of the formula A+cyanazine; compound of the formula A+glyphosate; compound of the formula A+glufosinate; compound of the formula A+sulfosate; cinidon-ethyl+atrazine; cinidon-ethyl+terbuthylazine;

cinidon-ethyl +(S)-metolachlor; cinidon-ethyl+metolachlor; cinidon-ethyl+compound of the formula A; cinidon-ethyl+terbutryn; cinidon-ethyl+simazine; cinidon-ethyl+dimethenamid or (S)-dimethenamid; cinidon-ethyl+flufenacet; cinidon-ethyl+acetochlor; cinidon-ethyl+alachlor; cinidon-ethyl+isoxaflutole; cinidon-ethyl+isoxachlortole; cinidon-ethyl+mesotrione; cinidon-ethyl+sulcotrione; cinidon-ethyl+metosulam; cinidon-ethyl+flumetsulam; cinidon-ethyl+pendimethalin; cinidon-ethyl+bromoxynil; cinidon-ethyl+bentazone; cinidon-ethyl+carfentrazone; cinidon-ethyl+clomazone; cinidon-ethyl+nicosulfuron; cinidon-ethyl+rimsulfuron; cinidon-ethyl+halosulfuron; cinidon-ethyl+metribuzin; cinidon-ethyl+flumiclorac; cinidon-ethyl+prosulfuron; cinidon-ethyl+primisulfuron; cinidon-ethyl+dicamba; cinidon-ethyl+fluthiacet; cinidon-ethyl+pyridate; cinidon-ethyl+compound of the formula B; cinidon-ethyl+2,4-D; cinidon-ethyl+clopyralide; cinidon-ethyl+diflufenzopyr; cinidon-ethyl+fluroxypyr; cinidon-ethyl+MCPA; cinidon-ethyl+MCPB; cinidon-ethyl+MCPP; cinidon-ethyl+metobenzuron; cinidon-ethyl+thifensulfuron; cinidon-ethyl+aclonifen; cinidon-ethyl+EPTC; cinidon-ethyl+cyanazine; cinidon-ethyl+glyphosate; cinidon-ethyl+glufosinate; cinidon-ethyl+sulfosate; flumiclorac-pentyl+atrazine; flumiclorac-pentyl+terbuthylazine; flumiclorac-pentyl+(S)-metolachlor; flumiclorac-pentyl+metolachlor; flumiclorac-pentyl+compound of the formula A; flumiclorac-pentyl+terbutryn; flumiclorac-pentyl+simazine; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid; flumiclorac-pentyl+flufenacet; flumiclorac-pentyl+acetochlor; flumiclorac-pentyl+alachlor; flumiclorac-pentyl+isoxaflutole; flumiclorac-pentyl +isoxachlortole; flumiclorac-pentyl+mesotrione; flumiclorac-pentyl+sulcotrione; flumiclorac-pentyl+metosulam; flumiclorac-pentyl+flumetsulam; flumiclorac-pentyl+pendimethalin; flumiclorac-pentyl+bromoxynil; flumiclorac-pentyl+bentazone; flumiclorac-pentyl+carfentrazone; flumiclorac-pentyl+clomazone; flumiclorac-pentyl+nicosulfuron; flumiclorac-pentyl+rimsulfuron; flumiclorac-pentyl+halosulfuron; flumiclorac-pentyl+metribuzin; flumiclorac-pentyl+prosulfuron; flumiclorac-pentyl+primisulfuron; flumiclorac-pentyl+dicamba; flumiclorac-pentyl+fluthiacet; flumiclorac-pentyl+pyridate; flumiclorac-pentyl+compound of the formula B; flumiclorac-pentyl+2,4-D; flumiclorac-pentyl+clopyralide; flumiclorac-pentyl+diflufenzopyr; flumiclorac-pentyl+fluroxypyr; flumiclorac-pentyl+MCPA; flumiclorac-pentyl+MCPB; flumiclorac-pentyl+MCPP; flumiclorac-pentyl+metobenzuron; flumiclorac-pentyl+thifensulfuron; flumiclorac-pentyl+aclonifen; flumiclorac-pentyl+EPTC; flumiclorac-pentyl+cyanazine; flumiclorac-pentyl+glyphosate; flumiclorac-pentyl+glufosinate; flumiclorac-pentyl+sulfosate; flumioxazin+atrazine; flumioxazin+terbuthylazine; flumioxazin+(S)-metolachlor; flumioxazin+metolachlor; flumioxazin+compound of the formula A; flumioxazin+terbutryn; flumioxazin+simazine; flumioxazin+dimethenamid or (S)-dimethenamid; flumioxazin+flufenacet; flumioxazin+acetochlor; flumioxazin+alachlor; flumioxazin+isoxaflutole; flumioxazin+isoxachlortole; flumioxazin+mesotrione; flumioxazin+sulcotrione; flumioxazin+metosulam; flumioxazin+flumetsulam; flumioxazin+pendimethalin; flumioxazin+bromoxynil; flumioxazin+bentazone; flumioxazin+carfentrazone; flumioxazin+clomazone; flumioxazin+nicosulfuron; flumioxazin+rimsulfuron; flumioxazin+halosulfuron; flumioxazin+metribuzin; flumioxazin+flumiclorac; flumioxazin+prosulfuron; flumioxazin+primisulfuron; flumioxazin+dicamba; flumioxazin+fluthiacet; flumioxazin+pyridate; flumioxazin+compound of the formula B; flumioxazin+2,4-D; flumioxazin+clopyralide; flumioxazin+diflufenzopyr; flumioxazin+fluroxypyr; flumioxazin+MCPA; flumioxazin+MCPB; flumioxazin+MCPP; flumioxazin+metobenzuron; flumioxazin+thifensulfuron; flumioxazin +aclonifen; flumioxazin+EPTC; flumioxazin+cyanazine; flumioxazin+glyphosate; flumioxazin+glufosinate; flumioxazin+sulfosate; fluthiacet-methyl+atrazine; fluthiacet-methyl+terbuthylazine; fluthiacet-methyl+(S)-metolachlor; fluthiacet-methyl+metolachlor; fluthiacet-methyl+compound of the formula A; fluthiacet-methyl+terbutryn; fluthiacet-methyl+simazine; fluthiacet-methyl+dimethenamid or (S)-dimethenamid; fluthiacet-methyl+flufenacet; fluthiacet-methyl+acetochlor; fluthiacet-methyl+alachlor; fluthiacet-methyl+isoxaflutole; fluthiacet-methyl+isoxachlortole; fluthiacet-methyl+mesotrione; fluthiacet-methyl+sulcotrione; fluthiacet-methyl+metosulam; fluthiacet-methyl+flumetsulam; fluthiacet-methyl+pendimethalin; fluthiacet-methyl+bromoxynil; fluthiacet-methyl+bentazone; fluthiacet-methyl+carfentrazone; fluthiacet-methyl+clomazone; fluthiacet-methyl+nicosulfuron; fluthiacet-methyl+rimsulfuron; fluthiacet-methyl+halosulfuron; fluthiacet-methyl+metribuzin; fluthiacet-methyl+flumiclorac; fluthiacet-methyl+prosulfuron; fluthiacet-methyl+primisulfuron; fluthiacet-methyl+dicamba; fluthiacet-methyl +pyridate; fluthiacet-methyl+compound of the formula B; fluthiacet-methyl+2,4-D; fluthiacet-methyl+clopyralide; fluthiacet-methyl+diflufenzopyr; fluthiacet-methyl+fluroxypyr; fluthiacet-methyl+MCPA; fluthiacet-methyl+MCPB; fluthiacet-methyl+MCPP; fluthiacet-methyl+metobenzuron; fluthiacet-methyl+thifensulfuron; fluthiacet-methyl+aclonifen; fluthiacet-methyl+EPTC; fluthiacet-methyl+cyanazine; fluthiacet-methyl+glyphosate; fluthiacet-methyl+glufosinate; fluthiacet-methyl+sulfosate; oxadiargyl+atrazine; oxadiargyl+terbuthylazine; oxadiargyl+(S)-metolachlor; oxadiargyl+metolachlor; oxadiargyl+compound of the formula A; oxadiargyl+terbutryn; oxadiargyl+simazine; oxadiargyl+dimethenamid or (S)-dimethenamid; oxadiargyl+flufenacet; oxadiargyl+acetochlor; oxadiargyl+alachlor; oxadiargyl+isoxaflutole; oxadiargyl+ioxachlortole; oxadiargyl+mesotrione; oxadiargyl+sulcotrione; oxadiargyl+metosulam; oxadiargyl+flumetsulam; oxadiargyl+pendimethalin; oxadiargyl+bromoxynil; oxadiargyl+bentazone; oxadiargyl+carfentrazone; oxadiargyl+clomazone; oxadiargyl+nicosulfuron; oxadiargyl+rimsulfuron; oxadiargyl+halosulfuron; oxadiargyl+metribuzin; oxadiargyl+flumiclorac; oxadiargyl+prosulfuron; oxadiargyl+primisulfuron; oxadiargyl+dicamba; oxadiargyl+fluthiacet; oxadiargyl+pyridate; oxadiargyl+compound of the formula B; oxadiargyl+2,4-D; oxadiargyl+clopyralide; oxadiargyl+diflufenzopyr; oxadiargyl+fluroxypyr; oxadiargyl+MCPA; oxadiargyl+MCPB; oxadiargyl+MCPP; oxadiargyl+metobenzuron; oxadiargyl+thifensulfuron; oxadiargyl+aclonifen; oxadiargyl+EPTC; oxadiargyl+cyanazine; oxadiargyl+glyphosate; oxadiargyl+glufosinate; oxadiargyl+sulfosate; oxadiazon+atrazine; oxadiazon+terbuthylazine; oxadiazon+(S)-metolachlor; oxadiazon+metolachlor; oxadiazon+compound of the formula A; oxadiazon+terbutryn; oxadiazon+simazine; oxadiazon+dimethenamid or (S)-dimethenamid; oxadiazon+flufenacet; oxadiazon+acetochlor; oxadiazon+alachlor; oxadiazon+isoxaflutole; oxadiazon+isoxachlortole; oxadiazon+mesotrione; oxadiazon+sulcotrione; oxadiazon+metosulam; oxa-

diazon+flumetsulam; oxadiazon+pendimethalin; oxadiazon+bromoxynil; oxadiazon+bentazone; oxadiazon+carfentrazone; oxadiazon+clomazone; oxadiazon+nicosulfuron; oxadiazon+rimsulfuron; oxadiazon+halosulfuron; oxadiazon+metribuzin; oxadiazon+flumiclorac; oxadiazon+prosulfuron; oxadiazon+primisulfuron; oxadiazon+dicamba; oxadiazon+fluthiacet; oxadiazon+pyridate; oxadiazon+compound of the formula B; oxadiazon+2,4-D; oxadiazon+clopyralide; oxadiazon+diflufenzopyr; oxadiazon+fluroxypyr; oxadiazon+MCPA; oxadiazon+MCPB; oxadiazon+MCPP; oxadiazon+metobenzuron; oxadiazon+thifensulfuron; oxadiazon+aclonifen; oxadiazon+EPTC; oxadiazon+cyanazine; oxadiazon+glyphosate; oxadiazon+glufosinate; oxadiazon+sulfosate; pentoxazone+atrazine; pentoxazone+terbuthylazine; pentoxazone+(S)-metolachlor; pentoxazone+metolachlor; pentoxazone+compound of the formula A; pentoxazone+terbutryn; pentoxazone+simazine; pentoxazone+dimethenamid or (S)-dimethenamid; pentoxazone+flufenacet; pentoxazone+acetochlor; pentoxazone+alachlor; pentoxazone+isoxaflutole; pentoxazone+isoxachlortole; pentoxazone+mesotrione; pentoxazone+sulcotrione; pentoxazone+metosulam; pentoxazone+flumetsulam; pentoxazone+pendimethalin; pentoxazone+bromoxynil; pentoxazone+bentazone; pentoxazone+carfentrazone; pentoxazone+clomazone; pentoxazone+nicosulfuron; pentoxazone+rimsulfuron; pentoxazone+halosulfuron; pentoxazone+metribuzin; pentoxazone+flumiclorac; pentoxazone+prosulfuron; pentoxazone+primisulfuron; pentoxazone+dicamba; pentoxazone+fluthiacet; pentoxazone+pyridate; pentoxazone+compound of the formula B; pentoxazone+2,4-D; pentoxazone+clopyralide; pentoxazone+diflufenzopyr; pentoxazone+fluroxypyr; pentoxazone+MCPA; pentoxazone+MCPB; pentoxazone+MCPP; pentoxazone+metobenzuron; pentoxazone+thifensulfuron; pentoxazone+aclonifen; pentoxazone+EPTC; pentoxazone+cyanazine; pentoxazone+glyphosate; pentoxazone+glufosinate; pentoxazone+sulfosate; sulfentrazone+atrazine; sulfentrazone+terbuthylazine; sulfentrazone+(S)-metolachlor; sulfentrazone+metolachlor; sulfentrazone+compound of the formula A; sulfentrazone+terbutryn; sulfentrazone+simazine; sulfentrazone+dimethenamid or (S)-dimethenamid; sulfentrazone+flufenacet; sulfentrazone+acetochlor; sulfentrazone+alachlor; sulfentrazone+isoxaflutole; sulfentrazone+isoxachlortole; sulfentrazone+mesotrione; sulfentrazone+sulcotrione; sulfentrazone+metosulam; sulfentrazone+flumetsulam; sulfentrazone+pendimethalin; sulfentrazone+bromoxynil; sulfentrazone+bentazone; sulfentrazone+carfentrazone; sulfentrazone+clomazone; sulfentrazone+nicosulfuron; sulfentrazone+rimsulfuron; sulfentrazone+halosulfuron; sulfentrazone+metribuzin; sulfentrazone+flumiclorac; sulfentrazone+prosulfuron; sulfentrazone+primisulfuron; sulfentrazone+dicamba; sulfentrazone+fluthiacet; sulfentrazone+pyridate; sulfentrazone+compound of the formula B; sulfentrazone+2,4-D; sulfentrazone+clopyralide; sulfentrazone+diflufenzopyr; sulfentrazone+fluroxypyr; sulfentrazone+MCPA; sulfentrazone+MCPB; sulfentrazone+MCPP; sulfentrazone+metobenzuron; sulfentrazone+thifensulfuron; sulfentrazone+aclonifen; sulfentrazone+EPTC; sulfentrazone+cyanazine; sulfentrazone+glyphosate; sulfentrazone+glufosinate; sulfentrazone+sulfosate; fluazolate+atrazine; fluazolate+terbuthylazine; fluazolate+(S)-metolachlor; fluazolate+metolachlor; fluazolate+compound of the formula A; fluazolate+terbutryn; fluazolate+simazine; fluazolate+dimethenamid or (S)-dimethenamid; fluazolate+flufenacet; fluazolate+acetochlor; fluazolate+alachlor; fluazolate+isoxaflutole; fluazolate+isoxachlortole; fluazolate+mesotrione; fluazolate+sulcotrione; fluazolate+metosulam; fluazolate+flumetsulam; fluazolate+pendimethalin; fluazolate+bromoxynil; fluazolate+bentazone; fluazolate+carfentrazone; fluazolate+clomazone; fluazolate+nicosulfuron; fluazolate+rimsulfuron; fluazolate+halosulfuron; fluazolate+metribuzin; fluazolate+flumiclorac; fluazolate+prosulfuron; fluazolate+primisulfuron; fluazolate+dicamba; fluazolate+fluthiacet; fluazolate+pyridate; fluazolate +compound of the formula B; fluazolate+2,4-D; fluazolate+clopyralide; fluazolate+diflufenzopyr; fluazolate+fluroxypyr; fluazolate+MCPA; fluazolate+MCPB; fluazolate+MCPP; fluazolate+metobenzuron; fluazolate+thifensulfuron; fluazolate+aclonifen; fluazolate+EPTC; fluazolate+cyanazine; fluazolate+glyphosate; fluazolate+glufosinate; fluazolate+sulfosate; pyraflufen-ethyl+atrazine; pyraflufen-ethyl+terbuthylazine; pyraflufen-ethyl+(S)-metolachlor; pyraflufen-ethyl+metolachlor; pyraflufen-ethyl+compound of the formula A; pyraflufen-ethyl+terbutryn; pyraflufen-ethyl+simazine; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid; pyraflufen-ethyl+flufenacet; pyraflufen-ethyl+acetochlor; pyraflufen-ethyl+alachlor; pyraflufen-ethyl+isoxaflutole; pyraflufen-ethyl+isoxachlortole; pyraflufen-ethyl+mesotrione; pyraflufen-ethyl+sulcotrione; pyraflufen-ethyl+metosulam; pyraflufen-ethyl+flumetsulam; pyraflufen-ethyl+pendimethalin; pyraflufen-ethyl+bromoxynil; pyraflufen-ethyl+bentazone; pyraflufen-ethyl +carfentrazone; pyraflufen-ethyl+clomazone; pyraflufen-ethyl+nicosulfuron; pyraflufen-ethyl+rimsulfuron; pyraflufen-ethyl+halosulfuron; pyraflufen-ethyl+metribuzin; pyraflufen-ethyl+flumiclorac; pyraflufen-ethyl+prosulfuron; pyraflufen-ethyl+primisulfuron; pyraflufen-ethyl+dicamba; pyraflufen-ethyl+fluthiacet; pyraflufen-ethyl+pyridate; pyraflufen-ethyl+compound of the formula B; pyraflufen-ethyl+2,4-D; pyraflufen-ethyl+clopyralide; pyraflufen-ethyl+diflufenzopyr; pyraflufen-ethyl+fluroxypyr; pyraflufen-ethyl+MCPA; pyraflufen-ethyl+MCPB; pyraflufen-ethyl+MCPP; pyraflufen-ethyl+metobenzuron; pyraflufen-ethyl+thifensulfuron; pyraflufen-ethyl+aclonifen; pyraflufen-ethyl+EPTC; pyraflufen-ethyl+cyanazine; pyraflufen-ethyl+glyphosate; pyraflufen-ethyl+glufosinate; pyraflufen-ethyl+sulfosate; flumipropyn+atrazine; flumipropyn+terbuthylazine; flumipropyn+(S)-metolachlor; flumipropyn+metolachlor; flumipropyn+compound of the formula A; flumipropyn+terbutryn; flumipropyn+simazine; flumipropyn+dimethenamid or (S)-dimethenamid; flumipropyn+flufenacet; flumipropyn+acetochlor; flumipropyn+alachlor; flumipropyn+isoxaflutole; flumipropyn+isoxachlortole; flumipropyn +mesotrione; flumipropyn+sulcotrione; flumipropyn+metosulam; flumipropyn+flumetsulam; flumipropyn+pendimethalin; flumipropyn+bromoxynil; flumipropyn+bentazone; flumipropyn+carfentrazone; flumipropyn+clomazone; flumipropyn+nicosulfuron; flumipropyn+rimsulfuron; flumipropyn+halosulfuron; flumipropyn+metribuzin; flumipropyn+flumiclorac; flumipropyn+prosulfuron; flumipropyn+primisulfuron; flumipropyn+dicamba; flumipropyn+fluthiacet; flumipropyn+pyridate; flumipropyn+compound of the formula B; flumipropyn+2,4-D; flumipropyn+clopyralide; flumipropyn+diflufenzopyr; flumipropyn+fluroxypyr; flumipropyn+-MCPA; flumipropyn+MCPB; flumipro-

pyn+MCPP; flumipropyn+metobenzuron; flumipropyn+thifensulfuron; flumipropyn+aclonifen; flumipropyn+EPTC; flumipropyn+cyanazine; flumipropyn+glyphosate; flumipropyn+glufosinate; flumipropyn+sulfosate; flupropacil+atrazine; flupropacil+terbuthylazine; flupropacil+(S)-metolachlor; flupropacil+metolachlor; flupropacil+compound of the formula A; flupropacil+terbutryn; flupropacil+simazine; flupropacil+dimethenamid or (S)-dimethenamid; flupropacil+flufenacet; flupropacil+acetochlor; flupropacil+alachlor; flupropacil+isoxaflutole; flupropacil+isoxachlortole; flupropacil+mesotrione; flupropacil+sulcotrione; flupropacil+metosulam; flupropacil+flumetsulam; flupropacil+pendimethalin; flupropacil+bromoxynil; flupropacil+bentazone; flupropacil+carfentrazone; flupropacil+clomazone; flupropacil+nicosulfuron; flupropacil+rimsulfuron; flupropacil+halosulfuron; flupropacil+metribuzin; flupropacil+flumiclorac; flupropacil+prosulfuron; flupropacil+primisulfuron; flupropacil+dicamba; flupropacil+fluthiacet; flupropacil+pyridate; flupropacil+compound of the formula B; flupropacil+2,4-D; flupropacil+clopyralide; flupropacil+diflufenzopyr; flupropacil+fluroxypyr; flupropacil+MCPA; flupropacil+MCPB; flupropacil+MCPP; flupropacil+metobenzuron; flupropacil+thifensulfuron; flupropacil+aclonifen; flupropacil+EPTC; flupropacil+cyanazine; flupropacil+glyphosate; flupropacil+glufosinate; flupropacil+sulfosate; nipyraclofen+atrazine; nipyraclofen+terbuthylazine; nipyraclofen+(S)-metolachlor; nipyraclofen+metolachlor; nipyraclofen+compound of the formula A; nipyraclofen+terbutryn; nipyraclofen+simazine; nipyraclofen+dimethenamid or (S)-dimethenamid; nipyraclofen+flufenacet; nipyraclofen+acetochlor; nipyraclofen+alachlor; nipyraclofen+isoxaflutole; nipyraclofen+isoxachlortole; nipyraclofen+mesotrione; nipyraclofen+sulcotrione; nipyraclofen+metosulam; nipyraclofen+flumetsulam; nipyraclofen+pendimethalin; nipyraclofen+bromoxynil; nipyraclofen+bentazone; nipyraclofen+carfentrazone; nipyraclofen+clomazone; nipyraclofen+nicosulfuron; nipyraclofen+rimsulfuron; nipyraclofen+halosulfuron; nipyraclofen+metribuzin; nipyraclofen+flumiclorac; nipyraclofen+prosulfuron; nipyraclofen+primisulfuron; nipyraclofen+dicamba; nipyraclofen+fluthiacet; nipyraclofen+pyridate; nipyraclofen+compound of the formula B; nipyraclofen+2,4-D; nipyraclofen+clopyralide; nipyraclofen+diflufenzopyr; nipyraclofen+fluroxypyr; nipyraclofen+MCPA; nipyraclofen+MCPB; nipyraclofen+MCPP; nipyraclofen+metobenzuron; nipyraclofen+thifensulfuron; nipyraclofen+aclonifen; nipyraclofen+EPTC; nipyraclofen+cyanazine; nipyraclofen+glyphosate; nipyraclofen+glufosinate; nipyraclofen+sulfosate; benzfendizone+atrazine; benzfendizone+terbuthylazine; benzfendizone+(S)-metolachlor; benzfendizone+metolachlor; benzfendizone+compound of the formula A; benzfendizone+terbutryn; benzfendizone+simazine; benzfendizone+dimethenamid or (S)-dimethenamid; benzfendizone+flufenacet; benzfendizone+acetochlor; benzfendizone+alachlor; benzfendizone+isoxaflutole; benzfendizone+isoxachlortole; benzfendizone+mesotrione; benzfendizone+sulcotrione; benzfendizone+metosulam; benzfendizone+flumetsulam; benzfendizone+pendimethalin; benzfendizone+bromoxynil; benzfendizone+bentazone; benzfendizone+carfentrazone; benzfendizone+clomazone; benzfendizone+nicosulfuron; benzfendizone+rimsulfuron; benzfendizone+halosulfuron; benzfendizone+metribuzin; benzfendizone+flumiclorac; benzfendizone+prosulfuron; benzfendizone+primisulfuron; benzfendizone+dicamba; benzfendizone+fluthiacet; benzfendizone+pyridate; benzfendizone+compound of the formula B; benzfendizone+2,4-D; benzfendizone+clopyralide; benzfendizone+diflufenzopyr; benzfendizone+fluroxypyr; benzfendizone+MCPA; benzfendizone+MCPB; benzfendizone+MCPP; benzfendizone+metobenzuron; benzfendizone+thifensulfuron; benzfendizone+aclonifen; benzfendizone +EPTC; benzfendizone+cyanazine; benzfendizone+glyphosate; benzfendizone+glufosinate; benzfendizone+sulfosate; thidiazimin+atrazine; thidiazimin+terbuthylazine; thidiazimin+(S)-metolachlor; thidiazimin+metolachlor; thidiazimin+compound of the formula A; thidiazimin+terbutryn; thidiazimin+simazine; thidiazimin+dimethenamid or (S)-dimethenamid; thidiazimin+flufenacet; thidiazimin+acetochlor; thidiazimin+alachlor; thidiazimin+isoxaflutole; thidiazimin+isoxachlortole; thidiazimin+mesotrione; thidiazimin +sulcotrione; thidiazimin+metosulam; thidiazimin+flumetsulam; thidiazimin+pendimethalin; thidiazimin+bromoxynil; thidiazimin+bentazone; thidiazimin+carfentrazone; thidiazimin+clomazone; thidiazimin+nicosulfuron; thidiazimin+rimsulfuron; thidiazimin+halosulfuron; thidiazimin+metribuzin; thidiazimin+flumiclorac; thidiazimin+prosulfuron; thidiazimin+primisulfuron; thidiazimin+dicamba; thidiazimin+fluthiacet; thidiazimin+pyridate; thidiazimin+compound of the formula B; thidiazimin+2,4-D; thidiazimin+clopyralide; thidiazimin+diflufenzopyr; thidiazimin+fluroxypyr; thidiazimin +MCPA; thidiazimin+MCPB; thidiazimin+MCPP; thidiazimin+metobenzuron; thidiazimin +thifensulfuron; thidiazimin+aclonifen; thidiazimin+EPTC; thidiazimin+cyanazine; thidiazimin+glyphosate; thidiazimin+glufosinate; and thidiazimin+sulfosate.

[0048] The following combinations of the compounds under a) with the co-herbicides under b) have been found to be very particularly effective synergistic compositions in crops of sugar beet resistant to protoporphyrinogen oxidase inhibitors:

[0049] acifluorfen+metolachlor; acifluorfen+(S)-metolachlor; acifluorfen+propaquizafop; acifluorfen+metamitron; acifluorfen+pyramin; acifluorfen+phenmedipham; acifluorfen+desmedipham; acifluorfen+ethofumesate; acifluorfen+triasulfuron; acifluorfen+chloridazon; acifluorfen+lenacil; acifluorfen+triallate; acifluorfen+fluazifop; acifluorfen+sethoxydim; acifluorfen+quizalofop; acifluorfen+fenoxaprop; acifluorfen+clethodim; acifluorfen+glyphosate; acifluorfen+glufosinate; acifluorfen+sulfosate; aclonifen+metolachlor; aclonifen+(S)-metolachlor; aclonifen+propaquizafop; aclonifen+metamitron; aclonifen+pyramin; aclonifen+phenmedipham; aclonifen+desmedipham; aclonifen+ethofumesate; aclonifen+triasulfuron; aclonifen+chloridazon; aclonifen+lenacil; aclonifen+triallate; aclonifen+fluazifop; aclonifen+sethoxydim; aclonifen+quizalofop; aclonifen+fenoxaprop; aclonifen+clethodim; aclonifen+glyphosate; aclonifen +glufosinate; aclonifen+sulfosate; bifenox+metolachlor; bifenox+(S)-metolachlor; bifenox+propaquizafop; bifenox+metamitron; bifenox+pyramin; bifenox+phenmedipham; bifenox+desmedipham; bifenox+ethofumesate; bifenox+triasulfuron; bifenox+chloridazon; bifenox+lenacil; bifenox+triallate; bifenox+fluazifop; bifenox+sethoxydim; bifenox+quizalofop; bifenox+fenoxaprop; bifenox+clethodim; bifenox+glyphosate; bifenox+glufosinate; bifenox+sulfosate; chlomitrofen+metolachlor; chlomitrofen+(S)-metolachlor;

chlomitrofen+propaquizafop; chlomitrofen+metamitron; chlomitrofen+pyramin; chlomitrofen+phenmedipham; chlomitrofen+desmedipham; chlomitrofen+ethofumesate; chlomitrofen+triasulfuron; chlomitrofen+chloridazon; chlomitrofen+lenacil; chlomitrofen+triallate; chlomitrofen+fluazifop; chlomitrofen+sethoxydim; chlomitrofen+quizalofop; chlomitrofen+fenoxaprop; chlomitrofen+clethodim; chlomitrofen+glyphosate; chlomitrofen+glufosinate; chlomitrofen+sulfosate; ethoxyfen+metolachlor; ethoxyfen+(S)-metolachlor; ethoxyfen+propaquizafop; ethoxyfen+metamitron; ethoxyfen+pyramin; ethoxyfen+phenmedipham; ethoxyfen+desmedipham; ethoxyfen+ethofumesate; ethoxyfen+triasulfuron; ethoxyfen+chloridazon; ethoxyfen+lenacil; ethoxyfen+triallate; ethoxyfen+fluazifop; ethoxyfen+sethoxydim; ehoxyfen+quizalofop; ethoxyfen+fenoxaprop; ethoxyfen+clethodim; ethoxyfen+glyphosate; ethoxyfen+glufosinate; ethoxyfen+sulfosate; fluoroglycofen+metolachlor; fluoroglycofen+(S)-metolachlor; fluoroglycofen+propaquizafop; fluoroglycofen+metamitron; fluoroglycofen+pyramin; fluoroglycofen+phenmedipham; fluoroglycofen+desmedipham; fluoroglycofen+ethofumesate; fluoroglycofen+triasulfuron; fluoroglycofen+chloridazon; fluoroglycofen+lenacil; fluoroglycofen+triallate; fluoroglycofen+fluazifop; fluoroglycofen+sethoxydim; fluoroglycofen+quizalofop; fluoroglycofen+fenoxaprop; fluoroglycofen+clethodim; fluoroglycofen+glyphosate; fluoroglycofen+glufosinate; fluoroglycofen+sulfosate; fomesafen+metolachlor; fomesafen+(S)-metolachlor; fomesafen+propaquizafop; fomesafen+metamitron; fomesafen+pyramin; fomesafen+phenmedipham; fomesafen+desmedipham; fomesafen +ethofumesate; fomesafen+triasulfuron; fomesafen+chloridazon; fomesafen+lenacil; fomesafen+triallate; fomesafen+fluazifop; fomesafen+sethoxydim; fomesafen+quizalofop; fomesafen+fenoxaprop; fomesafen+clethodim; fomesafen+glyphosate; fomesafen+glufosinate; fomesafen+sulfosate; lactofen+metolachlor; lactofen+(S)-metolachlor; lactofen+propaquizafop; lactofen+metamitron; lactofen+pyramin; lactofen+phenmedipham; lactofen+desmedipham; lactofen+ethofumesate; lactofen+triasulfuron; lactofen+chloridazon; lactofen+lenacil; lactofen+triallate; lactofen+fluazifop; lactofen+sethoxydim; lactofen+quizalofop; lactofen+fenoxaprop; lactofen+clethodim; lactofen+glyphosate; lactofen+glufosinate; lactofen+sulfosate; oxyfluorfen+metolachlor; oxyfluorfen+(S)-metolachlor; oxyfluorfen+propaquizafop; oxyfluorfen+metamitron; oxyfluorfen+pyramin; oxyfluorfen+phenmedipham; oxyfluorfen+desmedipham; oxyfluorfen+ethofumesate; oxyfluorfen+triasulfuron; oxyfluorfen+chloridazon; oxyfluorfen+lenacil; oxyfluorfen+triallate; oxyfluorfen+fluazifop; oxyfluorfen+sethoxydim; oxyfluorfen+quizalofop; oxyfluorfen+fenoxaprop; oxyfluorfen+clethodim; oxyfluorfen+glyphosate; oxyfluorfen+glufosinate; oxyfluorfen+sulfosate; azafenidin+metolachlor; azafenidin+(S)-metolachlor; azafenidin+propaquizafop; azafenidin+metamitron; azafenidin+pyramin; azafenidin+phenmedipham; azafenidin+desmedipham; azafenidin+ethofumesate; azafenidin+triasulfuron; azafenidin+chloridazon; azafenidin+lenacil; azafenidin+triallate; azafenidin+fluazifop; azafenidin+sethoxydim; azafenidin+quizalofop; azafenidin+fenoxaprop; azafenidin+clethodim; azafenidin+glyphosate; azafenidin+glufosinate; azafenidin+sulfosate; carfentrazone-ethyl+metolachlor; carfentrazone-ethyl+(S)-metolachlor; carfentrazone-ethyl+propaquizafop; carfentrazone-ethyl+metamitron; carfentrazone-ethyl+pyramin; carfentrazone-ethyl+phenmedipham; carfentrazone-ethyl+desmedipham; carfentrazone-ethyl+ethofumesate; carfentrazone-ethyl+triasulfuron; carfentrazone-ethyl+chloridazon; carfentrazone-ethyl+lenacil; carfentrazone-ethyl+triallate; carfentrazone-ethyl+fluazifop; carfentrazone-ethyl+sethoxydim; carfentrazone-ethyl+quizalofop; carfentrazone-ethyl+fenoxaprop; carfentrazone-ethyl+clethodim; carfentrazone-ethyl+glyphosate; carfentrazone-ethyl+glufosinate; carfentrazone-ethyl+sulfosate; compound of the formula A+metolachlor; compound of the formula A+(S)-metolachlor; compound of the formula A +propaquizafop; compound of the formula A+metamitron; compound of the formula A+pyramin; compound of the formula A+phenmedipham; compound of the formula A+desmedipham; compound of the formula A+ethofumesate; compound of the formula A+triasulfuron; compound of the formula A+chloridazon; compound of the formula A+lenacil; compound of the formula A+triallate; compound of the formula A+fluazifop; compound of the formula A+sethoxydim; compound of the formula A+quizalofop; compound of the formula A+fenoxaprop; compound of the formula A+clethodim; compound of the formula A+glyphosate; compound of the formula A+glufosinate; compound of the formula A+sulfosate; cinidon-ethyl+metolachlor; cinidon-ethyl+(S)-metolachlor; cinidon-ethyl+propaquizafop; cinidon-ethyl+metamitron; cinidon-ethyl+pyramin; cinidon-ethyl+phenmedipham; cinidon-ethyl+desmedipham; cinidon-ethyl+ethofumesate; cinidon-ethyl +triasulfuron; cinidon-ethyl+chloridazon; cinidon-ethyl+lenacil; cinidon-ethyl+triallate; cinidon-ethyl+fluazifop; cinidon-ethyl+sethoxydim; cinidon-ethyl+quizalofop; cinidon-ethyl+fenoxaprop; cinidon-ethyl+clethodim; cinidon-ethyl+glyphosate; cinidon-ethyl+glufosinate; cinidon-ethyl+sulfosate; flumiclorac-pentyl+metolachlor; flumiclorac-pentyl+(S)-metolachlor; flumiclorac-pentyl+Propaquizafop; flumiclorac-pentyl+metamitron; flumiclorac-pentyl+pyramin; flumiclorac-pentyl+phenmedipham; flumiclorac-pentyl+desmedipham; flumiclorac-pentyl+ethofumesate; flumiclorac-pentyl+triasulfuron; flumiclorac-pentyl+chloridazon; flumiclorac-pentyl+lenacil; flumiclorac-pentyl+triallate; flumiclorac-pentyl+fluazifop; flumiclorac-pentyl+sethoxydim; flumiclorac-pentyl+quizalofop; flumiclorac-pentyl+fenoxaprop; flumiclorac-pentyl+clethodim; flumiclorac-pentyl+glyphosate; flumiclorac-pentyl+glufosinate; flumiclorac-pentyl+sulfosate; flumioxazin+metolachlor; flumioxazin+(S)-metolachlor; flumioxazin+propaquizafop; flumioxazin+metamitron; flumioxazin+pyramin; flumioxazin+phenmedipham; flumioxazin +desmedipham; flumioxazin+ethofumesate; flumioxazin+triasulfuron; flumioxazin+chloridazon; flumioxazin+lenacil; flumioxazin+triallate; flumioxazin+fluazifop; flumioxazin +sethoxydim; flumioxazin+quizalofop; flumioxazin+fenoxaprop; flumioxazin+clethodim; flumioxazin+glyphosate; flumioxazin+glufosinate; flumioxazin+sulfosate; fluthiacet-methyl+metolachlor; fluthiacet-methyl+(S)-metolachlor; fluthiacet-methyl+propaquizafop; fluthiacet-methyl+metamitron; fluthiacet-methyl+pyramin; fluthiacet-methyl+phenmedipham; fluthiacet-methyl+desmedipham; fluthiacet-methyl+ethofumesate; fluthiacet-methyl+triasulfuron; fluthiacet-methyl+chloridazon; fluthiacet-methyl+lenacil; fluthiacet-methyl+triallate; fluthiacet-methyl+fluazifop; fluthiacet-methyl+sethoxydim; fluthiacet-methyl+quizalofop; fluthiacet-methyl+fenoxaprop; fluthiacet-methyl+

clethodim; fluthiacet-methyl+glyphosate; fluthiacet-methyl+glufosinate; fluthiacet-methyl+sulfosate; oxadiargyl+metolachlor; oxadiargyl+(S)-metolachlor; oxadiargyl+propaquizafop; oxadiargyl+metamitron; oxadiargyl+pyramin; oxadiargyl+phenmedipham; oxadiargyl+desmedipham; oxadiargyl+ethofumesate; oxadiargyl+triasulfuron; oxadiargyl+chloridazon; oxadiargyl+lenacil; oxadiargyl+triallate; oxadiargyl+fluazifop; oxadiargyl+sethoxydim; oxadiargyl+quizalofop; oxadiargyl+fenoxaprop; oxadiargyl+clethodim; oxadiargyl+glyphosate; oxadiargyl+glufosinate; oxadiargyl+sulfosate; oxadiazon+metolachlor; oxadiazon+(S)-metolachlor; oxadiazon+propaquizafop; oxadiazon+metamitron; oxadiazon+pyramin; oxadiazon+phenmedipham; oxadiazon+desmedipham; oxadiazon+ethofumesate; oxadiazon+triasulfuron; oxadiazon+chloridazon; oxadiazon+lenacil; oxadiazon+triallate; oxadiazon+fluazifop; oxadiazon+sethoxydim; oxadiazon+quizalofop; oxadiazon+fenoxaprop; oxadiazon+clethodim; oxadiazon+glyphosate; oxadiazon+glufosinate; oxadiazon+sulfosate; pentoxazone+metolachlor; pentoxazone+(S)-metolachlor; pentoxazone+propaquizafop; pentoxazone+metamitron; pentoxazone+pyramin; pentoxazone+phenmedipham; pentoxazone+desmedipham; pentoxazone+ethofumesate; pentoxazone+triasulfuron; pentoxazone+chloridazon; pentoxazone+lenacil; pentoxazone+triallate; pentoxazone+fluazifop; pentoxazone+sethoxydim; pentoxazone+quizalofop; pentoxazone+fenoxaprop; pentoxazone+clethodim; pentoxazone+glyphosate; pentoxazone+glufosinate; pentoxazone+sulfosate; sulfentrazone+metolachlor; sulfentrazone+(S)-metolachlor; sulfentrazone+propaquizafop; sulfentrazone+metamitron; sulfentrazone+pyramin; sulfentrazone+phenmedipham; sulfentrazone+desmedipham; sulfentrazone+ethofumesate; sulfentrazone+triasulfuron; sulfentrazone+chloridazon; sulfentrazone+lenacil; sulfentrazone+triallate; sulfentrazone+fluazifop; sulfentrazone+sethoxydim; sulfentrazone+quizalofop; sulfentrazone+fenoxaprop; sulfentrazone+clethodim; sulfentrazone+glyphosate; sulfentrazone+glufosinate; sulfentrazone+sulfosate; fluazolate+metolachlor; fluazolate+(S)-metolachlor; fluazolate+propaquizafop; fluazolate +metamitron; fluazolate+pyramin; fluazolate+phenmedipham; fluazolate+desmedipham; fluazolate+ethofumesate; fluazolate+triasulfuron; fluazolate+chloridazon; fluazolate+lenacil; fluazolate+triallate; fluazolate+fluazifop; fluazolate+sethoxydim; fluazolate+quizalofop; fluazolate+fenoxaprop; fluazolate+clethodim; fluazolate+glyphosate; fluazolate+glufosinate; fluazolate+sulfosate; pyraflufen-ethyl+metolachlor; pyraflufen-ethyl+(S)-metolachlor; pyraflufen-ethyl+propaquizafop; pyraflufen-ethyl+metamitron; pyraflufen-ethyl+pyramin; pyraflufen-ethyl+phenmedipham; pyraflufen-ethyl+desmedipham; pyraflufen-ethyl+ethofumesate; pyraflufen-ethyl+triasulfuron; pyraflufen-ethyl+chloridazon; pyraflufen-ethyl+lenacil; pyraflufen-ethyl+triallate; pyraflufen-ethyl+fluazifop; pyraflufen-ethyl+sethoxydim; pyraflufen-ethyl+quizalofop; pyraflufen-ethyl+fenoxaprop; pyraflufen-ethyl+clethodim; pyraflufen-ethyl+glyphosate; pyraflufen-ethyl+glufosinate; pyraflufen-ethyl+sulfosate; flumipropyn+metolachlor; flumipropyn+(S)-metolachlor; flumipropyn+propaquizafop; flumipropyn+metamitron; flumipropyn+pyramin; flumipropyn+phenmedipham; flumipropyn+desmedipham; flumipropyn+ethofumesate; flumipropyn+triasulfuron; flumipropyn+chloridazon; flumipropyn+lenacil; flumipropyn+triallate; flumipropyn+fluazifop; flumipropyn+sethoxydim; flumipropyn+quizalofop; flumipropyn+fenoxaprop; flumipropyn+clethodim; flumipropyn+glyphosate; flumipropyn+glufosinate; flumipropyn+sulfosate; flupropacil+metolachlor; flupropacil+(S)-metolachlor; flupropacil+propaquizafop; flupropacil+metamitron; flupropacil+pyramin; flupropacil+phenmedipham; flupropacil+desmedipham; flupropacil+ethofumesate; flupropacil+triasulfuron; flupropacil+chloridazon; flupropacil+lenacil; flupropacil+triallate; flupropacil +fluazifop; flupropacil+sethoxydim; flupropacil+quizalofop; flupropacil+fenoxaprop; flupropacil+clethodim; flupropacil+glyphosate; flupropacil+glufosinate; flupropacil+sulfosate; nipyraclofen+metolachlor; nipyraclofen+(S)-metolachlor; nipyraclofen+propaquizafop; nipyraclofen+metamitron; nipyraclofen+pyramin; nipyraclofen+phenmedipham; nipyraclofen+desmedipham; nipyraclofen+ethofumesate; nipyraclofen+triasulfuron; nipyraclofen+chloridazon; nipyraclofen+lenacil; nipyraclofen+triallate; nipyraclofen+fluazifop; nipyraclofen+sethoxydim; nipyraclofen+quizalofop; nipyraclofen +fenoxaprop; nipyraclofen+clethodim; nipyraclofen+glyphosate; nipyraclofen+glufosinate; nipyraclofen+sulfosate; benzfendizone+metolachlor; benzfendizone+(S)-metolachlor; benzfendizone+propaquizafop; benzfendizone+metamitron; benzfendizone +pyramin; benzfendizone+phenmedipham; benzfendizone+desmedipham; benzfendizone+ethofumesate; benzfendizone+triasulfuron; benzfendizone+chloridazon; benzfendizone+lenacil; benzfendizone+triallate; benzfendizone+fluazifop; benzfendizone+sethoxydim; benzfendizone+quizalofop; benzfendizone+fenoxaprop; benzfendizone+clethodim; benzfendizone+glyphosate; benzfendizone+glufosinate; benzfendizone+sulfosate; thidiazimin+metolachlor; thidiazimin+(S)-metolachlor; thidiazimin+propaquizafop; thidiazimin+metamitron; thidiazimin+pyramin; thidiazimin+phenmedipham; thidiazimin+desmedipham; thidiazimin+ethofumesate; thidiazimin+triasulfuron; thidiazimin+chloridazon; thidiazimin+lenacil; thidiazimin+triallate; thidiazimin+fluazifop; thidiazimin+sethoxydim; thidiazimin+quizalofop; thidiazimin+fenoxaprop; thidiazimin+clethodim; thidiazimin+glyphosate; thidiazimin+glufosinate; and thidiazimin+sulfosate.

[0050] The following combinations of the compound under a) with the co-herbicides under b) have been found to be very particularly effective synergistic compositions in soya crops resistant to protoporphyrinogen oxidase inhibitors:

[0051] Acifluorfen+(S)-metolachlor; acifluorfen+metolachlor; acifluorfen+oxasulfuron; acifluorfen+fluthiacet; acifluorfen+propaquizafop; acifluorfen+alachlor; acifluorfen+dimethenamid or (S)-dimethenamid; acifluorfen+benazolin; acifluorfen+bentazone; acifluorfen+carfentrazone; acifluorfen+sulfentrazone; acifluorfen+chlorimuron-ethyl; acifluorfen+cloransulam-methyl; acifluorfen+thifensulfuron-methyl; acifluorfen+clopyralid; acifluorfen+flumiclorac-pentyl; acifluorfen+flumetsulam; acifluorfen+fomesafen; acifluorfen+imazamox; acifluorfen+imazaquin; acifluorfen+imazethapyr; acifluorfen+imazapyr; acifluorfen+lactofen; acifluorfen+pyridate; acifluorfen+sethoxydim; acifluorfen+fluazifop; acifluorfen+quizalofop; acifluorfen+clethodim; acifluorfen+fenoxaprop; acifluorfen+thidiazuron; acifluorfen+tribufos; acifluorfen+pendimethalin; acifluorfen+trifluralin; acifluorfen+glyphosate; acifluorfen+glufosinate; acifluorfen+sulfosate; aclonifen+(S)-metolachlor; aclonifen+metolachlor; aclonifen+oxasulfuron; aclonifen+fluthiacet;

aclonifen+propaquizafop; aclonifen+alachlor; aclonifen+dimethenamid or (S)-dimethenamid; aclonifen+acifluorfen; aclonifen+benazolin; aclonifen+bentazone; aclonifen+carfentrazone; aclonifen+sulfentrazone; aclonifen+chlorimuron-ethyl; aclonifen+cloransulam-methyl; aclonifen+thifensulfuron-methyl; aclonifen+clopyralid; aclonifen+flumiclorac-pentyl; aclonifen+flumetsulam; aclonifen+fomesafen; aclonifen+imazamox; aclonifen+imazaquin; aclonifen+imazethapyr; aclonifen+imazapyr; aclonifen+lactofen; aclonifen+pyridate; aclonifen+sethoxydim; aclonifen+fluazifop; aclonifen+quizalofop; aclonifen+clethodim; aclonifen+fenoxaprop; aclonifen+thidiazuron; aclonifen+tribufos; aclonifen+pendimethalin; aclonifen+trifluralin; aclonifen+glyphosate; aclonifen+glufosinate; aclonifen+sulfosate; bifenox+(S)-metolachlor; bifenox+metolachlor; bifenox+oxasulfuron; bifenox+fluthiacet; bifenox+propaquizafop; bifenox+alachlor; bifenox+dimethenamid or (S)-dimethenamid; bifenox+acifluorfen; bifenox+benazolin; bifenox+bentazone; bifenox+carfentrazone; bifenox+sulfentrazone; bifenox+chlorimuron-ethyl; bifenox+cloransulam-methyl; bifenox +thifensulfuron-methyl; bifenox+clopyralid; bifenox+flumiclorac-pentyl; bifenox+flumetsulam; bifenox+fomesafen; bifenox+imazamox; bifenox+imazaquin; bifenox+imazethapyr; bifenox+imazapyr; bifenox+lactofen; bifenox+pyridate; bifenox+sethoxydim; bifenox+fluazifop; bifenox+quizalofop; bifenox+clethodim; bifenox+fenoxaprop; bifenox+thidiazuron; bifenox+tribufos; bifenox+pendimethalin; bifenox+trifluralin; bifenox+glyphosate; bifenox+glufosinate; bifenox+sulfosate; chlomitrofen+(S)-metolachlor; chlomitrofen+metolachlor; chlomitrofen+oxasulfuron; chlomitrofen+fluthiacet; chlomitrofen+propaquizafop; chlomitrofen+alachlor; chlomitrofen+dimethenamid or (S)-dimethenamid; chlomitrofen+acifluorfen; chlomitrofen+benazolin; chlomitrofen+bentazone; chlomitrofen+carfentrazone; chlomitrofen+sulfentrazone; chlomitrofen+chlorimuron-ethyl; chlomitrofen+cloransulam-methyl; chlomitrofen+thifensulfuron-methyl; chlomitrofen+clopyralid; chlomitrofen+flumiclorac-pentyl; chlomitrofen+flumetsulam; chlomitrofen+fomesafen; chlomitrofen+Imazamox; chlomitrofen+imazaquin; chlomitrofen+imazethapyr; chlomitrofen+imazapyr; chlomitrofen+lactofen; chlomitrofen+pyridate; chlomitrofen+sethoxydim; chlomitrofen+fluazifop; chlomitrofen+quizalofop; chlomitrofen+clethodim; chlomitrofen+fenoxaprop; chlomitrofen+thidiazuron; chlomitrofen+tribufos; chlomitrofen+pendimethalin; chlomitrofen+trifluralin; chlomitrofen+glyphosate; chlomitrofen+glufosinate; chlomitrofen +sulfosate; ethoxyfen+(S)-metolachlor; ethoxyfen+metolachlor; ethoxyfen+oxasulfuron; ethoxyfen+fluthiacet; ethoxyfen+propaquizafop; ethoxyfen+alachlor; ethoxyfen+dimethenamid or (S)-dimethenamid; ethoxyfen+acifluorfen; ethoxyfen+benazolin; ethoxyfen+bentazone; ethoxyfen+carfentrazone; ethoxyfen+sulfentrazone; ethoxyfen+chlorimuron-ethyl; ethoxyfen+cloransulam-methyl; ethoxyfen+thifensulfuron-methyl; ethoxyfen+clopyralid; ethoxyfen+flumiclorac-pentyl; ethoxyfen+flumetsulam; ethoxyfen +fomesafen; ethoxyfen+imazamox; ethoxyfen+imazaquin; ethoxyfen+imazethapyr; ethoxyfen+imazapyr; ethoxyfen+lactofen; ethoxyfen+pyridate; ethoxyfen+sethoxydim; ethoxyfen+fluazifop; ethoxyfen+quizalofop; ethoxyfen+clethodim; ethoxyfen+fenoxaprop; ethoxyfen+thidiazuron; ethoxyfen+tribufos; ethoxyfen+pendimethalin; ethoxyfen+trifluralin; ethoxyfen+glyphosate; ethoxyfen+glufosinate; ethoxyfen+sulfosate; fluoroglycofen+(S)-metolachlor; fluoroglycofen+metolachlor; fluoroglycofen+oxasulfuron; fluoroglycofen+fluthiacet; fluoroglycofen+propaquizafop; fluoroglycofen+alachlor; fluoroglycofen+dimethenamid or (S)-dimethenamid; fluoroglycofen+acifluorfen; fluoroglycofen+benazolin; fluoroglycofen+bentazone; fluoroglycofen+carfentrazone; fluoroglycofen+sulfentrazone; fluoroglycofen+chlorimuron-ethyl; fluoroglycofen+cloransulam-methyl; fluoroglycofen+thifensulfuron-methyl; fluoroglycofen+clopyralid; fluoroglycofen+flumiclorac-pentyl; fluoroglycofen+flumetsulam; fluoroglycofen+fomesafen; fluoroglycofen+imazamox; fluoroglycofen+imazaquin; fluoroglycofen+imazethapyr; fluoroglycofen+imazapyr; fluoroglycofen+lactofen; fluoroglycofen+pyridate; fluoroglycofen+sethoxydim; fluoroglycofen+fluazifop; fluoroglycofen+quizalofop; fluoroglycofen+clethodim; fluoroglycofen+fenoxaprop; fluoroglycofen+thidiazuron; fluoroglycofen+tribufos; fluoroglycofen+pendimethalin; fluoroglycofen+trifluralin; fluoroglycofen+glyphosate; fluoroglycofen+glufosinate; fluoroglycofen+sulfosate; fomesafen+(S)-metolachlor; fomesafen+metolachlor; fomesafen+oxasulfuron; fomesafen+fluthiacet; fomesafen+propaquizafop; fomesafen+alachlor; fomesafen+dimethenamid or (S)-dimethenamid; fomesafen+acifluorfen; fomesafen+benazolin; fomesafen+bentazone; fomesafen+carfentrazone; fomesafen+sulfentrazone; fomesafen+chlorimuron-ethyl; fomesafen+cloransulam-methyl; fomesafen+thifensulfuron-methyl; fomesafen+clopyralid; fomesafen+flumiclorac-pentyl; fomesafen+flumetsulam; fomesafen+imazamox; fomesafen+imazaquin; fomesafen+imazethapyr; fomesafen+imazapyr; fomesafen+lactofen; fomesafen+pyridate; fomesafen+sethoxydim; fomesafen+fluazifop; fomesafen+quizalofop; fomesafen+clethodim; fomesafen+fenoxaprop; fomesafen+thidiazuron; fomesafen+tribufos; fomesafen+pendimethalin; fomesafen+trifluralin; fomesafen+glyphosate; fomesafen+glufosinate; fomesafen+sulfosate; lactofen+(S)-metolachlor; lactofen+metolachlor, lactofen+oxasulfuron; lactofen+fluthiacet; lactofen+propaquizafop; lactofen+alachlor; lactofen+dimethenamid or (S)-dimethenamid; lactofen+acifluorfen; lactofen+benazolin; lactofen+bentazone; lactofen+carfentrazone; lactofen+sulfentrazone; lactofen+chlorimuron-ethyl; lactofen+cloransulam-methyl; lactofen+thifensulfuron-methyl; lactofen+clopyralid; lactofen+flumiclorac-pentyl; lactofen+flumetsulam; lactofen+fomesafen; lactofen+imazamox; lactofen+imazaquin; lactofen+imazethapyr; lactofen+imazapyr; lactofen+pyridate; lactofen+sethoxydim; lactofen+fluazifop; lactofen+quizalofop; lactofen+clethodim; lactofen+fenoxaprop; lactofen+thidiazuron; lactofen+tribufos; lactofen+pendimethalin; lactofen+trifluralin; lactofen+glyphosate; lactofen+glufosinate; lactofen+sulfosate; oxyfluorfen+(S)-metolachlor; oxyfluorfen+metolachlor; oxyfluorfen+oxasulfuron; oxyfluorfen+fluthiacet; oxyfluorfen+propaquizafop; oxyfluorfen+alachlor; oxyfluorfen+dimethenamid or (S)-dimethenamid; oxyfluorfen+acifluorfen; oxyfluorfen+benazolin; oxyfluorfen+bentazone; oxyfluorfen+carfentrazone; oxyfluorfen+sulfentrazone; oxyfluorfen+chlorimuron-ethyl; oxyfluorfen+cloransulam-methyl; oxyfluorfen+thifensulfuron-methyl; oxyfluorfen+clopyralid; oxyfluorfen+flumiclorac-pentyl; oxyfluorfen+flumetsulam; oxyfluorfen+fomesafen; oxyfluorfen+imazamox; oxyfluorfen+imazaquin; oxyfluorfen+imazethapyr; oxyfluorfen+imazapyr; oxyfluorfen+lactofen; oxyfluorfen+pyridate; oxyfluorfen+sethoxydim;

oxyfluorfen+fluazifop; oxyfluorfen+quizalofop; oxyfluorfen+clethodim; oxyfluorfen+fenoxaprop; oxyfluorfen+thidiazuron; oxyfluorfen+tribufos; oxyfluorfen+pendimethalin; oxyfluorfen+trifluralin; oxyfluorfen+glyphosate; oxyfluorfen+glufosinate; oxyfluorfen+sulfosate; azafenidin+(S)-metolachlor; azafenidin+metolachlor; azafenidin+oxasulfuron; azafenidin+fluthiacet; azafenidin+propaquizafop; azafenidin+alachlor; azafenidin+dimethenamid or (S)-dimethenamid; azafenidin+acifluorfen; azafenidin+benazolin; azafenidin+bentazone; azafenidin+carfentrazone; azafenidin+sulfentrazone; azafenidin+chlorimuron-ethyl; azafenidin+cloransulam-methyl; azafenidin+thifensulfuron-methyl; azafenidin+clopyralid; azafenidin+flumiclorac-pentyl; azafenidin+flumetsulam; azafenidin+fomesafen; azafenidin+imazamox; azafenidin+imazaquin; azafenidin+imazethapyr; azafenidin+imazapyr; azafenidin+lactofen; azafenidin+pyridate; azafenidin+sethoxydim; azafenidin +fluazifop; azafenidin+quizalofop; azafenidin+clethodim; azafenidin+fenoxaprop; azafenidin+thidiazuron; azafenidin+tribufos; azafenidin+pendimethalin; azafenidin+trifluralin; azafenidin+glyphosate; azafenidin+glufosinate; azafenidin+sulfosate; carfentrazone-ethyl+(S)-metolachlor; carfentrazone-ethyl+metolachlor; carfentrazone-ethyl+oxasulfuron; carfentrazone-ethyl+fluthiacet; carfentrazone-ethyl+propaquizafop; carfentrazone-ethyl+alachlor; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid; carfentrazone-ethyl+acifluorfen; carfentrazone-ethyl+benazolin; carfentrazone-ethyl+bentazone; carfentrazone-ethyl+sulfentrazone; carfentrazone-ethyl+chlorimuron-ethyl; carfentrazone-ethyl+cloransulam-methyl; carfentrazone-ethyl+thifensulfuron-methyl; carfentrazone-ethyl+clopyralid; carfentrazone-ethyl+flumiclorac-pentyl; carfentrazone-ethyl+flumetsulam; carfentrazone-ethyl+fomesafen; carfentrazone-ethyl+imazamox; carfentrazone-ethyl+imazaquin; carfentrazone-ethyl+imazethapyr; carfentrazone-ethyl+imazapyr; carfentrazone-ethyl+lactofen; carfentrazone-ethyl+pyridate; carfentrazone-ethyl+sethoxydim; carfentrazone-ethyl+fluazifop; carfentrazone-ethyl+quizalofop; carfentrazone-ethyl+clethodim; carfentrazone-ethyl+fenoxaprop; carfentrazone-ethyl+thidiazuron; carfentrazone-ethyl+tribufos; carfentrazone-ethyl+pendimethalin; carfentrazone-ethyl+trifluralin; carfentrazone-ethyl+glyphosate; carfentrazone-ethyl+glufosinate; carfentrazone-ethyl+sulfosate; compound of the formula A+(S)-metolachlor; compound of the formula A+metolachlor; compound of the formula A+oxasulfuron; compound of the formula A+fluthiacet; compound of the formula A+propaquizafop; compound of the formula A+alachlor; compound of the formula A+dimethenamid or (S)-dimethenamid; compound of the formula A+acifluorfen; compound of the formula A+benazolin; compound of the formula A+bentazone; compound of the formula A+carfentrazone; compound of the formula A+sulfentrazone; compound of the formula A+chlorimuron-ethyl; compound of the formula A+cloransulam-methyl; compound of the formula A+thifensulfuron-methyl; compound of the formula A+clopyralid; compound of the formula A+flumiclorac-pentyl; compound of the formula A+flumetsulam; compound of the formula A+fomesafen; compound of the formula A+imazamox; compound of the formula A+imazaquin; compound of the formula A+imazethapyr; compound of the formula A+imazapyr; compound of the formula A+lactofen; compound of the formula A+pyridate; compound of the formula A+sethoxydim; compound of the formula A+fluazifop; compound of the formula A+quizalofop; compound of the formula A+clethodim; compound of the formula A+fenoxaprop; compound of the formula A+thidiazuron; compound of the formula A+tribufos; compound of the formula A+pendimethalin; compound of the formula A+trifluralin; compound of the formula A+glyphosate; compound of the formula A+glufosinate; compound of the formula A+sulfosate; cinidon-ethyl+(S)-metolachlor; cinidon-ethyl+metolachlor; cinidon-ethyl+oxasulfuron; cinidon-ethyl+fluthiacet; cinidon-ethyl+propaquizafop; cinidon-ethyl+alachlor; cinidon-ethyl+dimethenamid or (S)-dimethenamid; cinidon-ethyl+acifluorfen; cinidon-ethyl+benazolin; cinidon-ethyl+bentazone; cinidon-ethyl+carfentrazone; cinidon-ethyl+sulfentrazone; cinidon-ethyl+chlorimuron-ethyl; cinidon-ethyl+cloransulam-methyl; cinidon-ethyl+thifensulfuron-methyl; cinidon-ethyl+clopyralid; cinidon-ethyl+flumiclorac-pentyl; cinidon-ethyl+flumetsulam; cinidon-ethyl+fomesafen; cinidon-ethyl+imazamox; cinidon-ethyl+imazaquin; cinidon-ethyl+imazethapyr; cinidon-ethyl+imazapyr; cinidon-ethyl+lactofen; cinidon-ethyl+pyridate; cinidon-ethyl+sethoxydim; cinidon-ethyl+fluazifop; cinidon-ethyl +quizalofop; cinidon-ethyl+clethodim; cinidon-ethyl+fenoxaprop; cinidon-ethyl+thidiazuron; cinidon-ethyl+tribufos; cinidon-ethyl+pendimethalin; cinidon-ethyl+trifluralin; cinidon-ethyl+glyphosate; cinidon-ethyl+glufosinate; cinidon-ethyl+sulfosate; flumiclorac-pentyl+(S)-metolachlor; flumiclorac-pentyl+metolachlor; flumiclorac-pentyl+oxasulfuron; flumiclorac-pentyl+fluthiacet; flumiclorac-pentyl+propaquizafop; flumiclorac-pentyl+alachlor; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid; flumiclorac-pentyl +acifluorfen; flumiclorac-pentyl+benazolin; flumiclorac-pentyl+bentazone; flumiclorac-pentyl+carfentrazone; flumiclorac-pentyl+sulfentrazone; flumiclorac-pentyl+chlorimuron-ethyl; flumiclorac-pentyl+cloransulam-methyl; flumiclorac-pentyl+thifensulfuron-methyl; flumiclorac-pentyl+clopyralid; flumiclorac-pentyl+flumetsulam; flumiclorac-pentyl+fomesafen; flumiclorac-pentyl+imazamox; flumiclorac-pentyl+imazaquin; flumiclorac-pentyl+imazethapyr; flumiclorac-pentyl+imazapyr; flumiclorac-pentyl+lactofen; flumiclorac-pentyl+pyridate; flumiclorac-pentyl+sethoxydim; flumiclorac-pentyl+fluazifop; flumiclorac-pentyl+quizalofop; flumiclorac-pentyl+clethodim; flumiclorac-pentyl+fenoxaprop; flumiclorac-pentyl+thidiazuron; flumiclorac-pentyl+tribufos; flumiclorac-pentyl +pendimethalin; flumiclorac-pentyl+trifluralin; flumiclorac-pentyl+glyphosate; flumiclorac-pentyl+glufosinate; flumiclorac-pentyl+sulfosate; flumioxazin+(S)-metolachlor; 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fluazolate+alachlor; fluazolate+dimethenamid or (S)-dimethenamid; fluazolate+acifluorfen; fluazolate+benazolin; fluazolate+bentazone; fluazolate+carfentrazone; fluazolate+sulfentrazone; fluazolate+chlorimuron-ethyl; fluazolate+cloransulam-methyl; fluazolate+thifensulfuron-methyl; fluazolate+clopyralid; fluazolate+flumiclorac-pentyl; fluazolate+flumetsulam; fluazolate+fomesafen; fluazolate +imazamox; fluazolate+imazaquin; fluazolate+imazethapyr; fluazolate+imazapyr; fluazolate+lactofen; fluazolate+pyridate; fluazolate+sethoxydim; fluazolate+fluazifop; fluazolate+quizalofop; fluazolate+clethodim; fluazolate+fenoxaprop; fluazolate+thidiazuron; fluazolate+tribufos; fluazolate+pendimethalin; fluazolate+trifluralin; fluazolate+glyphosate; fluazolate+glufosinate; fluazolate+sulfosate; pyraflufen-ethyl+(S)-metolachlor; pyraflufen-ethyl+metolachlor; pyraflufen-ethyl+oxasulfuron; pyraflufen-ethyl+fluthiacet; pyraflufen-ethyl+propaquizafop; pyraflufen-ethyl+alachlor; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid; pyraflufen-ethyl+acifluorfen; pyraflufen-ethyl+benazolin; pyraflufen-ethyl+bentazone; pyraflufen-ethyl+carfentrazone; pyraflufen-ethyl+sulfentrazone; pyraflufen-ethyl+chlorimuron-ethyl; pyraflufen-ethyl+cloransulam-methyl; pyraflufen-ethyl+thifensulfuron-methyl; pyraflufen-ethyl+clopyralid; pyraflufen-ethyl+flumiclorac-pentyl; pyraflufen-ethyl+flumetsulam; pyraflufen-ethyl+fomesafen; pyraflufen-ethyl+imazamox; pyraflufen-ethyl+imazaquin; pyraflufen-ethyl+imazethapyr; pyraflufen-ethyl+imazapyr; pyraflufen-ethyl+lactofen; pyraflufen-ethyl+pyridate; pyraflufen-ethyl+sethoxydim; pyraflufen-ethyl+fluazifop; pyraflufen-ethyl+quizalofop; pyraflufen-ethyl+clethodim; pyraflufen-ethyl+fenoxaprop; pyraflufen-ethyl+thidiazuron; pyraflufen-ethyl+tribufos; pyraflufen-ethyl+pendimethalin; pyraflufen-ethyl+trifluralin; pyraflufen-ethyl+glyphosate; pyraflufen-

ethyl+glufosinate; pyraflufen-ethyl+sulfosate; flumipropyn+(S)-metolachlor; flumipropyn+metolachlor; flumipropyn+oxasulfuron; flumipropyn+fluthiacet; flumipropyn+propaquizafop; flumipropyn+alachlor; flumipropyn+dimethenamid or (S)-dimethenamid; flumipropyn+acifluorfen; flumipropyn+benazolin; flumipropyn+bentazone; flumipropyn+carfentrazone; flumipropyn+sulfentrazone; flumipropyn+chlorimuron-ethyl; flumipropyn+cloransulam-methyl; flumipropyn+thifensulfuron-methyl; flumipropyn+clopyralid; flumipropyn+flumiclorac-pentyl; flumipropyn+flumetsulam; flumipropyn+fomesafen; flumipropyn+imazamox; flumipropyn +imazaquin; flumipropyn+imazethapyr; flumipropyn+imazapyr; flumipropyn+lactofen; flumipropyn+pyridate; flumipropyn+sethoxydim; flumipropyn+fluazifop; flumipropyn+quizalofop; flumipropyn+clethodim; flumipropyn+fenoxaprop; flumipropyn+thidiazuron; flumipropyn+tribufos; flumipropyn+pendimethalin; flumipropyn+trifluralin; flumipropyn+glyphosate; flumipropyn+glufosinate; flumipropyn+sulfosate; flupropacil+(S)-metolachlor; flupropacil+metolachlor; flupropacil+oxasulfuron; flupropacil+fluthiacet; flupropacil+propaquizafop; flupropacil+alachlor, flupropacil+dimethenamid or (S)-dimethenamid; flupropacil+acifluorfen; flupropacil+benazolin; flupropacil+bentazone; flupropacil+carfentrazone; flupropacil+sulfentrazone; flupropacil+chlorimuron-ethyl; flupropacil+cloransulam-methyl; flupropacil+thifensulfuron-methyl; flupropacil+clopyralid; flupropacil+flumiclorac-pentyl; flupropacil+flumetsulam; flupropacil+fomesafen; flupropacil+imazamox; flupropacil+imazaquin; flupropacil+imazethapyr; flupropacil+imazapyr; flupropacil+lactofen; flupropacil+pyridate; flupropacil+sethoxydim; flupropacil +fluazifop; flupropacil+quizalofop; flupropacil+clethodim; flupropacil+fenoxaprop; flupropacil+thidiazuron; flupropacil+tribufos; flupropacil+pendimethalin; flupropacil+trifluralin; flupropacil+glyphosate; flupropacil+glufosinate; flupropacil+sulfosate; benzfendizone+(S)-metolachlor; benzfendizone+metolachlor; benzfendizone+oxasulfuron; benzfendizone+fluthiacet; benzfendizone+propaquizafop; benzfendizone+alachlor; benzfendizone+dimethenamid or (S)-dimethenamid; benzfendizone+acifluorfen; benzfendizone+benazolin; benzfendizone+bentazone; benzfendizone+carfentrazone; benzfendizone+sulfentrazone; benzfendizone+chlorimuron-ethyl; benzfendizone+cloransulam-methyl; benzfendizone+thifensulfuron-methyl; benzfendizone+clopyralid; benzfendizone+flumiclorac-pentyl; benzfendizone+flumetsulam; benzfendizone+fomesafen; benzfendizone+imazamox; benzfendizone+imazaquin; benzfendizone+imazethapyr; benzfendizone+imazapyr; benzfendizone+lactofen; benzfendizone+pyridate; benzfendizone+sethoxydim; benzfendizone+fluazifop; benzfendizone+quizalofop; benzfendizone+clethodim; benzfendizone+fenoxaprop; benzfendizone+thidiazuron; benzfendizone+tribufos; benzfendizone+pendimethalin; benzfendizone+trifluralin; benzfendizone+glyphosate; benzfendizone+glufosinate; benzfendizone+sulfosate; thidiazimin+(S)-metolachlor; thidiazimin+metolachlor; thidiazimin+oxasulfuron; thidiazimin+fluthiacet; thidiazimin+propaquizafop; thidiazimin+alachlor; thidiazimin+dimethenamid or (S)-dimethenamid; thidiazimin+acifluorfen; thidiazimin+benazolin; thidiazimin+bentazone; thidiazimin+carfentrazone; thidiazimin+sulfentrazone; thidiazimin+chlorimuron-ethyl; thidiazimin+cloransulam-methyl; thidiazimin+thifensulfuron-methyl; thidiazimin+clopyralid; thidiazimin+flumiclorac-pentyl; thidiazimin+flumetsulam; thidiazimin+tomesafen; thidiazimin+imazamox; thidiazimin+imazaquin; thidiazimin+imazethapyr; thidiazimin+imazapyr; thidiazimin+lactofen; thidiazimin+pyridate; thidiazimin+sethoxydim; thidiazimin+fluazifop; thidiazimin+quizalofop; thidiazimin+clethodim; thidiazimin+fenoxaprop; thidiazimin+thidiazuron; thidiazimin+tribufos; thidiazimin+pendimethalin; thidiazimin+trifluralin; thidiazimin+glyphosate; thidiazimin+glufosinate; and thidiazimin+sulfosate.

[0052] The following combinations of the compounds under a) with the co-herbicides under b) have been found to be very particularly effective synergistic compositions in crops of rape resistant to protoporphyrinogen oxidase inhibitors:

[0053] acifluorfen+dimethachlor; acifluorfen+propaquizafop; acifluorfen+clomazone; acifluorfen +napropamide; acifluorfen+quinmerac; acifluorfen+metazachlor; acifluorfen+carbetamide; acifluorfen+dimefuron; acifluorfen+propyzamide; acifluorfen+clopyralid; acifluorfen+ethametsulfuron; acifluorfen+sethoxydim; acifluorfen+fluazifop; acifluorfen+quizalofop; acifluorfen+clethodim; acifluorfen+fenoxaprop; acifluorfen+tebutam; acifluorfen+glyphosate; acifluorfen+glufosinate; acifluorfen+sulfosate; bifenox+dimethachlor; bifenox+propaquizafop; bifenox+clomazone; bifenox+napropamide; bifenox+quinmerac; bifenox+metazachlor; bifenox+carbetamide; bifenox+dimefuron; bifenox+propyzamide; bifenox+clopyralid; bifenox+ethametsulfuron; bifenox+sethoxydim; bifenox+fluazifop; bifenox+quizalofop; bifenox+clethodim; bifenox+fenoxaprop; bifenox+tebutam; bifenox+glyphosate; bifenox+glufosinate; bifenox+sulfosate, chlomitrofen+dimethachlor; chlomitrofen+propaquizafop; chlomitrofen+clomazone; chlomitrofen+napropamide; chlomitrofen+quinmerac; chlomitrofen+metazachlor; chlomitrofen+carbetamide; chlomitrofen+dimefuron; chlomitrofen+propyzamide; chlomitrofen+clopyralid; chlomitrofen+ethametsulfuron; chlomitrofen+sethoxydim; chlomitrofen+fluazifop; chlomitrofen+quizalofop; chlomitrofen+clethodim; chlomitrofen+fenoxaprop; chlomitrofen+tebutam; chlomitrofen+glyphosate; chlomitrofen +glufosinate; chlomitrofen+sulfosate; ethoxyfen+dimethachlor; ethoxyfen+propaquizafop; ethoxyfen+clomazone; ethoxyfen+napropamide; ethoxyfen+quinmerac; ethoxyfen+metazachlor; ethoxyfen+carbetamide; ethoxyfen+dimefuron; ethoxyfen+propyzamide; ethoxyfen+clopyralid; ethoxyfen+ethametsulfuron; ethoxyfen+sethoxydim; ethoxyfen+fluazifop; ethoxyfen+quizalofop; ethoxyfen+clethodim; ethoxyfen+fenoxaprop; ethoxyfen+tebutam; ethoxyfen+glyphosate; ethoxyfen+glufosinate; ethoxyfen+sulfosate; fluoroglycofen+dimethachlor; fluoroglycofen+propaquizafop; fluoroglycofen+clomazone; fluoroglycofen+napropamide; fluoroglycofen+quinmerac; fluoroglycofen+metazachlor; fluoroglycofen+carbetamide; fluoroglycofen+dimefuron; fluoroglycofen+propyzamide; fluoroglycofen+clopyralid; fluoroglycofen+ethametsulfuron; fluoroglycofen+sethoxydim; fluoroglycofen+fluazifop; fluoroglycofen+quizalofop; fluoroglycofen+clethodim; fluoroglycofen+fenoxaprop; fluoroglycofen+tebutam; fluoroglycofen+glyphosate; fluoroglycofen+glufosinate; fluoroglycofen+sulfosate; fomesafen+dimethachlor; fomesafen+propaquizafop; fomesafen+clomazone; fomesafen+napropamide; fomesafen+quinmerac; fomesafen+metazachlor; fomesafen +carbetamide; fomesafen+dimefuron; fomesafen+propyza-

mide; fomesafen+clopyralid; fomesafen+ethametsulfuron; fomesafen+sethoxydim; fomesafen+fluazifop; fomesafen +quizalofop; fomesafen+clethodim; fomesafen+fenoxaprop; fomesafen+tebutam; fomesafen+glyphosate; fomesafen+glufosinate; fomesafen+sulfosate; lactofen+dimethachlor; lactofen+propaquizafop; lactofen+clomazone; lactofen+napropamide; lactofen+quinmerac; lactofen+metazachlor; lactofen+carbetamide; lactofen+dimefuron; lactofen+propyzamide; lactofen+clopyralid; lactofen+ethametsulfuron; lactofen+sethoxydim; lactofen+fluazifop; lactofen+quizalofop; lactofen+clethodim; lactofen+fenoxaprop; lactofen+tebutam; lactofen+glyphosate; lactofen+glufosinate; lactofen+sulfosate; oxyfluorfen+dimethachlor; oxyfluorfen+propaquizafop; oxyfluorfen+clomazone; oxyfluorfen+napropamide; oxyfluorfen+quinmerac; oxyfluorfen+metazachlor; oxyfluorfen+carbetamide; oxyfluorfen+dimefuron; oxyfluorfen+propyzamide; oxyfluorfen+clopyralid; oxyfluorfen+ethametsulfuron; oxyfluorfen+sethoxydim; oxyfluorfen+fluazifop; oxyfluorfen+quizalofop; oxyfluorfen+clethodim; oxyfluorfen+fenoxaprop; oxyfluorfen+tebutam; oxyfluorfen+glyphosate; oxyfluorfen+glufosinate; oxyfluorfen+sulfosate; azafenidin+dimethachlor; azafenidin+propaquizafop; azafenidin+clomazone; azafenidin+napropamide; azafenidin+quinmerac; azafenidin+metazachlor; azafenidin+carbetamide; azafenidin+dimefuron; azafenidin+propyzamide; azafenidin+clopyralid; azafenidin+ethametsulfuron; azafenidin+sethoxydim; azafenidin +fluazifop; azafenidin+quizalofop; azafenidin+clethodim; azafenidin+fenoxaprop; azafenidin+tebutam; azafenidin+glyphosate; azafenidin+glufosinate; azafenidin+sulfosate; carfentrazone-ethyl+dimethachlor; carfentrazone-ethyl+propaquizafop; carfentrazone-ethyl+clomazone; carfentrazone-ethyl+napropamide; carfentrazone-ethyl+quinmerac; carfentrazone-ethyl+metazachlor; carfentrazone-ethyl+carbetamide; carfentrazone-ethyl+dimefuron; carfentrazone-ethyl+propyzamide; carfentrazone-ethyl+clopyralid; carfentrazone-ethyl+ethametsulfuron; carfentrazone-ethyl+sethoxydim; carfentrazone-ethyl+fluazifop; carfentrazone-ethyl+quizalofop; carfentrazone-ethyl+clethodim; carfentrazone-ethyl+fenoxaprop; carfentrazone-ethyl+tebutam; carfentrazone-ethyl+glyphosate; carfentrazone-ethyl+glufosinate; carfentrazone-ethyl+sulfosate; compound of the formula A+dimethachlor; compound of the formula A+propaquizafop; compound of the formula A+clomazone; compound of the formula A+napropamide; compound of the formula A+quinmerac; compound of the formula A+metazachlor; compound of the formula A+carbetamide; compound of the formula A+dimefuron; compound of the formula A+propyzamide; compound of the formula A+clopyralid; compound of the formula A+ethametsulfuron; compound of the formula A+sethoxydim; compound of the formula A+fluazifop; compound of the formula A+quizalofop; compound of the formula A+clethodim; compound of the formula A+fenoxaprop; compound of the formula A+tebutam; compound of the formula A+glyphosate; compound of the formula A +glufosinate; compound of the formula A+sulfosate; cinidon-ethyl+dimethachlor; cinidon-ethyl+propaquizafop; cinidon-ethyl+clomazone; cinidon-ethyl+napropamide; cinidon-ethyl+quinmerac; cinidon-ethyl+metazachlor; cinidon-ethyl+carbetamide; cinidon-ethyl+dimefuron; cinidon-ethyl+propyzamide; cinidon-ethyl+clopyralid; cinidon-ethyl+ethametsulfuron; cinidon-ethyl+sethoxydim; cinidon-ethyl+fluazifop; cinidon-ethyl+quizalofop; cinidon-ethyl+clethodim; cinidon-ethyl+fenoxaprop; cinidon-ethyl+tebutam; cinidon-ethyl+glyphosate; cinidon-ethyl+glufosinate; cinidon-ethyl+sulfosate; flumiclorac-pentyl+dimethachlor; flumiclorac-pentyl+propaquizafop; flumiclorac-pentyl+clomazone; flumiclorac-pentyl+napropamide; flumiclorac-pentyl+quinmerac; flumiclorac-pentyl+metazachlor; flumiclorac-pentyl+carbetamide; flumiclorac-pentyl+dimefuron; flumiclorac-pentyl+propyzamide; flumiclorac-pentyl+clopyralid; flumiclorac-pentyl+ethametsulfuron; flumiclorac-pentyl+sethoxydim; flumiclorac-pentyl+fluazifop; flumiclorac-pentyl+quizalofop; flumiclorac-pentyl+clethodim; flumiclorac-pentyl+fenoxaprop; flumiclorac-pentyl+tebutam; flumiclorac-pentyl+glyphosate; glufosinate; flumiclorac-pentyl +sulfosate; flumioxazin+dimethachlor; flumioxazin+propaquizafop; flumioxazin+clomazone; flumioxazin+napropamide; flumioxazin+quinmerac; flumioxazin+metazachlor; flumioxazin+carbetamide; flumioxazin+dimefuron; flumioxazin+propyzamide; flumioxazin+clopyralid; flumioxazin+ethametsulfuron; flumioxazin+sethoxydim; flumioxazin+fluazifop; flumioxazin+quizalofop; flumioxazin+clethodim; flumioxazin+fenoxaprop; flumioxazin+tebutam; flumioxazin+glyphosate; flumioxazin+glufosinate; flumioxazin+sulfosate; fluthiacet-methyl+dimethachlor; fluthiacet-methyl+propaquizafop; fluthiacet-methyl+clomazone; fluthiacet-methyl+napropamide; fluthiacet-methyl+quinmerac; fluthiacet-methyl+metazachlor; fluthiacet-methyl+carbetamide; fluthiacet-methyl+dimefuron; fluthiacet-methyl+propyzamide; fluthiacet-methyl+clopyralid; fluthiacet-methyl+ethametsulfuron; fluthiacet-methyl+sethoxydim; fluthiacet-methyl+fluazifop; fluthiacet-methyl+quizalofop; fluthiacet-methyl+clethodim; fluthiacet-methyl+fenoxaprop; fluthiacet-methyl+tebutam; fluthiacet-methyl+glyphosate; fluthiacet-methyl+glufosinate; fluthiacet-methyl+sulfosate; oxadiargyl+dimethachlor; oxadiargyl+propaquizafop; oxadiargyl+clomazone; oxadiargyl+napropamide; oxadiargyl+quinmerac; oxadiargyl+metazachlor; oxadiargyl+carbetamide; oxadiargyl+dimefuron; oxadiargyl+propyzamide; oxadiargyl+clopyralid; oxadiargyl+ethametsulfuron; oxadiargyl+sethoxydim; oxadiargyl+fluazifop; oxadiargyl+quizalofop; oxadiargyl+clethodim; oxadiargyl+fenoxaprop; oxadiargyl+tebutam; oxadiargyl+glyphosate; oxadiargyl+glufosinate; oxadiargyl+sulfosate; oxadiazon+dimethachlor; oxadiazon+propaquizafop; oxadiazon+clomazone; oxadiazon+napropamide; oxadiazon+quinmerac; oxadiazon+metazachlor; oxadiazon+carbetamide; oxadiazon+dimefuron; oxadiazon+propyzamide; oxadiazon+clopyralid; oxadiazon+ethametsulfuron; oxadiazon+sethoxydim; oxadiazon+fluazifop; oxadiazon+quizalofop; oxadiazon+clethodim; oxadiazon+fenoxaprop; oxadiazon+tebutam; oxadiazon+glyphosate; oxadiazon+glufosinate; oxadiazon+sulfosate; pentoxazone+dimethachlor; pentoxazone+propaquizafop; pentoxazone+clomazone; pentoxazone+napropamide; pentoxazone+quinmerac; pentoxazone+metazachlor; pentoxazone+carbetamide; pentoxazone+dimefuron; pentoxazone+propyzamide; pentoxazone+clopyralid; pentoxazone+ethametsulfuron; pentoxazone+sethoxydim; pentoxazone+fluazifop; pentoxazone+quizalofop; pentoxazone+clethodim; pentoxazone+fenoxaprop; pentoxazone+tebutam; pentoxazone+glyphosate; pentoxazone+glufosinate; pentoxazone+sulfosate; sulfentrazone+dimethachlor; sulfentrazone+propaquizafop; sulfentrazone+clomazone; sulfentrazone+napropamide; sulfentrazone+quinmerac;

sulfentrazone+metazachlor; sulfentrazone+carbetamide; sulfentrazone+dimefuron; sulfentrazone+propyzamide; sulfentrazone+clopyralid; sulfentrazone+ethametsulfuron; sulfentrazone+sethoxydim; sulfentrazone+fluazifop; sulfentrazone+quizalofop; sulfentrazone+clethodim; sulfentrazone+fenoxaprop; sulfentrazone+tebutam; sulfentrazone+glyphosate; sulfentrazone+glufosinate; sulfentrazone+sulfosate; fluazolate+dimethachlor; fluazolate+propaquizafop; fluazolate +clomazone; fluazolate+napropamide; fluazolate+quinmerac; fluazolate+metazachlor; fluazolate+carbetamide; fluazolate+dimefuron; fluazolate+propyzamide; fluazolate+clopyralid; fluazolate+ethametsulfuron; fluazolate+sethoxydim; fluazolate+fluazifop; fluazolate+quizalofop; fluazolate+clethodim; fluazolate+fenoxaprop; fluazolate+tebutam; fluazolate+glyphosate; fluazolate+glufosinate; fluazolate+sulfosate; pyraflufen-ethyl+dimethachlor; pyraflufen-ethyl+propaquizafop; pyraflufen-ethyl+clomazone; pyraflufen-ethyl+napropamide; pyraflufen-ethyl+quinmerac; pyraflufen-ethyl+metazachlor; pyraflufen-ethyl+carbetamide; pyraflufen-ethyl+dimefuron; pyraflufen-ethyl +propyzamide; pyraflufen-ethyl+clopyralid; pyraflufen-ethyl+ethametsulfuron; pyraflufen-ethyl+sethoxydim; pyraflufen-ethyl+fluazifop; pyraflufen-ethyl+quizalofop; pyraflufen-ethyl+clethodim; pyraflufen-ethyl+fenoxaprop; pyraflufen-ethyl+tebutam; pyraflufen-ethyl+glyphosate; pyraflufen-ethyl+glufosinate; sulfosate; flumipropyn+dimethachlor; flumipropyn+propaquizafop; flumipropyn+clomazone; flumipropyn+napropamide; flumipropyn+quinmerac; flumipropyn+metazachlor; flumipropyn+carbetamide; flumipropyn+dimefuron; flumipropyn+propyzamide; flumipropyn+clopyralid; flumipropyn +ethametsulfuron; flumipropyn+sethoxydim; flumipropyn+fluazifop; flumipropyn+quizalofop; flumipropyn+clethodim; flumipropyn+fenoxaprop; flumipropyn+tebutam; pyraflufen-ethyl+glyphosate; pyraflufen-ethyl+glufosinate; pyraflufen-ethyl+sulfosate; flupropacil+dimethachlor; flupropacil+propaquizafop; flupropacil+clomazone; flupropacil +napropamide; flupropacil+quinmerac; flupropacil+metazachlor; flupropacil+carbetamide; flupropacil+dimefuron; flupropacil+propyzamide; flupropacil+clopyralid; flupropacil+ethametsulfuron; flupropacil+sethoxydim; flupropacil+fluazifop; flupropacil+quizalofop; flupropacil+clethodim; flupropacil+fenoxaprop; flupropacil+tebutam; pyraflufen-ethyl+glyphosate; pyraflufen-ethyl+glufosinate; pyraflufen-ethyl+sulfosate; nipyraclofen+dimethachlor; nipyraclofen+propaquizafop; nipyraclofen+clomazone; nipyraclofen+napropamide; nipyraclofen+quinmerac; nipyraclofen+metazachlor; nipyraclofen+carbetamide; nipyraclofen+dimefuron; nipyraclofen+propyzamide; nipyraclofen+clopyralid; nipyraclofen+ethametsulfuron; nipyraclofen+sethoxydim; nipyraclofen+fluazifop; nipyraclofen+quizalofop; nipyraclofen+clethodim; nipyraclofen+fenoxaprop; nipyraclofen+tebutam; nipyraclofen+glyphosate; nipyraclofen+glufosinate; nipyraclofen+sulfosate; benzfendizone+dimethachlor; benzfendizone+propaquizafop; benzfendizone+clomazone; benzfendizone+napropamide; benzfendizone+quinmerac; benzfendizone+metazachlor; benzfendizone+carbetamide; benzfendizone+dimefuron; benzfendizone+propyzamide; benzfendizone+clopyralid; benzfendizone+ethametsulfuron; benzfendizone+sethoxydim; benzfendizone+fluazifop; benzfendizone+quizalofop; benzfendizone+clethodim; benzfendizone+fenoxaprop; benzfendizone+tebutam; benzfendizone+glyphosate; benzfendizone+glufosinate; benzfendizone+sulfosate; thidiazimin+dimethachlor; thidiazimin+propaquizafop; thidiazimin+clomazone; thidiazimin+napropamide; thidiazimin+quinmerac; thidiazimin+metazachlor; thidiazimin+carbetamide; thidiazimin+dimefuron; thidiazimin+propyzamide; thidiazimin+clopyralid; thidiazimin+ethametsulfuron; thidiazimin+sethoxydim; thidiazimin+fluazifop; thidiazimin +quizalofop; thidiazimin+clethodim; thidiazimin+fenoxaprop; thidiazimin+tebutam; thidiazimin+glyphosate; thidiazimin+glufosinate; and thidiazimin+sulfosate.

[0054] The following combinations of the compounds under a) with the co-herbicides under b) have been found to be very particularly effective synergistic compositions in crops of cotton resistant to protoporphyrinogen oxidase inhibitors:

[0055] acifluorfen+fluometuron; acifluorfen+prometryn; acifluorfen+metolachlor; acifluorfen+(S)-metolachlor; acifluorfen+norflurazon; acifluorfen+propaquizafop; acifluorfen+pyrithiobac; acifluorfen+trifluralin; acifluorfen+pendimethalin; acifluorfen+bromoxynil; acifluorfen+clomazone; acifluorfen+MSMA; acifluorfen+DMSA; acifluorfen+fluazifop; acifluorfen+quizalofop; acifluorfen+fenoxaprop; acifluorfen+sethoxydim; acifluorfen+clethodim; acifluorfen+diuron; acifluorfen+cyanazine; acifluorfen+glyphosate; acifluorfen +glufosinate; acifluorfen+sulfosate; acifluorfen+alachlor; acifluorfen+acetochlor; acifluorfen+flurochloridone; acifluorfen+dithiopyr; acifluorfen+thiazopyr; acifluorfen+lactofen; acifluorfen+oxyfluorfen; acifluorfen+ethalfluralin; acifluorfen+compound of the formula C; aclonifen+fluometuron; aclonifen+prometryn; aclonifen+metolachlor; aclonifen+(S)-metolachlor; aclonifen+norflurazon; aclonifen+propaquizafop; aclonifen+pyrithiobac; aclonifen+trifluralin; aclonifen+pendimethalin; aclonifen+bromoxynil; aclonifen+clomazone; aclonifen+MSMA; aclonifen+DMSA; aclonifen+fluazifop; aclonifen+quizalofop; aclonifen+fenoxaprop; aclonifen+sethoxydim; aclonifen+clethodim; aclonifen+diuron; aclonifen+cyanazine; aclonifen+glyphosate; aclonifen+glufosinate; aclonifen+sulfosate; aclonifen+alachlor; aclonifen+acetochlor; aclonifen+flurochloridone; aclonifen+dithiopyr; aclonifen+thiazopyr; aclonifen+lactofen; aclonifen+oxyfluorfen; aclonifen+ethalfluralin; aclonifen+compound of the formula C; bifenox+fluometuron; bifenox+prometryn; bifenox+metolachlor; bifenox+(S)-metolachlor; bifenox +norflurazon; bifenox+propaquizafop; bifenox+pyrithiobac; bifenox+trifluralin; bifenox+pendimethalin; bifenox+bromoxynil; bifenox+clomazone; bifenox+MSMA; bifenox+DMSA; bifenox+fluazifop; bifenox+quizalofop; bifenox+fenoxaprop; bifenox+sethoxydim; bifenox+clethodim; bifenox+diuron; bifenox+cyanazine; bifenox+glyphosate; bifenox+glufosinate; bifenox+sulfosate; bifenox+alachlor; bifenox+acetochlor; bifenox+flurochloridone; bifenox+dithiopyr; bifenox+thiazopyr; bifenox+lactofen; bifenox+oxyfluorfen; bifenox+ethalfluralin; bifenox+compound of the formula C; chlomitrofen+fluometuron; chlomitrofen+prometryn; chlomitrofen+metolachlor; chlomitrofen+(S)-metolachlor; chlomitrofen+norflurazon; chlomitrofen+propaquizafop; chlomitrofen+pyrithiobac; chlomitrofen+trifluralin; chlomitrofen+pendimethalin; chlomitrofen+bromoxynil; chlomitrofen+clomazone; chlomitrofen+MSMA; chlomitrofen+DMSA; chlomitrofen+fluazifop; chlomitrofen+quizalofop; chlomitrofen+fenoxaprop; chlomitrofen+sethoxydim; chlomitrofen+clethodim; chlomitrofen+diuron; chlomitro-

fen+cyanazine; chlomitrofen+alachlor; chlomitrofen+acetochlor; chlomitrofen+flurochloridone; chlomitrofen+dithiopyr; chlomitrofen+thiazopyr; chlomitrofen+lactofen; chlomitrofen+oxyfluorfen; chlomitrofen+ethalfluralin; chlomitrofen+compound of the formula C; chlomitrofen+glyphosate; chlomitrofen+glufosinate; chlomitrofen+sulfosate; ethoxyfen+fluometuron; ethoxyfen+prometryn; ethoxyfen+metolachlor; ethoxyfen+(S)-metolachlor; ethoxyfen+norflurazon; ethoxyfen+propaquizafop; ethoxyfen+pyrithiobac; ethoxyfen+trifluralin; ethoxyfen+pendimethalin; ethoxyfen+bromoxynil; ethoxyfen+clomazone; ethoxyfen+MSMA; ethoxyfen+DMSA; ethoxyfen+fluazifop; ethoxyfen+quizalofop; ethoxyfen+fenoxaprop; ethoxyfen+sethoxydim; ethoxyfen+clethodim; ethoxyfen+diuron; ethoxyfen+cyanazine; ethoxyfen+alachlor; ethoxyfen+acetochlor; ethoxyfen+flurochloridone; ethoxyfen+dithiopyr; ethoxyfen+thiazopyr; ethoxyfen+lactofen; ethoxyfen+oxyfluorfen; ethoxyfen+ethalfluralin; ethoxyfen+compound of the formula C; ethoxyfen+glyphosate; ethoxyfen+glufosinate; ethoxyfen+sulfosate; fluoroglycofen+fluometuron; fluoroglycofen+prometryn; fluoroglycofen+metolachlor; fluoroglycofen+(S)-metolachlor; fluoroglycofen+norflurazon; fluoroglycofen+propaquizafop; fluoroglycofen+pyrithiobac; fluoroglycofen+trifluralin; fluoroglycofen+pendimethalin; fluoroglycofen+bromoxynil; fluoroglycofen+clomazone; fluoroglycofen+MSMA; fluoroglycofen+DMSA; fluoroglycofen+fluazifop; fluoroglycofen+quizalofop; fluoroglycofen+fenoxaprop; fluoroglycofen+sethoxydim; fluoroglycofen+clethodim; fluoroglycofen+diuron; fluoroglycofen+cyanazine; fluoroglycofen+alachlor; fluoroglycofen+acetochlor; fluoroglycofen+flurochloridone; fluoroglycofen+dithiopyr; fluoroglycofen+thiazopyr; fluoroglycofen+lactofen; fluoroglycofen+oxyfluorfen; fluoroglycofen+ethalfluralin; fluoroglycofen+compound of the formula C; fluoroglycofen+glyphosate; fluoroglycofen+glufosinate; fluoroglycofen+sulfosate; fomesafen+fluometuron; fomesafen+prometryn; fomesafen+metolachlor; fomesafen+(S)-metolachlor; fomesafen+norflurazon; fomesafen+propaquizafop; fomesafen+pyrithiobac; fomesafen+trifluralin; fomesafen+pendimethalin; fomesafen+bromoxynil; fomesafen+clomazone; fomesafen+MSMA; fomesafen+DMSA; fomesafen+fluazifop; fomesafen+quizalofop; fomesafen+fenoxaprop; fomesafen+sethoxydim; fomesafen+clethodim; fomesafen+diuron; fomesafen+cyanazine; fomesafen+alachlor; fomesafen+acetochlor; fomesafen+flurochloridone; fomesafen+dithiopyr; fomesafen+thiazopyr; fomesafen+lactofen; fomesafen+oxyfluorfen; fomesafen+ethalfluralin; fomesafen+compound of the formula C; fomesafen+glyphosate; fomesafen+glufosinate; fomesafen+sulfosate; lactofen+fluometuron; lactofen+prometryn; lactofen+metolachlor; lactofen+(S)-metolachlor; lactofen+norflurazon; lactofen+propaquizafop; lactofen+pyrithiobac; lactofen+trifluralin; lactofen+pendimethalin; lactofen+bromoxynil; lactofen+clomazone; lactofen+MSMA; lactofen+DMSA; lactofen+fluazifop; lactofen+quizalofop; lactofen+fenoxaprop; lactofen+sethoxydim; lactofen+clethodim; lactofen+diuron; lactofen+cyanazine; lactofen+alachlor; lactofen+acetochlor; lactofen+flurochloridone; lactofen+dithiopyr; lactofen+thiazopyr; lactofen+oxyfluorfen; lactofen+ethalfluralin; lactofen+compound of the formula C; lactofen+glyphosate; lactofen+glufosinate; lactofen+sulfosate; oxyfluorfen+fluometuron; oxyfluorfen+prometryn; oxyfluorfen+metolachlor; oxyfluorfen+(S)-metolachlor; oxyfluorfen+norflurazon; oxyfluorfen+propaquizafop; oxyfluorfen+pyrithiobac; oxyfluorfen+trifluralin; oxyfluorfen+pendimethalin; oxyfluorfen+bromoxynil; oxyfluorfen+clomazone; oxyfluorfen+MSMA; oxyfluorfen+DMSA; oxyfluorfen+fluazifop; oxyfluorfen+quizalofop; oxyfluorfen+fenoxaprop; oxyfluorfen+sethoxydim; oxyfluorfen+clethodim; oxyfluorfen+diuron; oxyfluorfen+cyanazine; oxyfluorfen+alachlor; oxyfluorfen+acetochlor; oxyfluorfen+flurochloridone; oxyfluorfen+dithiopyr; oxyfluorfen+thiazopyr; oxyfluorfen+lactofen; oxyfluorfen+ethalfluralin; oxyfluorfen+compound of the formula C; oxyfluorfen+glyphosate; oxyfluorfen+glufosinate; oxyfluorfen+sulfosate; azafenidin+fluometuron; azafenidin+prometryn; azafenidin+metolachlor; azafenidin+(S)-metolachlor; azafenidin+norflurazon; azafenidin +propaquizafop; azafenidin+pyrithiobac; azafenidin+trifluralin; azafenidin+pendimethalin; azafenidin+bromoxynil; azafenidin+clomazone; azafenidin+MSMA; azafenidin+DMSA; azafenidin+fluazifop; azafenidin+quizalofop; azafenidin+fenoxaprop; azafenidin+sethoxydim; azafenidin+clethodim; azafenidin+diuron; azafenidin+cyanazine; azafenidin+alachlor; azafenidin+acetochlor; azafenidin+flurochloridone; azafenidin+dithiopyr; azafenidin+thiazopyr; azafenidin+lactofen; azafenidin+oxyfluorfen; azafenidin+ethalfluralin; azafenidin+compound of the formula C; azafenidin+glyphosate; azafenidin+glufosinate; azafenidin+sulfosate; carfentrazone-ethyl+fluometuron; carfentrazone-ethyl+prometryn; carfentrazone-ethyl+metolachlor; carfentrazone-ethyl+(S)-metolachlor, carfentrazone-ethyl+norflurazon; carfentrazone-ethyl+propaquizafop; carfentrazone-ethyl+pyrithiobac; carfentrazone-ethyl+trifluralin; carfentrazone-ethyl+pendimethalin; carfentrazone-ethyl+bromoxynil; carfentrazone-ethyl +clomazone; carfentrazone-ethyl+MSMA; carfentrazone-ethyl+DMSA; carfentrazone-ethyl+fluazifop; carfentrazone-ethyl+quizalofop; carfentrazone-ethyl+fenoxaprop; carfentrazone-ethyl+sethoxydim; carfentrazone-ethyl+clethodim; carfentrazone-ethyl+diuron; carfentrazone-ethyl+cyanazine; carfentrazone-ethyl+alachlor; carfentrazone-ethyl +acetochlor, carfentrazone-ethyl+flurochloridone; carfentrazone-ethyl+dithiopyr; carfentrazone-ethyl+thiazopyr; carfentrazone-ethyl+lactofen; carfentrazone-ethyl+oxyfluorfen; carfentrazone-ethyl+ethalfluralin; carfentrazone-ethyl+compound of the formula C; carfentrazone-ethyl+glyphosate; carfentrazone-ethyl+glufosinate; carfentrazone-ethyl+sulfosate; compound of the formula A+fluometuron; compound of the formula A+prometryn; compound of the formula A+metolachlor; compound of the formula A+(S)-metolachlor; compound of the formula A+norflurazon; compound of the formula A+propaquizafop; compound of the formula A+pyrithiobac; compound of the formula A+trifluralin; compound of the formula A+pendimethalin; compound of the formula A+bromoxynil; compound of the formula A+clomazone; compound of the formula A+MSMA; compound of the formula A+DMSA; compound of the formula A+fluazifop; compound of the formula A+quizalofop; compound of the formula A+fenoxaprop; compound of the formula A+sethoxydim; compound of the formula A+clethodim; compound of the formula A+diuron; compound of the formula A+cyanazine; compound of the formula A+alachlor; compound of the formula A+acetochlor; compound of the formula A+flurochloridone; compound of the formula A+dithiopyr; compound of the formula A+thiazopyr; compound of the formula A+lactofen; compound of the formula A+oxyfluorfen; compound of the formula A+ethalfluralin; com-

pound of the formula A+compound of the formula C; compound of the formula A+glyphosate; compound of the formula A+glufosinate; compound of the formula A+sulfosate; cinidon-ethyl+fluometuron; cinidon-ethyl+prometryn; cinidon-ethyl+metolachlor; cinidon-ethyl+(S)-metolachlor; cinidon-ethyl +norflurazon; cinidon-ethyl+propaquizafop; cinidon-ethyl+pyrithiobac; cinidon-ethyl+trifluralin; cinidon-ethyl+pendimethalin; cinidon-ethyl+bromoxynil; cinidon-ethyl+clomazone; cinidon-ethyl+MSMA; cinidon-ethyl+DMSA; cinidon-ethyl+fluazifop; cinidon-ethyl+quizalofop; cinidon-ethyl+fenoxaprop; cinidon-ethyl+sethoxydim; cinidon-ethyl+clethodim; cinidon-ethyl+diuron; cinidon-ethyl+cyanazine; cinidon-ethyl+alachlor; cinidon-ethyl+acetochlor; cinidon-ethyl+flurochloridone; cinidon-ethyl+dithiopyr; cinidon-ethyl+thiazopyr; cinidon-ethyl+lactofen; cinidon-ethyl+oxyfluorfen; cinidon-ethyl+ethalfluralin; cinidon-ethyl+compound of the formula C; cinidon-ethyl+glyphosate; cinidon-ethyl+glufosinate; cinidon-ethyl+sulfosate; flumiclorac-pentyl+fluometuron; flumiclorac-pentyl+prometryn; flumiclorac-pentyl+metolachlor; flumiclorac-pentyl+(S)-metolachlor; flumiclorac-pentyl+norflurazon; flumiclorac-pentyl+propaquizafop; flumiclorac-pentyl+pyrithiobac; flumiclorac-pentyl+trifluralin; flumiclorac-pentyl+pendimethalin; flumiclorac-pentyl+bromoxynil; flumiclorac-pentyl+clomazone; flumiclorac-pentyl+MSMA; flumiclorac-pentyl+DMSA; flumiclorac-pentyl+fluazifop; flumiclorac-pentyl +quizalofop; flumiclorac-pentyl+fenoxaprop; flumiclorac-pentyl+sethoxydim; flumiclorac-pentyl+clethodim; flumiclorac-pentyl+diuron; flumiclorac-pentyl+cyanazine; flumiclorac-pentyl+alachlor; flumiclorac-pentyl+acetochlor; flumiclorac-pentyl+flurochloridone; flumiclorac-pentyl+dithiopyr; flumiclorac-pentyl+thiazopyr; flumiclorac-pentyl+lactofen; flumiclorac-pentyl+oxyfluorfen; flumiclorac-pentyl+ethalfluralin; flumiclorac-pentyl+compound of the formula C; flumiclorac-pentyl+glyphosate; flumiclorac-pentyl+glufosinate; flumiclorac-pentyl+sulfosate; flumioxazin+fluometuron; flumioxazin+prometryn; flumioxazin+metolachlor; flumioxazin+(S)-metolachlor; flumioxazin+norflurazon; flumioxazin+propaquizafop; flumioxazin+pyrithiobac; flumioxazin+Trifluralin; flumioxazin+pendimethalin; flumioxazin+bromoxynil; flumioxazin+clomazone; flumioxazin+MSMA; flumioxazin+DMSA; flumioxazin+fluazifop; flumioxazin+quizalofop; flumioxazin+fenoxaprop; flumioxazin+sethoxydim; flumioxazin+clethodim; flumioxazin+diuron; flumioxazin+cyanazine; flumioxazin+alachlor; flumioxazin+acetochlor; flumioxazin+flurochloridone; flumioxazin+dithiopyr; flumioxazin+thiazopyr; flumioxazin+lactofen; flumioxazin+oxyfluorfen; flumioxazin+ethalfluralin; flumioxazin+compound of the formula C; flumioxazin+glyphosate; flumioxazin+glufosinate; flumioxazin+sulfosate; fluthiacet-methyl+fluometuron; fluthiacet-methyl+prometryn; fluthiacet-methyl+metolachlor; fluthiacet-methyl+(S)-metolachlor; fluthiacet-methyl+norflurazon; fluthiacet-methyl+propaquizafop; fluthiacet-methyl+pyrithiobac; fluthiacet-methyl+trifluralin; fluthiacet-methyl+pendimethalin; fluthiacet-methyl+bromoxynil; fluthiacet-methyl+clomazone; fluthiacet-methyl+MSMA; fluthiacet-methyl+DMSA; fluthiacet-methyl+fluazifop; fluthiacet-methyl+quizalofop; fluthiacet-methyl+fenoxaprop; fluthiacet-methyl+sethoxydim; fluthiacet-methyl+clethodim; fluthiacet-methyl+diuron; fluthiacet-methyl+cyanazine; fluthiacet-methyl+alachlor; fluthiacet-methyl+acetochlor, fluthiacet-methyl+flurochloridone; fluthiacet-methyl+dithiopyr; fluthiacet-methyl+thiazopyr; fluthiacet-methyl +lactofen; fluthiacet-methyl+oxyfluorfen; fluthiacet-methyl+ethalfluralin; fluthiacet-methyl +compound of the formula C; fluthiacet-methyl+glyphosate; fluthiacet-methyl+glufosinate; fluthiacet-methyl+sulfosate; oxadiargyl+fluometuron; oxadiargyl+prometryn; oxadiargyl+metolachlor; oxadiargyl+(S)-metolachlor; oxadiargyl+norflurazon; oxadiargyl +propaquizafop; oxadiargyl+pyrithiobac; oxadiargyl+trifluralin; oxadiargyl+pendimethalin; oxadiargyl+bromoxynil; oxadiargyl+clomazone; oxadiargyl+MSMA; oxadiargyl+DMSA; oxadiargyl+fluazifop; oxadiargyl+quizalofop; oxadiargyl+fenoxaprop; oxadiargyl+sethoxydim; oxadiargyl+clethodim; oxadiargyl+diuron; oxadiargyl+cyanazine; oxadiargyl+alachlor; oxadiargyl+acetochlor; oxadiargyl+flurochloridone; oxadiargyl+dithiopyr; oxadiargyl+thiazopyr; oxadiargyl+lactofen; oxadiargyl+oxyfluorfen; oxadiargyl+ethalfluralin; oxadiargyl+compound of the formula C; oxadiargyl+glyphosate; oxadiargyl+glufosinate; oxadiargyl+sulfosate; oxadiazon+fluometuron; oxadiazon+prometryn; oxadiazon+metolachlor; oxadiazon+(S)-metolachlor; oxadiazon+norflurazon; oxadiazon+propaquizafop; oxadiazon+pyrithiobac; oxadiazon+trifluralin; oxadiazon+pendimethalin; oxadiazon+bromoxynil; oxadiazon+clomazone; oxadiazon+MSMA; oxadiazon+DMSA; oxadiazon+fluazifop; oxadiazon+quizalofop; oxadiazon+fenoxaprop; oxadiazon+sethoxydim; oxadiazon+clethodim; oxadiazon+diuron; oxadiazon+cyanazine; oxadiazon+alachlor; oxadiazon+acetochlor; oxadiazon+flurochloridone; oxadiazon+dithiopyr; oxadiazon+thiazopyr; oxadiazon+lactofen; oxadiazon+oxyfluorfen; oxadiazon+ethalfluralin; oxadiazon+compound of the formula C; oxadiazon+glyphosate; oxadiazon+glufosinate; oxadiazon+sulfosate; pentoxazone+fluometuron; pentoxazone+prometryn; pentoxazone+metolachlor; pentoxazone+(S)-metolachlor; pentoxazone+norflurazon; pentoxazone+propaquizafop; pentoxazone+pyrithiobac; pentoxazone+trifluralin; pentoxazone+pendimethalin; pentoxazone+bromoxynil; pentoxazone+clomazone; pentoxazone+MSMA; pentoxazone +DMSA; pentoxazone+fluazifop; pentoxazone+quizalofop; pentoxazone+fenoxaprop; pentoxazone+sethoxydim; pentoxazone+clethodim; pentoxazone+diuron; pentoxazone +cyanazine; pentoxazone+alachlor; pentoxazone+acetochlor; pentoxazone+flurochloridone; pentoxazone+dithiopyr; pentoxazone+thiazopyr; pentoxazone+lactofen; pentoxazone+oxyfluorfen; pentoxazone+ethalfluralin; pentoxazone+compound of the formula C; pentoxazone+glyphosate; pentoxazone+glufosinate; pentoxazone+sulfosate; sulfentrazone+fluometuron; sulfentrazone+prometryn; sulfentrazone+metolachlor; sulfentrazone+(S)-metolachlor; sulfentrazone+norflurazon; sulfentrazone+propaquizafop; sulfentrazone+pyrithiobac; sulfentrazone+trifluralin; sulfentrazone+pendimethalin; sulfentrazone+bromoxynil; sulfentrazone+clomazone; sulfentrazone+MSMA; sulfentrazone+DMSA; sulfentrazone+fluazifop; sulfentrazone+quizalofop; sulfentrazone+fenoxaprop; sulfentrazone+sethoxydim; sulfentrazone+clethodim; sulfentrazone+diuron; sulfentrazone+cyanazine; sulfentrazone+alachlor, sulfentrazone +acetochlor; sulfentrazone+flurochloridone; sulfentrazone+dithiopyr; sulfentrazone+thiazopyr; sulfentrazone+lactofen; sulfentrazone+oxyfluorfen; sulfentrazone+ethalfluralin; sulfentrazone+compound of the formula C; sulfentrazone+glyphosate; sulfentrazone+glufosinate; sulfentrazone+sulfo-

sate; fluazolate+fluometuron; fluazolate +prometryn; fluazolate+metolachlor; fluazolate+(S)-metolachlor; fluazolate+norflurazon; fluazolate+propaquizafop; fluazolate+pyrithiobac; fluazolate+trifluralin; fluazolate+pendimethalin; fluazolate+bromoxynil; fluazolate+clomazone; fluazolate+MSMA; fluazolate+DMSA; fluazolate+fluazifop; fluazolate+quizalofop; fluazolate+fenoxaprop; fluazolate+Sethoxydim; fluazolate+clethodim; fluazolate+diuron; fluazolate+cyanazine; fluazolate+alachlor; fluazolate+acetochlor; fluazolate+flurochloridone; fluazolate+dithiopyr; fluazolate+thiazopyr; fluazolate+lactofen; fluazolate+oxyfluorfen; fluazolate+ethalfluralin; fluazolate+compound of the formula C; fluazolate+glyphosate; fluazolate+glufosinate; fluazolate+sulfosate; pyraflufen-ethyl+fluometuron; pyraflufen-ethyl+prometryn; pyraflufen-ethyl+metolachlor; pyraflufen-ethyl+(S)-metolachlor; pyraflufen-ethyl+norflurazon; pyraflufen-ethyl+propaquizafop; pyraflufen-ethyl+pyrithiobac; pyraflufen-ethyl+trifluralin; pyraflufen-ethyl+pendimethalin; pyraflufen-ethyl+bromoxynil; pyraflufen-ethyl+clomazone; pyraflufen-ethyl+MSMA; pyraflufen-ethyl+DMSA; pyraflufen-ethyl+fluazifop; pyraflufen-ethyl+quizalofop; pyraflufen-ethyl+fenoxaprop; pyraflufen-ethyl+Sethoxydim; pyraflufen-ethyl+clethodim; pyraflufen-ethyl+diuron; pyraflufen-ethyl+cyanazine; pyraflufen-ethyl+alachlor; pyraflufen-ethyl+acetochlor; pyraflufen-ethyl+flurochloridone; pyraflufen-ethyl+dithiopyr; pyraflufen-ethyl+thiazopyr; pyraflufen-ethyl+lactofen; pyraflufen-ethyl+oxyfluorfen; pyraflufen-ethyl+ethalfluralin; pyraflufen-ethyl+compound of the formula C; pyraflufen-ethyl+glyphosate; pyraflufen-ethyl+glufosinate; pyraflufen-ethyl+sulfosate; flumipropyn+fluometuron; flumipropyn+prometryn; flumipropyn+metolachlor; flumipropyn+(S)-metolachlor; flumipropyn+norflurazon; flumipropyn+propaquizafop; flumipropyn+pyrithiobac; flumipropyn+trifluralin; flumipropyn+pendimethalin; flumipropyn+bromoxynil; flumipropyn+clomazone; flumipropyn+MSMA; flumipropyn+DMSA; flumipropyn+fluazifop; flumipropyn+quizalofop; flumipropyn+fenoxaprop; flumipropyn+sethoxydim; flumipropyn+clethodim; flumipropyn+diuron; flumipropyn+cyanazine; flumipropyn+alachlor; flumipropyn+acetochlor; flumipropyn+flurochloridone; flumipropyn+dithiopyr; flumipropyn+thiazopyr; flumipropyn+lactofen; flumipropyn+oxyfluorfen; flumipropyn+ethalfluralin; flumipropyn+compound of the formula C; flumipropyn+glyphosate; flumipropyn+glufosinate; flumipropyn+sulfosate; flupropacil+fluometuron; flupropacil+prometryn; flupropacil+metolachlor, flupropacil+(S)-metolachlor; flupropacil+norflurazon; flupropacil+propaquizafop; flupropacil+pyrithiobac; flupropacil+trifluralin; flupropacil+pendimethalin; flupropacil+bromoxynil; flupropacil+clomazone; flupropacil+MSMA; flupropacil+DMSA; flupropacil+fluazifop; flupropacil+quizalofop; flupropacil+fenoxaprop; flupropacil+sethoxydim; flupropacil+clethodim; flupropacil+diuron; flupropacil+cyanazine; flupropacil +alachlor; flupropacil+acetochlor; flupropacil+flurochloridone; flupropacil+dithiopyr; flupropacil+thiazopyr; flupropacil+lactofen; flupropacil+oxyfluorfen; flupropacil+ethalfluralin; flupropacil+compound of the formula C; flupropacil+glyphosate; flupropacil+glufosinate; flupropacil+sulfosate; nipyraclofen+fluometuron; nipyraclofen+prometryn; nipyraclofen+metolachlor; nipyraclofen+(S)-metolachlor; nipyraclofen+norflurazon; nipyraclofen+propaquizafop; nipyraclofen+pyrithiobac; nipyraclofen+trifluralin; nipyraclofen+pendimethalin; nipyraclofen+bromoxynil; nipyraclofen+clomazone; nipyraclofen+MSMA; nipyraclofen+DMSA; nipyraclofen+fluazifop; nipyraclofen+quizalofop; nipyraclofen+fenoxaprop; nipyraclofen+sethoxydim; nipyraclofen+clethodim; nipyraclofen+diuron; nipyraclofen+cyanazine; nipyraclofen+alachlor; nipyraclofen+acetochlor; nipyraclofen+flurochloridone; nipyraclofen+dithiopyr; nipyraclofen+thiazopyr; nipyraclofen+lactofen; nipyraclofen+oxyfluorfen; nipyraclofen+ethalfluralin; nipyraclofen +compound of the formula C; nipyraclofen+glyphosate; nipyraclofen+glufosinate; nipyraclofen+sulfosate; benzfendizone+fluometuron; benzfendizone+prometryn; benzfendizone+metolachlor; benzfendizone+(S)-metolachlor; benzfendizone+norflurazon; benzfendizone+propaquizafop; benzfendizone+pyrithiobac; benzfendizone+trifluralin; benzfendizone+pendimethalin; benzfendizone+bromoxynil; benzfendizone+clomazone; benzfendizone+MSMA; benzfendizone+DMSA; benzfendizone+fluazifop; benzfendizone+quizalofop; benzfendizone+fenoxaprop; benzfendizone+sethoxydim; benzfendizone+clethodim; benzfendizone+diuron; benzfendizone+cyanazine; benzfendizone+alachlor; benzfendizone+acetochlor; benzfendizone+flurochloridone; benzfendizone+dithiopyr; benzfendizone+thiazopyr; benzfendizone+lactofen; benzfendizone+oxyfluorfen; benzfendizone+ethalfluralin; benzfendizone+compound of the formula C; benzfendizone+glyphosate; benzfendizone+glufosinate; benzfendizone+sulfosate; thidiazimin+fluometuron; thidiazimin+prometryn; thidiazimin+metolachlor; thidiazimin+(S)-metolachlor; thidiazimin+norflurazon; thidiazimin+propaquizafop; thidiazimin+pyrithiobac; thidiazimin+trifluralin; thidiazimin+pendimethalin; thidiazimin+bromoxynil; thidiazimin+clomazone; thidiazimin+MSMA; thidiazimin+DMSA; thidiazimin+fluazifop; thidiazimin+quizalofop; thidiazimin+fenoxaprop; thidiazimin+sethoxydim; thidiazimin+clethodim; thidiazimin+diuron; thidiazimin+cyanazine; thidiazimin+alachlor; thidiazimin+acetochlor; thidiazimin+flurochloridone; thidiazimin+dithiopyr; thidiazimin+thiazopyr; thidiazimin+lactofen; thidiazimin+oxyfluorfen; thidiazimin+ethalfluralin; thidiazimin+compound of the formula C; thidiazimin+glyphosate; thidiazimin+glufosinate; and thidiazimin+sulfosate.

[0056] The following combinations of the compounds under a) with the co-herbicides under b) have been found to be very particularly effective synergistic compositions in crops of sunflowers resistant to protoporphyrinogen oxidase inhibitors:

[0057] acifluorfen+metolachlor; acifluorfen+(S)-metolachlor; acifluorfen+pendimethalin; acifluorfen+aclonifen; acifluorfen+flurochloridone; acifluorfen+prometryn; acifluorfen+sethoxydim; acifluorfen+fluazifop; acifluorfen+quizalofop; acifluorfen+clethodim; acifluorfen+fenoxaprop; acifluorfen+terbutryn; acifluorfen+acetochlor; acifluorfen+trifluralin; acifluorfen+glyphosate; acifluorfen+glufosinate; acifluorfen+sulfosate; aclonifen+metolachlor; aclonifen+(S)-metolachlor; aclonifen+pendimethalin; aclonifen+flurochloridon; aclonifen+prometryn; aclonifen+sethoxydim; aclonifen+fluazifop; aclonifen+quizalofop; aclonifen+clethodim; aclonifen+fenoxaprop; aclonifen+terbutryn; aclonifen+acetochlor; aclonifen+trifluralin; aclonifen+glyphosate; aclonifen+glufosinate; aclonifen+sulfosate; bifenox+metolachlor; bifenox+(S)-metolachlor; bifenox +pendimethalin; bifenox+aclonifen; bifenox+flurochlori-

don; bifenox+prometryn; bifenox +sethoxydim; bifenox+fluazifop; bifenox+quizalofop; bifenox+clethodim; bifenox+fenoxaprop; bifenox+terbutryn; bifenox+acetochlor; bifenox+trifluralin; bifenox+glyphosate; bifenox+glufosinate; bifenox+sulfosate; chlomitrofen+metolachlor; chlomitrofen+(S)-metolachlor; chlomitrofen+pendimethalin; chlomitrofen+aclonifen; chlomitrofen+flurochloridon; chlomitrofen+prometryn; chlomitrofen+sethoxydim; chlomitrofen+fluazifop; chlomitrofen+quizalofop; chlomitrofen+clethodim; chlomitrofen+fenoxaprop; chlomitrofen+terbutryn; chlomitrofen+acetochlor; chlomitrofen+trifluralin; chlomitrofen+glyphosate; chlomitrofen+glufosinate; chlomitrofen+sulfosate; ethoxyfen+metolachlor; ethoxyfen+(S)-metolachlor; ethoxyfen+pendimethalin; ethoxyfen+aclonifen; ethoxyfen+flurochloridon; ethoxyfen+prometryn; ethoxyfen+sethoxydim; ethoxyfen+fluazifop; ethoxyfen+quizalofop; ethoxyfen+clethodim; ethoxyfen+fenoxaprop; ethoxyfen+terbutryn; ethoxyfen+acetochlor; ethoxyfen+trifluralin; ethoxyfen+glyphosate; ethoxyfen+glufosinate; ethoxyfen+sulfosate; fluoroglycofen+metolachlor; fluoroglycofen+(S)-metolachlor; fluoroglycofen+pendimethalin; fluoroglycofen+aclonifen; fluoroglycofen+flurochloridon; fluoroglycofen+prometryn; fluoroglycofen+sethoxydim; fluoroglycofen+fluazifop; fluoroglycofen+quizalofop; fluoroglycofen+clethodim; fluoroglycofen+fenoxaprop; fluoroglycofen+terbutryn; fluoroglycofen+acetochlor; fluoroglycofen+trifluralin; fluoroglycofen+glyphosate; fluoroglycofen+glufosinate; fluoroglycofen+sulfosate; fomesafen+metolachlor; fomesafen+(S)-metolachlor; fomesafen+pendimethalin; fomesafen+aclonifen; fomesafen+flurochloridon; fomesafen +prometryn; fomesafen+sethoxydim; fomesafen+fluazifop; fomesafen+quizalofop; fomesafen+clethodim; fomesafen+fenoxaprop; fomesafen+terbutryn; fomesafen+acetochlor; fomesafen+trifluralin; fomesafen+glyphosate; fomesafen+glufosinate; fomesafen+sulfosate; lactofen+metolachlor; lactofen+(S)-metolachlor; lactofen+pendimethalin; lactofen+aclonifen; lactofen+flurochloridon; lactofen+prometryn; lactofen +sethoxydim; lactofen+fluazifop; lactofen+quizalofop; lactofen+clethodim; lactofen+fenoxaprop; lactofen+terbutryn; lactofen+acetochlor; lactofen+trifluralin; lactofen+glyphosate; lactofen+glufosinate; lactofen+sulfosate; oxyfluorfen+metolachlor; oxyfluorfen+(S)-metolachlor; oxyfluorfen+pendimethalin; oxyfluorfen+aclonifen; oxyfluorfen+flurochloridon; oxyfluorfen+prometryn; oxyfluorfen+sethoxydim; oxyfluorfen +fluazifop; oxyfluorfen+quizalofop; oxyfluorfen+clethodim; oxyfluorfen+fenoxaprop; oxyfluorfen+terbutryn; oxyfluorfen+acetochlor; oxyfluorfen+trifluralin; oxyfluorfen+glyphosate; oxyfluorfen+glufosinate; oxyfluorfen+sulfosate; azafenidin+metolachlor; azafenidin+(S)-metolachlor; azafenidin+pendimethalin; azafenidin+aclonifen; azafenidin +flurochloridon; azafenidin+prometryn; azafenidin+sethoxydim; azafenidin+fluazifop; azafenidin+quizalofop; azafenidin+clethodim; azafenidin+fenoxaprop; azafenidin+terbutryn; azafenidin+acetochlor; azafenidin+trifluralin; azafenidin+glyphosate; azafenidin+glufosinate; azafenidin+sulfosate; carfentrazone-ethyl+metolachlor; carfentrazone-ethyl+(S)-metolachlor; carfentrazone-ethyl+pendimethalin; carfentrazone-ethyl+aclonifen; carfentrazone-ethyl+flurochloridon; carfentrazone-ethyl+prometryn; carfentrazone-ethyl+sethoxydim; carfentrazone-ethyl+fluazifop; carfentrazone-ethyl+quizalofop; carfentrazone-ethyl+clethodim; carfentrazone-ethyl+fenoxaprop; carfentrazone-ethyl+terbutryn; carfentrazone-ethyl+acetochlor; carfentrazone-ethyl+trifluralin; carfentrazone-ethyl+glyphosate; carfentrazone-ethyl+glufosinate; carfentrazone-ethyl+sulfosate; compound of the formula A+metolachlor; compound of the formula A+(S)-metolachlor; compound of the formula A+pendimethalin; compound of the formula A+aclonifen; compound of the formula A+flurochloridon; compound of the formula A+prometryn; compound of the formula A+sethoxydim; compound of the formula A+fluazifop; compound of the formula A+quizalofop; compound of the formula A+clethodim; compound of the formula A+fenoxaprop; compound of the formula A+terbutryn; compound of the formula A+acetochlor; compound of the formula A+trifluralin; compound of the formula A+glyphosate; compound of the formula A+glufosinate; compound of the formula A+sulfosate; cinidon-ethyl+metolachlor; cinidon-ethyl+(S)-metolachlor; cinidon-ethyl+pendimethalin; cinidon-ethyl+aclonifen; cinidon-ethyl+flurochloridon; cinidon-ethyl+prometryn; cinidon-ethyl+sethoxydim; cinidon-ethyl+fluazifop; cinidon-ethyl+quizalofop; cinidon-ethyl+clethodim; cinidon-ethyl+fenoxaprop; cinidon-ethyl+terbutryn; cinidon-ethyl+acetochlor; cinidon-ethyl+trifluralin; cinidon-ethyl+glyphosate; cinidon-ethyl+glufosinate; cinidon-ethyl+sulfosate; flumiclorac-pentyl+metolachlor; flumiclorac-pentyl+(S)-metolachlor, flumiclorac-pentyl+pendimethalin; flumiclorac-pentyl+aclonifen; flumiclorac-pentyl+flurochloridon; flumiclorac-pentyl+prometryn; flumiclorac-pentyl+sethoxydim; flumiclorac-pentyl+fluazifop; flumiclorac-pentyl +quizalofop; flumiclorac-pentyl+clethodim; flumiclorac-pentyl+fenoxaprop; flumiclorac-pentyl+terbutryn; flumiclorac-pentyl+acetochlor; flumiclorac-pentyl+trifluralin; flumiclorac-pentyl+glyphosate; flumiclorac-pentyl+glufosinate; flumiclorac-pentyl+sulfosate; flumioxazin+metolachlor; flumioxazin+(S)-metolachlor; flumioxazin+pendimethalin; flumioxazin+aclonifen; flumioxazin+flurochloridon; flumioxazin+prometryn; flumioxazin+sethoxydim; flumioxazin+fluazifop; flumioxazin+quizalofop; flumioxazin+clethodim; flumioxazin+fenoxaprop; flumioxazin+terbutryn; flumioxazin+acetochlor; flumioxazin+trifluralin; flumioxazin+glyphosate; flumioxazin+glufosinate; flumioxazin+sulfosate; fluthiacet-methyl+metolachlor; fluthiacet-methyl+(S)-metolachlor; fluthiacet-methyl+pendimethalin; fluthiacet-methyl+aclonifen; fluthiacet-methyl+flurochloridon; fluthiacet-methyl+prometryn; fluthiacet-methyl+sethoxydim; fluthiacet-methyl+fluazifop; fluthiacet-methyl+quizalofop; fluthiacet-methyl+clethodim; fluthiacet-methyl+fenoxaprop; fluthiacet-methyl+terbutryn; fluthiacet-methyl+acetochlor; fluthiacet-methyl+trifluralin; fluthiacet-methyl+glyphosate; fluthiacet-methyl+glufosinate; fluthiacet-methyl+sulfosate; oxadiargyl+metolachlor; oxadiargyl+(S)-metolachlor; oxadiargyl+pendimethalin; oxadiargyl+aclonifen; oxadiargyl+flurochloridon; oxadiargyl+prometryn; oxadiargyl+sethoxydim; oxadiargyl+fluazifop; oxadiargyl+quizalofop; oxadiargyl+clethodim; oxadiargyl+fenoxaprop; oxadiargyl+terbutryn; oxadiargyl+acetochlor; oxadiargyl+trifluralin; oxadiargyl+glyphosate; oxadiargyl+glufosinate; oxadiargyl+sulfosate; oxadiazon+metolachlor; oxadiazon+(S)-metolachlor; oxadiazon+pendimethalin; oxadiazon+aclonifen; oxadiazon+flurochloridon; oxadiazon+prometryn; oxadiazon+sethoxydim; oxadiazon+fluazifop; oxadiazon+quizalofop; oxadiazon+clethodim; oxadiazon+fenoxaprop; oxadiazon+terbutryn; oxadiazon+

acetochlor; oxadiazon+trifluralin; oxadiazon+glyphosate; oxadiazon+glufosinate; oxadiazon+sulfosate; pentoxazone+metolachlor; pentoxazone+(S)-metolachlor; pentoxazone+pendimethalin; pentoxazone+aclonifen; pentoxazone+flurochloridon; pentoxazone+prometryn; pentoxazone+sethoxydim; pentoxazone+fluazifop; pentoxazone+quizalofop; pentoxazone+clethodim; pentoxazone+fenoxaprop; pentoxazone+terbutryn; pentoxazone+acetochlor; pentoxazone+trifluralin; pentoxazone+glyphosate; pentoxazone+glufosinate; pentoxazone+sulfosate; sulfentrazone+metolachlor; sulfentrazone+(S)-metolachlor; sulfentrazone+pendimethalin; sulfentrazone+aclonifen; sulfentrazone+flurochloridon; sulfentrazone+prometryn; sulfentrazone+sethoxydim; sulfentrazone+fluazifop; sulfentrazone+quizalofop; sulfentrazone+clethodim; sulfentrazone+fenoxaprop; sulfentrazone+terbutryn; sulfentrazone+acetochlor; sulfentrazone+trifluralin; sulfentrazone+glyphosate; sulfentrazone+glufosinate; sulfentrazone+sulfosate; fluazolate+metolachlor; fluazolate+(S)-metolachlor; fluazolate+pendimethalin; fluazolate+aclonifen; fluazolate+flurochloridon; fluazolate+prometryn; fluazolate+sethoxydim; fluazolate+fluazifop; fluazolate+quizalofop; fluazolate+clethodim; fluazolate+fenoxaprop; fluazolate+terbutryn; fluazolate+acetochlor; fluazolate+trifluralin; fluazolate+glyphosate; fluazolate+glufosinate; fluazolate+sulfosate; pyraflufen-ethyl+metolachlor; pyraflufen-ethyl+(S)-metolachlor; pyraflufen-ethyl +pendimethalin; pyraflufen-ethyl+aclonifen; pyraflufen-ethyl+flurochloridon; pyraflufen-ethyl+prometryn; pyraflufen-ethyl+sethoxydim; pyraflufen-ethyl+fluazifop; pyraflufen-ethyl+quizalofop; pyraflufen-ethyl+clethodim; pyraflufen-ethyl+fenoxaprop; pyraflufen-ethyl+terbutryn; pyraflufen-ethyl+acetochlor; pyraflufen-ethyl+trifluralin; pyraflufen-ethyl +glyphosate; pyraflufen-ethyl+glufosinate; pyraflufen-ethyl+sulfosate; flumipropyn+metolachlor; flumipropyn+(S)-metolachlor; flumipropyn+pendimethalin; flumipropyn+aclonifen; flumipropyn+flurochloridon; flumipropyn+prometryn; flumipropyn+sethoxydim; flumipropyn+fluazifop; flumipropyn+quizalofop; flumipropyn+clethodim; flumipropyn+fenoxaprop; flumipropyn+terbutryn; flumipropyn+acetochlor; flumipropyn+trifluralin; flumipropyn+glyphosate; flumipropyn+glufosinate; flumipropyn+sulfosate; flupropacil+metolachlor; flupropacil+(S)-metolachlor; flupropacil+pendimethalin; flupropacil+aclonifen; flupropacil+flurochloridon; flupropacil+prometryn; flupropacil+sethoxydim; flupropacil+fluazifop; flupropacil+quizalofop; flupropacil+clethodim; flupropacil+fenoxaprop; flupropacil+terbutryn; flupropacil+acetochlor; flupropacil+trifluralin; flupropacil+glyphosate; flupropacil+glufosinate; flupropacil+sulfosate; nipyraclofen+metolachlor; nipyraclofen+(S)-metolachlor; nipyraclofen+pendimethalin; nipyraclofen+aclonifen; nipyraclofen+flurochloridon; nipyraclofen+prometryn; nipyraclofen+sethoxydim; nipyraclofen+fluazifop; nipyraclofen+quizalofop; nipyraclofen+clethodim; nipyraclofen+fenoxaprop; nipyraclofen+terbutryn; nipyraclofen+acetochlor; nipyraclofen +trifluralin; nipyraclofen+glyphosate; nipyraclofen+glufosinate; nipyraclofen+sulfosate; benzfendizone+metolachlor; benzfendizone+(S)-metolachlor; benzfendizone+pendimethalin; benzfendizone+aclonifen; benzfendizone+flurochloridon; benzfendizone +prometryn; benzfendizone+sethoxydim; benzfendizone+fluazifop; benzfendizone+quizalofop; benzfendizone+clethodim; benzfendizone+fenoxaprop; benzfendizone+terbutryn; benzfendizone+acetochlor; benzfendizone+trifluralin; benzfendizone+glyphosate; benzfendizone+glufosinate; benzfendizone+sulfosate; thidiazimin+metolachlor; thidiazimin+(S)-metolachlor; thidiazimin+pendimethalin; thidiazimin+aclonifen; thidiazimin+flurochloridon; thidiazimin+prometryn; thidiazimin+sethoxydim; thidiazimin+fluazifop; thidiazimin+quizalofop; thidiazimin+clethodim; thidiazimin+fenoxaprop; thidiazimin+terbutryn; thidiazimin+acetochlor; thidiazimin+trifluralin; thidiazimin+glyphosate; thidiazimin+glufosinate; and thidiazimin+sulfosate.

[0058] The following combinations of the compounds under a) with the co-herbicides under b) have been found to be very particularly effective synergistic compositions in crops of cereals resistant to protoporphyrinogen oxidase inhibitors:

[0059] acifluorfen+triasulfuron; acifluorfen+prosulfuron; acifluorfen+clodinafop; acifluorfen+terbutryne; acifluorfen+amidosulfuron; acifluorfen+bromoxynil; acifluorfen+carfentrazone; acifluorfen+dicamba; acifluorfen+diclofop-methyl; acifluorfen+diflufenican; acifluorfen+ethoxysulfuron; acifluorfen+fenoxaprop(P-ethyl); acifluorfen+fentrazamide; acifluorfen+flazasulfuron; acifluorfen+florasulam; acifluorfen+fluazolate; acifluorfen+flucarbazone; acifluorfen+flufenacet; acifluorfen+flupyrsulfuron; acifluorfen +flurtamone; acifluorfen+iodosulfuron; acifluorfen+isoproturon; acifluorfen+chlortoluron; acifluorfen+MCPA; acifluorfen+MCPB; acifluorfen+mecoprop; acifluorfen+MCPP; acifluorfen+chlorsulfuron; acifluorfen+metsulfuron; acifluorfen+sulfosulfuron; acifluorfen +thifensulfuron; acifluorfen+tribenuron; acifluorfen+2,4-D; acifluorfen+2,4-DB; acifluorfen+2,4-DP; acifluorfen+bifenox; acifluorfen+ethametsulfuron; acifluorfen+flamprop-M; acifluorfen+imazamethabenz; acifluorfen+ioxynil; acifluorfen+bromoxynil; acifluorfen+metosulam; acifluorfen+pyridate; acifluorfen+quinmerac; acifluorfen+tralkoxydim; acifluorfen+fluoroglycofen-ethyl; acifluorfen+methabenzthiazuron; acifluorfen +ethalfluralin; acifluorfen+pendimethalin; acifluorfen+trifluralin; acifluorfen+isoxaben; acifluorfen+prosulfocarb; acifluorfen+triallate; acifluorfen+clopyralid; acifluorfen+fluroxypyr; acifluorfen+benazolin-ethyl; acifluorfen+difenzoquat; acifluorfen+glyphosate; acifluorfen+glufosinate; acifluorfen+sulfosate; aclonifen+triasulfuron; aclonifen+prosulfuron; aclonifen+clodinafop; aclonifen+terbutryne; aclonifen+amidosulfuron; aclonifen+bromoxynil; aclonifen+carfentrazone; aclonifen+dicamba; aclonifen+diclofop-methyl; aclonifen+diflufenican; aclonifen+ethoxysulfuron; aclonifen+fenoxaprop(P-ethyl); aclonifen+fentrazamide; aclonifen+flazasulfuron; aclonifen+florasulam; aclonifen+fluazolate; aclonifen+flucarbazone; aclonifen+flufenacet; aclonifen+flupyrsulfuron; aclonifen+flurtamone; aclonifen+iodosulfuron; aclonifen+isoproturon; aclonifen+chlortoluron; aclonifen+MCPA; aclonifen+MCPB; aclonifen+mecoprop; aclonifen+MCPP; aclonifen+chlorsulfuron; aclonifen+metsulfuron; aclonifen +sulfosulfuron; aclonifen+thifensulfuron; aclonifen+tribenuron; aclonifen+2,4-D; aclonifen+2,4-DB; aclonifen+2,4-DP; aclonifen+bifenox; aclonifen+ethametsulfuron; aclonifen+flamprop-M; aclonifen+imazamethabenz; aclonifen+ioxynil; aclonifen+bromoxynil; aclonifen+metosulam; aclonifen+pyridate; aclonifen+quinmerac; aclonifen+tralkoxydim; aclonifen+fluoroglycofen-ethyl; aclonifen+methabenzthiazuron; aclonifen+ethalfluralin; aclonifen+

pendimethalin; aclonifen+trifluralin; aclonifen+isoxaben; aclonifen+prosulfocarb; aclonifen+triallate; aclonifen+clopyralid; aclonifen+fluroxypyr; aclonifen+benazolin-ethyl; aclonifen+difenzoquat; aclonifen+glyphosate; aclonifen+glufosinate; aclonifen+sulfosate; bifenox+triasulfuron; bifenox+prosulfuron; bifenox+clodinafop; bifenox+terbutryne; bifenox+amidosulfuron; bifenox+bromoxynil; bifenox+carfentrazone; bifenox+dicamba; bifenox+diclofop-methyl; bifenox+diflufenican; bifenox +ethoxysulfuron; bifenox+fenoxaprop(P-ethyl); bifenox+fentrazamide; bifenox+flazasulfuron; bifenox+florasulam; bifenox+fluazolate; bifenox+flucarbazone; bifenox+flufenacet; bifenox+flupyrsulfuron; bifenox+flurtamone; bifenox+iodosulfuron; bifenox+isoproturon; bifenox+chlortoluron; bifenox+MCPA; bifenox+MCPB; bifenox+mecoprop; bifenox+MCPP; bifenox+chlorsulfuron; bifenox+metsulfuron; bifenox+sulfosulfuron: bifenox+thifensulfuron; bifenox+tribenuron; bifenox+2,4-D; bifenox+2,4-DB; bifenox+2,4-DP; bifenox+ethametsulfuron; bifenox+flamprop-M; bifenox+imazamethabenz; bifenox+ioxynil; bifenox+bromoxynil; bifenox+metosulam; bifenox+pyridate; bifenox+quinmerac; bifenox+tralkoxydim; bifenox+fluoroglycofen-ethyl; bifenox+methabenzthiazuron; bifenox+ethalfluralin; bifenox+pendimethalin; bifenox+trifluralin; bifenox+isoxaben; bifenox+prosulfocarb; bifenox+triallate; bifenox+clopyralid; bifenox +fluroxypyr; bifenox+benazolin-ethyl; bifenox+difenzoquat; aclonifen+glyphosate; aclonifen+glufosinate; aclonifen+sulfosate; chlomitrofen+triasulfuron; chlomitrofen+prosulfuron; chlomitrofen+clodinafop; chlomitrofen+terbutryne; chlomitrofen+amidosulfuron; chlomitrofen+bromoxynil; chlomitrofen+carfentrazone; chlomitrofen+dicamba; chlomitrofen+diclofop-methyl; chlomitrofen+diflufenican; chlomitrofen+ethoxysulfuron; chlomitrofen+fenoxaprop(P-ethyl); chlomitrofen+fentrazamide; chlomitrofen+flazasulfuron; chlomitrofen+florasulam; chlomitrofen+fluazolate; chlomitrofen+flucarbazone; chlomitrofen+flufenacet; chlomitrofen+flupyrsulfuron; chlomitrofen+flurtamone; chlomitrofen+iodosulfuron; chlomitrofen+isoproturon; chlomitrofen+chlortoluron; chlomitrofen+MCPA; chlomitrofen+MCPB; chlomitrofen+mecoprop; chlomitrofen+MCPP; chlomitrofen+chlorsulfuron; chlomitrofen+metsulfuron; chlomitrofen+sulfosulfuron; chlomitrofen+thifensulfuron; chlomitrofen+tribenuron; chlomitrofen+2,4-D; chlomitrofen+2,4-DB; chlomitrofen+2,4-DP; chlomitrofen+bifenox; chlomitrofen+ethametsulfuron; chlomitrofen+flamprop-M; chlomitrofen+imazamethabenz; chlomitrofen+ioxynil; chlomitrofen+bromoxynil; chlomitrofen+metosulam; chlomitrofen+pyridate; chlomitrofen+quinmerac; chlomitrofen+tralkoxydim; chlomitrofen+fluoroglycofen-ethyl; chlomitrofen+methabenzthiazuron; chlomitrofen+ethalfluralin; chlomitrofen+pendimethalin; chlomitrofen+trifluralin; chlomitrofen+isoxaben; chlomitrofen+prosulfocarb; chlomitrofen+triallate; chlomitrofen+clopyralid; chlomitrofen+fluroxypyr; chlomitrofen+benazolin-ethyl; chlomitrofen+difenzoquat; chlomitrofen+glyphosate; chlomitrofen+glufosinate; chlomitrofen+sulfosate; ethoxyfen+triasulfuron; ethoxyfen+prosulfuron; ethoxyfen+clodinafop; ethoxyfen+terbutryne; ethoxyfen+amidosulfuron; ethoxyfen+bromoxynil; ethoxyfen+carfentrazone; ethoxyfen+dicamba; ethoxyfen+diclofop-methyl; ethoxyfen+diflufenican; ethoxyfen+ethoxysulfuron; ethoxyfen+fenoxaprop(P-ethyl); ethoxyfen+fentrazamide; ethoxyfen+flazasulfuron; ethoxyfen+florasulam; ethoxyfen+fluazolate; ethoxyfen+flucarbazone; ethoxyfen+flufenacet; ethoxyfen+flupyrsulfuron; ethoxyfen+flurtamone; ethoxyfen+iodosulfuron; ethoxyfen+isoproturon; ethoxyfen+chlortoluron; ethoxyfen+MCPA; ethoxyfen+MCPB; ethoxyfen+mecoprop; ethoxyfen+MCPP; ethoxyfen+chlorsulfuron; ethoxyfen+ametsulfuron; ethoxyfen+sulfosulfuron; ethoxyfen+thifensulfuron; ethoxyfen+tribenuron; ethoxyfen+2,4-D; ethoxyfen+2,4-DB; ethoxyfen+2,4-DP; ethoxyfen+bifenox; ethoxyfen +ethametsulfuron; ethoxyfen+flamprop-M; ethoxyfen+imazamethabenz; ethoxyfen+ioxynil; ethoxyfen+bromoxynil; ethoxyfen+metosulam; ethoxyfen+pyridate; ethoxyfen+quinmerac; ethoxyfen+tralkoxydim; ethoxyfen+fluoroglycofen-ethyl; ethoxyfen+methabenzthiazuron; ethoxyfen+ethalfluralin; ethoxyfen+pendimethalin; ethoxyfen+trifluralin; ethoxyfen+isoxaben; ethoxyfen+prosulfocarb; ethoxyfen+triallate; ethoxyfen+clopyralid; ethoxyfen+fluroxypyr; ethoxyfen+benazolin-ethyl; ethoxyfen+difenzoquat; ethoxyfen+glyphosate; ethoxyfen+glufosinate; ethoxyfen+sulfosate; fluoroglycofen+triasulfuron; fluoroglycofen+prosulfuron; fluoroglycofen+clodinafop; fluoroglycofen+terbutryne; fluoroglycofen+amidosulfuron; fluoroglycofen+bromoxynil; fluoroglycofen+carfentrazone; fluoroglycofen+dicamba; fluoroglycofen+diclofop-methyl; fluoroglycofen+diflufenican; fluoroglycofen+ethoxysulfuron; fluoroglycofen+fenoxaprop(P-ethyl); fluoroglycofen+fentrazamide; fluoroglycofen+flazasulfuron; fluoroglycofen+florasulam; fluoroglycofen+fluazolate; fluoroglycofen+flucarbazone; fluoroglycofen+flufenacet; fluoroglycofen+flupyrsulfuron; fluoroglycofen+flurtamone; fluoroglycofen+iodosulfuron; fluoroglycofen+isoproturon; fluoroglycofen+chlortoluron; fluoroglycofen+MCPA; fluoroglycofen+MCPB; fluoroglycofen+mecoprop; fluoroglycofen+MCPP; fluoroglycofen +chlorsulfuron; fluoroglycofen+metsulfuron; fluoroglycofen+sulfosulfuron; fluoroglycofen +thifensulfuron; fluoroglycofen+tribenuron; fluoroglycofen+2,4-D; fluoroglycofen+2,4-DB; fluoroglycofen+2,4-DP; fluoroglycofen+bifenox; fluoroglycofen+ethametsulfuron; fluoroglycofen+flamprop-M; fluoroglycofen+imazamethabenz; fluoroglycofen+ioxynil; fluoroglycofen+bromoxynil; fluoroglycofen+metosulam; fluoroglycofen+pyridate; fluoroglycofen+quinmerac; fluoroglycofen+tralkoxydim; fluoroglycofen+methabenzthiazuron; fluoroglycofen+ethalfluralin; fluoroglycofen+pendimethalin; fluoroglycofen+trifluralin; fluoroglycofen+isoxaben; fluoroglycofen+prosulfocarb; fluoroglycofen+triallate; fluoroglycofen+clopyralid; fluoroglycofen+fluroxypyr; fluoroglycofen+benazolin-ethyl; fluoroglycofen+difenzoquat; fluoroglycofen+glyphosate; fluoroglycofen+glufosinate; fluoroglycofen+sulfosate; fomesafen+triasulfuron; fomesafen+prosulfuron; fomesafen+clodinafop; fomesafen+terbutryne; fomesafen+amidosulfuron; fomesafen+bromoxynil; fomesafen+carfentrazone; fomesafen+dicamba; fomesafen+diclofop-methyl; fomesafen+diflufenican; fomesafen+ethoxysulfuron; fomesafen+fenoxaprop(P-ethyl); fomesafen+fentrazamide; fomesafen+flazasulfuron; fomesafen+florasulam; fomesafen+fluazolate; fomesafen+flucarbazone; fomesafen+flufenacet; fomesafen+flupyrsulfuron; fomesafen+flurtamone; fomesafen+iodosulfuron; fomesafen+isoproturon; fomesafen+chlortoluron; fomesafen+MCPA; fomesafen+MCPB; fomesafen+mecoprop; fomesafen+MCPP; fomesafen+chlorsulfuron; fomesafen +metsulfuron; fomesafen+sulfosulfuron; fomesafen+thifensulfuron; fomesafen+tribenuron; fomesafen+2,4-D; fomesafen+2,4-DB;

fomesafen+2,4-DP; fomesafen+bifenox; fomesafen+ethametsulfuron; fomesafen+flamprop-M; fomesafen+imazamethabenz; fomesafen+ioxynil; fomesafen+bromoxynil; fomesafen+metosulam; fomesafen+pyridate; fomesafen+quinmerac; fomesafen+tralkoxydim; fomesafen+fluoroglycofen-ethyl; fomesafen+methabenzthiazuron; fomesafen+ethalfluralin; fomesafen+pendimethalin; fomesafen+trifluralin; fomesafen+isoxaben; fomesafen+prosulfocarb; fomesafen+triallate; fomesafen+clopyralid; fomesafen+fluroxypyr; fomesafen+benazolin-ethyl; fomesafen+difenzoquat; fomesafen+glyphosate; fomesafen+glufosinate; fomesafen+sulfosate; lactofen+triasulfuron; lactofen+prosulfuron; lactofen+clodinafop; lactofen+terbutryne; lactofen+amidosulfuron; lactofen +bromoxynil; lactofen+carfentrazone; lactofen+dicamba; lactofen+diclofop-methyl; lactofen+diflufenican; lactofen+ethoxysulfuron; lactofen+fenoxaprop(P-ethyl); lactofen+fentrazamide; lactofen+flazasulfuron; lactofen+florasulam; lactofen+fluazolate; lactofen +flucarbazone; lactofen+flufenacet; lactofen+flupyrsulfuron; lactofen+flurtamone; lactofen+iodosulfuron; lactofen+isoproturon; lactofen+chlortoluron; lactofen+MCPA; lactofen+MCPB; lactofen+mecoprop; lactofen+MCPP; lactofen+chlorsulfuron; lactofen +metsulfuron; lactofen+sulfosulfuron; lactofen+thifensulfuron; lactofen+tribenuron; lactofen+2,4-D; lactofen+2,4-DB; lactofen+2,4-DP; lactofen+bifenox; lactofen+ethametsulfuron; lactofen+flamprop-M; lactofen+imazamethabenz; lactofen+ioxynil; lactofen+bromoxynil; lactofen+metosulam; lactofen+pyridate; lactofen+quinmerac; lactofen+tralkoxydim; lactofen+fluoroglycofen-ethyl; lactofen+methabenzthiazuron; lactofen+ethalfluralin; lactofen+pendimethalin; lactofen+trifluralin; lactofen+isoxaben; lactofen+prosulfocarb; lactofen+triallate; lactofen+clopyralid; lactofen+fluroxypyr; lactofen+benazolin-ethyl; lactofen+difenzoquat; lactofen+glyphosate; lactofen+glufosinate; lactofen+sulfosate; oxyfluorfen+triasulfuron; oxyfluorfen+prosulfuron; oxyfluorfen+clodinafop; oxyfluorfen+terbutryne; oxyfluorfen+amidosulfuron; oxyfluorfen +bromoxynil; oxyfluorfen+carfentrazone; oxyfluorfen+dicamba; oxyfluorfen+diclofop-methyl; oxyfluorfen+diflufenican; oxyfluorfen+ethoxysulfuron; oxyfluorfen+fenoxaprop(P-ethyl); oxyfluorfen+fentrazamide; oxyfluorfen+flazasulfuron; oxyfluorfen+florasulam; oxyfluorfen+fluazolate; oxyfluorfen+flucarbazone; oxyfluorfen+flufenacet; oxyfluorfen+flupyrsulfuron; oxyfluorfen+flurtamone; oxyfluorfen+iodosulfuron; oxyfluorfen+isoproturon; oxyfluorfen+chlortoluron; oxyfluorfen+MCPA; oxyfluorfen+MCPB; oxyfluorfen+mecoprop; oxyfluorfen+MCPP; oxyfluorfen+chlorsulfuron; oxyfluorfen+metsulfuron; oxyfluorfen+sulfosulfuron; oxyfluorfen+thifensulfuron; oxyfluorfen+tribenuron; oxyfluorfen+2,4-D; oxyfluorfen+2,4-DB; oxyfluorfen+2,4-DP; oxyfluorfen+bifenox; oxyfluorfen+ethametsulfuron; oxyfluorfen+flamprop-M; oxyfluorfen +imazamethabenz; oxyfluorfen+ioxynil; oxyfluorfen+bromoxynil; oxyfluorfen+metosulam; oxyfluorfen+pyridate; oxyfluorfen+quinmerac; oxyfluorfen+tralkoxydim; oxyfluorfen+fluoroglycofen-ethyl; oxyfluorfen+methabenzthiazuron; oxyfluorfen+ethalfluralin; oxyfluorfen+pendimethalin; oxyfluorfen+trifluralin; oxyfluorfen+isoxaben; oxyfluorfen+prosulfocarb; oxyfluorfen+triallate; oxyfluorfen+clopyralid; oxyfluorfen+fluroxypyr; oxyfluorfen+benazolin-ethyl; oxyfluorfen+difenzoquat; oxyfluorfen+glyphosate; oxyfluorfen+glufosinate; oxyfluorfen+sulfosate; azafenidin+triasulfuron; azafenidin+prosulfuron; azafenidin+clodinafop; azafenidin+terbutryne; azafenidin+amidosulfuron; azafenidin+bromoxynil; azafenidin+carfentrazone; azafenidin+dicamba; azafenidin+diclofop-methyl; azafenidin+diflufenican; azafenidin+ethoxysulfuron; azafenidin+fenoxaprop(P-ethyl); azafenidin+fentrazamide; azafenidin+flazasulfuron; azafenidin+florasulam; azafenidin+fluazolate; azafenidin+flucarbazone; azafenidin+flufenacet; azafenidin+flupyrsulfuron; azafenidin+flurtamone; azafenidin+iodosulfuron; azafenidin+isoproturon; azafenidin+chlortoluron; azafenidin+MCPA; azafenidin+MCPB; azafenidin+mecoprop; azafenidin+MCPP; azafenidin+chlorsulfuron; azafenidin +metsulfuron; azafenidin+sulfosulfuron; azafenidin+thifensulfuron; azafenidin+tribenuron; azafenidin+2,4-D; azafenidin+2,4-DB; azafenidin+2,4-DP; azafenidin+bifenox; azafenidin+ethametsulfuron; azafenidin+flamprop-M; azafenidin+imazamethabenz; azafenidin+ioxynil; azafenidin+bromoxynil; azafenidin+metosulam; azafenidin+pyridate; azafenidin+quinmerac; azafenidin+tralkoxydim; azafenidin+fluoroglycofen-ethyl; azafenidin+methabenzthiazuron; azafenidin+ethalfluralin; azafenidin +pendimethalin; azafenidin+trifluralin; azafenidin+isoxaben; azafenidin+prosulfocarb; azafenidin+triallate; azafenidin+clopyralid; azafenidin+fluroxypyr; azafenidin+benazolin-ethyl; azafenidin+difenzoquat; azafenidin+glyphosate; azafenidin+glufosinate; azafenidin+sulfosate; carfentrazone-ethyl+triasulfuron; carfentrazone-ethyl+prosulfuron; carfentrazone-ethyl+clodinafop; carfentrazone-ethyl+terbutryne; carfentrazone-ethyl+amidosulfuron; carfentrazone-ethyl+bromoxynil; carfentrazone-ethyl +dicamba; carfentrazone-ethyl+diclofop-methyl; carfentrazone-ethyl+diflufenican; carfentrazone-ethyl+ethoxysulfuron; carfentrazone-ethyl+fenoxaprop(P-ethyl); carfentrazone-ethyl+fentrazamide; carfentrazone-ethyl+flazasulfuron; carfentrazone-ethyl +florasulam; carfentrazone-ethyl+fluazolate; carfentrazone-ethyl+flucarbazone; carfentrazone-ethyl+flufenacet; carfentrazone-ethyl+flupyrsulfuron; carfentrazone-ethyl+flurtamone; carfentrazone-ethyl+iodosulfuron; carfentrazone-ethyl+isoproturon; carfentrazone-ethyl+chlortoluron; carfentrazone-ethyl+MCPA; carfentrazone-ethyl+MCPB; carfentrazone-ethyl+mecoprop; carfentrazone-ethyl+MCPP; carfentrazone-ethyl+chlorsulfuron; carfentrazone-ethyl+metsulfuron; carfentrazone-ethyl+sulfosulfuron; carfentrazone-ethyl+thifensulfuron; carfentrazone-ethyl+tribenuron; carfentrazone-ethyl+2,4-D; carfentrazone-ethyl+2,4-DB; carfentrazone-ethyl+2,4-DP; carfentrazone-ethyl+bifenox; carfentrazone-ethyl+ethametsulfuron; carfentrazone-ethyl+flamprop-M; carfentrazone-ethyl+imazamethabenz; carfentrazone-ethyl+ioxynil; carfentrazone-ethyl+bromoxynil; carfentrazone-ethyl+metosulam; carfentrazone-ethyl+pyridate; carfentrazone-ethyl+quinmerac; carfentrazone-ethyl+tralkoxydim; carfentrazone-ethyl+fluoroglycofen-ethyl; carfentrazone-ethyl+methabenzthiazuron; carfentrazone-ethyl+ethalfluralin; carfentrazone-ethyl+pendimethalin; carfentrazone-ethyl+trifluralin; carfentrazone-ethyl+isoxaben; carfentrazone-ethyl+prosulfocarb; carfentrazone-ethyl+triallate; carfentrazone-ethyl+clopyralid; carfentrazone-ethyl+fluroxypyr; carfentrazone-ethyl+benazolin-ethyl; carfentrazone-ethyl+difenzoquat; carfentrazone-ethyl+glyphosate; carfentrazone-ethyl+glufosinate; carfentrazone-ethyl+sulfosate; compound of the formula A+triasulfuron; compound of the formula A+prosulfuron; compound of the formula A+clodinafop; compound of the formula A+terbutryne; compound of the formula A+amidosulfuron; compound of the formula

A+bromoxynil; compound of the formula A+carfentrazone; compound of the formula A+dicamba; compound of the formula A+diclofop-methyl; compound of the formula A+diflufenican; compound of the formula A+ethoxysulfuron; compound of the formula A+fenoxaprop(P-ethyl); compound of the formula A+fentrazamide; compound of the formula A+flazasulfuron; compound of the formula A+florasulam; compound of the formula A+fluazolate; compound of the formula A+flucarbazone; compound of the formula A+flufenacet; compound of the formula A+flupyrsulfuron; compound of the formula A+flurtamone; compound of the formula A+iodosulfuron; compound of the formula A+isoproturon; compound of the formula A+chlortoluron; compound of the formula A+MCPA; compound of the formula A+MCPB; compound of the formula A+mecoprop; compound of the formula A+MCPP; compound of the formula A+chlorsulfuron; compound of the formula A+metsulfuron; compound of the formula A+sulfosulfuron; compound of the formula A+thifensulfuron; compound of the formula A+tribenuron; compound of the formula A+2,4-D; compound of the formula A+2,4-DB; compound of the formula A+2,4-DP; compound of the formula A+bifenox; compound of the formula A+ethametsulfuron; compound of the formula A+flamprop-M; compound of the formula A+imazamethabenz; compound of the formula A+ioxynil; compound of the formula A+bromoxynil; compound of the formula A+metosulam; compound of the formula A+pyridate; compound of the formula A+quinmerac; compound of the formula A+tralkoxydim; compound of the formula A+fluoroglycofen-ethyl; compound of the formula A+methabenzthiazuron; compound of the formula A+ethalfluralin; compound of the formula A+pendimethalin; compound of the formula A+trifluralin; compound of the formula A+isoxaben; compound of the formula A+prosulfocarb; compound of the formula A+triallate; compound of the formula A+clopyralid; compound of the formula A+fluroxypyr; compound of the formula A+benazolin-ethyl; compound of the formula A+difenzoquat; compound of the formula A+glyphosate; compound of the formula A+glufosinate; compound of the formula A+sulfosate; cinidon-ethyl+triasulfuron; cinidon-ethyl+prosulfuron; cinidon-ethyl+clodinafop; cinidon-ethyl+terbutryne; cinidon-ethyl+amidosulfuron; cinidon-ethyl+bromoxynil; cinidon-ethyl+carfentrazone; cinidon-ethyl+dicamba; cinidon-ethyl+diclofop-methyl; cinidon-ethyl+diflufenican; cinidon-ethyl+ethoxysulfuron; cinidon-ethyl+fenoxaprop(P-ethyl); cinidon-ethyl+fentrazamide; cinidon-ethyl+flazasulfuron; cinidon-ethyl+florasulam; cinidon-ethyl +fluazolate; cinidon-ethyl+flucarbazone; cinidon-ethyl+flufenacet; cinidon-ethyl+flupyrsulfuron; cinidon-ethyl+flurtamone; cinidon-ethyl+iodosulfuron; cinidon-ethyl+isoproturon; cinidon-ethyl+chlortoluron; cinidon-ethyl+MCPA; cinidon-ethyl+MCPB; cinidon-ethyl+mecoprop; cinidon-ethyl+MCPP; cinidon-ethyl+chlorsulfuron; cinidon-ethyl +metsulfuron; cinidon-ethyl+sulfosulfuron; cinidon-ethyl+thifensulfuron; cinidon-ethyl+tribenuron; cinidon-ethyl+2,4-D; cinidon-ethyl+2,4-DB; cinidon-ethyl+2,4-DP; 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pentoxazone+2,4-DB; pentoxazone+2,4-DP; pentoxazone+bifenox; pentoxazone+ethametsulfuron; pentoxazone+flamprop-M; pentoxazone+imazamethabenz; pentoxazone+ioxynil; pentoxazone+bromoxynil; pentoxazone+metosulam; pentoxazone+pyridate; pentoxazone+quinmerac; pentoxazone+tralkoxydim; pentoxazone+fluoroglycofen-ethyl; pentoxazone+methabenzthiazuron; pentoxazone+ethalfluralin; pentoxazone+pendimethalin; pentoxazone+trifluralin; pentoxazone+isoxaben; pentoxazone+prosulfocarb; pentoxazone+triallate; pentoxazone+clopyralid; pentoxazone+fluroxypyr; pentoxazone+benazolin-ethyl; pentoxazone+difenzoquat; pentoxazone+glyphosate; pentoxazone+glufosinate; pentoxazone+sulfosate; sulfentrazone+triasulfuron; sulfentrazone+prosulfuron; sulfentrazone+clodinafop; sulfentrazone+terbutryne; sulfentrazone+Amidosulfuron; sulfentrazone+bromoxynil; sulfentrazone+carfentrazone; sulfentrazone+dicamba; sulfentrazone+diclofop-methyl; sulfentrazone+diflufenican; sulfentrazone+ethoxysulfuron; sulfentrazone+fenoxaprop(P-ethyl); sulfentrazone+fentrazamide; sulfentrazone+flazasulfuron; sulfentrazone+florasulam; sulfentrazone+fluazolate; sulfentrazone+flucarbazone; sulfentrazone+flufenacet; sulfentrazone+flupyrsulfuron; sulfentrazone+flurtamone; sulfentrazone+iodosulfuron; sulfentrazone+isoproturon; sulfentrazone+chlortoluron; sulfentrazone+MCPA; sulfentrazone+MCPB; sulfentrazone+mecoprop; sulfentrazone+MCPP; sulfentrazone+chlorsulfuron; sulfentrazone+metsulfuron; sulfentrazone+sulfosulfuron; sulfentrazone+thifensulfuron; sulfentrazone+tribenuron; sulfentrazone+2,4-D; sulfentrazone+2,4-DB; sulfentrazone+2,4-DP; sulfentrazone+bifenox; sulfentrazone+ethametsulfuron; sulfentrazone+flamprop-M; sulfentrazone+imazamethabenz; sulfentrazone+ioxynil; sulfentrazone+bromoxynil; sulfentrazone+metosulam;

sulfentrazone+pyridate; sulfentrazone+quinmerac; sulfentrazone+tralkoxydim; sulfentrazone+fluoroglycofen-ethyl; sulfentrazone+methabenzthiazuron; sulfentrazone+ethalfluralin; sulfentrazone+pendimethalin; sulfentrazone+trifluralin; sulfentrazone+isoxaben; sulfentrazone+prosulfocarb; sulfentrazone+triallate; sulfentrazone+clopyralid; sulfentrazone+fluroxypyr; sulfentrazone+benazolin-ethyl; sulfentrazone+difenzoquat; sulfentrazone+glyphosate; sulfentrazone+glufosinate; sulfentrazone+sulfosate; fluazolate+triasulfuron; fluazolate+prosulfuron; fluazolate+clodinafop; fluazolate+terbutryne; fluazolate+amidosulfuron; fluazolate+bromoxynil; fluazolate+carfentrazone; fluazolate+dicamba; fluazolate+diclofop-methyl; fluazolate+diflufenican; fluazolate+ethoxysulfuron; fluazolate+fenoxaprop(P-ethyl); fluazolate+fentrazamide; fluazolate+flazasulfuron; fluazolate+florasulam; fluazolate+fluazolate; fluazolate+flucarbazone; fluazolate+flufenacet; fluazolate+flupyrsulfuron; fluazolate+flurtamone; fluazolate+iodosulfuron; fluazolate+isoproturon; fluazolate+chlortoluron; fluazolate+MCPA; fluazolate+MCPB; fluazolate+mecoprop; fluazolate+MCPP; fluazolate+chlorsulfuron; fluazolate+metsulfuron; fluazolate+sulfosulfuron; fluazolate+thifensulfuron; fluazolate+tribenuron; fluazolate+2,4-D; fluazolate+2,4-DB; fluazolate+2,4-DP; fluazolate+bifenox; fluazolate+ethametsulfuron; fluazolate+flamprop-M; fluazolate+imazamethabenz; fluazolate+ioxynil; fluazolate+bromoxynil; fluazolate+metosulam; fluazolate+pyridate; fluazolate+quinmerac; fluazolate+tralkoxydim; fluazolate+fluoroglycofen-ethyl; fluazolate+methabenzthiazuron; fluazolate+ethalfluralin; fluazolate+pendimethalin; fluazolate+trifluralin; fluazolate+isoxaben; fluazolate+prosulfocarb; fluazolate+triallate; fluazolate+clopyralid; fluazolate+fluroxypyr; fluazolate+benazolin-ethyl; fluazolate+difenzoquat; fluazolate+glyphosate; fluazolate+glufosinate; fluazolate+sulfosate; pyraflufen-ethyl+triasulfuron; pyraflufen-ethyl+prosulfuron; pyraflufen-ethyl+clodinafop; pyraflufen-ethyl+terbutryne; pyraflufen-ethyl+amidosulfuron; pyraflufen-ethyl+bromoxynil; pyraflufen-ethyl +carfentrazone; pyraflufen-ethyl+dicamba; pyraflufen-ethyl+diclofop-methyl; pyraflufen-ethyl+diflufenican; pyraflufen-ethyl+ethoxysulfuron; pyraflufen-ethyl+fenoxaprop(P-ethyl); pyraflufen-ethyl+fentrazamide; pyraflufen-ethyl+flazasulfuron; pyraflufen-ethyl+florasulam; pyraflufen-ethyl+fluazolate; pyraflufen-ethyl+flucarbazone; pyraflufen-ethyl+flufenacet; pyraflufen-ethyl+flupyrsulfuron; pyraflufen-ethyl+flurtamone; pyraflufen-ethyl+iodosulfuron; pyraflufen-ethyl+isoproturon; pyraflufen-ethyl+chlortoluron; pyraflufen-ethyl +MCPA; pyraflufen-ethyl+MCPB; pyraflufen-ethyl+mecoprop; pyraflufen-ethyl+MCPP; pyraflufen-ethyl+chlorsulfuron; pyraflufen-ethyl+metsulfuron; pyraflufen-ethyl+sulfosulfuron; pyraflufen-ethyl+thifensulfuron; pyraflufen-ethyl+tribenuron; pyraflufen-ethyl+2,4-D; pyraflufen-ethyl+2,4-DB; pyraflufen-ethyl+2,4-DP; pyraflufen-ethyl+bifenox; pyraflufen-ethyl+ethametsulfuron; pyraflufen-ethyl+flamprop-M; pyraflufen-ethyl +imazamethabenz; pyraflufen-ethyl+ioxynil; pyraflufen-ethyl+bromoxynil; pyraflufen-ethyl +metosulam; pyraflufen-ethyl+pyridate; pyraflufen-ethyl+quinmerac; pyraflufen-ethyl+tralkoxydim; pyraflufen-ethyl+fluoroglycofen-ethyl; pyraflufen-ethyl+methabenzthiazuron; pyraflufen-ethyl+ethalfluralin; pyraflufen-ethyl+pendimethalin; pyraflufen-ethyl+trifluralin; pyraflufen-ethyl+isoxaben; pyraflufen-ethyl+prosulfocarb; pyraflufen-ethyl+triallate; pyraflufen-ethyl+clopyralid; pyraflufen-ethyl+fluroxypyr; pyraflufen-ethyl+benazolin-ethyl; pyraflufen-ethyl+difenzoquat; pyraflufen-ethyl+glyphosate; pyraflufen-ethyl+glufosinate; pyraflufen-ethyl+sulfosate; flumipropyn+triasulfuron; flumipropyn+prosulfuron; flumipropyn+clodinafop; flumipropyn+terbutryne; flumipropyn+amidosulfuron; flumipropyn+bromoxynil; flumipropyn+carfentrazone; flumipropyn+dicamba; flumipropyn+diclofop-methyl; flumipropyn+diflufenican; flumipropyn+ethoxysulfuron; flumipropyn+fenoxaprop(P-ethyl); flumipropyn+fentrazamide; flumipropyn+flazasulfuron; flumipropyn+florasulam; flumipropyn+fluazolate; flumipropyn+flucarbazone; flumipropyn+flufenacet; flumipropyn+flupyrsulfuron; flumipropyn+flurtamone; flumipropyn+iodosulfuron; flumipropyn+isoproturon; flumipropyn+chlortoluron; flumipropyn+MCPA; flumipropyn+MCPB; flumipropyn+mecoprop; flumipropyn+MCPP; flumipropyn+chlorsulfuron; flumipropyn+metsulfuron; flumipropyn+sulfosulfuron; flumipropyn+thifensulfuron; flumipropyn+tribenuron; flumipropyn+2,4-D; flumipropyn+2,4-DB; flumipropyn+2,4-DP; flumipropyn+bifenox; flumipropyn+ethametsulfuron; flumipropyn+flamprop-M; flumipropyn+imazamethabenz; flumipropyn+ioxynil; flumipropyn+bromoxynil; flumipropyn+metosulam; flumipropyn+pyridate; flumipropyn+quinmerac; flumipropyn+tralkoxydim; flumipropyn+fluoroglycofen-ethyl; flumipropyn+methabenzthiazuron; flumipropyn+ethalfluralin; flumipropyn+pendimethalin; flumipropyn+trifluralin; flumipropyn+isoxaben; flumipropyn+prosulfocarb; flumipropyn+triallate; flumipropyn+clopyralid; flumipropyn+fluroxypyr; flumipropyn+benazolin-ethyl; flumipropyn+difenzoquat; flumipropyn+glyphosate; flumipropyn+glufosinate; flumipropyn+sulfosate; flupropacil+triasulfuron; flupropacil+prosulfuron; flupropacil+clodinafop; flupropacil+terbutryne; flupropacil+amidosulfuron; flupropacil+bromoxynil; flupropacil+carfentrazone; flupropacil+dicamba; flupropacil+diclofop-methyl; flupropacil+diflufenican; flupropacil+ethoxysulfuron; flupropacil+fenoxaprop(P-ethyl); flupropacil+fentrazamide; flupropacil+flazasulfuron; flupropacil+florasulam; flupropacil+fluazolate; flupropacil+flucarbazone; flupropacil+flufenacet; flupropacil+flupyrsulfuron; flupropacil+flurtamone; flupropacil+iodosulfuron; flupropacil+isoproturon; flupropacil+chlortoluron; flupropacil+MCPA; flupropacil+MCPB; flupropacil+mecoprop; flupropacil+MCPP; flupropacil+chlorsulfuron; flupropacil+metsulfuron; flupropacil+sulfosulfuron; flupropacil +thifensulfuron; flupropacil+tribenuron; flupropacil+2,4-D; flupropacil+2,4-DB; flupropacil+2,4-DP; flupropacil+bifenox; flupropacil+ethametsulfuron; flupropacil+flamprop-M; flupropacil+imazamethabenz; flupropacil+ioxynil; flupropacil+bromoxynil; flupropacil+metosulam; flupropacil+pyridate; flupropacil+quinmerac; flupropacil+tralkoxydim; flupropacil+fluoroglycofen-ethyl; flupropacil+methabenzthiazuron; flupropacil +ethalfluralin; flupropacil+pendimethalin; flupropacil+trifluralin; flupropacil+isoxaben; flupropacil+prosulfocarb; flupropacil+triallate; flupropacil+clopyralid; flupropacil+fluroxypyr; flupropacil+benazolin-ethyl; flupropacil+difenzoquat; flupropacil+glyphosate; flupropacil+glufosinate; flupropacil+sulfosate; nipyraclofen+triasulfuron; nipyraclofen+prosulfuron; nipyraclofen+clodinafop; nipyraclofen+terbutryne; nipyraclofen+amidosulfuron; nipyraclofen+bromoxynil; nipyraclofen+carfentrazone; nipyraclofen+dicamba; nipyraclofen+diclofop-methyl; nipyraclofen+diflufenican; nipyraclofen+ethoxysulfuron; nipyraclofen+fenoxaprop (P-ethyl);

nipyraclofen+fentrazamide; nipyraclofen+flazasulfuron; nipyraclofen+florasulam; nipyraclofen+fluazolate; nipyraclofen+flucarbazone; nipyraclofen+flufenacet; nipyraclofen+flupyrsulfuron; nipyraclofen+flurtamone; nipyraclofen+iodosulfuron; nipyraclofen+isoproturon; nipyraclofen+chlortoluron; nipyraclofen+MCPA; nipyraclofen+MCPB; nipyraclofen+mecoprop; nipyraclofen+MCPP; nipyraclofen+chlorsulfuron; nipyraclofen+metsulfuron; nipyraclofen+sulfosulfuron; nipyraclofen+thifensulfuron; nipyraclofen+tribenuron; nipyraclofen+2,4-D; nipyraclofen+2,4-DB; nipyraclofen+2,4-DP; nipyraclofen+bifenox; nipyraclofen+ethametsulfuron; nipyraclofen+flamprop-M; nipyraclofen+imazamethabenz; nipyraclofen+ioxynil; nipyraclofen+bromoxynil; nipyraclofen+metosulam; nipyraclofen+pyridate; nipyraclofen+quinmerac; nipyraclofen+tralkoxydim; nipyraclofen+fluoroglycofen-ethyl; nipyraclofen+methabenzthiazuron; nipyraclofen+ethalfluralin; nipyraclofen+pendimethalin; nipyraclofen+trifluralin; nipyraclofen+isoxaben; nipyraclofen+prosulfocarb; nipyraclofen+triallate; nipyraclofen+clopyralid; nipyraclofen+fluroxypyr; nipyraclofen+benazolin-ethyl; nipyraclofen+difenzoquat; nipyraclofen+glyphosate; nipyraclofen+glufosinate; nipyraclofen+sulfosate; benzfendizone+triasulfuron; benzfendizone+prosulfuron; benzfendizone+clodinafop; benzfendizone+terbutryne; benzfendizone+amidosulfuron; benzfendizone+bromoxynil; benzfendizone+carfentrazone; benzfendizone+dicamba; benzfendizone+diclofop-methyl; benzfendizone+diflufenican; benzfendizone+ethoxysulfuron; benzfendizone+fenoxaprop(P-ethyl); benzfendizone+fentrazamide; benzfendizone+flazasulfuron; benzfendizone+florasulam; benzfendizone+fluazolate; benzfendizone+flucarbazone; benzfendizone+flufenacet; benzfendizone+flupyrsulfuron; benzfendizone+flurtamone; benzfendizone+iodosulfuron; benzfendizone+isoproturon; benzfendizone+chlortoluron; benzfendizone+MCPA; benzfendizone+MCPB; benzfendizone+mecoprop; benzfendizone+MCPP; benzfendizone+chlorsulfuron; benzfendizone+metsulfuron; benzfendizone+sulfosulfuron; benzfendizone+thifensulfuron; benzfendizone+tribenuron; benzfendizone+2,4-D; benzfendizone+2,4-DB; benzfendizone+2,4-DP; benzfendizone+bifenox; benzfendizone+ethametsulfuron; benzfendizone+flamprop-M; benzfendizone+imazamethabenz; benzfendizone+ioxynil; benzfendizone+bromoxynil; benzfendizone+metosulam; benzfendizone+pyridate; benzfendizone+quinmerac; benzfendizone+tralkoxydim; benzfendizone+fluoroglycofen-ethyl; benzfendizone+methabenzthiazuron; benzfendizone+ethalfluralin; benzfendizone+pendimethalin; benzfendizone+trifluralin; benzfendizone+isoxaben; benzfendizone+prosulfocarb; benzfendizone+triallate; benzfendizone+clopyralid; benzfendizone+fluroxypyr; benzfendizone+benazolin-ethyl; benzfendizone+difenzoquat; benzfendizone+glyphosate; benzfendizone+glufosinate; benzfendizone+sulfosate; thidiazimin+triasulfuron; thidiazimin+prosulfuron; thidiazimin+clodinafop; thidiazimin+terbutryne; thidiazimin+amidosulfuron; thidiazimin+bromoxynil; thidiazimin+carfentrazone; thidiazimin+dicamba; thidiazimin+diclofop-methyl; thidiazimin+diflufenican; thidiazimin+ethoxysulfuron; thidiazimin+fenoxaprop(P-ethyl); thidiazimin+fentrazamide; thidiazimin+flazasulfuron; thidiazimin+florasulam; thidiazimin+fluazolate; thidiazimin+flucarbazone; thidiazimin+flufenacet; thidiazimin+flupyrsulfuron; thidiazimin+flurtamone; thidiazimin+iodosulfuron; thidiazimin+isoproturon; thidiazimin+chlortoluron; thidiazimin+MCPA; thidiazimin+MCPB; thidiazimin+mecoprop; thidiazimin+MCPP; thidiazimin+chlorsulfuron; thidiazimin+metsulfuron; thidiazimin+sulfosulfuron; thidiazimin+thifensulfuron; thidiazimin+tribenuron; thidiazimin+2,4-D; thidiazimin+2,4-DB; thidiazimin +2,4-DP; thidiazimin+bifenox; thidiazimin+ethametsulfuron; thidiazimin+flamprop-M; thidiazimin+imazamethabenz; thidiazimin+ioxynil; thidiazimin+bromoxynil; thidiazimin+metosulam; thidiazimin+pyridate; thidiazimin+quinmerac; thidiazimin+tralkoxydim; thidiazimin+fluoroglycofen-ethyl; thidiazimin+methabenzthiazuron; thidiazimin+ethalfluralin; thidiazimin+pendimethalin; thidiazimin+trifluralin; thidiazimin+isoxaben; thidiazimin+prosulfocarb; thidiazimin+triallate; thidiazimin+clopyralid; thidiazimin+fluroxypyr; thidiazimin+benazolin-ethyl; thidiazimin+difenzoquat; thidiazimin+glyphosate; thidiazimin+glufosinate; and thidiazimin+sulfosate.

[0060] The following combinations of the compounds under a) with the co-herbicides under b) have been found to be very particularly effective synergistic compositions in crops of rice resistant to protoporphyrinogen oxidase inhibitors:

[0061] acifluorfen+pretilachlor; acifluorfen+cinosulfuron; acifluorfen+triasulfuron; acifluorfen+fenclorim; acifluorfen+clodinafop; acifluorfen+bensulfuron; acifluorfen+imazosulfuron; acifluorfen+pyrazosulfuron; acifluorfen+metsulfuron; acifluorfen+azimsulfuron; acifluorfen+halosulfuron; acifluorfen+esprocarb; acifluorfen+mefenacet; acifluorfen+molinate; acifluorfen+propanil; acifluorfen+pyrazolate; acifluorfen+cyhalofop; acifluorfen+fenoxaprop; acifluorfen+bispyribac; acifluorfen+pyriminobac; acifluorfen+cafenstrole; acifluorfen+oxadiargyl; acifluorfen+oxadiazon; acifluorfen+bromobutide; acifluorfen+MY-100; acifluorfen+dymron; acifluorfen+NB 061; acifluorfen+MK243; acifluorfen+HW-52; acifluorfen+AC 014; acifluorfen+compound of the formula D; acifluorfen+glyphosate; acifluorfen+glufosinate; acifluorfen+sulfosate; aclonifen+pretilachlor; aclonifen+cinosulfuron; aclonifen+triasulfuron; aclonifen+fenclorim; aclonifen+clodinafop; aclonifen+bensulfuron; aclonifen+imazosulfuron; aclonifen+pyrazosulfuron; aclonifen+metsulfuron; aclonifen+azimsulfuron; aclonifen+halosulfuron; aclonifen+esprocarb; aclonifen+mefenacet; aclonifen+molinate; aclonifen+propanil; aclonifen+pyrazolate; aclonifen+cyhalofop; aclonifen+fenoxaprop; aclonifen+bispyribac; aclonifen +pyriminobac; aclonifen+cafenstrole; aclonifen+oxadiargyl; aclonifen+oxadiazon; aclonifen+bromobutide; aclonifen+MY-100; aclonifen+dymron; aclonifen+NB 061; aclonifen+MK243; aclonifen+HW-52; aclonifen+AC 014; aclonifen+compound of the formula D; aclonifen+glyphosate; aclonifen+glufosinate; aclonifen+sulfosate; bifenox+pretilachlor; bifenox+cinosulfuron; bifenox+triasulfuron; bifenox+fenclorim; bifenox+clodinafop; bifenox+bensulfuron; bifenox+imazosulfuron; bifenox+pyrazosulfuron; bifenox+metsulfuron; bifenox+azimsulfuron; bifenox+halosulfuron; bifenox+esprocarb; bifenox+mefenacet; bifenox+molinate; bifenox+propanil; bifenox+pyrazolate; bifenox+cyhalofop; bifenox+fenoxaprop; bifenox+bispyribac; bifenox+pyriminobac; bifenox+cafenstrole; bifenox+oxadiargyl; bifenox+oxadiazon; bifenox+bromobutide; bifenox+MY-100; bifenox+dymron; bifenox+NB 061; bifenox+MK243; bifenox+HW-52; bifenox +AC 014; bifenox+compound of the formula D; bifenox+glyphosate; bifenox+glufosinate; bifenox+sulfosate; chlomitrofen+pretilachlor; chlomitrofen+cinosulfuron;

chlomitrofen+triasulfuron; chlomitrofen+fenclorim; chlomitrofen+clodinafop; chlomitrofen+bensulfuron; chlomitrofen+imazosulfuron; chlomitrofen+pyrazosulfuron; chlomitrofen+metsulfuron; chlomitrofen+azimsulfuron; chlomitrofen+halosulfuron; chlomitrofen+esprocarb; chlomitrofen+mefenacet; chlomitrofen+molinate; chlomitrofen +propanil; chlomitrofen+pyrazolate; chlomitrofen+cyhalofop; chlomitrofen+fenoxaprop; chlomitrofen+bispyribac; chlomitrofen+pyriminobac; chlomitrofen+cafenstrole; chlomitrofen+oxadiargyl; chlomitrofen+oxadiazon; chlomitrofen+bromobutide; chlomitrofen+MY-100; chlomitrofen+dymron; chlomitrofen+NB 061; chlomitrofen+MK243; chlomitrofen+HW-52; chlomitrofen+AC 014; chlomitrofen+compound of the formula D; chlomitrofen+glyphosate; chlomitrofen+glufosinate; chlomitrofen+sulfosate; ethoxyfen+pretilachlor; ethoxyfen+cinosulfuron; ethoxyfen+triasulfuron; ethoxyfen+fenclorim; ethoxyfen+clodinafop; ethoxyfen+bensulfuron; ethoxyfen+imazosulfuron; ethoxyfen+pyrazosulfuron; ethoxyfen+metsulfuron; ethoxyfen+azimsulfuron; ethoxyfen +halosulfuron; ethoxyfen+esprocarb; ethoxyfen+mefenacet; ethoxyfen+molinate; ethoxyfen+propanil; ethoxyfen+pyrazolate; ethoxyfen+cyhalofop; ethoxyfen+fenoxaprop; ethoxyfen+bispyribac; ethoxyfen+pyriminobac; ethoxyfen+cafenstrole; ethoxyfen+oxadiargyl; ethoxyfen+oxadiazon; ethoxyfen+bromobutide; ethoxyfen+MY-100; ethoxyfen+dymron; ethoxyfen+NB 061; ethoxyfen+MK243; ethoxyfen+HW-52; ethoxyfen+AC 014; ethoxyfen+compound of the formula D; ethoxyfen+glyphosate; ethoxyfen+glufosinate; ethoxyfen+sulfosate; fluoroglycofen+pretilachlor; fluoroglycofen +cinosulfuron; fluoroglycofen+triasulfuron; fluoroglycofen+fenclorim; fluoroglycofen+clodinafop; fluoroglycofen+bensulfuron; fluoroglycofen+imazosulfuron; fluoroglycofen+pyrazosulfuron; fluoroglycofen+metsulfuron; fluoroglycofen+azimsulfuron; fluoroglycofen +halosulfuron; fluoroglycofen+esprocarb; fluoroglycofen+mefenacet; fluoroglycofen+molinate; fluoroglycofen+propanil; fluoroglycofen+pyrazolate; fluoroglycofen+cyhalofop; fluoroglycofen+fenoxaprop; fluoroglycofen+bispyribac; fluoroglycofen+pyriminobac; fluoroglycofen+cafenstrole; fluoroglycofen+oxadiargyl; fluoroglycofen+oxadiazon; fluoroglycofen+bromobutide; fluoroglycofen+MY-100; fluoroglycofen+dymron; fluoroglycofen+NB 061; fluoroglycofen+MK243; fluoroglycofen+HW-52; fluoroglycofen+AC 014; fluoroglycofen+compound of the formula D; fluoroglycofen+glyphosate; fluoroglycofen+glufosinate; fluoroglycofen+sulfosate; fomesafen+pretilachlor; fomesafen+cinosulfuron; fomesafen+triasulfuron; fomesafen+fenclorim; fomesafen+clodinafop; fomesafen+bensulfuron; fomesafen+imazosulfuron; fomesafen+pyrazosulfuron; fomesafen+metsulfuron; fomesafen+azimsulfuron; fomesafen+halosulfuron; fomesafen+esprocarb; fomesafen+mefenacet; fomesafen+molinate; fomesafen+propanil; fomesafen+pyrazolate; fomesafen+cyhalofop; fomesafen+fenoxaprop; fomesafen+bispyribac; fomesafen+pyriminobac; fomesafen+cafenstrole; fomesafen+oxadiargyl; fomesafen+oxadiazon; fomesafen+bromobutide; fomesafen+MY-100; fomesafen+dymron; fomesafen+NB 061; fomesafen+MK243; fomesafen+HW-52; fomesafen+AC 014; fomesafen+compound of the formula D; fomesafen+glyphosate; fomesafen+glufosinate; fomesafen+sulfosate; lactofen+pretilachlor; lactofen+cinosulfuron; lactofen+triasulfuron; lactofen+fenclorim; lactofen+clodinafop; lactofen+bensulfuron; lactofen+imazosulfuron; lactofen+pyrazosulfuron; lactofen+metsulfuron; lactofen+azimsulfuron; lactofen+halosulfuron; lactofen+esprocarb; lactofen +mefenacet; lactofen+molinate; lactofen+propanil; lactofen+pyrazolate; lactofen+cyhalofop; lactofen+fenoxaprop; lactofen+bispyribac; lactofen+pyriminobac; lactofen+cafenstrole; lactofen+oxadiargyl; lactofen+oxadiazon; lactofen+bromobutide; lactofen+MY-100; lactofen+dymron; lactofen+NB 061; lactofen+MK243; lactofen+HW-52; lactofen+AC 014; lactofen+compound of the formula D; lactofen+glyphosate; lactofen+glufosinate; lactofen+sulfosate; oxyfluorfen+pretilachlor; oxyfluorfen+cinosulfuron; oxyfluorfen+triasulfuron; oxyfluorfen+fenclorim; oxyfluorfen+clodinafop; oxyfluorfen+bensulfuron; oxyfluorfen+imazosulfuron; oxyfluorfen+pyrazosulfuron; oxyfluorfen+metsulfuron; oxyfluorfen+azimsulfuron; oxyfluorfen+halosulfuron; oxyfluorfen+esprocarb; oxyfluorfen+mefenacet; oxyfluorfen+molinate; oxyfluorfen+propanil; oxyfluorfen+pyrazolate; oxyfluorfen+cyhalofop; oxyfluorfen+fenoxaprop; oxyfluorfen+bispyribac; oxyfluorfen+pyriminobac; oxyfluorfen+cafenstrole; oxyfluorfen+oxadiargyl; oxyfluorfen+oxadiazon; oxyfluorfen+bromobutide; oxyfluorfen+MY-100; oxyfluorfen+dymron; oxyfluorfen+NB 061; oxyfluorfen+MK243; oxyfluorfen+HW-52; oxyfluorfen+AC 014; oxyfluorfen+compound of the formula D; oxyfluorfen+glyphosate; oxyfluorfen+glufosinate; sulfosate; azafenidin+pretilachlor; azafenidin+cinosulfuron; azafenidin+triasulfuron; azafenidin+fenclorim; azafenidin+clodinafop; azafenidin+bensulfuron; azafenidin+imazosulfuron; azafenidin+pyrazosulfuron; azafenidin+metsulfuron; azafenidin+azimsulfuron; azafenidin+halosulfuron; azafenidin+esprocarb; azafenidin+mefenacet; azafenidin+molinate; azafenidin+propanil; azafenidin+pyrazolate; azafenidin +cyhalofop; azafenidin+fenoxaprop; azafenidin+bispyribac; azafenidin+pyriminobac; azafenidin+cafenstrole; azafenidin+oxadiargyl; azafenidin+oxadiazon; azafenidin+bromobutide; azafenidin+MY-100; azafenidin+dymron; azafenidin+NB 061; azafenidin+MK243; azafenidin+HW-52; azafenidin+AC 014; azafenidin+compound of the formula D; azafenidin+glyphosate; azafenidin+glufosinate; azafenidin+sulfosate; carfentrazone-ethyl+pretilachlor; carfentrazone-ethyl+cinosulfuron; carfentrazone-ethyl+triasulfuron; carfentrazone-ethyl+fenclorim; carfentrazone-ethyl+clodinafop; carfentrazone-ethyl+bensulfuron; carfentrazone-ethyl+imazosulfuron; carfentrazone-ethyl+pyrazosulfuron; carfentrazone-ethyl+metsulfuron; carfentrazone-ethyl+azimsulfuron; carfentrazone-ethyl +halosulfuron; carfentrazone-ethyl+esprocarb; carfentrazone-ethyl+mefenacet; carfentrazone-ethyl+molinate; carfentrazone-ethyl+propanil; carfentrazone-ethyl+pyrazolate; carfentrazone-ethyl+cyhalofop; carfentrazone-ethyl+fenoxaprop; carfentrazone-ethyl+bispyribac; carfentrazone-ethyl+pyriminobac; carfentrazone-ethyl+cafenstrole; carfentrazone-ethyl+oxadiargyl; carfentrazone-ethyl+oxadiazon; carfentrazone-ethyl+bromobutide; carfentrazone-ethyl+MY-100; carfentrazone-ethyl+dymron; carfentrazone -ethyl+NB 061; carfentrazone-ethyl+MK243; carfentrazone-ethyl+HW-52; carfentrazone-ethyl+AC 014; carfentrazone-ethyl+compound of the formula D; carfentrazone-ethyl+glyphosate; carfentrazone-ethyl+glufosinate; carfentrazone-ethyl+sulfosate; compound of the formula A+pretilachlor; compound of the formula A+cinosulfuron; compound of the formula A+triasulfuron; compound of the formula A+fenclorim; compound of the formula A+clodinafop; compound of the formula A+bensulfuron; compound of the formula A+imazosulfuron; compound of the formula

A+pyrazosulfuron; compound of the formula A+metsulfuron; compound of the formula A+azimsulfuron; compound of the formula A+halosulfuron; compound of the formula A+esprocarb; compound of the formula A+mefenacet; compound of the formula A+molinate; compound of the formula A+propanil; compound of the formula A+pyrazolate; compound of the formula A+cyhalofop; compound of the formula A+fenoxaprop; compound of the formula A+bispyribac; compound of the formula A+pyriminobac; compound of the formula A+cafenstrole; compound of the formula A+oxadiargyl; compound of the formula A+oxadiazon; compound of the formula A+bromobutide; compound of the formula A+MY-100; compound of the formula A+dymron; compound of the formula A+NB 061; compound of the formula A+MK243; compound of the formula A+HW-52; compound of the formula A+AC 014; compound of the formula A+compound of the formula D; compound of the formula A+glyphosate; compound of the formula A+glufosinate; compound of the formula A+sulfosate; cinidon-ethyl+pretilachlor; cinidon-ethyl+cinosulfuron; cinidon-ethyl+triasulfuron; cinidon-ethyl+fenclorim; cinidon-ethyl+clodinafop; cinidon-ethyl+bensulfuron; cinidon-ethyl+imazosulfuron; cinidon-ethyl+pyrazosulfuron; cinidon-ethyl+metsulfuron; cinidon-ethyl+azimsulfuron; cinidon-ethyl+halosulfuron; cinidon-ethyl+esprocarb; cinidon-ethyl+mefenacet; cinidon-ethyl+molinate; cinidon-ethyl+propanil; cinidon-ethyl+pyrazolate; cinidon-ethyl+cyhalofop; cinidon-ethyl +fenoxaprop; cinidon-ethyl+bispyribac; cinidon-ethyl+pyriminobac; cinidon-ethyl+cafenstrole; cinidon-ethyl+oxadiargyl; cinidon-ethyl+oxadiazon; cinidon-ethyl+bromobutide; cinidon-ethyl+MY-100; cinidon-ethyl+dymron; cinidon-ethyl+NB 061; cinidon-ethyl+MK243; cinidon-ethyl+HW-52; cinidon-ethyl+AC 014; cinidon-ethyl+compound of the formula D; cinidon-ethyl+glyphosate; cinidon-ethyl+glufosinate; cinidon-ethyl+sulfosate; flumiclorac-pentyl+pretilachlor; flumiclorac-pentyl+cinosulfuron; flumiclorac-pentyl+triasulfuron; flumiclorac-pentyl+fenclorim; flumiclorac-pentyl+clodinafop; flumiclorac-pentyl+bensulfuron; flumiclorac-pentyl+imazosulfuron; flumiclorac-pentyl+pyrazosulfuron; flumiclorac-pentyl+metsulfuron; flumiclorac-pentyl+azimsulfuron; flumiclorac-pentyl+halosulfuron; flumiclorac-pentyl+esprocarb; flumiclorac-pentyl+mefenacet; flumiclorac-pentyl+molinate; flumiclorac-pentyl+propanil; flumiclorac-pentyl+pyrazolate; flumiclorac-pentyl+cyhalofop; flumiclorac-pentyl+fenoxaprop; flumiclorac-pentyl+bispyribac; flumiclorac-pentyl+pyriminobac; flumiclorac-pentyl+cafenstrole; flumiclorac-pentyl+oxadiargyl; flumiclorac-pentyl+oxadiazon; flumiclorac-pentyl+bromobutide; flumiclorac-pentyl+MY-100; flumiclorac-pentyl+dymron; flumiclorac-pentyl+NB 061; flumiclorac-pentyl+MK243; flumiclorac-pentyl+HW-52; flumiclorac-pentyl+AC 014; flumiclorac-pentyl+compound of the formula D; flumiclorac-pentyl+glyphosate; flumiclorac-pentyl+glufosinate; flumiclorac-pentyl+sulfosate; flumioxazin+pretilachlor; flumioxazin+cinosulfuron; flumioxazin+triasulfuron; flumioxazin+fenclorim; flumioxazin+clodinafop; flumioxazin+bensulfuron; flumioxazin+imazosulfuron; flumioxazin+pyrazosulfuron; flumioxazin+metsulfuron; flumioxazin+azimsulfuron; flumioxazin+halosulfuron; flumioxazin+esprocarb; flumioxazin+mefenacet; flumioxazin+molinate; flumioxazin+propanil; flumioxazin+pyrazolate; flumioxazin+cyhalofop; flumioxazin+fenoxaprop; flumioxazin+bispyribac; flumioxazin+pyriminobac; flumioxazin+cafenstrole; flumioxazin+oxadiargyl; flumioxazin+oxadiazon; flumioxazin+bromobutide; flumioxazin+MY-100; flumioxazin+dymron; flumioxazin+NB 061; flumioxazin+MK243; flumioxazin+HW-52; flumioxazin+AC 014; flumioxazin+compound of the formula D; flumioxazin+glyphosate; flumioxazin+glufosinate; flumioxazin+sulfosate; fluthiacet-methyl+pretilachlor; fluthiacet-methyl+cinosulfuron; fluthiacet-methyl+triasulfuron; fluthiacet-methyl+fenclorim; fluthiacet-methyl+clodinafop; fluthiacet-methyl+bensulfuron; fluthiacet-methyl+imazosulfuron; fluthiacet-methyl+pyrazosulfuron; fluthiacet-methyl+metsulfuron; fluthiacet-methyl+azimsulfuron; fluthiacet-methyl+halosulfuron; fluthiacet-methyl+esprocarb; fluthiacet-methyl+mefenacet; fluthiacet-methyl+molinate; fluthiacet-methyl+propanil; fluthiacet-methyl+pyrazolate; fluthiacet-methyl+cyhalofop; fluthiacet-methyl+fenoxaprop; fluthiacet-methyl+bispyribac; fluthiacet-methyl+pyriminobac; fluthiacet-methyl+cafenstrole; fluthiacet-methyl+oxadiargyl; fluthiacet-methyl+oxadiazon; fluthiacet-methyl+bromobutide; fluthiacet-methyl+MY-100; fluthiacet-methyl+dymron; fluthiacet-methyl+NB 061; fluthiacet-methyl+MK243; fluthiacet-methyl+HW-52; fluthiacet-methyl+AC 014; fluthiacet-methyl+compound of the formula D; fluthiacet-methyl +glyphosate; fluthiacet-methyl+glufosinate; fluthiacet-methyl+sulfosate; oxadiargyl+pretilachlor; oxadiargyl+cinosulfuron; oxadiargyl+triasulfuron; oxadiargyl+fenclorim; oxadiargyl+clodinafop; oxadiargyl+bensulfuron; oxadiargyl+imazosulfuron; oxadiargyl+pyrazosulfuron; oxadiargyl+metsulfuron; oxadiargyl+azimsulfuron; oxadiargyl+halosulfuron; oxadiargyl+esprocarb; oxadiargyl+mefenacet; oxadiargyl+molinate; oxadiargyl+propanil; oxadiargyl+pyrazolate; oxadiargyl+cyhalofop; oxadiargyl+fenoxaprop; oxadiargyl+bispyribac; oxadiargyl+pyriminobac; oxadiargyl+cafenstrole; oxadiargyl+oxadiazon; oxadiargyl+bromobutide; oxadiargyl+MY-100; oxadiargyl+dymron; oxadiargyl+NB 061; oxadiargyl+MK243; oxadiargyl+HW-52; oxadiargyl+AC 014; oxadiargyl+compound of the formula D; oxadiargyl+glyphosate; oxadiargyl+glufosinate; oxadiargyl+sulfosate; oxadiazon+pretilachlor; oxadiazon+cinosulfuron; oxadiazon+triasulfuron; oxadiazon+fenclorim; oxadiazon+clodinafop; oxadiazon+bensulfuron; oxadiazon+imazosulfuron; oxadiazon+pyrazosulfuron; oxadiazon+metsulfuron; oxadiazon+azimsulfuron; oxadiazon+halosulfuron; oxadiazon+esprocarb; oxadiazon+mefenacet; oxadiazon+molinate; oxadiazon+propanil; oxadiazon+pyrazolate; oxadiazon+cyhalofop; oxadiazon+fenoxaprop; oxadiazon+bispyribac; oxadiazon+pyriminobac; oxadiazon+cafenstrole; oxadiazon+oxadiargyl; oxadiazon+bromobutide; oxadiazon+MY-100; oxadiazon+dymron; oxadiazon+NB 061; oxadiazon+MK243; oxadiazon+HW-52; oxadiazon+AC 014; oxadiazon+compound of the formula D; oxadiazon+glyphosate; oxadiazon+glufosinate; oxadiazon+sulfosate; pentoxazone+pretilachlor; pentoxazone+cinosulfuron; pentoxazone+triasulfuron; pentoxazone+fenclorim; pentoxazone+clodinafop; pentoxazone+bensulfuron; pentoxazone+imazosulfuron; pentoxazone+pyrazosulfuron; pentoxazone+metsulfuron; pentoxazone+azimsulfuron; pentoxazone+halosulfuron; pentoxazone+esprocarb; pentoxazone+mefenacet; pentoxazone+molinate; pentoxazone+propanil; pentoxazone+pyrazolate; pentoxazone+cyhalofop; pentoxazone+fenoxaprop; pentoxazone+bispyribac; pentoxazone+pyriminobac; pentoxazone+cafenstrole; pentoxazone+oxadiargyl; pentoxazone+oxadiazon; pentoxazone+

bromobutide; pentoxazone+MY-100; pentoxazone+dymron; pentoxazone+NB 061; pentoxazone+MK243; pentoxazone+HW-52; pentoxazone+AC 014; pentoxazone+compound of the formula D; pentoxazone+glyphosate; pentoxazone+glufosinate; pentoxazone+sulfosate; sulfentrazone+pretilachlor; sulfentrazone+cinosulfuron; sulfentrazone+triasulfuron; sulfentrazone+fenclorim; sulfentrazone+clodinafop; sulfentrazone+bensulfuron; sulfentrazone+imazosulfuron; sulfentrazone+pyrazosulfuron; sulfentrazone+metsulfuron; sulfentrazone +azimsulfuron; sulfentrazone+halosulfuron; sulfentrazone+esprocarb; sulfentrazone+mefenacet; sulfentrazone+molinate; sulfentrazone+propanil; sulfentrazone+pyrazolate; sulfentrazone+cyhalofop; sulfentrazone+fenoxaprop; sulfentrazone+bispyribac; sulfentrazone+pyriminobac; sulfentrazone+cafenstrole; sulfentrazone+oxadiargyl; sulfentrazone+oxadiazon; sulfentrazone+bromobutide; sulfentrazone+MY-100; sulfentrazone+dymron; sulfentrazone+NB 061; sulfentrazone+MK243; sulfentrazone+HW-52; sulfentrazone+AC 014; sulfentrazone+compound of the formula D; sulfentrazone +glyphosate; sulfentrazone+glufosinate; sulfentrazone+sulfosate; fluazolate+pretilachlor; fluazolate+cinosulfuron; fluazolate+triasulfuron; fluazolate+fenclorim; fluazolate+clodinafop; fluazolate+bensulfuron; fluazolate+imazosulfuron; fluazolate+pyrazosulfuron; fluazolate+metsulfuron; fluazolate+azimsulfuron; fluazolate+halosulfuron; fluazolate+esprocarb; fluazolate+mefenacet; fluazolate+molinate; fluazolate+propanil; fluazolate+pyrazolate; fluazolate+cyhalofop; fluazolate+fenoxaprop; fluazolate+bispyribac; fluazolate+pyriminobac; fluazolate+cafenstrole; fluazolate+oxadiargyl; fluazolate+oxadiazon; fluazolate+bromobutide; fluazolate+MY-100; fluazolate+dymron; fluazolate+NB 061; fluazolate+MK243; fluazolate+HW-52; fluazolate+AC 014; fluazolate+compound of the formula D; fluazolate+glyphosate; fluazolate+glufosinate; fluazolate+sulfosate; pyraflufen-ethyl+pretilachlor; pyraflufen-ethyl+cinosulfuron; pyraflufen-ethyl+triasulfuron; pyraflufen-ethyl+fenclorim; pyraflufen-ethyl+clodinafop; pyraflufen-ethyl+bensulfuron; pyraflufen-ethyl+imazosulfuron; pyraflufen-ethyl+pyrazosulfuron; pyraflufen-ethyl+metsulfuron; pyraflufen-ethyl+azimsulfuron; pyraflufen-ethyl+halosulfuron; pyraflufen-ethyl+esprocarb; pyraflufen-ethyl +mefenacet; pyraflufen-ethyl+molinate; pyraflufen-ethyl+propanil; pyraflufen-ethyl+pyrazolate; pyraflufen-ethyl+cyhalofop; pyraflufen-ethyl+fenoxaprop; pyraflufen-ethyl+bispyribac; pyraflufen-ethyl+pyriminobac; pyraflufen-ethyl+cafenstrole; pyraflufen-ethyl+oxadiargyl; pyraflufen-ethyl+oxadiazon; pyraflufen-ethyl+bromobutide; pyraflufen-ethyl+MY-100; pyraflufen-ethyl+dymron; pyraflufen-ethyl+NB 061; pyraflufen-ethyl+MK243; pyraflufen-ethyl+HW-52; pyraflufen-ethyl+AC 014; pyraflufen-ethyl+compound of the formula D; pyraflufen-ethyl+glyphosate; pyraflufen-ethyl+glufosinate; pyraflufen-ethyl+sulfosate; flumipropyn+pretilachlor; flumipropyn+cinosulfuron; flumipropyn+triasulfuron; flumipropyn+fenclorim; flumipropyn+clodinafop; flumipropyn+bensulfuron; flumipropyn+imazosulfuron; flumipropyn+pyrazosulfuron; flumipropyn+metsulfuron; flumipropyn+azimsulfuron; flumipropyn+halosulfuron; flumipropyn+esprocarb; flumipropyn+mefenacet; flumipropyn+molinate; flumipropyn+propanil; flumipropyn+pyrazolate; flumipropyn+cyhalofop; flumipropyn+fenoxaprop; flumipropyn+bispyribac; flumipropyn+pyriminobac; flumipropyn+cafenstrole; flumipropyn+oxadiargyl; flumipropyn+oxadiazon; flumipropyn+bromobutide; flumipropyn+MY-100; flumipropyn+dymron; flumipropyn+NB 061; flumipropyn+MK243; flumipropyn+HW-52; flumipropyn+AC 014; flumipropyn+compound of the formula D; flumipropyn+glyphosate; flumipropyn+glufosinate; flumipropyn+sulfosate; flupropacil+pretilachlor; flupropacil+cinosulfuron; flupropacil+triasulfuron; flupropacil+fenclorim; flupropacil+clodinafop; flupropacil+bensulfuron; flupropacil+imazosulfuron; flupropacil+pyrazosulfuron; flupropacil+metsulfuron; flupropacil+azimsulfuron; flupropacil+halosulfuron; flupropacil+esprocarb; flupropacil+mefenacet; flupropacil+molinate; flupropacil+propanil; flupropacil+pyrazolate; flupropacil +cyhalofop; flupropacil+fenoxaprop; flupropacil+bispyribac; flupropacil+pyriminobac; flupropacil+cafenstrole; flupropacil+oxadiargyl; flupropacil+oxadiazon; flupropacil+bromobutide; flupropacil+MY-100; flupropacil+dymron; flupropacil+NB 061; flupropacil+MK243; flupropacil+HW-52; flupropacil+AC 014; flupropacil+compound of the formula D; flupropacil+glyphosate; flupropacil+glufosinate; flupropacil+sulfosate; nipyraclofen+pretilachlor; nipyraclofen+cinosulfuron; nipyraclofen+triasulfuron; nipyraclofen+fenclorim; nipyraclofen+clodinafop; nipyraclofen+bensulfuron; nipyraclofen+imazosulfuron; nipyraclofen+pyrazosulfuron; nipyraclofen+metsulfuron; nipyraclofen+azimsulfuron; nipyraclofen+halosulfuron; nipyraclofen+esprocarb; nipyraclofen+mefenacet; nipyraclofen+molinate; nipyraclofen+propanil; nipyraclofen+pyrazolate; nipyraclofen+cyhalofop; nipyraclofen+fenoxaprop; nipyraclofen+bispyribac; nipyraclofen +pyriminobac; nipyraclofen+cafenstrole; nipyraclofen+oxadiargyl; nipyraclofen+oxadiazon; nipyraclofen+bromobutide; nipyraclofen+MY-100; nipyraclofen+dymron; nipyraclofen+NB 061; nipyraclofen+MK243; nipyraclofen+HW-52; nipyraclofen+AC 014; nipyraclofen+compound of the formula D; nipyraclofen+glyphosate; nipyraclofen+glufosinate; nipyraclofen+sulfosate; benzfendizone+pretilachlor; benzfendizone+cinosulfuron; benzfendizone+triasulfuron; benzfendizone+fenclorim; benzfendizone+clodinafop; benzfendizone+bensulfuron; benzfendizone+imazosulfuron; benzfendizone+pyrazosulfuron; benzfendizone+metsulfuron; benzfendizone+azimsulfuron; benzfendizone+halosulfuron; benzfendizone+esprocarb; benzfendizone+mefenacet; benzfendizone+molinate; benzfendizone+propanil; benzfendizone+pyrazolate; benzfendizone+cyhalofop; benzfendizone+fenoxaprop; benzfendizone+bispyribac; benzfendizone+pyriminobac; benzfendizone+cafenstrole; benzfendizone+oxadiargyl; benzfendizone+oxadiazon; benzfendizone+bromobutide; benzfendizone+MY-100; benzfendizone+dymron; benzfendizone+NB 061; benzfendizone+MK243; benzfendizone+HW-52; benzfendizone+AC 014; benzfendizone+compound of the formula D; benzfendizone+glyphosate; benzfendizone+glufosinate; benzfendizone+sulfosate; thidiazimin+pretilachlor; thidiazimin+cinosulfuron; thidiazimin+triasulfuron; thidiazimin+fenclorim; thidiazimin+clodinafop; thidiazimin+bensulfuron; thidiazimin+imazosulfuron; thidiazimin+pyrazosulfuron; thidiazimin+metsulfuron; thidiazimin+azimsulfuron; thidiazimin+halosulfuron; thidiazimin+esprocarb; thidiazimin+mefenacet; thidiazimin+molinate; thidiazimin+propanil; thidiazimin+pyrazolate; thidiazimin+cyhalofop; thidiazimin+fenoxaprop; thidiazimin+bispyribac; thidiazimin+pyriminobac; thidiazimin+cafenstrole; thidiazimin+oxadiargyl; thidiazimin+oxadiazon; thidiazimin+bromobutide; thidiazimin+MY-100; thidiazimin+dymron; thidiazimin+NB 061; thidiazimin +MK243; thidi-

azimin+HW-52; thidiazimin+AC 014; thidiazimin+compound of the formula D; thidiazimin+glyphosate; thidiazimin+glufosinate; and thidiazimin+sulfosate.

[0062] The following combinations of the compounds under a) with the co-herbicides under b) have been found to be very particularly effective synergistic compositions in crops of sugar cane resistant to protoporphyrinogen oxidase inhibitors:

[0063] acifluorfen+atrazine; acifluorfen+ametryn; acifluorfen+dicamba; acifluorfen+terbutryn; acifluorfen+prosulfuron; acifluorfen+hexazinone; acifluorfen+asulam; acifluorfen+diuron; acifluorfen+2,4-D; acifluorfen+halosulfuron; acifluorfen+flazasulfuron; acifluorfen +isoxaflutole; acifluorfen+azafenidin; acifluorfen+tebuthiuron; acifluorfen+sulcotrione; acifluorfen+pendimethalin; acifluorfen+clomazone; acifluorfen+metribuzin; acifluorfen+thiazopyr; acifluorfen+ethoxysulfuron; acifluorfen+compound of the formula C; acifluorfen +glyphosate; acifluorfen+glufosinate; acifluorfen+sulfosate; aclonifen+atrazine; aclonifen+ametryn; aclonifen+dicamba; aclonifen+terbutryn; aclonifen+prosulfuron; aclonifen+hexazinone; aclonifen+asulam; aclonifen+diuron; aclonifen+2,4-D; aclonifen +halosulfuron; aclonifen+flazasulfuron; aclonifen+isoxaflutole; aclonifen+azafenidin; aclonifen+tebuthiuron; aclonifen+sulcotrione; aclonifen+pendimethalin; aclonifen+clomazone; aclonifen+metribuzin; aclonifen+thiazopyr, aclonifen+ethoxysulfuron; aclonifen+compound of the formula C; aclonifen+glyphosate; aclonifen+glufosinate; aclonifen+sulfosate; bifenox+atrazine; bifenox+ametryn; bifenox+dicamba; bifenox+terbutryn; bifenox+prosulfuron; bifenox+hexazinone; bifenox+asulam; bifenox+diuron; bifenox+2,4-D; bifenox+halosulfuron; bifenox+flazasulfuron; bifenox+isoxaflutole; bifenox+azafenidin; bifenox+tebuthiuron; bifenox+sulcotrione; bifenox+pendimethalin; bifenox+clomazone; bifenox+metribuzin; bifenox+thiazopyr; bifenox+ethoxysulfuron; bifenox+compound of the formula C; bifenox+glyphosate; bifenox+glufosinate; bifenox +sulfosate; chlomitrofen+atrazine; chlomitrofen+ametryn; chlomitrofen+dicamba; chlomitrofen+terbutryn; chlomitrofen+prosulfuron; chlomitrofen+hexazinone; chlomitrofen+asulam; chlomitrofen+diuron; chlomitrofen+2,4-D; chlomitrofen+halosulfuron; chlomitrofen+flazasulfuron; chlomitrofen+isoxaflutole; chlomitrofen+azafenidin; chlomitrofen+tebuthiuron; chlomitrofen+sulcotrione; chlomitrofen+pendimethalin; chlomitrofen+clomazone; chlomitrofen+metribuzin; chlomitrofen+thiazopyr; chlomitrofen+ethoxysulfuron; chlomitrofen+compound of the formula C; chlomitrofen+glyphosate; chlomitrofen+glufosinate; chlomitrofen+sulfosate; ethoxyfen+atrazine; ethoxyfen+ametryn; ethoxyfen+dicamba; ethoxyfen+terbutryn; ethoxyfen+prosulfuron; ethoxyfen+hexazinone; ethoxyfen+asulam; ethoxyfen+diuron; ethoxyfen+2,4-D; ethoxyfen+halosulfuron; ethoxyfen+flazasulfuron; ethoxyfen+isoxaflutole; ethoxyfen+azafenidin; ethoxyfen+tebuthiuron; ethoxyfen+sulcotrione; ethoxyfen+pendimethalin; ethoxyfen+clomazone; ethoxyfen+metribuzin; ethoxyfen+thiazopyr; ethoxyfen+ethoxysulfuron; ethoxyfen+compound of the formula C; ethoxyfen+glyphosate; ethoxyfen+glufosinate; ethoxyfen+sulfosate; fluoroglycofen+atrazine; fluoroglycofen+ametryn; fluoroglycofen+dicamba; fluoroglycofen+terbutryn; fluoroglycofen+prosulfuron; fluoroglycofen+hexazinone; fluoroglycofen+asulam; fluoroglycofen+diuron; fluoroglycofen+2,4-D; fluoroglycofen+halosulfuron; fluoroglycofen+flazasulfuron; fluoroglycofen+isoxaflutole; fluoroglycofen+azafenidin; fluoroglycofen+tebuthiuron; fluoroglycofen+sulcotrione; fluoroglycofen+pendimethalin; fluoroglycofen+clomazone; fluoroglycofen+metribuzin; fluoroglycofen+thiazopyr; fluoroglycofen+ethoxysulfuron; fluoroglycofen+compound of the formula C; fluoroglycofen+glyphosate; fluoroglycofen+glufosinate; fluoroglycofen+sulfosate; fomesafen+atrazine; fomesafen+ametryn; fomesafen+dicamba; fomesafen+terbutryn; fomesafen+prosulfuron; fomesafen+hexazinone; fomesafen+asulam; fomesafen+diuron; fomesafen+2,4-D; fomesafen+halosulfuron; fomesafen+flazasulfuron; fomesafen+isoxaflutole; fomesafen+azafenidin; fomesafen+tebuthiuron; fomesafen+sulcotrione; fomesafen+pendimethalin; fomesafen+clomazone; fomesafen+metribuzin; fomesafen+thiazopyr; fomesafen+ethoxysulfuron; fomesafen+compound of the formula C; fomesafen+glyphosate; fomesafen+glufosinate; fomesafen+sulfosate; lactofen+atrazine; lactofen+ametryn; lactofen+dicamba; lactofen+terbutryn; lactofen+prosulfuron; lactofen+hexazinone; lactofen+asulam; lactofen+diuron; lactofen+2,4-D; lactofen+halosulfuron; lactofen+flazasulfuron; lactofen+isoxaflutole; lactofen+azafenidin; lactofen+tebuthiuron; lactofen+sulcotrione; lactofen+pendimethalin; lactofen +clomazone; lactofen+metribuzin; lactofen+thiazopyr; lactofen+ethoxysulfuron; lactofen +compound of the formula C; lactofen+glyphosate; lactofen+glufosinate; lactofen+sulfosate; oxyfluorfen+atrazine; oxyfluorfen+ametryn; oxyfluorfen+dicamba; oxyfluorfen +terbutryn; oxyfluorfen+prosulfuron; oxyfluorfen+hexazinone; oxyfluorfen+asulam; oxyfluorfen+diuron; oxyfluorfen+2,4-D; oxyfluorfen+halosulfuron; oxyfluorfen+flazasulfuron; oxyfluorfen+isoxaflutole; oxyfluorfen+azafenidin; oxyfluorfen+tebuthiuron; oxyfluorfen+sulcotrione; oxyfluorfen+pendimethalin; oxyfluorfen+clomazone; oxyfluorfen +metribuzin; oxyfluorfen+thiazopyr; oxyfluorfen+ethoxysulfuron; oxyfluorfen+compound of the formula C; oxyfluorfen+glyphosate; oxyfluorfen+glufosinate; oxyfluorfen+sulfosate; azafenidin+atrazine; azafenidin+ametryn; azafenidin+dicamba; azafenidin+terbutryn; azafenidin+prosulfuron; azafenidin+hexazinone; azafenidin+asulam; azafenidin+diuron; azafenidin+2,4-D; azafenidin+halosulfuron; azafenidin+flazasulfuron; azafenidin+isoxaflutole; azafenidin+tebuthiuron; azafenidin+sulcotrione; azafenidin+pendimethalin; azafenidin+clomazone; azafenidin+metribuzin; azafenidin+thiazopyr; azafenidin+ethoxysulfuron; azafenidin+compound of the formula C; azafenidin +glyphosate; azafenidin+glufosinate; azafenidin+sulfosate; carfentrazone-ethyl+atrazine; carfentrazone-ethyl+ametryn; carfentrazone-ethyl+dicamba; carfentrazone-ethyl +terbutryn; carfentrazone-ethyl+prosulfuron; carfentrazone-ethyl+hexazinone; carfentrazone-ethyl+asulam; carfentrazone-ethyl+diuron; carfentrazone-ethyl+2,4-D; carfentrazone-ethyl+halosulfuron; carfentrazone-ethyl+flazasulfuron; carfentrazone-ethyl +isoxaflutole; carfentrazone-ethyl+azafenidin; carfentrazone-ethyl+tebuthiuron; carfentrazone-ethyl+sulcotrione; carfentrazone-ethyl+pendimethalin; carfentrazone-ethyl +clomazone; carfentrazone-ethyl+metribuzin; carfentrazone-ethyl+thiazopyr; carfentrazone-ethyl+ethoxysulfuron; carfentrazone-ethyl+compound of the formula C; carfentrazone-ethyl+glyphosate; carfentrazone-ethyl+glufosinate; carfentrazone-ethyl+sulfosate; compound of the formula A+atrazine; compound of the formula A+ametryn; compound of the formula A+dicamba; compound of the formula A+terbutryn; compound of the

formula A+prosulfuron; compound of the formula A+hexazinone; compound of the formula A+asulam; compound of the formula A+diuron; compound of the formula A+2,4-D; compound of the formula A+halosulfuron; compound of the formula A+flazasulfuron; compound of the formula A+isoxaflutole; compound of the formula A+azafenidin; compound of the formula A+tebuthiuron; compound of the formula A+sulcotrione; compound of the formula A+pendimethalin; compound of the formula A+clomazone; compound of the formula A+metribuzin; compound of the formula A+thiazopyr; compound of the formula A+ethoxysulfuron; compound of the formula A+compound of the formula C; compound of the formula A+glyphosate; compound of the formula A+glufosinate; compound of the formula A+sulfosate; cinidon-ethyl+atrazine; cinidon-ethyl+ametryn; cinidon-ethyl+dicamba; cinidon-ethyl+terbutryn; cinidon-ethyl+prosulfuron; cinidon-ethyl+hexazinone; cinidon-ethyl+asulam; cinidon-ethyl+diuron; cinidon-ethyl+2,4-D; cinidon-ethyl+halosulfuron; cinidon-ethyl+flazasulfuron; cinidon-ethyl+isoxaflutole; cinidon-ethyl+azafenidin; cinidon-ethyl+tebuthiuron; cinidon-ethyl+sulcotrione; cinidon-ethyl+pendimethalin; cinidon-ethyl+clomazone; cinidon-ethyl+metribuzin; cinidon-ethyl+thiazopyr; cinidon-ethyl+ethoxysulfuron; cinidon-ethyl+compound of the formula C; cinidon-ethyl+glyphosate; cinidon-ethyl+glufosinate; cinidon-ethyl+sulfosate; flumiclorac-pentyl+atrazine; flumiclorac-pentyl+ametryn; flumiclorac-pentyl+dicamba; flumiclorac-pentyl+terbutryn; flumiclorac-pentyl+prosulfuron; flumiclorac-pentyl+hexazinone; flumiclorac-pentyl+asulam; flumiclorac-pentyl+diuron; flumiclorac-pentyl+2,4-D; flumiclorac-pentyl+halosulfuron; flumiclorac-pentyl+flazasulfuron; flumiclorac-pentyl+isoxaflutole; flumiclorac-pentyl+azafenidin; flumiclorac-pentyl+tebuthiuron; flumiclorac-pentyl+sulcotrione; flumiclorac-pentyl+pendimethalin; flumiclorac-pentyl+clomazone; flumiclorac-pentyl+metribuzin; flumiclorac-pentyl+thiazopyr; flumiclorac-pentyl+ethoxysulfuron; flumiclorac-pentyl+compound of the formula C; flumiclorac-pentyl+glyphosate; flumiclorac-pentyl+glufosinate; flumiclorac-pentyl+sulfosate; flumioxazin+atrazine; flumioxazin+ametryn; flumioxazin+dicamba; flumioxazin +terbutryn; flumioxazin+prosulfuron; flumioxazin+hexazinone; flumioxazin+asulam; flumioxazin+diuron; flumioxazin+2,4-D; flumioxazin+halosulfuron; flumioxazin+flazasulfuron; flumioxazin+isoxaflutole; flumioxazin+azafenidin; flumioxazin+tebuthiuron; flumioxazin+sulcotrione; flumioxazin+pendimethalin; flumioxazin+clomazone; flumioxazin+metribuzin; flumioxazin+thiazopyr; flumioxazin+ethoxysulfuron; flumioxazin +compound of the formula C; flumioxazin+glyphosate; flumioxazin+glufosinate; flumioxazin+sulfosate; fluthiacet-methyl+atrazine; fluthiacet-methyl+ametryn; fluthiacet-methyl+dicamba; fluthiacet-methyl+terbutryn; fluthiacet-methyl+prosulfuron; fluthiacet-methyl+hexazinone; fluthiacet-methyl+asulam; fluthiacet-methyl+diuron; fluthiacet-methyl+2,4-D; fluthiacet-methyl+halosulfuron; fluthiacet-methyl+flazasulfuron; fluthiacet-methyl+isoxaflutole; fluthiacet-methyl+azafenidin; fluthiacet-methyl+tebuthiuron; fluthiacet-methyl+sulcotrione; fluthiacet-methyl+pendimethalin; fluthiacet-methyl+clomazone; fluthiacet-methyl+metribuzin; fluthiacet-methyl+thiazopyr; fluthiacet-methyl+ethoxysulfuron; fluthiacet-methyl+compound of the formula C; fluthiacet-methyl+glyphosate; fluthiacet-methyl+glufosinate; fluthiacet-methyl+sulfosate; oxadiargyl+atrazine; oxadiargyl+ametryn; oxadiargyl+dicamba; oxadiargyl+terbutryn; oxadiargyl+prosulfuron; oxadiargyl+hexazinone; oxadiargyl+asulam; oxadiargyl+diuron; oxadiargyl +2,4-D; oxadiargyl+halosulfuron; oxadiargyl+flazasulfuron; oxadiargyl+isoxaflutole; oxadiargyl+azafenidin; oxadiargyl+tebuthiuron; oxadiargyl+sulcotrione; oxadiargyl+pendimethalin; oxadiargyl+clomazone; oxadiargyl+metribuzin; oxadiargyl+thiazopyr; oxadiargyl+ethoxysulfuron; oxadiargyl+compound of the formula C; oxadiargyl+glyphosate; oxadiargyl+glufosinate; oxadiargyl+sulfosate; oxadiazon+atrazine; oxadiazon+ametryn; oxadiazon+dicamba; oxadiazon+terbutryn; oxadiazon+prosulfuron; oxadiazon+hexazinone; oxadiazon+asulam; oxadiazon+diuron; oxadiazon +2,4-D; oxadiazon+halosulfuron; oxadiazon+flazasulfuron; oxadiazon+isoxaflutole; oxadiazon+azafenidin; oxadiazon+tebuthiuron; oxadiazon+sulcotrione; oxadiazon+pendimethalin; oxadiazon+clomazone; oxadiazon+metribuzin; oxadiazon+thiazopyr; oxadiazon+ethoxysulfuron; oxadiazon+compound of the formula C; oxadiazon+glyphosate; oxadiazon+glufosinate; oxadiazon+sulfosate; pentoxazone+atrazine; pentoxazone+ametryn; pentoxazone+dicamba; pentoxazone+terbutryn; pentoxazone+prosulfuron; pentoxazone+hexazinone; pentoxazone+asulam; pentoxazone+diuron; pentoxazone+2,4-D; pentoxazone+halosulfuron; pentoxazone+flazasulfuron; pentoxazone+isoxaflutole; pentoxazone+azafenidin; pentoxazone+tebuthiuron; pentoxazone+sulcotrione; pentoxazone+pendimethalin; pentoxazone+clomazone; pentoxazone+metribuzin; pentoxazone+thiazopyr, pentoxazone+ethoxysulfuron; pentoxazone+compound of the formula C; pentoxazone+glyphosate; pentoxazone+glufosinate; pentoxazone+sulfosate; sulfentrazone+atrazine; sulfentrazone+ametryn; sulfentrazone+dicamba; sulfentrazone+terbutryn; sulfentrazone+prosulfuron; sulfentrazone+hexazinone; sulfentrazone+asulam; sulfentrazone+diuron; sulfentrazone +2,4-D; sulfentrazone+halosulfuron; sulfentrazone+flazasulfuron; sulfentrazone+isoxaflutole; sulfentrazone+azafenidin; sulfentrazone+tebuthiuron; sulfentrazone+sulcotrione; sulfentrazone+pendimethalin; sulfentrazone+clomazone; sulfentrazone+metribuzin; sulfentrazone+thiazopyr; sulfentrazone+ethoxysulfuron; sulfentrazone+compound of the formula C; sulfentrazone+glyphosate; sulfentrazone+glufosinate; sulfentrazone+sulfosate; fluazolate+atrazine; fluazolate+ametryn; fluazolate+dicamba; fluazolate+terbutryn; fluazolate+prosulfuron; fluazolate+hexazinone; fluazolate+asulam; fluazolate+diuron; fluazolate+2,4-D; fluazolate+halosulfuron; fluazolate+flazasulfuron; fluazolate+isoxaflutole; fluazolate+azafenidin; fluazolate+tebuthiuron; fluazolate+sulcotrione; fluazolate+pendimethalin; fluazolate+clomazone; fluazolate+metribuzin; fluazolate+thiazopyr; fluazolate+ethoxysulfuron; fluazolate+compound of the formula C; fluazolate+glyphosate; fluazolate+glufosinate; fluazolate+sulfosate; pyraflufen-ethyl+atrazine; pyraflufen-ethyl+ametryn; pyraflufen-ethyl+dicamba; pyraflufen-ethyl+terbutryn; pyraflufen-ethyl+prosulfuron; pyraflufen-ethyl+hexazinone; pyraflufen-ethyl+asulam; pyraflufen-ethyl+diuron; pyraflufen-ethyl+2,4-D; pyraflufen-ethyl halosulfuron; pyraflufen-ethyl+flazasulfuron; pyraflufen-ethyl+Isoxaflutole; pyraflufen-ethyl+azafenidin; pyraflufen-ethyl+tebuthiuron; pyraflufen-ethyl+sulcotrione; pyraflufen-ethyl+pendimethalin; pyraflufen-ethyl+clomazone; pyraflufen-ethyl+metribuzin; pyraflufen-ethyl+thiazopyr; pyraflufen-ethyl+ethoxysulfuron; pyraflufen-ethyl+compound of the formula

C; pyraflufen-ethyl+glyphosate; pyraflufen-ethyl+glufosinate; pyraflufen-ethyl+sulfosate; flumipropyn+atrazine; flumipropyn+ametryn; flumipropyn+dicamba; flumipropyn+terbutryn; flumipropyn+prosulfuron; flumipropyn+hexazinone, flumipropyn+asulam; flumipropyn+diuron; flumipropyn+2,4-D; flumipropyn+halosulfuron; flumipropyn+flazasulfuron; flumipropyn+isoxaflutole; flumipropyn+azafenidin; flumipropyn+tebuthiuron; flumipropyn+sulcotrione; flumipropyn+pendimethalin; flumipropyn+clomazone; flumipropyn+metribuzin; flumipropyn+thiazopyr; flumipropyn+ethoxysulfuron; flumipropyn+compound of the formula C; flumipropyn+glyphosate; flumipropyn+glufosinate; flumipropyn+sulfosate; flupropacil+atrazine; flupropacil+ametryn; flupropacil+dicamba; flupropacil+terbutryn; flupropacil+prosulfuron; flupropacil+hexazinone; flupropacil+asulam; flupropacil+diuron; flupropacil +2,4-D; flupropacil+halosulfuron; flupropacil+flazasulfuron; flupropacil+isoxaflutole; flupropacil+azafenidin; flupropacil+tebuthiuron; flupropacil+sulcotrione; flupropacil+pendimethalin; flupropacil+clomazone; flupropacil+metribuzin; flupropacil+thiazopyr; flupropacil+ethoxysulfuron; flupropacil+compound of the formula C; flupropacil+glyphosate; flupropacil+glufosinate; flupropacil+sulfosate; nipyraclofen+atrazine; nipyraclofen+ametryn; nipyraclofen+dicamba; nipyraclofen+terbutryn; nipyraclofen+prosulfuron; nipyraclofen+hexazinone; nipyraclofen+asulam; nipyraclofen+diuron; nipyraclofen+2,4-D; nipyraclofen+halosulfuron; nipyraclofen+flazasulfuron; nipyraclofen +isoxaflutole; nipyraclofen+azafenidin; nipyraclofen+tebuthiuron; nipyraclofen+sulcotrione; nipyraclofen+pendimethalin; nipyraclofen+clomazone; nipyraclofen+metribuzin; nipyraclofen+thiazopyr; nipyraclofen+ethoxysulfuron; nipyraclofen+compound of the formula C; nipyraclofen+glyphosate; nipyraclofen+glufosinate; nipyraclofen+sulfosate; benzfendizone+atrazine; benzfendizone+ametryn; benzfendizone+dicamba; benzfendizone+terbutryn; benzfendizone+prosulfuron; benzfendizone+hexazinone; benzfendizone+asulam; benzfendizone+diuron; benzfendizone+2,4-D; benzfendizone+halosulfuron; benzfendizone+flazasulfuron; benzfendizone+isoxaflutole; benzfendizone+azafenidin; benzfendizone+tebuthiuron; benzfendizone+sulcotrione; benzfendizone+pendimethalin; benzfendizone+clomazone; benzfendizone+metribuzin; benzfendizone+thiazopyr; benzfendizone+ethoxysulfuron; benzfendizone+compound of the formula C; benzfendizone+glyphosate; benzfendizone +glufosinate; benzfendizone+sulfosate; thidiazimin+atrazine; thidiazimin+ametryn; thidiazimin+dicamba; thidiazimin+terbutryn; thidiazimin+prosulfuron; thidiazimin+hexazinone; thidiazimin+asulam; thidiazimin+diuron; thidiazimin+2,4-D; thidiazimin+halosulfuron; thidiazimin+flazasulfuron; thidiazimin+isoxaflutole; thidiazimin+azafenidin; thidiazimin+tebuthiuron; thidiazimin+sulcotrione; thidiazimin+pendimethalin; thidiazimin +clomazone; thidiazimin+metribuzin; thidiazimin+thiazopyr; thidiazimin+ethoxysulfuron; thidiazimin+compound of the formula C; thidiazimin+glyphosate; thidiazimin+glufosinate; and thidiazimin+sulfosate.

[**0064**] The application rate may vary within wide ranges and depends on the soil properties, the type of application (pre- or postemergent; seed dressing; application in a seed farrow, no tillage application, etc.), the crop plant, the weed to be controlled, the climatic conditions prevailing in each case and other factors determined by the type and the time of application and the target crop. In general, the active compound mixture according to the invention can be used with an application rate of from 1 to 5000 g/ha, in particular from 1 to 2000 g/ha, of active compound mixture.

[**0065**] The composition according to the invention comprises the protoporphyrinogen oxidase inhibitor a) and the pesticide under b) in any mixing ratio, usually with an excess of one component over the other. Preferred mixing ratios of active compound a) and the pesticides under b) are between 1:2000 and 2000:1, in particular between 1:200 and 200:1.

[**0066**] It may be advantageous for the herbicidal compositions according to the invention to additionally comprise one or more fungicides as further active compounds. Herbicide mixture and fungicide(s) can be applied, it appropriate, simultaneously or successively. Particularly preferred fungicidally active mixing partners are, for example, azoles such as azaconazole, bitertanol, propiconazole, difenoconazole, diniconazole, cyproconazole, epoxiconazole, fluquinconazole, flusilazole, flutriafol, hexaconazole, imazalil, imibenconazole, ipconazole, tebuconazole, tetraconazole, fenbuconazole, metconazole, myclobutanil, perfurazoate, penconazole, bromuconazole, pyrifenox, prochloraz, triadimefon, triadimenol, triflumizole or triticonazole; pyrimidinyl carbinols such as ancymidol, fenarimol or nuarimol; 2-amino-pyrimidines such as bupirimate, dimethirimol or ethirimol; morpholines, such as dodemorph, fenpropidin, fenpropimorph, spiroxamine or tridemorph; anilinopyrimidines such as cyprodinil, pyrimethanil or mepanipyrim; pyrroles, such as fenpiclonil or fludioxonil; phenylamides, such as benalaxyl, furalaxyl, metalaxyl, R-metalaxyl, ofurace or oxadixyl; benzimidazoles, such as benomyl, carbendazim, debacarb, fuberidazole or thiabendazole; dicarboximides, such as chlozolinate, dichlozoline, iprodine, myclozoline, procymidone or vinclozolin; carboxamides, such as carboxin, fenfuram, flutolanil, mepronil, oxycarboxin or thifluzamide; guanidines, such as guazatine, dodine or iminoctadine; strobilurins, such as azoxystrobin, kresoxim-methyl, metominostrobin, SSF-129, methyl 2-[(2-trifluoromethyl)-pyrid-6-yloxymethyl]-3-methoxyacrylate or methyl 2-[α{[(α-methyl-3-trifluormethylbenzyl)imino]-oxy}-o-tolyl]glyoxylate O-methyl oxime (trifloxystrobin); dithiocarbamates, such as ferbam, mancozeb, maneb, metiram, propineb, thiram, zineb or ziram; N-halomethylthiodicarboximides, such as captafol, captan, dichlofluanid, fluoromide, folpet or tolyfluanid; copper compounds, such as Bordeaux mixture, copper hydroxide, copper oxychloride, copper sulphate, copper oxide, mancopper or oxine copper; nitrophenol derivates, such as dinocap or nitrothal-isopropyl; organophosphorous derivatives, such as edifenphos, iprobenphos, isoprothiolane, phosdiphen, pyrazophos or toclofos-methyl; and other compounds, for example acibenzolar-S-methyl, anilazine, blasticidin-S, chinomethionat, chloroneb, chlorothalonil, cymoxanil, dichlone, diclomezine, dicloran, diethofencarb, dimethomorph, dithianon, etridiazole, famoxadone, fenamidone, fentin, ferimzone, fluazinam, flusulfamide, fenhexamide, fesetyl-aluminium, hymexazol, kasuga-mycin, methasulfocarb, pencycuron, phthalide, polyoxins, probenazole, propamocarb, pyroquilon, quinoxyfen, quintozene, sulphur, triazoxide, tricyclazole, triforine, validamycin, (S)-5-methyl-2-methylthio-5-phenyl-3-phenylamino-3,5-dihydroimidazol-4-one (RPA 407213), 3,5-dichloro-N-(3-chloro-1-ethyl-1-methyl-2-oxopropyl)-4-methylbenzamide (RH-7281), N-allyl-4,5-dimethyl-2-trimethylsilylthiophene-3-carboxamide (MON

65500), 4-chloro-4-cyano-N,N-dimethyl-5-p-tolylimidazole-1-sulfonamide (IKF-916), N-(1-cyano-1,2-dimethylpropyl)-2-(2,4-dichlorophenoxy)propionamide (AC 382042), or iprovalicarb (SZX 722).

[0067] Preference is given to mixtures of the compound of the formula A with each individual of the aforementioned fungicides. Preference is likewise given to a herbicidal composition comprising a herbicide a) which inhibits the action of protoporphyrinogen oxidases and, as further component(s) b), one or more other co-herbicides and also one or more fungicides; particular preference is given to a composition which, in addition to the protoporphyrinogen oxidase inhibitor a), comprises one or more further co-herbicides and, if appropriate, one or more further fungicides; in particular to a composition which comprises the compound of the formula A and one further co-herbicide and one fungicide.

[0068] It may furthermore be advantageous for the herbicidal compositions according to the invention to comprise additionally one or more pesticides which are active against insects and representatives of the order Acarina as further active compounds b). Herbicide mixture and insecticide(s)/acaricide(s) can be applied, if appropriate, simultaneously or successively. Insecticides/acaricides which are suitable for this purpose are, for example: azamethiphos; chlorfenvinphos; cypermethrin, cypermethrin high-cis; cyromazin; diafenthiuron; diazinon; dichlorvos; dicrotophos; dicyclanil; fenoxycarb; fluazuron; furathiocarb; isazofos; jodfenphos; kinoprene; lufenuron; methacriphos; methidathion; monocrotophos; phosphamidon; profenofos; diofenolan; a substance obtainable from the Bacillus thuringiensis strain GC91 or from NCTC11821; pymetrozine; bromopropylate; methoprene; disulfuton; quinalphos; tau-fluvalinat; thiocyclam; thiometon; aldicarb; azinphos-methyl; benturacarb; bifenthrin; buprofezin; carbofuran; dibutylaminothio; cartap; chlorfluazuron; chlorpyrifos; cyfluthrin; lambda-cy-halothrin; alpha-cypermethrin; zeta-cypermethrin; deltamethrin; diflubenzuron; endosulfan; ethiofencarb; fenitrothion; fenobucarb; fenvalerate; formothion; methiocarb; heptenophos; imidacloprid; isoprocarb; methamidophos; methomyl; mevinphos; parathion; parathion-methyl; phosalone; pirimicarb; propoxur; teflubenzuron; terbufos; triazamate; abamectin; fenobucarb; tebufenozide; fipronil; beta-cyfluthrin; silafluofen; fenpyroximate; pyridaben; fenazaquin; priproxyfen; pyrimidifen; nitenpyram; NI-25, acetamiprid; avermectin B_1 (abamectin); an insect-active extract from a plant; a preparation comprising insect-active nematodes; a preparation obtainable from *Bacillus subtilis;* a preparation comprising insect-active fungi; a preparation comprising insect-active viruses; AC 303 630; acephat; acrinathrin; alanycarb; alphamethrin; amitraz; AZ 60541; azinphos A; azinphos M; azocyclotin; bendiocarb; bensultap; betacyfluthrin; BPMC; brofenprox; bromophos A; bufencarb; butocarboxin; butylpyridaben; cadusafos; carbaryl; carbopheno-thion; chloethocarb; chlorethoxyfos; chlormephos; cis-resmethrin; clocythrin; clofentezin; cyanophos; cycloprothrin; cyhexatin; demeton M; demeton S; demeton-S-methyl; dichlofenthion; dicliphos; diethion; dimethoate; dimethylvinphos; dioxathion; edifenphos; emamectin; esfenvalerate; ethion; ethofenprox; ethoprophos; etrimphos; fenamiphos; fenbutatinoxid; fenothiocarb; fenpropathrin; fenpyrad; tenthion, fluazinam; flucycioxuron; flucythrinate; flufenoxuron; flufenprox; tonophos; fosthiazat; fubfenprox; HCH; hexatlumuron; hexythiazox; iprobenfos; isofenphos; isoxathion; ivermectin; lambda-cyhalothrin; malathion; mecarbam; mesulfenphos; metaldehyde; metolcarb; milbemectin; moxidectin; naled; NC 184; omethoate; oxamyl; oxydemethon M; oxydeprofos; permethrin; phenthoate; phorate; phosmet; phoxim; pirimiphos M; pirimiphos A; promecarb; propaphos; prothiofos; prothoate; pyrachlophos; pyrada-phenthion; pyresmethrin; pyrethrum; RH 5992; salithion; sebufos; sulfotep; sulprofos; tebufenpyrad; tebupirimphos; tefluthrin; temephos; terbam; tetrachlor-vinphos; thiacloprid; thiamethoxam; thiafenox; thiodicarb; thiofanox; thionazin; thuringiensin; tralomethrin; triarthen; triazophos; triazuron; trichlorfon; triflumuron; trimethacarb; vamidothion; xylylcarb; YI 5301/5302; zetamethrin; DPX-MP062; RH-2485; D 2341 and XMC (3,5-xylyl methylcarbamate).

[0069] Preference is given to mixtures of the compound of the formula A with each individual of the abovementioned insecticides/acaricides. Preference is likewise given to a herbicidal composition comprising a herbicide a) which inhibits the action of protoporphyrinogen oxidases and as further component(s) b) one or more further co-herbicides and, if appropriate, one or more insecticide(s)/acaricide(s); particular preference is given to a composition which, in addition to the protoporphyrinogen oxidase inhibitor, comprises one further co-herbicide and one further insecticide/acaricide, in particular to a composition which comprises a compound of the formula A and one further co-herbicide and one insecticide/acaracide.

[0070] The invention also relates to a method for the selective control of broad-leaved weeds and grasses in crops of useful plants resistant to protoporphyrinogen oxidase inhibitors which comprises treating the useful plants, their seeds or seedlings or the area under cultivation simultaneously or separately with a herbicide-synergistically effective amount of the herbicide a), at least one further pesticide b), and, if appropriate, a herbicide-antagonistically effective amount of the safener c).

[0071] Preference is given to a method which is characterized in that, for controlling undesirable vegetation, a herbicide a) and at least one further co-herbicide is used on useful plants resistant to protoporphyrinogen oxidase inhibitors or on the surroundings of these useful plants, or, for controlling fungal attack, one or more fungicide(s) are used on useful plants resistant to protoporphyrinogen oxidase inhibitors or on the surroundings of these useful plants, or, for controlling animal pests, one or more insecticide(s)/acaracide(s) are used on useful plants resistant to protoporphyrinogen oxidase inhibitors or the surroundings of these useful plants, or, for controlling fungal attack and for controlling animal pests, one or more fungicide(s) and one or more insecticide(s)/acaracide(s), jointly or successively are used on useful plants resistant to protoporphyrinogen oxidase inhibitors or the surroundings of these useful plants. Suitable herbicides a), co-herbicides, fungicides and insecticides/acaracides b) are the same active compounds as listed above.

[0072] Preference is likewise given to a method characterized in that a herbicide a) is used on useful plants resistant to protoporphyrinogen oxidase inhibitors or on the surroundings of these useful plants, and, jointly with the herbicide a) or at a later point in time, a further co-herbicide and/or fungicide and/or insecticide/acaracide or, if appropriate, a

mixture of such substances is used. Suitable herbicides a), co-herbicides, fungicides and insecticides/acaracides are the same active compounds as listed above

[0073] A further aspect of the present invention is a method for protecting seed of plants resistant to protoporphyrinogen oxidase inhibitors, characterized in that a composition comprising one or more fungicide(s) and/or one or more insecticide(s)/acaracide(s) is applied to the seed. The seed treated in this manner is protected in an optimum manner against attack by fungi and soil insects, in particular in the early phase of plant growth. The invention furthermore provides the seed treated in this manner. Suitable fungicides and/or insecticides/acaracides are the same active compounds as mentioned above.

[0074] The mixtures of the protoporphyrinogen oxidase inhibitors a) with the co-herbicides b) can be employed in unmodified form, i.e. as obtained in the synthesis. However, they are preferably processed in a conventional manner using auxiliaries customary in formulation technique, such as solvents, solid carriers or surfactants, for example to emulsifiable concentrates, directly sprayable or dilutable solutions, diluted emulsions, wettable powders, soluble powders, dusts, granules or microcapsules. The application methods, such as spraying, atomizing, dusting, wetting, scattering or watering, like the type of composition, are chosen according to the targets and the prevailing conditions.

[0075] The formulations, i.e. the compositions, preparations or combinations comprising the protoporphyrinogen oxidase inhibitors a) and the co-herbicides b) and, if appropriate, one or more solid or liquid formulation auxiliaries, are prepared in a manner known per se, for example by intimately mixing and/or grinding the active compounds with the formulation auxilaries, for example solvents or solid carriers. Furthermore, surface-active compounds (surfactants) may additionally be used in the preparation of the formulations.

[0076] Examples of solvents and solid carriers are given, for example, in WO 97/34485, on page 6.

[0077] Suitable surface-active compounds are, depending on the nature of the active compounds under a) and b) to be formulated, nonionic, cationic and/or anionic surfactants and surfactant mixtures having good emulsifying, dispersing and wetting properties.

[0078] Examples of suitable anionic, nonionic and cationic surfactants are listed, for example, in WO 97/34485, on pages 7 and 8.

[0079] The surfactants conventionally used in the art of formulation and which can also be used in the preparation of the herbicidal compositions according to the invention are described, inter alia, in "McCutcheon's Detergents and Emulsifiers Annual" MC Publishing Corp., Ridgewood, N.J., 1981, Stache, H., "Tensid-Taschenbuch"[Surfactant Handbook], Carl Hanser Verlag, Münich/Vienna, 1981 and M. and J. Ash, "Encyclopedia of Surfactants", Vol I-III, Chemical Publishing Co., New York, 1980-81.

[0080] The herbicidal formulations generally comprise 0.1 to 99% by weight, in particular 0.1 to 95% by weight, of the active compound mixture of the compound under a) with the co-herbicides under b), 1 to 99.9% by weight of a solid or liquid formulation auxiliary and 0 to 25% by weight, in particular 0.1 to 25% by weight, of a surfactant.

[0081] While concentrated compositions are usually preferred as commercial goods, the end user generally uses dilute compositions. The compositions can also comprise further additives, such as stabilizers, for example epoxidized or non-epoxidized vegetable oils (epoxidized coconut oil, rapeseed oil or soya oil), defoamers, for example silicone oil, preservatives, viscosity regulators, binders, tackifiers and fertilizers or other active substances. Preferred formulations have, in particular, the following compositions: (%=% by weight)

[0082] Emulsifable concentrates:

Active compound mixture:	1 to 90%, preferably 5 to 20%
Surface-active agent:	1 to 30%, preferably 10 to 20%
Liquid carrier:	5 to 94%, preferably 70 to 85%

[0083] Dusts:

Active compound mixture:	0.1 to 10%, preferably 0.1 to 5%
Solid carrier:	99.9 to 90%, preferably 99.9 to 99%

[0084] Suspension concentrates:

Active compound mixture:	5 to 75%, preferably 10 to 50%
Water:	94 to 24%, preferably 88 to 30%
Surface-active agent:	1 to 40%, preferably 2 to 30%

[0085] Wettable powders:

Active compound mixture:	0.5 to 90%, preferably 1 to 80%
Surface-active agent:	0.5 to 20%, preferably 1 to 15%
Solid carrier:	5 to 95%, preferably 15 to 90%

[0086] Granules:

Active compound mixture:	0.1 to 30%, preferably 0.1 to 15%
Solid carrier:	99.5 to 70%, preferably 97 to 85%

[0087] The examples below illustrate the invention in more detail, without limiting it.

F1. Emulsion concentrates	a)	b)	c)	d)
Active compound mixture	5%	10%	25%	50%
Ca dodecylbenzenesulfonate	6%	8%	6%	8%
Castor oil polyglycol ether (36 mol of EO)	4%	—	4%	4%
Octylphenol polyglycol ether (7–8 mol of EO)	—	4%	—	2%
Cyclohexanone	—	—	10%	20%
Arom. C_9–C_{12} hydrocarbon mixture	85%	78%	55%	16%

[0088] Emulsions of any desired concentration can be prepared from such concentrates by dilution with water.

F2. Solutions	a)	b)	c)	d)
Active compound mixture	5%	10%	50%	90%
1-Methoxy-3-(3-methoxy-propoxy)propane	—	20%	20%	—
Polyethylene glycol MW 400	20%	10%	—	—
N-Methyl-2-pyrrolidone	—	—	30%	10%
Arom. C_9–C_{12} hydrocarbon mixture	75%	60%	—	—

[0089] The solutions are suitable for use in the form of tiny droplets.

F3. Wettable powders	a)	b)	c)	d)
Active compound mixture	5%	25%	50%	80%
Sodium lignosulfonate	4%	—	3%	—
Sodium laurylsulfate	2%	3%	—	4%
Sodium diisobutylnaphthalene sulfonate	—	6%	5%	6%
Octylphenol polyglycol ether (7–8 mol of EO)	—	1%	2%	—
Finely divided silica	1%	3%	5%	10%
Kaolin	88%	62%	35%	—

[0090] The active compound is thoroughly mixed with the additives and ground well in a suitable mill. This gives wettable powders which can be diluted with water to give suspensions of any desired concentration.

F4. Coated granules	a)	b)	c)
Active compound mixture	0.1%	5%	15%
Finely divided silica	0.9%	2%	2%
Inorg. carrier (Æ 0.1–1 mm), for example $CaCO_3$ or SiO_2	99.0%	93%	83%

[0091] The active compound is dissolved in methylene chloride, the solution is sprayed onto the carrier and the solvent is subsequently evaporated off under reduced pressure.

F5. Coated granules	a)	b)	c)
Active compound mixture	0.1%	5%	15%
Polyethylene glycol MW 200	1.0%	2%	3%
Finely divided silica	0.9%	1%	2%
Inorg. Carrier (Æ 0.1–1 mm), for example $CaCO_3$ or SiO_2	98.0%	92%	80%

[0092] In a mixer, the finely ground active compound is applied evenly to the carrier moistened with polyethylene glycol. In this manner, dust-free coated granules are obtained.

F6. Extruder granules	a)	b)	c)	d)
Active compound mixture	0.1%	3%	5%	15%
Sodium lignosulfonate	1.5%	2%	3%	4%
Carboxymethylcellulose	1.4%	2%	2%	2%
Kaolin	97.0%	93%	90%	79%

[0093] The active compound is mixed with the additives, ground and moistened with water. This mixture is extruded and subsequently dried in a stream of air.

F7. Dusts	a)	b)	c)
Active compound mixture	0.1%	1%	5%
Talc	39.9%	49%	35%
Kaolin	60.0%	50%	60%

[0094] Ready-to-use dusts are obtained by mixing the active compound with the carriers and grinding the mixture in a suitable mill.

F8. Suspension concentrates	a)	b)	c)	d)
Active compound mixture	3%	10%	25%	50%
Ethylene glycol	5%	5%	5%	5%
Nonylphenol polyglycol ether (15 mol of EO)	—	1%	2%	—
Sodium lignosulfonate	3%	3%	4%	5%
Carboxymethylcellulose	1%	1%	1%	1%
37% aqueous formaldehyde solution	0.2%	0.2%	0.2%	0.2%
Silicone oil emulsion	0.8%	0.8%	0.8%	0.8%
Water	87%	79%	62%	38%

[0095] The finely ground active compound is intimately mixed with the additives. This gives a suspension concentrate, from which suspensions of any desired concentration can be prepared by dilution with water.

[0096] It is often more practical to formulate the active compound under a) and the mixing partner under b) individually and then to mix them shortly before application in the applicator in the desired mixing ratio as "tank mix" in water.

BIOLOGICAL EXAMPLES

[0097] A synergistic effect is always given when the effect of the combination of the active compounds a) and b) is greater than the sum of the effect of the active compounds applied on their own. The expected herbicidal effect Ee for a given combination of two herbicides can be calculated using the method of COLBY, S. R., "Calculating synergistic and antagonistic response of herbicide combinations", Weeds 15, pages 20-22, 1967. This method has already been used in EP-A-0 768 034.

[0098] The synergistic effect of the combination of the active compound under a) with the active co-herbicides under b) is demonstrated in the examples below.

Example B1

Pre-emergence Test

[0099] Under greenhouse conditions, the test plants are sown in pots. The culture substrate used is a standard soil. At the pre-emergence stage, the herbicides are applied to the surface of the soil both on their own and in a mixture. Application is carried out as an aqueous suspension of the test substances, prepared from a 25% wettable powder (Example F3, b)), using 500 l of water/ha. The application rates depend on the optimum dosages determined under outdoor or greenhouse conditions. Evaluation of the tests is carried out after 2 to 4 weeks.

[0100] In this test, the mixtures used show good synergistic effects.

Example B2

Post-emergence Test

[0101] Under greenhouse conditions, the test plants are grown in pots until they have reached a post-emergence stage. The culture substrate used is a standard soil. In a post-emergence stage, the herbicides are applied to the test plants both on their own and in a mixture. Application is carried out as an aqueous suspension of the test substances prepared from a 25% wettable powder (Example F3, b)), using 500 l of water/ha. The application rates depend on the optimum dosages determined under outdoor or greenhouse conditions. Evaluation of the tests is carried out after 2 to 4 weeks.

[0102] The mixtures used in this test likewise show good synergistic effects.

[0103] Surprisingly, it has been found that specific safeners as additional component c) are suitable for mixing with the synergistic composition according to the invention. The present invention therefore also relates to a selective-herbicidal composition for controlling broad-leaved weeds and grasses in crops of useful plants resistant to protoporphyrinogen oxidase inhibitors, in particular in crops of maize and cereal, said composition comprising a protoporphyrinogen oxidase inhibitor a), at least one co-herbicide b), and one safener (antidote) c) which protects the useful plants but not the broad-leaved weeds and grasses against the pytotoxic action of the herbicides, and to the use of this composition for controlling weeds in crops of useful plants.

[0104] Suitable additional components c) are herbicide safeners of the benzoxazine type, in particular benoxacor (61), and also MON 4660, flurazole (350), dichlormid (213) and furilazole (377).

[0105] The following combinations of the compounds under a) with the co-herbicides under b) and benoxacor have been found to be very particularly effective selective-herbicidal compositions in crops of maize resistant to protoporphyrinogen oxidase inhibitors:

[0106] acifluorfen+(S)-metolachlor+benoxacor; acifluorfen+metolachlor+benoxacor; acifluorfen+dimethenamid or (S)-dimethenamid+benoxacor; acifluorfen+acetochlor+benoxacor; acifluorfen+alachlor+benoxacor; aclonifen+(S)-metolachlor+benoxacor; aclonifen+metolachlor+benoxacor; aclonifen+dimethenamid or (S)-dimethenamid+benoxacor; aclonifen+acetochlor+benoxacor; aclonifen+alachlor+benoxacor; bifenox+(S)-metolachlor+benoxacor; bifenox+metolachlor+benoxacor; bifenox+dimethenamid or (S)-dimethenamid+benoxacor; bifenox+acetochlor+benoxacor; bifenox+alachlor+benoxacor; chlomitrofen+(S)-metolachlor+benoxacor; chlomitrofen+metolachlor+benoxacor; chlomitrofen+dimethenamid or (S)-dimethenamid+benoxacor; chlomitrofen+acetochlor+benoxacor; chlomitrofen+alachlor+benoxacor; ethoxyfen+(S)-metolachlor+benoxacor; ethoxyfen+metolachlor+benoxacor; ethoxyfen+dimethenamid or (S)-dimethenamid+benoxacor; ethoxyfen+acetochlor+benoxacor; ethoxyfen+alachlor+benoxacor; fluoroglycofen+(S)-metolachlor+benoxacor; fluoroglycofen+metolachlor+benoxacor; fluoroglycofen+dimethenamid or (S)-dimethenamid+benoxacor; fluoroglycofen+acetochlor+benoxacor; fluoroglycofen+alachlor+benoxacor; fomesafen +(S)-metolachlor+benoxacor; fomesafen+metolachlor+benoxacor; fomesafen+dimethenamid or (S)-dimethenamid+benoxacor; fomesafen+acetochlor+benoxacor; fomesafen+alachlor+benoxacor; lactofen+(S)-metolachlor+benoxacor; lactofen+metolachlor+benoxacor; lactofen+dimethenamid or (S)-dimethenamid+benoxacor; lactofen+acetochlor+benoxacor; lactofen+alachlor+benoxacor; oxyfluorfen+(S)-metolachlor+benoxacor; oxyfluorfen+metolachlor+benoxacor; oxyfluorfen+dimethenamid or (S)-dimethenamid+benoxacor; oxyfluorfen+acetochlor+benoxacor; oxyfluorfen+alachlor+benoxacor; azafenidin+(S)-metolachlor+benoxacor; azafenidin+metolachlor+benoxacor; azafenidin+dimethenamid or (S)-dimethenamid+benoxacor; azafenidin+acetochlor+benoxacor; azafenidin+alachlor+benoxacor; carfentrazone-ethyl+(S)-metolachlor+benoxacor; carfentrazone-ethyl+metolachlor+benoxacor; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+benoxacor; carfentrazone-ethyl +acetochlor+benoxacor; carfentrazone-ethyl+alachlor+benoxacor; compound of the formula A+(S)-metolachlor+benoxacor; compound of the formula A+metolachlor+benoxacor; compound of the formula A+dimethenamid or (S)-dimethenamid+benoxacor; compound of the formula A+acetochlor+benoxacor; compound of the formula A+alachlor+benoxacor; cinidon-ethyl+(S)-metolachlor+benoxacor; cinidon-ethyl+metolachlor+benoxacor; cinidon-ethyl+dimethenamid or (S)-dimethenamid+benoxacor; cinidon-ethyl+acetochlor+benoxacor; cinidon-ethyl+alachlor+benoxacor; flumiclorac-pentyl+(S)-metolachlor+benoxacor; flumiclorac-pentyl+metolachlor+benoxacor; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+benoxacor; flumiclorac-pentyl+acetochlor+benoxacor; flumiclorac-pentyl+alachlor+benoxacor; flumioxazin+(S)-metolachlor+benoxacor; flumioxazin+metolachlor+benoxacor; flumioxazin+dimethenamid or (S)-dimethenamid+benoxacor; flumioxazin+acetochlor+benoxacor; flumioxazin+alachlor+benoxacor; fluthiacet-methyl+(S)-metolachlor+benoxacor; fluthiacet-methyl+metolachlor+benoxacor; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+benoxacor; fluthiacet-methyl+acetochlor+benoxacor; fluthiacet-methyl+alachlor+benoxacor; oxadiargyl+(S)-metolachlor+benoxacor; oxadiargyl+metolachlor+benoxacor; oxadiargyl+dimethenamid or (S)-dimethenamid+benoxacor; oxadiargyl+acetochlor+benoxacor; oxadiargyl+alachlor+benoxacor; oxadiazon+(S)-metolachlor+benoxacor; oxadiazon+metolachlor+benoxacor; oxadiazon+dimethenamid or (S)-dimethenamid+benoxacor; oxadiazon+acetochlor+

benoxacor; oxadiazon+alachlor+benoxacor; pentoxazone+(S)-metolachlor+benoxacor; pentoxazone+metolachlor+benoxacor; pentoxazone+dimethenamid or (S)-dimethenamid+benoxacor; pentoxazone +acetochlor+benoxacor; pentoxazone+alachlor+benoxacor; sulfentrazone+(S)-metolachlor+benoxacor; sulfentrazone+metolachlor+benoxacor; sulfentrazone+dimethenamid or (S)-dimethenamid+benoxacor; sulfentrazone+acetochlor+benoxacor; sulfentrazone+alachlor+benoxacor; fluazolate+(S)-metolachlor+benoxacor; fluazolate +metolachlor+benoxacor; fluazolate+dimethenamid or (S)-dimethenamid+benoxacor; fluazolate+acetochlor+benoxacor, fluazolate+alachlor+benoxacor, pyraflufen-ethyl+(S)-metolachlor+benoxacor; pyraflufen-ethyl+metolachlor+benoxacor; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+benoxacor; pyraflufen-ethyl+acetochlor+benoxacor; pyraflufen-ethyl+alachlor+benoxacor; flumipropyn+(S)-metolachlor+benoxacor; flumipropyn+metolachlor+benoxacor; flumipropyn+dimethenamid or (S)-dimethenamid+benoxacor; flumipropyn+acetochlor+benoxacor; flumipropyn+alachlor+benoxacor; flupropacil+(S)-metolachlor+benoxacor; flupropacil+metolachlor+benoxacor; flupropacil +dimethenamid or (S)-dimethenamid+benoxacor; flupropacil+acetochlor+benoxacor; flupropacil+alachlor+benoxacor; nipyraclofen+(S)-metolachlor+benoxacor; nipyraclofen +metolachlor+benoxacor, nipyraclofen+dimethenamid or (S)-dimethenamid+benoxacor, nipyraclofen+acetochlor+benoxacor; nipyraclofen+alachlor+benoxacor; benzfendizone +(S)-metolachlor+benoxacor; benzfendizone+metolachlor+benoxacor; benzfendizone+dimethenamid or (S)-dimethenamid+benoxacor; benzfendizone+acetochlor+benoxacor; benzfendizone+alachlor+benoxacor; thidiazimin+(S)-metolachlor+benoxacor; thidiazimin+metolachlor+benoxacor; thidiazimin+dimethenamid or (S)-dimethenamid+benoxacor; thidiazimin+acetochlor+benoxacor; and thidiazimin+alachlor+benoxacor.

[**0107**] The following combinations of the compounds under a) with the co-herbicides under b) and MON 4660 have likewise been found to be very particularly effective selective-herbicidal compositions in crops of maize resistant to protoporphyrinogen oxidase inhibitors:

[**0108**] acifluorfen+(S)-metolachlor+MON 4660; acifluorfen+metolachlor+MON 4660; acifluorfen+dimethenamid or (S)-dimethenamid+MON 4660; acifluorfen+acetochlor+MON 4660; acifluorfen+alachlor+MON 4660; aclonifen+(S)-metolachlor+MON 4660; aclonifen+metolachlor+MON 4660; aclonifen+dimethenamid or (S)-dimethenamid+MON 4660; aclonifen+acetochlor+MON 4660; aclonifen+alachlor+MON 4660; bifenox +(S)-metolachlor+MON 4660; bifenox+metolachlor+MON 4660; bifenox+dimethenamid or (S)-dimethenamid+MON 4660; bifenox+acetochlor+MON 4660; bifenox+alachlor+MON 4660; chlomitrofen+(S)-metolachlor+MON 4660; chlomitrofen+metolachlor+MON 4660; chlomitrofen+dimethenamid or (S)-dimethenamid+MON 4660; chlomitrofen+acetochlor+MON 4660; chlomitrofen+alachlor+MON 4660; ethoxyfen+(S)-metolachlor+MON 4660; ethoxyfen+metolachlor+MON 4660; ethoxyfen+dimethenamid or (S)-dimethenamid+MON 4660; ethoxyfen+acetochlor+MON 4660; ethoxyfen+alachlor+MON 4660; fluoroglycofen+(S)-metolachlor+MON 4660; fluoroglycofen+metolachlor+MON 4660; fluoroglycofen+dimethenamid or (S)-dimethenamid+MON 4660; fluoroglycofen+acetochlor+MON 4660; fluoroglycofen+alachlor+MON 4660; fomesafen+(S)-metolachlor+MON 4660; fomesafen+metolachlor +MON 4660; fomesafen+dimethenamid or (S)-dimethenamid+MON 4660; fomesafen+acetochlor+MON 4660; fomesafen+alachlor+MON 4660; lactofen+(S)-metolachlor+MON 4660; lactofen+metolachlor+MON 4660; lactofen+dimethenamid or (S)-dimethenamid+MON 4660; lactofen+acetochlor+MON 4660; lactofen+alachlor+MON 4660; oxyfluorfen+(S)-metolachlor+MON 4660; oxyfluorfen+metolachlor+MON 4660; oxyfluorfen+dimethenamid or (S)-dimethenamid+MON 4660; oxyfluorfen+acetochlor+MON 4660; oxyfluorfen+alachlor+MON 4660; azafenidin+(S)-metolachlor+MON 4660; azafenidin+metolachlor+MON 4660; azafenidin+dimethenamid or (S)-dimethenamid+MON 4660; azafenidin+acetochlor+MON 4660; azafenidin+alachlor+MON 4660; carfentrazone-ethyl+(S)-metolachlor+MON 4660; carfentrazone-ethyl+metolachlor+MON 4660; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+MON 4660; carfentrazone-ethyl+acetochlor+MON 4660; carfentrazone-ethyl+alachlor+MON 4660; compound of the formula A+(S)-metolachlor+MON 4660; compound of the formula A+metolachlor+MON 4660; compound of the formula A+dimethenamid or (S)-dimethenamid +MON 4660; compound of the formula A+acetochlor+MON 4660; compound of the formula A+alachlor+MON 4660; cinidon-ethyl+(S)-metolachlor+MON 4660; cinidon-ethyl+metolachlor+MON 4660; cinidon-ethyl+dimethenamid or (S)-dimethenamid+MON 4660; cinidon-ethyl+acetochlor+MON 4660; cinidon-ethyl+alachlor+MON 4660; flumiclorac-pentyl+(S)-metolachlor+MON 4660; flumiclorac-pentyl+metolachlor+MON 4660; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+MON 4660; flumiclorac-pentyl+acetochlor+MON 4660; flumiclorac-pentyl+alachlor+MON 4660; flumioxazin+(S)-metolachlor+MON 4660; flumioxazin+metolachlor+MON 4660; flumioxazin+dimethenamid or (S)-dimethenamid+MON 4660; flumioxazin+acetochlor+MON 4660; flumioxazin+alachlor+MON 4660; fluthiacet-methyl+(S)-metolachlor+MON 4660; fluthiacet-methyl+metolachlor+MON 4660; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+MON 4660; fluthiacet-methyl+acetochlor+MON 4660; fluthiacet-methyl+alachlor+MON 4660; oxadiargyl+(S)-metolachlor+MON 4660; oxadiargyl+metolachlor+MON 4660; oxadiargyl+dimethenamid or (S)-dimethenamid+MON 4660; oxadiargyl+acetochlor+MON 4660; oxadiargyl+alachlor+MON 4660; oxadiazon+(S)-metolachlor+MON 4660; oxadiazon+metolachlor+MON 4660; oxadiazon+dimethenamid or (S)-dimethenamid+MON 4660; oxadiazon+acetochlor+MON 4660; oxadiazon+alachlor+MON 4660; pentoxazone+(S)-metolachlor+MON 4660; pentoxazone+metolachlor+MON 4660; pentoxazone+dimethenamid or (S)-dimethenamid+MON 4660; pentoxazone +acetochlor+MON 4660; pentoxazone+alachlor+MON 4660; sulfentrazone+(S)-metolachlor+MON 4660; sulfentrazone+metolachlor+MON 4660; sulfentrazone+dimethenamid or (S)-dimethenamid+MON 4660; sulfentrazone+acetochlor+MON 4660; sulfentrazone+alachlor+MON 4660; fluazolate+(S)-metolachlor+MON 4660; fluazolate +metolachlor+MON 4660; fluazolate+dimethenamid or (S)-dimethenamid+MON 4660; fluazolate+acetochlor+MON 4660; fluazolate+alachlor+MON 4660; pyraflufen-ethyl+(S)-metolachlor+MON 4660; pyraflufen-ethyl+metolachlor+MON 4660; pyraflufen-ethyl +dimethenamid or (S)-dimethenamid+MON 4660;

pyraflufen-ethyl+acetochlor+MON 4660; pyraflufen-ethyl+alachlor+MON 4660; flumipropyn+(S)-metolachlor+MON 4660; flumipropyn+metolachlor+MON 4660; flumipropyn+dimethenamid or (S)-dimethenamid +MON 4660; flumipropyn+acetochlor+MON 4660; flumipropyn+alachlor+MON 4660; flupropacil+(S)-metolachlor+MON 4660; flupropacil+metolachlor+MON 4660; flupropacil+dimethenamid or (S)-dimethenamid+MON 4660; flupropacil+acetochlor+MON 4660; flupropacil+alachlor+MON 4660; nipyraclofen+(S)-metolachlor+MON 4660; nipyraclofen+metolachlor+MON 4660; nipyraclofen+dimethenamid or (S)-dimethenamid +MON 4660; nipyraclofen+acetochlor+MON 4660; nipyraclofen+alachlor+MON 4660; benzfendizone+(S)-metolachlor+MON 4660; benzfendizone+metolachlor+MON 4660; benzfendizone+dimethenamid or (S)-dimethenamid+MON 4660; benzfendizone+acetochlor+MON 4660; benzfendizone+alachlor+MON 4660; thidiazimin+(S)-metolachlor+MON 4660; thidiazimin+metolachlor+MON 4660; thidiazimin+dimethenamid or (S)-dimethenamid+MON 4660; thidiazimin+acetochlor+MON 4660; and thidiazimin+alachlor+MON 4660.

[**0109**] The following combinations of the compounds under a) with the co-herbicides under b) and flurazole have likewise been found to be very particularly effective selective-herbicidal compositions in crops of maize resistant to protoporphyrinogen oxidase inhibitors:

[**0110**] acifluorfen+(S)-metolachlor+flurazole; acifluorfen+metolachlor+flurazole; acifluorfen+dimethenamid or (S)-dimethenamid+flurazole; acifluorfen+acetochlor+flurazole; acifluorfen+alachlor+flurazole; aclonifen+(S)-metolachlor+flurazole; aclonifen+metolachlor+flurazole; aclonifen+dimethenamid or (S)-dimethenamid+flurazole; aclonifen+acetochlor+flurazole; aclonifen+alachlor+flurazole; bifenox+(S)-metolachlor +flurazole; bifenox+metolachlor+flurazole; bifenox+dimethenamid or (S)-dimethenamid +flurazole; bifenox+acetochlor+flurazole; bifenox+alachlor+flurazole; chlomitrofen+(S)-metolachlor+flurazole; chlomitrofen+metolachlor+flurazole; chlomitrofen+dimethenamid or (S)-dimethenamid+flurazole; chlomitrofen+acetochlor+flurazole; chlomitrofen+alachlor+flurazole; ethoxyfen+(S)-metolachlor+flurazole; ethoxyfen+metolachlor+flurazole; ethoxyfen+dimethenamid or (S)-dimethenamid+flurazole; ethoxyfen+acetochlor+flurazole; ethoxyfen+alachlor+flurazole; fluoroglycofen+(S)-metolachlor+flurazole; fluoroglycofen+metolachlor+flurazole; fluoroglycofen+dimethenamid or (S)-dimethenamid+flurazole; fluoroglycofen+acetochlor+flurazole; fluoroglycofen+alachlor+flurazole; fomesafen+(S)-metolachlor+flurazole; fomesafen+metolachlor+flurazole; fomesafen+dimethenamid or (S)-dimethenamid+flurazole; fomesafen+acetochlor+flurazole; fomesafen+alachlor+flurazole; lactofen+(S)-metolachlor+flurazole; lactofen+metolachlor+flurazole; lactofen+dimethenamid or (S)-dimethenamid+flurazole; lactofen+acetochlor+flurazole; lactofen+alachlor+flurazole; oxyfluorfen+(S)-metolachlor+flurazole; oxyfluorfen+metolachlor+flurazole; oxyfluorfen +dimethenamid or (S)-dimethenamid+flurazole; oxyfluorfen+acetochlor+flurazole; oxyfluorfen+alachlor+flurazole; azafenidin+(S)-metolachlor+flurazole; azafenidin+metolachlor+flurazole; azafenidin+dimethenamid or (S)-dimethenamid+flurazole; azafenidin+acetochlor+flurazole; azafenidin+alachlor+flurazole; carfentrazone-ethyl+(S)-metolachlor+flurazole; carfentrazone-ethyl+metolachlor+flurazole; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+flurazole; carfentrazone-ethyl+acetochlor+flurazole; carfentrazone-ethyl+alachlor+flurazole; compound of the formula A+(S)-metolachlor+flurazole; compound of the formula A+metolachlor+flurazole; compound of the formula A+dimethenamid or (S)-dimethenamid+flurazole; compound of the formula A +acetochlor+flurazole; compound of the formula A+alachlor+flurazole; cinidon-ethyl+(S)-metolachlor+flurazole; cinidon-ethyl+metolachlor+flurazole; cinidon-ethyl+dimethenamid or (S)-dimethenamid+flurazole; cinidon-ethyl+acetochlor+flurazole; cinidon-ethyl+alachlor+flurazole; flumiclorac-pentyl+(S)-metolachlor+flurazole; flumiclorac-pentyl+metolachlor+flurazole; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+flurazole; flumiclorac-pentyl+acetochlor+flurazole; flumiclorac-pentyl+alachlor+flurazole; flumioxazin+(S)-metolachlor+flurazole; flumioxazin+metolachlor+flurazole; flumioxazin+dimethenamid or (S)-dimethenamid+flurazole; flumioxazin+acetochlor+flurazole; flumioxazin+alachlor+flurazole; fluthiacet-methyl+(S)-metolachlor +flurazole; fluthiacet-methyl+metolachlor+flurazole; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+flurazole; fluthiacet-methyl+acetochlor+flurazole; fluthiacet-methyl+alachlor+flurazole; oxadiargyl+(S)-metolachlor+flurazole; oxadiargyl+metolachlor+flurazole; oxadiargyl+dimethenamid or (S)-dimethenamid+flurazole; oxadiargyl+acetochlor+flurazole; oxadiargyl+alachlor+flurazole; oxadiazon+(S)-metolachlor+flurazole; oxadiazon+metolachlor+flurazole; oxadiazon+dimethenamid or (S)-dimethenamid+flurazole; oxadiazon+acetochlor+flurazole; oxadiazon+alachlor+flurazole; pentoxazone+(S)-metolachlor+flurazole; pentoxazone+metolachlor+flurazole; pentoxazone+dimethenamid or (S)-dimethenamid+flurazole; pentoxazone+acetochlor+flurazole; pentoxazone+alachlor+flurazole; sulfentrazone+(S)-metolachlor +flurazole; sulfentrazone+metolachlor+flurazole; sulfentrazone+dimethenamid or (S)-dimethenamid+flurazole; sulfentrazone+acetochlor+flurazole; sulfentrazone+alachlor+flurazole; fluazolate+(S)-metolachlor+flurazole; fluazolate+metolachlor+flurazole; fluazolate+dimethenamid or (S)-dimethenamid+flurazole; fluazolate+acetochlor+flurazole; fluazolate+alachlor+flurazole; pyraflufen-ethyl+(S)-metolachlor+flurazole; pyraflufen-ethyl+metolachlor+flurazole; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+flurazole; pyraflufen-ethyl+acetochlor+flurazole; pyraflufen-ethyl+alachlor+flurazole; flumipropyn+(S)-metolachlor+flurazole; flumipropyn+metolachlor+flurazole; flumipropyn+dimethenamid or (S)-dimethenamid+flurazole; flumipropyn+acetochlor+flurazole; flumipropyn+alachlor+flurazole; flupropacil+(S)-metolachlor+flurazole; flupropacil+metolachlor+flurazole; flupropacil+dimethenamid or (S)-dimethenamid+flurazole; flupropacil+acetochlor+flurazole; flupropacil+alachlor+flurazole; nipyraclofen+(S)-metolachlor+flurazole; nipyraclofen+metolachlor+flurazole; nipyraclofen+dimethenamid or (S)-dimethenamid+flurazole; nipyraclofen+acetochlor+flurazole; nipyraclofen+alachlor+flurazole; benzfendizone+(S)-metolachlor+flurazole; benzfendizone+metolachlor+flurazole; benzfendizone+dimethenamid or (S)-dimethenamid+flurazole; benzfendizone+acetochlor+flurazole; benzfendizone+alachlor+flurazole; thidiazimin+(S)-metolachlor+flurazole; thidiazimin+metolachlor+flurazole; thidiazimin+dimethenamid or (S)-dimethenamid+flurazole; thidiazimin+acetochlor+flurazole; and thidiazimin+alachlor+flurazole.

[0111] The following combinations of the compounds under a) with the co-herbicides under b) and dichlormid have likewise been found to be very particularly effective selective-herbicidal compositions in crops of maize resistant to protoporphyrinogen oxidase inhibitors:

[0112] acifluorfen+(S)-metolachlor+dichlormid; acifluorfen+metolachlor+dichlormid; acifluorfen +dimethenamid or (S)-dimethenamid+dichlormid; acifluorfen+acetochlor+dichlormid; acifluorfen+alachlor+dichlormid; aclonifen+(S)-metolachlor+dichlormid; aclonifen+metolachlor+dichlormid; aclonifen+dimethenamid or (S)-dimethenamid+dichlormid; aclonifen+acetochlor+dichlormid; aclonifen+alachlor+dichlormid; bifenox+(S)-metolachlor+dichlormid; bifenox+metolachlor+dichlormid; bifenox+dimethenamid or (S)-dimethenamid+dichlormid; bifenox+acetochlor+dichlormid; bifenox+alachlor+dichlormid; chlomitrofen+(S)-metolachlor+dichlormid; chlomitrofen+metolachlor+dichlormid; chlomitrofen+dimethenamid or (S)-dimethenamid+dichlormid; chlomitrofen+acetochlor+dichlormid; chlomitrofen+alachlor+dichlormid; ethoxyfen+(S)-metolachlor+dichlormid; ethoxyfen+metolachlor+dichlormid; ethoxyfen+dimethenamid or (S)-dimethenamid+dichlormid; ethoxyfen+acetochlor+dichlormid; ethoxyfen+alachlor+dichlormid; fluoroglycofen+(S)-metolachlor+dichlormid; fluoroglycofen+metolachlor+dichlormid; fluoroglycofen+dimethenamid or (S)-dimethenamid+dichlormid; fluoroglycofen +acetochlor+dichlormid; fluoroglycofen+alachlor+dichlormid; fomesafen+(S)-metolachlor+dichlormid; fomesafen+metolachlor+dichlormid; fomesafen+dimethenamid or (S)-dimethenamid+dichlormid; fomesafen+acetochlor+dichlormid; fomesafen+alachlor+dichlormid; lactofen+(S)-metolachlor+dichlormid; lactofen+metolachlor+dichlormid; lactofen+dimethenamid or (S)-dimethenamid+dichlormid; lactofen+acetochlor+dichlormid; lactofen+alachlor+dichlormid; oxyfluorfen+(S) metolachlor+dichlormid; oxyfluorfen+metolachlor+dichlormid; oxyfluorfen+dimethenamid or (S)-dimethenamid+dichlormid; oxyfluorfen+acetochlor+dichlormid; oxyfluorfen+alachlor+dichlormid; azafenidin+(S)-metolachlor+dichlormid, azafenidin+metolachlor+dichlormid; azafenidin+dimethenamid or (S)-dimethenamid+dichlormid; azafenidin+acetochlor+dichlormid; azafenidin+alachlor+dichlormid; carfentrazone-ethyl +(S)-metolachlor+dichlormid; carfentrazone-ethyl+metolachlor+dichlormid; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+dichlormid; carfentrazone-ethyl +acetochlor+dichlormid; carfentrazone-ethyl+alachlor+dichlormid; compound of the formula A+(S)-metolachlor+dichlormid; compound of the formula A+metolachlor+dichlormid; compound of the formula A+dimethenamid or (S)-dimethenamid+dichlormid; compound of the formula A+acetochlor+dichlormid; compound of the formula A+alachlor+dichlormid; cinidon-ethyl+(S)-metolachlor+dichlormid; cinidon-ethyl+metolachlor+dichlormid; cinidon-ethyl+dimethenamid or (S)-dimethenamid+dichlormid; cinidon-ethyl+acetochlor+dichlormid; cinidon-ethyl+alachlor+dichlormid; flumiclorac-pentyl+(S)-metolachlor+dichlormid; flumiclorac-pentyl+metolachlor+dichlormid; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+dichlormid; flumiclorac-pentyl+acetochlor+dichlormid; flumiclorac-pentyl+alachlor+dichlormid; flumioxazin+(S)-metolachlor+dichlormid; flumioxazin+metolachlor+dichlormid; flumioxazin+dimethenamid or (S)-dimethenamid+dichlormid; flumioxazin+acetochlor+dichlormid; flumioxazin+alachlor+dichlormid; fluthiacet-methyl+(S)-metolachlor+dichlormid; fluthiacet-methyl+metolachlor+dichlormid; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+dichlormid; fluthiacet-methyl+acetochlor+dichlormid; fluthiacet-methyl+alachlor+dichlormid; oxadiargyl+(S)-metolachlor+dichlormid; oxadiargyl+metolachlor+dichlormid; oxadiargyl+dimethenamid or (S)-dimethenamid+dichlormid; oxadiargyl+acetochlor+dichlormid; oxadiargyl+alachlor+dichlormid; oxadiazon+(S)-metolachlor+dichlormid; oxadiazon+metolachlor+dichlormid; oxadiazon+dimethenamid or (S)-dimethenamid+dichlormid; oxadiazon+acetochlor+dichlormid; oxadiazon+alachlor+dichlormid; pentoxazone+(S)-metolachlor+dichlormid; pentoxazone+metolachlor+dichlormid; pentoxazone+dimethenamid or (S)-dimethenamid+dichlormid; pentoxazone+acetochlor+dichlormid; pentoxazone+alachlor+dichlormid; sulfentrazone+(S)-metolachlor+dichlormid; sulfentrazone+metolachlor+dichlormid; sulfentrazone+dimethenamid or (S)-dimethenamid+dichlormid; sulfentrazone+acetochlor+dichlormid; sulfentrazone+alachlor+dichlormid; fluazolate+(S)-metolachlor+dichlormid; fluazolate+metolachlor+dichlormid; fluazolate+dimethenamid or (S)-dimethenamid+dichlormid; fluazolate+acetochlor+dichlormid; fluazolate+alachlor+dichlormid; pyraflufen-ethyl+(S)-metolachlor+dichlormid; pyraflufen-ethyl+metolachlor+dichlormid; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+dichlormid; pyraflufen-ethyl+acetochlor+dichlormid; pyraflufen-ethyl+alachlor+dichlormid; flumipropyn+(S)-metolachlor+dichlormid; flumipropyn+metolachlor+dichlormid; flumipropyn+dimethenamid or (S)-dimethenamid+dichlormid; flumipropyn+acetochlor+dichlormid; flumipropyn+alachlor+dichlormid; flupropacil+(S)-metolachlor+dichlormid; flupropacil+metolachlor+dichlormid; flupropacil +dimethenamid or (S)-dimethenamid+dichlormid; flupropacil+acetochlor+dichlormid; flupropacil+alachlor+dichlormid; nipyraclofen+(S)-metolachlor+dichlormid; nipyraclofen +metolachlor+dichlormid; nipyraclofen+dimethenamid or (S)-dimethenamid+dichlormid; nipyraclofen+acetochlor+dichlormid; nipyraclofen+alachlor+dichlormid; benzfendizone +(S)-metolachlor+dichlormid; benzfendizone+metolachlor+dichlormid; benzfendizone+dimethenamid or (S)-dimethenamid+dichlormid; benzfendizone+acetochlor+dichlormid; benzfendizone+alachlor+dichlormid; thidiazimin+(S)-metolachlor+dichlormid; thidiazimin+metolachlor+dichlormid; thidiazimin+dimethenamid or (S)-dimethenamid+dichlormid; thidiazimin+acetochlor+dichlormid; and thidiazimin+alachlor+dichlormid.

[0113] The following combinations of the compounds under a) with the co-herbicides under b) and furilazole have likewise been found to be very particularly effective selective-herbicidal compositions in crops of maize resistant to protoporphyrinogen oxidase inhibitors:

[0114] acifluorfen+(S)-metolachlor+furilazole; acifluorfen+metolachlor+furilazole; acifluorfen+dimethenamid or (S)-dimethenamid+furilazole; acifluorfen+acetochlor+furilazole; acifluorfen+alachlor+furilazole; aclonifen+(S)-metolachlor+furilazole; aclonifen+metolachlor+furilazole; aclonifen+dimethenamid or (S)-dimethenamid+furilazole; aclonifen+acetochlor+furilazole; aclonifen+alachlor+furilazole; bifenox+(S)-metolachlor+furilazole; bifenox+metolachlor+furilazole; bifenox+dimethenamid or (S)-dimethenamid+furilazole; bifenox+acetochlor+furilazole;

bifenox+alachlor+furilazole; chlomitrofen+(S)-metolachlor+furilazole; chlomitrofen+metolachlor+furilazole; chlomitrofen+dimethenamid or (S)-dimethenamid+furilazole; chlomitrofen+acetochlor+furilazole; chlomitrofen+alachlor+furilazole; ethoxyfen+(S)-metolachlor+furilazole; ethoxyfen+metolachlor+furilazole; ethoxyfen+dimethenamid or (S)-dimethenamid+furilazole; ethoxyfen+acetochlor+furilazole; ethoxyfen+alachlor+furilazole; fluoroglycofen+(S)-metolachlor+furilazole; fluoroglycofen+metolachlor+furilazole; fluoroglycofen+dimethenamid or (S)-dimethenamid+furilazole; fluoroglycofen+acetochlor+furilazole; fluoroglycofen+alachlor+furilazole; fomesafen+(S)-metolachlor+furilazole; fomesafen+metolachlor+furilazole; fomesafen+dimethenamid or (S)-dimethenamid+furilazole; fomesafen+acetochlor+furilazole; fomesafen+alachlor+furilazole; lactofen+(S)-metolachlor+furilazole; lactofen+metolachlor+furilazole; lactofen+dimethenamid or (S)-dimethenamid+furilazole; lactofen+acetochlor+furilazole; lactofen+alachlor+furilazole; oxyfluorfen+(S)-metolachlor+furilazole; oxyfluorfen+metolachlor+furilazole; oxyfluorfen+dimethenamid or (S)-dimethenamid+furilazole; oxyfluorfen+acetochlor+furilazole; oxyfluorfen+alachlor+furilazole; azafenidin+(S)-metolachlor+furilazole; azafenidin+metolachlor+furilazole; azafenidin+dimethenamid or (S)-dimethenamid+furilazole; azafenidin+acetochlor+furilazole; azafenidin+alachlor+furilazole; carfentrazone-ethyl+(S)-metolachlor+furilazole; carfentrazone-ethyl+metolachlor+furilazole; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+furilazole; carfentrazone-ethyl+acetochlor+furilazole; carfentrazone-ethyl+alachlor+furilazole; compound of the formula A+(S)-metolachlor+furilazole; compound of the formula A+metolachlor+furilazole; compound of the formula A+dimethenamid or (S)-dimethenamid+furilazole; compound of the formula A+acetochlor+furilazole; compound of the formula A+alachlor+furilazole; cinidon-ethyl+(S)-metolachlor+furilazole; cinidon-ethyl+metolachlor+furilazole; cinidon-ethyl+dimethenamid or (S)-dimethenamid+furilazole; cinidon-ethyl+acetochlor+furilazole; cinidon-ethyl+alachlor+furilazole; flumiclorac-pentyl+(S)-metolachlor+furilazole; flumiclorac-pentyl+metolachlor+furilazole; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+furilazole; flumiclorac-pentyl+acetochlor+furilazole; flumiclorac-pentyl+alachlor+furilazole; flumioxazin+(S)-metolachlor+furilazole; flumioxazin+metolachlor+furilazole; flumioxazin+dimethenamid or (S)-dimethenamid+furilazole; flumioxazin+acetochlor+furilazole; flumioxazin+alachlor+furilazole; fluthiacet-methyl+(S)-metolachlor+furilazole; fluthiacet-methyl+metolachlor+furilazole; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+furilazole; fluthiacet-methyl+acetochlor+furilazole; fluthiacet-methyl+alachlor+furilazole; oxadiargyl+(S)-metolachlor+furilazole; oxadiargyl+metolachlor+furilazole; oxadiargyl+dimethenamid or (S)-dimethenamid+furilazole; oxadiargyl+acetochlor+furilazole; oxadiargyl+alachlor+furilazole; oxadiazon+(S)-metolachlor+furilazole; oxadiazon+metolachlor+furilazole; oxadiazon+dimethenamid or (S)-dimethenamid+furilazole; oxadiazon+acetochlor+furilazole; oxadiazon+alachlor+furilazole; pentoxazone+(S)-metolachlor+furilazole; pentoxazone+metolachlor+furilazole; pentoxazone+dimethenamid or (S)-dimethenamid+furilazole; pentoxazone+acetochlor+furilazole; pentoxazone+alachlor+furilazole; sulfentrazone+(S)-metolachlor+furilazole; sulfentrazone+metolachlor+furilazole; sulfentrazone+dimethenamid or (S)-dimethenamid+furilazole; sulfentrazone+acetochlor+furilazole; sulfentrazone+alachlor +furilazole; fluazolate+(S)-metolachlor+furilazole; fluazolate+metolachlor+furilazole; fluazolate+dimethenamid or (S)-dimethenamid+furilazole; fluazolate+acetochlor+furilazole; fluazolate+alachlor+furilazole; pyraflufen-ethyl+(S)-metolachlor+furilazole; pyraflufen-ethyl+metolachlor+furilazole; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+furilazole; pyraflufen-ethyl+acetochlor+furilazole; pyraflufen-ethyl+alachlor+furilazole; flumipropyn+(S)-metolachlor+furilazole; flumipropyn+metolachlor+furilazole; flumipropyn+dimethenamid or (S)-dimethenamid+furilazole; flumipropyn+acetochlor+furilazole; flumipropyn+alachlor+furilazole; flupropacil+(S)-metolachlor+furilazole; flupropacil+metolachlor+furilazole; flupropacil+dimethenamid or (S)-dimethenamid+furilazole; flupropacil+acetochlor+furilazole; flupropacil+alachlor+furilazole; nipyraclofen+(S)-metolachlor+furilazole; nipyraclofen+metolachlor+furilazole; nipyraclofen+dimethenamid or (S)-dimethenamid+furilazole; nipyraclofen+acetochlor+furilazole; nipyraclofen+alachlor+furilazole; benzfendizone+(S)-metolachlor +furilazole; benzfendizone+metolachlor+furilazole; benzfendizone+dimethenamid or (S)-dimethenamid+furilazole; benzfendizone+acetochlor+furilazole; benzfendizone+alachlor+furilazole; thidiazimin+(S)-metolachlor+furilazole; thidiazimin+metolachlor+furilazole; thidiazimin+dimethenamid or (S)-dimethenamid+furilazole; thidiazimin+acetochlor+furilazole; and thidiazimin+alachlor+furilazole.

[0115] The following combinations of the compounds under a) with the co-herbicides under b) and cloquintocet-mexyl have likewise been found to be very particularly effective selective-herbicidal compositions in crops of cereals resistant to protoporphyrinogen oxidase inhibitors:

[0116] acifluorfen+triasulfuron+cloquintocet; acifluorfen+prosulfuron+cloquintocet; acifluorfen +clodinafop+cloquintocet; acifluorfen+amidosulfuron+cloquintocet; acifluorfen+diclofop-methyl+cloquintocet; acifluorfen+fenoxaprop(P-ethyl)+cloquintocet; acifluorfen +flazasulfuron+cloquintocet; acifluorfen+flupyrsulfuron+cloquintocet; acifluorfen+iodosulfuron+cloquintocet; acifluorfen+mecoprop+cloquintocet; acifluorfen+chlorsulfuron+cloquintocet; acifluorfen+metsulfuron+cloquintocet; acifluorfen+sulfosulfuron+cloquintocet; acifluorfen+thifensulfuron+cloquintocet; acifluorfen+tribenuron+cloquintocet; acifluorfen+ethametsulfuron+cloquintocet; acifluorfen+flamprop-M+cloquintocet; aclonifen+triasulfuron+cloquintocet; aclonifen+prosulfuron+cloquintocet; aclonifen+clodinafop+cloquintocet; aclonifen+amidosulfuron+cloquintocet; aclonifen+diclofop-methyl+cloquintocet; aclonifen+fenoxaprop(P-ethyl)+cloquintocet; aclonifen+flazasulfuron+cloquintocet; aclonifen+flupyrsulfuron+cloquintocet; aclonifen+iodosulfuron+cloquintocet; aclonifen+mecoprop+cloquintocet; aclonifen+chlorsulfuron+cloquintocet; aclonifen+metsulfuron+cloquintocet; aclonifen+sulfosulfuron+cloquintocet; aclonifen+thifensulfuron+cloquintocet; aclonifen+tribenuron +cloquintocet; aclonifen+ethametsulfuron+cloquintocet; aclonifen+flamprop-M+cloquintocet; bifenox+triasulfuron+cloquintocet; bifenox+prosulfuron+cloquintocet; bifenox+clodinafop+cloquintocet; bifenox+amidosulfuron+cloquintocet; bifenox+diclofop-methyl+cloquintocet; bifenox+fenoxaprop(P-ethyl)+cloquintocet; bifenox+flazasulfuron+clo-

quintocet; bifenox+flupyrsulfuron+cloquintocet; bifenox+iodosulfuron +cloquintocet; bifenox+mecoprop+cloquintocet; bifenox+chlorsulfuron+cloquintocet; bifenox+metsulfuron+cloquintocet; bifenox+sulfosulfuron+cloquintocet; bifenox+thifensulfuron+cloquintocet; bifenox+tribenuron+cloquintocet; bifenox+ethametsulfuron +cloquintocet; bifenox+flamprop-M+cloquintocet; chlomitrofen+triasulfuron+cloquintocet; chlomitrofen+prosulfuron+cloquintocet; chlomitrofen+clodinafop+cloquintocet; chlomitrofen+amidosulfuron+cloquintocet; chlomitrofen+diclofop-methyl+cloquintocet; chlomitrofen+fenoxaprop (P-ethyl)+cloquintocet; chlomitrofen+flazasulfuron+cloquintocet; chlomitrofen+flupyrsulfuron+cloquintocet; chlomitrofen+iodosulfuron+cloquintocet; chlomitrofen+mecoprop+cloquintocet; chlomitrofen+chlorsulfuron+cloquintocet; chlomitrofen+metsulfuron+cloquintocet; chlomitrofen+sulfosulfuron+cloquintocet; chlomitrofen+thifensulfuron+cloquintocet; chlomitrofen+tribenuron+cloquintocet; chlomitrofen+ethametsulfuron+cloquintocet; chlomitrofen+flamprop-M+cloquintocet; ethoxyfen+triasulfuron+cloquintocet; ethoxyfen+prosulfuron +cloquintocet; ethoxyfen+clodinafop+cloquintocet; ethoxyfen+amidosulfuron+cloquintocet; ethoxyfen+diclofop-methyl+cloquintocet; ethoxyfen+fenoxaprop(P-ethyl)+cloquintocet; ethoxyfen+flazasulfuron+cloquintocet; ethoxyfen+flupyrsulfuron+cloquintocet; ethoxyfen+iodosulfuron+cloquintocet; ethoxyfen+mecoprop+cloquintocet; ethoxyfen+chlorsulfuron+cloquintocet; ethoxyfen+metsulfuron+cloquintocet; ethoxyfen +sulfosulfuron+cloquintocet; ethoxyfen+thifensulfuron+cloquintocet; ethoxyfen+tribenuron+cloquintocet; ethoxyfen+ethametsulfuron+cloquintocet; ethoxyfen+flamprop-M+cloquintocet; fluoroglycofen+triasulfuron+cloquintocet; fluoroglycofen+prosulfuron+cloquintocet; fluoroglycofen+clodinafop+cloquintocet; fluoroglycofen+amidosulfuron+cloquintocet; fluoroglycofen+diclofop-methyl+cloquintocet; fluoroglycofen+fenoxaprop(P-ethyl)+cloquintocet; fluoroglycofen+flazasulfuron+cloquintocet; fluoroglycofen+flupyrsulfuron+cloquintocet; fluoroglycofen+iodosulfuron+cloquintocet; fluoroglycofen+mecoprop+cloquintocet; fluoroglycofen+chlorsulfuron+cloquintocet; fluoroglycofen+metsulfuron+cloquintocet; fluoroglycofen+sulfosulfuron+cloquintocet; fluoroglycofen+thifensulfuron+cloquintocet; fluoroglycofen+tribenuron+cloquintocet; fluoroglycofen+ethametsulfuron+cloquintocet; fluoroglycofen+flamprop-M +cloquintocet; fomesafen+triasulfuron+cloquintocet; fomesafen+prosulfuron+cloquintocet; fomesafen+clodinafop+cloquintocet; fomesafen+amidosulfuron+cloquintocet; fomesafen+diclofop-methyl+cloquintocet; fomesafen+fenoxaprop(P-ethyl) +cloquintocet; fomesafen+flazasulfuron+cloquintocet; fomesafen+flupyrsulfuron+cloquintocet; fomesafen+iodosulfuron+cloquintocet; fomesafen+mecoprop+cloquintocet; fomesafen+chlorsulfuron+cloquintocet; fomesafen+metsulfuron+cloquintocet; fomesafen+sulfosulfuron+cloquintocet; fomesafen+thifensulfuron+cloquintocet; fomesafen+tribenuron+cloquintocet; fomesafen+ethametsulfuron+cloquintocet; fomesafen+flamprop-M+cloquintocet; lactofen+triasulfuron+cloquintocet; lactofen+prosulfuron+cloquintocet; lactofen+clodinafop+cloquintocet; lactofen+amidosulfuron+cloquintocet; lactofen+diclofop-methyl+cloquintocet; lactofen+fenoxaprop(P-ethyl)+cloquintocet; lactofen+flazasulfuron+cloquintocet; lactofen+flupyrsulfuron+cloquintocet; lactofen+iodosulfuron+cloquintocet; lactofen+mecoprop+cloquintocet; lactofen+chlorsulfuron+cloquintocet; lactofen+metsulfuron+cloquintocet; lactofen+sulfosulfuron+cloquintocet; lactofen+thifensulfuron+cloquintocet; lactofen+tribenuron+cloquintocet; lactofen+ethametsulfuron+cloquintocet; lactofen+flamprop-M +cloquintocet; oxyfluorfen+triasulfuron+cloquintocet; oxyfluorfen+prosulfuron+cloquintocet; oxyfluorfen+clodinafop+cloquintocet; oxyfluorfen+amidosulfuron+cloquintocet; oxyfluorfen+diclofop-methyl+cloquintocet; oxyfluorfen+fenoxaprop(P-ethyl) +cloquintocet; oxyfluorfen+flazasulfuron+cloquintocet; oxyfluorfen+flupyrsulfuron+cloquintocet; oxyfluorfen+iodosulfuron+cloquintocet; oxyfluorfen+mecoprop+cloquintocet; oxyfluorfen+chlorsulfuron+cloquintocet; oxyfluorfen+metsulfuron+cloquintocet; oxyfluorfen+sulfosulfuron+cloquintocet; oxyfluorfen+thifensulfuron+cloquintocet; oxyfluorfen+tribenuron+cloquintocet; oxyfluorfen+ethametsulfuron+cloquintocet; oxyfluorfen+flamprop-M+cloquintocet; azafenidin+triasulfuron+cloquintocet; azafenidin+prosulfuron+cloquintocet; azafenidin+clodinafop+cloquintocet; azafenidin+amidosulfuron+cloquintocet; azafenidin+diclofop-methyl+cloquintocet; azafenidin+fenoxaprop(P-ethyl)+cloquintocet; azafenidin+flazasulfuron+cloquintocet; azafenidin+flupyrsulfuron+cloquintocet; azafenidin+iodosulfuron+cloquintocet; azafenidin+mecoprop+cloquintocet; azafenidin+chlorsulfuron+cloquintocet; azafenidin+metsulfuron+cloquintocet; azafenidin+sulfosulfuron+cloquintocet; azafenidin+thifensulfuron+cloquintocet; azafenidin+tribenuron+cloquintocet; azafenidin+ethametsulfuron+cloquintocet; azafenidin+flamprop-M+cloquintocet; carfentrazone-ethyl+triasulfuron+cloquintocet; carfentrazone-ethyl+prosulfuron+cloquintocet; carfentrazone-ethyl+clodinafop+cloquintocet; carfentrazone-ethyl+amidosulfuron+cloquintocet; carfentrazone-ethyl+diclofop-methyl+cloquintocet; carfentrazone-ethyl+fenoxaprop(P-ethyl)+cloquintocet; carfentrazone-ethyl+flazasulfuron+cloquintocet; carfentrazone-ethyl+flupyrsulfuron+cloquintocet; carfentrazone-ethyl+iodosulfuron+cloquintocet; carfentrazone-ethyl+mecoprop+cloquintocet; carfentrazone-ethyl+chlorsulfuron+cloquintocet; carfentrazone-ethyl+metsulfuron+cloquintocet; carfentrazone-ethyl+sulfosulfuron+cloquintocet; carfentrazone-ethyl+thifensulfuron+cloquintocet; carfentrazone-ethyl+tribenuron+cloquintocet; carfentrazone-ethyl+ethametsulfuron+cloquintocet; carfentrazone-ethyl+flamprop-M+cloquintocet; compound of the formula A+triasulfuron+cloquintocet; compound of the formula A+prosulfuron+cloquintocet; compound of the formula A+clodinafop+cloquintocet; compound of the formula A+amidosulfuron+cloquintocet; compound of the formula A+diclofop-methyl+cloquintocet; compound of the formula A+fenoxaprop(P-ethyl)+cloquintocet; compound of the formula A+flazasulfuron+cloquintocet; compound of the formula A+flupyrsulfuron+cloquintocet; compound of the formula A+iodosulfuron+cloquintocet; compound of the formula A+mecoprop+cloquintocet; compound of the formula A+chlorsulfuron+cloquintocet; compound of the formula A+metsulfuron+cloquintocet; compound of the formula A+sulfosulfuron+cloquintocet; compound of the formula A+thifensulfuron+cloquintocet; compound of the formula A+tribenuron+cloquintocet; compound of the formula A+ethametsulfuron+cloquintocet; compound of the formula A+flamprop-M+cloquintocet; cinidon-ethyl+triasulfuron+cloquintocet; cinidon-ethyl+prosulfuron+cloquintocet; cinidon-ethyl+clodinafop+cloquintocet; cinidon-

ethyl+amidosulfuron+cloquintocet; cinidon-ethyl+diclofop-methyl+cloquintocet; cinidon-ethyl+fenoxaprop (P-ethyl)+cloquintocet; cinidon-ethyl+flazasulfuron+cloquintocet; cinidon-ethyl+flupyrsulfuron+cloquintocet; cinidon-ethyl+iodosulfuron+cloquintocet; cinidon-ethyl+mecoprop+cloquintocet; cinidon-ethyl+chlorsulfuron+cloquintocet; cinidon-ethyl+metsulfuron+cloquintocet; cinidon-ethyl+sulfosulfuron+cloquintocet; cinidon-ethyl+thifensulfuron+cloquintocet; cinidon-ethyl+tribenuron+cloquintocet; cinidon-ethyl+ethametsulfuron+cloquintocet; cinidon-ethyl+flamprop-M+cloquintocet; flumiclorac-pentyl+metsulfuron+cloquintocet; flumiclorac-pentyl +prosulfuron+cloquintocet; flumiclorac-pentyl+clodinafop+cloquintocet; flumiclorac-pentyl+amidosulfuron+cloquintocet; flumiclorac-pentyl+diclofop-methyl+cloquintocet; flumiclorac-pentyl+fenoxaprop(P-ethyl)+cloquintocet; flumiclorac-pentyl+flazasulfuron+cloquintocet; flumiclorac-pentyl+flupyrsulfuron on+cloquintocet; flumiclorac-pentyl+iodosulfuron+cloquintocet; flumiclorac-pentyl+mecoprop+cloquintocet; flumiclorac-pentyl +chlorsulfuron+cloquintocet; flumiclorac-pentyl+metsulfuron+cloquintocet; flumiclorac-pentyl+sulfosulfuron+cloquintocet; flumiclorac-pentyl+thifensulfuron+cloquintocet; flumiclorac-pentyl+tribenuron+cloquintocet; flumiclorac-pentyl+ethametsulfuron+cloquintocet; flumiclorac-pentyl+flamprop-M+cloquintocet; flumioxazin+triasulfuron+cloquintocet; flumioxazin+prosulfuron+cloquintocet; flumioxazin+clodinafop+cloquintocet; flumioxazin+amidosulfuron+cloquintocet; flumioxazin+diclofop-methyl+cloquintocet; flumioxazin+fenoxaprop(P-ethyl)+cloquintocet; flumioxazin+flazasulfuron+cloquintocet; flumioxazin+flupyrsulfuron+cloquintocet; flumioxazin+iodosulfuron+cloquintocet; flumioxazin+mecoprop+cloquintocet; flumioxazin+chlorsulfuron+cloquintocet; flumioxazin+metsulfuron+cloquintocet; flumioxazin+sulfosulfuron+cloquintocet; flumioxazin+thifensulfuron+cloquintocet; flumioxazin+tribenuron+cloquintocet; flumioxazin+ethametsulfuron+cloquintocet; flumioxazin+flamprop-M+cloquintocet; fluthiacet-methyl+triasulfuron+cloquintocet; fluthiacet-methyl+prosulfuron+cloquintocet; fluthiacet-methyl+clodinafop+cloquintocet; fluthiacet-methyl+amidosulfuron +cloquintocet; fluthiacet-methyl+diclofop-methyl+cloquintocet; fluthiacet-methyl+fenoxaprop(P-ethyl)+cloquintocet; fluthiacet-methyl+flazasulfuron+cloquintocet; fluthiacet-methyl+flupyrsulfuron+cloquintocet; fluthiacet-methyl+iodosulfuron+cloquintocet; fluthiacet-methyl+mecoprop+cloquintocet; fluthiacet-methyl+chlorsulfuron +cloquintocet; fluthiacet-methyl+metsulfuron+cloquintocet; fluthiacet-methyl+sulfosulfuron+cloquintocet; fluthiacet-methyl+thifensulfuron+cloquintocet; fluthiacet-methyl+tribenuron+cloquintocet; fluthiacet-methyl+ethametsulfuron+cloquintocet; fluthiacet-methyl+flamprop-M+ctoquintocet; oxadiargyl+triasulfuron+cloquintocet; oxadiargyl+prosulfuron+cloquintocet; oxadiargyl+clodinafop+cloquintocet; oxadiargyl+amidosulfuron+cloquintocet; oxadiargyl+diclofop-methyl+cloquintocet; oxadiargyl+fenoxaprop(P-ethyl)+cloquintocet; oxadiargyl+flazasulfuron+cloquintocet; oxadiargyl+flupyrsulfuron+cloquintocet; oxadiargyl+iodosulfuron+cloquintocet; oxadiargyl+mecoprop+cloquintocet; oxadiargyl+chlorsulfuron+cloquintocet; oxadiargyl+metsulfuron+cloquintocet; oxadiargyl+sulfosulfuron+cloquintocet; oxadiargyl+thifensulfuron+cloquintocet; oxadiargyl+tribenuron+cloquintocet; oxadiargyl+ethametsufruron+cloquintocet; oxadiargyl+flamprop-M+cloquintocet; oxadiazon+triasulfuron+cloquintocet; oxadiazon+prosulfuron+cloquintocet; oxadiazon+clodinafop +cloquintocet; oxadiazon+amidosulfuron+cloquintocet; oxadiazon+diclofop-methyl+cloquintocet; oxadiazon+fenoxaprop(P-ethyl)+cloquintocet; oxadiazon+flazasulfuron+cloquintocet; oxadiazon+flupyrsulfuron+cloquintocet; oxadiazon+iodosulfuron+cloquintocet; oxadiazon+mecoprop+cloquintocet; oxadiazon+chlorsulfuron+cloquintocet; oxadiazon+metsulfuron+cloquintocet; oxadiazon+sulfosulfuron+cloquintocet; oxadiazon+thifensulfuron+cloquintocet; oxadiazon+tribenuron+cloquintocet; oxadiazon+ethametsulfuron+cloquintocet; oxadiazon+flamprop-M+cloquintocet; pentoxazone+triasulfuron+cloquintocet; pentoxazone+prosulfuron+cloquintocet; pentoxazone+clodinafop+cloquintocet; pentoxazone+amidosulfuron+cloquintocet; pentoxazone+diclofop-methyl+cloquintocet; pentoxazone+fenoxaprop (P-ethyl)+cloquintocet; pentoxazone+flazasulfuron+cloquintocet; pentoxazone+flupyrsulfuron+cloquintocet; pentoxazone+iodosulfuron+cloquintocet; pentoxazone+mecoprop+cloquintocet; pentoxazone+chlorsulfuron+cloquintocet; pentoxazone+metsulfuron+cloquintocet; pentoxazone+sulfosulfuron+cloquintocet; pentoxazone+thifensulfuron+cloquintocet; pentoxazone+tribenuron+cloquintocet; pentoxazone+ethametsulfuron+cloquintocet; pentoxazone+flamprop-M+cloquintocet; sulfentrazone+triasulfuron+cloquintocet; sulfentrazone+prosulfuron+cloquintocet; sulfentrazone+clodinafop+cloquintocet; sulfentrazone+amidosulfuron+cloquintocet; sulfentrazone+diclofop-methyl+cloquintocet; sulfentrazone+fenoxaprop(P-ethyl)+cloquintocet; sulfentrazone+flazasulfuron+cloquintocet; sulfentrazone+flupyrsulfuron+cloquintocet; sulfentrazone+iodosulfuron+cloquintocet; sulfentrazone+mecoprop+cloquintocet; sulfentrazone+chlorsulfuron+cloquintocet; sulfentrazone+metsulfuron+cloquintocet; sulfentrazone+sulfosulfuron+cloquintocet; sulfentrazone+thifensulfuron+cloquintocet; sulfentrazone+tribenuron+cloquintocet; sulfentrazone+ethametsulfuron+cloquintocet; sulfentrazone+flamprop-M+cloquintocet; fluazolate+triasulfuron+cloquintocet; fluazolate+prosulfuron+cloquintocet; fluazolate+clodinafop+cloquintocet; fluazolate+amidosulfuron+cloquintocet; fluazolate+diclofop-methyl+cloquintocet; fluazolate+fenoxaprop(P-ethyl)+cloquintocet; fluazolate+flazasulfuron+cloquintocet; fluazolate+flupyrsulfuron+cloquintocet; fluazolate+iodosulfuron+cloquintocet; fluazolate+mecoprop+cloquintocet; fluazolate+chlorsulfuron+cloquintocet; fluazolate+metsulfuron +cloquintocet; fluazolate+sulfosulfuron+cloquintocet; fluazolate+thifensulfuron+cloquintocet; fluazolate+tribenuron+cloquintocet; fluazolate+ethametsulfuron+cloquintocet; fluazolate+flamprop-M+cloquintocet; pyraflufen-ethyl+triasulfuron+cloquintocet; pyraflufen-ethyl+prosulfuron+cloquintocet; pyraflufen-ethyl+clodinafop+cloquintocet; pyraflufen-ethyl+amidosulfuron+cloquintocet; pyraflufen-ethyl+diclofop-methyl+cloquintocet; pyraflufen-ethyl+fenoxaprop(P-ethyl)+cloquintocet; pyraflufen-ethyl +flazasulfuron+cloquintocet; pyraflufen-ethyl+flupyrsulfuron+cloquintocet; pyraflufen-ethyl+iodosulfuron+cloquintocet; pyraflufen-ethyl+mecoprop+cloquintocet; pyraflufen-ethyl+chlorsulfuron+cloquintocet; pyraflufen-ethyl+metsulfuron+cloquintocet; pyraflufen-ethyl+sulfosulfuron+cloquintocet; pyraflufen-ethyl+thifensulfuron+cloquintocet; pyraflufen-ethyl+tribenuron+cloquintocet; pyraflufen-ethyl+ethametsulfuron +cloquintocet; pyraflufen-ethyl+flamprop-M+cloquintocet; flumipropyn+triasulfuron+clo-

quintocet; flumipropyn+prosulfuron+cloquintocet; flumipropyn+clodinafop+cloquintocet; flumipropyn+amidosulfuron+cloquintocet; flumipropyn+diclofop-methyl+cloquintocet; flumipropyn+fenoxaprop(P-ethyl)+cloquintocet; flumipropyn+flazasulfuron +cloquintocet; flumipropyn+flupyrsulfuron+cloquintocet; flumipropyn+iodosulfuron+cloquintocet; flumipropyn+mecoprop+cloquintocet; flumipropyn+chlorsulfuron+cloquintocet; flumipropyn+metsulfuron+cloquintocet; flumipropyn+sulfosulfuron+cloquintocet; flumipropyn+thifensulfuron+cloquintocet; flumipropyn+tribenuron+cloquintocet; flumipropyn+ethametsulfuron+cloquintocet; flumipropyn+flamprop-M+cloquintocet; flupropacil+triasulfuron+cloquintocet; flupropacil+prosulfuron+cloquintocet; flupropacil+clodinafop+cloquintocet; flupropacil+amidosulfuron+cloquintocet; flupropacil+diclofop-methyl+cloquintocet; flupropacil+fenoxaprop(P-ethyl)+cloquintocet; flupropacil+flazasulfuron+cloquintocet; flupropacil+flupyrsulfuron+cloquintocet; flupropacil+iodosulfuron+cloquintocet; flupropacil+mecoprop+cloquintocet; flupropacil+chlorsulfuron+cloquintocet; flupropacil+metsulfuron+cloquintocet; flupropacil+sulfosulfuron+cloquintocet; flupropacil+thifensulfuron+cloquintocet; flupropacil+tribenuron+cloquintocet; flupropacil+ethametsulfuron+cloquintocet; flupropacil+flamprop-M+cloquintocet; nipyraclofen+triasulfuron+cloquintocet; nipyraclofen+prosulfuron+cloquintocet; nipyraclofen+clodinafop+cloquintocet; nipyraclofen+amidosulfuron+cloquintocet; nipyraclofen+diclofop-methyl+cloquintocet; nipyraclofen+fenoxaprop(P-ethyl)+cloquintocet; nipyraclofen+flazasulfuron +cloquintocet; nipyraclofen+flupyrsulfuron+cloquintocet; nipyraclofen+iodosulfuron+cloquintocet; nipyraclofen+mecoprop+cloquintocet; nipyraclofen+chlorsulfuron+cloquintocet; nipyraclofen+metsulfuron+cloquintocet; nipyraclofen+sulfosulfuron+cloquintocet; nipyraclofen+thifensulfuron+cloquintocet; nipyraclofen+tribenuron+cloquintocet; nipyraclofen+ethametsulfuron+cloquintocet; nipyraclofen+flamprop-M+cloquintocet; benzfendizone+triasulfuron+cloquintocet; benzfendizone+prosulfuron+cloquintocet; benzfendizone+clodinafop+cloquintocet; benzfendizone+amidosulfuron+cloquintocet; benzfendizone+diclofop-methyl+cloquintocet; benzfendizone+fenoxaprop(P-ethyl)+cloquintocet; benzfendizone+flazasulfuron+cloquintocet; benzfendizone+flupyrsulfuron+cloquintocet; benzfendizone+iodosulfuron+cloquintocet; benzfendizone+mecoprop+cloquintocet; benzfendizone+chlorsulfuron+cloquintocet; benzfendizone+metsulfuron+cloquintocet; benzfendizone+sulfosulfuron+cloquintocet; benzfendizone+thifensulfuron+cloquintocet; benzfendizone+tribenuron+cloquintocet; benzfendizone+ethametsulfuron+cloquintocet; benzfendizone+flamprop-M+cloquintocet; thidiazimin+triasulfuron+cloquintocet; thidiazimin+prosulfuron+cloquintocet; thidiazimin+clodinafop+cloquintocet; thidiazimin+amidosulfuron+cloquintocet; thidiazimin+diclofop-methyl+cloquintocet; thidiazimin+fenoxaprop(P-ethyl) +cloquintocet; thidiazimin+flazasulfuron+cloquintocet; thidiazimin+flupyrsulfuron+cloquintocet; thidiazimin+iodosulfuron+cloquintocet; thidiazimin+mecoprop+cloquintocet; thidiazimin+chlorsulfuron+cloquintocet; thidiazimin+metsulfuron+cloquintocet; thidiazimin+sulfosulfuron+cloquintocet; thidiazimin+thifensulfuron+cloquintocet; thidiazimin+tribenuron+cloquintocet; thidiazimin+ethametsulfuron+cloquintocet; and thidiazimin+flamprop-M+cloquintocet.

[0117] The following specific combinations of the compounds under a) with the co-herbicides under b) (3-compound and 4-compound combinations) have been found to be further groups of very particularly effective herbicidal synergistic and selective-herbicidal compositions, in particular in crops of maize resistant to protoporphyrinogen oxidase inhibitors:

[0118] acifluorfen+prosulfuron+primisulfuron; acifluorfen+prosulfuron+dicamba; acifluorfen+primisulfuron+dicamba; acifluorfen+nicosulfuron+primisulfuron; acifluorfen+nicosulfuron+prosulfuron; acifluorfen+rimsulfuron+primisulfuron; acifluorfen+rimsulfuron+prosulfuron; acifluorfen+metolachlor+isoxaflutole; acifluorfen+metolachlor +isoxaflutole+benoxacor; acifluorfen+S-metolachlor+isoxaflutole; acifluorfen+S-metolachlor+isoxaflutole+benoxacor; acifluorfen+metolachlor+mesotrione; acifluorfen +metolachlor+mesotrione+benoxacor; acifluorfen+S-metolachlor+mesotrione; acifluorfen+S-metolachlor+mesotrione+benoxacor; acifluorfen+metolachlor or+atrazine; acifluorfen+metolachlor+atrazine+benoxacor; acifluorfen+S-metolachlor+atrazine; acifluorfen+S-metolachlor+atrazine+benoxacor; acifluorfen+metolachlor+terbuthylazine; acifluorfen+metolachlor+terbuthylazine+benoxacor; acifluorfen+S-metolachlor+terbuthylazine; acifluorfen+S-metolachlor+terbuthylazine+benoxacor; acifluorfen+atrazine+nicosulfuron; acifluorfen+atrazine+nicosulfuron+benoxacor; aclonifen+prosulfuron+primisulfuron; aclonifen+prosulfuron+dicamba; aclonifen+primisulfuron+dicamba; aclonifen+nicosulfuron+primisulfuron; aclonifen+nicosulfuron+prosulfuron; aclonifen+rimsulfuron+primisulfuron; aclonifen+rimsulfuron+prosulfuron; aclonifen+metolachlor+isoxaflutole; aclonifen+metolachlor+isoxaflutole+benoxacor; aclonifen+S-metolachlor+isoxaflutole; aclonifen+S-metolachlor+isoxaflutole+benoxacor; aclonifen+metolachlor+mesotrione; aclonifen+metolachlor+mesotrione+benoxacor; aclonifen+S-metolachlor+mesotrione; aclonifen+S-metolachlor+mesotrione +benoxacor; aclonifen+metolachlor+atrazine; aclonifen+metolachlor+atrazine+benoxacor; aclonifen+,S-metolachlor+atrazine; aclonifen+S-metolachlor+atrazine+benoxacor, aclonifen+metolachlor+terbuthylazine; aclonifen+metolachlor+terbuthylazine+benoxacor; aclonifen+S-metolachlor+terbuthylazine; aclonifen+S-metolachlor+terbuthylazine+benoxacor; aclonifen+atrazine+nicosulfuron; aclonifen+atrazine+nicosulfuron+benoxacor; bifenox+prosulfuron+primisulfuron; bifenox+prosulfuron+dicamba; bifenox+primisulfuron+dicamba; bifenox+nicosulfuron+primisulfuron; bifenox+nicosulfuron+prosulfuron; bifenox+rimsulfuron+primisulfuron; bifenox+rimsulfuron+prosulfuron; bifenox+metolachlor+isoxaflutole; bifenox+metolachlor+isoxaflutole+benoxacor; bifenox+S-metolachlor+isoxaflutole; bifenox+S-metolachlor+isoxaflutole+benoxacor; bifenox+metolachlor+mesotrione; bifenox+metolachlor+mesotrione+benoxacor; bifenox+S-metolachlor+mesotrione; bifenox+S-metolachlor+mesotrione+benoxacor; bifenox+metolachlor+atrazine; bifenox+metolachlor+atrazine+benoxacor; bifenox+S-metolachlor+atrazine; bifenox+S-metolachlor+atrazine+benoxacor; bifenox+metolachlor+terbuthylazine; bifenox+metolachlor+terbuthylazine+benoxacor; bifenox+S-metolachlor+terbuthylazine; bifenox +S-metolachlor+terbuthylazine+benoxacor; bifenox+atrazine+nicosulfuron; bifenox+atrazine+nicosulfuron+benoxacor; chlomitrofen+prosulfuron+primisulfuron; chlomitrofen+prosulfuron+di-

camba; chlomitrofen+primisulfuron+dicamba; chlomitrofen +nicosulfuron+primisulfuron; chlomitrofen+nicosulfuron+ prosulfuron; chlomitrofen+rimsulfuron+primisulfuron; chlomitrofen+rimsulfuron+prosulfuron; chlomitrofen+metolachlor+isoxaflutole; chlomitrofen+metolachlor+isoxaflutole+benoxacor; chlomitrofen+S-metolachlor+isoxaflutole; chlomitrofen+S-metolachlor+isoxaflutole+benoxacor; chlomitrofen+metolachlor+mesotrione; chlomitrofen+metolachlor+mesotrione+benoxacor; chlomitrofen+S-metolachlor+mesotrione; chlomitrofen+S-metolachlor+ mesotrione+benoxacor; chlomitrofen+metolachlor+ atrazine; chlomitrofen +metolachlor+atrazine+benoxacor; chlomitrofen+S-metolachlor+atrazine; chlomitrofen +-metolachlor+atrazine+benoxacor; chlomitrofen+metolachlor+ terbuthylazine; chlomitrofen+metolachlor+terbuthylazine+ benoxacor, chlomitrofen+S-metolachlor+terbuthylazine; chlomitrofen+S-metolachlor+terbuthylazine+benoxacor; chlomitrofen+atrazine+nicosulfuron; chlomitrofen+atrazine+nicosulfuron+benoxacor; ethoxyfen+prosulfuron+primisulfuron; ethoxyfen+prosulfuron+dicamba; ethoxyfen+ primisulfuron+dicamba; ethoxyfen+nicosulfuron+ primisulfuron; ethoxyfen+nicosulfuron+prosulfuron; ethoxyfen+rimsulfuron+primisulfuron; ethoxyfen+rimsulfuron+prosulfuron; ethoxyfen+metolachlor+isoxaflutole; ethoxyfen+metolachlor+isoxaflutole+benoxacor; ethoxyfen+S-metolachlor+isoxaflutole; ethoxyfen+S-metolachlor+ isoxaflutole+benoxacor; ethoxyfen+metolachlor+mesotrione; ethoxyfen+metolachlor+mesotrione+benoxacor; ethoxyfen+S-metolachlor+mesotrione; ethoxyfen+S-metolachlor+mesotrione+benoxacor, ethoxyfen+metolachlor+ atrazine; ethoxyfen+metolachlor+atrazine+benoxacor; ethoxyfen+S-metolachlor+atrazine; ethoxyfen+S-metolachlor+atrazine+benoxacor; ethoxyfen+metolachlor+terbuthylazine; ethoxyfen+metolachlor+terbuthylazine+ benoxacor; ethoxyfen+S-metolachlor+terbuthylazine; ethoxyfen+S-metolachlor+terbuthylazine+benoxacor; ethoxyfen+atrazine+nicosulfuron; ethoxyfen+atrazine+ nicosulfuron+benoxacor; fluoroglycofen+prosulfuron+primisulfuron; fluoroglycofen+prosulfuron+dicamba; fluoroglycofen+primisulfuron+dicamba; fluoroglycofen+ nicosulfuron+primisulfuron; fluoroglycofen+nicosulfuron+ prosulfuron; fluoroglycofen+rimsulfuron+primisulfuron; fluoroglycofen+rimsulfuron+prosulfuron; fluoroglycofen+ metolachlor+isoxaflutole; fluoroglycofen+metolachlor+ isoxaflutole+benoxacor; fluoroglycofen+S-metolachlor+ isoxaflutole; fluoroglycofen+S-metolachlor+isoxaflutole+ benoxacor; fluoroglycofen+metolachlor+mesotrione; fluoroglycofen+metolachlor+mesotrione+benoxacor; fluoroglycofen+S-metolachlor+mesotrione; fluoroglycofen+S-metolachlor+mesotrione+benoxacor; fluoroglycofen+metolachlor+atrazine; fluoroglycofen+metolachlor+atrazine+ benoxacor; fluoroglycofen+S-metolachlor+atrazine; fluoroglycofen+S-metolachlor+atrazine+benoxacor; fluoroglycofen+metolachlor+terbuthylazine; fluoroglycofen+metolachlor+terbuthylazine +benoxacor; fluoroglycofen+S-metolachlor+terbuthylazine; fluoroglycofen+S-metolachlor+terbuthylazine+benoxacor; fluoroglycofen+ atrazine+nicosulfuron; fluoroglycofen+atrazine+ nicosulfuron+benoxacor; fomesafen+prosulfuron+ primisulfuron; fomesafen+prosulfuron+dicamba; fomesafen+primisulfuron+dicamba; fomesafen+nicosulfuron+primisulfuron; fomesafen+nicosulfuron+prosulfuron; fomesafen+rimsulfuron+primisulfuron; fomesafen+rimsulfuron+prosulfuron; fomesafen +metolachlor+isoxaflutole; fomesafen+metolachlor+isoxaflutole+benoxacor; fomesafen+S-metolachlor+isoxaflutole; fomesafen+S-metolachlor+isoxaflutole+benoxacor; fomesafen+metolachlor+ mesotrione; fomesafen+metolachlor+mesotrione +benoxacor; fomesafen+S-metolachlor+mesotrione; fomesafen+S-metolachlor+mesotrione+benoxacor; fomesafen+ metolachlor+atrazine; fomesafen+metolachlor+atrazine+ benoxacor; fomesafen+S-metolachlor+atrazine; fomesafen+ S-metolachlor+atrazine+benoxacor; fomesafen+ metolachlor+terbuthylazine; fomesafen+metolachlor +terbuthylazine+benoxacor; fomesafen+S-metolachlor+terbuthylazine; fomesafen+S-metolachlor+terbuthylazine+ benoxacor; fomesafen+atrazine+nicosulfuron; fomesafen +atrazine+nicosulfuron+benoxacor; lactofen+prosulfuron+ primisulfuron; lactofen+prosulfuron+dicamba; lactofen+ primisulfuron+dicamba; lactofen+nicosulfuron+primisulfuron; lactofen+nicosulfuron+prosulfuron; lactofen+ rimsulfuron+primisulfuron; lactofen+rimsulfuron+ prosulfuron; lactofen+metolachlor+isoxaflutole; lactofen+ metolachlor+isoxaflutole+benoxacor; lactofen+S-metolachlor+isoxaflutole; lactofen+S-metolachlor+ isoxaflutole+benoxacor; lactofen+metolachlor+mesotrione; lactofen+metolachlor+mesotrione+benoxacor; lactofen+S-metolachlor+mesotrione; lactofen+S-metolachlor+mesotrione+benoxacor; lactofen+metolachlor+atrazine; lactofen+ metolachlor+atrazine+benoxacor; lactofen+S-metolachlor+ atrazine; lactofen+S-metolachlor+atrazine+benoxacor; lactofen+metolachlor+terbuthylazine; lactofen+metolachlor+terbuthylazine+benoxacor; lactofen+S-metolachlor+terbuthylazine; lactofen+S-metolachlor+terbuthylazine+benoxacor; lactofen+atrazine+nicosulfuron; lactofen+ atrazine+nicosulfuron+benoxacor; oxyfluorfen+ prosulfuron+primisulfuron; oxyfluorfen+prosulfuron+ dicamba; oxyfluorfen+primisulfuron+dicamba; oxyfluorfen+nicosulfuron+primisulfuron; oxyfluorfen+ nicosulfuron+prosulfuron; oxyfluorfen+rimsulfuron+primisulfuron; oxyfluorfen+rimsulfuron+prosulfuron; oxyfluorfen+metolachlor+isoxaflutole; oxyfluorfen+metolachlor+ isoxaflutole+benoxacor; oxyfluorfen +S-metolachlor+ isoxaflutole; oxyfluorfen+S-metolachlor+isoxaflutole+ benoxacor; oxyfluorfen+metolachlor+mesotrione; oxyfluorfen+metolachlor+mesotrione+benoxacor; oxyfluorfen+S-metolachlor+mesotrione; oxyfluorfen+S-metolachlor+mesotrione+benoxacor; oxyfluorfen+metolachlor+ atrazine; oxyfluorfen+metolachlor+atrazine+benoxacor; oxyfluorfen+S-metolachlor+atrazine; oxyfluorfen+S-metolachlor+atrazine+benoxacor; oxyfluorfen+metolachlor+terbuthylazine; oxyfluorfen+metolachlor +terbuthylazine+ benoxacor; oxyfluorfen+S-metolachlor+terbuthylazine; oxyfluorfen+S-metolachlor+terbuthylazine+benoxacor; oxyfluorfen+atrazine+nicosulfuron; oxyfluorfen +atrazine+ nicosulfuron+benoxacor; azafenidin+prosulfuron+primisulfuron; azafenidin +prosulfuron+dicamba; azafenidin+primisulfuron+dicamba; azafenidin+nicosulfuron+ primisulfuron; azafenidin+nicosulfuron+prosulfuron; azafenidin+rimsulfuron+primisulfuron; azafenidin+rimsulfuron+prosulfuron; azafenidin+metolachlor+isoxaflutole; azafenidin+metolachlor+isoxaflutole+benoxacor; azafenidin+S-=metolachlor+isoxaflutole; azafenidin+S-metolachlor+isoxaflutole+benoxacor; azafenidin+metolachlor+ mesotrione; azafenidin+metolachlor+mesotrione+ benoxacor; azafenidin+S-metolachlor+mesotrione; azafenidin+S-metolachlor+mesotrione+benoxacor; azafenidin+metolachlor+atrazine; azafenidin+metolachlor+atra-

zine+benoxacor; azafenidin+S-metolachlor+atrazine; azafenidin+S-metolachlor+atrazine+benoxacor; azafenidin+metolachlor+terbuthylazine; azafenidin+metolachlor+terbuthylazine+benoxacor; azafenidin+S-metolachlor+terbuthylazine; azafenidin+S-metolachlor+terbuthylazine+benoxacor; azafenidin+atrazine+nicosulfuron; azafenidin+atrazine+nicosulfuron+benoxacor; carfentrazone-ethyl+prosulfuron+primisulfuron; carfentrazone-ethyl+prosulfuron+dicamba; carfentrazone-ethyl+primisulfuron+dicamba; carfentrazone-ethyl+nicosulfuron+primisulfuron; carfentrazone-ethyl+nicosulfuron+prosulfuron; carfentrazone-ethyl+rimsulfuron+primisulfuron; carfentrazone-ethyl+rimsulfuron+prosulfuron; carfentrazone-ethyl+metolachlor+isoxaflutole; carfentrazone-ethyl+metolachlor+isoxaflutole+benoxacor; carfentrazone-ethyl+S-metolachlor+isoxaflutole; carfentrazone-ethyl+S-metolachlor+isoxaflutole+benoxacor; carfentrazone-ethyl+metolachlor+mesotrione; carfentrazone-ethyl+metolachlor+mesotrione+benoxacor; carfentrazone-ethyl+S-metolachlor+mesotrione; carfentrazone-ethyl+S-metolachlor+mesotrione+benoxacor; carfentrazone-ethyl+metolachlor+atrazine; carfentrazone-ethyl+metolachlor+atrazine+benoxacor; carfentrazone-ethyl+S-metolachlor+atrazine; carfentrazone-ethyl+S-metolachlor+atrazine+benoxacor; carfentrazone-ethyl+metolachlor+terbuthylazine; carfentrazone-ethyl+metolachlor+terbuthylazine+benoxacor; carfentrazone-ethyl+S-metolachlor+terbuthylazine; carfentrazone-ethyl+S-metolachlor+terbuthylazine+benoxacor; carfentrazone-ethyl+atrazine+nicosulfuron; carfentrazone-ethyl+atrazine+nicosulfuron+benoxacor; compound of the formula A+prosulfuron+primisulfuron; compound of the formula A+prosulfuron+dicamba; compound of the formula A+primisulfuron+dicamba; compound of the formula A+nicosulfuron+primisulfuron; compound of the formula A+nicosulfuron+prosulfuron; compound of the formula A+rimsulfuron+primisulfuron; compound of the formula A+rimsulfuron+prosulfuron; compound of the formula A+metolachlor+isoxaflutole; compound of the formula A+metolachlor+isoxaflutole+benoxacor; compound of the formula A+S-metolachlor+isoxaflutole; compound of the formula A+S-metolachlor+isoxaflutole+benoxacor; compound of the formula A+metolachlor+mesotrione; compound of the formula A+metolachlor+mesotrione+benoxacor; compound of the formula A+S-metolachlor+mesotrione; compound of the formula A+S-metolachlor+mesotrione+benoxacor; compound of the formula A+metolachlor+atrazine; compound of the formula A+metolachlor+atrazine+benoxacor; compound of the formula A+S-metolachlor+atrazine; compound of the formula A+S-metolachlor+atrazine+benoxacor; compound of the formula A+metolachlor+terbuthylazine; compound of the formula A+metolachlor+terbuthylazine+benoxacor; compound of the formula A+S-metolachlor+terbuthylazine; compound of the formula A+S-metolachlor+terbuthylazine+benoxacor; compound of the formula A+atrazine+nicosulfuron; compound of the formula A+atrazine+nicosulfuron+benoxacor; cinidon-ethyl+prosulfuron+primisulfuron; cinidon-ethyl+prosulfuron+dicamba; cinidon-ethyl+primisulfuron+dicamba; cinidon-ethyl+nicosulfuron+primisulfuron; cinidon-ethyl+nicosulfuron+prosulfuron; cinidon-ethyl+rimsulfuron+primisulfuron; cinidon-ethyl+rimsulfuron+prosulfuron; cinidon-ethyl+metolachlor+isoxaflutole; cinidon-ethyl+metolachlor+isoxaflutole+benoxacor; cinidon-ethyl+S-metolachlor+isoxaflutole; cinidon-ethyl+S-metolachlor+isoxaflutole+benoxacor; cinidon-ethyl+metolachlor+mesotrione; cinidon-ethyl+metolachlor+mesotrione+benoxacor; cinidon-ethyl+S-metolachlor+mesotrione; cinidon-ethyl+S-metolachlor+mesotrione+benoxacor; cinidon-ethyl+metolachlor+atrazine; cinidon-ethyl+metolachlor+atrazine+benoxacor; cinidon-ethyl+S-metolachlor+atrazine; cinidon-ethyl+S-metolachlor+atrazine+benoxacor; cinidon-ethyl+metolachlor+terbuthylazine; cinidon-ethyl+metolachlor+terbuthylazine+benoxacor; cinidon-ethyl+S-metolachlor+terbuthylazine; cinidon-ethyl+S-metolachlor+terbuthylazine+benoxacor; cinidon-ethyl+atrazine+nicosulfuron; cinidon-ethyl+atrazine +nicosulfuron+benoxacor; flumiclorac-pentyl+prosulfuron+primisulfuron; 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flumioxazin+S-metolachlor+terbuthylazine; flumioxazin+S-metolachlor+terbuthylazine+benoxacor; flumioxazin+atrazine+nicosulfuron; flumioxazin+atrazine+nicosulfuron+benoxacor; fluthiacet-methyl+prosulfuron+primisulfuron; fluthiacet-methyl +prosulfuron+dicamba; fluthiacet-methyl+primisulfuron+dicamba; fluthiacet-methyl+nicosulfuron+primisulfuron; fluthiacet-methyl+nicosulfuron+prosulfuron; fluthiacet-methyl +rimsulfuron+primisulfuron; fluthiacet-methyl+rimsulfuron+prosulfuron; fluthiacet-methyl +metolachlor+isoxaflutole; fluthiacet-methyl+metolachlor+isoxaflutole+benoxacor; fluthiacet-methyl+S-metolachlor+isoxaflutole; fluthiacet-methyl+S-metolachlor+

isoxaflutole+benoxacor; fluthiacet-methyl+metolachlor+mesotrione; fluthiacet-methyl+metolachlor+mesotrione+benoxacor; fluthiacet-methyl+S-metolachlor+mesotrione; fluthiacet-methyl+S-metolachlor+mesotrione+benoxacor; fluthiacet-methyl+metolachlor +atrazine; fluthiacet-methyl+metolachlor+atrazine+benoxacor; fluthiacet-methyl+S-metolachlor+atrazine; fluthiacet-methyl+S-metolachlor+atrazine+benoxacor; fluthiacet-methyl+metolachlor+terbuthylazine; fluthiacet-methyl+metolachlor+terbuthylazine+benoxacor; fluthiacet-methyl+S-metolachlor+terbuthylazine; fluthiacet-methyl+S-metolachlor+terbuthylazine+benoxacor; fluthiacet-methyl+atrazine+nicosulfuron; fluthiacet-methyl+atrazine+nicosulfuron+benoxacor; oxadiargyl+prosulfuron+primisulfuron; oxadiargyl+prosulfuron+dicamba; oxadiargyl+primisulfuron+dicamba; oxadiargyl+nicosulfuron+primisulfuron; oxadiargyl+nicosulfuron+prosulfuron; oxadiargyl+rimsulfuron+primisulfuron; oxadiargyl+rimsulfuron+prosulfuron; oxadiargyl +metolachlor+isoxaflutole; oxadiargyl+metolachlor+isoxaflutole+benoxacor; oxadiargyl +S-metolachlor+isoxaflutole; oxadiargyl+S-metolachlor+isoxaflutole+benoxacor; oxadiargy+metolachlor or+mesotrione; oxadiargyl+metolachlor+mesotrione+benoxacor; oxadiargyl+S-metolachlor+mesotrione; oxadiargyl+S-metolachlor+mesotrione+benoxacor; oxadiargyl+metolachlor+atrazine; oxadiargyl+metolachlor+atrazine+benoxacor; oxadiargyl+S-metolachlor+atrazine; oxadiargyl+S-metolachlor+atrazine+benoxacor; oxadiargyl+metolachlor+terbuthylazine; oxadiargyl+metolachlor+terbuthylazine+benoxacor; oxadiargyl+S-metolachlor+terbuthylazine; oxadiargyl+S-metolachlor+terbuthylazine+benoxacor; oxadiargyl+atrazine+nicosulfuron; oxadiargyl+atrazine+nicosulfuron+benoxacor; oxadiazon+prosulfuron+primisulfuron; oxadiazon+prosulfuron+dicamba; oxadiazon+primisulfuron+dicamba; oxadiazon+nicosulfuron+primisulfuron; oxadiazon+nicosulfuron+prosulfuron; oxadiazon+rimsulfuron+primisulfuron; oxadiazon+rimsulfuron+prosulfuron; oxadiazon+metolachlor +isoxaflutole; oxadiazon+metolachlor+isoxaflutole+benoxacor; oxadiazon+S-metolachlor+isoxaflutole; 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sulfentrazone+S-metolachlor+isoxaflutole+benoxacor; sulfentrazone+metolachlor+mesotrione; sulfentrazone+metolachlor+mesotrione+benoxacor; sulfentrazone+S-metolachlor+mesotrione; sulfentrazone+S-metolachlor+mesotrione+benoxacor; sulfentrazone+metolachlor+atrazine; sulfentrazone+metolachlor+atrazine+benoxacor; sulfentrazone+S-metolachlor+atrazine; sulfentrazone+S-metolachlor+atrazine+benoxacor; sulfentrazone+metolachlor+terbuthylazine; sulfentrazone+metolachlor+terbuthylazine+benoxacor; sulfentrazone+S-metolachlor+terbuthylazine; sulfentrazone+S-metolachlor+terbuthylazine+benoxacor; sulfentrazone+atrazine+nicosulfuron; sulfentrazone+atrazine+nicosulfuron+benoxacor; fluazolate+prosulfuron+primisulfuron; fluazolate+prosulfuron+dicamba; fluazolate+primisulfuron+dicamba; fluazolate+nicosulfuron+primisulfuron; fluazolate+nicosulfuron+prosulfuron; fluazolate+rimsulfuron+primisulfuron; fluazolate+rimsulfuron+prosulfuron; fluazolate+metolachlor+isoxaflutole; fluazolate+metolachlor+isoxaflutole+benoxacor; fluazolate+S-metolachlor+isoxaflutole; fluazolate+S-metolachlor+isoxaflutole+benoxacor; fluazolate+metolachlor +mesotrione; fluazolate+metolachlor+mesotrione+benoxacor; fluazolate+S-metolachlor+mesotrione; fluazolate+S-metolachlor+mesotrione+benoxacor; fluazolate +metolachlor+atrazine; fluazolate+metolachlor+atrazine+benoxacor; fluazolate+S-metolachlor+atrazine; fluazolate+S-metolachlor+atrazine+benoxacor; fluazolate+metolachlor+terbuthylazine; fluazolate+metolachlor+terbuthylazine+benoxacor; fluazolate+S-metolachlor+terbuthylazine; fluazolate+S-metolachlor+terbuthylazine+benoxacor; fluazolate+atrazine+nicosulfuron; fluazolate+atrazine+nicosulfuron+benoxacor; pyraflufen-ethyl+prosulfuron+primisulfuron; pyraflufen-ethyl+prosulfuron+dicamba; pyraflufen-ethyl+primisulfuron+dicamba; pyraflufen-ethyl+nicosulfuron+primisulfuron; pyraflufen-ethyl+nicosulfuron+prosulfuron; pyraflufen-ethyl+rimsulfuron+primisulfuron; pyraflufen-ethyl+rimsulfuron+prosulfuron; pyraflufen-ethyl+metolachlor+isoxaflutole; pyraflufen-ethyl+metolachlor+isoxaflutole+benoxacor; pyraflufen-ethyl+S-metolachlor+isoxaflutole; pyraflufen-ethyl+S-metolachlor+isoxaflutole+benoxacor; pyraflufen-ethyl+metolachlor+mesotrione; pyraflufen-ethyl+metolachlor+mesotrione+benoxacor; pyraflufen-ethyl+S-metolachlor+mesotrione; pyraflufen-ethyl+S-metolachlor +mesotrione+benoxacor; pyraflufen-ethyl+metolachlor+atrazine; pyraflufen-ethyl+metolachlor+atrazine+benoxacor; pyraflufen-ethyl+S-metolachlor+atrazine; pyraflufen-ethyl+S-metolachlor+atrazine+benoxacor; pyraflufen-

ethyl+metolachlor+terbuthylazine; pyraflufen-ethyl+metolachlor+terbuthylazine+benoxacor; pyraflufen-ethyl+S-metolachlor+terbuthylazine; pyraflufen-ethyl+S-metolachlor+terbuthylazine+benoxacor; pyraflufen-ethyl+atrazine+nicosulfuron; pyraflufen-ethyl+atrazine+nicosulfuron+benoxacor; flumipropyn+prosulfuron+primisulfuron; flumipropyn+prosulfuron+dicamba; flumipropyn+primisulfuron+dicamba; flumipropyn+nicosulfuron+primisulfuron; flumipropyn+nicosulfuron+prosulfuron; flumipropyn+rimsulfuron+primisulfuron; flumipropyn+rimsulfuron+prosulfuron; flumipropyn+metolachlor+isoxaflutole; flumipropyn+metolachlor+isoxaflutole+benoxacor; flumipropyn+S-metolachlor+isoxaflutole; flumipropyn+S-metolachlor+isoxaflutole+benoxacor; flumipropyn+metolachlor+mesotrione; flumipropyn+metolachlor+mesotrione+benoxacor; flumipropyn+S-metolachlor+mesotrione; flumipropyn+S-metolachlor+mesotrione+benoxacor; flumipropyn+metolachlor+atrazine; flumipropyn+metolachlor+atrazine+benoxacor; flumipropyn+S-metolachlor+atrazine; flumipropyn+S-metolachlor +atrazine+benoxacor; flumipropyn+metolachlor+terbuthylazine; flumipropyn+metolachlor+terbuthylazine+benoxacor, flumipropyn+S-metolachlor+terbuthylazine; flumipropyn+S-metolachlor+terbuthylazine+benoxacor; flumipropyn+atrazine+nicosulfuron; flumipropyn+atrazine+nicosulfuron+benoxacor; flupropacil+prosulfuron+primisulfuron; flupropacil+prosulfuron+dicamba; flupropacil+primisulfuron+dicamba; flupropacil+nicosulfuron+primisulfuron; flupropacil+nicosulfuron+prosulfuron; flupropacil+rimsulfuron+primisulfuron; flupropacil+rimsulfuron+prosulfuron; flupropacil +metolachlor+isoxaflutole; flupropacil+metolachlor+isoxaflutole+benoxacor; flupropacil +S-metolachlor+isoxaflutole; flupropacil+S-metolachlor+isoxaflutole+benoxacor; flupropacil+metolachlor+mesotrione; flupropacil+metolachlor+mesotrione+benoxacor; flupropacil+S-metolachlor+mesotrione; flupropacil+S-metolachlor+mesotrione+benoxacor; flupropacil+metolachlor+atrazine; flupropacil+metolachlor+atrazine+benoxacor; flupropacil+S-metolachlor+atrazine; flupropacil+S-metolachlor+atrazine+benoxacor; flupropacil+metolachlor+terbuthylazine; flupropacil+metolachlor+terbuthylazine+benoxacor; flupropacil+S-metolachlor+terbuthylazine; flupropacil+S-metolachlor+terbuthylazine+benoxacor; flupropacil+atrazine+nicosulfuron; flupropacil+atrazine+nicosulfuron+benoxacor; nipyraclofen+prosulfuron+primisulfuron; nipyraclofen+prosulfuron+dicamba; nipyraclofen+primisulfuron+dicamba; nipyraclofen +nicosulfuron+primisulfuron; nipyraclofen+nicosulfuron+prosulfuron; nipyraclofen+rimsulfuron+primisulfuron; nipyraclofen+rimsulfuron+prosulfuron; nipyraclofen+metolachlor+isoxaflutole; nipyraclofen+metolachlor+isoxaflutole+benoxacor; nipyraclofen+S-metolachlor+isoxaflutole; nipyraclofen+S-metolachlor+isoxaflutole+benoxacor; nipyraclofen+metolachlor+mesotrione; nipyraclofen+metolachlor+mesotrione+benoxacor; nipyraclofen+S-metolachlor+mesotrione; nipyraclofen+S-metolachlor+mesotrione+benoxacor; nipyraclofen+metolachlor+atrazine; nipyraclofen +metolachlor+atrazine+benoxacor; nipyraclofen+S-metolachlor+atrazine; nipyraclofen +S-metolachlor+atrazine+benoxacor; nipyraclofen+metolachlor+terbuthylazine; nipyraclofen+metolachlor+terbuthylazine+benoxacor; nipyraclofen+S-metolachlor+terbuthylazine; nipyraclofen+S-metolachlor+terbuthylazine+benoxacor; nipyraclofen+atrazine+nicosulfuron; nipyraclofen+atrazine+nicosulfuron+benoxacor; benzfendizone +prosulfuron+primisulfuron; benzfendizone+prosulfuron+dicamba; benzfendizone+primisulfuron+dicamba; benzfendizone+nicosulfuron+primisulfuron; benzfendizone+nicosulfuron+prosulfuron; benzfendizone+rimsulfuron+primisulfuron; benzfendizone+rimsulfuron+prosulfuron; benzfendizone+metolachlor+isoxaflutole; benzfendizone+metolachlor+isoxaflutole+benoxacor; benzfendizone+S-metolachlor+isoxaflutole; benzfendizone+S-metolachlor+isoxaflutole+benoxacor; benzfendizone+metolachlor+mesotrione; benzfendizone+metolachlor+mesotrione+benoxacor; benzfendizone+S-metolachlor+mesotrione; benzfendizone+S-metolachlor+mesotrione+benoxacor; benzfendizone+metolachlor+atrazine; benzfendizone+metolachlor+atrazine+benoxacor; benzfendizone+S-metolachlor+atrazine; benzfendizone+S-metolachlor+atrazine+benoxacor; benzfendizone+metolachlor+terbuthylazine; benzfendizone+metolachlor+terbuthylazine+benoxacor; benzfendizone+S-metolachlor+terbuthylazine; benzfendizone+S-metolachlor+terbuthylazine+benoxacor; benzfendizone+atrazine+nicosulfuron; benzfendizone+atrazine+nicosulfuron+benoxacor; thidiazimin+prosulfuron+primisulfuron; thidiazimin+prosulfuron+dicamba; thidiazimin+primisulfuron +dicamba; thidiazimin+nicosulfuron+primisulfuron; thidiazimin+nicosulfuron+prosulfuron; thidiazimin+rimsulfuron+primisulfuron; thidiazimin+rimsulfuron+prosulfuron; thidiazimin+metolachlor+isoxaflutole; thidiazimin+metolachlor+isoxaflutole +benoxacor; thidiazimin+S-metolachlor+isoxaflutole; thidiazimin+S-metolachlor+isoxaflutole+benoxacor; thidiazimin+metolachlor+mesotrione; thidiazimin+metolachlor +mesotrione+benoxacor; thidiazimin+S-metolachlor+mesotrione; thidiazimin+S-metolachlor+mesotrione+benoxacor; thidiazimin+metolachlor+atrazine; thidiazimin+metolachlor+atrazine+benoxacor; thidiazimin+S-metolachlor+atrazine; thidiazimin+S-metolachlor+atrazine+benoxacor; thidiazimin+metolachlor+terbuthylazine; thidiazimin+metolachlor+terbuthylazine+benoxacor; thidiazimin+S-metolachlor+terbuthylazine; thidiazimin+S-metolachlor+terbuthylazine+benoxacor; thidiazimin+atrazine+nicosulfuron; and thidiazimin+atrazine+nicosulfuron+benoxacor.

[**0119**] Acifluorfen+metolachlor+isoxaflutole+MON 4660; acifluorfen+S-metolachlor+isoxaflutole+MON 4660; acifluorfen+metolachlor+mesotrione+MON 4660; acifluorfen+S-metolachlor+mesotrione+MON 4660; acifluorfen+metolachlor+atrazine+MON 4660; acifluorfen+S-metolachlor+atrazine+MON 4660; acifluorfen+metolachlor+terbuthylazine+MON 4660; acifluorfen+S-metolachlor+terbuthylazine+MON 4660; acifluorfen+atrazine+nicosulfuron+MON 4660; aclonifen+metolachlor+isoxaflutole+MON 4660; aclonifen+S-metolachlor+isoxaflutole+MON 4660; aclonifen+metolachlor+mesotrione+MON 4660; aclonifen+S-metolachlor+mesotrione+MON 4660; aclonifen+metolachlor+atrazine+MON 4660; aclonifen+S-metolachlor+atrazine+MON 4660; aclonifen+metolachlor+terbuthylazine+MON 4660; aclonifen+S-metolachlor+terbuthylazine+MON 4660; aclonifen+atrazine+nicosulfuron+MON 4660; bifenox+metolachlor+isoxaflutole+MON 4660; bifenox+S-metolachlor+isoxaflutole+MON 4660; bifenox+metolachlor+mesotrione+MON 4660; bifenox+S-metolachlor+mesotrione+MON 4660; bifenox+metolachlor+atrazine+MON 4660; bifenox+S-metolachlor+atrazine+MON 4660;

bifenox+metolachlor+terbuthylazine+MON 4660; bifenox+S-metolachlor+terbuthylazine+MON 4660; bifenox+atrazine+nicosulfuron+MON 4660; chlomitrofen+metolachlor+isoxaflutole+MON 4660; chlomitrofen+-S-metolachlor+isoxaflutole+MON 4660; chlomitrofen+metolachlor+mesotrione+MON 4660; chlomitrofen+S-metolachlor+mesotrione+MON 4660; chlomitrofen+metolachlor+atrazine+MON 4660; chlomitrofen+S-metolachlor+atrazine+MON 4660; chlomitrofen +metolachlor+terbuthylazine+MON 4660; chlomitrofen+S-metolachlor+terbuthylazine +MON 4660; chlomitrofen+atrazine+nicosulfuron+MON 4660; ethoxyfen+metolachlor +isoxaflutole+MON 4660; ethoxyfen+S-metolachlor+isoxaflutole+MON 4660; ethoxyfen+metolachlor+mesotrione+MON 4660; ethoxyfen+S-metolachlor+mesotrione+MON 4660; ethoxyfen+metolachlor+atrazine+MON 4660; ethoxyfen+S-metolachlor+atrazine+MON 4660; ethoxyfen+metolachlor+terbuthylazine+MON 4660; ethoxyfen+S-metolachlor+terbuthylazine+MON 4660; ethoxyfen+atrazine+nicosulfuron+MON 4660; fluoroglycofen+metolachlor+isoxaflutole+MON 4660; fluoroglycofen+S-metolachlor+isoxaflutole+MON 4660; fluoroglycofen+metolachlor+mesotrione+MON 4660; fluoroglycofen+S-metolachlor+mesotrione+MON 4660; fluoroglycofen+metolachlor+atrazine+MON 4660; fluoroglycofen+S-metolachlor+atrazine+MON 4660; fluoroglycofen+metolachlor+terbuthylazine+MON 4660; fluoroglycofen+S-metolachlor+terbuthylazine+MON 4660; fluoroglycofen+atrazine+nicosulfuron+MON 4660; fomesafen+metolachlor+isoxaflutole+MON 4660; fomesafen +S-metolachlor+isoxaflutole+MON 4660; fomesafen+metolachlor+mesotrione+MON 4660; fomesafen+S-metolachlor+mesotrione+MON 4660; fomesafen+metolachlor+atrazine+MON 4660; fomesafen+S-metolachlor+atrazine+MON 4660; fomesafen+metolachlor+terbuthylazine+MON 4660; fomesafen+S-metolachlor+terbuthylazine+MON 4660; fomesafen+atrazine+nicosulfuron+MON 4660; lactofen+metolachlor+isoxaflutole+MON 4660; lactofen+S-metolachlor+isoxaflutole+MON 4660; lactofen+metolachlor+mesotrione+MON 4660; lactofen+S-metolachlor+mesotrione+MON 4660; lactofen+metolachlor+atrazine+MON 4660; lactofen+S-metolachlor+atrazine+MON 4660; lactofen+metolachlor+terbuthylazine+MON 4660; lactofen+S-metolachlor +terbuthylazine+MON 4660; lactofen+atrazine+nicosulfuron+MON 4660; oxyfluorfen+metolachlor+isoxaflutole+MON 4660; oxyfluorfen+S-metolachlor+isoxaflutole+MON 4660; oxyfluorfen+metolachlor+mesotrione+MON 4660; oxyfluorfen+S-metolachlor+mesotrione+MON 4660; oxyfluorfen+metolachlor+atrazine+MON 4660; oxyfluorfen+S-metolachlor+atrazine+MON 4660; oxyfluorfen+metolachlor+terbuthylazine+MON 4660; oxyfluorfen+S-metolachlor+terbuthylazine+MON 4660; oxyfluorfen+atrazine+nicosulfuron+MON 4660; azafenidin+metolachlor+isoxaflutole+MON 4660; azafenidin +S-metolachlor+isoxaflutole+MON 4660; azafenidin+metolachlor+mesotrione+MON 4660; azafenidin+S-metolachlor+mesotrione+MON 4660; azafenidin+metolachlor+atrazine+MON 4660; azafenidin+S-metolachlor+atrazine+MON 4660; azafenidin+metolachlor+terbuthylazine+MON 4660; azafenidin+S-metolachlor+terbuthylazine+MON 4660; azafenidin+atrazine+nicosulfuron+MON 4660; carfentrazone-ethyl+metolachlor+isoxaflutole+MON 4660; carfentrazone-ethyl+S-metolachlor+isoxaflutole+MON 4660; carfentrazone-ethyl+metolachlor+mesotrione+MON 4660; carfentrazone-ethyl+S-metolachlor+mesotrione+MON 4660; carfentrazone-ethyl+metolachlor+atrazine+MON 4660; carfentrazone-ethyl+S-metolachlor+atrazine+MON 4660; carfentrazone-ethyl+metolachlor+terbuthylazine+MON 4660; carfentrazone-ethyl+S-metolachlor+terbuthylazine+MON 4660; carfentrazone-ethyl+atrazine+nicosulfuron+MON 4660; compound of the formula A+metolachlor+isoxaflutole+MON 4660; compound of the formula A+S-metolachlor+isoxaflutole+MON 4660; compound of the formula A+metolachlor+mesotrione+MON 4660; compound of the formula A+S-metolachlor+mesotrione+MON 4660; compound of the formula A+metolachlor+atrazine+MON 4660; compound of the formula A+S-metolachlor+atrazine+MON 4660; compound of the formula A+metolachlor+terbuthylazine+MON 4660; compound of the formula A+S-metolachlor+terbuthylazine+MON 4660; compound of the formula A+atrazine+nicosulfuron+MON 4660; cinidon-ethyl+metolachlor+isoxaflutole+MON 4660; cinidon-ethyl+S-metolachlor+isoxaflutole+MON 4660; cinidon-ethyl+metolachlor+mesotrione+MON 4660; cinidon-ethyl+S-metolachlor+mesotrione+MON 4660; cinidon-ethyl+metolachlor+atrazine+MON 4660; cinidon-ethyl+S-metolachlor+atrazine+MON 4660; cinidon-ethyl+metolachlor+terbuthylazine+MON 4660; cinidon-ethyl+S-metolachlor+terbuthylazine+MON 4660; cinidon-ethyl+atrazine+nicosulfuron+MON 4660; flumiclorac-pentyl+metolachlor+isoxaflutole+MON 4660; flumiclorac-pentyl+S-metolachlor+isoxaflutole+MON 4660; flumiclorac-pentyl+metolachlor+mesotrione+MON 4660; flumiclorac-pentyl+S-metolachlor+mesotrione+MON 4660; flumiclorac-pentyl+metolachlor+atrazine+MON 4660; flumiclorac-pentyl+S-metolachlor+atrazine +MON 4660; flumiclorac-pentyl+metolachlor+terbuthylazine+MON 4660; flumiclorac-pentyl+S-metolachlor+terbuthylazine+MON 4660; flumiclorac-pentyl+atrazine+nicosulfuron+MON 4660; flumioxazin+metolachlor+isoxaflutole+MON 4660; flumioxazin+S-metolachlor+isoxaflutole+MON 4660; flumioxazin+metolachlor+mesotrione+MON 4660; flumioxazin+S-metolachlor+mesotrione+MON 4660; flumioxazin+metolachlor+atrazine+MON 4660; flumioxazin+S-metolachlor+atrazine+MON 4660; flumioxazin+metolachlor+terbuthylazine+MON 4660; flumioxazin+S-metolachlor+terbuthylazine+MON 4660; flumioxazin+atrazine+nicosulfuron+MON 4660; fluthiacet-methyl+metolachlor+isoxaflutole+MON 4660; fluthiacet-methyl+S-metolachlor+isoxaflutole+MON 4660; fluthiacet-methyl+metolachlor+mesotrione+MON 4660; fluthiacet-methyl+S-metolachlor+mesotrione+MON 4660; fluthiacet-methyl+metolachlor+atrazine+MON 4660; fluthiacet-methyl+S-metolachlor+atrazine+MON 4660; fluthiacet-methyl+metolachlor+terbuthylazine+MON 4660; fluthiacet-methyl+S-metolachlor+terbuthylazine+MON 4660; fluthiacet-methyl+atrazine+nicosulfuron+MON 4660; oxadiargyl+metolachlor+isoxaflutole+MON 4660; oxadiargyl+S-metolachlor +isoxaflutole+MON 4660; oxadiargyl+metolachlor+mesotrione+MON 4660; oxadiargyl+S-metolachlor+mesotrione+MON 4660; oxadiargyl+metolachlor+atrazine+MON 4660; oxadiargyl+S-metolachlor+atrazine+MON 4660; oxadiargyl+metolachlor+terbuthylazine+MON 4660; oxadiargyl+S-metolachlor+terbuthylazine+MON 4660; oxadiargyl+atrazine+nicosulfuron+MON 4660; oxadiazon+metolachlor+

isoxaflutole+MON 4660; oxadiazon+S-metolachlor+isoxaflutole+MON 4660; oxadiazon+metolachlor+mesotrione+MON 4660; oxadiazon+S-metolachlor+mesotrione+MON 4660; oxadiazon+metolachlor+atrazine+MON 4660; oxadiazon+S-metolachlor+atrazine+MON 4660; oxadiazon+metolachlor+terbuthylazine+MON 4660; oxadiazon+S-metolachlor+terbuthylazine+MON 4660; oxadiazon+atrazine+nicosulfuron+MON 4660; pentoxazone+metolachlor+isoxaflutole+MON 4660; pentoxazone+S-metolachlor +isoxaflutole+MON 4660; pentoxazone+metolachlor+mesotrione+MON 4660; pentoxazone+S-metolachlor+mesotrione+MON 4660; pentoxazone+metolachlor+atrazine+MON 4660; pentoxazone+S-metolachlor+atrazine+MON 4660; pentoxazone +metolachlor+terbuthylazine+MON 4660; pentoxazone+S-metolachlor+terbuthylazine +MON 4660; pentoxazone+atrazine+nicosulfuron+MON 4660; sulfentrazone+metolachlor+isoxaflutole+MON 4660; sulfentrazone+S-metolachlor+isoxaflutole+MON 4660; sulfentrazone+metolachlor+mesotrione+MON 4660; sulfentrazone+S-metolachlor+mesotrione+MON 4660; sulfentrazone+metolachlor+atrazine+MON 4660; sulfentrazone+S-metolachlor+atrazine+MON 4660; sulfentrazone+metolachlor+terbuthylazine+MON 4660; sulfentrazone+S-metolachlor+terbuthylazine+MON 4660; sulfentrazone+atrazine+nicosulfuron+MON 4660; fluazolate+metolachlor+isoxaflutole +MON 4660; fluazolate+S-metolachlor+isoxaflutole+MON 4660; fluazolate+metolachlor+mesotrione+MON 4660; fluazolate+S-metolachlor+mesotrione+MON 4660; fluazolate+metolachlor+atrazine+MON 4660; fluazolate+S-metolachlor+atrazine+MON 4660; fluazolate+metolachlor+terbuthylazine+MON 4660; fluazolate+S-metolachlor+terbuthylazine+MON 4660; fluazolate+atrazine+nicosulfuron+MON 4660; pyraflufen-ethyl+metolachlor+isoxaflutole+MON 4660; pyraflufen-ethyl+S-metolachlor+isoxaflutole+MON 4660; pyraflufen-ethyl+metolachlor+mesotrione+MON 4660; pyraflufen-ethyl+S-metolachlor+mesotrione+MON 4660; pyraflufen-ethyl+metolachlor+atrazine+MON 4660; pyraflufen-ethyl+S-metolachlor+atrazine+MON 4660; pyraflufen-ethyl+metolachlor+terbuthylazine+MON 4660; pyraflufen-ethyl+S-metolachlor+terbuthylazine+MON 4660; pyraflufen-ethyl+atrazine+nicosulfuron+MON 4660; flumipropyn+metolachlor+isoxaflutole+MON 4660; flumipropyn+S-metolachlor+isoxaflutole+MON 4660; flumipropyn+metolachlor+mesotrione+MON 4660; flumipropyn+S-metolachlor+mesotrione+MON 4660; flumipropyn+metolachlor+atrazine+MON 4660; flumipropyn+S-metolachlor+atrazine+MON 4660; flumipropyn+metolachlor+terbuthylazine+MON 4660; flumipropyn+S-metolachlor+terbuthylazine+MON 4660; flumipropyn+atrazine+nicosulfuron+MON 4660; flupropacil+metolachlor+isoxaflutole+MON 4660; flupropacil+S-metolachlor+isoxaflutole+MON 4660; flupropacil +metolachlor+mesotrione+MON 4660; flupropacil+S-metolachlor+mesotrione+MON 4660; flupropacil+metolachlor+atrazine+MON 4660; flupropacil+S-metolachlor+atrazine+MON 4660; flupropacil+metolachlor+terbuthylazine+MON 4660; flupropacil+S-metolachlor+terbuthylazine+MON 4660; flupropacil+atrazine+nicosulfuron+MON 4660; nipyraclofen+metolachlor+isoxaflutole+MON 4660; nipyraclofen+S-metolachlor+isoxaflutole+MON 4660; nipyraclofen+metolachlor+mesotrione+MON 4660; nipyraclofen+S-metolachlor+mesotrione+MON 4660; nipyraclofen+metolachlor+atrazine+MON 4660; nipyraclofen+S-metolachlor+atrazine+MON 4660; nipyraclofen+metolachlor+terbuthylazine+MON 4660; nipyraclofen+S-metolachlor+terbuthylazine+MON 4660; nipyraclofen+atrazine+nicosulfuron+MON 4660; benzfendizone+metolachlor+isoxaflutole+MON 4660; benzfendizone+S-metolachlor+isoxaflutole+MON 4660; benzfendizone+metolachlor+mesotrione+MON 4660; benzfendizone+S-metolachlor+mesotrione+MON 4660; benzfendizone+metolachlor+atrazine+MON 4660; benzfendizone+S-metolachlor+atrazine+MON 4660; benzfendizone+metolachlor +terbuthylazine+MON 4660; benzfendizone+S-metolachlor+terbuthylazine+MON 4660; benzfendizone+atrazine+nicosulfuron+MON 4660; thidiazimin+metolachlor+isoxaflutole+MON 4660; thidiazimin+S-metolachlor+isoxaflutole+MON 4660; thidiazimin+metolachlor+mesotrione+MON 4660; thidiazimin+S-metolachlor+mesotrione+MON 4660; thidiazimin+metolachlor+atrazine+MON 4660; thidiazimin+S-metolachlor+atrazine+MON 4660; thidiazimin+metolachlor+terbuthylazine+MON 4660; thidiazimin+S-metolachlor+terbuthylazine+MON 4660; and thidiazimin+atrazine +nicosulfuron+MON 4660.

[**0120**] Acifluorfen+metolachlor+isoxaflutole+FLURAZOLE; acifluorfen+S-metolachlor+isoxaflutole+FLURAZOLE; acifluorfen+metolachlor+mesotrione+FLURAZOLE; acifluorfen+S-metolachlor+mesotrione+FLURAZOLE; acifluorfen+metolachlor+atrazine+FLURAZOLE; acifluorfen+S-metolachlor+atrazine+FLURAZOLE; acifluorfen +metolachlor+terbuthylazine+FLURAZOLE; acifluorfen+S-metolachlor+terbuthylazine +FLURAZOLE; acifluorfen+atrazine+nicosulfuron+FLURAZOLE; aclonifen+metolachlor+isoxaflutole+FLURAZOLE; aclonifen+S-metolachlor+isoxaflutole+FLURAZOLE; aclonifen+metolachlor+mesotrione+FLURAZOLE; aclonifen+S-metolachlor+mesotrione+FLURAZOLE; aclonifen+metolachlor+atrazine+FLURAZOLE; aclonifen+S-metolachlor+atrazine+FLURAZOLE; aclonifen+metolachlor +terbuthylazine+FLURAZOLE; aclonifen+S-metolachlor+terbuthylazine+FLURAZOLE; aclonifen+atrazine+nicosulfuron+FLURAZOLE; bifenox+metolachlor+isoxaflutole+FLURAZOLE; bifenox+S-metolachlor+isoxaflutole+FLURAZOLE; bifenox+metolachlor +mesotrione+FLURAZOLE; bifenox+S-metolachlor+mesotrione+FLURAZOLE; bifenox+metolachlor+atrazine+FLURAZOLE; bifenox+S-metolachlor+atrazine+FLURAZOLE; bifenox+metolachlor+terbuthylazine+FLURAZOLE; bifenox+S-metolachlor+terbuthylazine+FLURAZOLE; bifenox+atrazine+nicosulfuron+FLURAZOLE; chlomitrofen+metolachlor+isoxaflutole+FLURAZOLE; chlomitrofen+S-metolachlor+isoxaflutole+FLURAZOLE; chlomitrofen+metolachlor+mesotrione+FLURAZOLE; chlomitrofen+S-metolachlor+mesotrione+FLURAZOLE; chlomitrofen+metolachlor+atrazine+FLURAZOLE; chlomitrofen+S-metolachlor+atrazine+FLURAZOLE; chlomitrofen+metolachlor+terbuthylazine+FLURAZOLE; chlomitrofen+S-metolachlor+terbuthylazine+FLURAZOLE; chlomitrofen+atrazine+nicosulfuron+FLURAZOLE; ethoxyfen+metolachlor+isoxaflutole+FLURAZOLE; ethoxyfen+S-metolachlor+isoxaflutole+FLURAZOLE; ethoxyfen+metolachlor+mesotrione+FLURAZOLE; ethoxyfen+S-metolachlor+mesotrione+FLURAZOLE; ethoxyfen+metolachlor+

atrazine+FLURAZOLE; ethoxyfen+S-metolachlor+atrazine+FLURAZOLE; ethoxyfen+metolachlor+terbuthylazine+FLURAZOLE; ethoxyfen+S-metolachlor+terbuthylazine+FLURAZOLE; ethoxyfen+atrazine+nicosulfuron+FLURAZOLE; fluoroglycofen+metolachlor+isoxaflutole+FLURAZOLE; fluoroglycofen+S-metolachlor+isoxaflutole+FLURAZOLE; fluoroglycofen+metolachlor+mesotrione+FLURAZOLE; fluoroglycofen+S-metolachlor+mesotrione+FLURAZOLE; fluoroglycofen+metolachlor+atrazine+FLURAZOLE; fluoroglycofen+S-metolachlor+atrazine+FLURAZOLE; fluoroglycofen+metolachlor+terbuthylazine+FLURAZOLE; fluoroglycofen+S-metolachlor+terbuthylazine+FLURAZOLE; fluoroglycofen+atrazine+nicosulfuron+FLURAZOLE; fomesafen+metolachlor+isoxaflutole+FLURAZOLE; fomesafen+S-metolachlor+isoxaflutole+FLURAZOLE; fomesafen+metolachlor+mesotrione+FLURAZOLE; fomesafen+S-metolachlor+mesotrione+FLURAZOLE; fomesafen+metolachlor+atrazine+FLURAZOLE; fomesafen+S-metolachlor+atrazine+FLURAZOLE; fomesafen+metolachlor+terbuthylazine+FLURAZOLE; fomesafen+S-metolachlor+terbuthylazine+FLURAZOLE; fomesafen+atrazine+nicosulfuron+FLURAZOLE; lactofen+metolachlor+isoxaflutole+FLURAZOLE; lactofen+S-metolachlor+isoxaflutole+FLURAZOLE; lactofen+metolachlor+mesotrione+FLURAZOLE; lactofen+S-metolachlor+mesotrione+FLURAZOLE; lactofen+metolachlor +atrazine+FLURAZOLE; lactofen+S-metolachlor+atrazine+FLURAZOLE; lactofen+metolachlor+terbuthylazine+FLURAZOLE; lactofen+S-metolachlor+terbuthylazine+FLURAZOLE; lactofen+atrazine+nicosulfuron+FLURAZOLE; oxyfluorfen+metolachlor +isoxaflutole+FLURAZOLE; oxyfluorfen+S-metolachlor+isoxaflutole+FLURAZOLE; oxyfluorfen+metolachlor+mesotrione+FLURAZOLE; oxyfluorfen+S-metolachlor+mesotrione+FLURAZOLE; oxyfluorfen+metolachlor+atrazine+FLURAZOLE; oxyfluorfen+S-metolachlor+atrazine+FLURAZOLE; oxyfluorfen+metolachlor+terbuthylazine+FLURAZOLE; oxyfluorfen+S-metolachlor+terbuthylazine+FLURAZOLE; oxyfluorfen+atrazine+nicosulfuron+FLURAZOLE; azafenidin+metolachlor+isoxaflutole+FLURAZOLE; azafenidin+S-metolachlor+isoxaflutole+FLURAZOLE; azafenidin+metolachlor+mesotrione+FLURAZOLE; azafenidin+S-metolacotrione+FLURAZOLE; azafenidin+metolachlor+atrazine+FLURAZOLE; azafenidin+S-metolachlor+atrazine+FLURAZOLE; azafenidin+metolachlor+terbuthylazine+FLURAZOLE; azafenidin+S-metolachlor+terbuthylazine+FLURAZOLE; azafenidin+atrazine+nicosulfuron+FLURAZOLE; carfentrazone-ethyl+metolachlor+isoxaflutole+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+isoxaflutole+FLURAZOLE; carfentrazone-ethyl+metolachlor+mesotrione+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+mesotrione+FLURAZOLE; carfentrazone-ethyl+metolachlor+atrazine+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+atrazine+FLURAZOLE; carfentrazone-ethyl+metolachlor+terbuthylazine+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+terbuthylazine+FLURAZOLE; carfentrazone-ethyl+atrazine+nicosulfuron +FLURAZOLE; compounds of the formula A+metolachlor+isoxaflutole+FLURAZOLE; compounds of the formula A+S-metolachlor+isoxaflutole+FLURAZOLE; compounds of the formula A+metolachlor+mesotrione+FLURAZOLE; compounds of the formula A+S-metolachlor+mesotrione+FLURAZOLE; compounds of the formula A+metolachlor+atrazine+FLURAZOLE; compounds of the formula A+S-metolachlor+atrazine+FLURAZOLE; compounds of the formula A+metolachlor+terbuthylazine+FLURAZOLE; compounds of the formula A+S-metolachlor+terbuthylazine+FLURAZOLE; compounds of the formula A+atrazine+nicosulfuron+FLURAZOLE; cinidon-ethyl+metolachlor+isoxaflutole+FLURAZOLE; cinidon-ethyl+S-metolachlor+isoxaflutole+FLURAZOLE; cinidon-ethyl+metolachlor+mesotrione+FLURAZOLE; cinidon-ethyl+S-metolachlor+mesotrione+FLURAZOLE; cinidon-ethyl+metolachlor+atrazine+FLURAZOLE; cinidon-ethyl+S-metolachlor+atrazine+FLURAZOLE; cinidon-ethyl+metolachlor+terbuthylazine+FLURAZOLE; cinidon-ethyl+S-metolachlor+terbuthylazine+FLURAZOLE; cinidon-ethyl+atrazine+nicosulfuron+FLURAZOLE; flumiclorac-pentyl+metolachlor+isoxaflutole+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+isoxaflutole +FLURAZOLE; flumiclorac-pentyl+metolachlor+mesotrione+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+mesotrione+FLURAZOLE; flumiclorac-pentyl+metolachlor+atrazine+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+atrazine+FLURAZOLE; flumiclorac-pentyl+metolachlor+terbuthylazine+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+terbuthylazine+FLURAZOLE; flumiclorac-pentyl+atrazine+nicosulfuron+FLURAZOLE; flumioxazin+metolachlor+isoxaflutole+FLURAZOLE; flumioxazin+S-metolachlor+isoxaflutole+FLURAZOLE; flumioxazin+metolachlor+mesotrione+FLURAZOLE; flumioxazin+S-metolachlor+mesotrione+FLURAZOLE; flumioxazin+metolachlor+atrazine+FLURAZOLE; flumioxazin+S-metolachlor+atrazine+FLURAZOLE; flumioxazin+metolachlor+terbuthylazine+FLURAZOLE; flumioxazin+S-metolachlor+terbuthylazine+FLURAZOLE; flumioxazin+atrazine+nicosulfuron+FLURAZOLE; fluthiacet-methyl+metolachlor+isoxaflutole+FLURAZOLE; fluthiacet-methyl+S-metolachlor+isoxaflutole+FLURAZOLE; fluthiacet-methyl+metolachlor+mesotrione+FLURAZOLE; fluthiacet-methyl+S-metolachlor+mesotrione+FLURAZOLE; fluthiacet-methyl+metolachlor+atrazine+FLURAZOLE; fluthiacet-methyl+S-metolachlor +atrazine+FLURAZOLE; fluthiacet-methyl+metolachlor+terbuthylazine+FLURAZOLE; fluthiacet-methyl+S-metolachlor+terbuthylazine+FLURAZOLE; fluthiacet-methyl+atrazine+nicosulfuron+FLURAZOLE; oxadiargyl+metolachlor+isoxaflutole+FLURAZOLE; oxadiargyl+S-metolachlor+isoxaflutole+FLURAZOLE; oxadiargyl+metolachlor+mesotrione+FLURAZOLE; oxadiargyl+S-metolachlor+mesotrione+FLURAZOLE; oxadiargyl+metolachlor+atrazine+FLURAZOLE; oxadiargyl+S-metolachlor+atrazine+FLURAZOLE; oxadiargyl+metolachlor+terbuthylazine+FLURAZOLE; oxadiargyl+S-metolachlor+terbuthylazine+FLURAZOLE; oxadiargyl+atrazine+nicosulfuron+FLURAZOLE; oxadiazon+metolachlor+isoxaflutole+FLURAZOLE; oxadiazon+S-metolachlor+isoxaflutole+FLURAZOLE; oxadiazon+metolachlor+mesotrione+FLURAZOLE; oxadiazon+S-metolachlor+mesotrione+FLURAZOLE; oxadiazon+metolachlor+atrazine+FLURAZOLE; oxadiazon+S-metolachlor+atrazine+FLURAZOLE; oxadiazon+metolachlor+terbuthylazine+FLURAZOLE; oxadiazon+S-metolachlor+terbuthylazine+FLURAZOLE; oxadiazon+atrazine+nicosulfuron+FLURAZOLE; pentoxazone+

metolachlor+isoxaflutole+FLURAZOLE; pentoxazone+S-metolachlor+isoxaflutole+FLURAZOLE; pentoxazone+metolachlor+mesotrione+FLURAZOLE; pentoxazone+S-metolachlor+mesotrione+FLURAZOLE; pentoxazone+metolachlor+atrazine+FLURAZOLE; pentoxazone+S-metolachlor+atrazine+FLURAZOLE; pentoxazone+metolachlor+terbuthylazine+FLURAZOLE; pentoxazone+S-metolachlor+terbuthylazine+FLURAZOLE; pentoxazone+atrazine+nicosulfuron+FLURAZOLE; sulfentrazone+metolachlor+isoxaflutole+FLURAZOLE; sulfentrazone+S-metolachlor+isoxaflutole+FLURAZOLE; sulfentrazone+metolachlor+mesotrione+FLURAZOLE; sulfentrazone+S-metolachlor+mesotrione+FLURAZOLE; sulfentrazone+metolachlor+atrazine+FLURAZOLE; sulfentrazone+S-metolachlor+atrazine+FLURAZOLE; sulfentrazone+metolachlor+terbuthylazine+FLURAZOLE; sulfentrazone+S-metolachlor+terbuthylazine+FLURAZOLE; sulfentrazone +atrazine+nicosulfuron+FLURAZOLE; fluazolate+metolachlor+isoxaflutole+FLURAZOLE; fluazolate+S-metolachlor+isoxaflutole+FLURAZOLE; fluazolate+metolachlor+mesotrione+FLURAZOLE; fluazolate+S-metolachlor+mesotrione+FLURAZOLE; fluazolate+metolachlor+atrazine+FLURAZOLE; fluazolate+S-metolachlor+atrazine+FLURAZOLE; fluazolate+metolachlor+terbuthylazine+FLURAZOLE; fluazolate+S-metolachlor+terbuthylazine+FLURAZOLE; fluazolate+atrazine+nicosulfuron+FLURAZOLE; pyraflufen-ethyl+metolachlor+isoxaflutole+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+isoxaflutole+FLURAZOLE; pyraflufen-ethyl+metolachlor+mesotrione+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+mesotrione+FLURAZOLE; pyraflufen-ethyl+metolachlor+atrazine+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+atrazine+FLURAZOLE; pyraflufen-ethyl+metolachlor+terbuthylazine+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+terbuthylazine+FLURAZOLE; pyraflufen-ethyl+atrazine+nicosulfuron+FLURAZOLE; flumipropyn+metolachlor+isoxaflutole+FLURAZOLE; flumipropyn+S-metolachlor+isoxaflutole+FLURAZOLE; flumipropyn+metolachlor+mesotrione+FLURAZOLE; flumipropyn+S-metolachlor+mesotrione+FLURAZOLE; flumipropyn+metolachlor+atrazine+FLURAZOLE; flumipropyn+S-metolachlor+atrazine+FLURAZOLE; flumipropyn+metolachlor+terbuthylazine+FLURAZOLE; flumipropyn+S-metolachlor+terbuthylazine +FLURAZOLE; flumipropyn+atrazine+nicosulfuron+FLURAZOLE; flupropacil+metolachlor+isoxaflutole+FLURAZOLE; flupropacil+S-metolachlor+isoxaflutole+FLURAZOLE; flupropacil+metolachlor+mesotrione+FLURAZOLE; flupropacil+S-metolachlor+mesotrione+FLURAZOLE; flupropacil+metolachlor+atrazine+FLURAZOLE; flupropacil+S-metolachlor+atrazine+FLURAZOLE; flupropacil+metolachlor+terbuthylazine+FLURAZOLE; flupropacil+S-metolachlor+terbuthylazine+FLURAZOLE; flupropacil+atrazine+nicosulfuron+FLURAZOLE; nipyraclofen+metolachlor+isoxaflutole+FLURAZOLE; nipyraclofen+S-metolachlor+isoxaflutole+FLURAZOLE; nipyraclofen+metolachlor+mesotrione+FLURAZOLE; nipyraclofen+S-metolachlor+mesotrione+FLURAZOLE; nipyraclofen+metolachlor+atrazine+FLURAZOLE; nipyraclofen+S-metolachlor+atrazine+FLURAZOLE; nipyraclofen+metolachlor+terbuthylazine+FLURAZOLE; nipyraclofen+S-metolachlor+terbuthylazine +FLURAZOLE; nipyraclofen+atrazine+nicosulfuron+FLURAZOLE; benzfendizone+metolachlor+isoxaflutole+FLURAZOLE; benzfendizone+S-metolachlor+isoxaflutole+FLURAZOLE; benzfendizone+metolachlor+mesotrione+FLURAZOLE; benzfendizone+S-metolachlor+mesotrione+FLURAZOLE; benzfendizone+metolachlor+atrazine+FLURAZOLE; benzfendizone+S-metolachlor+atrazine+FLURAZOLE; benzfendizone+metolachlor+terbuthylazine+FLURAZOLE; benzfendizone+S-metolachlor+terbuthylazine+FLURAZOLE; benzfendizone+atrazine+nicosulfuron+FLURAZOLE; thidiazimin+metolachlor+isoxaflutole+FLURAZOLE; thidiazimin+S-metolachlor+isoxaflutole+FLURAZOLE; thidiazimin+metolachlor+mesotrione+FLURAZOLE; thidiazimin+S-metolachlor+mesotrione+FLURAZOLE; thidiazimin+metolachlor+atrazine+FLURAZOLE; thidiazimin+S-metolachlor+atrazine+FLURAZOLE; thidiazimin +metolachlor+terbuthylazine+FLURAZOLE; thidiazimin+S-metolachlor+terbuthylazine +FLURAZOLE; and thidiazimin+atrazine+nicosulfuron+FLURAZOLE.

[0121] Acifluorfen+metolachlor+isoxaflutole+DICHLORMID; acifluorfen+S-metolachlor+isoxaflutole+DICHLORMID; acifluorfen+metolachlor+mesotrione+DICHLORMID; acifluorfen+S-metolachlor+mesotrione+DICHLORMID; acifluorfen+metolachlor+atrazine+DICHLORMID; acifluorfen+S-metolachlor+atrazine+DICHLORMID; acifluorfen +metolachlor+terbuthylazine+DICHLORMID; acifluorfen+S-metolachlor+terbuthylazine +DICHLORMID; acifluorfen+atrazine+nicosulfuron+DICHLORMID; aclonifen+metolachlor+isoxaflutole+DICHLORMID; aclonifen+S-metolachlor+isoxaflutole+DICHLORMID; aclonifen+metolachlor+mesotrione+DICHLORMID; aclonifen+S-metolachlor+mesotrione+DICHLORMID; aclonifen+metolachlor+atrazine+DICHLORMID; aclonifen+S-metolachlor+atrazine+DICHLORMID; aclonifen+metolachlor+terbuthylazine+DICHLORMID; aclonifen+S-metolachlor+terbuthylazine+DICHLORMID; aclonifen+atrazine+nicosulfuron+DICHLORMID; bifenox+metolachlor+isoxaflutole+DICHLORMID; bifenox+S-metolachlor+isoxaflutole+DICHLORMID; bifenox+metolachlor+mesotrione+DICHLORMID; bifenox+S-metolachlor+mesotrione +DICHLORMID; bifenox+metolachlor+atrazine+DICHLORMID; bifenox+S-metolachlor +atrazine+DICHLORMID; bifenox+metolachlor+terbuthylazine+DICHLORMID; bifenox +S-metolachlor+terbuthylazine+DICHLORMID; bifenox+atrazine+nicosulfuron+DICHLORMID; chlomitrofen+metolachlor+isoxaflutole+DICHLORMID; chlomitrofen+S-metolachlor+isoxaflutole+DICHLORMID; chlomitrofen+metolachlor+mesotrione+DICHLORMID; chlomitrofen+S-metolachlor+mesotrione+DICHLORMID; chlomitrofen+metolachlor+atrazine+DICHLORMID; chlomitrofen+S-metolachlor+atrazine+DICHLORMID; chlomitrofen+metolachlor+terbuthylazine+DICHLORMID; chlomitrofen+S-metolachlor+terbuthylazine+DICHLORMID; chlomitrofen+atrazine+nicosulfuron+DICHLORMID; ethoxyfen+metolachlor+isoxaflutole+DICHLORMID; ethoxyfen+S-metolachlor+isoxaflutole+DICHLORMID; ethoxyfen+metolachlor+mesotrione+DICHLORMID; ethoxyfen+S-metolachlor+mesotrione+DICHLORMID; ethoxyfen+metolachlor+atrazine+DICHLORMID; ethoxyfen+S-metolachlor+atrazine+DICHLORMID; ethoxyfen+metolachlor+terbuthylazine+DICHLORMID; ethoxyfen+S-metolachlor+terbuthylazine+DICHLORMID; ethoxyfen+atrazine+nicosulfuron+DICHLORMID; fluoroglycofen+

metolachlor+isoxaflutole+DICHLORMID; fluoroglycofen +S-metolachlor+isoxaflutole+DICHLORMID; fluoroglycofen+metolachlor+mesotrione+DICHLORMID; fluoroglycofen+S-metolachlor+mesotrione+DICHLORMID; fluoroglycofen +metolachlor+atrazine+DICHLORMID; fluoroglycofen+S-metolachlor+atrazine+DICHLORMID; fluoroglycofen+metolachlor+terbuthylazine+DICHLORMID; fluoroglycofen+S-metolachlor+terbuthylazine+DICHLORMID; fluoroglycofen+atrazine+nicosulfuron+DICHLORMID; fomesafen+metolachlor+isoxaflutole+DICHLORMID; fomesafen+S-metolachlor+isoxaflutole+DICHLORMID; fomesafen+metolachlor+mesotrione+DICHLORMID; fomesafen+S-metolachlor+mesotrione+DICHLORMID; fomesafen+metolachlor+atrazine+DICHLORMID; fomesafen+S-metolachlor+atrazine +DICHLORMID; fomesafen+metolachlor+terbuthylazine+DICHLORMID; fomesafen+S-metolachlor+terbuthylazine+DICHLORMID; fomesafen+atrazine+nicosulfuron+DICHLORMID; lactofen+metolachlor+isoxaflutole+DICHLORMID; lactofen+S-metolachlor+isoxaflutole+DICHLORMID; lactofen+metolachlor+mesotrione+DICHLORMID; lactofen+S-metolachlor+mesotrione+DICHLORMID; lactofen+metolachlor+atrazine+DICHLORMID; lactofen+S-metolachlor+atrazine+DICHLORMID; lactofen+metolachlor+terbuthylazine+DICHLORMID; lactofen+S-metolachlor+terbuthylazine+DICHLORMID; lactofen+atrazine+nicosulfuron+DICHLORMID; oxyfluorfen+metolachlor+isoxaflutole+DICHLORMID; oxyfluorfen+S-metolachlor+isoxaflutole+DICHLORMID; oxyfluorfen+metolachlor+mesotrione+DICHLORMID; oxyfluorfen+S-metolachlor+mesotrione+DICHLORMID; oxyfluorfen+metolachlor+atrazine+DICHLORMID; oxyfluorfen+S-metolachlor+atrazine+DICHLORMID; oxyfluorfen+metolachlor+terbuthylazine+DICHLORMID; oxyfluorfen en+S-metolachlor+terbuthylazine+DICHLORMID; oxyfluorfen+atrazine+nicosulfuron+DICHLORMID; azafenidin+metolachlor+isoxaflutole+DICHLORMID; azafenidin+S-metolachlor+isoxaflutole+DICHLORMID; azafenidin+metolachlor+mesotrione+DICHLORMID; azafenidin+S-metolachlor+mesotrione+DICHLORMID; azafenidin+metolachlor+atrazine+DICHLORMID; azafenidin+S-metolachlor+atrazine+DICHLORMID; azafenidin+metolachlor+terbuthylazine+DICHLORMID; azafenidin+S-metolachlor+terbuthylazine+DICHLORMID; azafenidin+atrazine+nicosulfuron+DICHLORMID; carfentrazone-ethyl+metolachlor+isoxaflutole+DICHLORMID; carfentrazone-ethyl+S-metolachlor+isoxaflutole+DICHLORMID; carfentrazone-ethyl+metolachlor+mesotrione+DICHLORMID; carfentrazone-ethyl+S-metolachlor+mesotrione+DICHLORMID; carfentrazone-ethyl+metolachlor+atrazine+DICHLORMID; carfentrazone-ethyl+S-metolachlor+atrazine+DICHLORMID; carfentrazone-ethyl+metolachlor+terbuthylazine+DICHLORMID; carfentrazone-ethyl+S-metolachlor+terbuthylazine+DICHLORMID; carfentrazone-ethyl+atrazine+nicosulfuron+DICHLORMID; compound of the formula A+metolachlor+isoxaflutole+DICHLORMID; compound of the formula A+S-metolachlor+isoxaflutole+DICHLORMID; compound of the formula A+metolachlor+mesotrione+DICHLORMID; compound of the formula A+S-metolachlor+mesotrione+DICHLORMID; compound of the formula A+metolachlor+atrazine+DICHLORMID; compound of the formula A+S-metolachlor+atrazine+DICHLORMID; compound of the formula A+metolachlor+terbuthylazine+DICHLORMID; compound of the formula A+S-metolachlor+terbuthylazine+DICHLORMID; compound of the formula A+atrazine+nicosulfuron+DICHLORMID; cinidon-ethyl+metolachlor+isoxaflutole+DICHLORMID; cinidon-ethyl+S-metolachlor+isoxaflutole+DICHLORMID; cinidon-ethyl+metolachlor+mesotrione+DICHLORMID; cinidon-ethyl+S-metolachlor+mesotrione+DICHLORMID; cinidon-ethyl+metolachlor+atrazine+DICHLORMID; cinidon-ethyl+S-metolachlor+atrazine+DICHLORMID; cinidon-ethyl+metolachlor+terbuthylazine+DICHLORMID; cinidon-ethyl+S-metolachlor+terbuthylazine+DICHLORMID; cinidon-ethyl+atrazine+nicosulfuron+DICHLORMID; flumiclorac-pentyl+metolachlor+isoxaflutole+DICHLORMID; flumiclorac-pentyl+S-metolachlor+isoxaflutole +DICHLORMID; flumiclorac-pentyl+metolachlor+mesotrione+DICHLORMID; flumiclorac-pentyl+S-metolachlor+mesotrione+DICHLORMID; flumiclorac-pentyl+metolachlor+atrazine+DICHLORMID; flumiclorac-pentyl+S-metolachlor+atrazine+DICHLORMID; flumiclorac-pentyl+metolachlor+terbuthylazine+DICHLORMID; flumiclorac-pentyl+S-metolachlor+terbuthylazine+DICHLORMID; flumiclorac-pentyl+atrazine+nicosulfuron+DICHLORMID; flumioxazin+metolachlor+isoxaflutole+DICHLORMID; flumioxazin+S-metolachlor+isoxaflutole+DICHLORMID; flumioxazin+metolachlor+mesotrione+DICHLORMID; flumioxazin+S-metolachlor+mesotrione+DICHLORMID; flumioxazin+metolachlor+atrazine+DICHLORMID; flumioxazin+S-metolachlor+atrazine+DICHLORMID; flumioxazin+metolachlor+terbuthylazine+DICHLORMID; flumioxazin+S-metolachlor+terbuthylazine+DICHLORMID; flumioxazin+atrazine+nicosulfuron+DICHLORMID; fluthiacet-methyl+metolachlor+isoxaflutole+DICHLORMID; fluthiacet-methyl+S-metolachlor+isoxaflutole+DICHLORMID; fluthiacet-methyl+metolachlor+mesotrione+DICHLORMID; fluthiacet-methyl+S-metolachlor+mesotrione+DICHLORMID; fluthiacet-methyl+metolachlor+atrazine+DICHLORMID; fluthiacet-methyl+S-metolachlor+atrazine+DICHLORMID; fluthiacet-methyl+metolachlor+terbuthylazine+DICHLORMID; fluthiacet-methyl+S-metolachlor+terbuthylazine+DICHLORMID; fluthiacet-methyl+atrazine+nicosulfuron+DICHLORMID; oxadiargyl+metolachlor+isoxaflutole+DICHLORMID; oxadiargyl+S-metolachlor+isoxaflutole+DICHLORMID; oxadiargyl+metolachlor+mesotrione+DICHLORMID; oxadiargyl+S-metolachlor+mesotrione+DICHLORMID; oxadiargyl+metolachlor+atrazine+DICHLORMID; oxadiargyl+S-metolachlor+atrazine+DICHLORMID; oxadiargyl +metolachlor+terbuthylazine+DICHLORMID; oxadiargyl+S-metolachlor+terbuthylazine +DICHLORMID; oxadiargyl+atrazine+nicosulfuron+DICHLORMID; oxadiazon+metolachlor+isoxaflutole+DICHLORMID; oxadiazon+S-metolachlor+isoxaflutole+DICHLORMID; oxadiazon+metolachlor+mesotrione+DICHLORMID; oxadiazon+S-metolachlor+mesotrione+DICHLORMID; oxadiazon+metolachlor+atrazine+DICHLORMID; oxadiazon+S-metolachlor+atrazine+DICHLORMID; oxadiazon+metolachlor+terbuthylazine+DICHLORMID; oxadiazon+S-metolachlor+terbuthylazine+DICHLORMID; oxadiazon+atrazine+nicosulfuron+DICHLORMID; pentoxazone+metolachlor+isoxaflutole+DICHLORMID; pentoxazone+S-metolachlor+isoxaflutole+DICHLORMID; pentoxazone+metolachlor+

mesotrione+DICHLORMID; pentoxazone+S-metolachlor+mesotrione+DICHLORMID; pentoxazone+metolachlor+atrazine+DICHLORMID; pentoxazone+S-metolachlor+atrazine+DICHLORMID; pentoxazone+metolachlor+terbuthylazine+DICHLORMID; pentoxazone+S-metolachlor+terbuthylazine+DICHLORMID; pentoxazone+atrazine+nicosulfuron+DICHLORMID; sulfentrazone+metolachlor+isoxaflutole+DICHLORMID; sulfentrazone+S-metolachlor+isoxaflutole+DICHLORMID; sulfentrazone+metolachlor+mesotrione+DICHLORMID; sulfentrazone+S-metolachlor+mesotrione+DICHLORMID; sulfentrazone+metolachlor+atrazine+DICHLORMID; sulfentrazone+S-metolachlor+atrazine+DICHLORMID; sulfentrazone+metolachlor+terbuthylazine+DICHLORMID; sulfentrazone+S-metolachlor+terbuthylazine+DICHLORMID; sulfentrazone+atrazine+nicosulfuron+DICHLORMID; fluazolate+metolachlor+isoxaflutole+DICHLORMID; fluazolate+S-metolachlor+isoxaflutole+DICHLORMID; fluazolate+metolachlor+mesotrione+DICHLORMID; fluazolate+S-metolachlor+mesotrione+DICHLORMID; fluazolate+metolachlor+atrazine+DICHLORMID; fluazolate+S-metolachlor+atrazine+DICHLORMID; fluazolate+metolachlor+terbuthylazine+DICHLORMID; fluazolate+S-metolachlor+terbuthylazine+DICHLORMID; fluazolate+atrazine+nicosulfuron+DICHLORMID; pyraflufen-ethyl+metolachlor+isoxaflutole+DICHLORMID; pyraflufen-ethyl+S-metolachlor+isoxaflutole+DICHLORMID; pyraflufen-ethyl+metolachlor+mesotrione+DICHLORMID; pyraflufen-ethyl+S-metolachlor+mesotrione+DICHLORMID; pyraflufen-ethyl+metolachlor+atrazine+DICHLORMID; pyraflufen-ethyl+S-metolachlor +atrazine+DICHLORMID; pyraflufen-ethyl+metolachlor+terbuthylazine+DICHLORMID; pyraflufen-ethyl+S-metolachlor+terbuthylazine+DICHLORMID; pyraflufen-ethyl+atrazine+nicosulfuron+DICHLORMID; flumipropyn+metolachlor+isoxaflutole+DICHLORMID; flumipropyn+S-metolachlor+isoxaflutole+DICHLORMID; flumipropyn+metolachlor+mesotrione+DICHLORMID; flumipropyn+S-metolachlor+mesotrione+DICHLORMID; flumipropyn+metolachlor+atrazine+DICHLORMID; flumipropyn+S-metolachlor+atrazine+DICHLORMID; flumipropyn+metolachlor+terbuthylazine+DICHLORMID; flumipropyn+S-metolachlor+terbuthylazine+DICHLORMID; flumipropyn+atrazine+nicosulfuron+DICHLORMID; flupropacil+metolachlor+isoxaflutole+DICHLORMID; flupropacil+S-metolachlor+isoxaflutole+DICHLORMID; flupropacil+metolachlor+mesotrione+DICHLORMID; flupropacil+S-metolachlor+mesotrione+DICHLORMID; flupropacil+metolachlor+atrazine+DICHLORMID; flupropacil+S-metolachlor+atrazine+DICHLORMID; flupropacil+metolachlor+terbuthylazine+DICHLORMID; flupropacil+S-metolachlor+terbuthylazine+DICHLORMID; flupropacil+atrazine+nicosulfuron+DICHLORMID; nipyraclofen+metolachlor+isoxaflutole+DICHLORMID; nipyraclofen+S-metolachlor+isoxaflutole+DICHLORMID; nipyraclofen+metolachlor+mesotrione+DICHLORMID; nipyraclofen+S-metolachlor+mesotrione+DICHLORMID; nipyraclofen+metolachlor+atrazine+DICHLORMID; nipyraclofen+S-metolachlor+atrazine+DICHLORMID; nipyraclofen+metolachlor+terbuthylazine+DICHLORMID; nipyraclofen+S-metolachlor+terbuthylazine+DICHLORMID; nipyraclofen +atrazine+nicosulfuron+DICHLORMID; benzfendizone+metolachlor+isoxaflutole+DICHLORMID; benzfendizone+S-metolachlor+isoxaflutole+DICHLORMID; benzfendizone+metolachlor+mesotrione+DICHLORMID; benzfendizone+S-metolachlor +mesotrione+DICHLORMID; benzfendizone+metolachlor+atrazine+DICHLORMID; benzfendizone+S-metolachlor+atrazine+DICHLORMID; benzfendizone+metolachlor+terbuthylazine+DICHLORMID; benzfendizone+S-metolachlor+terbuthylazine+DICHLORMID; benzfendizone+atrazine+nicosulfuron+DICHLORMID; thidiazimin+metolachlor+isoxaflutole+DICHLORMID; thidiazimin+S-metolachlor+isoxaflutole+DICHLORMID; thidiazimin+metolachlor+mesotrione+DICHLORMID; thidiazimin+S-metolachlor+mesotrione+DICHLORMID; thidiazimin+metolachlor+atrazine+DICHLORMID; thidiazimin+S-metolachlor+atrazine+DICHLORMID; thidiazimin+metolachlor+terbuthylazine+DICHLORMID; thidiazimin+S-metolachlor+terbuthylazine+DICHLORMID; and thidiazimin+atrazine+nicosulfuron+DICHLORMID. Acifluorfen+metolachlor+isoxaflutole+FURILAZOLE; acifluorfen+S-metolachlor+isoxaflutole+FURILAZOLE; acifluorfen+metolachlor+mesotrione+FURILAZOLE; acifluorfen+S-metolachlor+mesotrione+FURILAZOLE; acifluorfen+metolachlor+atrazine+FURILAZOLE; acifluorfen+S-metolachlor+atrazine+FURILAZOLE; acifluorfen +metolachlor+terbuthylazine+FURILAZOLE; acifluorfen+S-metolachlor+terbuthylazine +FURILAZOLE; acifluorfen+atrazine+nicosulfuron+FURILAZOLE; aclonifen+metolachlor+isoxaflutole+FURILAZOLE; aclonifen+S-metolachlor+isoxaflutole+FURILAZOLE; aclonifen+metolachlor+mesotrione+FURILAZOLE; aclonifen+S-metolachlor+mesotrione+FURILAZOLE; aclonifen+metolachlor+atrazine+FURILAZOLE; aclonifen+S-metolachlor+atrazine+FURILAZOLE; aclonifen+metolachlor+terbuthylazine+FURILAZOLE; aclonifen+S-metolachlor+terbuthylazine+FURILAZOLE; aclonifen+atrazine+nicosulfuron+FURILAZOLE; bifenox+metolachlor+isoxaflutole+FURILAZOLE; bifenox+S-metolachlor+isoxaflutole+FURILAZOLE; bifenox +metolachlor+mesotrione+FURILAZOLE; bifenox+S-metolachlor+mesotrione+FURILAZOLE; bifenox+metolachlor+atrazine+FURILAZOLE; bifenox+S-metolachlor+atrazine+FURILAZOLE; bifenox+metolachlor+terbuthylazine+FURILAZOLE; bifenox+S-metolachlor+terbuthylazine+FURILAZOLE; bifenox+atrazine+nicosulfuron+FURILAZOLE; chlomitrofen+metolachlor+isoxaflutole+FURILAZOLE; chlomitrofen+S-metolachlor+isoxaflutole+FURILAZOLE; chlomitrofen+metolachlor+mesotrione+FURILAZOLE; chlomitrofen+S-metolachlor+mesotrione+FURILAZOLE; chlomitrofen+metolachlor+atrazine+FURILAZOLE; chlomitrofen+S-metolachlor+atrazine+FURILAZOLE; chlomitrofen+metolachlor+terbuthylazine+FURILAZOLE; chlomitrofen+S-metolachlor+terbuthylazine+FURILAZOLE; chlomitrofen+atrazine+nicosulfuron+FURILAZOLE; ethoxyfen+metolachlor+isoxaflutole+FURILAZOLE; ethoxyfen+S-metolachlor+isoxaflutole+FURILAZOLE; ethoxyfen+metolachlor+mesotrione+FURILAZOLE; ethoxyfen+S-metolachlor+mesotrione+FURILAZOLE; ethoxyfen+metolachlor+atrazine+FURILAZOLE; ethoxyfen+S-metolachlor+atrazine+FURILAZOLE; ethoxyfen+metolachlor+terbuthylazine+FURILAZOLE; ethoxyfen+S-metolachlor+terbuthylazine+FURILAZOLE; ethoxyfen+atrazine+nicosulfuron+FURILAZOLE; fluoroglycofen+metolachlor+isoxaflutole+FURILAZOLE; fluoroglycofen+

S-metolachlor+isoxaflutole+FURILAZOLE; fluoroglycofen+metolachlor+mesotrione+FURILAZOLE; fluoroglycofen+S-metolachlor+mesotrione+FURILAZOLE; fluoroglycofen +metolachlor+atrazine+FURILAZOLE; fluoroglycofen+S-metolachlor+atrazine+FURILAZOLE; fluoroglycofen+metolachlor+terbuthylazine+FURILAZOLE; fluoroglycofen +S-metolachlor+terbuthylazine+FURILAZOLE; fluoroglycofen+atrazine+nicosulfuron+FURILAZOLE; fomesafen+metolachlor+isoxaflutole+FURILAZOLE; fomesafen+S-metolachlor+isoxaflutole+FURILAZOLE; fomesafen+metolachlor+mesotrione+FURILAZOLE; fomesafen+S-metolachlor+mesotrione+FURILAZOLE; fomesafen+metolachlor+atrazine+FURILAZOLE; fomesafen+S-metolachlor+atrazine+FURILAZOLE; fomesafen+metolachlor+terbuthylazine+FURILAZOLE; fomesafen+S-metolachlor+terbuthylazine+FURILAZOLE; fomesafen+atrazine+nicosulfuron+FURILAZOLE; lactofen+metolachlor+isoxaflutole+FURILAZOLE; lactofen+S-metolachlor+isoxaflutole+FURILAZOLE; lactofen+metolachlor+mesotrione+FURILAZOLE; lactofen+S-metolachlor+mesotrione+FURILAZOLE; lactofen+metolachlor+atrazine+FURILAZOLE; lactofen+S-metolachlor+atrazine+FURILAZOLE; lactofen+metolachlor+terbuthylazine+FURILAZOLE; lactofen+S-metolachlor+terbuthylazine+FURILAZOLE; lactofen+atrazine+nicosulfuron+FURILAZOLE; oxyfluorfen+metolachlor+isoxaflutole+FURILAZOLE; oxyfluorfen+S-metolachlor+isoxaflutole+FURILAZOLE; oxyfluorfen+metolachlor+mesotrione+FURILAZOLE; oxyfluorfen+S-metolachlor+mesotrione+FURILAZOLE; oxyfluorfen+metolachlor+atrazine+FURILAZOLE; oxyfluorfen+S-metolachlor+atrazine+FURILAZOLE; oxyfluorfen+metolachlor+terbuthylazine+FURILAZOLE; oxyfluorfen+S-metolachlor+terbuthylazine+FURILAZOLE; oxyfluorfen+atrazine+nicosulfuron+FURILAZOLE; azafenidin+metolachlor+isoxaflutole+FURILAZOLE; azafenidin+S-metolachlor+isoxaflutole+FURILAZOLE; azafenidin+metolachlor+mesotrione+FURILAZOLE; azafenidin+S-metolachlor+mesotrione+FURILAZOLE; azafenidin+metolachlor+atrazine+FURILAZOLE; azafenidin+S-metolachlor+atrazine+FURILAZOLE; azafenidin +metolachlor+terbuthylazine+FURILAZOLE; azafenidin+S-metolachlor+terbuthylazine +FURILAZOLE; azafenidin+atrazine+nicosulfuron+FURILAZOLE; carfentrazone-ethyl +metolachlor+isoxaflutole+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+isoxaflutole+FURILAZOLE; carfentrazone-ethyl+metolachlor+mesotrione+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+mesotrione+FURILAZOLE; carfentrazone-ethyl+metolachlor+atrazine+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+atrazine+FURILAZOLE; carfentrazone-ethyl+metolachlor+terbuthylazine +FURILAZOLE; carfentrazone-ethyl+S-metolachlor+terbuthylazine+FURILAZOLE; carfentrazone-ethyl+atrazine+nicosulfuron+FURILAZOLE; compound of the formula A +metolachlor+isoxaflutole+FURILAZOLE; compound of the formula A+S-metolachlor+isoxaflutole+FURILAZOLE; compound of the formula A+metolachlor+mesotrione+FURILAZOLE; compound of the formula A+S-metolachlor+mesotrione+FURILAZOLE; compound of the formula A+metolachlor+atrazine+FURILAZOLE; compound of the formula A+S-metolachlor+atrazine+FURILAZOLE; compound of the formula A+metolachlor+terbuthylazine+FURILAZOLE; compound of the formula A+S-metolachlor+terbuthylazine+FURILAZOLE; compound of the formula A+atrazine+nicosulfuron+FURILAZOLE; cinidon-ethyl+metolachlor+isoxaflutole+FURILAZOLE; cinidon-ethyl+S-metolachlor+isoxaflutole+FURILAZOLE; cinidon-ethyl+metolachlor+mesotrione+FURILAZOLE; cinidon-ethyl+S-metolachlor+mesotrione+FURILAZOLE; cinidon-ethyl+metolachlor+atrazine+FURILAZOLE; cinidon-ethyl+S-metolachlor+atrazine+FURILAZOLE; cinidon-ethyl+metolachlor+terbuthylazine+FURILAZOLE; cinidon-ethyl+S-metolachlor+terbuthylazine+FURILAZOLE; cinidon-ethyl+atrazine+nicosulfuron+FURILAZOLE; flumiclorac-pentyl+metolachlor+isoxaflutole+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+isoxaflutole+FURILAZOLE; flumiclorac-pentyl+metolachlor+mesotrione+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+mesotrione+FURILAZOLE; flumiclorac-pentyl+metolachlor+atrazine+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+atrazine+FURILAZOLE; flumiclorac-pentyl+metolachlor+terbuthylazine+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+terbuthylazine+FURILAZOLE; flumiclorac-pentyl+atrazine+nicosulfuron+FURILAZOLE; flumioxazin+metolachlor+isoxaflutole+FURILAZOLE; flumioxazin+S-metolachlor+isoxaflutole+FURILAZOLE; flumioxazin+metolachlor+mesotrione+FURILAZOLE; flumioxazin+S-metolachlor+mesotrione+FURILAZOLE; flumioxazin+metolachlor+atrazine+FURILAZOLE; flumioxazin+S-metolachlor+atrazine+FURILAZOLE; flumioxazin+metolachlor+terbuthylazine+FURILAZOLE; flumioxazin+S-metolachlor+terbuthylazine +FURILAZOLE; flumioxazin+atrazine+nicosulfuron+FURILAZOLE; fluthiacet-methyl+metolachlor+isoxaflutole+FURILAZOLE; fluthiacet-methyl+S-metolachlor+isoxaflutole+FURILAZOLE; fluthiacet-methyl+metolachlor+mesotrione+FURILAZOLE; fluthiacet-methyl+S-metolachlor+mesotrione+FURILAZOLE; fluthiacet-methyl+metolachlor+atrazine+FURILAZOLE; fluthiacet-methyl+S-metolachlor+atrazine+FURILAZOLE; fluthiacet-methyl+metolachlor+terbuthylazine+FURILAZOLE; fluthiacet-methyl+S-metolachlor+terbuthylazine+FURILAZOLE; fluthiacet-methyl+atrazine+nicosulfuron+FURILAZOLE; oxadiargyl+metolachlor+isoxaflutole+FURILAZOLE; oxadiargyl+S-metolachlor+isoxaflutole+FURILAZOLE; oxadiargyl+metolachlor+mesotrione+FURILAZOLE; oxadiargyl+S-metolachlor+mesotrione+FURILAZOLE; oxadiargyl+metolachlor+atrazine+FURILAZOLE; oxadiargyl+S-metolachlor+atrazine+FURILAZOLE; oxadiargyl+metolachlor+terbuthylazine+FURILAZOLE; oxadiargyl+S-metolachlor+terbuthylazine+FURILAZOLE; oxadiargyl+atrazine+nicosulfuron+FURILAZOLE; oxadiazon+metolachlor+isoxaflutole+FURILAZOLE; oxadiazon+S-metolachlor+isoxaflutole+FURILAZOLE; oxadiazon+metolachlor+mesotrione+FURILAZOLE; oxadiazon+S-metolachlor+mesotrione+FURILAZOLE; oxadiazon+metolachlor+atrazine+FURILAZOLE; oxadiazon+S-metolachlor+atrazine+FURILAZOLE; oxadiazon+metolachlor+terbuthylazine+FURILAZOLE; oxadiazon+S-metolachlor+terbuthylazine+FURILAZOLE; oxadiazon+atrazine+nicosulfuron+FURILAZOLE; pentoxazone+metolachlor+isoxaflutole+FURILAZOLE; pentoxazone+S-metolachlor+isoxaflutole+FURILAZOLE; pentoxazone+metolachlor+mesotrione+FURILAZOLE; pentoxazone+S-metolachlor+mesotrione+FURILAZOLE; pentoxazone+metolachlor+atrazine+FURILAZOLE; pentoxazone+S-

metolachlor+atrazine+FURILAZOLE; pentoxazone+metolachlor+terbuthylazine+FURILAZOLE; pentoxazone+S-metolachlor+terbuthylazine+FURILAZOLE; pentoxazone+atrazine+nicosulfuron+FURILAZOLE; sulfentrazone+metolachlor+isoxaflutole+FURILAZOLE; sulfentrazone+S-metolachlor+isoxaflutole+FURILAZOLE; sulfentrazone+metolachlor+mesotrione+FURILAZOLE; sulfentrazone+S-metolachlor+mesotrione+FURILAZOLE; sulfentrazone +metolachlor+atrazine+FURILAZOLE; sulfentrazone+S-metolachlor+atrazine+FURILAZOLE; sulfentrazone+metolachlor+terbuthylazine+FURILAZOLE; sulfentrazone +S-metolachlor+terbuthylazine+FURILAZOLE; sulfentrazone+atrazine+nicosulfuron+FURILAZOLE; fluazolate+metolachlor+isoxaflutole+FURILAZOLE; fluazolate+S-metolachlor+isoxaflutole+FURILAZOLE; fluazolate+metolachlor+mesotrione+FURILAZOLE; fluazolate+S-metolachlor+mesotrione+FURILAZOLE; fluazolate+metolachlor+atrazine+FURILAZOLE; fluazolate+S-metolachlor+atrazine+FURILAZOLE; fluazolate+metolachlor+terbuthylazine+FURILAZOLE; fluazolate+S-metolachlor+terbuthylazine+FURILAZOLE; fluazolate+atrazine+nicosulfuron+FURILAZOLE; pyraflufen-ethyl+metolachlor+isoxaflutole+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+isoxaflutole+FURILAZOLE; pyraflufen-ethyl+metolachlor+mesotrione+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+mesotrione+FURILAZOLE; pyraflufen-ethyl+metolachlor+atrazine+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+atrazine+FURILAZOLE; pyraflufen-ethyl+metolachlor+terbuthylazine+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+terbuthylazine+FURILAZOLE; pyraflufen-ethyl+atrazine+nicosulfuron+FURILAZOLE; flumipropyn+metolachlor+isoxaflutole+FURILAZOLE; flumipropyn+S-metolachlor+isoxaflutole+FURILAZOLE; flumipropyn+metolachlor+mesotrione+FURILAZOLE; flumipropyn+S-metolachlor+mesotrione+FURILAZOLE; flumipropyn+metolachlor+atrazine+FURILAZOLE; flumipropyn+S-metolachlor+atrazine+FURILAZOLE; flumipropyn+metolachlor+terbuthylazine+FURILAZOLE; flumipropyn+S-metolachlor+terbuthylazine+FURILAZOLE; flumipropyn+atrazine+nicosulfuron+FURILAZOLE; flupropacil+metolachlor+isoxaflutole+FURILAZOLE; flupropacil+S-metolachlor+isoxaflutole+FURILAZOLE; flupropacil+metolachlor+mesotrione+FURILAZOLE; flupropacil+S-metolachlor+mesotrione+FURILAZOLE; flupropacil+metolachlor+atrazine+FURILAZOLE; flupropacil+S-metolachlor+atrazine+FURILAZOLE; flupropacil+metolachlor+terbuthylazine+FURILAZOLE; flupropacil+S-metolachlor+terbuthylazine+FURILAZOLE; flupropacil+atrazine+nicosulfuron+FURILAZOLE; nipyraclofen+metolachlor+isoxaflutole+FURILAZOLE; nipyraclofen+S-metolachlor+isoxaflutole+FURILAZOLE; nipyraclofen+metolachlor+mesotrione+FURILAZOLE; nipyraclofen+S-metolachlor+mesotrione+FURILAZOLE; nipyraclofen+metolachlor+atrazine+FURILAZOLE; nipyraclofen+S-metolachlor+atrazine+FURILAZOLE; nipyraclofen+metolachlor+terbuthylazine+FURILAZOLE; nipyraclofen+S-metolachlor+terbuthylazine+FURILAZOLE; nipyraclofen +atrazine+nicosulfuron+FURILAZOLE; benzfendizone+metolachlor+isoxaflutole+FURILAZOLE; benzfendizone+S-metolachlor+isoxaflutole+FURILAZOLE; benzfendizone+metolachlor+mesotrione+FURILAZOLE; benzfendizone+S-metolachlor +mesotrione+FURILAZOLE; benzfendizone+metolachlor+atrazine+FURILAZOLE; benzfendizone+S-metolachlor+atrazine+FURILAZOLE; benzfendizone+metolachlor+terbuthylazine+FURILAZOLE; benzfendizone+S-metolachlor+terbuthylazine+FURILAZOLE; benzfendizone+atrazine+nicosulfuron+FURILAZOLE; thidiazimin+metolachlor+isoxaflutole+FURILAZOLE; thidiazimin+S-metolachlor+isoxaflutole+FURILAZOLE; thidiazimin+metolachlor+mesotrione+FURILAZOLE; thidiazimin+S-metolachlor+mesotrione+FURILAZOLE; thidiazimin+metolachlor+atrazine+FURILAZOLE; thidiazimin+S-metolachlor+atrazine+FURILAZOLE; thidiazimin+metolachlor+terbuthylazine+FURILAZOLE; thidiazimin+S-metolachlor+terbuthylazine+FURILAZOLE; and thidiazimin+atrazine+nicosulfuron+FURILAZOLE.

[0122] Acifluorfen+atrazin+glyphosate; acifluorfen+terbuthylazine+glyphosate; acifluorfen+(S)-metolachlor+glyphosate; acifluorfen+metolachlor+glyphosate; acifluorfen+compound of the formula A+glyphosate; acifluorfen+terbutryn+glyphosate; acifluorfen+simazine+glyphosate; acifluorfen+dimethenamid or (S-dimethenamid+glyphosate; acifluorfen+flufenacet+glyphosate; acifluorfen+acetochlor+glyphosate; acifluorfen+alachlor+glyphosate; acifluorfen+isoxaflutole+glyphosate; acifluorfen+isoxachlortole+glyphosate; acifluorfen+mesotrione+glyphosate; acifluorfen+sulcotrione+glyphosate; acifluorfen+metosulam+glyphosate; acifluorfen+flumetsulam+glyphosate; acifluorfen+pendimethalin+glyphosate; acifluorfen+bromoxynil+glyphosate; acifluorfen+bentazone +glyphosate; acifluorfen+carfentrazone+glyphosate; acifluorfen+clomazone+glyphosate; acifluorfen+nicosulfuron+glyphosate; acifluorfen+rimsulfuron+glyphosate; acifluorfen+halosulfuron+glyphosate; acifluorfen+metribuzin+glyphosate; acifluorfen+flumiclorac+glyphosate; acifluorfen+prosulfuron+glyphosate; acifluorfen+primisulfuron +glyphosate; acifluorfen+dicamba+glyphosate; acifluorfen+fluthiacet+glyphosate; acifluorfen+pyridate+glyphosate; acifluorfen+compound of the formula B+glyphosate; acifluorfen+2,4-D+glyphosate; acifluorfen+clopyralide+glyphosate; acifluorfen+diflufenzopyr+glyphosate; acifluorfen+fluroxypyr+glyphosate; acifluorfen+MCPA+glyphosate; acifluorfen+MCPB+glyphosate; acifluorfen+MCPP+glyphosate; acifluorfen +metobenzuron+glyphosate; acifluorfen+thifensulfuron+glyphosate; acifluorfen+aclonifen+glyphosate; acifluorfen+EPTC+glyphosate; acifluorfen+cyanazine+glyphosate; aclonifen+atrazin+glyphosate; aclonifen+terbuthylazine+glyphosate; aclonifen+(S)-metolachlor+glyphosate; aclonifen+metolachlor+glyphosate; aclonifen+compound of the formula A+glyphosate; aclonifen+terbutryn+glyphosate; aclonifen+simazine+glyphosate; aclonifen+dimethenamid or (S)-dimethenamid+glyphosate; aclonifen+flufenacet+glyphosate; aclonifen+acetochlor+glyphosate; aclonifen+alachlor+glyphosate; aclonifen+isoxaflutole+glyphosate; aclonifen+isoxachlortole+glyphosate; aclonifen+mesotrione+glyphosate; aclonifen+sulcotrione+glyphosate; aclonifen+metosulam+glyphosate; aclonifen+flumetsulam+glyphosate; aclonifen+pendimethalin+glyphosate; aclonifen+bromoxynil+glyphosate; aclonifen+bentazone+glyphosate; aclonifen+carfentrazone+glyphosate; aclonifen+clomazone+glyphosate; aclonifen+nicosulfuron+glyphosate; aclonifen+rimsulfuron+glyphosate; aclonifen+halosulfuron+glyphosate; aclonifen+metribuzin+glyphosate; aclonifen+flumiclorac+glyphosate; aclonifen+prosulfuron+glyphosate; aclonifen+primisulfuron+glyphosate; aclonifen+

dicamba+glyphosate; aclonifen+fluthiacet+glyphosate; aclonifen+pyridate +glyphosate; aclonifen+compound of the formula B+glyphosate; aclonifen+2,4-D+glyphosate; aclonifen+clopyralide+glyphosate; aclonifen+diflufenzopyr+glyphosate; aclonifen+fluroxypyr+glyphosate; aclonifen+MCPA+glyphosate; aclonifen+MCPB+glyphosate; aclonifen+MCPP+glyphosate; aclonifen+metobenzuron+glyphosate; aclonifen+thifensulfuron+glyphosate; aclonifen+EPTC+glyphosate; aclonifen+cyanazine+glyphosate; bifenox+atrazin+glyphosate; bifenox+terbuthylazine+glyphosate; bifenox+(S)-metolachlor+glyphosate; bifenox+metolachlor+glyphosate; bifenox+compound of the formula A+glyphosate; bifenox+terbutryn+glyphosate; bifenox+simazine+glyphosate; bifenox+dimethenamid or (S)-dimethenamid+glyphosate; bifenox+flufenacet+glyphosate; bifenox+acetochlor+glyphosate; bifenox+alachlor+glyphosate; bifenox+isoxaflutole+glyphosate; bifenox+isoxachlortole+glyphosate; bifenox+mesotrione+glyphosate; bifenox+sulcotrione+glyphosate; bifenox +metosulam+glyphosate; bifenox+flumetsulam+glyphosate; bifenox+pendimethalin+glyphosate; bifenox+bromoxynil+glyphosate; bifenox+bentazone+glyphosate; bifenox +carfentrazone+glyphosate; bifenox+clomazone+glyphosate; bifenox+nicosulfuron+glyphosate; bifenox+rimsulfuron+glyphosate; bifenox+halosulfuron+glyphosate; bifenox+metribuzin+glyphosate; bifenox+flumiclorac+glyphosate; bifenox+prosulfuron +glyphosate; bifenox+primisulfuron+glyphosate; bifenox+dicamba+glyphosate; bifenox+fluthiacet+glyphosate; bifenox+pyridate+glyphosate; bifenox+compound of the formula B+glyphosate; bifenox+2,4-D+glyphosate; bifenox+clopyralide+glyphosate; bifenox+diflufenzopyr+glyphosate; bifenox+fluroxypyr+glyphosate; bifenox +MCPA+glyphosate; bifenox+MCPB+glyphosate; bifenox+MCPP+glyphosate; bifenox+metobenzuron+glyphosate; bifenox+thifensulfuron+glyphosate; bifenox+aclonifen+glyphosate; bifenox+EPTC+glyphosate; bifenox+cyanazine+glyphosate; chlomitrofen+atrazin+glyphosate; chlomitrofen+terbuthylazine+glyphosate; chlomitrofen+(S)-metolachlor+glyphosate; chlomitrofen+metolachlor+glyphosate; chlomitrofen+compound of the formula A+glyphosate; chlomitrofen+terbutryn+glyphosate; chlomitrofen+simazine+glyphosate; chlomitrofen+dimethenamid or (S)-dimethenamid+glyphosate; chlomitrofen+flufenacet+glyphosate; chlomitrofen+acetochlor+glyphosate; chlomitrofen+alachlor+glyphosate; chlomitrofen+isoxaflutole+glyphosate; chlomitrofen+isoxachlortole+glyphosate; chlomitrofen+mesotrione+glyphosate; chlomitrofen+sulcotrione+glyphosate; chlomitrofen+metosulam+glyphosate; chlomitrofen+flumetsulam+glyphosate; chlomitrofen+pendimethalin+glyphosate; chlomitrofen+bromoxynil+glyphosate; chlomitrofen+bentazone+glyphosate; chlomitrofen+carfentrazone+glyphosate; chlomitrofen+clomazone+glyphosate; chlomitrofen+nicosulfuron+glyphosate; chlomitrofen+rimsulfuron+glyphosate; chlomitrofen+halosulfuron+glyphosate; chlomitrofen+metribuzin+glyphosate; chlomitrofen+flumiclorac+glyphosate; chlomitrofen+prosulfuron+glyphosate; chlomitrofen+primisulfuron+glyphosate; chlomitrofen+dicamba+glyphosate; chlomitrofen+fluthiacet+glyphosate; chlomitrofen+pyridate+glyphosate; chlomitrofen+compound of the formula B+glyphosate; chlomitrofen+2,4-D+glyphosate; chlomitrofen+clopyralide+glyphosate; chlomitrofen+diflufenzopyr+glyphosate; chlomitrofen+fluroxypyr+glyphosate; chlomitrofen+MCPA+glyphosate; chlomitrofen+MCPB+glyphosate; chlomitrofen+MCPP+glyphosate; chlomitrofen+metobenzuron+glyphosate; chlomitrofen+thifensulfuron+glyphosate; chlomitrofen+aclonifen+glyphosate; chlomitrofen+EPTC+glyphosate; chlomitrofen+cyanazine+glyphosate; ethoxyfen+atrazin+glyphosate; ethoxyfen+terbuthylazine+glyphosate; ethoxyfen+(S)-metolachlor+glyphosate; ethoxyfen+metolachlor+glyphosate; ethoxyfen+compound of the formula A+glyphosate; ethoxyfen+terbutryn+glyphosate; ethoxyfen+simazine+glyphosate; ethoxyfen+dimethenamid or (S)-dimethenamid+glyphosate; ethoxyfen+flufenacet+glyphosate; ethoxyfen+acetochlor+glyphosate; ethoxyfen+alachlor+glyphosate; ethoxyfen+isoxaflutole+glyphosate; ethoxyfen+isoxachlortole+glyphosate; ethoxyfen+mesotrione+glyphosate; ethoxyfen+sulcotrione+glyphosate; ethoxyfen+metosulam+glyphosate; ethoxyfen+flumetsulam+glyphosate; ethoxyfen+pendimethalin +glyphosate; ethoxyfen+bromoxynil+glyphosate; ethoxyfen+bentazone+glyphosate; ethoxyfen+carfentrazone+glyphosate; ethoxyfen+clomazone+glyphosate; ethoxyfen+nicosulfuron+glyphosate; ethoxyfen+rimsulfuron+glyphosate; ethoxyfen+halosulfuron +glyphosate; ethoxyfen+metribuzin+glyphosate; ethoxyfen+flumiclorac+glyphosate; ethoxyfen+prosulfuron+glyphosate; ethoxyfen+primisulfuron+glyphosate; ethoxyfen+dicamba+glyphosate; ethoxyfen+fluthiacet+glyphosate; ethoxyfen+pyridate+glyphosate; ethoxyfen+compound of the formula B+glyphosate; ethoxyfen+2,4-D+glyphosate; ethoxyfen+clopyralide+glyphosate; ethoxyfen+diflufenzopyr+glyphosate; ethoxyfen+fluroxypyr+glyphosate; ethoxyfen+MCPA+glyphosate; ethoxyfen+MCPB+glyphosate; ethoxyfen+MCPP+glyphosate; ethoxyfen+metobenzuron+glyphosate; ethoxyfen+thifensulfuron+glyphosate; ethoxyfen+aclonifen+glyphosate; 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fluoroglycofen+halosulfuron+glyphosate; fluoroglycofen+metribuzin+glyphosate; fluoroglycofen+flumiclorac+glyphosate; fluoroglycofen+prosulfuron+glyphosate; fluoroglycofen+primisulfuron+glyphosate; fluoroglycofen+dicamba+glyphosate; fluoroglycofen+fluthiacet+glyphosate; fluoroglycofen+pyridate+glyphosate; fluoroglycofen+compound of the formula B+glyphosate; fluoroglycofen+2,4-D+glyphosate; fluoroglycofen+clopyralide+glyphosate; fluoroglycofen+diflufenzopyr+glyphosate; fluoroglycofen+fluroxypyr+glyphosate; fluoroglycofen+MCPA+glyphosate; fluoroglycofen+MCPB+glyphosate; fluoroglycofen+MCPP+glyphosate; fluoroglycofen +metobenzuron+gly-

phosate; fluoroglycofen+thifensulfuron+glyphosate; fluoroglycofen +aclonifen+glyphosate; fluoroglycofen+EPTC+glyphosate; fluoroglycofen+cyanazine +glyphosate; fomesafen+atrazin+glyphosate; fomesafen+terbuthylazine+glyphosate; fomesafen+(S)-metolachlor+glyphosate; fomesafen+metolachlor+glyphosate; fomesafen+compound of the formula A+glyphosate; fomesafen+terbutryn+glyphosate; fomesafen+simazine+glyphosate; fomesafen+dimethenamid or (S)-dimethenamid+glyphosate; fomesafen+flufenacet+glyphosate; fomesafen+acetochlor+glyphosate; fomesafen+alachlor+glyphosate; fomesafen+isoxaflutole+glyphosate; fomesafen+isoxachlortole+glyphosate; fomesafen+mesotrione+glyphosate; fomesafen+sulcotrione +glyphosate; fomesafen+metosulam+glyphosate; fomesafen+flumetsulam+glyphosate; fomesafen+pendimethalin+glyphosate; fomesafen+bromoxynil+glyphosate; fomesafen+bentazone+glyphosate; fomesafen+carfentrazone+glyphosate; fomesafen+clomazone+glyphosate; fomesafen+nicosulfuron+glyphosate; fomesafen+rimsulfuron+glyphosate; 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lactofen+metobenzuron+glyphosate; lactofen +thifensulfuron+glyphosate; lactofen+aclonifen+glyphosate; lactofen+EPTC+glyphosate; lactofen+cyanazine+glyphosate; oxyfluorfen+atrazin+glyphosate; oxyfluorfen+terbuthylazine+glyphosate; oxyfluorfen+(S)-metolachlor+glyphosate; oxyfluorfen+metolachlor+glyphosate; oxyfluorfen+compound of the formula A+glyphosate; oxyfluorfen+terbutryn+glyphosate; oxyfluorfen+simazine+glyphosate; oxyfluorfen+dimethenamid or (S)-dimethenamid+glyphosate; oxyfluorfen+flufenacet+glyphosate; oxyfluorfen+acetochlor+glyphosate; oxyfluorfen+alachlor+glyphosate; oxyfluorfen+isoxaflutole+glyphosate; oxyfluorfen+isoxachlortole+glyphosate; oxyfluorfen+mesotrione+glyphosate; oxyfluorfen+sulcotrione+glyphosate; oxyfluorfen +metosulam+glyphosate; oxyfluorfen+flumetsulam+glyphosate; oxyfluorfen+pendimethalin+glyphosate; oxyfluorfen+bromoxynil+glyphosate; oxyfluorfen+bentazone+glyphosate; oxyfluorfen+carfentrazone+glyphosate; oxyfluorfen+clomazone+glyphosate; oxyfluorfen+nicosulfuron+glyphosate; oxyfluorfen+rimsulfuron +glyphosate; oxyfluorfen+halosulfuron+glyphosate; oxyfluorfen+metribuzin+glyphosate; oxyfluorfen+flumiclorac+glyphosate; oxyfluorfen+prosulfuron+glyphosate; oxyfluorfen+primisulfuron+glyphosate; oxyfluorfen+dicamba+glyphosate; oxyfluorfen+fluthiacet+glyphosate; oxyfluorfen+pyridate+glyphosate; oxyfluorfen+compound of the formula B+glyphosate; oxyfluorfen+2,4-D+glyphosate; oxyfluorfen+clopyralide+glyphosate; oxyfluorfen+diflufenzopyr+glyphosate; oxyfluorfen+fluroxypyr+glyphosate; oxyfluorfen+MCPA+glyphosate; oxyfluorfen+MCPB+glyphosate; oxyfluorfen+MCPP+glyphosate; oxyfluorfen+metobenzuron+glyphosate; oxyfluorfen+thifensulfuron+glyphosate; oxyfluorfen+aclonifen+glyphosate; oxyfluorfen+EPTC+glyphosate; oxyfluorfen+cyanazine+glyphosate; azafenidin+atrazin+glyphosate; azafenidin+terbuthylazine+glyphosate; azafenidin+(S)-metolachlor+glyphosate; azafenidin+metolachlor+glyphosate; azafenidin+compound of the formula A+glyphosate; azafenidin +terbutryn+glyphosate; azafenidin+simazine+glyphosate; azafenidin+dimethenamid or (S)-dimethenamid+glyphosate; azafenidin+flufenacet+glyphosate; azafenidin+acetochlor+glyphosate; azafenidin+alachlor+glyphosate; azafenidin+isoxaflutole+glyphosate; azafenidin+isoxachlortole+glyphosate; azafenidin+mesotrione+glyphosate; azafenidin+sulcotrione+glyphosate; azafenidin+metosulam+glyphosate; azafenidin+flumetsulam+glyphosate; azafenidin+pendimethalin+glyphosate; azafenidin+bromoxynil+glyphosate; azafenidin+bentazone+glyphosate; azafenidin+carfentrazone +glyphosate; azafenidin+clomazone+glyphosate; azafenidin+nicosulfuron+glyphosate; azafenidin+rimsulfuron+glyphosate; azafenidin+halosulfuron+glyphosate; azafenidin+metribuzin+glyphosate; azafenidin+flumiclorac+glyphosate; azafenidin+prosulfuron+glyphosate; azafenidin+primisulfuron+glyphosate; azafenidin+dicamba+glyphosate; azafenidin+fluthiacet+glyphosate; azafenidin+pyridate+glyphosate; azafenidin+compound of the formula B+glyphosate; azafenidin+2,4-D+glyphosate; azafenidin+clopyralide+glyphosate; azafenidin+diflufenzopyr+glyphosate; azafenidin+fluroxypyr+glyphosate; azafenidin+MCPA+glyphosate; azafenidin+MCPB+glyphosate; azafenidin+MCPP+glyphosate; azafenidin+metobenzuron+glyphosate; azafenidin+thifensulfuron+glyphosate; azafenidin+aclonifen+glyphosate; azafenidin+EPTC+glyphosate; azafenidin+cyanazine+glyphosate; carfentrazone-ethyl+atrazin+glyphosate; carfentrazone-ethyl+terbuthylazine+glyphosate; carfentrazone-ethyl+(S)-metolachlor+glyphosate; carfentrazone-ethyl+metolachlor+glyphosate; carfentrazone-ethyl+compound of the formula A+glyphosate; carfentrazone-ethyl+terbutryn+glyphosate; carfentrazone-ethyl+simazine+glyphosate; carfentrazone-ethyl+

dimethenamid or (S)-dimethenamid+glyphosate; carfentrazone-ethyl+flufenacet+glyphosate; carfentrazone-ethyl+acetochlor+glyphosate; carfentrazone-ethyl+alachlor+glyphosate; carfentrazone-ethyl+isoxaflutole+glyphosate; carfentrazone-ethyl+isoxachlortole+glyphosate; carfentrazone-ethyl+mesotrione+glyphosate; carfentrazone-ethyl+sulcotrione+glyphosate; carfentrazone-ethyl+metosulam+glyphosate; carfentrazone-ethyl+flumetsulam+glyphosate; carfentrazone-ethyl+pendimethalin+glyphosate; carfentrazone-ethyl+bromoxynil+glyphosate; carfentrazone-ethyl+bentazone+glyphosate; carfentrazone-ethyl+clomazone+glyphosate; carfentrazone-ethyl+nicosulfuron+glyphosate; carfentrazone-ethyl+rimsulfuron+glyphosate; carfentrazone-ethyl+halosulfuron+glyphosate; carfentrazone-ethyl+metribuzin+glyphosate; carfentrazone-ethyl+flumiclorac+glyphosate; carfentrazone-ethyl+prosulfuron+glyphosate; carfentrazone-ethyl+primisulfuron+glyphosate; carfentrazone-ethyl+dicamba+glyphosate; carfentrazone-ethyl+fluthiacet+glyphosate; 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compound of the formula A+acetochlor+glyphosate; compound of the formula A+alachlor; compound of the formula A+isoxaflutole+glyphosate; compound of the formula A+isoxachlortole+glyphosate; compound of the formula A+mesotrione+glyphosate; compound of the formula A+sulcotrione+glyphosate; compound of the formula A+metosulam+glyphosate; compound of the formula A+flumetsulam+glyphosate; compound of the formula A+pendimethalin+glyphosate; compound of the formula A+bromoxynil+glyphosate; compound of the formula A+bentazone+glyphosate; compound of the formula A+carfentrazone+glyphosate; compound of the formula A+clomazone+glyphosate; compound of the formula A+nicosulfuron+glyphosate; compound of the formula A+rimsulfuron+glyphosate; compound of the formula A+halosulfuron+glyphosate; compound of the formula A+metribuzin+glyphosate; compound of the formula A+flumiclorac+glyphosate; compound of the formula A+prosulfuron+glyphosate; compound of the formula A+primisulfuron+glyphosate; compound of the formula A+dicamba+glyphosate; compound of the formula A+fluthiacet+glyphosate; compound of the formula A+pyridate+glyphosate; compound of the formula A+compound of the formula B+glyphosate; compound of the formula A+2,4-D+glyphosate; compound of the formula A+clopyralide+glyphosate; compound of the formula A+diflufenzopyr+glyphosate; compound of the formula A+fluroxypyr+glyphosate; compound of the formula A+MCPA+glyphosate; compound of the formula A+MCPB+glyphosate; compound of the formula A+MCPP+glyphosate; compound of the formula A +metobenzuron+glyphosate; compound of the formula A+thifensulfuron+glyphosate; compound of the formula A+aclonifen+glyphosate; compound of the formula A+EPTC+glyphosate; compound of the formula A+cyanazine+glyphosate; cinidon-ethyl+atrazin+glyphosate; cinidon-ethyl+terbuthylazine+glyphosate; cinidon-ethyl+(S)-metolachlor+glyphosate; cinidon-ethyl+metolachlor+glyphosate; cinidon-ethyl+compound of the formula A+glyphosate; cinidon-ethyl+terbutryn+glyphosate; cinidon-ethyl+simazine+glyphosate; 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pentoxazone+flumetsulam+glyphosate; pentoxazone+pendimethalin+glyphosate; pentoxazone+bromoxynil+glyphosate; pentoxazone+bentazone+glyphosate; pentoxazone+carfentrazone+glyphosate; pentoxazone+clomazone+glyphosate; pentoxazone+nicosulfuron+glyphosate; pentoxazone+rimsulfuron+glyphosate; pentoxazone+halosulfuron+glyphosate; pentoxazone+metribuzin+glyphosate; pentoxazone+flumiclorac+glyphosate; pentoxazone+prosulfuron+glyphosate; pentoxazone+primisulfuron+glyphosate; pentoxazone+dicamba+glyphosate; pentoxazone+fluthiacet+glyphosate; pentoxazone+pyridate+glyphosate; pentoxazone+compound of the formula B+glyphosate; pentoxazone+2,4-D+glyphosate; pentoxazone+clopyralide+glyphosate; pentoxazone+diflufenzopyr+glyphosate; pentoxazone+fluroxypyr+glyphosate; pentoxazone+MCPA+glyphosate; pentoxazone+MCPB+glyphosate; pentoxazone+MCPP+glyphosate; pentoxazone+metobenzuron+glyphosate; pentoxazone+thifensulfuron+glyphosate; pentoxazone+aclonifen+glyphosate; pentoxazone+EPTC+glyphosate; pentoxazone+cyanazine+glyphosate; 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flumipropyn+flumetsulam+glyphosate; flumipropyn+pendimethalin+glyphosate; flumipropyn+bromoxynil+glyphosate; flumipropyn+bentazone+glyphosate; flumipropyn +carfentrazone+glyphosate; flumipropyn+clomazone+glyphosate; flumipropyn+nicosulfuron+glyphosate; flumipropyn+rimsulfuron+glyphosate; flumipropyn+halosulfuron+glyphosate; flumipropyn+metribuzin+glyphosate; flumipropyn+flumiclorac +glyphosate; flumipropyn+prosulfuron+glyphosate; flumipropyn+primisulfuron+glyphosate; flumipropyn+dicamba+glyphosate; flumipropyn+fluthiacet+glyphosate; flumipropyn+pyridate+glyphosate; flumipropyn+compound of the formula B+glyphosate; flumipropyn+2,4-D+glyphosate; flumipropyn+clopyralide+glyphosate; flumipropyn+diflufenzopyr+glyphosate; flumipropyn+fluroxypyr+glyphosate; flumipropyn+MCPA+glyphosate; flumipropyn+MCPB+glyphosate; flumipropyn+MCPP +glyphosate; flumipropyn+metobenzuron+glyphosate; flumipropyn+thifensulfuron+glyphosate; flumipropyn+aclonifen+glyphosate; flumipropyn+EPTC+glyphosate; flumipropyn+cyanazine+glyphosate; 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zone+diflufenzopyr+glyphosate; benzfendizone+fluroxypyr+glyphosate; benzfendizone+MCPA+glyphosate; benzfendizone+MCPB+glyphosate; benzfendizone+MCPP+glyphosate; benzfendizone+metobenzuron+glyphosate; benzfendizone+thifensulfuron+glyphosate; benzfendizone+aclonifen+glyphosate; benzfendizone+EPTC+glyphosate; benzfendizone+cyanazine+glyphosate; thidiazimin +atrazin+glyphosate; thidiazimin+terbuthylazine+glyphosate; thidiazimin+(S)-metolachlor+glyphosate; thidiazimin+metolachlor+glyphosate; thidiazimin+compound of the formula A+glyphosate; thidiazimin+terbutryn+glyphosate; thidiazimin+simazine+glyphosate; thidiazimin+dimethenamid or (S)-dimethenamid+glyphosate; thidiazimin+flufenacet+glyphosate; thidiazimin+acetochlor+glyphosate; thidiazimin+alachlor+glyphosate; thidiazimin+isoxaflutole+glyphosate; thidiazimin+isoxachlortole+glyphosate; thidiazimin+mesotrione+glyphosate; thidiazimin+sulcotrione+glyphosate; thidiazimin+metosulam+glyphosate; thidiazimin+flumetsulam+glyphosate; thidiazimin+pendimethalin+glyphosate; thidiazimin+bromoxynil+glyphosate; thidiazimin+bentazone +glyphosate; thidiazimin+carfentrazone+glyphosate; thidiazimin+clomazone+glyphosate; thidiazimin+nicosulfuron+glyphosate; thidiazimin+rimsulfuron+glyphosate; thidiazimin+halosulfuron+glyphosate; thidiazimin+metribuzin+glyphosate; thidiazimin+flumiclorac+glyphosate; thidiazimin+prosulfuron+glyphosate; thidiazimin+primisulfuron +glyphosate; thidiazimin+dicamba+glyphosate; thidiazimin+fluthiacet+glyphosate; thidiazimin+pyridate+glyphosate; thidiazimin+compound of the formula B+glyphosate; thidiazimin+2,4-D+glyphosate; thidiazimin+clopyralide+glyphosate; thidiazimin+diflufenzopyr+glyphosate; thidiazimin+fluroxypyr+glyphosate; thidiazimin+MCPA+glyphosate; thidiazimin+MCPB+glyphosate; thidiazimin+MCPP+glyphosate; thidiazimin +metobenzuron+glyphosate; thidiazimin+thifensulfuron+glyphosate; thidiazimin+aclonifen+glyphosate; thidiazimin+EPTC+glyphosate; and thidiazimin+cyanazine+glyphosate.

[**0123**] acifluorfen+atrazin+glufosinate; acifluorfen+terbuthylazine+glufosinate; acifluorfen+(S)-metolachlor+glufosinate; acifluorfen+metolachlor+glufosinate; acifluorfen+compound of the formula A+glufosinate; acifluorfen+terbutryn+glufosinate; acifluorfen+simazine+glufosinate; acifluorfen+dimethenamid or (S)-dimethenamid+glufosinate; acifluorfen+flufenacet+glufosinate; acifluorfen+acetochlor+glufosinate; acifluorfen+alachlor+glufosinate; acifluorfen+isoxaflutole+glufosinate; acifluorfen+isoxachlortole+glufosinate; acifluorfen+mesotrione+glufosinate; acifluorfen+sulcotrione+glufosinate; acifluorfen+metosulam+glufosinate; acifluorfen+flumetsulam+glufosinate; acifluorfen+pendimethalin+glufosinate; acifluorfen+bromoxynil+glufosinate; acifluorfen+bentazone +glufosinate; acifluorfen+carfentrazone+glufosinate; acifluorfen+clomazone+glufosinate; acifluorfen+nicosulfuron+glufosinate; acifluorfen+rimsulfuron+glufosinate; acifluorfen+halosulfuron+glufosinate; acifluorfen+metribuzin+glufosinate; acifluorfen+flumiclorac+glufosinate; acifluorfen+prosulfuron+glufosinate; acifluorfen+primisulfuron +glufosinate; acifluorfen+dicamba+glufosinate; acifluorfen+fluthiacet+glufosinate; acifluorfen+pyridate+glufosinate; acifluorfen+compound of the formula B+glufosinate; acifluorfen+2,4-D+glufosinate; acifluorfen+clopyralide+glufosinate; acifluorfen+diflufenzopyr+glufosinate; acifluorfen+fluroxypyr+glufosinate; acifluorfen+MCPA+glufosinate; acifluorfen+MCPB+glufosinate; acifluorfen+MCPP+glufosinate; acifluorfen +metobenzuron+glufosinate; acifluorfen+thifensulfuron+glufosinate; acifluorfen+aclonifen+glufosinate; acifluorfen+EPTC+glufosinate; acifluorfen+cyanazine+glufosinate; aclonifen+atrazin+glufosinate; aclonifen+terbuthylazine+glufosinate; aclonifen+(S)-metolachlor+glufosinate; aclonifen+metolachlor+glufosinate; aclonifen+compound of the formula A+glufosinate; aclonifen+terbutryn+glufosinate; aclonifen+simazine+glufosinate; aclonifen+dimethenamid or (S)-dimethenamid+glufosinate; aclonifen+flufenacet+glufosinate; aclonifen+acetochlor+glufosinate; aclonifen+alachlor+glufosinate; aclonifen+isoxaflutole+glufosinate; aclonifen+isoxachlortole+glufosinate; aclonifen+mesotrione+glufosinate; aclonifen+sulcotrione+glufosinate; aclonifen+metosulam+glufosinate; aclonifen+flumetsulam+glufosinate; aclonifen+pendimethalin+glufosinate; aclonifen+bromoxynil+glufosinate; aclonifen+bentazone+glufosinate; aclonifen+carfentrazone+glufosinate; aclonifen+clomazone+glufosinate; aclonifen+nicosulfuron+glufosinate; aclonifen+rimsulfuron+glufosinate; aclonifen+halosulfuron+glufosinate; aclonifen+metribuzin+glufosinate; aclonifen+flumiclorac+glufosinate; aclonifen+prosulfuron+glufosinate; aclonifen+primisulfuron+glufosinate; aclonifen+dicamba+glufosinate; aclonifen+fluthiacet+glufosinate; aclonifen+pyridate +glufosinate; aclonifen+compound of the formula B+glufosinate; aclonifen+2,4-D+glufosinate; aclonifen+clopyralide+glufosinate; aclonifen+diflufenzopyr+glufosinate; aclonifen+fluroxypyr+glufosinate; aclonifen+MCPA+glufosinate; aclonifen+MCPB+glufosinate; aclonifen+MCPP+glufosinate; aclonifen+metobenzuron+glufosinate; aclonifen+thifensulfuron+glufosinate; aclonifen+EPTC+glufosinate; aclonifen+cyanazine+glufosinate; bifenox+atrazin+glufosinate; bifenox+terbuthylazine+glufosinate; bifenox+(S)-metolachlor+glufosinate; bifenox+metolachlor+glufosinate; bifenox+compound of the formula A+glufosinate; bifenox+terbutryn+glufosinate; bifenox+simazine+glufosinate; bifenox+dimethenamid or (S)-dimethenamid+glufosinate; bifenox+flufenacet+glufosinate; bifenox+acetochlor+glufosinate; bifenox+alachlor+glufosinate; bifenox+isoxaflutole+glufosinate; bifenox+isoxachlortole+glufosinate; bifenox+mesotrione+glufosinate; bifenox+sulcotrione+glufosinate; bifenox +metosulam+glufosinate; bifenox+flumetsulam+glufosinate; bifenox+pendimethalin+glufosinate; bifenox+bromoxynil+glufosinate; bifenox+bentazone+glufosinate; bifenox +carfentrazone+glufosinate; bifenox+clomazone+glufosinate; bifenox+nicosulfuron+glufosinate; bifenox+rimsulfuron+glufosinate; bifenox+halosulfuron+glufosinate; bifenox+metribuzin+glufosinate; bifenox+flumiclorac+glufosinate; bifenox+prosulfuron +glufosinate; bifenox+primisulfuron+glufosinate; bifenox+dicamba+glufosinate; bifenox+fluthiacet+glufosinate; bifenox+pyridate+glufosinate; bifenox+compound of the formula B+glufosinate; bifenox+2,4-D+glufosinate; bifenox+clopyralide+glufosinate; bifenox+diflufenzopyr+glufosinate; bifenox+fluroxypyr+glufosinate; bifenox +MCPA+glufosinate; bifenox+MCPB+glufosinate; bifenox+MCPP+glufosinate; bifenox+metobenzuron+glufosinate; bifenox+thifensulfuron+glufosinate; bifenox+aclonifen+glufosinate; bifenox+EPTC+glufosinate; bifenox+cyanazine+glufosinate; chlomitrofen+atrazin+glufosinate; chlomitrofen+terbuthylazine+glufosinate; chlomitrofen+(S)-metolachlor+glufosinate; chlomitrofen+metolachlor+glufosinate;

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chlomitrofen+fluthiacet+glufosinate; chlomitrofen+pyridate+glufosinate; chlomitrofen+compound of the formula B+glufosinate; chlomitrofen+2,4-D+glufosinate; chlomitrofen+clopyralide+glufosinate; chlomitrofen+diflufenzopyr+glufosinate; chlomitrofen+fluroxypyr+glufosinate; chlomitrofen+MCPA+glufosinate; chlomitrofen+MCPB+glufosinate; chlomitrofen+MCPP+glufosinate; chlomitrofen+metobenzuron+glufosinate; chlomitrofen+thifensulfuron+glufosinate; chlomitrofen+aclonifen+glufosinate; chlomitrofen+EPTC+glufosinate; chlomitrofen+cyanazine+glufosinate; ethoxyfen+atrazin+glufosinate; ethoxyfen+terbuthylazine+glufosinate; ethoxyfen+(S)-metolachlor+glufosinate; ethoxyfen+metolachlor+glufosinate; ethoxyfen+compound of the formula A+glufosinate; ethoxyfen+terbutryn+glufosinate; ethoxyfen+simazine+glufosinate; ethoxyfen+dimethenamid or (S)-dimethenamid+glufosinate; ethoxyfen+flufenacet+glufosinate; ethoxyfen+acetochlor+glufosinate; ethoxyfen+alachlor+glufosinate; ethoxyfen+isoxaflutole+glufosinate; ethoxyfen+isoxachlortole+glufosinate; 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ethoxyfen+aclonifen+glufosinate; ethoxyfen+EPTC+glufosinate; ethoxyfen+cyanazine+glufosinate; fluoroglycofen+atrazin+glufosinate; fluoroglycofen+terbuthylazine+glufosinate; fluoroglycofen+(S)-metolachlor+glufosinate; fluoroglycofen+metolachlor+glufosinate; fluoroglycofen+compound of the formula A+glufosinate; fluoroglycofen+terbutryn+glufosinate; fluoroglycofen+simazine +glufosinate; fluoroglycofen+dimethenamid or (S)-dimethenamid+glufosinate; fluoroglycofen+flufenacet+glufosinate; fluoroglycofen+acetochlor-+glufosinate; fluoroglycofen+alachlor+glufosinate; fluoroglycofen+isoxaflutole+glufosinate; fluoroglycofen+isoxachlortole+glufosinate; fluoroglycofen+mesotrione+glufosinate; fluoroglycofen+sulcotrione+glufosinate; fluoroglycofen+metosulam+glufosinate; fluoroglycofen+flumetsulam+glufosinate; fluoroglycofen+pendimethalin+glufosinate; fluoroglycofen+bromoxynil+glufosinate; fluoroglycofen+bentazone+glufosinate; fluoroglycofen+carfentrazone+glufosinate; fluoroglycofen+clomazone+glufosinate; fluoroglycofen+nicosulfuron+glufosinate; fluoroglycofen+rimsulfuron+glufosinate; fluoroglycofen+halosulfuron+glufosinate; fluoroglycofen+metribuzin+glufosinate; fluoroglycofen+flumiclorac+glufosinate; fluoroglycofen+prosulfuron+glufosinate; fluoroglycofen+primisulfuron+glufosinate; fluoroglycofen+dicamba+glufosinate; fluoroglycofen+fluthiacet+glufosinate; fluoroglycofen+pyridate+glufosinate; fluoroglycofen+compound of the formula B+glufosinate; fluoroglycofen+2,4-D+glufosinate; fluoroglycofen+clopyralide+glufosinate; fluoroglycofen+diflufenzopyr+glufosinate; fluoroglycofen+fluroxypyr+glufosinate; fluoroglycofen+MCPA+glufosinate; fluoroglycofen+MCPB+glufosinate; fluoroglycofen+MCPP+glufosinate; fluoroglycofen +metobenzuron+glufosinate; fluoroglycofen+thifensulfuron+glufosinate; fluoroglycofen +aclonifen+glufosinate; fluoroglycofen+EPTC+glufosinate; fluoroglycofen+cyanazine +glufosinate; fomesafen+atrazin+glufosinate; fomesafen+terbuthylazine+glufosinate; fomesafen+(S)-metolachlor+glufosinate; 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azafenidin+pyridate+glufosinate; azafenidin+compound of the formula B+glufosinate; azafenidin+2,4-D+glufosinate; azafenidin+clopyralide+glufosinate; azafenidin+diflufenzopyr+glufosinate; azafenidin+fluroxypyr+glufosinate; azafenidin+MCPA+glufosinate; azafenidin+MCPB +glufosinate; azafenidin+MCPP+glufosinate; azafenidin+metobenzuron+glufosinate; azafenidin+thifensulfuron+glufosinate; azafenidin+aclonifen+glufosinate; azafenidin+EPTC+glufosinate; azafenidin+cyanazine+glufosinate; carfentrazone-ethyl+atrazin+glufosinate; carfentrazone-ethyl+terbuthylazine+glufosinate; carfentrazone-ethyl+(S)-metolachlor+glufosinate; carfentrazone-ethyl+metolachlor+glufosinate; carfentrazone-ethyl+compound of the formula A+glufosinate; carfentrazone-ethyl+terbutryn+glufosinate; carfentrazone-ethyl+simazine+glufosinate; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+glufosinate; carfentrazone-ethyl+flufenacet+glufosinate; carfentrazone-ethyl+acetochlor+glufosinate; carfentrazone-ethyl+alachlor+glufosinate; carfentrazone-ethyl+isoxaflutole+glufosinate; carfentrazone-ethyl+isoxachlortole+glufosinate; carfentrazone-ethyl+mesotrione+glufosinate; carfentrazone-ethyl+sulcotrione+glufosinate; carfentrazone-ethyl+metosulam+glufosinate; carfentrazone-ethyl+flumetsulam+glufosinate; carfentrazone-ethyl+pendimethalin+glufosinate; carfentrazone-ethyl+bromoxynil+glufosinate; carfentrazone-ethyl+bentazone+glufosinate; carfentrazone-ethyl+clomazone+glufosinate; carfentrazone-ethyl+nicosulfuron+glufosinate; carfentrazone-ethyl+rimsulfuron+glufosinate; carfentrazone-ethyl+halosulfuron+glufosinate; carfentrazone-ethyl+metribuzin+glufosinate; carfentrazone-ethyl+flumiclorac+glufosinate; carfentrazone-ethyl+prosulfuron+glufosinate; carfentrazone-ethyl+primisulfuron+glufosinate; carfentrazone-ethyl+dicamba+glufosinate; carfentrazone-ethyl+fluthiacet+glufosinate; carfentrazone-ethyl+pyridate+glufosinate; carfentrazone-ethyl+compound of the formula B+glufosinate; carfentrazone-ethyl+2,4-D+glufosinate; carfentrazone-ethyl+clopyralide+glufosinate; carfentrazone-ethyl+diflufenzopyr+glufosinate; carfentrazone-ethyl+fluroxypyr+glufosinate; carfentrazone-ethyl+MCPA+glufosinate; carfentrazone-ethyl+MCPB+glufosinate; carfentrazone-ethyl+MCPP+glufosinate; carfentrazone-ethyl+metobenzuron+glufosinate; carfentrazone-ethyl+thifensulfuron+glufosinate; carfentrazone-ethyl+aclonifen+glufosinate; carfentrazone-ethyl+EPTC+glufosinate; carfentrazone-ethyl+cyanazine+glufosinate; compound of the formula A+atrazin+glufosinate; compound of the formula A+terbuthylazine+glufosinate; compound of the formula A+(S)-metolachlor+glufosinate; compound of the formula A+metolachlor+glufosinate; compound of the formula A+terbutryn+glufosinate; compound of the formula A+simazine+glufosinate; compound of the formula A+dimethenamid or (S)-dimethenamid+glufosinate; com-

pound of the formula A+flufenacet+glufosinate; compound of the formula A+acetochlor+glufosinate; compound of the formula A+alachlor, compound of the formula A+isoxaflutole+glufosinate; compound of the formula A+isoxachlortole+glufosinate; compound of the formula A+mesotrione+glufosinate; compound of the formula A+sulcotrione+glufosinate; compound of the formula A+metosulam+glufosinate; compound of the formula A+flumetsulam+glufosinate; compound of the formula A+pendimethalin+glufosinate; compound of the formula A+bromoxynil+glufosinate; compound of the formula A+bentazone+glufosinate; compound of the formula A+carfentrazone+glufosinate; compound of the formula A+clomazone+glufosinate; compound of the formula A+nicosulfuron+glufosinate; compound of the formula A+rimsulfuron+glufosinate; compound of the formula A+halosulfuron+glufosinate; compound of the formula A+metribuzin+glufosinate; compound of the formula A+flumiclorac+glufosinate; compound of the formula A+prosulfuron+glufosinate; compound of the formula A+primisulfuron+glufosinate; compound of the formula A+dicamba+glufosinate; compound of the formula A+fluthiacet+glufosinate; compound of the formula A+pyridate+glufosinate; compound of the formula A+compound of the formula B+glufosinate; compound of the formula A+2,4-D+glufosinate; compound of the formula A+clopyralide+glufosinate; compound of the formula A+diflufenzopyr+glufosinate; compound of the formula A+fluroxypyr+glufosinate; compound of the formula A+MCPA+glufosinate; compound of the formula A+MCPB+glufosinate; compound of the formula A+MCPP+glufosinate; compound of the formula A +metobenzuron+glufosinate; compound of the formula A+thifensulfuron+glufosinate; compound of the formula A+aclonifen+glufosinate; compound of the formula A+EPTC+glufosinate; compound of the formula A+cyanazine+glufosinate; cinidon-ethyl+atrazin+glufosinate; cinidon-ethyl+terbuthylazine+glufosinate; cinidon-ethyl+(S)-metolachlor+glufosinate; cinidon-ethyl+metolachlor+glufosinate; cinidon-ethyl+compound of the formula A+glufosinate; cinidon-ethyl+terbutryn+glufosinate; cinidon-ethyl+simazine+glufosinate; cinidon-ethyl+dimethenamid or (S)-dimethenamid+glufosinate; cinidon-ethyl +flufenacet+glufosinate; cinidon-ethyl+acetochlor+glufosinate; cinidon-ethyl+alachlor +glufosinate; cinidon-ethyl+isoxaflutole+glufosinate; cinidon-ethyl+isoxachlortole+glufosinate; cinidon-ethyl+mesotrione+glufosinate; cinidon-ethyl+sulcotrione+glufosinate; cinidon-ethyl+metosulam+glufosinate; cinidon-ethyl+flumetsulam+glufosinate; cinidon-ethyl+pendimethalin+glufosinate; cinidon-ethyl+bromoxynil+glufosinate; cinidon-ethyl+bentazone+glufosinate; cinidon-ethyl+carfentrazone+glufosinate; cinidon-ethyl+clomazone+glufosinate; cinidon-ethyl+nicosulfuron+glufosinate; cinidon-ethyl+rimsulfuron+glufosinate; cinidon-ethyl+halosulfuron+glufosinate; cinidon-ethyl+metribuzin+glufosinate; cinidon-ethyl+flumiclorac+glufosinate; cinidon-ethyl+prosulfuron+glufosinate; cinidon-ethyl+primisulfuron+glufosinate; 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flumiclorac-pentyl+acetochlor+glufosinate; flumiclorac-pentyl+alachlor+glufosinate; flumiclorac-pentyl+isoxaflutole+glufosinate; flumiclorac-pentyl+isoxachlortole+glufosinate; flumiclorac-pentyl+mesotrione+glufosinate; flumiclorac-pentyl+sulcotrione+glufosinate; flumiclorac-pentyl+metosulam+glufosinate; flumiclorac-pentyl+flumetsulam+glufosinate; flumiclorac-pentyl +pendimethalin+glufosinate; flumiclorac-pentyl+bromoxynil+glufosinate; flumiclorac-pentyl+bentazone+glufosinate; flumiclorac-pentyl+carfentrazone+glufosinate; flumiclorac-pentyl+clomazone+glufosinate; flumiclorac-pentyl+nicosulfuron+glufosinate; flumiclorac-pentyl+rimsulfuron+glufosinate; flumiclorac-pentyl+halosulfuron +glufosinate; flumiclorac-pentyl+metribuzin+glufosinate; flumiclorac-pentyl+prosulfuron +glufosinate; flumiclorac-pentyl+primisulfuron+glufosinate; flumiclorac-pentyl+dicamba +glufosinate; flumiclorac-pentyl+fluthiacet+glufosinate; flumiclorac-pentyl+pyridate+glufosinate; flumiclorac-pentyl+compound of the formula B+glufosinate; flumiclorac-pentyl +2,4-D+glufosinate; flumiclorac-pentyl+clopyralide+glufosinate; flumiclorac-pentyl+diflufenzopyr+glufosinate; flumiclorac-pentyl+fluroxypyr+glufosinate: flumiclorac-pentyl+MCPA+glufosinate; flumiclorac-pentyl+MCPB+glufosinate; flumiclorac-pentyl+MCPP+glufosinate; flumiclorac-pentyl+metobenzuron+glufosinate; flumiclorac-pentyl+thifensulfuron+glufosinate; flumiclorac-pentyl+aclonifen+glufosinate; flumiclorac-pentyl +EPTC+glufosinate; flumiclorac-pentyl+cyanazine+glufosinate; flumioxazin+atrazin+glufosinate; flumioxazin+terbuthylazine+glufosinate; flumioxazin+(S)-metolachlor+glufosinate; flumioxazin+metolachlor+glufosinate; flumioxazin+compound of the formula A+glufosinate; flumioxazin+terbutryn+glufosinate; flumioxazin+simazine+glufosinate; flumioxazin+dimethenamid or (S)-dimethenamid+glufosinate; flumioxazin+flufenacet+glufosinate; flumioxazin+acetochlor+glufosinate; flumioxazin+alachlor+glufosinate; flumioxazin+isoxaflutole+glufosinate; flumioxazin+isoxachlortole+glufosinate; 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sulfentrazone+bromoxynil+glufosinate; sulfentrazone+bentazone+glufosinate; sulfentrazone+carfentrazone+glufosinate; sulfentrazone+clomazone+glufosinate; sulfentrazone+nicosulfuron+glufosinate; sulfentrazone+rimsulfuron+glufosinate; sulfentrazone+halosulfuron+glufosinate; sulfentrazone+metribuzin+glufosinate; sulfentrazone+flumiclorac+glufosinate; sulfentrazone+prosulfuron+glufosinate; sulfentrazone+primisulfuron+glufosinate; sulfentrazone+dicamba+glufosinate; sulfentrazone+fluthiacet+glufosinate; sulfentrazone+pyridate+glufosinate; sulfentrazone+compound of the formula B+glufosinate; sulfentrazone+2,4-D+glufosinate; sulfentrazone+clopyralide+glufosinate; sulfentrazone+diflufenzopyr+glufosinate; sulfentrazone+fluroxypyr+glufosinate; sulfentrazone+MCPA+glufosinate; sulfentrazone+MCPB+glufosinate; sulfentrazone+MCPP+glufosinate; sulfentrazone+metobenzuron+glufosinate; sulfentrazone+thifensulfuron+glufosinate; sulfentrazone+aclonifen+glufosinate; sulfentrazone+EPTC+glufosinate; sulfentrazone+cyanazine+glufosinate; fluazolate+atrazin+glufosinate; fluazolate+terbuthylazine+glufosinate; fluazolate+(S)-metolachlor+glufosinate; fluazolate+metolachlor+glufosinate; fluazolate+compound of the formula A+glufosinate; fluazolate+terbutryn+glufosinate; fluazolate+simazine+glufosinate; fluazolate+dimethenamid or (S)-dimethenamid+glufosinate; fluazolate+flufenacet+glufosinate; fluazolate+acetochlor+glufosinate; fluazolate+alachlor+glufosinate; fluazolate+isoxaflutole+glufosinate; fluazolate+isoxachlortole+glufosinate; fluazolate+mesotrione+glufosinate; fluazolate+sulcotrione +glufosinate; fluazolate+metosulam+glufosinate; fluazolate+flumetsulam+glufosinate; fluazolate+pendimethalin+glufosinate; fluazolate+bromoxynil+glufosinate; fluazolate+bentazone+glufosinate; fluazolate+carfentrazone+glufosinate; fluazolate+clomazone+glufosinate; fluazolate+nicosulfuron+glufosinate; fluazolate+rimsulfuron+glufosinate; fluazolate+halosulfuron+glufosinate; fluazolate+metribuzin+glufosinate; fluazolate+flumiclorac+glufosinate; fluazolate+prosulfuron+glufosinate; fluazolate+primisulfuron+glufosinate; fluazolate+dicamba+glufosinate; fluazolate+fluthiacet+glufosinate; fluazolate+pyridate+glufosinate; fluazolate+compound of the formula B+glufosinate; fluazolate+2,4-D+glufosinate; fluazolate+clopyralide+glufosinate; fluazolate+diflufenzopyr+glufosinate; fluazolate+fluroxypyr+glufosinate; fluazolate+MCPA+glufosinate; fluazolate+MCPB+glufosinate; fluazolate+MCPP+glufosinate; fluazolate+metobenzuron+glufosinate; fluazolate+thifensulfuron+glufosinate; fluazolate+aclonifen+glufosinate; fluazolate+EPTC+glufosinate; fluazolate+cyanazine+glufosinate; pyraflufen-ethyl+atrazin+glufosinate; pyraflufen-ethyl+terbuthylazine+glufosinate; pyraflufen-ethyl+(S)-metolachlor+glufosinate; pyraflufen-ethyl+metolachlor+glufosinate; pyraflufen-ethyl+compound of the formula A +glufosinate; pyraflufen-ethyl+terbutryn+glufosinate; pyraflufen-ethyl+simazine+glufosinate; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+glufosinate; pyraflufen-ethyl+flufenacet+glufosinate; pyraflufen-ethyl+acetochlor+glufosinate; pyraflufen-ethyl+alachlor+glufosinate; pyraflufen-ethyl+isoxaflutole+glufosinate; pyraflufen-ethyl +isoxachlortole+glufosinate; pyraflufen-ethyl+mesotrione+glufosinate; pyraflufen-ethyl +sulcotrione+glufosinate; pyraflufen-ethyl+metosulam+glufosinate; pyraflufen-ethyl+flumetsulam+glufosinate; pyraflufen-ethyl+pendimethalin+glufosinate; pyraflufen-ethyl +bromoxynil+glufosinate; pyraflufen-ethyl+bentazone+glufosinate; pyraflufen-ethyl+carfentrazone+glufosinate; pyraflufen-ethyl+clomazone+glufosinate; pyraflufen-ethyl+nicosulfuron+glufosinate; pyraflufen-ethyl+rimsulfuron+glufosinate; pyraflufen-ethyl+halosulfuron+glufosinate; pyraflufen-ethyl+metribuzin+glufosinate; pyraflufen-ethyl+flumiclorac+glufosinate; pyraflufen-ethyl+prosulfuron+glufosinate; pyraflufen-ethyl+primisulfuron+glufosinate; pyraflufen-ethyl+dicamba+glufosinate; pyraflufen-ethyl+fluthiacet+glufosinate; pyraflufen-ethyl+pyridate+glufosinate; pyraflufen-ethyl+compound of the formula B+glufosinate; pyraflufen -ethyl+2,4-D+glufosinate; pyraflufen-ethyl+clopyralide+glufosinate; pyraflufen-ethyl+diflufenzopyr+glufosinate; pyraflufen-ethyl+fluroxypyr+glufosinate; pyraflufen-ethyl+MCPA+glufosinate; pyraflufen-ethyl+MCPB+glufosinate; pyraflufen-ethyl+MCPP+glufosinate; pyraflufen-ethyl+metobenzuron+glufosinate; pyraflufen-ethyl+thifensulfuron+glufosinate; pyraflufen-ethyl+aclonifen+glufosinate; pyraflufen-ethyl+EPTC+glufosinate; pyraflufen-ethyl+cyanazine+glufosinate; flumipropyn+atrazin+glufosinate; flumipropyn+terbuthylazine+glufosinate; flumipropyn+(S)-metolachlor+glufosinate; flumipropyn+metolachlor+glufosinate; flumipropyn+compound of the formula A+glufosinate; flumipropyn+terbutryn +glufosinate; flumipropyn+simazine+glufosinate; flumipropyn+dimethenamid or (S)-dimethenamid+glufosinate; flumipropyn+flufenacet+glufosinate; flumipropyn+acetochlor+glufosinate; flumipropyn+alachlor+glufosinate; flumipropyn+isoxaflutole+glufosinate; flumipropyn+isoxachlortole+glufosinate; flumipropyn+mesotrione+glufosinate; flumipropyn+sulcotrione+glufosinate; flumipropyn+metosulam+glufosinate; flumipropyn+flumetsulam+glufosinate; flumipropyn+pendimethalin+glufosinate; flumipropyn+bromoxynil+glufosinate; flumipropyn+bentazone+glufosinate; flumipropyn +carfentrazone+glufosinate; flumipropyn+clomazone+glufosinate; flumipropyn+nicosulfuron+glufosinate; flumipropyn+rimsulfuron+glufosinate; flumipropyn+halosulfuron+glufosinate; flumipropyn+metribuzin+glufosinate; flumipropyn+flumiclorac +glufosinate; flumipropyn+prosulfuron+glufosinate; flumipropyn+primisulfuron+glufosinate; flumipropyn+dicamba+glufosinate; flumipropyn+fluthiacet+glufosinate; flumipropyn+pyridate+glufosinate; flumipropyn+compound of the formula B+glufosinate; flumipropyn+2,4-D+glufosinate; flumipropyn+clopyralide+glufosinate; flumipropyn+di-

flufenzopyr+glufosinate; flumipropyn+fluroxypyr+glufosinate; flumipropyn+MCPA+glufosinate; flumipropyn+MCPB+glufosinate; flumipropyn+MCPP +glufosinate; flumipropyn+metobenzuron+glufosinate; flumipropyn+thifensulfuron+glufosinate; flumipropyn+aclonifen+glufosinate; flumipropyn+EPTC+glufosinate; flumipropyn+cyanazine+glufosinate; flupropacil+atrazin+glufosinate; flupropacil+terbuthylazine+glufosinate; flupropacil+(S)-metolachlor+glufosinate; flupropacil+metolachlor+glufosinate; flupropacil+compound of the formula A+glufosinate; flupropacil +terbutryn+glufosinate; flupropacil+simazine+glufosinate; flupropacil+dimethenamid or (S)-dimethenamid+glufosinate; flupropacil+flufenacet+glufosinate; flupropacil+acetochlor+glufosinate; flupropacil+alachlor+glufosinate; flupropacil+isoxaflutole+glufosinate; flupropacil+isoxachlortole+glufosinate; flupropacil+mesotrione+glufosinate; flupropacil+sulcotrione+glufosinate; flupropacil+metosulam+glufosinate; flupropacil+flumetsulam+glufosinate; flupropacil+pendimethalin+glufosinate; flupropacil+bromoxynil+glufosinate; flupropacil+bentazone+glufosinate; flupropacil+carfentrazone+glufosinate; flupropacil+clomazone+glufosinate; flupropacil+nicosulfuron+glufosinate; flupropacil+rimsulfuron+glufosinate; flupropacil+halosulfuron +glufosinate; flupropacil+metribuzin+glufosinate; flupropacil+flumiclorac+glufosinate; flupropacil+prosulfuron+glufosinate; flupropacil+primisulfuron+glufosinate; flupropacil+dicamba+glufosinate; flupropacil+fluthiacet+glufosinate; flupropacil+pyridate+glufosinate; flupropacil+compound of the formula B+glufosinate; flupropacil+2,4-D+glufosinate; flupropacil .+clopyralide+glufosinate; flupropacil+diflufenzopyr+glufosinate; flupropacil+fluroxypyr+glufosinate; flupropacil+MCPA+glufosinate; flupropacil+MCPB +glufosinate; flupropacil+MCPP+glufosinate; flupropacil+metobenzuron+glufosinate; flupropacil+thifensulfuron+glufosinate; flupropacil+aclonifen+glufosinate; flupropacil+EPTC+glufosinate; flupropacil+cyanazine+glufosinate; nipyraclofen+atrazin+glufosinate; nipyraclofen+terbuthylazine+glufosinate; nipyraclofen+(S)-metolachlor+glufosinate; nipyraclofen+metolachlor+glufosinate; nipyraclofen+compound of the formula A+glufosinate; nipyraclofen+terbutryn+glufosinate; nipyraclofen+simazine+glufosinate; nipyraclofen+dimethenamid or (S)-dimethenamid+glufosinate; nipyraclofen+flufenacet+glufosinate; nipyraclofen+acetochlor+glufosinate; nipyraclofen+alachlor+glufosinate; nipyraclofen+isoxaflutole+glufosinate; nipyraclofen+isoxachlortole+glufosinate; nipyraclofen+mesotrione+glufosinate; nipyraclofen+sulcotrione+glufosinate; nipyraclofen+metosulam+glufosinate; nipyraclofen+flumetsulam+glufosinate; nipyraclofen+pendimethalin+glufosinate; nipyraclofen+bromoxynil+glufosinate; nipyraclofen+bentazone+glufosinate; nipyraclofen+carfentrazone+glufosinate; nipyraclofen+clomazone+glufosinate; nipyraclofen+nicosulfuron+glufosinate; nipyraclofen+rimsulfuron+glufosinate; nipyraclofen+halosulfuron+glufosinate; nipyraclofen+metribuzin+glufosinate; nipyraclofen+flumiclorac+glufosinate; nipyraclofen+prosulfuron+glufosinate; nipyraclofen+primisulfuron+glufosinate; nipyraclofen+dicamba+glufosinate; nipyraclofen+fluthiacet+glufosinate; nipyraclofen+pyridate+glufosinate; nipyraclofen+compound of the formula B+glufosinate; nipyraclofen+2,4-D+glufosinate; nipyraclofen+clopyralide+glufosinate; nipyraclofen+diflufenzopyr+glufosinate; nipyraclofen+fluroxypyr+glufosinate; nipyraclofen+MCPA+glufosinate; nipyraclofen+MCPB+glufosinate; nipyraclofen+MCPP+glufosinate; nipyraclofen+metobenzuron+glufosinate; nipyraclofen+thifensulfuron+glufosinate; nipyraclofen+aclonifen+glufosinate; nipyraclofen+EPTC+glufosinate; nipyraclofen+cyanazine+glufosinate; benzfendizone+atrazin+glufosinate; benzfendizone+terbuthylazine+glufosinate; benzfendizone+(S)-metolachlor+glufosinate; benzfendizone+metolachlor+glufosinate; benzfendizone+compound of the formula A+glufosinate; benzfendizone+terbutryn+glufosinate; benzfendizone+simazine +glufosinate; benzfendizone+dimethenamid or (S)-dimethenamid+glufosinate; benzfendizone+flufenacet+glufosinate; benzfendizone+acetochlor+glufosinate; benzfendizone+alachlor+glufosinate; benzfendizone+isoxaflutole+glufosinate; benzfendizone+isoxachlortole+glufosinate; benzfendizone+mesotrione+glufosinate; benzfendizone+sulcotrione+glufosinate; benzfendizone+metosulam+glufosinate; benzfendizone+flumetsulam+glufosinate; benzfendizone+pendimethalin+glufosinate; benzfendizone+bromoxynil+glufosinate; benzfendizone+bentazone+glufosinate; benzfendizone+carfentrazone+glufosinate; benzfendizone+clomazone+glufosinate; benzfendizone+nicosulfuron+glufosinate; benzfendizone+rimsulfuron+glufosinate; benzfendizone+halosulfuron+glufosinate; benzfendizone+metribuzin+glufosinate; benzfendizone+flumiclorac+glufosinate; benzfendizone+prosulfuron+glufosinate; benzfendizone+primisulfuron+glufosinate; benzfendizone+dicamba+glufosinate; benzfendizone+fluthiacet+glufosinate; benzfendizone+pyridate+glufosinate; benzfendizone+compound of the formula B+glufosinate; benzfendizone+2,4-D+glufosinate; benzfendizone+clopyralide+glufosinate; benzfendizone+diflufenzopyr+glufosinate; benzfendizone+fluroxypyr+glufosinate; benzfendizone+MCPA+glufosinate; benzfendizone+MCPB+glufosinate; benzfendizone+MCPP+glufosinate; benzfendizone+metobenzuron+glufosinate; benzfendizone+thifensulfuron+glufosinate; benzfendizone+aclonifen+glufosinate; benzfendizone+EPTC+glufosinate; benzfendizone+cyanazine+glufosinate; thidiazimin+atrazin+glufosinate; thidiazimin+terbuthylazine+glufosinate; thidiazimin+(S)-metolachlor+glufosinate; thidiazimin+metolachlor+glufosinate; thidiazimin+compound of the formula A+glufosinate; thidiazimin+terbutryn+glufosinate; thidiazimin+simazine+glufosinate; thidiazimin+dimethenamid or (S)-dimethenamid+glufosinate; thidiazimin+flufenacet+glufosinate; thidiazimin+acetochlor+glufosinate; thidiazimin+alachlor+glufosinate; thidiazimin+isoxaflutole+glufosinate; thidiazimin+isoxachlortole+glufosinate; thidiazimin+mesotrione+glufosinate; thidiazimin+sulcotrione+glufosinate; thidiazimin+metosulam+glufosinate; thidiazimin+flumetsulam+glufosinate; thidiazimin+pendimethalin+glufosinate; thidiazimin+bromoxynil+glufosinate; thidiazimin+bentazone+glufosinate; thidiazimin+carfentrazone+glufosinate; thidiazimin+clomazone+glufosinate; thidiazimin +nicosulfuron+glufosinate; thidiazimin+rimsulfuron+glufosinate; thidiazimin+halosulfuron+glufosinate; thidiazimin+metribuzin+glufosinate; thidiazimin+flumiclorac+glufosinate; thidiazimin+prosulfuron+glufosinate; thidiazimin+primisulfuron+glufosinate; thidiazimin+dicamba+glufosinate; thidiazimin+fluthiacet+glufosinate; thidiazimin+pyridate+glufosinate; thidiazimin+compound of the formula B+glufosinate; thidiazimin+2,4-D+glufosinate; thidiazimin+clopyralide+glufosinate; thidiazimin+diflufenzopyr+glufosinate; thidiazimin+

fluroxypyr+glufosinate; thidiazimin+MCPA+glufosinate; thidiazimin+MCPB+glufosinate; thidiazimin+MCPP+glufosinate; thidiazimin+metobenzuron+glufosinate; thidiazimin+thifensulfuron+glufosinate; thidiazimin+aclonifen+glufosinate; thidiazimin+EPTC+glufosinate; and thidiazimin+cyanazine+glufosinate.

[0124] acifluorfen+atrazin+sulfosate; acifluorfen+terbuthylazine+sulfosate; acifluorfen+(S)-metolachlor+sulfosate; acifluorfen+metolachlor+sulfosate; acifluorfen+compound of the formula A+sulfosate; acifluorfen+terbutryn+sulfosate; acifluorfen+simazine+sulfosate; acifluorfen+dimethenamid or (S)-dimethenamid+sulfosate; acifluorfen+flufenacet+sulfosate; acifluorfen+acetochlor+sulfosate; acifluorfen+alachlor+sulfosate; acifluorfen+isoxaflutole+sulfosate; acifluorfen+isoxachlortole+sulfosate; acifluorfen+mesotrione+sulfosate; acifluorfen+sulcotrione+sulfosate; acifluorfen+metosulam+sulfosate; acifluorfen+flumetsulam+sulfosate; acifluorfen+pendimethalin+sulfosate; acifluorfen+bromoxynil+sulfosate; acifluorfen+bentazone+sulfosate; acifluorfen+carfentrazone+sulfosate; acifluorfen+clomazone+sulfosate; acifluorfen+nicosulfuron+sulfosate; acifluorfen+rimsulfuron+sulfosate; acifluorfen+halosulfuron+sulfosate; acifluorfen+metribuzin+sulfosate; acifluorfen+flumiclorac+sulfosate; acifluorfen+prosulfuron+sulfosate; acifluorfen+primisulfuron+sulfosate; acifluorfen+dicamba+sulfosate; acifluorfen+fluthiacet+sulfosate; acifluorfen+pyridate+sulfosate; acifluorfen+compound of the formula B+sulfosate; acifluorfen+2,4-D+sulfosate; acifluorfen+clopyralide+sulfosate; acifluorfen+diflufenzopyr+sulfosate; acifluorfen+fluroxypyr+sulfosate; acifluorfen+MCPA+sulfosate; acifluorfen+MCPB+sulfosate; acifluorfen+MCPP+sulfosate; acifluorfen+metobenzuron+sulfosate; acifluorfen+thifensulfuron+sulfosate; acifluorfen+aclonifen+sulfosate; acifluorfen+EPTC+sulfosate; acifluorfen+cyanazine+sulfosate; aclonifen+atrazin+sulfosate; aclonifen+terbuthylazine+sulfosate; aclonifen+(S)-metolachlor+sulfosate; aclonifen+metolachlor +sulfosate; aclonifen+compound of the formula A+sulfosate; aclonifen+terbutryn+sulfosate; aclonifen+simazine+sulfosate; aclonifen+dimethenamid or (S)-dimethenamid +sulfosate; aclonifen+flufenacet+sulfosate; aclonifen+acetochlor+sulfosate; aclonifen +alachlor+sulfosate; aclonifen+isoxaflutole+sulfosate; aclonifen+isoxachlortole+sulfosate; aclonifen+mesotrione+sulfosate; aclonifen+sulcotrione+sulfosate; aclonifen +metosulam+sulfosate; aclonifen+flumetsulam+sulfosate; aclonifen+pendimethalin+sulfosate; aclonifen+bromoxynil+sulfosate; aclonifen+bentazone+sulfosate; aclonifen +carfentrazone+sulfosate; aclonifen+clomazone+sulfosate; aclonifen+nicosulfuron+sulfosate; aclonifen+rimsulfuron+sulfosate; aclonifen+halosulfuron+sulfosate; aclonifen+metribuzin+sulfosate; aclonifen+flumiclorac+sulfosate; aclonifen+prosulfuron+sulfosate; aclonifen+primisulfuron+sulfosate; aclonifen+dicamba+sulfosate; aclonifen+fluthiacet+sulfosate; aclonifen+pyridate+sulfosate; aclonifen+compound of the formula B+sulfosate; aclonifen+2,4-D+sulfosate; aclonifen+clopyralide+sulfosate; aclonifen+diflufenzopyr+sulfosate; aclonifen+fluroxypyr+sulfosate; aclonifen+MCPA+sulfosate; aclonifen+MCPB+sulfosate; aclonifen+MCPP +sulfosate; aclonifen+metobenzuron+sulfosate; aclonifen+thifensulfuron+sulfosate; aclonifen+EPTC+sulfosate; aclonifen+cyanazine+sulfosate; bifenox+atrazin+sulfosate; bifenox+terbuthylazine+sulfosate; bifenox+(S)-metolachlor+sulfosate; bifenox+metolachlor+sulfosate; bifenox+compound of the formula A+sulfosate; bifenox +terbutryn+sulfosate; bifenox+simazine+sulfosate; bifenox+dimethenamid or (S)-dimethenamid+sulfosate; bifenox+flufenacet+sulfosate; bifenox+acetochlor+sulfosate; bifenox+alachlor+sulfosate; bifenox+isoxaflutole+sulfosate; bifenox+isoxachlortole+sulfosate; bifenox+mesotrione+sulfosate; bifenox+sulcotrione+sulfosate; bifenox+metosulam+sulfosate; bifenox+flumetsulam+sulfosate; bifenox+pendimethalin+sulfosate; bifenox+bromoxynil+sulfosate; bifenox+bentazone+sulfosate; bifenox+carfentrazone+sulfosate; bifenox+clomazone+sulfosate; bifenox+nicosulfuron+sulfosate; bifenox+rimsulfuron+sulfosate; bifenox+halosulfuron+sulfosate; bifenox+metribuzin+sulfosate; bifenox+flumiclorac+sulfosate; bifenox+prosulfuron+sulfosate; bifenox+primisulfuron+sulfosate; bifenox+dicamba+sulfosate; bifenox+fluthiacet+sulfosate; bifenox+pyridate+sulfosate; bifenox+compound of the formula B+sulfosate; bifenox+2,4-D+sulfosate; bifenox+clopyralide+sulfosate; bifenox +diflufenzopyr+sulfosate; bifenox+fluroxypyr+sulfosate; bifenox+MCPA+sulfosate; bifenox+MCPB+sulfosate; bifenox+MCPP+sulfosate; bifenox+metobenzuron+sulfosate; bifenox+thifensulfuron+sulfosate; bifenox+aclonifen+sulfosate; bifenox+EPTC+sulfosate; bifenox+cyanazine+sulfosate; chlomitrofen+atrazin+sulfosate; chlomitrofen+terbuthylazine+sulfosate; chlomitrofen+(S)-metolachlor+sulfosate; chlomitrofen+metolachlor+sulfosate; chlomitrofen+compound of the formula A+sulfosate; chlomitrofen+terbutryn+sulfosate; chlomitrofen+simazine+sulfosate; chlomitrofen+dimethenamid or (S)-dimethenamid+sulfosate; chlomitrofen+flufenacet+sulfosate; chlomitrofen+acetochlor+sulfosate; chlomitrofen+alachlor+sulfosate; chlomitrofen+isoxaflutole+sulfosate; chlomitrofen+isoxachlortole+sulfosate; chlomitrofen+mesotrione+sulfosate; chlomitrofen+sulcotrione+sulfosate; chlomitrofen +metosulam+sulfosate; chlomitrofen+flumetsulam+sulfosate; chlomitrofen+pendimethalin+sulfosate; chlomitrofen+bromoxynil+sulfosate; chlomitrofen+bentazone +sulfosate; chlomitrofen+carfentrazone+sulfosate; chlomitrofen+clomazone+sulfosate; chlomitrofen+nicosulfuron+sulfosate; chlomitrofen+rimsulfuron+sulfosate; chlomitrofen+halosulfuron+sulfosate; chlomitrofen+metribuzin+sulfosate; chlomitrofen +flumiclorac+sulfosate; chlomitrofen+prosulfuron+sulfosate; chlomitrofen+primisulfuron+sulfosate; chlomitrofen+dicamba+sulfosate; chlomitrofen+fluthiacet+sulfosate; chlomitrofen+pyridate+sulfosate; chlomitrofen+compound of the formula B+sulfosate; chlomitrofen+2,4-D+sulfosate; chlomitrofen+clopyralide+sulfosate; chlomitrofen+diflufenzopyr+sulfosate; chlomitrofen+fluroxypyr+sulfosate; chlomitrofen +MCPA+sulfosate; chlomitrofen+MCPB+sulfosate; chlomitrofen+MCPP+sulfosate; chlomitrofen+metobenzuron+sulfosate; chlomitrofen+thifensulfuron+sulfosate; chlomitrofen+aclonifen+sulfosate; chlomitrofen+EPTC+sulfosate; chlomitrofen+cyanazine+sulfosate; ethoxyfen+atrazin+sulfosate; ethoxyfen+terbuthylazine+sulfosate; ethoxyfen+(S)-metolachlor+sulfosate; ethoxyfen+metolachlor+sulfosate; ethoxyfen+compound of the formula A+sulfosate; ethoxyfen+terbutryn+sulfosate; ethoxyfen+simazine+sulfosate; ethoxyfen+dimethenamid or (S)-dimethenamid+sulfosate; ethoxyfen+flufenacet+sulfosate; ethoxyfen+acetochlor+sulfosate; ethoxyfen +alachlor+sulfosate; ethoxyfen+isoxaflutole+sulfosate; ethoxyfen+isoxachlortole+sulfosate; ethoxyfen+mesotrione+sulfosate; ethoxyfen+sulcotrione+sulfosate; ethoxyfen+metosulam+sulfosate; ethoxyfen+

flumetsulam+sulfosate; ethoxyfen+pendimethalin+sulfosate; ethoxyfen+bromoxynil+sulfosate; ethoxyfen+bentazone+sulfosate; ethoxyfen+carfentrazone+sulfosate; ethoxyfen+clomazone+sulfosate; ethoxyfen+nicosulfuron+sulfosate; ethoxyfen+rimsulfuron+sulfosate; ethoxyfen+halosulfuron+sulfosate; ethoxyfen+metribuzin+sulfosate; ethoxyfen+flumiclorac+sulfosate; ethoxyfen+prosulfuron+sulfosate; ethoxyfen+primisulfuron+sulfosate; ethoxyfen+dicamba+sulfosate; ethoxyfen+fluthiacet+sulfosate; ethoxyfen+pyridate+sulfosate; ethoxyfen+compound of the formula B+sulfosate; ethoxyfen+2,4-D+sulfosate; ethoxyfen+clopyralide+sulfosate; ethoxyfen+diflufenzopyr+sulfosate; ethoxyfen+fluroxypyr+sulfosate; ethoxyfen+MCPA+sulfosate; ethoxyfen+MCPB+sulfosate; ethoxyfen+MCPP+sulfosate; ethoxyfen+metobenzuron+sulfosate; ethoxyfen +thifensulfuron+sulfosate; ethoxyfen+aclonifen+sulfosate; ethoxyfen+EPTC+sulfosate; ethoxyfen+cyanazine+sulfosate; fluoroglycofen+atrazin+sulfosate; fluoroglycofen+terbuthylazine+sulfosate; fluoroglycofen+(S)-metolachlor+sulfosate; fluoroglycofen+metolachlor+sulfosate; fluoroglycofen+compound of the formula A+sulfosate; fluoroglycofen+terbutryn+sulfosate; fluoroglycofen+simazine+sulfosate; fluoroglycofen+dimethenamid or (S)-dimethenamid+sulfosate; fluoroglycofen+flufenacet +sulfosate; fluoroglycofen+acetochlor+sulfosate; fluoroglycofen+alachlor+sulfosate; fluoroglycofen+isoxaflutole+sulfosate; fluoroglycofen+isoxachlortole+sulfosate; fluoroglycofen+mesotrione+sulfosate; fluoroglycofen+sulcotrione+sulfosate; fluoroglycofen+metosulam+sulfosate; fluoroglycofen+flumetsulam+sulfosate; fluoroglycofen+pendimethalin+sulfosate; fluoroglycofen+bromoxynil+sulfosate; fluoroglycofen+bentazone+sulfosate; fluoroglycofen+carfentrazone+sulfosate; fluoroglycofen+clomazone+sulfosate; fluoroglycofen+nicosulfuron+sulfosate; fluoroglycofen+rimsulfuron+sulfosate; fluoroglycofen+halosulfuron+sulfosate; fluoroglycofen+metribuzin+sulfosate; fluoroglycofen+flumiclorac+sulfosate; fluoroglycofen+prosulfuron+sulfosate; fluoroglycofen+primisulfuron+sulfosate; fluoroglycofen+dicamba+sulfosate; fluoroglycofen+fluthiacet+sulfosate; fluoroglycofen +pyridate+sulfosate; fluoroglycofen+compound of the formula B+sulfosate; fluoroglycofen+2,4-D+sulfosate; fluoroglycofen+clopyralide+sulfosate; fluoroglycofen+diflufenzopyr+sulfosate; fluoroglycofen+fluroxypyr+sulfosate; fluoroglycofen+MCPA+sulfosate; fluoroglycofen+MCPB+sulfosate; fluoroglycofen+MCPP+sulfosate; fluoroglycofen+metobenzuron+sulfosate; fluoroglycofen+thifensulfuron+sulfosate; fluoroglycofen+aclonifen+sulfosate; fluoroglycofen+EPTC+sulfosate; fluoroglycofen+cyanazine+sulfosate; fomesafen+atrazin+sulfosate; fomesafen+terbuthylazine+sulfosate; fomesafen+(S)-metolachlor+sulfosate; fomesafen+metolachlor+sulfosate; fomesafen+compound of the formula A+sulfosate; fomesafen+terbutryn+sulfosate; fomesafen+simazine+sulfosate; fomesafen+dimethenamid or (S)-dimethenamid+sulfosate; fomesafen+flufenacet+sulfosate; fomesafen+acetochlor+sulfosate; fomesafen+alachlor+sulfosate; fomesafen+isoxaflutole+sulfosate; fomesafen+isoxachlortole+sulfosate; fomesafen+mesotrione+sulfosate; fomesafen+sulcotrione+sulfosate; fomesafen+metosulam+sulfosate; fomesafen+flumetsulam+sulfosate; fomesafen+pendimethalin+sulfosate; fomesafen+bromoxynil+sulfosate; fomesafen+bentazone+sulfosate; fomesafen+carfentrazone+sulfosate; fomesafen+clomazone+sulfosate; fomesafen+nicosulfuron+sulfosate; fomesafen+rimsulfuron+sulfosate; fomesafen+halosulfuron+sulfosate; fomesafen+metribuzin+sulfosate; fomesafen+flumiclorac+sulfosate; fomesafen+prosulfuron+sulfosate; fomesafen+primisulfuron+sulfosate; fomesafen+dicamba+sulfosate; fomesafen+fluthiacet+sulfosate; fomesafen +pyridate+sulfosate; fomesafen+compound of the formula B+sulfosate; fomesafen+2,4-D+sulfosate; fomesafen+clopyralide+sulfosate; fomesafen+diflufenzopyr+sulfosate; fomesafen+fluroxypyr+sulfosate; fomesafen+MCPA+sulfosate; fomesafen+MCPB+sulfosate; fomesafen+MCPP+sulfosate; fomesafen+metobenzuron+sulfosate; fomesafen+thifensulfuron+sulfosate; fomesafen+aclonifen+sulfosate; 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azafenidin+clomazone+sulfosate; azafenidin+nicosulfuron+sulfosate; azafenidin+rimsulfuron+sulfosate; azafenidin+halosulfuron+sulfosate; azafenidin+metribuzin+sulfosate; azafenidin+flumiclorac+sulfosate; azafenidin+prosulfuron+sulfosate; azafenidin+primisulfuron+sulfosate; azafenidin+dicamba+sulfosate; azafenidin+fluthiacet+sulfosate; azafenidin +pyridate+sulfosate; azafenidin+compound of the formula B+sulfosate; azafenidin+2,4-D+sulfosate; azafenidin+clopyralide+sulfosate; azafenidin+diflufenzopyr+sulfosate; azafenidin+fluroxypyr+sulfosate; azafenidin+MCPA+sulfosate; azafenidin+MCPB+sulfosate; azafenidin+MCPP+sulfosate; azafenidin+metobenzuron+sulfosate; azafenidin+thifensulfuron+sulfosate; azafenidin+aclonifen+sulfosate; azafenidin+EPTC+sulfosate; azafenidin+cyanazine+sulfosate; carfentrazone-ethyl+atrazin+sulfosate; carfentrazone-ethyl+terbuthylazine+sulfosate; carfentrazone-ethyl+(S)-metolachlor+sulfosate; carfentrazone-ethyl+metolachlor+sulfosate; carfentrazone-ethyl +compound of the formula A+sulfosate; 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compound of the formula A+flufenacet+sulfosate; compound of the formula A +acetochlor+sulfosate; compound of the formula A+alachlor; compound of the formula A +isoxaflutole+sulfosate; compound of the formula A+isoxachlortole+sulfosate; compound of the formula A+mesotrione+sulfosate; compound of the formula A+sulcotrione+sulfosate; compound of the formula A+metosulam+sulfosate; compound of the formula A+flumetsulam+sulfosate; compound of the formula A+pendimethalin+sulfosate; compound of the formula A+bromoxynil+sulfosate; compound of the formula A +bentazone+sulfosate; compound of the formula A+carfentrazone+sulfosate; compound of the formula A+clomazone+sulfosate; compound of the formula A+nicosulfuron+sulfosate; compound of the formula A+rimsulfuron+sulfosate; compound of the formula A+halosulfuron+sulfosate; compound of the formula A+metribuzin+sulfosate; compound of the formula A+flumiclorac+sulfosate; compound of the formula A +prosulfuron+sulfosate; compound of the formula A+primisulfuron+sulfosate; compound of the formula A+dicamba+sulfosate; compound of the formula A+fluthiacet +sulfosate; compound of the formula A+pyridate+sulfosate; compound of the formula A +compound of the formula B+sulfosate; compound of the formula A+2,4-D+sulfosate; compound of the formula A+clopyralide+sulfosate; compound of the formula A+diflufenzopyr+sulfosate; compound of the formula A+fluroxypyr+sulfosate; compound of the formula A+MCPA+sulfosate; compound of the formula A+MCPB+sulfosate; compound of the formula A+MCPP+sulfosate; compound of the formula A+metobenzuron+sulfosate; compound of the formula A+thifensulfuron+sulfosate; compound of the formula A+aclonifen+sulfosate; compound of the formula A+EPTC+sulfosate; compound of the formula A+cyanazine+sulfosate; cinidon-ethyl+atrazin+sulfosate; cinidon-ethyl+terbuthylazine+sulfosate; cinidon-ethyl+(S)-metolachlor+sulfosate; cinidon-ethyl+metolachlor+sulfosate; cinidon-ethyl+compound of the formula A+sulfosate; cinidon-ethyl+terbutryn+sulfosate; cinidon-ethyl+simazine+sulfosate; 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flumiclorac-pentyl +2,4-D+sulfosate; flumiclorac-pentyl+clopyralide+sulfosate; flumiclorac-pentyl+diflufenzopyr+sulfosate; flumiclorac-pentyl+fluroxypyr+sulfosate; flumiclorac-pentyl+MCPA+sulfosate; flumiclorac-pentyl+MCPB+sulfosate; flumiclorac-pentyl+MCPP+sulfosate; flumiclorac-pentyl+metobenzuron+sulfosate; flumiclorac-pentyl+thifensulfuron +sulfosate; flumiclorac-pentyl+aclonifen+sulfosate; flumiclorac-pentyl+EPTC+sulfosate; flumiclorac-pentyl+cyanazine+sulfosate; flumioxazin+atrazin+sulfosate; flumioxazin+terbuthylazine+sulfosate; flumioxazin+(S)-metolachlor+sulfosate; flumioxazin+metolachlor+sulfosate; flumioxazin+compound of the formula A+sulfosate; flumioxazin+terbutryn+sulfosate; flumioxazin+simazine+sulfosate; flumioxazin+dimethenamid or (S)-dimethenamid+sulfosate; flumioxazin+flufenacet+sulfosate; flumioxazin+acetochlor+sulfosate; flumioxazin+alachlor+sulfosate; flumioxazin+isoxaflutole+sulfosate; flumioxazin+isoxachlortole+sulfosate; flumioxazin+mesotrione+sulfosate; flumioxazin+sulcotrione+sulfosate; flumioxazin+metosulam+sulfosate; flumioxazin+flumetsulam+sulfosate; flumioxazin+pendimethalin+sulfosate; flumioxazin +bromoxynil+sulfosate; flumioxazin+bentazone+sulfosate; flumioxazin+carfentrazone +sulfosate; flumioxazin+clomazone+sulfosate; flumioxazin+nicosulfuron+sulfosate; flumioxazin+rimsulfuron+sulfosate; flumioxazin+halosulfuron+sulfosate; flumioxazin+metribuzin+sulfosate; flumioxazin+flumiclorac+sulfosate; flumioxazin+prosulfuron+sulfosate; flumioxazin+primisulfuron+sulfosate; flumioxazin+dicamba+sulfosate; flumioxazin+fluthiacet+sulfosate; flumioxazin+pyridate+sulfosate; flumioxazin+compound of the formula B+sulfosate; flumioxazin+2,4-D+sulfosate; flumioxazin+clopyralide+sulfosate; flumioxazin+diflufenzopyr+sulfosate; flumioxazin+fluroxypyr+sulfosate; flumioxazin+MCPA+sulfosate; flumioxazin+MCPB+sulfosate; flumioxazin+MCPP+sulfosate; flumioxazin+metobenzuron+sulfosate; flumioxazin+thifensulfuron+sulfosate; flumioxazin+aclonifen+sulfosate; flumioxazin+EPTC+sulfosate; flumioxazin +cyanazine+sulfosate; fluthiacet-methyl+atrazin+sulfosate; fluthiacet-methyl+terbuthylazine+sulfosate; fluthiacet-methyl+(S)-metolachlor+sulfosate; fluthiacet-methyl +metolachlor+sulfosate; fluthiacet-methyl+compound of the formula A+sulfosate; fluthiacet-methyl+terbutryn+sulfosate; fluthiacet-methyl+simazine+sulfosate; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+sulfosate; fluthiacet-methyl+flufenacet+sulfosate; fluthiacet-methyl+acetochlor+sulfosate; fluthiacet-methyl+alachlor+sulfosate; fluthiacet-methyl+isoxaflutole+sulfosate; fluthiacet-methyl+isoxachlortole+sulfosate; fluthiacet-methyl+mesotrione+sulfosate; fluthiacet-methyl+sulcotrione+sulfosate; fluthiacet-methyl+metosulam+sulfosate; fluthiacet-methyl+flumetsulam+sulfosate; fluthiacet-methyl+pendimethalin+sulfosate; fluthiacet-methyl+bromoxynil+sulfosate; fluthiacet-methyl+bentazone+sulfosate; fluthiacet-methyl+carfentrazone+sulfosate; fluthiacet-methyl+clomazone+sulfosate; fluthiacet-methyl+nicosulfuron+sulfosate; fluthiacet-methyl+rimsulfuron+sulfosate; 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nipyraclofen+isoxaflutole+sulfosate; nipyraclofen+isoxachlortole+sulfosate; nipyraclofen+mesotrione+sulfosate; nipyraclofen+sulcotrione+sulfosate; nipyraclofen+metosulam+sulfosate; nipyraclofen+flumetsulam+sulfosate; nipyraclofen+pendimethalin+sulfosate; nipyraclofen+bromoxynil+sulfosate; nipyraclofen+bentazone +sulfosate; nipyraclofen+carfentrazone+sulfosate; nipyraclofen+clomazone+sulfosate; nipyraclofen+nicosulfuron+sulfosate; nipyraclofen+rimsulfuron+sulfosate; nipyraclofen +halosulfuron+sulfosate; nipyraclofen+metribuzin+sulfosate; nipyraclofen+flumiclorac +sulfosate; nipyraclofen+prosulfuron+sulfosate; nipyraclofen+primisulfuron+sulfosate; nipyraclofen+dicamba+sulfosate; nipyraclofen+fluthiacet+sulfosate; nipyraclofen+pyridate+sulfosate; nipyraclofen+compound of the formula B+sulfosate; nipyraclofen+2,4-D+sulfosate; nipyraclofen+clopyralide+sulfosate; nipyraclofen+diflufenzopyr+sulfosate; nipyraclofen+fluroxypyr+sulfosate; nipyraclofen+MCPA+sulfosate; nipyraclofen+MCPB+sulfosate; nipyraclofen+MCPP+sulfosate; nipyraclofen+metobenzuron+sulfosate; nipyraclofen+thifensulfuron+sulfosate; nipyraclofen+aclonifen+sulfosate; nipyraclofen+EPTC+sulfosate; nipyraclofen+cyanazine+sulfosate; benzfendizone+atrazin+sulfosate; benzfendizone+terbuthylazine+sulfosate; benzfendizone+(S)-metolachlor+sulfosate; benzfendizone+metolachlor+sulfosate; benzfendizone+compound of the formula A+sulfosate; benzfendizone+terbutryn+sulfosate; benzfendizone+simazine+sulfosate; benzfendizone+dimethenamid or (S)-dimethenamid+sulfosate; benzfendizone+flufenacet+sulfosate; benzfendizone+acetochlor+sulfosate; benzfendizone+alachlor+sulfosate; benzfendizone+isoxaflutole +sulfosate; benzfendizone+isoxachlortole+sulfosate; benzfendizone+mesotrione+sulfosate; benzfendizone+sulcotrione+sulfosate; benzfendizone+metosulam+

sulfosate; benzfendizone+flumetsulam+sulfosate; benzfendizone+pendimethalin+sulfosate; benzfendizone+bromoxynil+sulfosate; benzfendizone+bentazone+sulfosate; benzfendizone+carfentrazone+sulfosate; benzfendizone+clomazone+sulfosate; benzfendizone+nicosulfuron+sulfosate; benzfendizone+rimsulfuron+sulfosate; benzfendizone+halosulfuron+sulfosate; benzfendizone+metribuzin+sulfosate; benzfendizone+flumiclorac+sulfosate; benzfendizone+prosulfuron+sulfosate; benzfendizone+primisulfuron+sulfosate; benzfendizone+dicamba+sulfosate; benzfendizone+fluthiacet+sulfosate; benzfendizone+pyridate+sulfosate; benzfendizone+compound of the formula B+sulfosate; benzfendizone+2,4-D+sulfosate; benzfendizone+clopyralide+sulfosate; benzfendizone+diflufenzopyr+sulfosate; benzfendizone+fluroxypyr+sulfosate; benzfendizone+MCPA+sulfosate; benzfendizone+MCPB+sulfosate; benzfendizone+MCPP+sulfosate; benzfendizone+metobenzuron+sulfosate; benzfendizone+thifensulfuron+sulfosate; benzfendizone+aclonifen+sulfosate; benzfendizone+EPTC+sulfosate; benzfendizone+cyanazine+sulfosate; thidiazimin+atrazin+sulfosate; thidiazimin+terbuthylazine+sulfosate; thidiazimin+(S)-metolachlor+sulfosate; thidiazimin+metolachlor+sulfosate; thidiazimin+compound of the formula A+sulfosate; thidiazimin+terbutryn+sulfosate; thidiazimin+simazine+sulfosate; thidiazimin+dimethenamid or (S)-dimethenamid+sulfosate; thidiazimin+flufenacet+sulfosate; thidiazimin+acetochlor+sulfosate; thidiazimin+alachlor+sulfosate; thidiazimin+isoxaflutole+sulfosate; thidiazimin+isoxachlortole+sulfosate; thidiazimin+mesotrione+sulfosate; thidiazimin+sulcotrione+sulfosate; thidiazimin+metosulam+sulfosate; thidiazimin+flumetsulam+sulfosate; thidiazimin+pendimethalin+sulfosate; thidiazimin+bromoxynil+sulfosate; thidiazimin+bentazone+sulfosate; thidiazimin+carfentrazone+sulfosate; thidiazimin+clomazone+sulfosate; thidiazimin+nicosulfuron+sulfosate; thidiazimin+rimsulfuron+sulfosate; thidiazimin+halosulfuron+sulfosate; thidiazimin+metribuzin+sulfosate; thidiazimin+flumiclorac+sulfosate; thidiazimin+prosulfuron+sulfosate; thidiazimin+primisulfuron+sulfosate; thidiazimin+dicamba+sulfosate; thidiazimin+fluthiacet+sulfosate; thidiazimin+pyridate+sulfosate; thidiazimin+compound of the formula B+sulfosate; thidiazimin+2,4-D+sulfosate; thidiazimin+clopyralide+sulfosate; thidiazimin+diflufenzopyr+sulfosate; thidiazimin+fluroxypyr+sulfosate; thidiazimin+MCPA+sulfosate; thidiazimin+MCPB+sulfosate; thidiazimin+MCPP+sulfosate; thidiazimin+metobenzuron+sulfosate; thidiazimin+thifensulfuron+sulfosate; thidiazimin+aclonifen+sulfosate; thidiazimin+EPTC+sulfosate; and thidiazimin+cyanazine+sulfosate.

[**0125**] acifluorfen+(S)-metolachlor+glyphosate+benoxacor; acifluorfen+metolachlor+glyphosate+benoxacor; acifluorfen+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; acifluorfen+acetochlor+glyphosate+benoxacor; acifluorfen+alachlor+glyphosate+benoxacor; aclonifen+(S)-metolachlor+glyphosate+benoxacor; aclonifen+metolachlor+glyphosate+benoxacor; aclonifen+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; aclonifen+acetochlor+glyphosate+benoxacor; aclonifen+alachlor+glyphosate+benoxacor; bifenox+(S)-metolachlor+glyphosate+benoxacor; bifenox+metolachlor+glyphosate+benoxacor; bifenox+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; bifenox+acetochlor+glyphosate+benoxacor; bifenox+alachlor+glyphosate+benoxacor; chlomitrofen+(S)-metolachlor+glyphosate+benoxacor; chlomitrofen+metolachlor+glyphosate+benoxacor; chlomitrofen+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; chlomitrofen+acetochlor+glyphosate+benoxacor; chlomitrofen+alachlor+glyphosate+benoxacor; ethoxyfen+(S)-metolachlor+glyphosate+benoxacor; ethoxyfen+metolachlor+glyphosate+benoxacor; ethoxyfen+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; ethoxyfen+acetochlor+glyphosate+benoxacor; ethoxyfen+alachlor+glyphosate+benoxacor; fluoroglycofen+(S)-metolachlor+glyphosate+benoxacor; fluoroglycofen+metolachlor+glyphosate+benoxacor; fluoroglycofen+dimethenamid or (S)-dimethenamid +glyphosate+benoxacor; fluoroglycofen+acetochlor+glyphosate+benoxacor; fluoroglycofen+alachlor+glyphosate+benoxacor; fomesafen+(S)-metolachlor+glyphosate+benoxacor; fomesafen+metolachlor+glyphosate+benoxacor; fomesafen+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; fomesafen+acetochlor+glyphosate+benoxacor; fomesafen+alachlor+glyphosate+benoxacor; lactofen+(S)-metolachlor+glyphosate+benoxacor; lactofen+metolachlor+glyphosate+benoxacor; lactofen+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; lactofen+acetochlor+glyphosate+benoxacor; lactofen+alachlor+glyphosate+benoxacor; oxyfluorfen+(S)-metolachlor+glyphosate+benoxacor; oxyfluorfen+metolachlor+glyphosate+benoxacor; oxyfluorfen+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; oxyfluorfen+acetochlor+glyphosate+benoxacor; oxyfluorfen+alachlor+glyphosate+benoxacor; azafenidin+(S)-metolachlor+glyphosate+benoxacor; azafenidin +metolachlor+glyphosate+benoxacor; azafenidin+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; azafenidin+acetochlor+glyphosate+benoxacor; azafenidin+alachlor+glyphosate+benoxacor; carfentrazone-ethyl+(S)-metolachlor+glyphosate+benoxacor; carfentrazone-ethyl+metolachlor+glyphosate+benoxacor; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; carfentrazone-ethyl+acetochlor+glyphosate+benoxacor; carfentrazone-ethyl+alachlor+glyphosate+benoxacor; compound of the formula A+(S)-metolachlor+glyphosate+benoxacor; compound of the formula A+metolachlor+glyphosate+benoxacor; compound of the formula A+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; compound of the formula A+acetochlor+glyphosate+benoxacor; compound of the formula A+alachlor+glyphosate+benoxacor; cinidon-ethyl+(S)-metolachlor+glyphosate+benoxacor; cinidon-ethyl+metolachlor+glyphosate+benoxacor; cinidon-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; cinidon-ethyl+acetochlor+glyphosate+benoxacor; cinidon-ethyl+alachlor+glyphosate+benoxacor; flumiclorac-pentyl+(S)-metolachlor+glyphosate+benoxacor; flumiclorac-pentyl+metolachlor+glyphosate+benoxacor; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; flumiclorac-pentyl+acetochlor+glyphosate+benoxacor; flumiclorac-pentyl+alachlor+glyphosate+benoxacor; flumioxazin+(S)-metolachlor+glyphosate+benoxacor; flumioxazin+metolachlor+glyphosate+benoxacor; flumioxazin +dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; flumioxazin+acetochlor+glyphosate+benoxacor; flumioxazin+alachlor+glyphosate+benoxacor; fluthiacet-methyl +(S)-metolachlor+glyphosate+benoxacor; fluthiacet-methyl+metolachlor+glyphosate+benoxacor; fluthiacet-methyl+dimethenamid or

(S)-dimethenamid+glyphosate+benoxacor; fluthiacet-methyl+acetochlor+glyphosate+benoxacor; fluthiacet-methyl+alachlor+glyphosate+benoxacor; oxadiargyl+(S)-metolachlor+glyphosate+benoxacor; oxadiargyl+metolachlor+glyphosate+benoxacor; oxadiargyl+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; oxadiargyl+acetochlor+glyphosate+benoxacor; oxadiargyl+alachlor+glyphosate+benoxacor; oxadiazon+(S)-metolachlor+glyphosate+benoxacor; oxadiazon+metolachlor+glyphosate+benoxacor; oxadiazon+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; oxadiazon+acetochlor+glyphosate+benoxacor; oxadiazon+alachlor+glyphosate+benoxacor; pentoxazone+(S)-metolachlor+glyphosate+benoxacor; pentoxazone+metolachlor+glyphosate+benoxacor; pentoxazone+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; pentoxazone+acetochlor+glyphosate+benoxacor; pentoxazone+alachlor+glyphosate+benoxacor; sulfentrazone+(S)-metolachlor+glyphosate+benoxacor; sulfentrazone+metolachlor+glyphosate+benoxacor; sulfentrazone+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; sulfentrazone+acetochlor+glyphosate+benoxacor; sulfentrazone+alachlor+glyphosate+benoxacor; fluazolate+(S)-metolachlor+glyphosate+benoxacor; fluazolate+metolachlor+glyphosate+benoxacor; fluazolate+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; fluazolate+acetochlor+glyphosate+benoxacor; fluazolate+alachlor+glyphosate+benoxacor; pyraflufen-ethyl+(S)-metolachlor+glyphosate+benoxacor; pyraflufen-ethyl+metolachlor+glyphosate+benoxacor; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; pyraflufen-ethyl+acetochlor+glyphosate+benoxacor; pyraflufen-ethyl+alachlor+glyphosate+benoxacor; flumipropyn+(S)-metolachlor+glyphosate+benoxacor; flumipropyn+metolachlor+glyphosate+benoxacor; flumipropyn+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; flumipropyn+acetochlor+glyphosate+benoxacor; flumipropyn+alachlor+glyphosate+benoxacor; flupropacil+(S)-metolachlor+glyphosate+benoxacor; flupropacil+metolachlor+glyphosate+benoxacor; flupropacil+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; flupropacil+acetochlor+glyphosate+benoxacor; flupropacil+alachlor+glyphosate+benoxacor; nipyraclofen+(S)-metolachlor+glyphosate+benoxacor; nipyraclofen+metolachlor+glyphosate+benoxacor; nipyraclofen+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; nipyraclofen+acetochlor+glyphosate+benoxacor; nipyraclofen+alachlor+glyphosate+benoxacor; benzfendizone +(S)-metolachlor+glyphosate+benoxacor; benzfendizone+metolachlor+glyphosate+benoxacor; benzfendizone+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; benzfendizone+acetochlor+glyphosate+benoxacor; benzfendizone+alachlor+glyphosate+benoxacor; thidiazimin+(S)-metolachlor+glyphosate+benoxacor; thidiazimin+metolachlor+glyphosate+benoxacor; thidiazimin+dimethenamid or (S)-dimethenamid+glyphosate+benoxacor; thidiazimin+acetochlor+glyphosate+benoxacor; and thidiazimin+alachlor+glyphosate+benoxacor.

[**0126**] acifluorfen+(S)-metolachlor+glyphosate+MON 4660; acifluorfen+metolachlor+glyphosate+MON 4660; acifluorfen+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; acifluorfen+acetochlor+glyphosate+MON 4660; acifluorfen+alachlor+glyphosate+MON 4660; aclonifen+(S)-metolachlor+glyphosate+MON 4660; aclonifen+metolachlor+glyphosate+MON 4660; aclonifen+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; aclonifen+acetochlor+glyphosate+MON 4660; aclonifen+alachlor+glyphosate+MON 4660; bifenox+(S)-metolachlor+glyphosate+MON 4660; bifenox+metolachlor+glyphosate+MON 4660; bifenox+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; bifenox+acetochlor+glyphosate+MON 4660; bifenox+alachlor+glyphosate+MON 4660; chlomitrofen+(S)-metolachlor+glyphosate+MON 4660; chlomitrofen+metolachlor+glyphosate+MON 4660; chlomitrofen+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; chlomitrofen+acetochlor+glyphosate+MON 4660; chlomitrofen+alachlor+glyphosate+MON 4660; ethoxyfen+(S)-metolachlor+glyphosate+MON 4660; ethoxyfen+metolachlor+glyphosate+MON 4660; ethoxyfen+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; ethoxyfen+acetochlor+glyphosate+MON 4660; ethoxyfen+alachlor+glyphosate+MON 4660; fluoroglycofen+(S)-metolachlor+glyphosate+MON 4660; fluoroglycofen+metolachlor+glyphosate+MON 4660; fluoroglycofen+dimethenamid or (S)-dimethenamid +glyphosate+MON 4660; fluoroglycofen+acetochlor+glyphosate+MON 4660; fluoroglycofen+alachlor+glyphosate+MON 4660; fomesafen+(S)-metolachlor+glyphosate+MON 4660; fomesafen+metolachlor+glyphosate+MON 4660; fomesafen+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; fomesafen+acetochlor+glyphosate+MON 4660; fomesafen+alachlor+glyphosate+MON 4660; lactofen+(S)-metolachlor+glyphosate+MON 4660; lactofen+metolachlor+glyphosate+MON 4660; lactofen+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; lactofen+acetochlor+glyphosate+MON 4660; lactofen+alachlor+glyphosate+MON 4660; oxyfluorfen+(S)-metolachlor+glyphosate+MON 4660; oxyfluorfen+metolachlor+glyphosate+MON 4660; oxyfluorfen+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; oxyfluorfen+acetochlor+glyphosate+MON 4660; oxyfluorfen+alachlor+glyphosate+MON 4660; azafenidin+(S)-metolachlor+glyphosate+MON 4660; azafenidin+metolachlor+glyphosate+MON 4660; azafenidin+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; azafenidin+acetochlor+glyphosate+MON 4660; azafenidin+alachlor+glyphosate+MON 4660; carfentrazone-ethyl+(S)-metolachlor+glyphosate+MON 4660; carfentrazone-ethyl+metolachlor+glyphosate+MON 4660; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; carfentrazone-ethyl+acetochlor+glyphosate+MON 4660; carfentrazone-ethyl+alachlor+glyphosate+MON 4660; compound of the formula A+(S)-metolachlor+glyphosate+MON 4660; compound of the formula A+metolachlor+glyphosate+MON 4660; compound of the formula A+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; compound of the formula A+acetochlor+glyphosate+MON 4660; compound of the formula A+alachlor+glyphosate+MON 4660; cinidon-ethyl+(S)-metolachlor+glyphosate+MON 4660; cinidon-ethyl+metolachlor+glyphosate+MON 4660; cinidon-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; cinidon-ethyl+acetochlor+glyphosate+MON 4660; cinidon-ethyl+alachlor+glyphosate+MON 4660; flumiclorac-pentyl+(S)-metolachlor+glyphosate+MON 4660; flumiclorac-pentyl+metolachlor+glyphosate+MON 4660; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; flumiclorac-pentyl+acetochlor+glyphosate+MON 4660; flumiclorac-pentyl+alachlor+glyphosate+MON 4660; flumioxazin+(S)-metolachlor+glyphosate+MON 4660; flumioxazin+metolachlor+glyphosate+MON 4660; flumiox-

azin+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; flumioxazin+acetochlor+glyphosate+MON 4660; flumioxazin+alachlor+glyphosate+MON 4660; fluthiacet-methyl+(S)-metolachlor+glyphosate+MON 4660; fluthiacet-methyl +metolachlor+glyphosate+MON 4660; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; fluthiacet-methyl+acetochlor+glyphosate+MON 4660; fluthiacet-methyl+alachlor+glyphosate+MON 4660; oxadiargyl+(S)-metolachlor+glyphosate+MON 4660; oxadiargyl+metolachlor+glyphosate+MON 4660; oxadiargyl+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; oxadiargyl+acetochlor+glyphosate+MON 4660; oxadiargyl+alachlor+glyphosate+MON 4660; oxadiazon+(S)-metolachlor+glyphosate+MON 4660; oxadiazon+metolachlor+glyphosate+MON 4660; oxadiazon+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; oxadiazon+acetochlor+glyphosate+MON 4660; oxadiazon+alachlor+glyphosate+MON 4660; pentoxazone+(S)-metolachlor+glyphosate+MON 4660; pentoxazone+metolachlor+glyphosate+MON 4660; pentoxazone+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; pentoxazone+acetochlor+glyphosate+MON 4660; pentoxazone+alachlor+glyphosate+MON 4660; sulfentrazone+(S)-metolachlor+glyphosate+MON 4660; sulfentrazone+metolachlor+glyphosate+MON 4660; sulfentrazone+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; sulfentrazone+acetochlor+glyphosate+MON 4660; sulfentrazone+alachlor+glyphosate+MON 4660; fluazolate+(S)-metolachlor+glyphosate+MON 4660; fluazolate +metolachlor+glyphosate+MON 4660; fluazolate+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; fluazolate+acetochlor+glyphosate+MON 4660; fluazolate+alachlor+glyphosate+MON 4660; pyraflufen-ethyl+(S)-metolachlor+glyphosate+MON 4660; pyraflufen-ethyl+metolachlor+glyphosate+MON 4660; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; pyraflufen-ethyl+acetochlor+glyphosate+MON 4660; pyraflufen-ethyl+alachlor+glyphosate+MON 4660; flumipropyn+(S)-metolachlor+glyphosate+MON 4660; flumipropyn+metolachlor+glyphosate+MON 4660; flumipropyn+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; flumipropyn+acetochlor+glyphosate+MON 4660; flumipropyn+alachlor+glyphosate+MON 4660; flupropacil+(S)-metolachlor+glyphosate+MON 4660; flupropacil+metolachlor+glyphosate+MON 4660; flupropacil+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; flupropacil+acetochlor+glyphosate+MON 4660; flupropacil+alachlor+glyphosate+MON 4660; nipyraclofen+(S)-metolachlor+glyphosate+MON 4660; nipyraclofen+metolachlor+glyphosate+MON 4660; nipyraclofen+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; nipyraclofen +acetochlor+glyphosate+MON 4660; nipyraclofen+alachlor+glyphosate+MON 4660; benzfendizone+(S)-metolachlor+glyphosate+MON 4660; benzfendizone+metolachlor+glyphosate+MON 4660; benzfendizone+dimethenamid or (S)-dimethenamid+glyphosate +MON 4660; benzfendizone+acetochlor+glyphosate+MON 4660; benzfendizone+alachlor+glyphosate+MON 4660; thidiazimin+(S)-metolachlor+glyphosate+MON 4660; thidiazimin+metolachlor+glyphosate+MON 4660; thidiazimin+dimethenamid or (S)-dimethenamid+glyphosate+MON 4660; thidiazimin+acetochlor+glyphosate+MON 4660; and thidiazimin+alachlor+glyphosate+MON 4660.

[0127] Acifluorfen+(S)-metolachlor+glyphosate+flurazole; acifluorfen+metolachlor+glyphosate+flurazole; acifluorfen+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; acifluorfen+acetochlor+glyphosate+flurazole; acifluorfen+alachlor+glyphosate+flurazole; aclonifen+(S)-metolachlor+glyphosate+flurazole; aclonifen+metolachlor+glyphosate+flurazole; aclonifen+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; aclonifen+acetochlor+glyphosate+flurazole; aclonifen+alachlor +glyphosate+flurazole; bifenox+(S)-metolachlor+glyphosate+flurazole; bifenox+metolachlor+glyphosate+flurazole; bifenox+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; bifenox+acetochlor+glyphosate+flurazole; bifenox+alachlor+glyphosate+flurazole; chlomitrofen+(S)-metolachlor+glyphosate+flurazole; chlomitrofen+metolachlor+glyphosate+flurazole; chlomitrofen+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; chlomitrofen+acetochlor+glyphosate+flurazole; chlomitrofen+alachlor+glyphosate+flurazole; ethoxyfen+(S)-metolachlor+glyphosate +flurazole; ethoxyfen+metolachlor+glyphosate+flurazole; ethoxyfen+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; ethoxyfen+acetochlor+glyphosate+flurazole; ethoxyfen+alachlor+glyphosate+flurazole; fluoroglycofen+(S)-metolachlor+glyphosate +flurazole; fluoroglycofen+metolachlor+glyphosate+flurazole; fluoroglycofen+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; fluoroglycofen+acetochlor+glyphosate+flurazole; fluoroglycofen+alachlor+glyphosate+flurazole; fomesafen+(S)-metolachlor+glyphosate+flurazole; fomesafen+metolachlor+glyphosate+flurazole; fomesafen+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; fomesafen+acetochlor+glyphosate+flurazole; fomesafen+alachlor+glyphosate+flurazole; lactofen +(S)-metolachlor+glyphosate+flurazole; lactofen+metolachlor+glyphosate+flurazole; lactofen+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; lactofen+acetochlor+glyphosate+flurazole; lactofen+alachlor+glyphosate+flurazole; oxyfluorfen +(S)-metolachlor+glyphosate+flurazole; oxyfluorfen+metolachlor+glyphosate+flurazole; oxyfluorfen+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; oxyfluorfen+acetochlor+glyphosate+flurazole; oxyfluorfen+alachlor+glyphosate+flurazole; azafenidin+(S)-metolachlor+glyphosate+flurazole; azafenidin+metolachlor+glyphosate+flurazole; azafenidin+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; azafenidin+acetochlor+glyphosate+flurazole; azafenidin+alachlor+glyphosate+flurazole; carfentrazone-ethyl+(S)-metolachlor+glyphosate+flurazole; carfentrazone-ethyl+metolachlor+glyphosate+flurazole; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; carfentrazone-ethyl+acetochlor+glyphosate+flurazole; carfentrazone-ethyl+alachlor+glyphosate+flurazole; compound of the formula A+(S)-metolachlor+glyphosate+flurazole; compound of the formula A+metolachlor+glyphosate+flurazole; compound of the formula A+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; compound of the formula A+acetochlor+glyphosate+flurazole; compound of the formula A+alachlor+glyphosate+flurazole; cinidon-ethyl+(S)-metolachlor+glyphosate+flurazole; cinidon-ethyl+metolachlor+glyphosate+flurazole; cinidon-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; cinidon-ethyl+acetochlor+glyphosate+flurazole; cinidon-ethyl+alachlor+glyphosate+flurazole; flumiclorac-pentyl+(S)-metolachlor+glyphosate+flurazole; flumiclorac-pentyl+metolachlor+glyphosate+flurazole; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; flumiclorac-pentyl+acetochlor +glyphosate+flurazole; flumiclorac-pentyl+alachlor+glyphosate+flurazole; flumioxazin +(S)-meto-

lachlor+glyphosate+flurazole; flumioxazin+metolachlor+glyphosate+flurazole; flumioxazin+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; flumioxazin+acetochlor+glyphosate+flurazole; flumioxazin+alachlor+glyphosate+flurazole; fluthiacet-methyl+(S)-metolachlor+glyphosate+flurazole; fluthiacet-methyl+metolachlor+glyphosate+flurazole; fluthiacet-methyl+dimethenamid or (S)-dimethenamid +glyphosate+flurazole; fluthiacet-methyl+acetochlor+glyphosate+flurazole; fluthiacet-methyl+alachlor+glyphosate+flurazole; oxadiargyl+(S)-metolachlor+glyphosate+flurazole; oxadiargyl+metolachlor+glyphosate+flurazole; oxadiargyl+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; oxadiargyl+acetochlor+glyphosate+flurazole; oxadiargyl+alachlor+glyphosate+flurazole; oxadiazon+(S)-metolachlor+glyphosate+flurazole; oxadiazon+metolachlor+glyphosate+flurazole; oxadiazon+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; oxadiazon+acetochlor+glyphosate+flurazole; oxadiazon+alachlor+glyphosate+flurazole; pentoxazone+(S)-metolachlor+glyphosate+flurazole; pentoxazone+metolachlor+glyphosate+flurazole; pentoxazone+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; pentoxazone +acetochlor+glyphosate+flurazole; pentoxazone+alachlor+glyphosate+flurazole; sulfentrazone+(S)-metolachlor+glyphosate+flurazole; sulfentrazone+metolachlor+glyphosate+flurazole; sulfentrazone+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; sulfentrazone+acetochlor+glyphosate+flurazole; sulfentrazone+alachlor+glyphosate+flurazole; fluazolate+(S)-metolachlor+glyphosate+flurazole; fluazolate+metolachlor+glyphosate+flurazole; fluazolate+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; fluazolate+acetochlor+glyphosate+flurazole; fluazolate+alachlor+glyphosate+flurazole; pyraflufen-ethyl+(S)-metolachlor+glyphosate+flurazole; pyraflufen-ethyl+metolachlor+glyphosate+flurazole; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; pyraflufen-ethyl+acetochlor +glyphosate+flurazole; pyraflufen-ethyl+alachlor+glyphosate+flurazole; flumipropyn+(S)-metolachlor+glyphosate+flurazole; flumipropyn+metolachlor+glyphosate+flurazole; flumipropyn+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; flumipropyn+acetochlor+glyphosate+flurazole; flumipropyn+alachlor+glyphosate+flurazole; flupropacil+(S)-metolachlor+glyphosate+flurazole; flupropacil+metolachlor+glyphosate+flurazole; flupropacil+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; flupropacil+acetochlor+glyphosate+flurazole; flupropacil+alachlor+glyphosate+flurazole; nipyraclofen+(S)-metolachlor+glyphosate+flurazole; nipyraclofen +metolachlor+glyphosate+flurazole; nipyraclofen+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; nipyraclofen+acetochlor+glyphosate+flurazole; nipyraclofen+alachlor+glyphosate+flurazole; benzfendizone+(S)-metolachlor+glyphosate+flurazole; benzfendizone+metolachlor+glyphosate+flurazole; benzfendizone+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; benzfendizone+acetochlor+glyphosate+flurazole; benzfendizone+alachlor+glyphosate+flurazole; thidiazimin+(S)-metolachlor+glyphosate+flurazole; thidiazimin+metolachlor+glyphosate+flurazole; thidiazimin+dimethenamid or (S)-dimethenamid+glyphosate+flurazole; thidiazimin+acetochlor+glyphosate+flurazole; and thidiazimin+alachlor+glyphosate+flurazole.

[0128] Acifluorfen+(S)-metolachlor+glyphosate+dichlormid; acifluorfen+metolachlor+glyphosate+dichlormid; acifluorfen+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; acifluorfen+acetochlor+glyphosate+dichlormid; acifluorfen+alachlor+glyphosate+dichlormid; aclonifen+(S)-metolachlor+glyphosate+dichlormid; aclonifen+metolachlor+glyphosate+dichlormid; aclonifen+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; aclonifen+acetochlor+glyphosate+dichlormid; aclonifen+alachlor+glyphosate+dichlormid; bifenox+(S)-metolachlor+glyphosate+dichlormid; bifenox+metolachlor+glyphosate+dichlormid; bifenox+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; bifenox+acetochlor+glyphosate+dichlormid; bifenox+alachlor+glyphosate+dichlormid; chlomitrofen+(S)-metolachlor+glyphosate+dichlormid; chlomitrofen+metolachlor+glyphosate+dichlormid; chlomitrofen+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; chlomitrofen+acetochlor+glyphosate+dichlormid; chlomitrofen+alachlor+glyphosate+dichlormid; ethoxyfen+(S)-metolachlor+glyphosate+dichlormid; ethoxyfen+metolachlor+glyphosate+dichlormid; ethoxyfen+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; ethoxyfen+acetochlor+glyphosate+dichlormid; ethoxyfen+alachlor+glyphosate+dichlormid; fluoroglycofen+(S)-metolachlor+glyphosate+dichlormid; fluoroglycofen+metolachlor+glyphosate+dichlormid; fluoroglycofen+dimethenamid or (S)-dimethenamid+glyphosate +dichlormid; fluoroglycofen+acetochlor+glyphosate+dichlormid; fluoroglycofen+alachlor+glyphosate+dichlormid; fomesafen+(S)-metolachlor+glyphosate+dichlormid; fomesafen+metolachlor+glyphosate+dichlormid; fomesafen+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; fomesafen+acetochlor+glyphosate+dichlormid; fomesafen+alachlor+glyphosate+dichlormid; lactofen+(S)-metolachlor+glyphosate+dichlormid; lactofen+metolachlor+glyphosate+dichlormid; lactofen+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; lactofen+acetochlor+glyphosate+dichlormid; lactofen+alachlor+glyphosate+dichlormid; oxyfluorfen+(S)-metolachlor+glyphosate+dichlormid; oxyfluorfen+metolachlor+glyphosate+dichlormid; oxyfluorfen+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; oxyfluorfen+acetochlor+glyphosate+dichlormid; oxyfluorfen+alachlor+glyphosate+dichlormid; azafenidin+(S)-metolachlor+glyphosate+dichlormid; azafenidin+metolachlor+glyphosate+dichlormid; azafenidin+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; azafenidin+acetochlor+glyphosate+dichlormid; azafenidin+alachlor+glyphosate+dichlormid; carfentrazone-ethyl+(S)-metolachlor+glyphosate+dichlormid; carfentrazone-ethyl+metolachlor+glyphosate+dichlormid; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; carfentrazone-ethyl+acetochlor+glyphosate+dichlormid; carfentrazone-ethyl+alachlor+glyphosate+dichlormid; compound of the formula A+(S)-metolachlor+glyphosate+dichlormid; compound of the formula A+metolachlor+glyphosate+dichlormid; compound of the formula A+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; compound of the formula A+acetochlor+glyphosate+dichlormid; compound of the formula A+alachlor +glyphosate+dichlormid; cinidon-ethyl+(S)-metolachlor+glyphosate+dichlormid; cinidon-ethyl+metolachlor+glyphosate+dichlormid; cinidon-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; cinidon-

ethyl+acetochlor+glyphosate+dichlormid; cinidon-ethyl+alachlor+glyphosate+dichlormid; flumiclorac-pentyl+(S)-metolachlor+glyphosate+dichlormid; flumiclorac-pentyl+metolachlor+glyphosate+dichlormid; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; flumiclorac-pentyl+acetochlor+glyphosate+dichlormid; flumiclorac-pentyl+alachlor+glyphosate+dichlormid; flumioxazin+(S)-metolachlor+glyphosate+dichlormid; flumioxazin+metolachlor+glyphosate+dichlormid; flumioxazin+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; flumioxazin+acetochlor+glyphosate+dichlormid; flumioxazin+alachlor+glyphosate+dichlormid; fluthiacet-methyl+(S)-metolachlor+glyphosate+dichlormid; fluthiacet-methyl+metolachlor+glyphosate+dichlormid; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; fluthiacet-methyl+acetochlor+glyphosate+dichlormid; fluthiacet-methyl+alachlor+glyphosate+dichlormid; oxadiargyl+(S)-metolachlor+glyphosate+dichlormid; oxadiargyl+metolachlor+glyphosate+dichlormid; oxadiargyl+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; oxadiargyl+acetochlor+glyphosate+dichlormid; oxadiargyl+alachlor+glyphosate+dichlormid; oxadiazon+(S)-metolachlor+glyphosate +dichlormid; oxadiazon+metolachlor+glyphosate+dichlormid; oxadiazon+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; oxadiazon+acetochlor+glyphosate+dichlormid; oxadiazon+alachlor+glyphosate+dichlormid; pentoxazone+(S)-metolachlor+glyphosate+dichlormid; pentoxazone+metolachlor+glyphosate+dichlormid; pentoxazone+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; pentoxazone+acetochlor+glyphosate+dichlormid; pentoxazone+alachlor+glyphosate +dichlormid; sulfentrazone+(S)-metolachlor+glyphosate+dichlormid; sulfentrazone+metolachlor+glyphosate+dichlormid; sulfentrazone+dimethenamid or (S)-dimethenamid +glyphosate+dichlormid; sulfentrazone+acetochlor+glyphosate+dichlormid; sulfentrazone+alachlor+glyphosate+dichlormid; fluazolate+(S)-metolachlor+glyphosate+dichlormid; fluazolate+metolachlor+glyphosate+dichlormid; fluazolate+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; fluazolate+acetochlor+glyphosate+dichlormid; fluazolate+alachlor+glyphosate+dichlormid; pyraflufen-ethyl+(S)-metolachlor+glyphosate+dichlormid; pyraflufen-ethyl+metolachlor+glyphosate+dichlormid; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; pyraflufen-ethyl+acetochlor+glyphosate+dichlormid; pyraflufen-ethyl+alachlor+glyphosate+dichlormid; flumipropyn+(S)-metolachlor+glyphosate+dichlormid; flumipropyn+metolachlor+glyphosate+dichlormid; flumipropyn+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; flumipropyn+acetochlor+glyphosate+dichlormid; flumipropyn+alachlor+glyphosate+dichlormid; flupropacil+(S)-metolachlor+glyphosate+dichlormid; flupropacil+metolachlor+glyphosate+dichlormid; flupropacil+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; flupropacil+acetochlor+glyphosate+dichlormid; flupropacil+alachlor+glyphosate+dichlormid; nipyraclofen+(S)-metolachlor+glyphosate+dichlormid; nipyraclofen+metolachlor+glyphosate+dichlormid; nipyraclofen+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; nipyraclofen+acetochlor+glyphosate+dichlormid; nipyraclofen+alachlor+glyphosate+dichlormid; benzfendizone+(S)-metolachlor+glyphosate+dichlormid; benzfendizone+metolachlor+glyphosate+dichlormid; benzfendizone+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; benzfendizone+acetochlor+glyphosate+dichlormid; benzfendizone+alachlor+glyphosate+dichlormid; thidiazimin+(S)-metolachlor+glyphosate+dichlormid; thidiazimin+metolachlor+glyphosate+dichlormid; thidiazimin+dimethenamid or (S)-dimethenamid+glyphosate+dichlormid; thidiazimin+acetochlor+glyphosate+dichlormid; and thidiazimin+alachlor+glyphosate+dichlormid.

[**0129**] Acifluorfen+(S)-metolachlor+glyphosate+furilazole; acifluorfen+metolachlor+glyphosate+furilazole; acifluorfen+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; acifluorfen+acetochlor+glyphosate+furilazole; acifluorfen+alachlor+glyphosate+furilazole; aclonifen+(S)-metolachlor+glyphosate+furilazole; aclonifen+metolachlor+glyphosate+furilazole; aclonifen+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; aclonifen+acetochlor+glyphosate+furilazole; aclonifen+alachlor +glyphosate+furilazole; bifenox+(S)-metolachlor+glyphosate+furilazole; bifenox+metolachlor+glyphosate+furilazole; bifenox+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; bifenox+acetochlor+glyphosate+furilazole; bifenox+alachlor+glyphosate+furilazole; chlomitrofen+(S)-metolachlor+glyphosate+furilazole; chlomitrofen+metolachlor+glyphosate+furilazole; chlomitrofen+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; chlomitrofen+acetochlor+glyphosate+furilazole; chlomitrofen+alachlor+glyphosate+furilazole; ethoxyfen+(S)-metolachlor+glyphosate +furilazole; ethoxyfen+metolachlor+glyphosate+furilazole; ethoxyfen+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; ethoxyfen+acetochlor+glyphosate+furilazole; ethoxyfen+alachlor+glyphosate+furilazole; fluoroglycofen+(S)-metolachlor+glyphosate+furilazole; fluoroglycofen+metolachlor+glyphosate+furilazole; fluoroglycofen+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; fluoroglycofen+acetochlor+glyphosate+furilazole; fluoroglycofen+alachlor+glyphosate +furilazole; fomesafen+(S)-metolachlor+glyphosate+furilazole; fomesafen+metolachlor+glyphosate+furilazole; fomesafen+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; fomesafen+acetochlor+glyphosate+furilazole; fomesafen+alachlor+glyphosate+furilazole; lactofen+(S)-metolachlor+glyphosate+furilazole; lactofen+metolachlor+glyphosate+furilazole; lactofen+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; lactofen+acetochlor+glyphosate+furilazole; lactofen+alachlor+glyphosate+furilazole; oxyfluorfen+(S)-metolachlor+glyphosate+furilazole; oxyfluorfen+metolachlor+glyphosate+furilazole; oxyfluorfen+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; oxyfluorfen+acetochlor+glyphosate+furilazole; oxyfluorfen+alachlor+glyphosate+furilazole; azafenidin+(S)-metolachlor+glyphosate+furilazole; azafenidin+metolachlor+glyphosate+furilazole; azafenidin+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; azafenidin+acetochlor+glyphosate+furilazole; azafenidin+alachlor+glyphosate+furilazole; carfentrazone-ethyl +(S)-metolachlor+glyphosate+furilazole; carfentrazone-ethyl+metolachlor+glyphosate +furilazole; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; carfentrazone-ethyl+acetochlor+glyphosate+furilazole; carfentrazone-ethyl+alachlor+glyphosate+furilazole; compound of the formula A+(S)-metolachlor+glyphosate+furila-

zole; compound of the formula A+metolachlor+glyphosate+furilazole; compound of the formula A+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; compound of the formula A+acetochlor+glyphosate+furilazole; compound of the formula A+alachlor+glyphosate+furilazole; cinidon-ethyl+(S)-metolachlor+glyphosate+furilazole; cinidon-ethyl+metolachlor+glyphosate+furilazole; cinidon-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; cinidon-ethyl+acetochlor+glyphosate+furilazole; cinidon-ethyl+alachlor+glyphosate+furilazole; flumiclorac-pentyl+(S)-metolachlor+glyphosate+furilazole; flumiclorac-pentyl+metolachlor+glyphosate+furilazole; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; flumiclorac-pentyl+acetochlor+glyphosate+furilazole; flumiclorac-pentyl+alachlor+glyphosate+furilazole; flumioxazin+(S)-metolachlor+glyphosate+furilazole; flumioxazin +metolachlor+glyphosate+furilazole; flumioxazin+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; flumioxazin+acetochlor+glyphosate+furilazole; flumioxazin+alachlor+glyphosate+furilazole; fluthiacet-methyl+(S)-metolachlor+glyphosate+furilazole; fluthiacet-methyl+metolachlor+glyphosate+furilazole; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; fluthiacet-methyl+acetochlor +glyphosate+furilazole; fluthiacet-methyl+alachlor+glyphosate+furilazole; oxadiargyl+(S)-metolachlor+glyphosate+furilazole; oxadiargyl+metolachlor+glyphosate+furilazole; oxadiargyl+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; oxadiargyl+acetochlor+glyphosate+furilazole; oxadiargyl+alachlor+glyphosate+furilazole; oxadiazon+(S)-metolachlor+glyphosate+furilazole; oxadiazon+metolachlor+glyphosate+furilazole; oxadiazon+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; oxadiazon+acetochlor+glyphosate+furilazole; oxadiazon+alachlor+glyphosate+furilazole; pentoxazone+(S)-metolachlor+glyphosate+furilazole; pentoxazone+metolachlor+glyphosate+furilazole; pentoxazone+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; pentoxazone+acetochlor+glyphosate+furilazole; pentoxazone+alachlor+glyphosate+furilazole; sulfentrazone+(S)-metolachlor+glyphosate+furilazole; sulfentrazone+metolachlor+glyphosate+furilazole; sulfentrazone+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; sulfentrazone +acetochlor+glyphosate+furilazole; sulfentrazone+alachlor+glyphosate+furilazole; fluazolate+(S)-metolachlor+glyphosate+furilazole; fluazolate+metolachlor+glyphosate+furilazole; fluazolate+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; fluazolate+acetochlor+glyphosate+furilazole; fluazolate+alachlor+glyphosate+furilazole; pyraflufen-ethyl+(S)-metolachlor+glyphosate+furilazole; pyraflufen-ethyl+metolachlor+glyphosate+furilazole; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; pyraflufen-ethyl+acetochlor+glyphosate+furilazole; pyraflufen-ethyl+alachlor+glyphosate+furilazole; flumipropyn+(S)-metolachlor+glyphosate+furilazole; flumipropyn+metolachlor+glyphosate+furilazole; flumipropyn+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; flumipropyn+acetochlor+glyphosate+furilazole; flumipropyn+alachlor+glyphosate+furilazole; flupropacil+(S)-metolachlor+glyphosate+furilazole; flupropacil+metolachlor+glyphosate+furilazole; flupropacil+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; flupropacil+acetochlor+glyphosate+furilazole; flupropacil+alachlor+glyphosate+furilazole; nipyraclofen+(S)-metolachlor+glyphosate+furilazole; nipyraclofen+metolachlor+glyphosate+furilazole; nipyraclofen+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; nipyraclofen+acetochlor+glyphosate+furilazole; nipyraclofen+alachlor+glyphosate+furilazole; benzfendizone+(S)-metolachlor+glyphosate+furilazole; benzfendizone+metolachlor+glyphosate+furilazole; benzfendizone+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; benzfendizone+acetochlor+glyphosate+furilazole; benzfendizone+alachlor+glyphosate+furilazole; thidiazimin+(S)-metolachlor+glyphosate+furilazole; thidiazimin+metolachlor+glyphosate+furilazole; thidiazimin+dimethenamid or (S)-dimethenamid+glyphosate+furilazole; thidiazimin+acetochlor+glyphosate+furilazole; and thidiazimin+alachlor+glyphosate+furilazole.

[**0130**] Acifluorfen+(S)-metolachlor+glufosinate+benoxacor; acifluorfen+metolachlor+glufosinate+benoxacor; acifluorfen+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; acifluorfen+acetochlor+glufosinate+benoxacor; acifluorfen+alachlor+glufosinate+benoxacor; aclonifen+(S)-metolachlor+glufosinate+benoxacor; aclonifen+metolachlor+glufosinate+benoxacor; aclonifen+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; aclonifen+acetochlor+glufosinate+benoxacor; aclonifen+alachlor+glufosinate+benoxacor; bifenox+(S)-metolachlor+glufosinate+benoxacor; bifenox+metolachlor+glufosinate+benoxacor; bifenox+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; bifenox+acetochlor+glufosinate+benoxacor; bifenox+alachlor+glufosinate+benoxacor; chlomitrofen+(S)-metolachlor+glufosinate+benoxacor; chlomitrofen+metolachlor+glufosinate+benoxacor; chlomitrofen+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; chlomitrofen+acetochlor+glufosinate+benoxacor; chlomitrofen+alachlor+glufosinate+benoxacor; ethoxyfen+(S)-metolachlor+glufosinate+benoxacor; ethoxyfen+metolachlor+glufosinate+benoxacor; ethoxyfen+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; ethoxyfen+acetochlor+glufosinate+benoxacor; ethoxyfen+alachlor+glufosinate+benoxacor; fluoroglycofen+(S)-metolachlor+glufosinate+benoxacor; fluoroglycofen+metolachlor+glufosinate+benoxacor; fluoroglycofen+dimethenamid or (S)-dimethenamid +glufosinate+benoxacor; fluoroglycofen+acetochlor+glufosinate+benoxacor; fluoroglycofen+alachlor+glufosinate+benoxacor; fomesafen+(S)-metolachlor+glufosinate+benoxacor; fomesafen+metolachlor+glufosinate+benoxacor; fomesafen+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; fomesafen+acetochlor+glufosinate+benoxacor; fomesafen+alachlor+glufosinate+benoxacor; lactofen+(S)-metolachlor+glufosinate+benoxacor; lactofen+metolachlor+glufosinate+benoxacor; lactofen+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; lactofen+acetochlor+glufosinate+benoxacor; lactofen+alachlor+glufosinate+benoxacor; oxyfluorfen+(S)-metolachlor+glufosinate+benoxacor; oxyfluorfen+metolachlor+glufosinate+benoxacor; oxyfluorfen+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; oxyfluorfen+acetochlor+glufosinate+benoxacor; oxyfluorfen+alachlor+glufosinate+benoxacor; azafenidin+(S)-metolachlor+glufosinate+benoxacor; azafenidin+metolachlor+glufosinate+benoxacor; azafenidin+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; azafenidin+acetochlor+glufosinate+benoxacor; azafenidin+alachlor+glufosinate+benoxacor; carfentrazone-ethyl+(S)-metolachlor+glufosinate+benoxacor; carfentrazone-ethyl+

metolachlor+glufosinate+benoxacor; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; carfentrazone-ethyl+acetochlor+glufosinate+benoxacor; carfentrazone-ethyl +alachlor+glufosinate+benoxacor; compound of the formula A+(S)-metolachlor+glufosinate+benoxacor; compound of the formula A+metolachlor+glufosinate+benoxacor; compound of the formula A+dimethenamid or (S)-dimethenamid+glufosinate +benoxacor; compound of the formula A+acetochlor+glufosinate+benoxacor; compound of the formula A+alachlor+glufosinate+benoxacor; cinidon-ethyl+(S)-metolachlor+glufosinate+benoxacor; cinidon-ethyl+metolachlor+glufosinate+benoxacor; cinidon-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; cinidon-ethyl+acetochlor+glufosinate+benoxacor; cinidon-ethyl+alachlor+glufosinate +benoxacor; flumiclorac-pentyl+(S)-metolachlor+glufosinate+benoxacor; flumiclorac-pentyl+metolachlor+glufosinate+benoxacor; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; flumiclorac-pentyl+acetochlor+glufosinate+benoxacor; flumiclorac-pentyl+alachlor+glufosinate+benoxacor; flumioxazin+(S)-metolachlor+glufosinate+benoxacor; flumioxazin+metolachlor+glufosinate+benoxacor; flumioxazin+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; flumioxazin+acetochlor+glufosinate+benoxacor; flumioxazin+alachlor+glufosinate+benoxacor; fluthiacet-methyl+(S)-metolachlor+glufosinate+benoxacor; fluthiacet-methyl +metolachlor+glufosinate+benoxacor; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; fluthiacet-methyl+acetochlor+glufosinate+benoxacor; fluthiacet-methyl+alachlor+glufosinate+benoxacor; oxadiargyl+(S)-metolachlor+glufosinate+benoxacor; oxadiargyl+metolachlor+glufosinate+benoxacor; oxadiargyl+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; oxadiargyl+acetochlor+glufosinate+benoxacor; oxadiargyl+alachlor+glufosinate+benoxacor; oxadiazon+(S)-metolachlor+glufosinate+benoxacor; oxadiazon+metolachlor+glufosinate+benoxacor; oxadiazon+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor, oxadiazon+acetochlor+glufosinate+benoxacor; oxadiazon+alachlor+glufosinate+benoxacor; pentoxazone+(S)-metolachlor+glufosinate+benoxacor; pentoxazone+metolachlor+glufosinate+benoxacor; pentoxazone+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; pentoxazone+acetochlor+glufosinate+benoxacor; pentoxazone+alachlor+glufosinate+benoxacor; sulfentrazone+(S)-metolachlor+glufosinate+benoxacor; sulfentrazone+metolachlor+glufosinate+benoxacor; sulfentrazone+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; sulfentrazone+acetochlor+glufosinate+benoxacor; sulfentrazone+alachlor+glufosinate+benoxacor; fluazolate+(S)-metolachlor+glufosinate+benoxacor; fluazolate +metolachlor+glufosinate+benoxacor; fluazolate+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; fluazolate+acetochlor+glufosinate+benoxacor; fluazolate+alachlor+glufosinate+benoxacor; pyraflufen-ethyl+(S)-metolachlor+glufosinate+benoxacor; pyraflufen-ethyl+metolachlor+glufosinate+benoxacor; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; pyraflufen-ethyl+acetochlor+glufosinate+benoxacor; pyraflufen-ethyl+alachlor+glufosinate+benoxacor; flumipropyn+(S)-metolachlor+glufosinate+benoxacor; flumipropyn+metolachlor+glufosinate+benoxacor; flumipropyn+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; flumipropyn+acetochlor+glufosinate+benoxacor; flumipropyn+alachlor+glufosinate+benoxacor; flupropacil+(S)-metolachlor+glufosinate+benoxacor; flupropacil+metolachlor+glufosinate+benoxacor; flupropacil+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; flupropacil+acetochlor+glufosinate+benoxacor; flupropacil+alachlor+glufosinate+benoxacor; nipyraclofen+(S)-metolachlor +glufosinate+benoxacor; nipyraclofen+metolachlor+glufosinate+benoxacor; nipyraclofen+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; nipyraclofen +acetochlor+glufosinate+benoxacor; nipyraclofen+alachlor+glufosinate+benoxacor; benzfendizone+(S)-metolachlor+glufosinate+benoxacor; benzfendizone+metolachlor+glufosinate+benoxacor; benzfendizone+dimethenamid or (S)-dimethenamid+glufosinate +benoxacor; benzfendizone+acetochlor+glufosinate+benoxacor; benzfendizone+alachlor+glufosinate+benoxacor; thidiazimin+(S)-metolachlor+glufosinate+benoxacor; thidiazimin+metolachlor+glufosinate+benoxacor; thidiazimin+dimethenamid or (S)-dimethenamid+glufosinate+benoxacor; thidiazimin+acetochlor+glufosinate+benoxacor; and thidiazimin+alachlor+glufosinate+benoxacor.

[0131] Acifluorfen+(S)-metolachlor+glufosinate+MON 4660; acifluorfen+metolachlor+glufosinate+MON 4660; acifluorfen+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; acifluorfen+acetochlor+glufosinate+MON 4660; acifluorfen+alachlor+glufosinate+MON 4660; aclonifen+(S)-metolachlor+glufosinate+MON 4660; aclonifen +metolachlor+glufosinate+MON 4660; aclonifen+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; aclonifen+acetochlor+glufosinate+MON 4660; aclonifen+alachlor+glufosinate+MON 4660; bifenox+(S)-metolachlor+glufosinate+MON 4660; bifenox+metolachlor+glufosinate+MON 4660; bifenox+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; bifenox+acetochlor+glufosinate+MON 4660; bifenox+alachlor+glufosinate+MON 4660; chlomitrofen+(S)-metolachlor+glufosinate+MON 4660; chlomitrofen+metolachlor+glufosinate+MON 4660; chlomitrofen+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; chlomitrofen+acetochlor+glufosinate+MON 4660; chlomitrofen+alachlor+glufosinate+MON 4660; ethoxyfen+(S)-metolachlor+glufosinate+MON 4660; ethoxyfen+metolachlor+glufosinate+MON 4660; ethoxyfen+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; ethoxyfen+acetochlor+glufosinate+MON 4660; ethoxyfen+alachlor+glufosinate+MON 4660; fluoroglycofen+(S)-metolachlor+glufosinate+MON 4660; fluoroglycofen+metolachlor+glufosinate+MON 4660; fluoroglycofen+dimethenamid or (S)-dimethenamid +glufosinate+MON 4660; fluoroglycofen+acetochlor+glufosinate+MON 4660; fluoroglycofen+alachlor+glufosinate+MON 4660; fomesafen+(S)-metolachlor+glufosinate+MON 4660; fomesafen+metolachlor+glufosinate+MON 4660; fomesafen+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; fomesafen+acetochlor+glufosinate+MON 4660; fomesafen+alachlor+glufosinate+MON 4660; lactofen+(S)-metolachlor+glufosinate+MON 4660; lactofen+metolachlor+glufosinate+MON 4660; lactofen+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; lactofen+acetochlor+glufosinate+MON 4660; lactofen+alachlor+glufosinate+MON 4660; oxyfluorfen+(S)-metolachlor+glufosinate+MON 4660; oxyfluorfen+metolachlor+

glufosinate+MON 4660; oxyfluorfen+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; oxyfluorfen+acetochlor+glufosinate+MON 4660; oxyfluorfen+alachlor+glufosinate+MON 4660; azafenidin+(S)-metolachlor+glufosinate+MON 4660; azafenidin+metolachlor+glufosinate+MON 4660; azafenidin+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; azafenidin+acetochlor+glufosinate+MON 4660; azafenidin+alachlor+glufosinate+MON 4660; carfentrazone-ethyl+(S)-metolachlor+glufosinate+MON 4660; carfentrazone-ethyl+metolachlor+glufosinate+MON 4660; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; carfentrazone-ethyl+acetochlor+glufosinate+MON 4660; carfentrazone-ethyl+alachlor+glufosinate+MON 4660; compound of the formula A+(S)-metolachlor+glufosinate+MON 4660; compound of the formula A+metolachlor+glufosinate+MON 4660; compound of the formula A+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; compound of the formula A+acetochlor+glufosinate+MON 4660; compound of the formula A+alachlor+glufosinate+MON 4660; cinidon-ethyl+(S)-metolachlor+glufosinate+MON 4660; cinidon-ethyl+metolachlor+glufosinate+MON 4660; cinidon-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; cinidon-ethyl+acetochlor+glufosinate+MON 4660; cinidon-ethyl+alachlor+glufosinate+MON 4660; flumiclorac-pentyl+(S)-metolachlor+glufosinate+MON 4660; flumiclorac-pentyl+metolachlor+glufosinate+MON 4660; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; flumiclorac-pentyl+acetochlor+glufosinate+MON 4660; flumiclorac-pentyl+alachlor+glufosinate+MON 4660; flumioxazin+(S)-metolachlor+glufosinate+MON 4660; flumioxazin+metolachlor+glufosinate+MON 4660; flumioxazin+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; flumioxazin+acetochlor+glufosinate+MON 4660; flumioxazin+alachlor+glufosinate+MON 4660; fluthiacet-methyl+(S)-metolachlor+glufosinate+MON 4660; fluthiacet-methyl +metolachlor+glufosinate+MON 4660; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; fluthiacet-methyl+acetochlor+glufosinate+MON 4660; fluthiacet-methyl+alachlor+glufosinate+MON 4660; oxadiargyl+(S)-metolachlor+glufosinate+MON 4660; oxadiargyl+metolachlor+glufosinate+MON 4660; oxadiargyl+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; oxadiargyl+acetochlor+glufosinate+MON 4660; oxadiargyl+alachlor+glufosinate+MON 4660; oxadiazon+(S)-metolachlor+glufosinate+MON 4660; oxadiazon+metolachlor+glufosinate+MON 4660; oxadiazon+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; oxadiazon+acetochlor+glufosinate+MON 4660; oxadiazon+alachlor+glufosinate+MON 4660; pentoxazone+(S)-metolachlor+glufosinate+MON 4660; pentoxazone+metolachlor+glufosinate+MON 4660; pentoxazone+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; pentoxazone+acetochlor +glufosinate+MON 4660; pentoxazone+alachlor+glufosinate+MON 4660; sulfentrazone+(S)-metolachlor+glufosinate+MON 4660; sulfentrazone+metolachlor+glufosinate+MON 4660; sulfentrazone+dimethenamid or (S)-dimethenamid+glufosinate +MON 4660; sulfentrazone+acetochlor+glufosinate+MON 4660; sulfentrazone+alachlor+glufosinate+MON 4660; fluazolate+(S)-metolachlor+glufosinate+MON 4660; fluazolate+metolachlor+glufosinate+MON 4660; fluazolate+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; fluazolate+acetochlor+glufosinate+MON 4660; fluazolate+alachlor+glufosinate+MON 4660; pyraflufen-ethyl+(S)-metolachlor+glufosinate+MON 4660; pyraflufen-ethyl+metolachlor+glufosinate+MON 4660; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; pyraflufen-ethyl+acetochlor+glufosinate+MON 4660; pyraflufen-ethyl+alachlor+glufosinate+MON 4660; flumipropyn+(S)-metolachlor+glufosinate+MON 4660; flumipropyn+metolachlor+glufosinate+MON 4660; flumipropyn+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; flumipropyn+acetochlor+glufosinate+MON 4660; flumipropyn+alachlor+glufosinate+MON 4660; flupropacil+(S)-metolachlor+glufosinate+MON 4660; flupropacil+metolachlor+glufosinate+MON 4660; flupropacil+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; flupropacil+acetochlor+glufosinate+MON 4660; flupropacil+alachlor+glufosinate+MON 4660; nipyraclofen+(S)-metolachlor+glufosinate+MON 4660; nipyraclofen+metolachlor+glufosinate+MON 4660; nipyraclofen+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; nipyraclofen+acetochlor+glufosinate+MON 4660; nipyraclofen+alachlor+glufosinate+MON 4660; benzfendizone+(S)-metolachlor+glufosinate+MON 4660; benzfendizone+metolachlor+glufosinate+MON 4660; benzfendizone+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; benzfendizone+acetochlor+glufosinate+MON 4660; benzfendizone+alachlor+glufosinate+MON 4660; thidiazimin+(S)-metolachlor+glufosinate+MON 4660; thidiazimin+metolachlor+glufosinate+MON 4660; thidiazimin+dimethenamid or (S)-dimethenamid+glufosinate+MON 4660; thidiazimin+acetochlor+glufosinate+MON 4660; and thidiazimin+alachlor+glufosinate+MON 4660.

[0132] Acifluorfen+(S)-metolachlor+glufosinate+flurazole; acifluorfen+metolachlor+glufosinate+flurazole; acifluorfen+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; acifluorfen+acetochlor+glufosinate+flurazole; acifluorfen+alachlor+glufosinate+flurazole; aclonifen+(S)-metolachlor+glufosinate+flurazole; aclonifen+metolachlor+glufosinate+flurazole; aclonifen+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; aclonifen+acetochlor+glufosinate+flurazole; aclonifen+alachlor +glufosinate+flurazole; bifenox+(S)-metolachlor+glufosinate+flurazole; bifenox+metolachlor+glufosinate+flurazole; bifenox+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; bifenox+acetochlor+glufosinate+flurazole; bifenox+alachlor+glufosinate+flurazole; chlomitrofen+(S)-metolachlor+glufosinate+flurazole; chlomitrofen+metolachlor+glufosinate+flurazole; chlomitrofen+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; chlomitrofen+acetochlor+glufosinate+flurazole; chlomitrofen+alachlor+glufosinate+flurazole; ethoxyfen+(S)-metolachlor+glufosinate +flurazole; ethoxyfen+metolachlor+glufosinate+flurazole; ethoxyfen+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; ethoxyfen+acetochlor+glufosinate+flurazole; ethoxyfen+alachlor+glufosinate+flurazole; fluoroglycofen+(S)-metolachlor+glufosinate+flurazole; fluoroglycofen+metolachlor+glufosinate+flurazole; fluoroglycofen +dimethenamid or (S)-dimethenamid+glufosinate+flurazole; fluoroglycofen+acetochlor +glufosinate+flurazole; fluoroglycofen+alachlor+glufosinate+flurazole; fomesafen+(S)-metolachlor+glufosinate+flurazole; fomesafen+metolachlor+glufosinate+flurazole; fomesafen+dimethenamid or (S)-dimethenamid+glufosinate+flurazole;

fomesafen+acetochlor+glufosinate+flurazole; fomesafen+alachlor+glufosinate+flurazole; lactofen +(S)-metolachlor+glufosinate+flurazole; lactofen+metolachlor+glufosinate+flurazole; lactofen+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; lactofen+acetochlor+glufosinate+flurazole; lactofen+alachlor+glufosinate+flurazole; oxyfluorfen +(S)-metolachlor+glufosinate+flurazole; oxyfluorfen+metolachlor+glufosinate+flurazole; oxyfluorfen+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; oxyfluorfen+acetochlor+glufosinate+flurazole; oxyfluorfen+alachlor+glufosinate+flurazole; azafenidin+(S)-metolachlor+glufosinate+flurazole; azafenidin+metolachlor+glufosinate+flurazole; azafenidin+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; azafenidin+acetochlor+glufosinate+flurazole; azafenidin+alachlor+glufosinate+flurazole; carfentrazone-ethyl+(S)-metolachlor+glufosinate+flurazole; carfentrazone-ethyl+metolachlor+glufosinate+flurazole; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; carfentrazone-ethyl+acetochlor+glufosinate+flurazole; carfentrazone-ethyl+alachlor+glufosinate+flurazole; compound of the formula A+(S)-metolachlor+glufosinate+flurazole; compound of the formula A+metolachlor+glufosinate+flurazole; compound of the formula A+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; compound of the formula A+acetochlor+glufosinate+flurazole; compound of the formula A+alachlor+glufosinate+flurazole; cinidon-ethyl+(S)-metolachlor+glufosinate+flurazole; cinidon-ethyl+metolachlor+glufosinate+flurazole; cinidon-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; cinidon-ethyl+acetochlor+glufosinate+flurazole; cinidon-ethyl+alachlor+glufosinate+flurazole; flumiclorac-pentyl+(S)-metolachlor+glufosinate+flurazole; flumiclorac-pentyl+metolachlor+glufosinate+flurazole; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; flumiclorac-pentyl+acetochlor +glufosinate+flurazole; flumiclorac-pentyl+alachlor+glufosinate+flurazole; flumioxazin +(S)-metolachlor+glufosinate+flurazole; flumioxazin+metolachlor+glufosinate+flurazole; flumioxazin+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; flumioxazin+acetochlor+glufosinate+flurazole; flumioxazin+alachlor+glufosinate+flurazole; fluthiacet-methyl+(S)-metolachlor+glufosinate+flurazole; fluthiacet-methyl+metolachlor+glufosinate+flurazole; fluthiacet-methyl+dimethenamid or (S)-dimethenamid +glufosinate+flurazole; fluthiacet-methyl+acetochlor+glufosinate+flurazole; fluthiacet-methyl+alachlor+glufosinate+flurazole; oxadiargyl+(S)-metolachlor+glufosinate+flurazole; oxadiargyl+metolachlor+glufosinate+flurazole; oxadiargyl+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; oxadiargyl+acetochlor+glufosinate+flurazole; oxadiargyl+alachlor+glufosinate+flurazole; oxadiazon+(S)-metolachlor+glufosinate+flurazole; oxadiazon+metolachlor+glufosinate+flurazole; oxadiazon+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; oxadiazon+acetochlor+glufosinate+flurazole; oxadiazon+alachlor+glufosinate+flurazole; pentoxazone+(S)-metolachlor+glufosinate+flurazole; pentoxazone+metolachlor+glufosinate+flurazole; pentoxazone+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; pentoxazone +acetochlor+glufosinate+flurazole; pentoxazone+alachlor+glufosinate+flurazole; sulfentrazone+(S)-metolachlor+glufosinate+flurazole; sulfentrazone+metolachlor+glufosinate+flurazole; sulfentrazone+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; sulfentrazone+acetochlor+glufosinate+flurazole; sulfentrazone+alachlor+glufosinate+flurazole; fluazolate+(S)-metolachlor+glufosinate+flurazole; fluazolate+metolachlor+glufosinate+flurazole; fluazolate+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; fluazolate+acetochlor+glufosinate+flurazole; fluazolate+alachlor+glufosinate+flurazole; pyraflufen-ethyl+(S)-metolachlor+glufosinate+flurazole; pyraflufen-ethyl+metolachlor+glufosinate+flurazole; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; pyraflufen-ethyl+acetochlor +glufosinate+flurazole; pyraflufen-ethyl+alachlor+glufosinate+flurazole; flumipropyn+(S)-metolachlor+glufosinate+flurazole; flumipropyn+metolachlor+glufosinate+flurazole; flumipropyn+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; flumipropyn+acetochlor+glufosinate+flurazole; flumipropyn+alachlor+glufosinate+flurazole; flupropacil+(S)-metolachlor+glufosinate+flurazole; flupropacil+metolachlor+glufosinate+flurazole; flupropacil+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; flupropacil+acetochlor+glufosinate+flurazole; flupropacil+alachlor+glufosinate+flurazole; nipyraclofen+(S)-metolachlor+glufosinate+flurazole; nipyraclofen +metolachlor+glufosinate+flurazole; nipyraclofen+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; nipyraclofen+acetochlor+glufosinate+flurazole; nipyraclofen+alachlor+glufosinate+flurazole; benzfendizone+(S)-metolachlor+glufosinate+flurazole; benzfendizone+metolachlor+glufosinate+flurazole; benzfendizone+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; benzfendizone+acetochlor+glufosinate+flurazole; benzfendizone+alachlor+glufosinate+flurazole; thidiazimin+(S)-metolachlor+glufosinate+flurazole; thidiazimin+metolachlor+glufosinate+flurazole; thidiazimin+dimethenamid or (S)-dimethenamid+glufosinate+flurazole; thidiazimin+acetochlor+glufosinate+flurazole; and thidiazimin+alachlor+glufosinate+flurazole.

[0133] Acifluorfen+(S)-metolachlor+glufosinate+dichlormid; acifluorfen+metolachlor+glufosinate+dichlormid; acifluorfen+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; acifluorfen+acetochlor+glufosinate+dichlormid; acifluorfen+alachlor+glufosinate+dichlormid; aclonifen+(S)-metolachlor+glufosinate+dichlormid; aclonifen+metolachlor+glufosinate+dichlormid; aclonifen+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; aclonifen+acetochlor+glufosinate+dichlormid; aclonifen+alachlor+glufosinate+dichlormid; bifenox+(S)-metolachlor+glufosinate+dichlormid; bifenox+metolachlor+glufosinate+dichlormid; bifenox+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; bifenox+acetochlor+glufosinate+dichlormid; bifenox+alachlor+glufosinate+dichlormid; chlomitrofen+(S)-metolachlor+glufosinate+dichlormid; chlomitrofen+metolachlor+glufosinate+dichlormid; chlomitrofen+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; chlomitrofen+acetochlor+glufosinate+dichlormid; chlomitrofen+alachlor+glufosinate+dichlormid; ethoxyfen+(S)-metolachlor+glufosinate+dichlormid; ethoxyfen+metolachlor+glufosinate+dichlormid; ethoxyfen+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; ethoxyfen+acetochlor+glufosinate+dichlormid; ethoxyfen+alachlor+glufosinate+dichlormid; fluoroglycofen+(S)-metolachlor+glufosinate+dichlormid; fluoroglycofen+metolachlor+glufosinate+dichlormid; fluorogly-

cofen+dimethenamid or (S)-dimethenamid+glufosinate +dichlormid; fluoroglycofen+acetochlor+glufosinate+ dichlormid; fluoroglycofen+alachlor+glufosinate+dichlormid; fomesafen+(S)-metolachlor+glufosinate+dichlormid; fomesafen+metolachlor+glufosinate+dichlormid; fomesafen+dimethenamid or (S)-dimethenamid+glufosinate+ dichlormid; fomesafen+acetochlor+glufosinate+dichlormid; fomesafen+alachlor+glufosinate+dichlormid; lactofen+(S)-metolachlor+glufosinate+dichlormid; lactofen+metolachlor+glufosinate+dichlormid; lactofen+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; lactofen+acetochlor+glufosinate+dichlormid; lactofen+alachlor+glufosinate+dichlormid; oxyfluorfen+(S)-metolachlor+glufosinate+dichlormid; oxyfluorfen+metolachlor+glufosinate+ dichlormid; oxyfluorfen+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; oxyfluorfen+ acetochlor+glufosinate+dichlormid; oxyfluorfen+alachlor+ glufosinate+dichlormid; azafenidin+(S)-metolachlor+ glufosinate+dichlormid; azafenidin+metolachlor+ glufosinate+dichlormid; azafenidin+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; azafenidin+ acetochlor+glufosinate+dichlormid; azafenidin+alachlor+ glufosinate+dichlormid; carfentrazone-ethyl+(S)-metolachlor+glufosinate+dichlormid; carfentrazone-ethyl+ metolachlor+glufosinate+dichlormid; carfentrazone-ethyl+ dimethenamid or (S)-dimethenamid+glufosinate+ dichlormid; carfentrazone-ethyl+acetochlor+glufosinate+ dichlormid; carfentrazone-ethyl+alachlor+glufosinate+ dichlormid; compound of the formula A+(S)-metolachlor+ glufosinate+dichlormid; compound of the formula A+metolachlor+glufosinate+dichlormid; compound of the formula A+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; compound of the formula A+acetochlor+ glufosinate+dichlormid; compound of the formula A+alachlor +glufosinate+dichlormid; cinidon-ethyl+(S)-metolachlor+glufosinate+dichlormid; cinidon-ethyl+metolachlor+glufosinate+dichlormid; cinidon-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; cinidon-ethyl+acetochlor+glufosinate+dichlormid; cinidon-ethyl+ alachlor+glufosinate+dichlormid; flumiclorac-pentyl+(S)-metolachlor+glufosinate+dichlormid; flumiclorac-pentyl+ metolachlor+glufosinate+dichlormid; flumiclorac-pentyl+ dimethenamid or (S)-dimethenamid+glufosinate+ dichlormid; flumiclorac-pentyl+acetochlor+glufosinate+ dichlormid; flumiclorac-pentyl+alachlor+glufosinate+ dichlormid; flumioxazin+(S)-metolachlor+glufosinate+ dichlormid; flumioxazin+metolachlor+glufosinate+ dichlormid; flumioxazin+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; flumioxazin+ acetochlor+glufosinate+dichlormid; flumioxazin+alachlor+ glufosinate+dichlormid; fluthiacet-methyl+(S)-metolachlor+glufosinate+dichlormid; fluthiacet-methyl+ metolachlor+glufosinate+dichlormid; fluthiacet-methyl+ dimethenamid or (S)-dimethenamid+glufosinate+ dichlormid; fluthiacet-methyl+acetochlor+glufosinate+ dichlormid; fluthiacet-methyl+alachlor+glufosinate+ dichlormid; oxadiargyl+(S)-metolachlor+glufosinate+ dichlormid; oxadiargyl+metolachlor+glufosinate+ dichlormid; oxadiargyl+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; oxadiargyl+ acetochlor+glufosinate+dichlormid; oxadiargyl+alachlor+ glufosinate+dichlormid; oxadiazon+(S)-metolachlor+ glufosinate+dichlormid; oxadiazon+metolachlor+ glufosinate+dichlormid; oxadiazon+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; oxadiazon+ acetochlor+glufosinate+dichlormid; oxadiazon+alachlor+ glufosinate+dichlormid; pentoxazone+(S)-metolachlor+ glufosinate+dichlormid; pentoxazone+metolachlor+ glufosinate+dichlormid; pentoxazone+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; pentoxazone+ acetochlor+glufosinate+dichlormid; pentoxazone+alachlor+ glufosinate +dichlormid; sulfentrazone+(S)-metolachlor+ glufosinate+dichlormid; sulfentrazone+metolachlor+ glufosinate+dichlormid; sulfentrazone+dimethenamid or (S)-dimethenamid +glufosinate+dichlormid; sulfentrazone+ acetochlor+glufosinate+dichlormid; sulfentrazone+ alachlor+glufosinate+dichlormid; fluazolate+(S)-metolachlor+glufosinate+dichlormid; fluazolate+metolachlor+ glufosinate+dichlormid; fluazolate+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; fluazolate+ acetochlor+glufosinate+dichlormid; fluazolate+alachlor+ glufosinate+dichlormid; pyraflufen-ethyl+(S)-metolachlor+ glufosinate+dichlormid; pyraflufen-ethyl+metolachlor+ glufosinate+dichlormid; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; pyraflufen-ethyl+acetochlor+glufosinate+dichlormid; pyraflufen-ethyl+alachlor+glufosinate+dichlormid; flumipropyn+(S)-metolachlor+glufosinate+dichlormid; flumipropyn+ metolachlor+glufosinate+dichlormid; flumipropyn+ dimethenamid or (S)-dimethenamid+glufosinate+ dichlormid; flumipropyn+acetochlor+glufosinate+ dichlormid; flumipropyn+alachlor+glufosinate+dichlormid; flupropacil+(S)-metolachlor+glufosinate+dichlormid; flupropacil+metolachlor+glufosinate+dichlormid; flupropacil+ dimethenamid or (S)-dimethenamid+glufosinate+dichlorrmid; flupropacil+acetochlor+glufosinate+dichlormid; flupropacil+alachlor+glufosinate+dichlormid; nipyraclofen+(S)-metolachlor+glufosinate+dichlormid; nipyraclofen+metolachlor+glufosinate+dichlormid; nipyraclofen+ dimethenamid or (S)-dimethenamid+glufosinate+ dichlormid; nipyraclofen+acetochlor+glufosinate+ dichlormid; nipyraclofen+alachlor+glufosinate+dichlormid; benzfendizone+(S)-metolachlor+glufosinate+dichlormid; benzfendizone+metolachlor+glufosinate+dichlormid; benzfendizone+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; benzfendizone+acetochlor+glufosinate+ dichlormid; benzfendizone+alachlor+glufosinate+ dichlormid; thidiazimin+(S)-metolachlor+glufosinate+ dichlormid; thidiazimin+metolachlor+glufosinate+ dichlormid; thidiazimin+dimethenamid or (S)-dimethenamid+glufosinate+dichlormid; thidiazimin+ acetochlor+glufosinate+dichlormid; and thidiazimin+ alachlor+glufosinate+dichlormid.

[0134] Acifluorfen+(S)-metolachlor+glufosinate+furilazole; acifluorfen+metolachlor+glufosinate+furilazole; acifluorfen+dimethenamid or (S)-dimethenamid+glufosinate+ furilazole; acifluorfen+acetochlor+glufosinate+furilazole; acifluorfen+alachlor+glufosinate+furilazole; aclonifen+(S)-metolachlor+glufosinate+furilazole; aclonifen+metolachlor+glufosinate+furilazole; aclonifen+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; aclonifen+acetochlor+glufosinate+furilazole; aclonifen+alachlor+glufosinate+furilazole; bifenox+(S)-metolachlor+glufosinate+furilazole; bifenox+metolachlor+glufosinate+furilazole; bifenox+dimethenamid or (S)-dimethenamid+glufosinate+ furilazole; bifenox+acetochlor+glufosinate+furilazole; bifenox+alachlor+glufosinate+furilazole; chlomitrofen+(S)-metolachlor+glufosinate+furilazole; chlomitrofen+meto-

lachlor+glufosinate+furilazole; chlomitrofen+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; chlomitrofen+acetochlor+glufosinate+furilazole; chlomitrofen+alachlor+glufosinate+furilazole; ethoxyfen+(S)-metolachlor+glufosinate+furilazole; ethoxyfen+metolachlor+glufosinate+furilazole; ethoxyfen+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; ethoxyfen+acetochlor+glufosinate+furilazole; ethoxyfen+alachlor+glufosinate+furilazole; fluoroglycofen+(S)-metolachlor+glufosinate+furilazole; fluoroglycofen+metolachlor+glufosinate+furilazole; fluoroglycofen+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; fluoroglycofen+acetochlor+glufosinate+furilazole; fluoroglycofen+alachlor+glufosinate+furilazole; fomesafen+(S)-metolachlor+glufosinate+furilazole; fomesafen+metolachlor+glufosinate+furilazole; fomesafen+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; fomesafen+acetochlor+glufosinate+furilazole; fomesafen+alachlor+glufosinate+furilazole; lactofen+(S)-metolachlor+glufosinate+furilazole; lactofen+metolachlor+glufosinate+furilazole; lactofen+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; lactofen+acetochlor+glufosinate+furilazole; lactofen+alachlor+glufosinate+furilazole; oxyfluorfen+(S)-metolachlor+glufosinate+furilazole; oxyfluorfen+metolachlor+glufosinate+furilazole; oxyfluorfen+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; oxyfluorfen+acetochlor+glufosinate+furilazole; oxyfluorfen+alachlor+glufosinate+furilazole; azafenidin+(S)-metolachlor+glufosinate+furilazole; azafenidin+metolachlor+glufosinate+furilazole; azafenidin+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; azafenidin+acetochlor+glufosinate+furilazole; azafenidin+alachlor+glufosinate+furilazole; carfentrazone-ethyl +(S)-metolachlor+glufosinate+furilazole; carfentrazone-ethyl+metolachlor+glufosinate +furilazole; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; carfentrazone-ethyl+acetochlor+glufosinate+furilazole; carfentrazone-ethyl+alachlor+glufosinate+furilazole; compound of the formula A+(S)-metolachlor+glufosinate+furilazole; compound of the formula A+metolachlor+glufosinate+furilazole; compound of the formula A+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; compound of the formula A+acetochlor+glufosinate+furilazole; compound of the formula A+alachlor+glufosinate+furilazole; cinidon-ethyl+(S)-metolachlor+glufosinate+furilazole; cinidon-ethyl+metolachlor+glufosinate+furilazole; cinidon-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; cinidon-ethyl+acetochlor+glufosinate+furilazole; cinidon-ethyl+alachlor+glufosinate+furilazole; flumiclorac-pentyl +(S)-metolachlor+glufosinate+furilazole; flumiclorac-pentyl+metolachlor+glufosinate+furilazole; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; flumiclorac-pentyl+acetochlor+glufosinate+furilazole; flumiclorac-pentyl+alachlor+glufosinate+furilazole; flumioxazin+(S)-metolachlor+glufosinate+furilazole; flumioxazin +metolachlor+glufosinate+furilazole; flumioxazin+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; flumioxazin+acetochlor+glufosinate+furilazole; flumioxazin+alachlor+glufosinate+furilazole; fluthiacet-methyl+(S)-metolachlor+glufosinate+furilazole; fluthiacet-methyl+metolachlor+glufosinate+furilazole; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; fluthiacet-methyl+acetochlor +glufosinate+furilazole; fluthiacet-methyl+alachlor+glufosinate+furilazole; oxadiargyl+(S)-metolachlor+glufosinate+furilazole; oxadiargyl+metolachlor+glufosinate+furilazole; oxadiargyl+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; oxadiargyl+acetochlor+glufosinate+furilazole; oxadiargyl+alachlor+glufosinate+furilazole; oxadiazon+(S)-metolachlor+glufosinate+furilazole; oxadiazon+metolachlor+glufosinate+furilazole; oxadiazon+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; oxadiazon+acetochlor+glufosinate+furilazole; oxadiazon+alachlor+glufosinate+furilazole; pentoxazone+(S)-metolachlor+glufosinate+furilazole; pentoxazone+metolachlor+glufosinate+furilazole; pentoxazone+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; pentoxazone+acetochlor+glufosinate+furilazole; pentoxazone+alachlor+glufosinate+furilazole; sulfentrazone+(S)-metolachlor+glufosinate+furilazole; sulfentrazone+metolachlor+glufosinate+furilazole; sulfentrazone+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; sulfentrazone +acetochlor+glufosinate+furilazole; sulfentrazone+alachlor+glufosinate+furilazole; fluazolate+(S)-metolachlor+glufosinate+furilazole; fluazolate+metolachlor+glufosinate+furilazole; fluazolate+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; fluazolate+acetochlor+glufosinate+furilazole; fluazolate+alachlor+glufosinate+furilazole; pyraflufen-ethyl+(S)-metolachlor+glufosinate+furilazole; pyraflufen-ethyl+metolachlor+glufosinate+furilazole; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; pyraflufen-ethyl+acetochlor+glufosinate+furilazole; pyraflufen-ethyl+alachlor+glufosinate+furilazole; flumipropyn+(S)-metolachlor+glufosinate+furilazole; flumipropyn+metolachlor+glufosinate+furilazole; flumipropyn+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; flumipropyn+acetochlor+glufosinate+furilazole; flumipropyn+alachlor+glufosinate+furilazole; flupropacil+(S)-metolachlor+glufosinate+furilazole; flupropacil+metolachlor+glufosinate+furilazole; flupropacil+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; flupropacil+acetochlor+glufosinate+furilazole; flupropacil+alachlor+glufosinate+furilazole; nipyraclofen+(S)-metolachlor+glufosinate+furilazole; nipyraclofen+metolachlor+glufosinate+furilazole; nipyraclofen+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; nipyracloten+acetochlor+glufosinate+furilazole; nipyraclofen+alachlor+glufosinate+furilazole; benzfendizone+(S)-metolachlor+glufosinate+furilazole; benzfendizone+metolachlor+glufosinate+furilazole; benzfendizone+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; benzfendizone+acetochlor+glufosinate+furilazole; benzfendizone+alachlor+glufosinate+furilazole; thidiazimin+(S)-metolachlor+glufosinate+furilazole; thidiazimin+metolachlor+glufosinate+furilazole; thidiazimin+dimethenamid or (S)-dimethenamid+glufosinate+furilazole; thidiazimin+acetochlor+glufosinate+furilazole; and thidiazimin+alachlor+glufosinate+furilazole.

[0135] Acifluorfen+(S)-metolachlor+sulfosate+benoxacor; acifluorfen+metolachlor+sulfosate +benoxacor; acifluorfen+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; acifluorfen+acetochlor+sulfosate+benoxacor; acifluorfen+alachlor+sulfosate+benoxacor; aclonifen+(S)-metolachlor+sulfosate+benoxacor; aclonifen+metolachlor+sulfosate+benoxacor; aclonifen+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor, aclonifen+acetochlor+

sulfosate+benoxacor; aclonifen+alachlor+sulfosate +benoxacor; bifenox+(S)-metolachlor+sulfosate+benoxacor; bifenox+metolachlor+sulfosate+benoxacor; bifenox+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; bifenox+acetochlor+sulfosate+benoxacor; bifenox+alachlor+sulfosate+benoxacor; chlomitrofen+(S)-metolachlor+sulfosate+benoxacor; chlomitrofen+metolachlor+sulfosate+benoxacor; chlomitrofen+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; chlomitrofen+acetochlor+sulfosate+benoxacor; chlomitrofen+alachlor+sulfosate+benoxacor; ethoxyfen+(S)-metolachlor+sulfosate+benoxacor; ethoxyfen+metolachlor+sulfosate+benoxacor; ethoxyfen+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; ethoxyfen+acetochlor+sulfosate+benoxacor; ethoxyfen+alachlor+sulfosate+benoxacor; fluoroglycofen+(S)-metolachlor+sulfosate +benoxacor; fluoroglycofen+metolachlor+sulfosate+benoxacor; fluoroglycofen+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; fluoroglycofen+acetochlor+sulfosate+benoxacor; fluoroglycofen+alachlor+sulfosate+benoxacor; fomesafen+(S)-metolachlor+sulfosate+benoxacor; fomesafen+metolachlor+sulfosate+benoxacor; fomesafen+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; fomesafen+acetochlor+sulfosate+benoxacor; fomesafen+alachlor+sulfosate+benoxacor; lactofen +(S)-metolachlor+sulfosate+benoxacor; lactofen+metolachlor+sulfosate+benoxacor; lactofen+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; lactofen+acetochlor+sulfosate+benoxacor; lactofen+alachlor+sulfosate+benoxacor; oxyfluorfen+(S)-metolachlor+sulfosate+benoxacor; oxyfluorfen+metolachlor+sulfosate+benoxacor; oxyfluorfen+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; oxyfluorfen+acetochlor+sulfosate+benoxacor; oxyfluorfen+alachlor+sulfosate+benoxacor; azafenidin+(S)-metolachlor+sulfosate+benoxacor; azafenidin+metolachlor+sulfosate+benoxacor; azafenidin+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; azafenidin+acetochlor+sulfosate+benoxacor; azafenidin+alachlor+sulfosate+benoxacor; carfentrazone-ethyl+(S)-metolachlor+sulfosate+benoxacor; carfentrazone-ethyl+metolachlor+sulfosate+benoxacor; carfentrazone-ethyl +dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; carfentrazone-ethyl+acetochlor+sulfosate+benoxacor; carfentrazone-ethyl+alachlor+sulfosate+benoxacor; compound of the formula A+(S)-metolachlor+sulfosate+benoxacor; compound of the formula A+metolachlor+sulfosate+benoxacor; compound of the formula A+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; compound of the formula A+acetochlor+sulfosate+benoxacor; compound of the formula A+alachlor+sulfosate+benoxacor; cinidon-ethyl+(S)-metolachlor+sulfosate+benoxacor; cinidon-ethyl+metolachlor+sulfosate+benoxacor; cinidon-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; cinidon-ethyl+acetochlor+sulfosate+benoxacor; cinidon-ethyl+alachlor+sulfosate+benoxacor; flumiclorac-pentyl+(S)-metolachlor+sulfosate+benoxacor; flumiclorac-pentyl+metolachlor+sulfosate+benoxacor; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; flumiclorac-pentyl+acetochlor +sulfosate+benoxacor; flumiclorac-pentyl+alachlor+sulfosate+benoxacor; flumioxazin +(S)-metolachlor+sulfosate+benoxacor; flumioxazin+metolachlor+sulfosate+benoxacor; flumioxazin+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; flumioxazin+acetochlor+sulfosate+benoxacor; flumioxazin+alachlor+sulfosate+benoxacor; fluthiacet-methyl+(S)-metolachlor+sulfosate+benoxacor; fluthiacet-methyl+metolachlor+sulfosate+benoxacor; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; fluthiacet-methyl+acetochlor+sulfosate+benoxacor; fluthiacet-methyl+alachlor+sulfosate+benoxacor; oxadiargyl+(S)-metolachlor+sulfosate+benoxacor; oxadiargyl+metolachlor+sulfosate+benoxacor; oxadiargyl+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; oxadiargyl+acetochlor+sulfosate+benoxacor; oxadiargyl+alachlor+sulfosate+benoxacor; oxadiazon+(S)-metolachlor+sulfosate+benoxacor; oxadiazon+metolachlor+sulfosate +benoxacor; oxadiazon+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; oxadiazon+acetochlor+sulfosate+benoxacor; oxadiazon+alachlor+sulfosate+benoxacor; pentoxazone+(S)-metolachlor+sulfosate+benoxacor; pentoxazone+metolachlor+sulfosate+benoxacor; pentoxazone+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; pentoxazone+acetochlor+sulfosate+benoxacor; pentoxazone+alachlor+sulfosate+benoxacor; sulfentrazone+(S)-metolachlor+sulfosate+benoxacor; sulfentrazone+metolachlor+sulfosate+benoxacor; sulfentrazone+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; sulfentrazone+acetochlor+sulfosate+benoxacor; sulfentrazone+alachlor+sulfosate+benoxacor; fluazolate+(S)-metolachlor +sulfosate+benoxacor; fluazolate+metolachlor+sulfosate+benoxacor; fluazolate+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; fluazolate+acetochlor+sulfosate+benoxacor; fluazolate+alachlor+sulfosate+benoxacor; pyraflufen-ethyl+(S)-metolachlor+sulfosate+benoxacor; pyraflufen-ethyl+metolachlor+sulfosate+benoxacor; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; pyraflufen-ethyl+acetochlor+sulfosate+benoxacor; pyraflufen-ethyl+alachlor+sulfosate+benoxacor; flumipropyn+(S)-metolachlor+sulfosate+benoxacor; flumipropyn +metolachlor+sulfosate+benoxacor; flumipropyn+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; flumipropyn+acetochlor+sulfosate+benoxacor; flumipropyn+alachlor+sulfosate+benoxacor; flupropacil+(S)-metolachlor+sulfosate+benoxacor; flupropacil+metolachlor+sulfosate+benoxacor; flupropacil+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; flupropacil+acetochlor+sulfosate+benoxacor; flupropacil+alachlor+sulfosate+benoxacor; nipyraclofen+(S)-metolachlor+sulfosate+benoxacor; nipyraclofen+metolachlor+sulfosate+benoxacor; nipyraclofen+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; nipyraclofen+acetochlor+sulfosate+benoxacor; nipyraclofen+alachlor+sulfosate+benoxacor; benzfendizone+(S)-metolachlor+sulfosate+benoxacor; benzfendizone+metolachlor+sulfosate+benoxacor; benzfendizone+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; benzfendizone+acetochlor+sulfosate+benoxacor; benzfendizone+alachlor+sulfosate +benoxacor; thidiazimin+(S)-metolachlor+sulfosate+benoxacor; thidiazimin+metolachlor+sulfosate+benoxacor; thidiazimin+dimethenamid or (S)-dimethenamid+sulfosate+benoxacor; thidiazimin+acetochlor+sulfosate+benoxacor; and thidiazimin+alachlor+sulfosate+benoxacor.

[0136] Acifluorfen+(S)-metolachlor+sulfosate+MON 4660; acifluorfen+metolachlor+sulfosate +MON 4660; acifluorfen+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; acifluorfen+acetochlor+sulfosate+MON 4660; acifluorfen+alachlor+sulfosate+MON 4660; aclonifen+(S)-

metolachlor+sulfosate+MON 4660; aclonifen+metolachlor+sulfosate+MON 4660; aclonifen+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; aclonifen+acetochlor+sulfosate+MON 4660; aclonifen+alachlor+sulfosate+MON 4660; bifenox+(S)-metolachlor+sulfosate+MON 4660; bifenox+metolachlor+sulfosate+MON 4660; bifenox+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; bifenox+acetochlor+sulfosate+MON 4660; bifenox+alachlor+sulfosate+MON 4660; chlomitrofen+(S)-metolachlor+sulfosate+MON 4660; chlomitrofen+metolachlor+sulfosate+MON 4660; chlomitrofen+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; chlomitrofen+acetochlor+sulfosate+MON 4660; chlomitrofen+alachlor+sulfosate+MON 4660; ethoxyfen+(S)-metolachlor+sulfosate+MON 4660; ethoxyfen+metolachlor+sulfosate+MON 4660; ethoxyfen+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; ethoxyfen+acetochlor+sulfosate+MON 4660; ethoxyfen+alachlor+sulfosate+MON 4660; fluoroglycofen+(S)-metolachlor+sulfosate+MON 4660; fluoroglycofen+metolachlor+sulfosate+MON 4660; fluoroglycofen+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; fluoroglycofen+acetochlor+sulfosate+MON 4660; fluoroglycofen+alachlor+sulfosate+MON 4660; fomesafen+(S)-metolachlor +sulfosate+MON 4660; fomesafen+metolachlor+sulfosate+MON 4660; fomesafen+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; fomesafen+acetochlor+sulfosate+MON 4660; fomesafen+alachlor+sulfosate+MON 4660; lactofen+(S)-metolachlor+sulfosate+MON 4660; lactofen+metolachlor+sulfosate+MON 4660; lactofen+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; lactofen+acetochlor+sulfosate+MON 4660; lactofen+alachlor+sulfosate+MON 4660; oxyfluorfen+(S)-metolachlor+sulfosate+MON 4660; oxyfluorfen+metolachlor+sulfosate+MON 4660; oxyfluorfen+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; oxyfluorfen+acetochlor+sulfosate+MON 4660; oxyfluorfen+alachlor+sulfosate+MON 4660; azafenidin+(S)-metolachlor+sulfosate+MON 4660; azafenidin+metolachlor+sulfosate+MON 4660; azafenidin+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; azafenidin+acetochlor+sulfosate+MON 4660; azafenidin+alachlor+sulfosate+MON 4660; carfentrazone-ethyl+(S)-metolachlor+sulfosate+MON 4660; carfentrazone-ethyl+metolachlor+sulfosate+MON 4660; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; carfentrazone-ethyl+acetochlor+sulfosate+MON 4660; carfentrazone-ethyl+alachlor+sulfosate+MON 4660; compound of the formula A+(S)-metolachlor+sulfosate+MON 4660; compound of the formula A+metolachlor+sulfosate+MON 4660; compound of the formula A+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; compound of the formula A+acetochlor+sulfosate+MON 4660; compound of the formula A+alachlor+sulfosate+MON 4660; cinidon-ethyl+(S)-metolachlor+sulfosate+MON 4660; cinidon-ethyl+metolachlor+sulfosate+MON 4660; cinidon-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; cinidon-ethyl+acetochlor+sulfosate+MON 4660; cinidon-ethyl+alachlor+sulfosate+MON 4660; flumiclorac-pentyl+(S)-metolachlor+sulfosate+MON 4660; flumiclorac-pentyl+metolachlor+sulfosate+MON 4660; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; flumiclorac-pentyl+acetochlor+sulfosate+MON 4660; flumiclorac-pentyl+alachlor+sulfosate+MON 4660; flumioxazin+(S)-metolachlor+sulfosate+MON 4660; flumioxazin+metolachlor+sulfosate+MON 4660; flumioxazin+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; flumioxazin+acetochlor+sulfosate+MON 4660; flumioxazin+alachlor+sulfosate+MON 4660; fluthiacet-methyl+(S)-metolachlor+sulfosate+MON 4660; fluthiacet-methyl+metolachlor+sulfosate+MON 4660; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; fluthiacet-methyl+acetochlor+sulfosate+MON 4660; fluthiacet-methyl+alachlor+sulfosate+MON 4660; oxadiargyl+(S)-metolachlor+sulfosate+MON 4660; oxadiargyl+metolachlor+sulfosate+MON 4660; oxadiargyl+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; oxadiargyl+acetochlor+sulfosate+MON 4660; oxadiargyl+alachlor+sulfosate+MON 4660; oxadiazon+(S)-metolachlor+sulfosate+MON 4660; oxadiazon+metolachlor+sulfosate +MON 4660; oxadiazon+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; oxadiazon+acetochlor+sulfosate+MON 4660; oxadiazon+alachlor+sulfosate+MON 4660; pentoxazone+(S)-metolachlor+sulfosate+MON 4660; pentoxazone+metolachlor+sulfosate+MON 4660; pentoxazone+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; pentoxazone+acetochlor+sulfosate+MON 4660; pentoxazone +alachlor+sulfosate+MON 4660; sulfentrazone+(S)-metolachlor+sulfosate+MON 4660; sulfentrazone+metolachlor+sulfosate+MON 4660; sulfentrazone+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; sulfentrazone+acetochlor+sulfosate+MON 4660; sulfentrazone+alachlor+sulfosate+MON 4660; fluazolate+(S)-metolachlor +sulfosate+MON 4660; fluazolate+metolachlor+sulfosate+MON 4660; fluazolate+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; fluazolate+acetochlor+sulfosate+MON 4660; fluazolate+alachlor+sulfosate+MON 4660; pyraflufen-ethyl+(S)-metolachlor+sulfosate+MON 4660; pyraflufen-ethyl+metolachlor+sulfosate+MON 4660; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; pyraflufen-ethyl+acetochlor+sulfosate+MON 4660; pyraflufen-ethyl+alachlor+sulfosate+MON 4660; flumipropyn+(S)-metolachlor+sulfosate+MON 4660; flumipropyn +metolachlor+sulfosate+MON 4660; flumipropyn+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; flumipropyn+acetochlor+sulfosate+MON 4660; flumipropyn+alachlor+sulfosate+MON 4660; flupropacil+(S)-metolachlor+sulfosate+MON 4660; flupropacil+metolachlor+sulfosate+MON 4660; flupropacil+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; flupropacil+acetochlor+sulfosate+MON 4660; flupropacil+alachlor+sulfosate+MON 4660; nipyraclofen+(S)-metolachlor+sulfosate+MON 4660; nipyraclofen+metolachlor+sulfosate+MON 4660; nipyraclofen+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; nipyraclofen+acetochlor+sulfosate+MON 4660; nipyraclofen+alachlor+sulfosate+MON 4660; benzfendizone+(S)-metolachlor+sulfosate+MON 4660; benzfendizone+metolachlor+sulfosate+MON 4660; benzfendizone+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; benzfendizone+acetochlor+sulfosate+MON 4660; benzfendizone+alachlor+sulfosate +MON 4660; thidiazimin+(S)-metolachlor+sulfosate+MON 4660; thidiazimin+metolachlor+sulfosate+MON 4660; thidiazimin+dimethenamid or (S)-dimethenamid+sulfosate+MON 4660; thidiazimin+acetochlor+sulfosate+MON 4660; and thidiazimin+alachlor+sulfosate+MON 4660.

[0137] Acifluorfen+(S)-metolachlor+sulfosate+flurazole; acifluorfen+metolachlor+sulfosate+flurazole; acifluorfen+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; acifluorfen+acetochlor+sulfosate+flurazole; acifluorfen+alachlor+sulfosate+flurazole; aclonifen+(S)-metolachlor+sulfosate+flurazole; aclonifen+metolachlor+sulfosate+flurazole; aclonifen+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; aclonifen+acetochlor+sulfosate+flurazole; aclonifen+alachlor+sulfosate+flurazole; bifenox+(S)-metolachlor+sulfosate+flurazole; bifenox+metolachlor+sulfosate+flurazole; bifenox+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; bifenox+acetochlor+sulfosate+flurazole; bifenox+alachlor+sulfosate+flurazole; chlomitrofen+(S)-metolachlor+sulfosate+flurazole; chlomitrofen+metolachlor+sulfosate+flurazole; chlomitrofen+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; chlomitrofen+acetochlor+sulfosate+flurazole; chlomitrofen+alachlor+sulfosate+flurazole; ethoxyfen +(S)-metolachlor+sulfosate+flurazole; ethoxyfen+metolachlor+sulfosate+flurazole; ethoxyfen+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; ethoxyfen+acetochlor+sulfosate+flurazole; ethoxyfen+alachlor+sulfosate+flurazole; fluoroglycofen+(S)-metolachlor+sulfosate+flurazole; fluoroglycofen+metolachlor+sulfosate+flurazole; fluoroglycofen+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; fluoroglycofen+acetochlor+sulfosate+flurazole; fluoroglycofen+alachlor+sulfosate+flurazole; fomesafen+(S)-metolachlor+sulfosate+flurazole; fomesafen+metolachlor+sulfosate+flurazole; fomesafen+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; fomesafen+acetochlor+sulfosate+flurazole; fomesafen+alachlor +sulfosate+flurazole; lactofen+(S)-metolachlor+sulfosate+flurazole; lactofen+metolachlor+sulfosate+flurazole; lactofen+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; lactofen+acetochlor+sulfosate+flurazole; lactofen+alachlor+sulfosate+flurazole; oxyfluorfen+(S)-metolachlor+sulfosate+flurazole; oxyfluorfen+metolachlor+sulfosate+flurazole; oxyfluorfen+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; oxyfluorfen+acetochlor+sulfosate+flurazole; oxyfluorfen+alachlor +sulfosate+flurazole; azafenidin+(S)-metolachlor+sulfosate+flurazole; azafenidin+metolachlor+sulfosate+flurazole; azafenidin+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; azafenidin+acetochlor+sulfosate+flurazole; azafenidin+alachlor+sulfosate+flurazole; carfentrazone-ethyl+(S)-metolachlor+sulfosate+flurazole; carfentrazone-ethyl+metolachlor+sulfosate+flurazole; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; carfentrazone-ethyl+acetochlor +sulfosate+flurazole; carfentrazone-ethyl+alachlor+sulfosate+flurazole; compound of the formula A+(S)-metolachlor+sulfosate+flurazole; compound of the formula A+metolachlor+sulfosate+flurazole; compound of the formula A+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; compound of the formula A+acetochlor+sulfosate +flurazole; compound of the formula A+alachlor+sulfosate+flurazole; cinidon-ethyl+(S)-metolachlor+sulfosate+flurazole; cinidon-ethyl+metolachlor+sulfosate+flurazole; cinidon-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; cinidon-ethyl+acetochlor+sulfosate+flurazole; cinidon-ethyl+alachlor+sulfosate+flurazole; flumiclorac-pentyl+(S)-metolachlor+sulfosate+flurazole; flumiclorac-pentyl+metolachlor +sulfosate+flurazole; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+sulfosate +flurazole; flumiclorac-pentyl+acetochlor+sulfosate+flurazole; flumiclorac-pentyl+alachlor+sulfosate+flurazole; flumioxazin+(S)-metolachlor+sulfosate+flurazole; flumioxazin+metolachlor+sulfosate+flurazole; flumioxazin+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; flumioxazin+acetochlor+sulfosate+flurazole; flumioxazin+alachlor+sulfosate+flurazole; fluthiacet-methyl+(S)-metolachlor+sulfosate +flurazole; fluthiacet-methyl+metolachlor+sulfosate+flurazole; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; fluthiacet-methyl+acetochlor+sulfosate+flurazole; fluthiacet-methyl+alachlor+sulfosate+flurazole; oxadiargyl+(S)-metolachlor+sulfosate+flurazole; oxadiargyl+metolachlor+sulfosate+flurazole; oxadiargyl+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; oxadiargyl+acetochlor+sulfosate+flurazole; oxadiargyl+alachlor+sulfosate+flurazole; oxadiazon+(S)-metolachlor+sulfosate+flurazole; oxadiazon+metolachlor+sulfosate+flurazole; oxadiazon+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; oxadiazon+acetochlor+sulfosate+flurazole; oxadiazon+alachlor+sulfosate+flurazole; pentoxazone+(S)-metolachlor+sulfosate+flurazole; pentoxazone+metolachlor+sulfosate+flurazole; pentoxazone+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; pentoxazone+acetochlor+sulfosate+flurazole; pentoxazone+alachlor+sulfosate+flurazole; sulfentrazone+(S)-metolachlor+sulfosate+flurazole; sulfentrazone +metolachlor+sulfosate+flurazole; sulfentrazone+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; sulfentrazone+acetochlor+sulfosate+flurazole; sulfentrazone+alachlor+sulfosate+flurazole; fluazolate+(S)-metolachlor+sulfosate+flurazole; fluazolate+metolachlor+sulfosate+flurazole; fluazolate+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; fluazolate+acetochlor+sulfosate+flurazole; fluazolate+alachlor+sulfosate+flurazole; pyraflufen-ethyl+(S)-metolachlor+sulfosate +flurazole; pyraflufen-ethyl+metolachlor+sulfosate+flurazole; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; pyraflufen-ethyl+acetochlor+sulfosate+flurazole; pyraflufen-ethyl+alachlor+sulfosate+flurazole; flumipropyn+(S)-metolachlor+sulfosate+flurazole; flumipropyn+metolachlor+sulfosate+flurazole; flumipropyn+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; flumipropyn+acetochlor+sulfosate+flurazole; flumipropyn+alachlor+sulfosate+flurazole; flupropacil +(S)-metolachlor+sulfosate+flurazole; flupropacil+metolachlor+sulfosate+flurazole; flupropacil+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; flupropacil+acetochlor+sulfosate+flurazole; flupropacil+alachlor+sulfosate+flurazole; nipyraclofen +(S)-metolachlor+sulfosate+flurazole; nipyraclofen+metolachlor+sulfosate+flurazole; nipyraclofen+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; nipyraclofen+acetochlor+sulfosate+flurazole; nipyraclofen+alachlor+sulfosate+flurazole; benzfendizone+(S)-metolachlor+sulfosate+flurazole; benzfendizone+metolachlor+sulfosate+flurazole; benzfendizone+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; benzfendizone+acetochlor+sulfosate+flurazole; benzfendizone+alachlor+sulfosate+flurazole; thidiazimin+(S)-metolachlor+sulfosate+flurazole; thidiazimin+metolachlor+sulfosate+flurazole; thidiazimin+dimethenamid or (S)-dimethenamid+sulfosate+flurazole; thidiazimin+acetochlor+sulfosate+flurazole; and thidiazimin+alachlor+sulfosate+flurazole.

[0138] Acifluorfen+(S)-metolachlor+sulfosate+dichlormid; acifluorfen+metolachlor+sulfosate +dichlormid; acifluorfen+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; acifluorfen+acetochlor+sulfosate+dichlormid; acifluorfen+alachlor+sulfosate+dichlormid; aclonifen+(S)-metolachlor+sulfosate+dichlormid; aclonifen+metolachlor+sulfosate+dichlormid; aclonifen+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; aclonifen+

acetochlor+sulfosate+dichlormid; aclonifen+alachlor+sulfosate +dichlormid; bifenox+(S)-metolachlor+sulfosate+dichlormid; bifenox+metolachlor+sulfosate+dichlormid; bifenox+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; bifenox+acetochlor+sulfosate+dichlormid; bifenox+alachlor+sulfosate+dichlormid; chlomitrofen+(S)-metolachlor+sulfosate+dichlormid; chlomitrofen+metolachlor+sulfosate+dichlormid; chlomitrofen+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; chlomitrofen+acetochlor+sulfosate+dichlormid; chlomitrofen+alachlor+sulfosate+dichlormid; ethoxyfen+(S)-metolachlor+sulfosate+dichlormid; ethoxyfen+metolachlor+sulfosate+dichlormid; ethoxyfen+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; ethoxyfen+acetochlor+sulfosate+dichlormid; ethoxyfen+alachlor+sulfosate+dichlormid; fluoroglycofen+(S)-metolachlor+sulfosate+dichlormid; fluoroglycofen+metolachlor+sulfosate+dichlormid; fluoroglycofen+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; fluoroglycofen+acetochlor+sulfosate+dichlormid; fluoroglycofen+alachlor+sulfosate+dichlormid; fomesafen+(S)-metolachlor+sulfosate+dichlormid; fomesafen+metolachlor+sulfosate+dichlormid; fomesafen+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; fomesafen+acetochlor+sulfosate+dichlormid; fomesafen+alachlor+sulfosate+dichlormid; lactofen +(S)-metolachlor+sulfosate+dichlormid; lactofen+metolachlor+sulfosate+dichlormid; lactofen+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; lactofen+acetochlor+sulfosate+dichlormid; lactofen+alachlor+sulfosate+dichlormid; oxyfluorfen +(S)-metolachlor+sulfosate+dichlormid; oxyfluorfen+metolachlor+sulfosate+dichlormid; oxyfluorien+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; oxyfluorfen+acetochlor+sulfosate+dichlormid; oxyfluorfen+alachlor+sulfosate+dichlormid; azafenidin+(S)-metolachlor+sulfosate+dichlormid; azafenidin+metolachlor +sulfosate+dichlormid; azafenidin+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; azafenidin+acetochlor+sulfosate+dichlormid; azafenidin+alachlor+sulfosate+dichlormid; carfentrazone-ethyl+(S)-metolachlor+sulfosate+dichlormid; carfentrazone-ethyl+metolachlor+sulfosate+dichlormid; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; carfentrazone-ethyl+acetochlor+sulfosate+dichlormid; carfentrazone-ethyl+alachlor+sulfosate+dichlormid; compound of the formula A+(S)-metolachlor+sulfosate+dichlormid; compound of the formula A+metolachlor+sulfosate+dichlormid; compound of the formula A+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; compound of the formula A+acetochlor+sulfosate+dichlormid; compound of the formula A+alachlor+sulfosate+dichlormid; cinidon-ethyl+(S)-metolachlor+sulfosate+dichlormid; cinidon-ethyl+metolachlor+sulfosate+dichlormid; cinidon-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; cinidon-ethyl+acetochlor+sulfosate+dichlormid; cinidon-ethyl+alachlor+sulfosate+dichlormid; flumiclorac-pentyl+(S)-metolachlor+sulfosate+dichlormid; flumiclorac-pentyl+metolachlor+sulfosate+dichlormid; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; flumiclorac-pentyl+acetochlor +sulfosate+dichlormid; flumiclorac-pentyl+alachlor+sulfosate+dichlormid; flumioxazin +(S)-metolachlor+sulfosate+dichlormid; flumioxazin+metolachlor+sulfosate+dichlormid; flumioxazin+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; flumioxazin+acetochlor+sulfosate+dichlormid; flumioxazin+alachlor+sulfosate+dichlormid; fluthiacet-methyl+(S)-metolachlor+sulfosate+dichlormid; fluthiacet-methyl+metolachlor+sulfosate+dichlormid; fluthiacet-methyl+dimethenamid or (S)-dimethenamid +sulfosate+dichlormid; fluthiacet-methyl+acetochlor+sulfosate+dichlormid; fluthiacet-methyl+alachlor+sulfosate+dichlormid; oxadiargyl+(S)-metolachlor+sulfosate+dichlormid; oxadiargyl+metolachlor+sulfosate+dichlormid; oxadiargyl+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; oxadiargyl+acetochlor+sulfosate+dichlormid; oxadiargyl+alachlor+sulfosate+dichlormid; oxadiazon+(S)-metolachlor+sulfosate+dichlormid; oxadiazon+metolachlor+sulfosate+dichlormid; oxadiazon+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; oxadiazon+acetochlor+sulfosate+dichlormid; oxadiazon+alachlor+sulfosate+dichlormid; pentoxazone+(S)-metolachlor+sulfosate+dichlormid; pentoxazone+metolachlor+sulfosate+dichlormid; pentoxazone +dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; pentoxazone+acetochlor+sulfosate+dichlormid; pentoxazone+alachlor+sulfosate+dichlormid; sulfentrazone+(S)-metolachlor+sulfosate+dichlormid; sulfentrazone+metolachlor+sulfosate+dichlormid; sulfentrazone+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; sulfentrazone+acetochlor+sulfosate+dichlormid; sulfentrazone+alachlor+sulfosate+dichlormid; fluazolate+(S)-metolachlor+sulfosate+dichlormid; fluazolate+metolachlor +sulfosate+dichlormid; fluazolate+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; fluazolate+acetochlor+sulfosate+dichlormid; fluazolate+alachlor+sulfosate+dichlormid; pyraflufen-ethyl+(S)-metolachlor+sulfosate+dichlormid; pyraflufen-ethyl+metolachlor+sulfosate+dichlormid; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; pyraflufen-ethyl+acetochlor+sulfosate+dichlormid; pyraflufen-ethyl+alachlor+sulfosate+dichlormid; flumipropyn+(S)-metolachlor+sulfosate+dichlormid; flumipropyn+metolachlor+sulfosate+dichlormid; flumipropyn+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; flumipropyn+acetochlor+sulfosate+dichlormid; flumipropyn+alachlor+sulfosate+dichlormid; flupropacil+(S)-metolachlor+sulfosate+dichlormid; flupropacil+metolachlor+sulfosate +dichlormid; flupropacil+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; flupropacil+acetochlor+sulfosate+dichlormid; flupropacil+alachlor+sulfosate+dichlormid; nipyraclofen+(S)-metolachlor+sulfosate+dichlormid; nipyraclofen+metolachlor+sulfosate+dichlormid; nipyraclofen+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; nipyraclofen+acetochlor+sulfosate+dichlormid; nipyraclofen+alachlor+sulfosate+dichlormid; benzfendizone+(S)-metolachlor+sulfosate+dichlormid; benzfendizone+metolachlor+sulfosate+dichlormid; benzfendizone+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; benzfendizone+acetochlor+sulfosate+dichlormid; benzfendizone+alachlor+sulfosate+dichlormid; thidiazimin+(S)-metolachlor +sulfosate+dichlormid; thidiazimin+metolachlor+sulfosate+dichlormid; thidiazimin+dimethenamid or (S)-dimethenamid+sulfosate+dichlormid; thidiazimin+acetochlor+sulfosate+dichlormid; and thidiazimin+alachlor+sulfosate+dichlormid.

[0139] Acifluorfen+(S)-metolachlor+sulfosate+furilazole; acifluorfen+metolachlor+sulfosate+furilazole; acifluorfen+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; acifluorfen+acetochlor+sulfosate+furilazole; acifluorfen+

alachlor+sulfosate+furilazole; aclonifen+(S)-metolachlor+sulfosate+furilazole; aclonifen+metolachlor+sulfosate+furilazole; aclonifen+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; aclonifen+acetochlor+sulfosate+furilazole; aclonifen+alachlor+sulfosate+furilazole; bifenox+(S)-metolachlor+sulfosate+furilazole; bifenox+metolachlor+sulfosate+furilazole; bifenox+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; bifenox+acetochlor+sulfosate+furilazole; bifenox+alachlor+sulfosate+furilazole; chlomitrofen+(S)-metolachlor+sulfosate+furilazole; chlomitrofen+metolachlor+sulfosate+furilazole; chlomitrofen+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; chlomitrofen+acetochlor+sulfosate+furilazole; chlomitrofen+alachlor+sulfosate+furilazole; ethoxyfen+(S)-metolachlor+sulfosate+furilazole; ethoxyfen+metolachlor+sulfosate+furilazole; ethoxyfen+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; ethoxyfen+acetochlor+sulfosate+furilazole; ethoxyfen+alachlor+sulfosate+furilazole; fluoroglycofen+(S)-metolachlor+sulfosate+furilazole; fluoroglycofen+metolachlor+sulfosate+furilazole; fluoroglycofen+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; fluoroglycofen+acetochlor+sulfosate+furilazole; fluoroglycofen+alachlor+sulfosate+furilazole; fomesafen+(S)-metolachlor+sulfosate+furilazole; fomesafen+metolachlor+sulfosate+furilazole; fomesafen+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; fomesafen+acetochlor+sulfosate+furilazole; fomesafen+alachlor+sulfosate+furilazole; lactofen+(S)-metolachlor+sulfosate+furilazole; lactofen+metolachlor+sulfosate+furilazole; lactofen+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; lactofen+acetochlor+sulfosate+furilazole; lactofen+alachlor+sulfosate+furilazole; oxyfluorfen+(S)-metolachlor+sulfosate+furilazole; oxyfluorfen+metolachlor+sulfosate+furilazole; oxyfluorfen+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; oxyfluorfen+acetochlor+sulfosate+furilazole; oxyfluorfen+alachlor+sulfosate+furilazole; azafenidin+(S)-metolachlor+sulfosate+furilazole; azafenidin+metolachlor+sulfosate+furilazole; azafenidin+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; azafenidin+acetochlor+sulfosate+furilazole; azafenidin+alachlor+sulfosate+furilazole; carfentrazone-ethyl+(S)-metolachlor+sulfosate+furilazole; carfentrazone-ethyl+metolachlor+sulfosate+furilazole; carfentrazone-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; carfentrazone-ethyl+acetochlor+sulfosate+furilazole; carfentrazone-ethyl+alachlor+sulfosate+furilazole; compound of the formula A+(S)-metolachlor+sulfosate+furilazole; compound of the formula A+metolachlor+sulfosate+furilazole; compound of the formula A+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; compound of the formula A +acetochlor+sulfosate+furilazole; compound of the formula A+alachlor+sulfosate+furilazole; cinidon-ethyl+(S)-metolachlor+sulfosate+furilazole; cinidon-ethyl+metolachlor+sulfosate+furilazole; cinidon-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; cinidon-ethyl+acetochlor+sulfosate+furilazole; cinidon-ethyl+alachlor+sulfosate+furilazole; flumiclorac-pentyl+(S)-metolachlor+sulfosate+furilazole; flumiclorac-pentyl+metolachlor+sulfosate+furilazole; flumiclorac-pentyl+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; flumiclorac-pentyl+acetochlor+sulfosate+furilazole; flumiclorac-pentyl+alachlor+sulfosate+furilazole; flumioxazin+(S)-metolachlor+sulfosate+furilazole; flumioxazin+metolachlor+sulfosate+furilazole; flumioxazin+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; flumioxazin+acetochlor+sulfosate+furilazole; flumioxazin+alachlor+sulfosate+furilazole; fluthiacet-methyl+(S)-metolachlor+sulfosate+furilazole; fluthiacet-methyl+metolachlor+sulfosate+furilazole; fluthiacet-methyl+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; fluthiacet-methyl+acetochlor+sulfosate+furilazole; fluthiacet-methyl+alachlor+sulfosate+furilazole; oxadiargyl+(S)-metolachlor+sulfosate+furilazole; oxadiargyl+metolachlor+sulfosate+furilazole; oxadiargyl+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; oxadiargyl+acetochlor+sulfosate+furilazole; oxadiargyl+alachlor +sulfosate+furilazole; oxadiazon+(S)-metolachlor+sulfosate+furilazole; oxadiazon+metolachlor+sulfosate+furilazole; oxadiazon+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; oxadiazon+acetochlor+sulfosate+furilazole; oxadiazon+alachlor +sulfosate+furilazole; pentoxazone+(S)-metolachlor+sulfosate+furilazole; pentoxazone+metolachlor+sulfosate+furilazole; pentoxazone+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; pentoxazone+acetochlor+sulfosate+furilazole; pentoxazone+alachlor+sulfosate+furilazole; sulfentrazone+(S)-metolachlor+sulfosate +furilazole; sulfentrazone+metolachlor+sulfosate+furilazole; sulfentrazone+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; sulfentrazone+acetochlor+sulfosate+furilazole; sulfentrazone+alachlor+sulfosate+furilazole; fluazolate+(S)-metolachlor+sulfosate+furilazole; fluazolate+metolachlor+sulfosate+furilazole; fluazolate+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; fluazolate+acetochlor+sulfosate+furilazole; fluazolate+alachlor+sulfosate+furilazole; pyraflufen-ethyl+(S)-metolachlor+sulfosate+furilazole; pyraflufen-ethyl+metolachlor+sulfosate+furilazole; pyraflufen-ethyl+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; pyraflufen-ethyl+acetochlor+sulfosate+furilazole; pyraflufen-ethyl+alachlor+sulfosate+furilazole; flumipropyn+(S)-metolachlor+sulfosate+furilazole; flumipropyn+metolachlor+sulfosate+furilazole; flumipropyn+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; flumipropyn+acetochlor+sulfosate+furilazole; flumipropyn+alachlor+sulfosate+furilazole; flupropacil+(S)-metolachlor+sulfosate+furilazole; flupropacil+metolachlor+sulfosate+furilazole; flupropacil+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; flupropacil+acetochlor+sulfosate+furilazole; flupropacil+alachlor+sulfosate+furilazole; nipyraclofen+(S)-metolachlor+sulfosate+furilazole; nipyraclofen+metolachlor+sulfosate+furilazole; nipyraclofen+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; nipyraclofen+acetochlor+sulfosate+furilazole; nipyraclofen+alachlor+sulfosate+furilazole; benzfendizone+(S)-metolachlor +sulfosate+furilazole; benzfendizone+metolachlor+sulfosate+furilazole; benzfendizone+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; benzfendizone+acetochlor+sulfosate+furilazole; benzfendizone+alachlor+sulfosate+furilazole; thidiazimin+(S)-metolachlor+sulfosate+furilazole; thidiazimin+metolachlor+sulfosate+furilazole; thidiazimin+dimethenamid or (S)-dimethenamid+sulfosate+furilazole; thidiazimin+acetochlor+sulfosate+furilazole; and thidiazimin+alachlor+sulfosate+furilazole.

[0140] The following specific combinations of the compounds under a) with the co-herbicides under b) (4-compound and 5-compound combinations) have been found to

be further groups of very particularly effective herbicidal synergistic and selective-herbicidal compositions, in particular in crops of maize resistant to protoporphyrinogen oxidase inhibitors:

[0141] acifluorfen+prosulfuron+primisulfuron+glyphosate; acifluorfen+prosulfuron+dicamba +glyphosate; acifluorfen+primisulfuron+dicamba+glyphosate; acifluorfen+nicosulfuron +primisulfuron+glyphosate; acifluorfen+nicosulfuron+prosulfuron+glyphosate; acifluorfen+rimsulfuron+primisulfuron+glyphosate; acifluorfen+rimsulfuron+prosulfuron+glyphosate; acifluorfen+metolachlor+isoxaflutole+glyphosate; acifluorfen+metolachlor+isoxaflutole+glyphosate+benoxacor; acifluorfen+S-metolachlor+isoxaflutole+glyphosate; acifluorfen+S-metolachlor+isoxaflutole+glyphosate+benoxacor; acifluorfen+metolachlor+mesotrione+glyphosate; acifluorfen+metolachlor+mesotrione+glyphosate+benoxacor; acifluorfen+S-metolachlor+mesotrione+glyphosate; acifluorfen+S-metolachlor+mesotrione+benoxacor+glyphosate; acifluorfen +metolachlor+atrazine+glyphosate; acifluorfen+metolachlor+atrazine+glyphosate+benoxacor; acifluorfen+S-metolachlor+atrazine+glyphosate; acifluorfen+S-metolachlor +atrazine+glyphosate+benoxacor; acifluorfen+metolachlor+terbuthylazine+glyphosate; acifluorfen+metolachlor+terbuthylazine+glyphosate+benoxacor; acifluorfen+S-metolachlor+terbuthylazine+glyphosate; acifluorfen+S-metolachlor+terbuthylazine+glyphosate+benoxacor; acifluorfen+atrazine+nicosulfuron+glyphosate; acifluorfen+atrazine+nicosulfuron+glyphosate+benoxacor; aclonifen+prosulfuron+primisulfuron+glyphosate; aclonifen+prosulfuron+dicamba+glyphosate; aclonifen+primisulfuron+dicamba+glyphosate; aclonifen+nicosulfuron+primisulfuron+glyphosate; aclonifen+nicosulfuron+prosulfuron+glyphosate; aclonifen+rimsulfuron+primisulfuron+glyphosate; aclonifen+rimsulfuron+prosulfuron+glyphosate; aclonifen+metolachlor+isoxaflutole+glyphosate; aclonifen+metolachlor+isoxaflutole+glyphosate +benoxacor; aclonifen+S-metolachlor+isoxaflutole+glyphosate; aclonifen+S-metolachlor+isoxaflutole+glyphosate+benoxacor; aclonifen+metolachlor+mesotrione +glyphosate; aclonifen+metolachlor+mesotrione+glyphosate+benoxacor; aclonifen+S-metolachlor+mesotrione+glyphosate; aclonifen+S-metolachlor+mesotrione+glyphosate+benoxacor; aclonifen+metolachlor+atrazine+glyphosate; aclonifen+metolachlor+atrazine+glyphosate+benoxacor; aclonifen+S-metolachlor+atrazine+glyphosate; aclonifen+S-metolachlor+atrazine+glyphosate+benoxacor; aclonifen+metolachlor+terbuthylazine+glyphosate; aclonifen+metolachlor+terbuthylazine+glyphosate+benoxacor; aclonifen+S-metolachlor+terbuthylazine+glyphosate; aclonifen +S-metolachlor+terbuthylazine+glyphosate+benoxacor; aclonifen+atrazine+nicosulfuron+glyphosate; aclonifen+atrazine+nicosulfuron+glyphosate+benoxacor; bifenox+prosulfuron+primisulfuron+glyphosate; bifenox+prosulfuron+dicamba+glyphosate; bifenox+primisulfuron+dicamba+glyphosate; bifenox+nicosulfuron+primisulfuron+glyphosate; bifenox+nicosulfuron+prosulfuron+glyphosate; bifenox+rimsulfuron+primisulfuron+glyphosate; bifenox+rimsulfuron+prosulfuron+glyphosate; bifenox+metolachlor+isoxaflutole+glyphosate; bifenox+metolachlor+isoxaflutole+glyphosate+benoxacor; bifenox+S-metolachlor+isoxaflutole+glyphosate; bifenox+S-metolachlor+isoxaflutole+glyphosate+benoxacor; bifenox+metolachlor+mesotrione+glyphosate; bifenox+metolachlor+mesotrione+glyphosate+benoxacor; bifenox+S-metolachlor+mesotrione+glyphosate; bifenox+S-metolachlor+mesotrione+glyphosate +benoxacor; bifenox+metolachlor+atrazine+glyphosate; bifenox+metolachlor+atrazine+glyphosate+benoxacor; bifenox+S-metolachlor+atrazine+glyphosate; bifenox+S-metolachlor+atrazine+glyphosate+benoxacor; bifenox+metolachlor+terbuthylazine+glyphosate; bifenox+metolachlor+terbuthylazine+glyphosate+benoxacor; bifenox+S-metolachlor+terbuthylazine+glyphosate; bifenox+S-metolachlor +terbuthylazine+glyphosate+benoxacor; bifenox+atrazine+nicosulfuron+glyphosate; bifenox+atrazine+nicosulfuron+glyphosate+benoxacor; chlomitrofen+prosulfuron+primisulfuron+glyphosate; chlomitrofen+prosulfuron+dicamba+glyphosate; chlomitrofen+primisulfuron+dicamba+glyphosate; chlomitrofen+nicosulfuron+primisulfuron+glyphosate; chlomitrofen+nicosulfuron+prosulfuron+glyphosate; chlomitrofen+rimsulfuron+primisulfuron+glyphosate; chlomitrofen+rimsulfuron+prosulfuron+glyphosate; chlomitrofen+metolachlor+isoxaflutole+glyphosate; chlomitrofen+metolachlor+isoxaflutole+glyphosate+benoxacor; chlomitrofen+S-metolachlor+isoxaflutole+glyphosate; chlomitrofen+S-metolachlor+isoxaflutole+glyphosate+benoxacor; chlomitrofen+metolachlor+mesotrione+glyphosate; chlomitrofen+metolachlor+mesotrione+glyphosate+benoxacor; chlomitrofen+S-metolachlor+mesotrione+glyphosate; chlomitrofen+S-metolachlor+mesotrione+glyphosate+benoxacor; chlomitrofen+metolachlor+atrazine+glyphosate; chlomitrofen+metolachlor+atrazine+glyphosate+benoxacor; chlomitrofen+S-metolachlor+atrazine+glyphosate; chlomitrofen+S-metolachlor+atrazine+glyphosate+benoxacor, chlomitrofen+metolachlor+terbuthylazine+glyphosate; chlomitrofen+metolachlor+terbuthylazine+glyphosate+benoxacor; chlomitrofen+S-metolachlor+terbuthylazine+glyphosate; chlomitrofen+S-metolachlor+terbuthylazine+glyphosate+benoxacor; chlomitrofen+atrazine+nicosulfuron+glyphosate; chlomitrofen+atrazine+nicosulfuron +glyphosate+benoxacor; ethoxyfen+prosulfuron+primisulfuron+glyphosate; ethoxyfen +prosulfuron+dicamba+glyphosate; ethoxyfen+primisulfuron+dicamba+glyphosate; ethoxyfen+nicosulfuron+primisulfuron+glyphosate; ethoxyfen+nicosulfuron+prosulfuron+glyphosate; ethoxyfen+rimsulfuron+primisulfuron+glyphosate; ethoxyfen+rimsulfuron+prosulfuron+glyphosate; ethoxyfen+metolachlor+isoxaflutole+glyphosate; ethoxyfen+metolachlor+isoxaflutole+glyphosate+benoxacor; ethoxyfen+S-metolachlor+isoxaflutole+glyphosate; ethoxyfen+S-metolachlor+isoxaflutole+glyphosate+benoxacor; ethoxyfen+metolachlor+mesotrione+glyphosate; ethoxyfen+metolachlor+mesotrione+glyphosate+benoxacor; ethoxyfen+S-metolachlor+mesotrione+glyphosate; ethoxyfen+S-metolachlor+mesotrione+glyphosate+benoxacor; ethoxyfen+metolachlor+atrazine+glyphosate; ethoxyfen+metolachlor+atrazine+glyphosate+benoxacor; ethoxyfen+S-metolachlor+atrazine+glyphosate; ethoxyfen+S-metolachlor+atrazine+glyphosate+benoxacor; ethoxyfen+metolachlor+terbuthylazine+glyphosate; ethoxyfen+metolachlor+terbuthylazine+glyphosate+benoxacor; ethoxyfen+S-metolachlor+terbuthylazine+glyphosate; ethoxyfen+S-metolachlor+terbuthylazine+glyphosate+benoxacor; ethoxyfen+atrazine+nicosulfuron +glyphosate;

ethoxyfen+atrazine+nicosulfuron+glyphosate+benoxacor; fluoroglycofen+prosulfuron+primisulfuron+glyphosate; fluoroglycofen+prosulfuron+dicamba+glyphosate; fluoroglycofen+primisulfuron+dicamba+glyphosate; fluoroglycofen+nicosulfuron+primisulfuron+glyphosate; fluoroglycofen+nicosulfuron+prosulfuron+glyphosate; fluoroglycofen+rimsulfuron+primisulfuron+glyphosate; fluoroglycofen+rimsulfuron+prosulfuron+glyphosate; fluoroglycofen+metolachlor+isoxaflutole+glyphosate; fluoroglycofen+metolachlor+isoxaflutole+glyphosate+benoxacor; fluoroglycofen+S-metolachlor+isoxaflutole+glyphosate; fluoroglycofen+S-metolachlor+isoxaflutole+glyphosate+benoxacor; fluoroglycofen+metolachlor+mesotrione+glyphosate; fluoroglycofen+metolachlor+mesotrione+glyphosate+benoxacor; fluoroglycofen+S-metolachlor+mesotrione+glyphosate; fluoroglycofen+S-metolachlor+mesotrione+glyphosate+benoxacor; fluoroglycofen+metolachlor+atrazine+glyphosate; fluoroglycofen+metolachlor+atrazine+glyphosate+benoxacor; fluoroglycofen+S-metolachlor+atrazine+glyphosate; fluoroglycofen+S-metolachlor+atrazine+glyphosate+benoxacor; fluoroglycofen+metolachlor+terbuthylazine+glyphosate; fluoroglycofen+metolachlor+terbuthylazine+glyphosate+benoxacor; fluoroglycofen+S-metolachlor+terbuthylazine+glyphosate; fluoroglycofen+S-metolachlor+terbuthylazine+glyphosate+benoxacor; fluoroglycofen+atrazine+nicosulfuron+glyphosate; fluoroglycofen+atrazine+nicosulfuron+glyphosate+benoxacor; fomesafen+prosulfuron+primisulfuron+glyphosate; fomesafen+prosulfuron +dicamba+glyphosate; fomesafen+primisulfuron+dicamba+glyphosate; fomesafen+nicosulfuron+primisulfuron+glyphosate; fomesafen+nicosulfuron+prosulfuron+glyphosate; fomesafen+rimsulfuron+primisulfuron+glyphosate; fomesafen+rimsulfuron +prosulfuron+glyphosate; fomesafen+metolachlor+isoxaflutole+glyphosate; fomesafen+metolachlor+isoxaflutole+glyphosate+benoxacor; fomesafen+S-metolachlor+isoxaflutole+glyphosate; fomesafen+S-metolachlor+isoxaflutole+glyphosate+benoxacor; fomesafen+metolachlor+mesotrione+glyphosate; fomesafen+metolachlor+mesotrione+glyphosate+benoxacor; 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lactofen+S-metolachlor+isoxaflutole+glyphosate; lactofen+S-metolachlor+isoxaflutole+glyphosate+benoxacor; lactofen+metolachlor+mesotrione+glyphosate; lactofen+metolachlor+mesotrione+glyphosate+benoxacor; lactofen+S-metolachlor+mesotrione+glyphosate; lactofen+S-metolachlor+mesotrione+glyphosate +benoxacor; lactofen+metolachlor+atrazine+glyphosate; lactofen+metolachlor+atrazine+benoxacor; lactofen+S-metolachlor+atrazine; lactofen+S-metolachlor+atrazine+glyphosate+benoxacor; lactofen+metolachlor+terbuthylazine+glyphosate; lactofen+metolachlor+terbuthylazine+glyphosate+benoxacor; lactofen+S-metolachlor +terbuthylazine+glyphosate; lactofen+S-metolachlor+terbuthylazine+glyphosate+benoxacor; lactofen+atrazine+nicosulfuron+glyphosate; lactofen+atrazine+nicosulfuron+glyphosate+benoxacor; oxyfluorfen+prosulfuron+primisulfuron+glyphosate; oxyfluorfen+prosulfuron+dicamba+glyphosate; oxyfluorfen+primisulfuron+dicamba+glyphosate; oxyfluorfen+nicosulfuron+primisulfuron+glyphosate; oxyfluorfen+nicosulfuron+prosulfuron+glyphosate; 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azafenidin+metolachlor+terbuthylazine+glyphosate; azafenidin+metolachlor+terbuthylazine+glyphosate+benoxacor; azafenidin+S-metolachlor+terbuthylazine+glyphosate; azafenidin+S-metolachlor+terbuthylazine+glyphosate+benoxacor; azafenidin+atrazine+nicosulfuron+glyphosate; azafenidin+atrazine+nicosulfuron+glyphosate+benoxacor; carfentrazone-ethyl+prosulfuron+primisulfuron+glyphosate; carfentrazone-ethyl+prosulfuron+dicamba+glypho-

sate; carfentrazone-ethyl+primisulfuron+dicamba +glyphosate; carfentrazone-ethyl+nicosulfuron+primisulfuron+glyphosate; carfentrazone-ethyl+nicosulfuron+prosulfuron+glyphosate; carfentrazone-ethyl+rimsulfuron+primisulfuron+glyphosate; carfentrazone-ethyl+rimsulfuron+prosulfuron+glyphosate; carfentrazone-ethyl+metolachlor+isoxaflutole+glyphosate; carfentrazone-ethyl+metolachlor+isoxaflutole+glyphosate+benoxacor; carfentrazone-ethyl+S-metolachlor+isoxaflutole+glyphosate; carfentrazone-ethyl+S-metolachlor+isoxaflutole +glyphosate+benoxacor; carfentrazone-ethyl+metolachlor+mesotrione+glyphosate; carfentrazone-ethyl+metolachlor+mesotrione+glyphosate+benoxacor; carfentrazone-ethyl+S-metolachlor+mesotrione+glyphosate; carfentrazone-ethyl+S-metolachlor+mesotrione+glyphosate+benoxacor; carfentrazone-ethyl+metolachlor+atrazine+glyphosate; carfentrazone-ethyl+metolachlor+atrazine+glyphosate+benoxacor; carfentrazone-ethyl+S-metolachlor+atrazine+glyphosate; carfentrazone-ethyl+S-metolachlor+atrazine+glyphosate+benoxacor; carfentrazone-ethyl+metolachlor+terbuthylazine+glyphosate; carfentrazone-ethyl+metolachlor+terbuthylazine+glyphosate+benoxacor; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glyphosate; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glyphosate+benoxacor; carfentrazone-ethyl+atrazine+nicosulfuron+glyphosate; carfentrazone-ethyl+atrazine+nicosulfuron+glyphosate+benoxacor; compound of the formula A+prosulfuron+primisulfuron+glyphosate; compound of the formula A+prosulfuron+dicamba+glyphosate; compound of the formula A+primisulfuron+dicamba+glyphosate; compound of the formula A+nicosulfuron+primisulfuron+glyphosate; compound of the formula A+nicosulfuron+prosulfuron+glyphosate; compound of the formula A+rimsulfuron+primisulfuron+glyphosate; compound of the formula A+rimsulfuron+prosulfuron+glyphosate; compound of the formula A+metolachlor+isoxaflutole+glyphosate;

[0142] compound of the formula A+metolachlor+isoxaflutole+glyphosate+benoxacor; compound of the formula A+S-metolachlor+isoxaflutole+glyphosate; compound of the formula A+S-metolachlor+isoxaflutole+glyphosate+benoxacor; compound of the formula A+metolachlor+mesotrione+glyphosate; compound of the formula A+metolachlor+mesotrione+glyphosate+benoxacor; compound of the formula A+S-metolachlor+mesotrione+glyphosate; compound of the formula A+S-metolachlor+mesotrione+glyphosate+benoxacor; compound of the formula A+metolachlor+atrazine +glyphosate; compound of the formula A+metolachlor+atrazine+glyphosate+benoxacor; compound of the formula A+S-metolachlor+atrazine+glyphosate; compound of the formula A+S-metolachlor+atrazine+glyphosate+benoxacor; compound of the formula A+metolachlor+terbuthylazine+glyphosate; compound of the formula A+metolachlor+terbuthylazine+glyphosate+benoxacor; compound of the formula A+S-metolachlor+terbuthylazine+glyphosate; compound of the formula A+S-metolachlor+terbuthylazine+glyphosate+benoxacor; compound of the formula A+atrazine+nicosulfuron+glyphosate; compound of the formula A+atrazine+nicosulfuron+glyphosate+benoxacor; cinidon-ethyl+prosulfuron+primisulfuron+glyphosate; cinidon-ethyl+prosulfuron+dicamba+glyphosate; cinidon-ethyl+primisulfuron+dicamba+glyphosate; cinidon-ethyl+nicosulfuron+primisulfuron+glyphosate; cinidon-ethyl+nicosulfuron+prosulfuron+glyphosate; cinidon-ethyl+rimsulfuron+primisulfuron+glyphosate; cinidon-ethyl+rimsulfuron+prosulfuron+glyphosate; cinidon-ethyl+metolachlor+isoxaflutole+glyphosate; cinidon-ethyl+metolachlor+isoxaflutole+glyphosate+benoxacor; cinidon-ethyl+S-metolachlor+isoxaflutole+glyphosate; cinidon-ethyl+S-metolachlor+isoxaflutole+glyphosate+benoxacor; cinidon-ethyl+metolachlor+mesotrione+glyphosate; cinidon-ethyl+metolachlor+mesotrione+glyphosate+benoxacor; cinidon-ethyl+S-metolachlor+mesotrione+glyphosate; cinidon-ethyl+S-metolachlor+mesotrione+glyphosate+benoxacor; cinidon-ethyl+metolachlor+atrazine +glyphosate; cinidon-ethyl+metolachlor+atrazine+glyphosate+benoxacor; cinidon-ethyl+S-metolachlor+atrazine+glyphosate; cinidon-ethyl+S-metolachlor+atrazine+glyphosate+benoxacor; cinidon-ethyl+metolachlor+terbuthylazine+glyphosate; cinidon-ethyl+metolachlor+terbuthylazine+glyphosate+benoxacor; cinidon-ethyl+S-metolachlor+terbuthylazine+glyphosate; cinidon-ethyl+S-metolachlor+terbuthylazine+glyphosate+benoxacor; cinidon-ethyl+atrazine+nicosulfuron+glyphosate; cinidon-ethyl +atrazine+nicosulfuron+glyphosate+benoxacor; flumiclorac-pentyl+prosulfuron+primisulfuron+glyphosate; flumiclorac-pentyl+prosulfuron+dicamba+glyphosate; flumiclorac-pentyl+primisulfuron+dicamba+glyphosate; flumiclorac-pentyl+nicosulfuron +primisulfuron+glyphosate; flumiclorac-pentyl+nicosulfuron+prosulfuron+glyphosate; flumiclorac-pentyl+rimsulfuron+primisulfuron+glyphosate; flumiclorac-pentyl+rimsulfuron+prosulfuron+glyphosate; flumiclorac-pentyl+metolachlor+isoxaflutole+glyphosate; flumiclorac-pentyl+metolachlor+isoxaflutole+glyphosate+benoxacor; flumiclorac-pentyl+S-metolachlor+isoxaflutole+glyphosate; flumiclorac-pentyl+S-metolachlor+isoxaflutole+glyphosate+benoxacor; flumiclorac-pentyl+metolachlor+mesotrione+glyphosate; flumiclorac-pentyl+metolachlor+mesotrione+glyphosate+benoxacor; flumiclorac-pentyl+S-metolachlor+mesotrione+glyphosate; flumiclorac-pentyl +S-metolachlor+mesotrione+glyphosate+benoxacor; flumiclorac-pentyl+metolachlor+atrazine+glyphosate; flumiclorac-pentyl+metolachlor+atrazine+glyphosate+benoxacor; flumiclorac-pentyl+S-metolachlor+atrazine+glyphosate; flumiclorac-pentyl+S-metolachlor+atrazine+glyphosate+benoxacor; flumiclorac-pentyl+metolachlor+terbuthylazine+glyphosate; flumiclorac-pentyl+metolachlor+terbuthylazine+glyphosate +benoxacor; flumiclorac-pentyl+S-metolachlor+terbuthylazine+glyphosate; flumiclorac-pentyl+S-metolachlor+terbuthylazine+glyphosate+benoxacor; flumiclorac-pentyl+atrazine+nicosulfuron+glyphosate; flumiclorac-pentyl+atrazine+nicosulfuron+glyphosate+benoxacor; flumioxazin+prosulfuron+primisulfuron+glyphosate; flumioxazin+prosulfuron+dicamba+glyphosate; flumioxazin+primisulfuron+dicamba+glyphosate; flumioxazin+nicosulfuron+primisulfuron+glyphosate; flumioxazin+nicosulfuron+prosulfuron+glyphosate; flumioxazin+rimsulfuron+primisulfuron+glyphosate; flumioxazin+rimsulfuron+prosulfuron+glyphosate; flumioxazin+metolachlor +isoxaflutole+glyphosate; flumioxazin+metolachlor+isoxaflutole+glyphosate+benoxacor; flumioxazin+S-metolachlor+isoxaflutole+glyphosate; flumioxazin+S-metolachlor+isoxaflutole+glyphosate+benoxacor; flumioxazin+metolachlor+mesotrione+glyphosate; flumioxazin+metolachlor+mesotrione+glyphosate+benoxacor; flumioxazin+S-metolachlor+mesotrione+glyphosate; flumi-

oxazin+S-metolachlor+mesotrione+glyphosate+benoxacor; flumioxazin+metolachlor+atrazine+glyphosate; flumioxazin+metolachlor+atrazine+glyphosate+benoxacor; flumioxazin+S-metolachlor+atrazine+glyphosate; flumioxazin+S-metolachlor+atrazine+glyphosate +benoxacor; flumioxazin+metolachlor+terbuthylazine+glyphosate; flumioxazin+metolachlor+terbuthylazine+glyphosate+benoxacor; flumioxazin+S-metolachlor+terbuthylazine+glyphosate; flumioxazin+S-metolachlor+terbuthylazine+glyphosate+benoxacor; flumioxazin+atrazine+nicosulfuron+glyphosate; flumioxazin+atrazine+nicosulfuron+glyphosate+benoxacor; fluthiacet-methyl+prosulfuron+primisulfuron+glyphosate; fluthiacet-methyl+prosulfuron+dicamba+glyphosate; fluthiacet-methyl+primisulfuron+dicamba+glyphosate; fluthiacet-methyl+nicosulfuron+primisulfuron+glyphosate; fluthiacet-methyl+nicosulfuron+prosulfuron+glyphosate; fluthiacet-methyl+rimsulfuron+primisulfuron+glyphosate; fluthiacet-methyl+rimsulfuron+prosulfuron+glyphosate; fluthiacet-methyl+metolachlor+isoxaflutole+glyphosate; 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pentoxazone+S-metolachlor+isoxaflutole+glyphosate+benoxacor; pentoxazone+metolachlor+mesotrione+glyphosate; pentoxazone+metolachlor+mesotrione+glyphosate+benoxacor; pentoxazone+S-metolachlor+mesotrione+glyphosate; pentoxazone+S-metolachlor+mesotrione+glyphosate+benoxacor; pentoxazone+metolachlor+atrazine+glyphosate; pentoxazone+metolachlor+atrazine+glyphosate+benoxacor; pentoxazone+S-metolachlor+atrazine+glyphosate; pentoxazone+S-metolachlor+atrazine+glyphosate +benoxacor; pentoxazone+metolachlor+terbuthylazine+glyphosate; pentoxazone+metolachlor+terbuthylazine+glyphosate+benoxacor; pentoxazone+S-metolachlor+terbuthylazine+glyphosate; pentoxazone+S-metolachlor+terbuthylazine+glyphosate+benoxacor; pentoxazone+atrazine+nicosulfuron+glyphosate; pentoxazone+atrazine+nicosulfuron+glyphosate+benoxacor; sulfentrazone+prosulfuron+primisulfuron+glyphosate; sulfentrazone+prosulfuron+dicamba+glyphosate; sulfentrazone+primisulfuron+dicamba+glyphosate; sulfentrazone+nicosulfuron+primisulfuron+glyphosate; sulfentrazone+nicosulfuron+prosulfuron+glyphosate; sulfentrazone+rimsulfuron+primisulfuron+glyphosate; sulfentrazone+rimsulfuron+prosulfuron+glyphosate; sulfentrazone+metolachlor+isoxaflutole+glyphosate; sulfentrazone+metolachlor+isoxaflutole+glyphosate+benoxacor; sulfentrazone+S-metolachlor+isoxaflutole+glyphosate; sulfentrazone+S-metolachlor+isoxaflutole+glyphosate+benoxacor; sulfentrazone+metolachlor+mesotrione+glyphosate; sulfentrazone+

metolachlor+mesotrione+glyphosate+benoxacor; sulfentrazone+S-metolachlor+mesotrione+glyphosate; sulfentrazone+S-metolachlor+mesotrione+glyphosate+benoxacor; sulfentrazone+metolachlor+atrazine+glyphosate; sulfentrazone+metolachlor+atrazine+glyphosate+benoxacor; sulfentrazone+S-metolachlor+atrazine +glyphosate; sulfentrazone+S-metolachlor+atrazine+glyphosate+benoxacor; sulfentrazone+metolachlor+terbuthylazine+glyphosate; sulfentrazone+metolachlor+terbuthylazine+glyphosate+benoxacor; sulfentrazone+S-metolachlor+terbuthylazine+glyphosate; sulfentrazone+S-metolachlor+terbuthylazine+glyphosate+benoxacor; sulfentrazone+atrazine+nicosulfuron+glyphosate; sulfentrazone+atrazine+nicosulfuron+glyphosate+benoxacor; fluazolate+prosulfuron+primisulfuron+glyphosate; fluazolate+prosulfuron+dicamba+glyphosate; fluazolate+primisulfuron+dicamba+glyphosate; fluazolate+nicosulfuron+primisulfuron+glyphosate; fluazolate+nicosulfuron+prosulfuron+glyphosate; fluazolate+rimsulfuron+primisulfuron+glyphosate; fluazolate+rimsulfuron+prosulfuron+glyphosate; fluazolate+metolachlor+isoxaflutole+glyphosate; fluazolate+metolachlor+isoxaflutole+glyphosate+benoxacor; fluazolate+S-metolachlor+isoxaflutole+glyphosate; fluazolate+S-metolachlor+isoxaflutole+glyphosate+benoxacor; fluazolate+metolachlor+mesotrione+glyphosate; fluazolate+metolachlor+mesotrione+glyphosate+benoxacor; fluazolate+S-metolachlor +mesotrione+glyphosate; fluazolate+S-metolachlor+mesotrione+glyphosate+benoxacor; fluazolate+metolachlor+atrazine+glyphosate; fluazolate+metolachlor+atrazine+glyphosate+benoxacor; fluazolate+S-metolachlor+atrazine+glyphosate; fluazolate+S-metolachlor+atrazine+glyphosate+benoxacor; fluazolate+metolachlor+terbuthylazine+glyphosate; fluazolate+metolachlor+terbuthylazine+glyphosate+benoxacor; fluazolate+S-metolachlor+terbuthylazine+glyphosate; fluazolate+S-metolachlor+terbuthylazine+glyphosate+benoxacor; fluazolate+atrazine+nicosulfuron +glyphosate; fluazolate+atrazine+nicosulfuron+glyphosate+benoxacor; pyraflufen-ethyl+prosulfuron+primisulfuron+glyphosate; pyraflufen-ethyl+prosulfuron+dicamba+glyphosate; pyraflufen-ethyl+primisulfuron+dicamba+glyphosate; pyraflufen-ethyl+nicosulfuron+primisulfuron+glyphosate; pyraflufen-ethyl+nicosulfuron+prosulfuron+glyphosate; pyraflufen-ethyl+rimsulfuron+primisulfuron+glyphosate; pyraflufen-ethyl+rimsulfuron+prosulfuron+glyphosate; pyraflufen-ethyl+metolachlor+isoxaflutole+glyphosate; pyraflufen-ethyl+metolachlor+isoxaflutole+glyphosate+benoxacor; pyraflufen-ethyl+S-metolachlor+isoxaflutole+glyphosate; pyraflufen-ethyl+S-metolachlor+isoxaflutole+glyphosate+benoxacor; pyraflufen-ethyl+metolachlor+mesotrione+glyphosate; pyraflufen-ethyl+metolachlor+mesotrione+glyphosate+benoxacor; pyraflufen-ethyl+S-metolachlor+mesotrione+glyphosate; pyraflufen-ethyl+S-metolachlor+mesotrione+glyphosate+benoxacor; pyraflufen-ethyl+metolachlor+atrazine+glyphosate; pyraflufen-ethyl+metolachlor+atrazine+glyphosate+benoxacor; pyraflufen-ethyl+S-metolachlor+atrazine+glyphosate; pyraflufen-ethyl+S-metolachlor+atrazine+glyphosate+benoxacor; pyraflufen-ethyl+metolachlor+terbuthylazine+glyphosate; pyraflufen-ethyl+metolachlor+terbuthylazine+glyphosate+benoxacor; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glyphosate; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glyphosate+benoxacor; pyraflufen-ethyl+atrazine+nicosulfuron+glyphosate; pyraflufen-ethyl+atrazine+nicosulfuron+glyphosate+benoxacor; flumipropyn+prosulfuron+primisulfuron+glyphosate; flumipropyn+prosulfuron+dicamba+glyphosate; flumipropyn+primisulfuron+dicamba+glyphosate; flumipropyn+nicosulfuron+primisulfuron+glyphosate; flumipropyn+nicosulfuron+prosulfuron+glyphosate; flumipropyn+rimsulfuron+primisulfuron+glyphosate; flumipropyn+rimsulfuron+prosulfuron+glyphosate; flumipropyn+metolachlor+isoxaflutole+glyphosate; flumipropyn+metolachlor+isoxaflutole+glyphosate+benoxacor; flumipropyn+S-metolachlor+isoxaflutole+glyphosate; flumipropyn+S-metolachlor+isoxaflutole+glyphosate+benoxacor; flumipropyn+metolachlor+mesotrione+glyphosate; flumipropyn+metolachlor+mesotrione+glyphosate+benoxacor; flumipropyn+S-metolachlor+mesotrione+glyphosate; flumipropyn+S-metolachlor+mesotrione+glyphosate+benoxacor; flumipropyn+metolachlor+atrazine+glyphosate; flumipropyn+metolachlor+atrazine+glyphosate+benoxacor; flumipropyn+S-metolachlor+atrazine+glyphosate; flumipropyn+S-metolachlor+atrazine+glyphosate +benoxacor; flumipropyn+metolachlor+terbuthylazine+glyphosate; flumipropyn+metolachlor+terbuthylazine+glyphosate+benoxacor; flumipropyn+S-metolachlor+terbuthylazine+glyphosate; flumipropyn+S-metolachlor+terbuthylazine+glyphosate+benoxacor; flumipropyn+atrazine+nicosulfuron+glyphosate; flumipropyn+atrazine+nicosulfuron+glyphosate+benoxacor; flupropacil+prosulfuron+primisulfuron+glyphosate; flupropacil+prosulfuron+dicamba+glyphosate; flupropacil+primisulfuron+dicamba+glyphosate; flupropacil+nicosulfuron+primisulfuron+glyphosate; flupropacil+nicosulfuron+prosulfuron+glyphosate; flupropacil+rimsulfuron+primisulfuron+glyphosate; flupropacil+rimsulfuron+prosulfuron+glyphosate; flupropacil+metolachlor+isoxaflutole+glyphosate; flupropacil+metolachlor+isoxaflutole+glyphosate+benoxacor; flupropacil+S-metolachlor+isoxaflutole+glyphosate; flupropacil+S-metolachlor+isoxaflutole+glyphosate+benoxacor; flupropacil+metolachlor+mesotrione+glyphosate; flupropacil+metolachlor+mesotrione+glyphosate+benoxacor; flupropacil+S-metolachlor+mesotrione+glyphosate; flupropacil+S-metolachlor+mesotrione+glyphosate+benoxacor; flupropacil+metolachlor+atrazine+glyphosate; flupropacil+metolachlor+atrazine+glyphosate+benoxacor; flupropacil+S-metolachlor+atrazine+glyphosate; flupropacil+S-metolachlor+atrazine+glyphosate+benoxacor; flupropacil+metolachlor+terbuthylazine+glyphosate; flupropacil+metolachlor+terbuthylazine+glyphosate+benoxacor; flupropacil+S-metolachlor+terbuthylazine+glyphosate; flupropacil+S-metolachlor+terbuthylazine+glyphosate+benoxacor; flupropacil+atrazine+nicosulfuron+glyphosate; flupropacil+atrazine+nicosulfuron+glyphosate+benoxacor; nipyraclofen+prosulfuron+primisulfuron+glyphosate; nipyraclofen+prosulfuron+dicamba+glyphosate; nipyraclofen+primisulfuron+dicamba+glyphosate; nipyraclofen+nicosulfuron+primisulfuron+glyphosate; nipyraclofen+nicosulfuron+prosulfuron+glyphosate; nipyraclofen+rimsulfuron+primisulfuron+glyphosate; nipyraclofen+rimsulfuron+prosulfuron+glyphosate; nipyraclofen+metolachlor+isoxaflutole+glyphosate; nipyraclofen+metolachlor+isoxaflutole+glyphosate+benoxacor; nipyraclofen+S-metolachlor+isoxaflutole+glyphosate; nipyraclofen+S-metolachlor+isoxaflutole+glyphosate+

benoxacor; nipyraclofen+metolachlor+mesotrione+glyphosate; nipyraclofen+metolachlor+mesotrione+glyphosate+benoxacor; nipyraclofen+S-metolachlor+mesotrione+glyphosate; nipyraclofen+S-metolachlor+mesotrione+glyphosate+benoxacor; nipyraclofen+metolachlor+atrazine+glyphosate; nipyraclofen+metolachlor+atrazine+glyphosate+benoxacor; nipyraclofen +S-metolachlor+atrazine+glyphosate; nipyraclofen+S-metolachlor+atrazine+glyphosate+benoxacor; nipyraclofen+metolachlor+terbuthylazine+glyphosate; nipyraclofen+metolachlor+terbuthylazine+glyphosate+benoxacor; nipyraclofen+S-metolachlor+terbuthylazine+glyphosate; nipyraclofen+S-metolachlor+terbuthylazine+glyphosate+benoxacor; nipyraclofen+atrazine+nicosulfuron+glyphosate; nipyraclofen+atrazine+nicosulfuron+glyphosate+benoxacor; benzfendizone+prosulfuron+primisulfuron+glyphosate; benzfendizone+prosulfuron+dicamba+glyphosate; benzfendizone+primisulfuron+dicamba+glyphosate; benzfendizone+nicosulfuron+primisulfuron+glyphosate; benzfendizone+nicosulfuron+prosulfuron+glyphosate; benzfendizone+rimsulfuron+primisulfuron+glyphosate; benzfendizone+rimsulfuron+prosulfuron+glyphosate; benzfendizone+metolachlor+isoxaflutole+glyphosate; benzfendizone+metolachlor+isoxaflutole+glyphosate+benoxacor; benzfendizone+S-metolachlor+isoxaflutole+glyphosate; benzfendizone+S-metolachlor+isoxaflutole+glyphosate+benoxacor; benzfendizone+metolachlor+mesotrione+glyphosate; benzfendizone+metolachlor+mesotrione+glyphosate+benoxacor; benzfendizone+S-metolachlor+mesotrione+glyphosate; benzfendizone+S-metolachlor+mesotrione+glyphosate+benoxacor; benzfendizone+metolachlor+atrazine+glyphosate; benzfendizone+metolachlor+atrazine+glyphosate+benoxacor; benzfendizone+S-metolachlor+atrazine+glyphosate; benzfendizone+S-metolachlor+atrazine+glyphosate+benoxacor; benzfendizone+atrazine+nicosulfuron+glyphosate; benzfendizone+atrazine+nicosulfuron+glyphosate+benoxacor; thidiazimin +prosulfuron+primisulfuron+glyphosate; thidiazimin+prosulfuron+dicamba+glyphosate; thidiazimin+primisulfuron+dicamba+glyphosate; thidiazimin+nicosulfuron+primisulfuron+glyphosate; thidiazimin+nicosulfuron+prosulfuron+glyphosate; thidiazimin+rimsulfuron+primisulfuron+glyphosate; thidiazimin+rimsulfuron+prosulfuron+glyphosate; thidiazimin+metolachlor+isoxaflutole+glyphosate; thidiazimin +metolachlor+isoxaflutole+glyphosate+benoxacor; thidiazimin+S-metolachlor+isoxaflutole+glyphosate; thidiazimin+S-metolachlor+isoxaflutole+glyphosate+benoxacor; thidiazimin+metolachlor+mesotrione+glyphosate; thidiazimin+metolachlor+mesotrione+glyphosate+benoxacor; thidiazimin+S-metolachlor+mesotrione+glyphosate; thidiazimin+S-metolachlor+mesotrione+glyphosate+benoxacor; thidiazimin +metolachlor+atrazine+glyphosate; thidiazimin+metolachlor+atrazine+glyphosate+benoxacor; thidiazimin+S-metolachlor+atrazine+glyphosate; thidiazimin+S-metolachlor +atrazine+glyphosate+benoxacor; thidiazimin+metolachlor+terbuthylazine+glyphosate; thidiazimin+metolachlor+terbuthylazine+glyphosate+benoxacor; thidiazimin+S-metolachlor+terbuthylazine+glyphosate; thidiazimin+S-metolachlor+terbuthylazine+glyphosate+benoxacor; thidiazimin+atrazine+nicosulfuron+glyphosate; and thidiazimin+atrazine+nicosulfuron+glyphosate+benoxacor.

[0143] Acifluorfen+metolachlor+isoxaflutole+glyphosate+MON 4660; acifluorfen+S-metolachlor+isoxaflutole+glyphosate+MON 4660; acifluorfen+metolachlor+mesotrione+glyphosate+MON 4660; acifluorfen+S-metolachlor+mesotrione+glyphosate+MON 4660; acifluorfen+metolachlor+atrazine+glyphosate+MON 4660; acifluorfen+S-metolachlor+atrazine+glyphosate+MON 4660; acifluorfen+metolachlor +terbuthylazine+glyphosate+MON 4660; acifluorfen+S-metolachlor+terbuthylazine+glyphosate+MON 4660; acifluorfen+atrazine+nicosulfuron+glyphosate+MON 4660; aclonifen+metolachlor+isoxaflutole+glyphosate+MON 4660; aclonifen+S-metolachlor +isoxaflutole+glyphosate+MON 4660; aclonifen+metolachlor+mesotrione+glyphosate+MON 4660; aclonifen+S-metolachlor+mesotrione+glyphosate+MON 4660; aclonifen+metolachlor+atrazine+glyphosate+MON 4660; aclonifen+S-metolachlor+atrazine+glyphosate+MON 4660; aclonifen+metolachlor+terbuthylazine +glyphosate+MON 4660; aclonifen+S-metolachlor+terbuthylazine+glyphosate+MON 4660; aclonifen+atrazine+nicosulfuron+glyphosate+MON 4660; bifenox+metolachlor +isoxaflutole+glyphosate+MON 4660; bifenox+S-metolachlor+isoxaflutole+glyphosate+MON 4660; bifenox+metolachlor+mesotrione+glyphosate+MON 4660; bifenox+S-metolachlor+mesotrione+glyphosate+MON 4660; bifenox+metolachlor+atrazine+glyphosate+MON 4660; bifenox+S-metolachlor+atrazine+glyphosate+MON 4660; bifenox+metolachlor+terbuthylazine+glyphosate+MON 4660; bifenox+S-metolachlor+terbuthylazine+glyphosate+MON 4660; bifenox+atrazine+nicosulfuron+glyphosate+MON 4660; chlomitrofen+metolachlor+isoxaflutole+glyphosate+MON 4660; chlomitrofen+S-metolachlor+isoxaflutole+glyphosate+MON 4660; chlomitrofen+metolachlor+mesotrione+glyphosate+MON 4660; chlomitrofen+S-metolachlor+mesotrione+glyphosate+MON 4660; chlomitrofen+metolachlor+atrazine+glyphosate +MON 4660; chlomitrofen+S-metolachlor+atrazine+glyphosate+MON 4660; chlomitrofen+metolachlor+terbuthylazine+glyphosate+MON 4660; chlomitrofen+S-metolachlor+terbuthylazine+glyphosate+MON 4660; chlomitrofen+atrazine+nicosulfuron+glyphosate+MON 4660; ethoxyfen+metolachlor+isoxaflutole+glyphosate+MON 4660; ethoxyfen+S-metolachlor+isoxaflutole+glyphosate+MON 4660; ethoxyfen+metolachlor+mesotrione+glyphosate+MON 4660; ethoxyfen+S-metolachlor+mesotrione+glyphosate+MON 4660; ethoxyfen+metolachlor+atrazine+glyphosate+MON 4660; ethoxyfen+S-metolachlor+atrazine+glyphosate+MON 4660; ethoxyfen+metolachlor+terbuthylazine+glyphosate+MON 4660; ethoxyfen+S-metolachlor+terbuthylazine+glyphosate+MON 4660; ethoxyfen+atrazine+nicosulfuron+glyphosate+MON 4660; fluoroglycofen+metolachlor+isoxaflutole+glyphosate+MON 4660; fluoroglycofen+S-metolachlor+isoxaflutole+glyphosate+MON 4660; fluoroglycofen+metolachlor+mesotrione+glyphosate+MON 4660; fluoroglycofen +S-metolachlor+mesotrione+glyphosate+MON 4660; fluoroglycofen+metolachlor+atrazine+glyphosate+MON 4660; fluoroglycofen+S-metolachlor+atrazine+glyphosate +MON 4660; fluoroglycofen+metolachlor+terbuthylazine+glyphosate+MON 4660; fluoroglycofen+S-metolachlor+terbuthy-

lazine+glyphosate+MON 4660; fluoroglycofen+atrazine+nicosulfuron+glyphosate+MON 4660; fomesafen+metolachlor+isoxaflutole +glyphosate+MON 4660; fomesafen+S-metolachlor+isoxaflutole+glyphosate+MON 4660; fomesafen+metolachlor+mesotrione+glyphosate+MON 4660; fomesafen+S-metolachlor+mesotrione+glyphosate+MON 4660; fomesafen+metolachlor+atrazine+glyphosate+MON 4660; fomesafen+S-metolachlor+atrazine+glyphosate+MON 4660; fomesafen+metolachlor+terbuthylazine+glyphosate+MON 4660; fomesafen+S-metolachlor+terbuthylazine+glyphosate+MON 4660; fomesafen+atrazine+nicosulfuron+glyphosate+MON 4660; lactofen+metolachlor+isoxaflutole+glyphosate +MON 4660; lactofen+S-metolachlor+isoxaflutole+glyphosate+MON 4660; lactofen+metolachlor+mesotrione+glyphosate+MON 4660; lactofen+S-metolachlor+mesotrione +glyphosate+MON 4660; lactofen+metolachlor+atrazine+glyphosate+MON 4660; +lactofen+S-metolachlor+atrazine+MON 4660; lactofen+metolachlor+terbuthylazine+glyphosate+MON 4660; lactofen+S-metolachlor+terbuthylazine+glyphosate+MON 4660; lactofen+atrazine+nicosulfuron+glyphosate+MON 4660; oxyfluorfen+metolachlor+isoxaflutole+glyphosate+MON 4660; oxyfluorfen+S-metolachlor or+isoxaflutole+glyphosate+MON 4660; oxyfluorfen+metolachlor+mesotrione+glyphosate+MON 4660; oxyfluorfen+S-metolachlor+mesotrione+glyphosate+MON 4660; oxyfluorfen+metolachlor+atrazine+glyphosate+MON 4660; oxyfluorfen+S-metolachlor+atrazine+glyphosate+MON 4660; oxyfluorfen+metolachlor+terbuthylazine+glyphosate+MON 4660; oxyfluorfen+S-metolachlor+terbuthylazine+glyphosate+MON 4660; oxyfluorfen+atrazine+nicosulfuron+glyphosate+MON 4660; azafenidin+metolachlor+isoxaflutole+glyphosate+MON 4660; azafenidin+S-metolachlor+isoxaflutole+glyphosate+MON 4660; azafenidin+metolachlor+mesotrione+glyphosate+MON 4660; azafenidin+S-metolachlor+mesotrione+glyphosate+MON 4660; azafenidin+metolachlor+atrazine+glyphosate+MON 4660; azafenidin+S-metolachlor+atrazine+glyphosate+MON 4660; azafenidin+metolachlor +terbuthylazine+glyphosate+MON 4660; azafenidin+S-metolachlor+terbuthylazine+glyphosate+MON 4660; azafenidin+atrazine+nicosulfuron+glyphosate+MON 4660; carfentrazone-ethyl+metolachlor+isoxaflutole+glyphosate+MON 4660; carfentrazone-ethyl+S-metolachlor+isoxaflutole+glyphosate+MON 4660; carfentrazone-ethyl+metolachlor+mesotrione+glyphosate+MON 4660; carfentrazone-ethyl+S-metolachlor+mesotrione+glyphosate+MON 4660; carfentrazone-ethyl+metolachlor+atrazine+glyphosate+MON 4660; carfentrazone-ethyl+S-metolachlor+atrazine+glyphosate+MON 4660; carfentrazone-ethyl+metolachlor+terbuthylazine+glyphosate+MON 4660; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glyphosate+MON 4660; carfentrazone-ethyl+atrazine+nicosulfuron+glyphosate+MON 4660; compound of the formula A+metolachlor+isoxaflutole+glyphosate+MON 4660; compound of the formula A+S-metolachlor+isoxaflutole+glyphosate+MON 4660; compound of the formula A+metolachlor+mesotrione+glyphosate+MON 4660; compound of the formula A+S-metolachlor+mesotrione+glyphosate+MON 4660; compound of the formula A+metolachlor+atrazine+glyphosate+MON 4660; compound of the formula A+S-metolachlor+atrazine+glyphosate+MON 4660; compound of the formula A+metolachlor +terbuthylazine+glyphosate+MON 4660; compound of the formula A+S-metolachlor+terbuthylazine+glyphosate+MON 4660; compound of the formula A+atrazine+nicosulfuron+glyphosate+MON 4660; cinidon-ethyl+metolachlor+isoxaflutole+glyphosate+MON 4660; cinidon-ethyl+S-metolachlor+isoxaflutole+glyphosate+MON 4660; cinidon-ethyl+metolachlor+mesotrione+glyphosate+MON 4660; cinidon-ethyl+S-metolachlor+mesotrione+glyphosate+MON 4660; cinidon-ethyl+metolachlor+atrazine+glyphosate+MON 4660; cinidon-ethyl+S-metolachlor+atrazine+glyphosate+MON 4660; cinidon-ethyl+metolachlor+terbuthylazine+glyphosate+MON 4660; cinidon-ethyl+S-metolachlor+terbuthylazine+glyphosate+MON 4660; cinidon-ethyl+atrazine+nicosulfuron+glyphosate+MON 4660; flumiclorac-pentyl+metolachlor+isoxaflutole+glyphosate+MON 4660; flumiclorac-pentyl+S-metolachlor+isoxaflutole+glyphosate+MON 4660; flumiclorac-pentyl+metolachlor+mesotrione+glyphosate+MON 4660; flumiclorac-pentyl+S-metolachlor+mesotrione+glyphosate+MON 4660; flumiclorac-pentyl+metolachlor+atrazine+glyphosate+MON 4660; flumiclorac-pentyl+S-metolachlor+atrazine+glyphosate+MON 4660; flumiclorac-pentyl+metolachlor+terbuthylazine+glyphosate+MON 4660; flumiclorac-pentyl+S-metolachlor+terbuthylazine+glyphosate+MON 4660; flumiclorac-pentyl+atrazine+nicosulfuron+glyphosate+MON 4660; flumioxazin+metolachlor+isoxaflutole+glyphosate+MON 4660; flumioxazin+S-metolachlor+isoxaflutole+glyphosate+MON 4660; flumioxazin+metolachlor+mesotrione+glyphosate+MON 4660; flumioxazin+S-metolachlor+mesotrione+glyphosate+MON 4660; flumioxazin+metolachlor+atrazine+glyphosate+MON 4660; flumioxazin+S-metolachlor+atrazine+glyphosate+MON 4660; flumioxazin+metolachlor+terbuthylazine+glyphosate+MON 4660; flumioxazin+S-metolachlor+terbuthylazine+glyphosate+MON 4660; flumioxazin+atrazine+nicosulfuron+glyphosate+MON 4660; fluthiacet-methyl+metolachlor+isoxaflutole+glyphosate+MON 4660; fluthiacet-methyl+S-metolachlor+isoxaflutole+glyphosate+MON 4660; fluthiacet-methyl+metolachlor+mesotrione+glyphosate+MON 4660; fluthiacet-methyl+S-metolachlor+mesotrione+glyphosate+MON 4660; fluthiacet-methyl+metolachlor+atrazine+glyphosate+MON 4660; fluthiacet-methyl+S-metolachlor+atrazine+glyphosate+MON 4660; fluthiacet-methyl+metolachlor+terbuthylazine+glyphosate+MON 4660; fluthiacet-methyl+S-metolachlor+terbuthylazine+glyphosate+MON 4660; fluthiacet-methyl+atrazine+nicosulfuron+glyphosate+MON 4660; oxadiargyl+metolachlor+isoxaflutole+glyphosate+MON 4660; oxadiargyl+S-metolachlor+isoxaflutole+glyphosate+MON 4660; oxadiargyl+metolachlor+mesotrione+glyphosate +MON 4660; oxadiargyl+S-metolachlor+mesotrione+glyphosate+MON 4660; oxadiargyl+metolachlor+atrazine+glyphosate+MON 4660; oxadiargyl+S-metolachlor+atrazine+glyphosate+MON 4660; oxadiargyl+metolachlor+terbuthylazine+glyphosate +MON 4660; oxadiargyl+S-metolachlor+terbuthylazine+glyphosate+MON 4660; oxadiargyl+atrazine+nicosulfuron+glyphosate+MON 4660; oxadiazon+metolachlor+isoxaflutole+glyphosate+MON 4660; oxadiazon+S-metolachlor+isoxaflutole+glyphosate+MON 4660; oxadiazon+metolachlor+mesotrione+glyphosate+MON 4660; oxadiazon+S-metolachlor+mesotrione+glyphosate+MON 4660; oxadiazon+metolachlor+atrazine+glyphosate+MON 4660; oxadiazon+S-metolachlor+atrazine+glyphosate+MON 4660; oxadiazon+metolachlor+

terbuthylazine+glyphosate+MON 4660; oxadiazon+S-metolachlor+terbuthylazine+glyphosate+MON 4660; oxadiazon+atrazine+nicosulfuron+glyphosate+MON 4660; pentoxazone+metolachlor+isoxaflutole+glyphosate+MON 4660; pentoxazone+S-metolachlor+isoxaflutole+glyphosate+MON 4660; pentoxazone+metolachlor+mesotrione+glyphosate+MON 4660; pentoxazone+S-metolachlor+mesotrione+glyphosate+MON 4660; pentoxazone+metolachlor+atrazine+glyphosate+MON 4660; pentoxazone+S-metolachlor+atrazine+glyphosate+MON 4660; pentoxazone+metolachlor+terbuthylazine+glyphosate+MON 4660; pentoxazone+S-metolachlor+terbuthylazine+glyphosate+MON 4660; pentoxazone+atrazine+nicosulfuron+glyphosate+MON 4660; sulfentrazone+metolachlor+isoxaflutole+glyphosate+MON 4660; sulfentrazone+S-metolachlor+isoxaflutole+glyphosate+MON 4660; sulfentrazone+metolachlor+mesotrione+glyphosate+MON 4660; sulfentrazone+S-metolachlor+mesotrione+glyphosate+MON 4660; sulfentrazone+metolachlor+atrazine+glyphosate+MON 4660; sulfentrazone+S-metolachlor+atrazine+glyphosate+MON 4660; sulfentrazone+metolachlor+terbuthylazine+glyphosate+MON 4660; sulfentrazone+S-metolachlor+terbuthylazine+glyphosate+MON 4660; sulfentrazone+atrazine+nicosulfuron+glyphosate+MON 4660; fluazolate+metolachlor+isoxaflutole+glyphosate+MON 4660; fluazolate+S-metolachlor+isoxaflutole+glyphosate+MON 4660; fluazolate+metolachlor+mesotrione+glyphosate+MON 4660; fluazolate+S-metolachlor+mesotrione+glyphosate+MON 4660; fluazolate+metolachlor+atrazine+glyphosate+MON 4660; fluazolate+S-metolachlor+atrazine+glyphosate+MON 4660; fluazolate+metolachlor+terbuthylazine+glyphosate+MON 4660; fluazolate+S-metolachlor+terbuthylazine+glyphosate+MON 4660; fluazolate+atrazine+nicosulfuron+glyphosate +MON 4660; pyraflufen-ethyl+metolachlor+isoxaflutole+glyphosate+MON 4660; pyraflufen-ethyl+S-metolachlor+isoxaflutole+glyphosate+MON 4660; pyraflufen-ethyl+metolachlor+mesotrione+glyphosate+MON 4660; pyraflufen-ethyl+S-metolachlor+mesotrione+glyphosate+MON 4660; pyraflufen-ethyl+metolachlor+atrazine+glyphosate+MON 4660; pyraflufen-ethyl+S-metolachlor+atrazine+glyphosate+MON 4660; pyraflufen-ethyl+metolachlor+terbuthylazine+glyphosate+MON 4660; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glyphosate+MON 4660; pyraflufen-ethyl+atrazine+nicosulfuron+glyphosate+MON 4660; flumipropyn+metolachlor+isoxaflutole +glyphosate+MON 4660; flumipropyn+S-metolachlor+isoxaflutole+glyphosate+MON 4660; flumipropyn+metolachlor+mesotrione+glyphosate+MON 4660; flumipropyn+S-metolachlor+mesotrione+glyphosate+MON 4660; flumipropyn+metolachlor+atrazine +glyphosate+MON 4660; flumipropyn+S-metolachlor+atrazine+glyphosate+MON 4660; flumipropyn+metolachlor+terbuthylazine+glyphosate+MON 4660; flumipropyn+S-metolachlor+terbuthylazine+glyphosate+MON 4660; flumipropyn+atrazine+nicosulfuron+glyphosate+MON 4660; flupropacil+metolachlor+isoxaflutole+glyphosate+MON 4660; flupropacil+S-metolachlor+isoxaflutole+glyphosate+MON 4660; flupropacil+metolachlor+mesotrione+glyphosate+MON 4660; flupropacil+S-metolachlor+mesotrione+glyphosate+MON 4660; flupropacil+metolachlor+atrazine+glyphosate+MON 4660; flupropacil+S-metolachlor+atrazine+glyphosate+MON 4660; flupropacil+metolachlor+terbuthylazine+glyphosate+MON 4660; flupropacil+S-metolachlor+terbuthylazine+glyphosate+MON 4660; flupropacil+atrazine+nicosulfuron+glyphosate+MON 4660; nipyraclofen+metolachlor+isoxaflutole+glyphosate+MON 4660; nipyraclofen+S-metolachlor+isoxaflutole+glyphosate+MON 4660; nipyraclofen+metolachlor+mesotrione+glyphosate+MON 4660; nipyraclofen+S-metolachlor+mesotrione+glyphosate+MON 4660; nipyraclofen+metolachlor+atrazine +glyphosate+MON 4660; nipyraclofen+S-metolachlor+atrazine+glyphosate+MON 4660; nipyraclofen+metolachlor+terbuthylazine+glyphosate+MON 4660; nipyraclofen+S-metolachlor+terbuthylazine+glyphosate+MON 4660; nipyraclofen+atrazine+nicosulfuron+glyphosate+MON 4660; benzfendizone+metolachlor+isoxaflutole+glyphosate+MON 4660; benzfendizone+S-metolachlor+isoxaflutole+glyphosate+MON 4660; benzfendizone+metolachlor+mesotrione+glyphosate+MON 4660; benzfendizone+S-metolachlor+mesotrione+glyphosate+MON 4660; benzfendizone+metolachlor+atrazine+glyphosate+MON 4660; benzfendizone+S-metolachlor+atrazine+glyphosate+MON 4660; benzfendizone+metolachlor+terbuthylazine+glyphosate+MON 4660; benzfendizone+S-metolachlor+terbuthylazine+glyphosate+MON 4660; benzfendizone+atrazine+nicosulfuron+glyphosate+MON 4660; thidiazimin+metolachlor+isoxaflutole+glyphosate+MON 4660; thidiazimin+S-metolachlor+isoxaflutole+glyphosate+MON 4660; thidiazimin+metolachlor+mesotrione+glyphosate +MON 4660; thidiazimin+S-metolachlor+mesotrione+glyphosate+MON 4660; thidiazimin+metolachlor+atrazine+glyphosate+MON 4660; thidiazimin+S-metolachlor +atrazine+glyphosate+MON 4660; thidiazimin+metolachlor+terbuthylazine+glyphosate+MON 4660; thidiazimin+S-metolachlor+terbuthylazine+glyphosate+MON 4660; and thidiazimin+atrazine+nicosulfuron+glyphosate+MON 4660.

[0144] Acifluorfen+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; acifluorfen+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; acifluorfen+metolachlor+mesotrione+glyphosate+FLURAZOLE; acifluorfen+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; acifluorfen+metolachlor+atrazine+glyphosate+FLURAZOLE; acifluorfen+S-metolachlor+atrazine+glyphosate+FLURAZOLE; acifluorfen+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; acifluorfen+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; acifluorfen+atrazine+nicosulfuron+glyphosate+FLURAZOLE; aclonifen+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; aclonifen+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; aclonifen+metolachlor+mesotrione+glyphosate+FLURAZOLE; aclonifen +S-metolachlor+mesotrione+glyphosate+FLURAZOLE; aclonifen+metolachlor+atrazine+glyphosate+FLURAZOLE; aclonifen+S-metolachlor+atrazine+glyphosate+FLURAZOLE; aclonifen+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; aclonifen+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; aclonifen+atrazine+nicosulfuron+glyphosate+FLURAZOLE; bifenox+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; bifenox+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; bifenox+metolachlor+mesotrione+glyphosate+FLURAZOLE; bifenox+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; bifenox+metolachlor+atrazine +glyphosate+FLURAZOLE; bifenox+S-metolachlor+atrazine+glyphosate+FLURAZOLE; bifenox+metolachlor+ter-

buthylazine+glyphosate+FLURAZOLE; bifenox +S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; bifenox+atrazine+nicosulfuron+glyphosate+FLURAZOLE; chlomitrofen+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; chlomitrofen+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; chlomitrofen+metolachlor+mesotrione+glyphosate+FLURAZOLE; chlomitrofen+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; chlomitrofen+metolachlor+atrazine+glyphosate+FLURAZOLE; chlomitrofen+S-metolachlor+atrazine+glyphosate+FLURAZOLE; chlomitrofen+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; chlomitrofen+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; chlomitrofen+atrazine+nicosulfuron+glyphosate+FLURAZOLE; ethoxyfen+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; ethoxyfen+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; ethoxyfen+metolachlor+mesotrione+glyphosate+FLURAZOLE; ethoxyfen+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; ethoxyfen+metolachlor+atrazine+glyphosate+FLURAZOLE; ethoxyfen+S-metolachlor+atrazine+glyphosate+FLURAZOLE; ethoxyfen +metolachlor+terbuthylazine+glyphosate+FLURAZOLE; ethoxyfen+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; ethoxyfen+atrazine+nicosulfuron+glyphosate+FLURAZOLE; fluoroglycofen+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; fluoroglycofen+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; fluoroglycofen+metolachlor+mesotrione+glyphosate+FLURAZOLE; fluoroglycofen+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; fluoroglycofen+metolachlor+atrazine+glyphosate+FLURAZOLE; fluoroglycofen+S-metolachlor+atrazine+glyphosate+FLURAZOLE; fluoroglycofen+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; fluoroglycofen+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; fluoroglycofen+atrazine+nicosulfuron+glyphosate+FLURAZOLE; fomesafen+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; fomesafen+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; fomesafen+metolachlor+mesotrione+glyphosate+FLURAZOLE; fomesafen+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; fomesafen+metolachlor+atrazine+glyphosate+FLURAZOLE; fomesafen +S-metolachlor+atrazine+glyphosate+FLURAZOLE; fomesafen+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; fomesafen+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; fomesafen+atrazine+nicosulfuron+glyphosate+FLURAZOLE; lactofen+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; lactofen+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; lactofen+metolachlor+mesotrione+glyphosate+FLURAZOLE; lactofen+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; lactofen+metolachlor+atrazine+glyphosate+FLURAZOLE; lactofen+S-metolachlor+atrazine+glyphosate+FLURAZOLE; lactofen+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; lactofen+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; lactofen+atrazine+nicosulfuron+glyphosate+FLURAZOLE; oxyfluorfen+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; oxyfluorfen+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; oxyfluorfen+metolachlor+mesotrione+glyphosate+FLURAZOLE; oxyfluorfen+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; oxyfluorfen+metolachlor+atrazine+glyphosate+FLURAZOLE; oxyfluorfen+S-metolachlor+atrazine+glyphosate+FLURAZOLE; oxyfluorfen+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; oxyfluorfen+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; oxyfluorfen+atrazine+nicosulfuron+glyphosate+FLURAZOLE; azafenidin+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; azafenidin+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; azafenidin+metolachlor+mesotrione+glyphosate+FLURAZOLE; azafenidin+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; azafenidin+metolachlor+atrazine+glyphosate+FLURAZOLE; azafenidin+S-metolachlor+atrazine +glyphosate+FLURAZOLE; azafenidin+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; azafenidin+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; azafenidin+atrazine+nicosulfuron+glyphosate+FLURAZOLE; carfentrazone-ethyl+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; carfentrazone-ethyl+metolachlor+mesotrione +glyphosate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; carfentrazone-ethyl+metolachlor+atrazine+glyphosate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+atrazine+glyphosate+FLURAZOLE; carfentrazone-ethyl+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; carfentrazone-ethyl+atrazine+nicosulfuron+glyphosate+FLURAZOLE; compound of the formula A+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; compound of the formula A+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; compound of the formula A+metolachlor+mesotrione+glyphosate+FLURAZOLE; compound of the formula A+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; compound of the formula A+metolachlor+atrazine+glyphosate+FLURAZOLE; compound of the formula A+S-metolachlor+atrazine+glyphosate+FLURAZOLE; compound of the formula A+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; compound of the formula A+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; compound of the formula A+atrazine+nicosulfuron+glyphosate+FLURAZOLE; cinidon-ethyl+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; cinidon-ethyl+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; cinidon-ethyl+metolachlor+mesotrione+glyphosate+FLURAZOLE; cinidon-ethyl+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; cinidon-ethyl+metolachlor+atrazine+glyphosate+FLURAZOLE; cinidon-ethyl+S-metolachlor+atrazine+glyphosate+FLURAZOLE; cinidon-ethyl+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; cinidon-ethyl+S-metolachlor+terbuthylazine +glyphosate+FLURAZOLE; cinidon-ethyl+atrazine+nicosulfuron+glyphosate+FLURAZOLE; flumiclorac-pentyl+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; flumiclorac-pentyl+metolachlor+mesotrione+glyphosate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; flumiclorac-pentyl+metolachlor+atrazine+glyphosate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+atrazine+glyphosate+FLURAZOLE; flumiclorac-pentyl+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; flumiclorac-pentyl+atrazine+nicosulfuron+glyphosate+

FLURAZOLE; flumioxazin+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; flumioxazin+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; flumioxazin+metolachlor+mesotrione+glyphosate+FLURAZOLE; flumioxazin+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; flumioxazin+metolachlor+atrazine+glyphosate+FLURAZOLE; flumioxazin+S-metolachlor+atrazine+glyphosate+FLURAZOLE; flumioxazin+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; flumioxazin+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; flumioxazin+atrazine+nicosulfuron+glyphosate+FLURAZOLE; fluthiacet-methyl+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; fluthiacet-methyl+metolachlor+mesotrione+glyphosate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; fluthiacet-methyl+metolachlor+atrazine+glyphosate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+atrazine+glyphosate+FLURAZOLE; fluthiacet-methyl+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; fluthiacet-methyl+atrazine+nicosulfuron+glyphosate+FLURAZOLE; oxadiargyl+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; oxadiargyl+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; oxadiargyl+metolachlor+mesotrione+glyphosate+FLURAZOLE; oxadiargyl+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; oxadiargyl+metolachlor+atrazine +glyphosate+FLURAZOLE; oxadiargyl+S-metolachlor+atrazine+glyphosate+FLURAZOLE; oxadiargyl+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; oxadiargyl+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; oxadiargyl+atrazine+nicosulfuron+glyphosate+FLURAZOLE; oxadiazon+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; oxadiazon+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; oxadiazon+metolachlor+mesotrione+glyphosate+FLURAZOLE; oxadiazon+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; oxadiazon+metolachlor+atrazine+glyphosate+FLURAZOLE; oxadiazon+S-metolachlor+atrazine+glyphosate+FLURAZOLE; oxadiazon+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; oxadiazon+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; oxadiazon+atrazine+nicosulfuron+glyphosate+FLURAZOLE; pentoxazone+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; pentoxazone+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; pentoxazone+metolachlor+mesotrione+glyphosate+FLURAZOLE; pentoxazone+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; pentoxazone+metolachlor+atrazine+glyphosate+FLURAZOLE; pentoxazone+S-metolachlor+atrazine+glyphosate+FLURAZOLE; pentoxazone+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; pentoxazone+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; pentoxazone+atrazine+nicosulfuron+glyphosate+FLURAZOLE; sulfentrazone+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; sulfentrazone+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; sulfentrazone+metolachlor+mesotrione+glyphosate+FLURAZOLE; sulfentrazone+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; sulfentrazone+metolachlor+atrazine+glyphosate+FLURAZOLE; sulfentrazone+S-metolachlor+atrazine+glyphosate+FLURAZOLE; sulfentrazone+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; sulfentrazone+S-metolachlor+terbuthylazine +glyphosate+FLURAZOLE; sulfentrazone+atrazine+nicosulfuron+glyphosate+FLURAZOLE; fluazolate+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; fluazolate+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; fluazolate+metolachlor+mesotrione+glyphosate+FLURAZOLE; fluazolate+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; fluazolate+metolachlor+atrazine+glyphosate+FLURAZOLE; fluazolate+S-metolachlor+atrazine+glyphosate+FLURAZOLE; fluazolate +metolachlor+terbuthylazine+glyphosate+FLURAZOLE; fluazolate+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; fluazolate+atrazine+nicosulfuron+glyphosate+FLURAZOLE; pyraflufen-ethyl+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; pyraflufen-ethyl+metolachlor+mesotrione+glyphosate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; pyraflufen-ethyl+metolachlor+atrazine+glyphosate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+atrazine+glyphosate+FLURAZOLE; pyraflufen-ethyl+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; pyraflufen-ethyl+atrazine+nicosulfuron+glyphosate+FLURAZOLE; flumipropyn+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; flumipropyn+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; flumipropyn+metolachlor+mesotrione+glyphosate+FLURAZOLE; flumipropyn+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; flumipropyn+metolachlor+atrazine+glyphosate+FLURAZOLE; flumipropyn+S-metolachlor+atrazine+glyphosate+FLURAZOLE; flumipropyn+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; flumipropyn+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; flumipropyn+atrazine+nicosulfuron+glyphosate+FLURAZOLE; flupropacil+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; flupropacil+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; flupropacil+metolachlor+mesotrione+glyphosate+FLURAZOLE; flupropacil+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; flupropacil+metolachlor+atrazine+glyphosate+FLURAZOLE; flupropacil+S-metolachlor+atrazine +glyphosate+FLURAZOLE; flupropacil+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; flupropacil+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; flupropacil+atrazine+nicosulfuron+glyphosate+FLURAZOLE; nipyraclofen+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; nipyraclofen+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; nipyraclofen+metolachlor+mesotrione+glyphosate+FLURAZOLE; nipyraclofen+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; nipyraclofen+metolachlor+atrazine+glyphosate+FLURAZOLE; nipyraclofen+S-metolachlor+atrazine+glyphosate+FLURAZOLE; nipyraclofen+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; nipyraclofen+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; nipyraclofen+atrazine+nicosulfuron+glyphosate+FLURAZOLE; benzfendizone+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; benzfendizone+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; benzfendizone+metolachlor+mesotrione+glyphosate+FLURAZOLE; benzfendizone+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; benzfendizone+metolachlor+atrazine+gly-

phosate+FLURAZOLE; benzfendizone+S-metolachlor+atrazine+glyphosate+FLURAZOLE; benzfendizone+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; benzfendizone+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; benzfendizone+atrazine+nicosulfuron+glyphosate+FLURAZOLE; thidiazimin+metolachlor+isoxaflutole+glyphosate+FLURAZOLE; thidiazimin+S-metolachlor+isoxaflutole+glyphosate+FLURAZOLE; thidiazimin+metolachlor+mesotrione+glyphosate+FLURAZOLE; thidiazimin+S-metolachlor+mesotrione+glyphosate+FLURAZOLE; thidiazimin+metolachlor+atrazine+glyphosate+FLURAZOLE; thidiazimin+S-metolachlor+atrazine+glyphosate+FLURAZOLE; thidiazimin+metolachlor+terbuthylazine+glyphosate+FLURAZOLE; thidiazimin+S-metolachlor+terbuthylazine+glyphosate+FLURAZOLE; and thidiazimin+atrazine+nicosulfuron+glyphosate+FLURAZOLE.

[**0145**] Acifluorfen+metolachlor+isoxaflutole+glyphosate+DICHLORMID; acifluorfen+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; acifluorfen+metolachlor+mesotrione+glyphosate+DICHLORMID; acifluorfen+S-metolachlor+mesotrione+glyphosate+DICHLORMID; acifluorfen+metolachlor+atrazine+glyphosate+DICHLORMID; acifluorfen+S-metolachlor+atrazine+glyphosate+DICHLORMID; acifluorfen+metolachlor+terbuthylazine+glyphosate+DICHLORMID; acifluorfen+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; acifluorfen+atrazine+nicosulfuron+glyphosate+DICHLORMID; aclonifen+metolachlor+isoxaflutole+glyphosate+DICHLORMID; aclonifen+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; aclonifen+metolachlor+mesotrione+glyphosate+DICHLORMID; aclonifen+S-metolachlor+mesotrione+DICHLORMID; aclonifen+metolachlor+atrazine +glyphosate+DICHLORMID; aclonifen+S-metolachlor+atrazine+glyphosate+DICHLORMID; aclonifen+metolachlor+terbuthylazine+glyphosate+DICHLORMID; aclonifen+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; aclonifen+atrazine+nicosulfuron+glyphosate+DICHLORMID; bifenox+metolachlor+isoxaflutole +glyphosate+DICHLORMID; bifenox+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; bifenox+metolachlor+mesotrione+glyphosate+DICHLORMID; bifenox+S-metolachlor+mesotrione+glyphosate+DICHLORMID; bifenox+metolachlor+atrazine +glyphosate+DICHLORMID; bifenox+S-metolachlor+atrazine+glyphosate+DICHLORMID; bifenox+metolachlor+terbuthylazine+glyphosate+DICHLORMID; bifenox+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; bifenox+atrazine+nicosulfuron+glyphosate+DICHLORMID; chlomitrofen+metolachlor+isoxaflutole+glyphosate+DICHLORMID; chlomitrofen+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; chlomitrofen+metolachlor+mesotrione+glyphosate+DICHLORMID; chlomitrofen+S-metolachlor+mesotrione+glyphosate+DICHLORMID; chlomitrofen+metolachlor+atrazine+glyphosate+DICHLORMID; chlomitrofen+S-metolachlor+atrazine+glyphosate+DICHLORMID; chlomitrofen+metolachlor+terbuthylazine+glyphosate+DICHLORMID; chlomitrofen+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; chlomitrofen+atrazine+nicosulfuron+glyphosate+DICHLORMID; ethoxyfen+metolachlor+isoxaflutole+glyphosate+DICHLORMID; ethoxyfen+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; ethoxyfen+metolachlor+mesotrione+glyphosate+DICHLORMID; ethoxyfen+S-metolachlor+mesotrione+glyphosate+DICHLORMID; ethoxyfen+metolachlor+atrazine+glyphosate+DICHLORMID; ethoxyfen+S-metolachlor+atrazine+glyphosate+DICHLORMID; ethoxyfen+metolachlor+terbuthylazine+glyphosate+DICHLORMID; ethoxyfen+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; ethoxyfen+atrazine+nicosulfuron+glyphosate+DICHLORMID; fluoroglycofen+metolachlor+isoxaflutole+glyphosate+DICHLORMID; fluoroglycofen+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; fluoroglycofen+metolachlor+mesotrione+glyphosate+DICHLORMID; fluoroglycofen+S-metolachlor+mesotrione+glyphosate+DICHLORMID; fluoroglycofen+metolachlor+atrazine+glyphosate+DICHLORMID; fluoroglycofen+S-metolachlor+atrazine+glyphosate+DICHLORMID; fluoroglycofen+metolachlor+terbuthylazine+glyphosate+DICHLORMID; fluoroglycofen+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; fluoroglycofen+atrazine+nicosulfuron+glyphosate+DICHLORMID; fomesafen+metolachlor+isoxaflutole+glyphosate+DICHLORMID; fomesafen+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; fomesafen+metolachlor+mesotrione+glyphosate+DICHLORMID; fomesafen+S-metolachlor+mesotrione+glyphosate+DICHLORMID; fomesafen+metolachlor+atrazine+glyphosate+DICHLORMID; fomesafen+S-metolachlor+atrazine+glyphosate+DICHLORMID; fomesafen+metolachlor+terbuthylazine+glyphosate+DICHLORMID; fomesafen+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; fomesafen+atrazine+nicosulfuron+glyphosate+DICHLORMID; lactofen+metolachlor+isoxaflutole+glyphosate+DICHLORMID; lactofen+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; lactofen+metolachlor+mesotrione+glyphosate+DICHLORMID; lactofen +S-metolachlor+mesotrione+glyphosate+DICHLORMID; lactofen+metolachlor+atrazine+glyphosate+DICHLORMID; lactofen+S-metolachlor+atrazine+glyphosate+DICHLORMID; lactofen+metolachlor+terbuthylazine+glyphosate+DICHLORMID; lactofen+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; lactofen+atrazine +nicosulfuron+glyphosate+DICHLORMID; oxyfluorfen+metolachlor+isoxaflutole+glyphosate+DICHLORMID; oxyfluorfen+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; oxyfluorfen+metolachlor+mesotrione+glyphosate+DICHLORMID; oxyfluorfen+S-metolachlor+mesotrione+glyphosate+DICHLORMID; oxyfluorfen+metolachlor+atrazine+glyphosate+DICHLORMID; oxyfluorfen+S-metolachlor+atrazine +glyphosate+DICHLORMID; oxyfluorfen+metolachlor+terbuthylazine+glyphosate+DICHLORMID; oxyfluorfen+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; oxyfluorfen+atrazine+nicosulfuron+glyphosate+DICHLORMID; azafenidin+metolachlor+isoxaflutole+glyphosate+DICHLORMID; azafenidin+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; azafenidin+metolachlor+mesotrione+glyphosate+DICHLORMID; azafenidin+S-metolachlor+mesotrione+glyphosate+DICHLORMID; azafenidin+metolachlor+atrazine+glyphosate+DICHLORMID; azafenidin+S-metolachlor+atrazine+glyphosate+DICHLORMID; azafenidin+metolachlor+terbuthylazine+glyphosate+DICHLORMID; azafenidin+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; azafenidin+atrazine+nicosulfuron+glyphosate+DICHLORMID; carfentrazone-ethyl+metolachlor+isoxaflutole+glyphosate

+DICHLORMID; carfentrazone-ethyl+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; carfentrazone-ethyl+metolachlor+mesotrione+glyphosate+DICHLORMID; carfentrazone-ethyl+S-metolachlor+mesotrione+glyphosate+DICHLORMID; carfentrazone-ethyl+metolachlor+atrazine+glyphosate+DICHLORMID; carfentrazone-ethyl+S-metolachlor+atrazine+glyphosate+DICHLORMID; carfentrazone-ethyl+metolachlor+terbuthylazine+glyphosate+DICHLORMID; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; carfentrazone-ethyl+atrazine+nicosulfuron+DICHLORMID; compound of the formula A +metolachlor+isoxaflutole+glyphosate+DICHLORMID; compound of the formula A+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; compound of the formula A+metolachlor+mesotrione+glyphosate+DICHLORMID; compound of the formula A+S-metolachlor+mesotrione+glyphosate+DICHLORMID; compound of the formula A+metolachlor+atrazine+glyphosate+DICHLORMID; compound of the formula A+S-metolachlor+atrazine+glyphosate+DICHLORMID; compound of the formula A+metolachlor+terbuthylazine+glyphosate+DICHLORMID; compound of the formula A+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; compound of the formula A+atrazine+nicosulfuron+glyphosate+DICHLORMID; cinidon-ethyl+metolachlor+isoxaflutole+glyphosate+DICHLORMID; cinidon-ethyl+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; cinidon-ethyl+metolachlor+mesotrione+glyphosate+DICHLORMID; cinidon-ethyl+S-metolachlor+mesotrione+glyphosate+DICHLORMID; cinidon-ethyl+metolachlor+atrazine+glyphosate+DICHLORMID; cinidon-ethyl+S-metolachlor+atrazine+glyphosate+DICHLORMID; cinidon-ethyl+metolachlor+terbuthylazine+glyphosate+DICHLORMID; cinidon-ethyl+S-metolachlor+terbuthylazine +glyphosate+DICHLORMID; cinidon-ethyl+atrazine+nicosulfuron+glyphosate+DICHLORMID; flumiclorac-pentyl+metolachlor+isoxaflutole+DICHLORMID; flumiclorac-pentyl+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; flumiclorac-pentyl+metolachlor+mesotrione+glyphosate+DICHLORMID; flumiclorac-pentyl+S-metolachlor +mesotrione+glyphosate+DICHLORMID; flumiclorac-pentyl+metolachlor+atrazine+glyphosate+DICHLORMID; flumiclorac-pentyl+S-metolachlor+atrazine+glyphosate+DICHLORMID; flumiclorac-pentyl+metolachlor+terbuthylazine+glyphosate+DICHLORMID; flumiclorac-pentyl+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; flumiclorac-pentyl+atrazine+nicosulfuron+glyphosate+DICHLORMID; flumioxazin+metolachlor+isoxaflutole+glyphosate+DICHLORMID; flumioxazin+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; flumioxazin+metolachlor+mesotrione+glyphosate+DICHLORMID; flumioxazin+S-metolachlor+mesotrione+glyphosate+DICHLORMID; flumioxazin+metolachlor+atrazine+glyphosate+DICHLORMID; flumioxazin+S-metolachlor+atrazine+glyphosate+DICHLORMID; flumioxazin+metolachlor+terbuthylazine+glyphosate+DICHLORMID; flumioxazin+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; flumioxazin+atrazine+nicosulfuron+glyphosate+DICHLORMID; fluthiacet-methyl+metolachlor+isoxaflutole+glyphosate+DICHLORMID; fluthiacet-methyl+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; fluthiacet-methyl+metolachlor+mesotrione+glyphosate+DICHLORMID; fluthiacet-methyl+S-metolachlor+mesotrione+glyphosate+DICHLORMID; fluthiacet-methyl+metolachlor+atrazine+glyphosate+DICHLORMID; fluthiacet-methyl+S-metolachlor+atrazine+glyphosate+DICHLORMID; fluthiacet-methyl+metolachlor+terbuthylazine+glyphosate+DICHLORMID; fluthiacet-methyl+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; fluthiacet-methyl+atrazine+nicosulfuron+glyphosate+DICHLORMID; oxadiargyl+metolachlor+isoxaflutole+glyphosate+DICHLORMID; oxadiargyl+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; oxadiargyl+metolachlor+mesotrione+glyphosate+DICHLORMID; oxadiargyl+S-metolachlor+mesotrione+glyphosate+DICHLORMID; oxadiargyl+metolachlor+atrazine +glyphosate+DICHLORMID; oxadiargyl+S-metolachlor+atrazine+glyphosate+DICHLORMID; oxadiargyl+metolachlor+terbuthylazine+glyphosate+DICHLORMID; oxadiargyl+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; oxadiargyl+atrazine+nicosulfuron+glyphosate+DICHLORMID; oxadiazon+metolachlor+isoxaflutole+glyphosate+DICHLORMID; oxadiazon+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; oxadiazon+metolachlor+mesotrione+glyphosate+DICHLORMID; oxadiazon+S-metolachlor+mesotrione+glyphosate+DICHLORMID; oxadiazon+metolachlor+atrazine+glyphosate+DICHLORMID; oxadiazon+S-metolachlor+atrazine+glyphosate+DICHLORMID; oxadiazon+metolachlor+terbuthylazine+glyphosate+DICHLORMID; oxadiazon+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; oxadiazon+atrazine+nicosulfuron+glyphosate+DICHLORMID; pentoxazone+metolachlor+isoxaflutole+glyphosate+DICHLORMID; pentoxazone+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; pentoxazone+metolachlor+mesotrione+glyphosate+DICHLORMID; pentoxazone+S-metolachlor+mesotrione+glyphosate+DICHLORMID; pentoxazone+metolachlor+atrazine+glyphosate+DICHLORMID; pentoxazone+S-metolachlor+atrazine+glyphosate+DICHLORMID; pentoxazone+metolachlor+terbuthylazine+glyphosate+DICHLORMID; pentoxazone+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; pentoxazone +atrazine+nicosulfuron+glyphosate+DICHLORMID; sulfentrazone+metolachlor+isoxaflutole+glyphosate+DICHLORMID; sulfentrazone+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; sulfentrazone+metolachlor+mesotrione+glyphosate+DICHLORMID; sulfentrazone+S-metolachlor+mesotrione+glyphosate+DICHLORMID; sulfentrazone+metolachlor+atrazine+glyphosate+DICHLORMID; sulfentrazone+S-metolachlor+atrazine+glyphosate+DICHLORMID; sulfentrazone+metolachlor+terbuthylazine+glyphosate+DICHLORMID; sulfentrazone+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; sulfentrazone+atrazine+nicosulfuron+glyphosate+DICHLORMID; fluazolate+metolachlor+isoxaflutole+glyphosate+DICHLORMID; fluazolate+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; fluazolate+metolachlor+mesotrione+glyphosate+DICHLORMID; fluazolate+S-metolachlor+mesotrione+glyphosate+DICHLORMID; fluazolate+metolachlor+atrazine +glyphosate+DICHLORMID; fluazolate+S-metolachlor+atrazine+glyphosate+DICHLORMID; fluazolate+metolachlor+terbuthylazine+glyphosate+DICHLORMID; fluazolate+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; fluazolate+atrazine+nicosulfuron+glyphosate+DICHLORMID; pyraflufen-ethyl+metolachlor+isoxaflutole+glyphosate+DICHLORMID; pyraflufen-ethyl+S-metolachlor+

isoxaflutole+glyphosate+DICHLORMID; pyraflufen-ethyl+metolachlor+mesotrione+glyphosate+DICHLORMID; pyraflufen-ethyl+S-metolachlor+mesotrione+glyphosate+DICHLORMID; pyraflufen-ethyl+metolachlor+atrazine+glyphosate+DICHLORMID; pyraflufen-ethyl+S-metolachlor+atrazine+glyphosate+DICHLORMID; pyraflufen-ethyl+metolachlor+terbuthylazine+glyphosate+DICHLORMID; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; pyraflufen-ethyl+atrazine+nicosulfuron+glyphosate+DICHLORMID; flumipropyn+metolachlor+isoxaflutole+glyphosate+DICHLORMID; flumipropyn+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; flumipropyn+metolachlor+mesotrione+glyphosate+DICHLORMID; flumipropyn+S-metolachlor+mesotrione+glyphosate+DICHLORMID; flumipropyn+metolachlor+atrazine+glyphosate+DICHLORMID; flumipropyn+S-metolachlor+atrazine+glyphosate +DICHLORMID; flumipropyn+metolachlor+terbuthylazine+glyphosate+DICHLORMID; flumipropyn+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; flumipropyn+atrazine+nicosulfuron+glyphosate+DICHLORMID; flupropacil+metolachlor+isoxaflutole+glyphosate+DICHLORMID; flupropacil+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; flupropacil+metolachlor+mesotrione+glyphosate+DICHLORMID; flupropacil+S-metolachlor+mesotrione+glyphosate+DICHLORMID; flupropacil+metolachlor+atrazine+glyphosate+DICHLORMID; flupropacil+S-metolachlor+atrazine+glyphosate+DICHLORMID; flupropacil+metolachlor+terbuthylazine+glyphosate+DICHLORMID; flupropacil+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; flupropacil+atrazine+nicosulfuron+glyphosate+DICHLORMID; nipyraclofen+metolachlor+isoxaflutole+glyphosate+DICHLORMID; nipyraclofen+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; nipyraclofen+metolachlor+mesotrione+glyphosate+DICHLORMID; nipyraclofen+S-metolachlor+mesotrione+glyphosate+DICHLORMID; nipyraclofen+metolachlor+atrazine+glyphosate+DICHLORMID; nipyraclofen+S-metolachlor+atrazine+glyphosate+DICHLORMID; nipyraclofen+metolachlor+terbuthylazine+glyphosate+DICHLORMID; nipyraclofen+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; nipyraclofen+atrazine+nicosulfuron+glyphosate+DICHLORMID; benzfendizone+metolachlor+isoxaflutole+glyphosate+DICHLORMID; benzfendizone+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; benzfendizone+metolachlor+mesotrione+glyphosate+DICHLORMID; benzfendizone+S-metolachlor+mesotrione+glyphosate+DICHLORMID; benzfendizone+metolachlor+atrazine+glyphosate+DICHLORMID; benzfendizone+S-metolachlor+atrazine+glyphosate+DICHLORMID; benzfendizone+metolachlor+terbuthylazine+glyphosate+DICHLORMID; benzfendizone+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; benzfendizone+atrazine+nicosulfuron+glyphosate+DICHLORMID; thidiazimin+metolachlor+isoxaflutole+glyphosate+DICHLORMID; thidiazimin+S-metolachlor+isoxaflutole+glyphosate+DICHLORMID; thidiazimin+metolachlor+mesotrione+glyphosate+DICHLORMID; thidiazimin+S-metolachlor+mesotrione+glyphosate+DICHLORMID; thidiazimin+metolachlor+atrazine+glyphosate+DICHLORMID; thidiazimin+S-metolachlor+atrazine+glyphosate +DICHLORMID; thidiazimin+metolachlor+terbuthylazine+glyphosate+DICHLORMID; thidiazimin+S-metolachlor+terbuthylazine+glyphosate+DICHLORMID; and thidiazimin +atrazine+nicosulfuron+glyphosate+DICHLORMID.

[**0146**] Acifluorfen+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; acifluorfen+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; acifluorfen+metolachlor+mesotrione+glyphosate+FURILAZOLE; acifluorfen+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; acifluorfen+metolachlor+atrazine+glyphosate+FURILAZOLE; acifluorfen+S-metolachlor+atrazine+glyphosate+FURILAZOLE; acifluorfen+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; acifluorfen+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; acifluorfen+atrazine+nicosulfuron+glyphosate+FURILAZOLE; aclonifen+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; aclonifen+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; aclonifen+metolachlor+mesotrione+glyphosate+FURILAZOLE; aclonifen+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; aclonifen+metolachlor+atrazine+glyphosate+FURILAZOLE; aclonifen+S-metolachlor+atrazine+glyphosate+FURILAZOLE; aclonifen+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; aclonifen+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; aclonifen+atrazine+nicosulfuron+glyphosate+FURILAZOLE; bifenox+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; bifenox+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; bifenox+metolachlor+mesotrione+glyphosate+FURILAZOLE; bifenox+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; bifenox +metolachlor+atrazine+glyphosate+FURILAZOLE; bifenox+S-metolachlor+atrazine+glyphosate+FURILAZOLE; bifenox+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; bifenox+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; bifenox+atrazine+nicosulfuron+glyphosate+FURILAZOLE; chlomitrofen+metolachlor +isoxaflutole+glyphosate+FURILAZOLE; chlomitrofen+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; chlomitrofen+metolachlor+mesotrione+glyphosate+FURILAZOLE; chlomitrofen+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; chlomitrofen+metolachlor+atrazine+glyphosate+FURILAZOLE; chlomitrofen+S-metolachlor+atrazine+glyphosate+FURILAZOLE; chlomitrofen+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; chlomitrofen+S-metolachlor+terbuthylazine +glyphosate+FURILAZOLE; chlomitrofen+atrazine+nicosulfuron+glyphosate+FURILAZOLE; ethoxyfen+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; ethoxyfen+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; ethoxyfen+metolachlor+mesotrione+glyphosate+FURILAZOLE; ethoxyfen+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; ethoxyfen+metolachlor+atrazine+glyphosate +FURILAZOLE; ethoxyfen+S-metolachlor+atrazine+glyphosate+FURILAZOLE; ethoxyfen+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; ethoxyfen+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; ethoxyfen+atrazine+nicosulfuron+glyphosate+FURILAZOLE; fluoroglycofen+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; fluoroglycofen+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; fluoroglycofen+metolachlor+mesotrione+glyphosate+FURILAZOLE; fluoroglycofen+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; fluoroglycofen+metolachlor+atrazine+glyphosate+FURILAZOLE; fluoroglycofen+S-metolachlor+

atrazine+glyphosate+FURILAZOLE; fluoroglycofen+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; fluoroglycofen+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; fluoroglycofen+atrazine+nicosulfuron+glyphosate+FURILAZOLE; fomesafen+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; fomesafen+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; fomesafen+metolachlor+mesotrione+glyphosate+FURILAZOLE; fomesafen+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; fomesafen+metolachlor+atrazine+glyphosate+FURILAZOLE; fomesafen+S-metolachlor+atrazine+glyphosate+FURILAZOLE; fomesafen+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; fomesafen+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; fomesafen+atrazine+nicosulfuron+glyphosate+FURILAZOLE; lactofen+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; lactofen+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; lactofen+metolachlor+mesotrione+glyphosate+FURILAZOLE; lactofen +S-metolachlor+mesotrione+glyphosate+FURILAZOLE; lactofen+metolachlor+atrazine+glyphosate+FURILAZOLE; lactofen+S-metolachlor+atrazine+glyphosate+FURILAZOLE; lactofen+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; lactofen+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; lactofen+atrazine+nicosulfuron+glyphosate+FURILAZOLE; oxyfluorfen+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; oxyfluorfen+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; oxyfluorfen+metolachlor+mesotrione+glyphosate+FURILAZOLE; oxyfluorfen+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; oxyfluorfen+metolachlor+atrazine+glyphosate+FURILAZOLE; oxyfluorfen+S-metolachlor+atrazine +glyphosate+FURILAZOLE; oxyfluorfen+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; oxyfluorfen+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; oxyfluorfen+atrazine+nicosulfuron+glyphosate+FURILAZOLE; azafenidin+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; azafenidin+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; azafenidin+metolachlor+mesotrione+glyphosate+FURILAZOLE; azafenidin+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; azafenidin+metolachlor+atrazine+glyphosate+FURILAZOLE; azafenidin +S-metolachlor+atrazine+glyphosate+FURILAZOLE; azafenidin+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; azafenidin+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; azafenidin+atrazine+nicosulfuron+glyphosate+FURILAZOLE; carfentrazone-ethyl+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; carfentrazone-ethyl+metolachlor+mesotrione+glyphosate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; carfentrazone-ethyl+metolachlor+atrazine+glyphosate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+atrazine+glyphosate+FURILAZOLE; carfentrazone-ethyl+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; B carfentrazone-ethyl+atrazine+nicosulfuron+glyphosate+FURILAZOLE; compound of the formula A+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; compound of the formula A+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; compound of the formula A+metolachlor+mesotrione+glyphosate+FURILAZOLE; compound of the formula A+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; compound of the formula A+metolachlor+atrazine+glyphosate+FURILAZOLE; compound of the formula A+S-metolachlor+atrazine+glyphosate+FURILAZOLE; compound of the formula A+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; compound of the formula A+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; compound of the formula A+atrazine+nicosulfuron+glyphosate+FURILAZOLE; cinidon-ethyl+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; cinidon-ethyl+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; cinidon-ethyl+metolachlor+mesotrione+glyphosate+FURILAZOLE; cinidon-ethyl+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; cinidon-ethyl+metolachlor+atrazine+glyphosate+FURILAZOLE; cinidon-ethyl+S-metolachlor+atrazine+glyphosate+FURILAZOLE; cinidon-ethyl+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; cinidon-ethyl+S-metolachlor+terbuthylazine +glyphosate+FURILAZOLE; cinidon-ethyl+atrazine+nicosulfuron+glyphosate+FURILAZOLE; Flumiclorac-pentyl+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; flumiclorac-pentyl+metolachlor+mesotrione+glyphosate+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; flumiclorac-pentyl+metolachlor+atrazine+glyphosate+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+atrazine+glyphosate+FURILAZOLE; flumiclorac-pentyl+metolachlor+terbuthylazine+glyphosate +FURILAZOLE; flumiclorac-pentyl+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; flumiclorac-pentyl+atrazine+nicosulfuron+glyphosate+FURILAZOLE; flumioxazin+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; flumioxazin+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; flumioxazin+metolachlor+mesotrione+glyphosate+FURILAZOLE; flumioxazin+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; flumioxazin+metolachlor+atrazine+glyphosate+FURILAZOLE; flumioxazin+S-metolachlor+atrazine+glyphosate+FURILAZOLE; flumioxazin+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; flumioxazin+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; flumioxazin+atrazine+nicosulfuron+glyphosate+FURILAZOLE; fluthiacet-methyl+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; fluthiacet-methyl+metolachlor+mesotrione+glyphosate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; fluthiacet-methyl+metolachlor+atrazine+glyphosate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+atrazine+glyphosate+FURILAZOLE; fluthiacet-methyl+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; fluthiacet-methyl+atrazine+nicosulfuron+glyphosate+FURILAZOLE; oxadiargyl+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; oxadiargyl+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; oxadiargyl+metolachlor+mesotrione+glyphosate+FURILAZOLE; oxadiargyl+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; oxadiargyl+metolachlor+atrazine +glyphosate+FURILAZOLE; oxadiargyl+S-metolachlor+atrazine+glyphosate+FURILAZOLE; oxadiargyl+metolachlor+terbuthylazine+

glyphosate+FURILAZOLE; oxadiargyl+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; oxadiargyl+atrazine+nicosulfuron+glyphosate+FURILAZOLE; oxadiazon+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; oxadiazon+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; oxadiazon+metolachlor+mesotrione+glyphosate+FURILAZOLE; oxadiazon+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; oxadiazon+metolachlor+atrazine+glyphosate+FURILAZOLE; oxadiazon+S-metolachlor+atrazine+glyphosate+FURILAZOLE; oxadiazon+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; oxadiazon+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; oxadiazon+atrazine+nicosulfuron+glyphosate+FURILAZOLE; pentoxazone+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; pentoxazone+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; pentoxazone+metolachlor+mesotrione+glyphosate+FURILAZOLE; pentoxazone+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; pentoxazone+metolachlor+atrazine+glyphosate+FURILAZOLE; pentoxazone+S-metolachlor+atrazine+glyphosate+FURILAZOLE; pentoxazone+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; pentoxazone+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; pentoxazone+atrazine+nicosulfuron+glyphosate+FURILAZOLE; sulfentrazone+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; sulfentrazone+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; sulfentrazone+metolachlor+mesotrione+glyphosate+FURILAZOLE; sulfentrazone+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; sulfentrazone+metolachlor+atrazine+glyphosate+FURILAZOLE; sulfentrazone+S-metolachlor+atrazine+glyphosate+FURILAZOLE; sulfentrazone+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; sulfentrazone+S-metolachlor+terbuthylazine +glyphosate+FURILAZOLE; sulfentrazone+atrazine+nicosultfuron+glyphosate+FURILAZOLE; fluazolate+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; fluazolate+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; fluazolate+metolachlor+mesotrione+glyphosate+FURILAZOLE; fluazolate+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; fluazolate+metolachlor+atrazine+glyphosate +FURILAZOLE; fluazolate+S-metolachlor+atrazine+glyphosate+FURILAZOLE; fluazolate+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; fluazolate+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; fluazolate+atrazine+nicosulfuron+glyphosate+FURILAZOLE; pyraflufen-ethyl+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; pyraflufen-ethyl+metolachlor+mesotrione+glyphosate+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; pyraflufen-p ethyl+metolachlor+atrazine+glyphosate+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+atrazine+glyphosate+FURILAZOLE; pyraflufen-ethyl+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; pyraflufen-ethyl+atrazine+nicosulfuron+glyphosate+FURILAZOLE; flumipropyn+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; flumipropyn+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; flumipropyn+metolachlor+mesotrione+glyphosate+FURILAZOLE; flumipropyn+S-metolachlor or+mesotrione+glyphosate+FURILAZOLE; flumipropyn+metolachlor+atrazine+glyphosate+FURILAZOLE; flumipropyn+S-metolachlor+atrazine+glyphosate+FURILAZOLE; flumipropyn+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; flumipropyn+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; flumipropyn+atrazine+nicosulfuron+glyphosate+FURILAZOLE; flupropacil+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; flupropacil+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; flupropacil+metolachlor+mesotrione+glyphosate+FURILAZOLE; flupropacil+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; flupropacil+metolachlor+atrazine+glyphosate+FURILAZOLE; flupropacil+S-metolachlor+atrazine+glyphosate+FURILAZOLE; flupropacil+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; flupropacil+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; flupropacil+atrazine+nicosulfuron+glyphosate+FURILAZOLE; nipyraclofen+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; nipyraclofen+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; nipyraclofen+metolachlor+mesotrione+glyphosate+FURILAZOLE; nipyraclofen+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; nipyraclofen+metolachlor+atrazine+glyphosate+FURILAZOLE; nipyraclofen+S-metolachlor+atrazine+glyphosate+FURILAZOLE; nipyraclofen+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; nipyraclofen+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; nipyraclofen+atrazine+nicosulfuron+glyphosate+FURILAZOLE; benzfendizone+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; benzfendizone+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; benzfendizone+metolachlor+mesotrione+glyphosate+FURILAZOLE; benzfendizone+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; benzfendizone+metolachlor+atrazine+glyphosate+FURILAZOLE; benzfendizone+S-metolachlor+atrazine+glyphosate+FURILAZOLE; benzfendizone+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; benzfendizone+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; benzfendizone+atrazine+nicosulfuron+glyphosate+FURILAZOLE; thidiazimin+metolachlor+isoxaflutole+glyphosate+FURILAZOLE; thidiazimin+S-metolachlor+isoxaflutole+glyphosate+FURILAZOLE; thidiazimin+metolachlor+mesotrione+glyphosate+FURILAZOLE; thidiazimin+S-metolachlor+mesotrione+glyphosate+FURILAZOLE; thidiazimin+metolachlor+atrazine +glyphosate+FURILAZOLE; thidiazimin+S-metolachlor+atrazine+glyphosate+FURILAZOLE; thidiazimin+metolachlor+terbuthylazine+glyphosate+FURILAZOLE; thidiazimin+S-metolachlor+terbuthylazine+glyphosate+FURILAZOLE; and thidiazimin+atrazine+nicosulfuron+glyphosate+FURILAZOLE.

[0147] acifluorfen+prosulfuron+primisulfuron;+glufosinate; acifluorfen+prosulfuron+dicamba +glufosinate; acifluorfen+primisulfuron+dicamba+glufosinate; acifluorfen+nicosulfuron +primisulfuron+glufosinate; acifluorfen+nicosulfuron+prosulfuron+glufosinate; acifluorfen+rimsulfuron+primisulfuron+glufosinate; acifluorfen+rimsulfuron+prosulfuron+glufosinate; acifluorfen+metolachlor+isoxaflutole+glufosinate; acifluorfen+metolachlor+isoxaflutole+glufosinate+benoxacor; acifluorfen+S-metolachlor+isoxaflutole+glufosinate; acifluorfen+S-metolachlor+isoxaflutole+glufosinate+benoxacor; acifluorfen+metolachlor+mesotrione+glufosinate; acifluorfen+metolachlor+mesotrione+glufosinate+benoxacor;

acifluorfen+S-metolachlor+mesotrione+glufosinate; acifluorfen+S-metolachlor+mesotrione+benoxacor+glufosinate; acifluorfen +metolachlor+atrazine+glufosinate; acifluorfen+metolachlor+atrazine+glufosinate+benoxacor; acifluorfen+S-metolachlor+atrazine+glufosinate; acifluorfen+S-metolachlor +atrazine+glufosinate+benoxacor; acifluorfen+metolachlor+terbuthylazine+glufosinate; acifluorfen+metolachlor+terbuthylazine+glufosinate+benoxacor; acifluorfen+S-metolachlor+terbuthylazine+glufosinate; acifluorfen+S-metolachlor+terbuthylazine+glufosinate+ benoxacor; acifluorfen+atrazine+nicosulfuron+glufosinate; acifluorfen+atrazine+nicosulfuron+glufosinate+benoxacor; aclonifen+prosulfuron+primisulfuron+glufosinate; aclonifen+prosulfuron+dicamba+glufosinate; aclonifen+primisulfuron+dicamba+glufosinate; aclonifen+nicosulfuron+primisulfuron+glufosinate; aclonifen+nicosulfuron+prosulfuron+glufosinate; aclonifen+rimsulfuron+primisulfuron+glufosinate; aclonifen+rimsulfuron+prosulfuron+glufosinate; aclonifen+metolachlor+isoxaflutole+glufosinate; aclonifen+metolachlor+isoxaflutole+glufosinate +benoxacor; aclonifen+S-metolachlor+isoxaflutole+glufosinate; aclonifen+S-metolachlor+isoxaflutole+glufosinate+benoxacor; aclonifen+metolachlor+mesotrione +glufosinate; aclonifen+metolachlor+mesotrione+glufosinate+benoxacor; aclonifen+S-metolachlor+mesotrione+glufosinate; aclonifen+S-metolachlor+mesotrione+glufosinate+benoxacor; aclonifen+metolachlor+atrazine+glufosinate; aclonifen+metolachlor+atrazine+glufosinate+benoxacor; aclonifen+S-metolachlor+atrazine+glufosinate; aclonifen+S-metolachlor+atrazine+glufosinate+benoxacor; aclonifen+metolachlor+terbuthylazine+glufosinate; aclonifen+metolachlor+terbuthylazine+glufosinate+benoxacor; aclonifen+S-metolachlor+terbuthylazine+glufosinate; aclonifen +S-metolachlor+terbuthylazine+glufosinate+ benoxacor; aclonifen+atrazine+nicosulfuron+glufosinate; aclonifen+atrazine+nicosulfuron+glufosinate+benoxacor; bifenox+prosulfuron+primisulfuron+glufosinate; bifenox+prosulfuron+dicamba+glufosinate; bifenox+primisulfuron+dicamba+glufosinate; bifenox+nicosulfuron+primisulfuron+glufosinate; bifenox+nicosulfuron+prosulfuron+glufosinate; bifenox+rimsulfuron+primisulfuron+glufosinate; bifenox+rimsulfuron+prosulfuron+glufosinate; bifenox+metolachlor+isoxaflutole+glufosinate; bifenox+metolachlor+isoxaflutole+glufosinate+benoxacor; bifenox+S-metolachlor+isoxaflutole+glufosinate; bifenox+S-metolachlor+isoxaflutole+glufosinate+benoxacor; bifenox+metolachlor+mesotrione+glufosinate; bifenox+metolachlor+mesotrione+glufosinate+benoxacor; bifenox+S-metolachlor+mesotrione+glufosinate; bifenox+S-metolachlor+mesotrione+glufosinate +benoxacor; bifenox+metolachlor+atrazine+glufosinate; bifenox+metolachlor+atrazine+glufosinate+benoxacor; bifenox+S-metolachlor+atrazine+glufosinate; bifenox+S-metolachlor+atrazine+glufosinate+benoxacor; bifenox+metolachlor+terbuthylazine+glufosinate; bifenox+metolachlor+terbuthylazine+glufosinate+benoxacor; bifenox+S-metolachlor+terbuthylazine+glufosinate; bifenox+S-metolachlor +terbuthylazine+glufosinate+benoxacor; bifenox+atrazine+nicosulfuron+glufosinate; bifenox+atrazine+nicosulfuron+glufosinate+benoxacor; chlomitrofen+prosulfuron+primisulfuron+glufosinate; chlomitrofen+prosulfuron+dicamba+glufosinate; chlomitrofen+primisulfuron+dicamba+glufosinate; chlomitrofen+nicosulfuron+primisulfuron+glufosinate; chlomitrofen+nicosulfuron+prosulfuron+glufosinate; chlomitrofen+rimsulfuron+primisulfuron+glufosinate; chlomitrofen+rimsulfuron+prosulfuron+glufosinate; chlomitrofen+metolachlor+isoxaflutole+glufosinate; chlomitrofen+metolachlor+isoxaflutole+glufosinate+benoxacor; chlomitrofen+S-metolachlor+isoxaflutole+glufosinate; chlomitrofen+S-metolachlor+isoxaflutole+glufosinate+ benoxacor; chlomitrofen+metolachlor+mesotrione+glufosinate; chlomitrofen+metolachlor+mesotrione+glufosinate+ benoxacor; chlomitrofen+S-metolachlor+mesotrione+ glufosinate; chlomitrofen+S-metolachlor+mesotrione+ glufosinate+benoxacor; chlomitrofen+metolachlor+ atrazine+glufosinate; chlomitrofen+metolachlor+atrazine+ glufosinate+benoxacor; chlomitrofen+S-metolachlor+ atrazine+glufosinate; chlomitrofen+S-metolachlor+ atrazine+glufosinate+benoxacor; chlomitrofen+ metolachlor+terbuthylazine+glufosinate; chlomitrofen+ metolachlor+terbuthylazine+glufosinate+benoxacor; chlomitrofen+S-metolachlor+terbuthylazine+glufosinate; chlomitrofen+S-metolachlor+terbuthylazine+glufosinate+ benoxacor; chlomitrofen+atrazine+nicosulfuron+glufosinate; chlomitrofen+atrazine+nicosulfuron +glufosinate+ benoxacor; ethoxyfen+prosulfuron+primisulfuron+ glufosinate; ethoxyfen +prosulfuron+dicamba+glufosinate; ethoxyfen+primisulfuron+dicamba+glufosinate; ethoxyfen+ nicosulfuron+primisulfuron+glufosinate; ethoxyfen+nicosulfuron+prosulfuron+glufosinate; ethoxyfen+rimsulfuron+ primisulfuron+glufosinate; ethoxyfen+rimsulfuron+ prosulfuron+glufosinate; ethoxyfen+metolachlor+ isoxaflutole+glufosinate; ethoxyfen+metolachlor+ isoxaflutole+glufosinate+benoxacor; ethoxyfen+S-metolachlor+isoxaflutole+glufosinate; ethoxyfen+S-metolachlor+isoxaflutole+glufosinate+benoxacor; ethoxyfen+metolachlor+mesotrione+glufosinate; ethoxyfen+metolachlor+mesotrione+glufosinate+benoxacor; ethoxyfen+S-metolachlor+mesotrione+glufosinate; ethoxyfen+S-metolachlor+mesotrione+glufosinate+benoxacor; ethoxyfen+metolachlor+atrazine+glufosinate; ethoxyfen+metolachlor+atrazine+glufosinate+benoxacor; ethoxyfen+S-metolachlor+atrazine+glufosinate; ethoxyfen+S-metolachlor+atrazine+glufosinate+benoxacor; ethoxyfen+metolachlor+terbuthylazine+glufosinate; ethoxyfen+metolachlor+terbuthylazine+glufosinate+benoxacor; ethoxyfen+S-metolachlor+terbuthylazine+glufosinate; ethoxyfen+S-metolachlor+terbuthylazine+glufosinate+ benoxacor; ethoxyfen+atrazine+nicosulfuron +glufosinate; ethoxyfen+atrazine+nicosulfuron+glufosinate+benoxacor; fluoroglycofen+prosulfuron+primisulfuron+glufosinate; fluoroglycofen+prosulfuron+dicamba+glufosinate; fluoroglycofen+primisulfuron+dicamba+glufosinate; fluoroglycofen+nicosulfuron+primisulfuron+glufosinate; fluoroglycofen+nicosulfuron+prosulfuron+glufosinate; fluoroglycofen+rimsulfuron+primisulfuron+glufosinate; fluoroglycofen+rimsulfuron+prosulfuron+glufosinate; fluoroglycofen+metolachlor+isoxaflutole+glufosinate; fluoroglycofen+metolachlor+isoxaflutole+glufosinate+benoxacor; fluoroglycofen+S-metolachlor+isoxaflutole+ glufosinate; fluoroglycofen+S-metolachlor+isoxaflutole+ glufosinate+benoxacor; fluoroglycofen+metolachlor+ mesotrione+glufosinate; fluoroglycofen+metolachlor+ mesotrione+glufosinate+benoxacor; fluoroglycofen+S-metolachlor+mesotrione+glufosinate; fluoroglycofen+S-metolachlor+mesotrione+glufosinate+benoxacor;

fluoroglycofen+metolachlor+atrazine+glufosinate; fluoroglycofen+metolachlor+atrazine+glufosinate+benoxacor; fluoroglycofen+S-metolachlor+atrazine+glufosinate; fluoroglycofen+S-metolachlor+atrazine+glufosinate+benoxacor; fluoroglycofen+metolachlor+terbuthylazine+glufosinate; fluoroglycofen+metolachlor+terbuthylazine+glufosinate+benoxacor; fluoroglycofen+S-metolachlor+terbuthylazine+glufosinate; fluoroglycofen+S-metolachlor+terbuthylazine+glufosinate+benoxacor; fluoroglycofen+atrazine+nicosulfuron+glufosinate; fluoroglycofen+atrazine+nicosulfuron+glufosinate+benoxacor; fomesafen+prosulfuron+primisulfuron+glufosinate; fomesafen+prosulfuron +dicamba+glufosinate; fomesafen+primisulfuron+dicamba+glufosinate; fomesafen+nicosulfuron+primisulfuron+glufosinate; fomesafen+nicosulfuron+prosulfuron+glufosinate; fomesafen+rimsulfuron+primisulfuron+glufosinate; fomesafen+rimsulfuron +prosulfuron+glufosinate; fomesafen+metolachlor+isoxaflutole+glufosinate; fomesafen+metolachlor+isoxaflutole+glufosinate+benoxacor; fomesafen+S-metolachlor+isoxaflutole+glufosinate; fomesafen+S-metolachlor+isoxaflutole+glufosinate+benoxacor; fomesafen+metolachlor+mesotrione+glufosinate; fomesafen+metolachlor+mesotrione+glufosinate+benoxacor; fomesafen+S-metolachlor+mesotrione+glufosinate; fomesafen+S-metolachlor+mesotrione+glufosinate+benoxacor; fomesafen+metolachlor+atrazine+glufosinate; fomesafen+metolachlor+atrazine+glufosinate+benoxacor; fomesafen+S-metolachlor+atrazine+glufosinate; fomesaten+S-metolachlor+atrazine+glufosinate+benoxacor; fomesafen+metolachlor +terbuthylazine+glufosinate; fomesafen+metolachlor+terbuthylazine+glufosinate+benoxacor; fomesafen+S-metolachlor+terbuthylazine+glufosinate; fomesafen+S-metolachlor+terbuthylazine+glufosinate+benoxacor; fomesafen+atrazine+nicosulfuron+glufosinate; fomesafen+atrazine+nicosulfuron+glufosinate+benoxacor; lactofen+prosulfuron+primisulfuron+glufosinate; lactofen+prosulfuron+dicamba+glufosinate; lactofen+primisulfuron+dicamba+glufosinate; lactofen+nicosulfuron+primisulfuron+glufosinate; lactofen+nicosulfuron+prosulfuron+glufosinate; lactofen+rimsulfuron+primisulfuron+glufosinate; lactofen+rimsulfuron+prosulfuron+glufosinate; lactofen+metolachlor+isoxaflutole+glufosinate; lactofen+metolachlor+isoxaflutole+glufosinate+benoxacor; lactofen+S-metolachlor+isoxaflutole+glufosinate; lactofen+S-metolachlor+isoxaflutole+glufosinate+benoxacor, lactofen+metolachlor+mesotrione+glufosinate; lactofen+metolachlor+mesotrione+glufosinate+benoxacor; lactofen+S-metolachlor+mesotrione+glufosinate; lactofen+S-metolachlor+mesotrione+glufosinate +benoxacor; lactofen+metolachlor+atrazine+glufosinate; lactofen+metolachlor+atrazine+benoxacor; lactofen+S-metolachlor+atrazine; lactofen+S-metolachlor+atrazine+glufosinate+benoxacor; lactofen+metolachlor+terbuthylazine+glufosinate; lactofen+metolachlor+terbuthylazine+glufosinate+benoxacor; lactofen+S-metolachlor +terbuthylazine+glufosinate; lactofen+S-metolachlor+terbuthylazine+glufosinate+benoxacor; lactofen+atrazine+nicosulfuron+glufosinate; lactofen+atrazine+nicosulfuron+glufosinate+benoxacor; oxyfluorfen+prosulfuron+primisulfuron+glufosinate; oxyfluorfen+prosulfuron+dicamba+glufosinate; oxyfluorfen+primisulfuron+dicamba+glufosinate; oxyfluorfen+nicosulfuron+primisulfuron+glufosinate; oxyfluorfen+nicosulfuron+prosulfuron+glufosinate; oxyfluorfen+rimsulfuron+primisulfuron+glufosinate; oxyfluorfen+rimsulfuron+prosulfuron+glufosinate; oxyfluorfen+metolachlor+isoxaflutole+glufosinate; oxyfluorfen+metolachlor+isoxaflutole+glufosinate+benoxacor; oxyfluorfen+S-metolachlor+isoxaflutole+glufosinate; oxyfluorfen+S-metolachlor+isoxaflutole+glufosinate+benoxacor; oxyfluorfen+metolachlor+mesotrione+glufosinate; oxyfluorfen+metolachlor+mesotrione+glufosinate+benoxacor; oxyfluorfen+S-metolachlor+mesotrione+glufosinate; oxyfluorfen+S-metolachlor+mesotrione+glufosinate+benoxacor; oxyfluorfen+metolachlor+atrazine+glufosinate; oxyfluorfen+metolachlor+atrazine+glufosinate+benoxacor; oxyfluorfen+S-metolachlor+atrazine+glufosinate; oxyfluorfen+S-metolachlor+atrazine+glufosinate +benoxacor; oxyfluorfen+metolachlor+terbuthylazine+glufosinate; oxyfluorfen+metolachlor+terbuthylazine+glufosinate+benoxacor; oxyfluorfen+S-metolachlor+terbuthylazine+glufosinate; oxyfluorfen+S-metolachlor+terbuthylazine+glufosinate+benoxacor; oxyfluorfen+atrazine+nicosulfuron+glufosinate; oxyfluorfen+atrazine+nicosulfuron+glufosinate+benoxacor, azafenidin+prosulfuron+primisulfuron+glufosinate; azafenidin+prosulfuron+dicamba+glufosinate; azafenidin+primisulfuron+dicamba+glufosinate; azafenidin+nicosulfuron+primisulfuron+glufosinate; azafenidin+nicosulfuron+prosulfuron+glufosinate; azafenidin+rimsulfuron+primisulfuron+glufosinate; azafenidin+rimsulfuron+prosulfuron+glufosinate; azafenidin+metolachlor+isoxaflutole+glufosinate; azafenidin+metolachlor+isoxaflutole+glufosinate+benoxacor; azafenidin+S-metolachlor+isoxaflutole+glufosinate; azafenidin+S-metolachlor+isoxaflutole+glufosinate+benoxacor; azafenidin+metolachlor+mesotrione +glufosinate; azafenidin+metolachlor+mesotrione+glufosinate+benoxacor; azafenidin +S-metolachlor+mesotrione+glufosinate; azafenidin+S-metolachlor+mesotrione+glufosinate+benoxacor; 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metolachlor+atrazine+glufosinate+benoxacor; carfentrazone-ethyl+S-metolachlor+atrazine+glufosinate; carfentrazone-ethyl+S-metolachlor+atrazine+glufosinate+benoxacor; carfentrazone-ethyl+metolachlor+terbuthylazine+glufosinate; carfentrazone-ethyl+metolachlor+terbuthylazine+glufosinate+benoxacor; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glufosinate; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glufosinate+benoxacor; carfentrazone-ethyl+atrazine+nicosulfuron+glufosinate; carfentrazone-ethyl +atrazine+nicosulfuron+glufosinate+benoxacor; compound of the formula A+prosulfuron+primisulfuron+glufosinate; compound of the formula A+prosulfuron+dicamba+glufosinate; compound of the formula A+primisulfuron+dicamba+glufosinate; compound of the formula A+nicosulfuron+primisulfuron+glufosinate; compound of the formula A+nicosulfuron+prosulfuron+glufosinate; compound of the formula A+rimsulfuron+primisulfuron+glufosinate; compound of the formula A+rimsulfuron+prosulfuron+glufosinate; compound of the formula A+metolachlor+isoxaflutole+glufosinate; 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sulfuron+prosulfuron+glufosinate; fluazolate+rimsulfuron +primisulfuron+glufosinate; fluazolate+rimsulfuron+prosulfuron+glufosinate; fluazolate +metolachlor+isoxaflutole+glufosinate; fluazolate+metolachlor+isoxaflutole+glufosinate+benoxacor; fluazolate+S-metolachlor+isoxaflutole+glufosinate; fluazolate +S-metolachlor+isoxaflutole+glufosinate+benoxacor; fluazolate+metolachlor+mesotrione+glufosinate; fluazolate+metolachlor+mesotrione+glufosinate+benoxacor; fluazolate+S-metolachlor+mesotrione+glufosinate; fluazolate+S-metolachlor+mesotrione+glufosinate+benoxacor; fluazolate+metolachlor+atrazine+glufosinate; fluazolate+metolachlor+atrazine+glufosinate+benoxacor; fluazolate+S-metolachlor+atrazine+glufosinate; fluazolate+S-metolachlor+atrazine+glufosinate+benoxacor; fluazolate+metolachlor+terbuthylazine+glufosinate; fluazolate+metolachlor+terbuthylazine+glufosinate+benoxacor; fluazolate+S-metolachlor+terbuthylazine+glufosinate; fluazolate+S-metolachlor+terbuthylazine+glufosinate+benoxacor; fluazolate+atrazine+nicosulfuron+glufosinate; fluazolate+atrazine+nicosulfuron+glufosinate+benoxacor; pyraflufen-ethyl+prosulfuron+primisulfuron+glufosinate; pyraflufen-ethyl+prosulfuron+dicamba+glufosinate; pyraflufen-ethyl+primisulfuron+dicamba+glufosinate; pyraflufen-ethyl+nicosulfuron+primisulfuron+glufosinate; pyraflufen-ethyl+nicosulfuron+prosulfuron+glufosinate; pyraflufen-ethyl+rimsulfuron+primisulfuron+glufosinate; pyraflufen-ethyl+rimsulfuron+prosulfuron+glufosinate; pyraflufen-ethyl+metolachlor+isoxaflutole+glufosinate; pyraflufen-ethyl+metolachlor+isoxaflutole+glufosinate+benoxacor; pyraflufen-ethyl+S-metolachlor+isoxaflutole+glufosinate; pyraflufen-ethyl+S-metolachlor+isoxaflutole+glufosinate+benoxacor; pyraflufen-ethyl+metolachlor+mesotrione+glufosinate; pyraflufen-ethyl+metolachlor+mesotrione+glufosinate+benoxacor; pyraflufen-ethyl+S-metolachlor+mesotrione+glufosinate; pyraflufen-ethyl+S-metolachlor+mesotrione+glufosinate+benoxacor; pyraflufen-ethyl+metolachlor+atrazine+glufosinate; pyraflufen-ethyl+metolachlor+atrazine+glufosinate+benoxacor; pyraflufen-ethyl+S-metolachlor+atrazine+glufosinate; pyraflufen-ethyl+S-metolachlor+atrazine+glufosinate+benoxacor; pyraflufen-ethyl+metolachlor+terbuthylazine+glufosinate; pyraflufen-ethyl+metolachlor +terbuthylazine+glufosinate+benoxacor; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glufosinate; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glufosinate +benoxacor; pyraflufen-ethyl+atrazine+nicosulfuron+glufosinate; pyraflufen-ethyl+atrazine+nicosulfuron+glufosinate+benoxacor; flumipropyn+prosulfuron+primisulfuron +glufosinate; flumipropyn+prosulfuron+dicamba+glufosinate; flumipropyn+primisulfuron+dicamba+glufosinate; flumipropyn+nicosulfuron+primisulfuron+glufosinate; flumipropyn+nicosulfuron+prosulfuron+glufosinate; flumipropyn+rimsulfuron+primisulfuron+glufosinate; flumipropyn+rimsulfuron+prosulfuron+glufosinate; flumipropyn+metolachlor+isoxaflutole+glufosinate; flumipropyn+metolachlor+isoxaflutole+glufosinate+benoxacor; flumipropyn+S-metolachlor+isoxaflutole+glufosinate; flumipropyn+S-metolachlor+isoxaflutole+glufosinate+benoxacor, flumipropyn+metolachlor+mesotrione+glufosinate; flumipropyn+metolachlor+mesotrione+glufosinate+benoxacor; flumipropyn+S-metolachlor+mesotrione+glufosinate; flumipropyn+S-metolachlor+mesotrione+glufosinate+benoxacor; flumipropyn+metolachlor+atrazine+glufosinate; flumipropyn+metolachlor+atrazine+glufosinate+benoxacor; flumipropyn+S-metolachlor+atrazine+glufosinate; flumipropyn+3-metolachlor+atrazine+glufosinate+benoxacor; flumipropyn+metolachlor+terbuthylazine+glufosinate; flumipropyn+metolachlor+terbuthylazine+glufosinate+benoxacor; flumipropyn+S-metolachlor+terbuthylazine+glufosinate; flumipropyn+S-metolachlor+terbuthylazine+glufosinate+benoxacor; flumipropyn+atrazine+nicosulfuron+glufosinate; flumipropyn+atrazine+nicosulfuron+glufosinate+benoxacor; flupropacil+prosulfuron+primisulfuron+glufosinate; flupropacil+prosulfuron +dicamba+glufosinate; flupropacil+primisulfuron+dicamba+glufosinate; flupropacil+nicosulfuron+primisulfuron+glufosinate; flupropacil+nicosulfuron+prosulfuron+glufosinate; flupropacil+rimsulfuron+primisulfuron+glufosinate; flupropacil+rimsulfuron +prosulfuron+glufosinate; flupropacil+metolachlor+isoxaflutole+glufosinate; flupropacil +metolachlor+isoxaflutole+glufosinate+benoxacor; flupropacil+S-metolachlor+isoxaflutole+glufosinate; flupropacil+S-metolachlor+isoxaflutole+glufosinate+benoxacor; flupropacil+metolachlor+mesotrione+glufosinate; flupropacil+metolachlor+mesotrione+glufosinate+benoxacor; flupropacil+S-metolachlor+mesotrione+glufosinate; flupropacil+S-metolachlor+mesotrione+glufosinate+benoxacor; flupropacil +metolachlor+atrazine+glufosinate; flupropacil+metolachlor+atrazine+glufosinate+benoxacor; flupropacil+S-metolachlor+atrazine+glufosinate; flupropacil+S-metolachlor +atrazine+glufosinate+benoxacor; flupropacil+metolachlor+terbuthylazine+glufosinate; flupropacil+metolachlor+terbuthylazine+glufosinate+benoxacor; flupropacil +S-metolachlor+terbuthylazine+glufosinate; flupropacil+S-metolachlor+terbuthylazine +glufosinate+benoxacor; flupropacil+atrazine+nicosulfuron+glufosinate; flupropacil+atrazine+nicosulfuron+glufosinate+benoxacor; nipyraclofen+prosulfuron+primisulfuron+glufosinate; nipyraclofen+prosulfuron+dicamba+glufosinate; nipyraclofen+primisulfuron+dicamba+glufosinate; nipyraclofen+nicosulfuron+primisulfuron+glufosinate; nipyraclofen+nicosulfuron+prosulfuron+glufosinate; nipyraclofen+rimsulfuron+primisulfuron+glufosinate; nipyraclofen+rimsulfuron+prosulfuron+glufosinate; nipyraclofen+metolachlor+isoxaflutole+glufosinate; nipyraclofen+metolachlor+isoxaflutole+glufosinate+benoxacor; nipyraclofen+S-metolachlor+isoxaflutole+glufosinate; nipyraclofen+S-metolachlor+isoxaflutole+glufosinate+benoxacor; nipyraclofen+metolachlor+mesotrione+glufosinate; nipyraclofen+metolachlor+mesotrione+glufosinate+benoxacor; nipyraclofen+S-metolachlor+mesotrione+glufosinate; nipyraclofen+S-metolachlor+mesotrione+glufosinate+benoxacor; nipyraclofen+metolachlor+atrazine+glufosinate; nipyraclofen+metolachlor+atrazine+glufosinate+benoxacor; nipyraclofen+S-metolachlor+atrazine+glufosinate; nipyraclofen+S-metolachlor+atrazine+glufosinate+benoxacor; nipyraclofen +metolachlor+terbuthylazine+glufosinate; nipyraclofen+metolachlor+terbuthylazine+glufosinate+benoxacor; nipyraclofen+S-metolachlor+terbuthylazine+glufosinate; nipyraclofen+S-metolachlor+terbuthylazine+glufosinate+benoxacor; nipyraclofen+atrazine+nicosulfuron+glufosinate; nipyraclofen+atrazine+nicosulfuron+glufosinate+benoxacor; benzfendizone+prosulfuron+primisulfuron+glufosinate; benzfendizone+prosulfuron+dicamba+glufosinate; benzfendizone+primisulfuron+dicamba+

glufosinate; benzfendizone+nicosulfuron+primisulfuron+glufosinate; benzfendizone+nicosulfuron+prosulfuron+glufosinate; benzfendizone+rimsulfuron+primisulfuron+glufosinate; benzfendizone+rimsulfuron+prosulfuron+glufosinate; benzfendizone+metolachlor+isoxaflutole+glufosinate; benzfendizone+metolachlor+isoxaflutole+glufosinate+benoxacor; benzfendizone+S-metolachlor+isoxaflutole+glufosinate; benzfendizone+S-metolachlor+isoxaflutole+glufosinate+benoxacor; benzfendizone+metolachlor+mesotrione+glufosinate; benzfendizone+metolachlor+mesotrione+glufosinate+benoxacor; benzfendizone+S-metolachlor+mesotrione+glufosinate; benzfendizone+S-metolachlor+mesotrione+glufosinate+benoxacor; benzfendizone+metolachlor+atrazine+glufosinate; benzfendizone+metolachlor+atrazine+glufosinate+benoxacor; benzfendizone+S-metolachlor+atrazine+glufosinate; benzfendizone+S-metolachlor+atrazine+glufosinate+benoxacor; benzfendizone+metolachlor+terbuthylazine+glufosinate; benzfendizone+metolachlor+terbuthylazine+glufosinate+benoxacor; benzfendizone+S-metolachlor+terbuthylazine+glufosinate; benzfendizone+S-metolachlor+terbuthylazine+glufosinate+benoxacor; benzfendizone+atrazine+nicosulfuron+glufosinate; benzfendizone+atrazine+nicosulfuron+glufosinate+benoxacor; thidiazimin+prosulfuron+primisulfuron+glufosinate; thidiazimin+prosulfuron +dicamba+glufosinate; thidiazimin+primisulfuron+dicamba+glufosinate; thidiazimin+nicosulfuron+primisulfuron+glufosinate; thidiazimin+nicosulfuron+prosulfuron+glufosinate; thidiazimin+rimsulfuron+primisulfuron+glufosinate; thidiazimin+rimsulfuron +prosulfuron+glufosinate; thidiazimin+metolachlor+isoxaflutole+glufosinate; thidiazimin+metolachlor+isoxaflutole+glufosinate+benoxacor; thidiazimin+S-metolachlor+isoxaflutole+glufosinate; thidiazimin+S-metolachlor+isoxaflutole+glufosinate+benoxacor; thidiazimin+metolachlor+mesotrione+glufosinate; thidiazimin+metolachlor+mesotrione+glufosinate+benoxacor; thidiazimin+S-metolachlor+mesotrione+glufosinate; thidiazimin+S-metolachlor+mesotrione+glufosinate+benoxacor; thidiazimin+metolachlor+atrazine+glufosinate; thidiazimin+metolachlor+atrazine+glufosinate+benoxacor; thidiazimin+S-metolachlor+atrazine+glufosinate; thidiazimin+S-metolachlor+atrazine+glufosinate+benoxacor; thidiazimin+metolachlor +terbuthylazine+glufosinate; thidiazimin+metolachlor+terbuthylazine+glufosinate+benoxacor; thidiazimin+S-metolachlor+terbuthylazine+glufosinate; thidiazimin+S-metolachlor+terbuthylazine+glufosinate+benoxacor; thidiazimin+atrazine+nicosulfuron+glufosinate; and thidiazimin+atrazine+nicosulfuron+glufosinate+benoxacor.

[0148] Acifluorfen+metolachlor+isoxaflutole+glufosinate+MON 4660; acifluorfen+S-metolachlor+isoxaflutole+glufosinate+MON 4660; acifluorfen+metolachlor+mesotrione+glufosinate+MON 4660; acifluorfen+S-metolachlor+mesotrione+glufosinate+MON 4660; acifluorfen+metolachlor+atrazine+glufosinate+MON 4660; acifluorfen+S-metolachlor+atrazine+glufosinate+MON 4660; acifluorfen+metolachlor +terbuthylazine+glufosinate+MON 4660; acifluorfen+S-metolachlor+terbuthylazine+glufosinate+MON 4660; acifluorfen+atrazine+nicosulfuron+glufosinate+MON 4660; aclonifen+metolachlor+isoxaflutole+glufosinate+MON 4660; aclonifen+S-metolachlor +isoxaflutole+glufosinate+MON 4660; aclonifen+metolachlor+mesotrione+glufosinate+MON 4660; aclonifen+S-metolachlor+mesotrione+glufosinate+MON 4660; aclonifen+metolachlor+atrazine+glufosinate+MON 4660; aclonifen+S-metolachlor+atrazine+glufosinate+MON 4660; aclonifen+metolachlor+terbuthylazine +glufosinate+MON 4660; aclonifen+S-metolachlor+terbuthylazine+glufosinate+MON 4660; aclonifen+atrazine+nicosulfuron+glufosinate+MON 4660; bifenox+metolachlor +isoxaflutole+glufosinate+MON 4660; bifenox+S-metolachlor+isoxaflutole+glufosinate+MON 4660; bifenox+metolachlor+mesotrione+glufosinate+MON 4660; bifenox+S-metolachlor+mesotrione+glufosinate+MON 4660; bifenox+metolachlor+atrazine+glufosinate+MON 4660; bifenox+S-metolachlor+atrazine+glufosinate+MON 4660; bifenox+metolachlor+terbuthylazine+glufosinate+MON 4660; bifenox+S-metolachlor+terbuthylazine+glufosinate+MON 4660; bifenox+atrazine+nicosulfuron+glufosinate+MON 4660; chlomitrofen+metolachlor+isoxaflutole+glufosinate+MON 4660; chlomitrofen+S-metolachlor+isoxaflutole+glufosinate+MON 4660; chlomitrofen+metolachlor+mesotrione+glufosinate+MON 4660; chlomitrofen+S-metolachlor+mesotrione+glufosinate+MON 4660; chlomitrofen+metolachlor+atrazine+glufosinate +MON 4660; chlomitrofen+S-metolachlor+atrazine+glufosinate+MON 4660; chlomitrofen+metolachlor+terbuthylazine+glufosinate+MON 4660; chlomitrofen+S-metolachlor+terbuthylazine+glufosinate+MON 4660; chlomitrofen+atrazine+nicosulfuron+glufosinate+MON 4660; ethoxyfen+metolachlor+isoxaflutole+glufosinate+MON 4660; ethoxyfen+S-metolachlor+isoxaflutole+glufosinate+MON 4660; ethoxyfen+metolachlor+mesotrione+glufosinate+MON 4660; ethoxyfen+S-metolachlor+mesotrione+glufosinate+MON 4660; ethoxyfen+metolachlor+atrazine+glufosinate+MON 4660; ethoxyfen+S-metolachlor+atrazine+glufosinate+MON 4660; ethoxyfen+metolachlor+terbuthylazine+glufosinate+MON 4660; ethoxyfen+S-metolachlor+terbuthylazine+glufosinate+MON 4660; ethoxyfen+atrazine+nicosulfuron+glufosinate+MON 4660; fluoroglycofen+metolachlor+isoxaflutole+glufosinate+MON 4660; fluoroglycofen+S-metolachlor+isoxaflutole+glufosinate+MON 4660; fluoroglycofen+metolachlor+mesotrione+glufosinate+MON 4660; fluoroglycofen+S-metolachlor+mesotrione+glufosinate+MON 4660; fluoroglycofen+metolachlor+atrazine+glufosinate+MON 4660; fluoroglycofen+S-metolachlor+atrazine+glufosinate +MON 4660; fluoroglycofen+metolachlor+terbuthylazine+glufosinate+MON 4660; fluoroglycofen+S-metolachlor+terbuthylazine+glufosinate+MON 4660; fluoroglycofen+atrazine+nicosulfuron+glufosinate+MON 4660; fomesafen+metolachlor+isoxaflutole +glufosinate+MON 4660; fomesafen+S-metolachlor+isoxaflutole+glufosinate+MON 4660; fomesafen+metolachlor+mesotrione+glufosinate+MON 4660; fomesafen+S-metolachlor+mesotrione+glufosinate+MON 4660; fomesafen+metolachlor+atrazine+glufosinate+MON 4660; fomesafen+S-metolachlor+atrazine+glufosinate+MON 4660; fomesafen+metolachlor+terbuthylazine+glufosinate+MON 4660; fomesafen+S-metolachlor+terbuthylazine+glufosinate+MON 4660; fomesafen+atrazine+nicosulfuron+glufosinate+MON 4660; lactofen+metolachlor+isoxaflutole+glufosinate +MON 4660; lactofen+S-metolachlor+isoxaflutole+glufosinate+MON 4660; lactofen+metolachlor+mesotrione+glufosinate+MON 4660; lactofen+S-metolachlor+mesotrione +glufosinate+MON 4660; lactofen+metolachlor+atrazine+glufosinate+MON 4660; lactofen+S-metolachlor+atrazine+

MON 4660; lactofen+metolachlor+terbuthylazine+glufosinate+MON 4660; lactofen+S-metolachlor+terbuthylazine+glufosinate+MON 4660; lactofen+atrazine+nicosulfuron+glufosinate+MON 4660; oxyfluorfen+metolachlor+isoxaflutole+glufosinate+MON 4660; oxyfluorfen+S-metolachlor+isoxaflutole+glufosinate+MON 4660; oxyfluorfen+metolachlor+mesotrione+glufosinate+MON 4660; oxyfluorfen+S-metolachlor+mesotrione+glufosinate+MON 4660; oxyfluorfen+metolachlor+atrazine+glufosinate+MON 4660; oxyfluorfen+S-metolachlor+atrazine+glufosinate+MON 4660; oxyfluorfen+metolachlor+terbuthylazine+glufosinate+MON 4660; oxyfluorfen+S-metolachlor+terbuthylazine+glufosinate+MON 4660; oxyfluorfen+atrazine+nicosulfuron+glufosinate+MON 4660; azafenidin+metolachlor+isoxaflutole+glufosinate+MON 4660; azafenidin+S-metolachlor+isoxaflutole+glufosinate+MON 4660; azafenidin+metolachlor+mesotrione+glufosinate+MON 4660; azafenidin+S-metolachlor+mesotrione+glufosinate+MON 4660; azafenidin+metolachlor+atrazine+glufosinate+MON 4660; azafenidin+S-metolachlor+atrazine+glufosinate+MON 4660; azafenidin+metolachlor +terbuthylazine+glufosinate+MON 4660; azafenidin+S-metolachlor+terbuthylazine+glufosinate+MON 4660; azafenidin+atrazine+nicosulfuron+glufosinate+MON 4660; carfentrazone-ethyl+metolachlor+isoxaflutole+glufosinate+MON 4660; carfentrazone-ethyl+S-metolachlor+isoxaflutole+glufosinate+MON 4660; carfentrazone-ethyl+metolachlor+mesotrione+glufosinate+MON 4660; carfentrazone-ethyl+S-metolachlor+mesotrione+glufosinate+MON 4660; carfentrazone-ethyl+metolachlor+atrazine+glufosinate+MON 4660; carfentrazone-ethyl+S-metolachlor+atrazine+glufosinate+MON 4660; carfentrazone-ethyl+metolachlor+terbuthylazine+glufosinate+MON 4660; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glufosinate+MON 4660; carfentrazone-ethyl+atrazine+nicosulfuron+glufosinate+MON 4660; compound of the formula A+metolachlor+isoxaflutole+glufosinate+MON 4660; compound of the formula A+S-metolachlor+isoxaflutole+glufosinate+MON 4660; compound of the formula A+metolachlor+mesotrione+glufosinate+MON 4660; compound of the formula A+S-metolachlor+mesotrione+glufosinate+MON 4660; compound of the formula A+metolachlor+atrazine+glufosinate+MON 4660; compound of the formula A+S-metolachlor+atrazine+glufosinate+MON 4660; compound of the formula A+metolachlor +terbuthylazine+glufosinate+MON 4660; compound of the formula A+S-metolachlor+terbuthylazine+glufosinate+MON 4660; compound of the formula A+atrazine+nicosulfuron+glufosinate+MON 4660; cinidon-ethyl+metolachlor+isoxaflutole+glufosinate+MON 4660; cinidon-ethyl+S-metolachlor+isoxaflutole+glufosinate+MON 4660; cinidon-ethyl+metolachlor+mesotrione+glufosinate+MON 4660; cinidon-ethyl+S-metolachlor+mesotrione+glufosinate+MON 4660; cinidon-ethyl+metolachlor+atrazine+glufosinate+MON 4660; cinidon-ethyl+S-metolachlor+atrazine+glufosinate+MON 4660; cinidon-ethyl+metolachlor+terbuthylazine+glufosinate+MON 4660; cinidon-ethyl+S-metolachlor+terbuthylazine+glufosinate+MON 4660; cinidon-ethyl+atrazine+nicosulfuron+glufosinate+MON 4660; flumiclorac-pentyl+metolachlor+isoxaflutole+glufosinate+MON 4660; flumiclorac-pentyl+S-metolachlor+isoxaflutole+glufosinate+MON 4660; flumiclorac-pentyl+metolachlor+mesotrione+glufosinate+MON 4660; flumiclorac-pentyl+S-metolachlor+mesotrione+glufosinate+MON 4660; flumiclorac-pentyl+metolachlor+atrazine+glufosinate+MON 4660; flumiclorac-pentyl+S-metolachlor+atrazine+glufosinate+MON 4660; flumiclorac-pentyl+metolachlor+terbuthylazine+glufosinate+MON 4660; flumiclorac-pentyl+S-metolachlor+terbuthylazine+glufosinate+MON 4660; flumiclorac-pentyl+atrazine+nicosulfuron+glufosinate+MON 4660; flumioxazin+metolachlor+isoxaflutole+glufosinate+MON 4660; flumioxazin+S-metolachlor+isoxaflutole+glufosinate+MON 4660; flumioxazin+metolachlor+mesotrione+glufosinate+MON 4660; flumioxazin+S-metolachlor+mesotrione+glufosinate+MON 4660; flumioxazin+metolachlor+atrazine+glufosinate+MON 4660; flumioxazin+S-metolachlor+atrazine+glufosinate+MON 4660; flumioxazin+metolachlor+terbuthylazine+glufosinate+MON 4660; flumioxazin+S-metolachlor+terbuthylazine+glufosinate+MON 4660; flumioxazin+atrazine+nicosulfuron+glufosinate+MON 4660; fluthiacet-methyl+metolachlor+isoxaflutole+glufosinate+MON 4660; fluthiacet-methyl+S-metolachlor+isoxaflutole+glufosinate+MON 4660; fluthiacet-methyl+metolachlor+mesotrione+glufosinate+MON 4660; fluthiacet-methyl+S-metolachlor+mesotrione+glufosinate+MON 4660; fluthiacet-methyl+metolachlor+atrazine+glufosinate+MON 4660; fluthiacet-methyl+S-metolachlor+atrazine+glufosinate+MON 4660; fluthiacet-methyl+metolachlor+terbuthylazine+glufosinate+MON 4660; fluthiacet-methyl+S-metolachlor+terbuthylazine+glufosinate+MON 4660; fluthiacet-methyl+atrazine+nicosulfuron+glufosinate+MON 4660; oxadiargyl+metolachlor+isoxaflutole+glufosinate+MON 4660; oxadiargyl+S-metolachlor+isoxaflutole+glufosinate+MON 4660; oxadiargyl+metolachlor+mesotrione+glufosinate +MON 4660; oxadiargyl+S-metolachlor+mesotrione+glufosinate+MON 4660; oxadiargyl+metolachlor+atrazine+glufosinate+MON 4660; oxadiargyl+S-metolachlor +atrazine+glufosinate+MON 4660; oxadiargyl+metolachlor+terbuthylazine+glufosinate+MON 4660; oxadiargyl+S-metolachlor+terbuthylazine+glufosinate+MON 4660; oxadiargyl+atrazine+nicosulfuron+glufosinate+MON 4660; oxadiazon+metolachlor+isoxaflutole+glufosinate+MON 4660; oxadiazon+S-metolachlor+isoxaflutole+glufosinate+MON 4660; oxadiazon+metolachlor+mesotrione+glufosinate +MON 4660; oxadiazon+S-metolachlor+mesotrione+glufosinate+MON 4660; oxadiazon+metolachlor+atrazine+glufosinate+MON 4660; oxadiazon+S-metolachlor +atrazine+glufosinate+MON 4660; oxadiazon+metolachlor+terbuthylazine+glufosinate+MON 4660; oxadiazon+S-metolachlor+terbuthylazine+glufosinate+MON 4660; oxadiazon+atrazine+nicosulfuron+glufosinate+MON 4660; pentoxazone+metolachlor+isoxaflutole+glufosinate+MON 4660; pentoxazone+S-metolachlor+isoxaflutole+glufosinate+MON 4660; pentoxazone+metolachlor+mesotrione+glufosinate+MON 4660; pentoxazone+S-metolachlor+mesotrione+glufosinate+MON 4660; pentoxazone+metolachlor+atrazine+glufosinate+MON 4660; pentoxazone+S-metolachlor+atrazine+glufosinate+MON 4660; pentoxazone+metolachlor+terbuthylazine+glufosinate+MON 4660; pentoxazone+S-metolachlor+terbuthylazine+glufosinate+MON 4660; pentoxazone+atrazine+nicosulfuron+glufosinate+MON 4660; sulfentrazone+metolachlor+isoxaflutole+glufosinate+MON 4660; sulfentrazone+S-metolachlor+isoxaflutole+glufosinate+MON 4660; sulfentrazone+metolachlor+mesotrione+glufosinate+MON 4660; sulfentrazone+S-metolachlor+mesotri-

one+glufosinate+MON 4660; sulfentrazone+metolachlor+atrazine+glufosinate+MON 4660; sulfentrazone+S-metolachlor+atrazine+glufosinate+MON 4660; sulfentrazone+metolachlor+terbuthylazine+glufosinate+MON 4660; sulfentrazone+S-metolachlor+terbuthylazine+glufosinate+MON 4660; sulfentrazone+atrazine+nicosulfuron+glufosinate+MON 4660; fluazolate+metolachlor+isoxaflutole+glufosinate+MON 4660; fluazolate+S-metolachlor+isoxaflutole+glufosinate+MON 4660; fluazolate+metolachlor+mesotrione+glufosinate+MON 4660; fluazolate+S-metolachlor+mesotrione+glufosinate+MON 4660; fluazolate+metolachlor+atrazine+glufosinate+MON 4660; fluazolate+S-metolachlor+atrazine+glufosinate+MON 4660; fluazolate+metolachlor+terbuthylazine+glufosinate+MON 4660; fluazolate+S-metolachlor+terbuthylazine+glufosinate+MON 4660; fluazolate+atrazine+nicosulfuron+glufosinate +MON 4660; pyraflufen-ethyl+metolachlor+isoxaflutole+glufosinate+MON 4660; pyraflufen-ethyl+S-metolachlor+isoxaflutole+glufosinate+MON 4660; pyraflufen-ethyl+metolachlor+mesotrione+glufosinate+MON 4660; pyraflufen-ethyl+S-metolachlor+mesotrione+glufosinate+MON 4660; pyraflufen-ethyl+metolachlor+atrazine+glufosinate+MON 4660; pyraflufen-ethyl+S-metolachlor+atrazine+glufosinate+MON 4660; pyraflufen-ethyl+metolachlor+terbuthylazine+glufosinate+MON 4660; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glufosinate+MON 4660; pyraflufen-ethyl+atrazine+nicosulfuron+glufosinate+MON 4660; flumipropyn+metolachlor+isoxaflutole +glufosinate+MON 4660; flumipropyn+S-metolachlor+isoxaflutole+glufosinate+MON 4660; flumipropyn+metolachlor+mesotrione+glufosinate+MON 4660; flumipropyn+S-metolachlor+mesotrione+glufosinate+MON 4660; flumipropyn+metolachlor+atrazine +glufosinate+MON 4660; flumipropyn+S-metolachlor+atrazine+glufosinate+MON 4660; flumipropyn+metolachlor+terbuthylazine+glufosinate+MON 4660; flumipropyn+S-metolachlor+terbuthylazine+glufosinate+MON 4660; flumipropyn+atrazine+nicosulfuron+glufosinate+MON 4660; flupropacil+metolachlor+isoxaflutole+glufosinate+MON 4660; flupropacil+S-metolachlor+isoxaflutole+glufosinate+MON 4660; flupropacil+metolachlor+mesotrione+glufosinate+MON 4660; flupropacil+S-metolachlor+mesotrione+glufosinate+MON 4660; flupropacil+metolachlor+atrazine+glufosinate+MON 4660; flupropacil+S-metolachlor+atrazine+glufosinate+MON 4660; flupropacil+metolachlor+terbuthylazine+glufosinate+MON 4660; flupropacil+S-metolachlor+terbuthylazine+glufosinate+MON 4660; flupropacil+atrazine+nicosulfuron+glufosinate+MON 4660; nipyraclofen+metolachlor+isoxaflutole+glufosinate+MON 4660; nipyraclofen+S-metolachlor+isoxaflutole+glufosinate+MON 4660; nipyraclofen+metolachlor+mesotrione+glufosinate+MON 4660; nipyraclofen+S-metolachlor+mesotrione+glufosinate+MON 4660; nipyraclofen+metolachlor+atrazine +glufosinate+MON 4660; nipyraclofen+S-metolachlor+atrazine+glufosinate+MON 4660; nipyraclofen+metolachlor+terbuthylazine+glufosinate+MON 4660; nipyraclofen+S-metolachlor+terbuthylazine+glufosinate+MON 4660; nipyraclofen+atrazine+nicosulfuron+glufosinate+MON 4660; benzfendizone+metolachlor+isoxaflutole+glufosinate+MON 4660; benzfendizone+S-metolachlor+isoxaflutole+glufosinate+MON 4660; benzfendizone+metolachlor+mesotrione+glufosinate+MON 4660; benzfendizone+S-metolachlor+mesotrione+glufosinate+MON 4660; benzfendizone+metolachlor+atrazine+glufosinate+MON 4660; benzfendizone+S-metolachlor+atrazine+glufosinate+MON 4660; benzfendizone+metolachlor+terbuthylazine+glufosinate+MON 4660; benzfendizone+S-metolachlor+terbuthylazine+glufosinate+MON 4660; benzfendizone+atrazine+nicosulfuron+glufosinate+MON 4660; thidiazimin +metolachlor+isoxaflutole+glufosinate+MON 4660; thidiazimin+S-metolachlor+isoxaflutole+glufosinate+MON 4660; thidiazimin+metolachlor+mesotrione+glufosinate +MON 4660; thidiazimin+S-metolachlor+mesotrione+glufosinate+MON 4660; thidiazimin+metolachlor+atrazine+glufosinate+MON 4660; thidiazimin+S-metolachlor +atrazine+glufosinate+MON 4660; thidiazimin+metolachlor+terbuthylazine+glufosinate+MON 4660; thidiazimin+S-metolachlor+terbuthylazine+glufosinate+MON 4660; and thidiazimin+atrazine+nicosulfuron+glufosinate+MON 4660.

[0149] Acifluorfen+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; acifluorfen+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; acifluorfen+metolachlor+mesotrione+glufosinate+FLURAZOLE; acifluorfen+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; acifluorfen+metolachlor+atrazine+glufosinate+FLURAZOLE; acifluorfen+S-metolachlor+atrazine+glufosinate+FLURAZOLE; acifluorfen+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; acifluorfen+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; acifluorfen+atrazine+nicosulfuron+glufosinate+FLURAZOLE; aclonifen+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; aclonifen+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; aclonifen+metolachlor+mesotrione+glufosinate+FLURAZOLE; aclonifen +S-metolachlor+mesotrione+glufosinate+FLURAZOLE; aclonifen+metolachlor+atrazine+glufosinate+FLURAZOLE; aclonifen+S-metolachlor+atrazine+glufosinate+FLURAZOLE; aclonifen+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; aclonifen+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; aclonifen+atrazine+nicosulfuron+glufosinate+FLURAZOLE; bifenox+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; bifenox+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; bifenox+metolachlor+mesotrione+glufosinate+FLURAZOLE; bifenox+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; bifenox+metolachlor+atrazine +glufosinate+FLURAZOLE; bifenox+S-metolachlor+atrazine+glufosinate+FLURAZOLE; bifenox+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; bifenox +S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; bifenox+atrazine+nicosulfuron+glufosinate+FLURAZOLE; chlomitrofen+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; chlomitrofen+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; chlomitrofen+metolachlor+mesotrione+glufosinate+FLURAZOLE; chlomitrofen+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; chlomitrofen+metolachlor+atrazine+glufosinate+FLURAZOLE; chlomitrofen+S-metolachlor+atrazine+glufosinate+FLURAZOLE; chlomitrofen+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; chlomitrofen+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; chlomitrofen+atrazine+nicosulfuron+glufosinate+FLURAZOLE; ethoxyfen+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; ethoxyfen+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE;

ethoxyfen+metolachlor+mesotrione+glufosinate+FLURAZOLE; ethoxyfen+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; ethoxyfen+metolachlor+atrazine+glufosinate+FLURAZOLE; ethoxyfen+S-metolachlor+atrazine+glufosinate+FLURAZOLE; ethoxyfen +metolachlor+terbuthylazine+glufosinate+FLURAZOLE; ethoxyfen+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; ethoxyfen+atrazine+nicosulfuron+glufosinate+FLURAZOLE; fluoroglycofen+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; fluoroglycofen+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; fluoroglycofen+metolachlor+mesotrione+glufosinate+FLURAZOLE; fluoroglycofen+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; fluoroglycofen+metolachlor+atrazine+glufosinate+FLURAZOLE; fluoroglycofen+S-metolachlor+atrazine+glufosinate+FLURAZOLE; fluoroglycofen+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; fluoroglycofen+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; fluoroglycofen+atrazine+nicosulfuron+glufosinate+FLURAZOLE; fomesafen+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; fomesafen+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; fomesafen+metolachlor+mesotrione+glufosinate+FLURAZOLE; fomesafen+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; fomesafen+metolachlor+atrazine+glufosinate+FLURAZOLE; fomesafen +S-metolachlor+atrazine+glufosinate+FLURAZOLE; fomesafen+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; fomesafen+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; fomesafen+atrazine+nicosulfuron+glufosinate+FLURAZOLE; lactofen+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; lactofen+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; lactofen+metolachlor+mesotrione+glufosinate+FLURAZOLE; lactofen+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; lactofen+metolachlor+atrazine+glufosinate+FLURAZOLE; lactofen+S-metolachlor+atrazine+glufosinate+FLURAZOLE; lactofen+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; lactofen+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; lactofen+atrazine+nicosulfuron+glufosinate+FLURAZOLE; oxyfluorfen+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; oxyfluorfen+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; oxyfluorfen+metolachlor+mesotrione+glufosinate+FLURAZOLE; oxyfluorfen+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; oxyfluorfen+metolachlor+atrazine+glufosinate+FLURAZOLE; oxyfluorfen+S-metolachlor+atrazine+glufosinate+FLURAZOLE; oxyfluorfen+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; oxyfluorfen+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; oxyfluorfen+atrazine+nicosulfuron+glufosinate+FLURAZOLE; azafenidin+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; azafenidin+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; azafenidin+metolachlor+mesotrione+glufosinate+FLURAZOLE; azafenidin+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; azafenidin+metolachlor+atrazine+glufosinate+FLURAZOLE; azafenidin+S-metolachlor+atrazine +glufosinate+FLURAZOLE; azafenidin+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; azafenidin+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; azafenidin+atrazine+nicosulfuron+glufosinate+FLURAZOLE; carfentrazone-ethyl+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; carfentrazone-ethyl+metolachlor+mesotrione+glufosinate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+mesotrione +glufosinate+FLURAZOLE; carfentrazone-ethyl+metolachlor+atrazine+glufosinate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+atrazine+glufosinate+FLURAZOLE; carfentrazone-ethyl+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; carfentrazone-ethyl+atrazine+nicosulfuron+glufosinate+FLURAZOLE; compound of the formula A+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; compound of the formula A+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; compound of the formula A+metolachlor+mesotrione+glufosinate+FLURAZOLE; compound of the formula A+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; compound of the formula A+metolachlor+atrazine+glufosinate+FLURAZOLE; compound of the formula A+S-metolachlor+atrazine+glufosinate+FLURAZOLE; compound of the formula A+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; compound of the formula A+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; compound of the formula A+atrazine+nicosulfuron+glufosinate+FLURAZOLE; cinidon-ethyl+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; cinidon-ethyl+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; cinidon-ethyl+metolachlor+mesotrione+glufosinate+FLURAZOLE; cinidon-ethyl+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; cinidon-ethyl+metolachlor+atrazine+glufosinate+FLURAZOLE; cinidon-ethyl+S-metolachlor+atrazine+glufosinate+FLURAZOLE; cinidon-ethyl+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; cinidon-ethyl+S-metolachlor+terbuthylazine +glufosinate+FLURAZOLE; cinidon-ethyl+atrazine+nicosulfuron+glufosinate+FLURAZOLE; flumiclorac-pentyl+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; flumiclorac-pentyl+metolachlor+mesotrione+glufosinate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; flumiclorac-pentyl+metolachlor+atrazine+glufosinate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+atrazine+glufosinate+FLURAZOLE; flumiclorac-pentyl+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; flumiclorac-pentyl+atrazine+nicosulfuron+glufosinate+FLURAZOLE; flumioxazin+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; flumioxazin+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; flumioxazin+metolachlor+mesotrione+glufosinate+FLURAZOLE; flumioxazin+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; flumioxazin+metolachlor+atrazine+glufosinate+FLURAZOLE; flumioxazin+S-metolachlor+atrazine+glufosinate+FLURAZOLE; flumioxazin+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; flumioxazin+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; flumioxazin+atrazine+nicosulfuron+glufosinate+FLURAZOLE; fluthiacet-methyl+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; fluthiacet-methyl+metolachlor+mesotrione+glufosinate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; fluthiacet-methyl+metolachlor+atrazine+

glufosinate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+atrazine+glufosinate+FLURAZOLE; fluthiacet-methyl+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; fluthiacet-methyl+atrazine+nicosulfuron+glufosinate+FLURAZOLE; oxadiargyl+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; oxadiargyl+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; oxadiargyl+metolachlor+mesotrione+glufosinate+FLURAZOLE; oxadiargyl+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; oxadiargyl+metolachlor+atrazine +glufosinate+FLURAZOLE; oxadiargyl+S-metolachlor+atrazine+glufosinate+FLURAZOLE; oxadiargyl+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; oxadiargyl+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; oxadiargyl+atrazine+nicosulfuron+glufosinate+FLURAZOLE; oxadiazon+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; oxadiazon+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; oxadiazon+metolachlor+mesotrione+glufosinate+FLURAZOLE; oxadiazon+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; oxadiazon+metolachlor+atrazine+glufosinate+FLURAZOLE; oxadiazon+S-metolachlor+atrazine+glufosinate+FLURAZOLE; oxadiazon+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; oxadiazon+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; oxadiazon+atrazine+nicosulfuron+glufosinate+FLURAZOLE; pentoxazone+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; pentoxazone+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; pentoxazone+metolachlor+mesotrione+glufosinate+FLURAZOLE; pentoxazone+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; pentoxazone+metolachlor+atrazine+glufosinate+FLURAZOLE; pentoxazone+S-metolachlor+atrazine+glufosinate+FLURAZOLE; pentoxazone+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; pentoxazone+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; pentoxazone+atrazine+nicosulfuron+glufosinate+FLURAZOLE; sulfentrazone+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; sulfentrazone+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; sulfentrazone+metolachlor+mesotrione+glufosinate+FLURAZOLE; sulfentrazone+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; sulfentrazone+metolachlor+atrazine+glufosinate+FLURAZOLE; sulfentrazone+S-metolachlor+atrazine+glufosinate+FLURAZOLE; sulfentrazone+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; sulfentrazone+S-metolachlor+terbuthylazine +glufosinate+FLURAZOLE; sulfentrazone+atrazine+nicosulfuron+glufosinate+FLURAZOLE; fluazolate+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; fluazolate+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; fluazolate+metolachlor+mesotrione+glufosinate+FLURAZOLE; fluazolate+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; fluazolate+metolachlor+atrazine+glufosinate+FLURAZOLE; fluazolate+S-metolachlor+atrazine+glufosinate+FLURAZOLE; fluazolate +metolachlor+terbuthylazine+glufosinate+FLURAZOLE; fluazolate+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; fluazolate+atrazine+nicosulfuron+glufosinate+FLURAZOLE; pyraflufen-ethyl+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; pyraflufen-ethyl+metolachlor+mesotrione+glufosinate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; pyraflufen-ethyl+metolachlor+atrazine+glufosinate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+atrazine+glufosinate+FLURAZOLE; pyraflufen-ethyl+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; pyraflufen-ethyl+atrazine+nicosulfuron+glufosinate+FLURAZOLE; flumipropyn+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; flumipropyn+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; flumipropyn+metolachlor+mesotrione+glufosinate+FLURAZOLE; flumipropyn+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; flumipropyn+metolachlor+atrazine+glufosinate+FLURAZOLE; flumipropyn+S-metolachlor+atrazine+glufosinate+FLURAZOLE; flumipropyn+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; flumipropyn+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; flumipropyn+atrazine+nicosulfuron+glufosinate+FLURAZOLE; flupropacil+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; flupropacil+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; flupropacil+metolachlor+mesotrione+glufosinate+FLURAZOLE; flupropacil+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; flupropacil+metolachlor+atrazine+glufosinate+FLURAZOLE; flupropacil+S-metolachlor+atrazine +glufosinate+FLURAZOLE; flupropacil+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; flupropacil+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; flupropacil+atrazine+nicosulfuron+glufosinate+FLURAZOLE; nipyraclofen+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; nipyraclofen+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; nipyraclofen+metolachlor+mesotrione+glufosinate+FLURAZOLE; nipyraclofen+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; nipyraclofen+metolachlor+atrazine+glufosinate+FLURAZOLE; nipyraclofen+S-metolachlor+atrazine+glufosinate+FLURAZOLE; nipyraclofen+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; nipyraclofen+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; nipyraclofen+atrazine+nicosulfuron+glufosinate+FLURAZOLE; benzfendizone+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; benzfendizone+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; benzfendizone+metolachlor+mesotrione+glufosinate+FLURAZOLE; benzfendizone+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; benzfendizone+metolachlor+atrazine+glufosinate+FLURAZOLE; benzfendizone+S-metolachlor+atrazine+glufosinate+FLURAZOLE; benzfendizone+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; benzfendizone+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; benzfendizone+atrazine+nicosulfuron+glufosinate+FLURAZOLE; thidiazimin+metolachlor+isoxaflutole+glufosinate+FLURAZOLE; thidiazimin+S-metolachlor+isoxaflutole+glufosinate+FLURAZOLE; thidiazimin+metolachlor+mesotrione+glufosinate+FLURAZOLE; thidiazimin+S-metolachlor+mesotrione+glufosinate+FLURAZOLE; thidiazimin+metolachlor+atrazine+glufosinate+FLURAZOLE; thidiazimin+S-metolachlor+atrazine+glufosinate+FLURAZOLE; thidiazimin+metolachlor+terbuthylazine+glufosinate+FLURAZOLE; thidiazimin+S-metolachlor+terbuthylazine+glufosinate+FLURAZOLE; and thidiazimin+atrazine+nicosulfuron+glufosinate+FLURAZOLE. Acifluorfen+metolachlor+isox-

aflutole+glufosinate+DICHLORMID; acifluorfen+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; acifluorfen+metolachlor+mesotrione+glufosinate+DICHLORMID; acifluorfen+S-metolachlor+mesotrione+glufosinate+DICHLORMID; acifluorfen+metolachlor+atrazine+glufosinate+DICHLORMID; acifluorfen+S-metolachlor+atrazine+glufosinate+DICHLORMID; acifluorfen+metolachlor+terbuthylazine+glufosinate+DICHLORMID; acifluorfen+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; acifluorfen+atrazine+nicosulfuron+glufosinate+DICHLORMID; aclonifen+metolachlor+isoxaflutole+glufosinate+DICHLORMID; aclonifen+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; aclonifen+metolachlor+mesotrione+glufosinate+DICHLORMID; aclonifen+S-metolachlor+mesotrione+DICHLORMID; aclonifen+metolachlor+atrazine +glufosinate+DICHLORMID; aclonifen+S-metolachlor+atrazine+glufosinate+DICHLORMID; aclonifen+metolachlor+terbuthylazine+glufosinate+DICHLORMID; aclonifen+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; aclonifen+atrazine+nicosulfuron+glufosinate+DICHLORMID; bifenox+metolachlor+isoxaflutole +glufosinate+DICHLORMID; bifenox+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; bifenox+metolachlor+mesotrione+glufosinate+DICHLORMID; bifenox+S-metolachlor+mesotrione+glufosinate+DICHLORMID; bifenox+metolachlor+atrazine +glufosinate+DICHLORMID; bifenox+S-metolachlor+atrazine+glufosinate+DICHLORMID; bifenox+metolachlor+terbuthylazine+glufosinate+DICHLORMID; bifenox+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; bifenox+atrazine+nicosulfuron+glufosinate+DICHLORMID; chlomitrofen+metolachlor+isoxaflutole+glufosinate+DICHLORMID; chlomitrofen+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; chlomitrofen+metolachlor+mesotrione+glufosinate+DICHLORMID; chlomitrofen+S-metolachlor+mesotrione+glufosinate+DICHLORMID; chlomitrofen+metolachlor+atrazine+glufosinate+DICHLORMID; chlomitrofen+S-metolachlor+atrazine+glufosinate+DICHLORMID; chlomitrofen+metolachlor+terbuthylazine+glufosinate+DICHLORMID; chlomitrofen+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; chlomitrofen+atrazine+nicosulfuron+glufosinate+DICHLORMID; ethoxyfen+metolachlor+isoxaflutole+glufosinate+DICHLORMID; ethoxyfen+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; ethoxyfen+metolachlor+mesotrione+glufosinate+DICHLORMID; ethoxyfen+S-metolachlor+mesotrione+glufosinate+DICHLORMID; ethoxyfen+metolachlor+atrazine+glufosinate+DICHLORMID; ethoxyfen+S-metolachlor+atrazine+glufosinate+DICHLORMID; ethoxyfen+metolachlor+terbuthylazine+glufosinate+DICHLORMID; ethoxyfen+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; ethoxyfen+atrazine+nicosulfuron+glufosinate+DICHLORMID; fluoroglycofen+metolachlor+isoxaflutole+glufosinate+DICHLORMID; fluoroglycofen+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; fluoroglycofen+metolachlor+mesotrione+glufosinate+DICHLORMID; fluoroglycofen+S-metolachlor+mesotrione+glufosinate+DICHLORMID; fluoroglycofen+metolachlor+atrazine+glufosinate+DICHLORMID; fluoroglycofen+S-metolachlor+atrazine+glufosinate+DICHLORMID; fluoroglycofen+metolachlor+terbuthylazine+glufosinate+DICHLORMID; fluoroglycofen+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; fluoroglycofen+atrazine+nicosulfuron+glufosinate+DICHLORMID; fomesafen+metolachlor+isoxaflutole+glufosinate+DICHLORMID; fomesafen+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; fomesafen+metolachlor+mesotrione+glufosinate+DICHLORMID; fomesafen+S-metolachlor+mesotrione+glufosinate+DICHLORMID; fomesafen+metolachlor+atrazine+glufosinate+DICHLORMID; fomesafen+S-metolachlor+atrazine+glufosinate+DICHLORMID; fomesafen+metolachlor+terbuthylazine+glufosinate+DICHLORMID; fomesafen+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; fomesafen+atrazine+nicosulfuron+glufosinate+DICHLORMID; lactofen+metolachlor+isoxaflutole+glufosinate+DICHLORMID; lactofen+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; lactofen+metolachlor+mesotrione+glufosinate+DICHLORMID; lactofen +S-metolachlor+mesotrione+glufosinate+DICHLORMID; lactofen+metolachlor+atrazine+glufosinate+DICHLORMID; lactofen+S-metolachlor+atrazine+glufosinate+DICHLORMID; lactofen+metolachlor+terbuthylazine+glufosinate+DICHLORMID; lactofen+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; lactofen+atrazine +nicosulfuron+glufosinate+DICHLORMID; oxyfluorfen+metolachlor+isoxaflutole+glufosinate+DICHLORMID; oxyfluorfen+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; oxyfluorfen+metolachlor+mesotrione+glufosinate+DICHLORMID; oxyfluorfen+S-metolachlor+mesotrione+glufosinate+DICHLORMID; oxyfluorfen+metolachlor+atrazine+glufosinate+DICHLORMID; oxyfluorfen+S-metolachlor+atrazine +glufosinate+DICHLORMID; oxyfluorfen+metolachlor+terbuthylazine+glufosinate+DICHLORMID; oxyfluorfen+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; oxyfluorfen+atrazine+nicosulfuron+glufosinate+DICHLORMID; azafenidin+metolachlor+isoxaflutole+glufosinate+DICHLORMID; azafenidin+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; azafenidin+metolachlor+mesotrione+glufosinate+DICHLORMID; azafenidin+S-metolachlor+mesotrione+glufosinate+DICHLORMID; azafenidin+metolachlor+atrazine+glufosinate+DICHLORMID; azafenidin+S-metolachlor+atrazine+glufosinate+DICHLORMID; azafenidin+metolachlor+terbuthylazine+glufosinate+DICHLORMID; azafenidin+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; azafenidin+atrazine+nicosulfuron+glufosinate+DICHLORMID; carfentrazone-ethyl+metolachlor+isoxaflutole+glufosinate +DICHLORMID; carfentrazone-ethyl+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; carfentrazone-ethyl+metolachlor+mesotrione+glufosinate+DICHLORMID; carfentrazone-ethyl+S-metolachlor+mesotrione+glufosinate+DICHLORMID; carfentrazone-ethyl+metolachlor+atrazine+glufosinate+DICHLORMID; carfentrazone-ethyl+S-metolachlor+atrazine+glufosinate+DICHLORMID; carfentrazone-ethyl+metolachlor+terbuthylazine+glufosinate+DICHLORMID; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; carfentrazone-ethyl+atrazine+nicosulfuron+DICHLORMID; compound of the formula A +metolachlor+isoxaflutole+glufosinate+DICHLORMID; compound of the formula A+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; compound of the formula A+metolachlor+mesotrione+glufosinate+DICHLORMID; compound of the formula A+S-metolachlor+mesotrione+glufosinate+DICHLOR-

MID; compound of the formula A+metolachlor+atrazine+glufosinate+DICHLORMID; compound of the formula A+S-metolachlor+atrazine+glufosinate+DICHLORMID; compound of the formula A+metolachlor+terbuthylazine+glufosinate+DICHLORMID; compound of the formula A+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; compound of the formula A+atrazine+nicosulfuron+glufosinate+DICHLORMID; cinidon-ethyl+metolachlor+isoxaflutole+glufosinate+DICHLORMID; cinidon-ethyl+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; cinidon-ethyl+metolachlor+mesotrione+glufosinate+DICHLORMID; cinidon-ethyl+S-metolachlor+mesotrione+glufosinate+DICHLORMID; cinidon-ethyl+metolachlor+atrazine+glufosinate+DICHLORMID; cinidon-ethyl+S-metolachlor+atrazine+glufosinate+DICHLORMID; cinidon-ethyl+metolachlor+terbuthylazine+glufosinate+DICHLORMID; cinidon-ethyl+S-metolachlor+terbuthylazine +glufosinate+DICHLORMID; cinidon-ethyl+atrazine+nicosulfuron+glufosinate+DICHLORMID; flumiclorac-pentyl+metolachlor+isoxaflutole+DICHLORMID; flumiclorac-pentyl+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; flumiclorac-pentyl+metolachlor+mesotrione+glufosinate+DICHLORMID; flumiclorac-pentyl+S-metolachlor +mesotrione+glufosinate+DICHLORMID; flumiclorac-pentyl+metolachlor+atrazine+glufosinate+DICHLORMID; flumiclorac-pentyl+S-metolachlor+atrazine+glufosinate+DICHLORMID; flumiclorac-pentyl+metolachlor+terbuthylazine+glufosinate+DICHLORMID; flumiclorac-pentyl+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; flumiclorac-pentyl+atrazine+nicosulfuron+glufosinate+DICHLORMID; flumioxazin+metolachlor+isoxaflutole+glufosinate+DICHLORMID; flumioxazin+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; flumioxazin+metolachlor+mesotrione+glufosinate+DICHLORMID; flumioxazin+S-metolachlor+mesotrione+glufosinate+DICHLORMID; flumioxazin+metolachlor+atrazine+glufosinate+DICHLORMID; flumioxazin+S-metolachlor+atrazine+glufosinate+DICHLORMID; flumioxazin+metolachlor+terbuthylazine+glufosinate+DICHLORMID; flumioxazin+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; flumioxazin+atrazine+nicosulfuron+glufosinate+DICHLORMID; fluthiacet-methyl+metolachlor+isoxaflutole+glufosinate+DICHLORMID; fluthiacet-methyl+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; fluthiacet-methyl+metolachlor+mesotrione+glufosinate+DICHLORMID; fluthiacet-methyl+S-metolachlor+mesotrione+glufosinate+DICHLORMID; fluthiacet-methyl+metolachlor+atrazine+glufosinate+DICHLORMID; fluthiacet-methyl+S-metolachlor+atrazine+glufosinate+DICHLORMID; fluthiacet-methyl+metolachlor+terbuthylazine+glufosinate+DICHLORMID; fluthiacet-methyl+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; fluthiacet-methyl+atrazine+nicosulfuron+glufosinate+DICHLORMID; oxadiargyl+metolachlor+isoxaflutole+glufosinate+DICHLORMID; oxadiargyl+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; oxadiargyl+metolachlor+mesotrione+glufosinate+DICHLORMID; oxadiargyl+S-metolachlor+mesotrione+glufosinate+DICHLORMID; oxadiargyl+metolachlor+atrazine +glufosinate+DICHLORMID; oxadiargyl+S-metolachlor+atrazine+glufosinate+DICHLORMID; oxadiargyl+metolachlor+terbuthylazine+glufosinate+DICHLORMID; oxadiargyl+S-metolach or+terbuthylazine+glufosinate+DICHLORMID; oxadiargyl+atrazine+nicosulfuron+glufosinate+DICHLORMID; oxadiazon+metolachlor+isoxaflutole+glufosinate+DICHLORMID; oxadiazon+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; oxadiazon+metolachlor+mesotrione+glufosinate+DICHLORMID; oxadiazon+S-metolachlor+mesotrione+glufosinate+DICHLORMID; oxadiazon+metolachlor+atrazine+glufosinate+DICHLORMID; oxadiazon+S-metolachlor+atrazine+glufosinate+DICHLORMID; oxadiazon+metolachlor+terbuthylazine+glufosinate+DICHLORMID; oxadiazon+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; oxadiazon+atrazine+nicosulfuron+glufosinate+DICHLORMID; pentoxazone+metolachlor+isoxaflutole+glufosinate+DICHLORMID; pentoxazone+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; pentoxazone+metolachlor+mesotrione+glufosinate+DICHLORMID; pentoxazone+S-metolachlor+mesotrione+glufosinate+DICHLORMID; pentoxazone+metolachlor+atrazine+glufosinate+DICHLORMID; pentoxazone+S-metolachlor+atrazine+glufosinate+DICHLORMID; pentoxazone+metolachlor+terbuthylazine+glufosinate+DICHLORMID; pentoxazone+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; pentoxazone +atrazine+nicosulfuron+glufosinate+DICHLORMID; sulfentrazone+metolachlor+isoxaflutole+glufosinate+DICHLORMID; sulfentrazone+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; sulfentrazone+metolachlor+mesotrione+glufosinate+DICHLORMID; sulfentrazone+S-metolachlor+mesotrione+glufosinate+DICHLORMID; sulfentrazone+metolachlor+atrazine+glufosinate+DICHLORMID; sulfentrazone+S-metolachlor+atrazine+glufosinate+DICHLORMID; sulfentrazone+metolachlor+terbuthylazine+glufosinate+DICHLORMID; sulfentrazone+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; sulfentrazone+atrazine+nicosulfuron+glufosinate+DICHLORMID; fluazolate+metolachlor+isoxaflutole+glufosinate+DICHLORMID; fluazolate+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; fluazolate+metolachlor+mesotrione+glufosinate+DICHLORMID; fluazolate+S-metolachlor+mesotrione+glufosinate+DICHLORMID; fluazolate+metolachlor+atrazine +glufosinate+DICHLORMID; fluazolate+S-metolachlor+atrazine+glufosinate+DICHLORMID; fluazolate+metolachlor+terbuthylazine+glufosinate+DICHLORMID; fluazolate+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; fluazolate+atrazine+nicosulfuron+glufosinate+DICHLORMID; pyraflufen-ethyl+metolachlor+isoxaflutole+glufosinate+DICHLORMID; pyraflufen-ethyl+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; pyraflufen-ethyl+metolachlor+mesotrione+glufosinate+DICHLORMID; pyraflufen-ethyl+S-metolachlor+mesotrione+glufosinate+DICHLORMID; pyraflufen-ethyl+metolachlor+atrazine+glufosinate+DICHLORMID; pyraflufen-ethyl+S-metolachlor+atrazine+glufosinate+DICHLORMID; pyraflufen-ethyl+metolachlor+terbuthylazine+glufosinate+DICHLORMID; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; pyraflufen-ethyl+atrazine+nicosulfuron+glufosinate+DICHLORMID; flumipropyn+metolachlor+isoxaflutole+glufosinate+DICHLORMID; flumipropyn+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; flumipropyn+metolachlor+mesotrione+glufosinate+DICHLORMID; flumipropyn+S-metolachlor+mesotrione+glufosinate+

DICHLORMID; flumipropyn+metolachlor+atrazine+glufosinate+DICHLORMID; flumipropyn+S-metolachlor+atrazine+glufosinate +DICHLORMID; flumipropyn+metolachlor+terbuthylazine+glufosinate+DICHLORMID; flumipropyn+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; flumipropyn+atrazine+nicosulfuron+glufosinate+DICHLORMID; flupropacil+metolachlor+isoxaflutole+glufosinate+DICHLORMID; flupropacil+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; flupropacil+metolachlor+mesotrione+glufosinate+DICHLORMID; flupropacil+S-metolachlor+mesotrione+glufosinate+DICHLORMID; flupropacil+metolachlor+atrazine+glufosinate+DICHLORMID; flupropacil+S-metolachlor+atrazine+glufosinate+DICHLORMID; flupropacil+metolachlor+terbuthylazine+glufosinate+DICHLORMID; flupropacil+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; flupropacil+atrazine+nicosulfuron+glufosinate+DICHLORMID; nipyraclofen+metolachlor+isoxaflutole+glufosinate+DICHLORMID; nipyraclofen+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; nipyraclofen+metolachlor+mesotrione+glufosinate+DICHLORMID; nipyraclofen+S-metolachlor+mesotrione+glufosinate+DICHLORMID; nipyraclofen+metolachlor+atrazine+glufosinate+DICHLORMID; nipyraclofen+S-metolachlor+atrazine+glufosinate+DICHLORMID; nipyraclofen+metolachlor+terbuthylazine+glufosinate+DICHLORMID; nipyraclofen+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; nipyraclofen+atrazine+nicosulfuron+glufosinate+DICHLORMID; benzfendizone+metolachlor+isoxaflutole+glufosinate+DICHLORMID; benzfendizone+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; benzfendizone+metolachlor+mesotrione+glufosinate+DICHLORMID; benzfendizone+S-metolachlor+mesotrione+glufosinate+DICHLORMID; benzfendizone+metolachlor+atrazine+glufosinate+DICHLORMID; benzfendizone+S-metolachlor+atrazine+glufosinate+DICHLORMID; benzfendizone+metolachlor+terbuthylazine+glufosinate+DICHLORMID; benzfendizone+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; benzfendizone+atrazine+nicosulfuron+glufosinate+DICHLORMID; thidiazimin+metolachlor+isoxaflutole+glufosinate+DICHLORMID; thidiazimin+S-metolachlor+isoxaflutole+glufosinate+DICHLORMID; thidiazimin+metolachlor+mesotrione+glufosinate+DICHLORMID; thidiazimin+S-metolachlor+mesotrione+glufosinate+DICHLORMID; thidiazimin+metolachlor+atrazine+glufosinate+DICHLORMID; thidiazimin+S-metolachlor+atrazine+glufosinate +DICHLORMID; thidiazimin+metolachlor+terbuthylazine+glufosinate+DICHLORMID; thidiazimin+S-metolachlor+terbuthylazine+glufosinate+DICHLORMID; and thidiazimin +atrazine+nicosulfuron+glufosinate+DICHLORMID.

[0150] Acifluorfen+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; acifluorfen+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; acifluorfen+metolachlor+mesotrione+glufosinate+FURILAZOLE; acifluorfen+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; acifluorfen+metolachlor+atrazine+glufosinate+FURILAZOLE; acifluorfen+S-metolachlor+atrazine+glufosinate+FURILAZOLE; acifluorfen+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; acifluorfen+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; acifluorfen+atrazine+nicosulfuron+glufosinate+FURILAZOLE; aclonifen+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; aclonifen+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; aclonifen+metolachlor+mesotrione+glufosinate+FURILAZOLE; aclonifen+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; aclonifen+metolachlor+atrazine+glufosinate+FURILAZOLE; aclonifen+S-metolachlor+atrazine+glufosinate+FURILAZOLE; aclonifen+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; aclonifen+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; aclonifen+atrazine+nicosulfuron+glufosinate+FURILAZOLE; bifenox+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; bifenox+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; bifenox+metolachlor+mesotrione+glufosinate+FURILAZOLE; bifenox+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; bifenox +metolachlor+atrazine+glufosinate+FURILAZOLE; bifenox+S-metolachlor+atrazine+glufosinate+FURILAZOLE; bifenox+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; bifenox+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; bifenox+atrazine+nicosulfuron+glufosinate+FURILAZOLE; chlomitrofen+metolachlor +isoxaflutole+glufosinate+FURILAZOLE; chlomitrofen+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; chlomitrofen+metolachlor+mesotrione+glufosinate+FURILAZOLE; chlomitrofen+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; chlomitrofen+metolachlor+atrazine+glufosinate+FURILAZOLE; chlomitrofen+S-metolachlor+atrazine+glufosinate+FURILAZOLE; chlomitrofen+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; chlomitrofen+S-metolachlor+terbuthylazine +glufosinate+FURILAZOLE; chlomitrofen+atrazine+nicosulfuron+glufosinate+FURILAZOLE; ethoxyfen+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; ethoxyfen+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; ethoxyfen+metolachlor+mesotrione+glufosinate+FURILAZOLE; ethoxyfen+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; ethoxyfen+metolachlor+atrazine+glufosinate +FURILAZOLE; ethoxyfen+S-metolachlor+atrazine+glufosinate+FURILAZOLE; ethoxyfen+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; ethoxyfen+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; ethoxyfen+atrazine+nicosulfuron+glufosinate+FURILAZOLE; fluoroglycofen+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; fluoroglycofen+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; fluoroglycofen+metolachlor+mesotrione+glufosinate+FURILAZOLE; fluoroglycofen+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; fluoroglycofen+metolachlor+atrazine+glufosinate+FURILAZOLE; fluoroglycofen+S-metolachlor+atrazine+glufosinate+FURILAZOLE; fluoroglycofen+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; fluoroglycofen+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; fluoroglycofen+atrazine+nicosulfuron+glufosinate+FURILAZOLE; fomesafen+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; fomesafen+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; fomesafen+metolachlor+mesotrione+glufosinate+FURILAZOLE; fomesafen+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; fomesafen+metolachlor+atrazine+glufosinate+FURILAZOLE; fomesafen+S-metolachlor+atrazine+glufosinate+FURILAZOLE; fomesafen+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; fomesafen+S-metolachlor+

terbuthylazine+glufosinate+FURILAZOLE; fomesafen+atrazine+nicosulfuron+glufosinate+FURILAZOLE; lactofen+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; lactofen+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; lactofen+metolachlor+mesotrione+glufosinate+FURILAZOLE; lactofen +S-metolachlor+mesotrione+glufosinate+FURILAZOLE; lactofen+metolachlor+atrazine+glufosinate+FURILAZOLE; lactofen+S-metolachlor+atrazine+glufosinate+FURILAZOLE; lactofen+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; lactofen+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; lactofen+atrazine+nicosulfuron+glufosinate+FURILAZOLE; oxyfluorfen+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; oxyfluorfen+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; oxyfluorfen+metolachlor+mesotrione+glufosinate+FURILAZOLE; oxyfluorfen+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; oxyfluorfen+metolachlor+atrazine+glufosinate+FURILAZOLE; oxyfluorfen+S-metolachlor+atrazine +glufosinate+FURILAZOLE; oxyfluorfen+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; oxyfluorfen+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; oxyfluorfen+atrazine+nicosulfuron+glufosinate+FURILAZOLE; azafenidin+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; azafenidin+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; azafenidin+metolachlor+mesotrione+glufosinate+FURILAZOLE; azafenidin+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; azafenidin+metolachlor+atrazine+glufosinate+FURILAZOLE; azafenidin +S-metolachlor+atrazine+glufosinate+FURILAZOLE; azafenidin+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; azafenidin+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; azafenidin+atrazine+nicosulfuron+glufosinate+FURILAZOLE; carfentrazone-ethyl+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; carfentrazone-ethyl+metolachlor+mesotrione+glufosinate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; carfentrazone-ethyl+metolachlor+atrazine+glufosinate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+atrazine+glufosinate+FURILAZOLE; carfentrazone-ethyl+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; carfentrazone-ethyl+atrazine+nicosulfuron+glufosinate+FURILAZOLE; compound of the formula A+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; compound of the formula A+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; compound of the formula A+metolachlor+mesotrione+glufosinate+FURILAZOLE; compound of the formula A+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; compound of the formula A+metolachlor+atrazine+glufosinate+FURILAZOLE; compound of the formula A+S-metolachlor+atrazine+glufosinate+FURILAZOLE; compound of the formula A+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; compound of the formula A+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; compound of the formula A+atrazine+nicosulfuron+glufosinate+FURILAZOLE; cinidon-ethyl+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; cinidon-ethyl+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; cinidon-ethyl+metolachlor+mesotrione+glufosinate+FURILAZOLE; cinidon-ethyl+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; cinidon-ethyl+metolachlor+atrazine+glufosinate+FURILAZOLE; cinidon-ethyl+S-metolachlor+atrazine+glufosinate+FURILAZOLE; cinidon-ethyl+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; cinidon-ethyl+S-metolachlor+terbuthylazine +glufosinate+FURILAZOLE; cinidon-ethyl+atrazine+nicosulfuron+glufosinate+FURILAZOLE; flumiclorac-pentyl+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; flumiclorac-pentyl+metolachlor+mesotrione+glufosinate+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; flumiclorac-pentyl+metolachlor+atrazine+glufosinate+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+atrazine+glufosinate+FURILAZOLE; flumiclorac-pentyl+metolachlor+terbuthylazine+glufosinate +FURILAZOLE; flumiclorac-pentyl+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; flumiclorac-pentyl+atrazine+nicosulfuron+glufosinate+FURILAZOLE; flumioxazin+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; flumioxazin+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; flumioxazin+metolachlor+mesotrione+glufosinate+FURILAZOLE; flumioxazin+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; flumioxazin+metolachlor+atrazine+glufosinate+FURILAZOLE; flumioxazin+S-metolachlor+atrazine+glufosinate+FURILAZOLE; flumioxazin+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; flumioxazin+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; flumioxazin+atrazine+nicosulfuron+glufosinate+FURILAZOLE; fluthiacet-methyl+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; fluthiacet-methyl+metolachlor+mesotrione+glufosinate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; fluthiacet-methyl+metolachlor+atrazine+glufosinate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+atrazine+glufosinate+FURILAZOLE; fluthiacet-methyl+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; fluthiacet-methyl+atrazine+nicosulfuron+glufosinate+FURILAZOLE; oxadiargyl+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; oxadiargyl+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; oxadiargyl+metolachlor+mesotrione+glufosinate+FURILAZOLE; oxadiargyl+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; oxadiargyl+metolachlor+atrazine +glufosinate+FURILAZOLE; oxadiargyl+S-metolachlor+atrazine+glufosinate+FURILAZOLE; oxadiargyl+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; oxadiargyl+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; oxadiargyl+atrazine+nicosulfuron+glufosinate+FURILAZOLE; oxadiazon+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; oxadiazon+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; oxadiazon+metolachlor+mesotrione+glufosinate+FURILAZOLE; oxadiazon+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; oxadiazon+metolachlor+atrazine+glufosinate+FURILAZOLE; oxadiazon+S-metolachlor+atrazine+glufosinate+FURILAZOLE; oxadiazon+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; oxadiazon+S-metolachlor+

terbuthylazine+glufosinate+FURILAZOLE; oxadiazon+atrazine+nicosulfuron+glufosinate+FURILAZOLE; pentoxazone+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; FURILAZOLE; pentoxazone+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; pentoxazone+metolachlor+mesotrione+glufosinate+FURILAZOLE; pentoxazone+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; pentoxazone+metolachlor+atrazine+glufosinate+FURILAZOLE; pentoxazone+S-metolachlor+atrazine+glufosinate+FURILAZOLE; pentoxazone+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; pentoxazone+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; pentoxazone +atrazine+nicosulfuron+glufosinate+FURILAZOLE; sulfentrazone+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; sulfentrazone+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; sulfentrazone+metolachlor+mesotrione+glufosinate+FURILAZOLE; sulfentrazone+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; sulfentrazone+metolachlor+atrazine+glufosinate+FURILAZOLE; sulfentrazone+S-metolachlor+atrazine+glufosinate+FURILAZOLE; sulfentrazone+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; sulfentrazone+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; sulfentrazone+atrazine+nicosulfuron+glufosinate+FURILAZOLE; fluazolate+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; fluazolate+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; fluazolate+metolachlor+mesotrione+glufosinate+FURILAZOLE; fluazolate+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; fluazolate+metolachlor+atrazine +glufosinate+FURILAZOLE; fluazolate+S-metolachlor+atrazine+glufosinate+FURILAZOLE; fluazolate+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; fluazolate+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; fluazolate+atrazine+nicosulfuron+glufosinate+FURILAZOLE; pyraflufen-ethyl+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; pyraflufen-ethyl+metolachlor+mesotrione+glufosinate+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; pyraflufen-ethyl+metolachlor+atrazine+glufosinate+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+atrazine+glufosinate+FURILAZOLE; pyraflufen-ethyl+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; pyraflufen-ethyl+atrazine+nicosulfuron+glufosinate+FURILAZOLE; flumipropyn+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; flumipropyn+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; flumipropyn+metolachlor+mesotrione+glufosinate+FURILAZOLE; flumipropyn+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; flumipropyn+metolachlor+atrazine+glufosinate+FURILAZOLE; flumipropyn+S-metolachlor+atrazine+glufosinate +FURILAZOLE; flumipropyn+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; flumipropyn+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; flumipropyn+atrazine+nicosulfuron+glufosinate+FURILAZOLE; flupropacil+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; flupropacil+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; flupropacil+metolachlor+mesotrione+glufosinate+FURILAZOLE; flupropacil+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; flupropacil+metolachlor+atrazine+glufosinate+FURILAZOLE; flupropacil+S-metolachlor+atrazine+glufosinate+FURILAZOLE; flupropacil+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; flupropacil+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; flupropacil+atrazine+nicosulfuron+glufosinate+FURILAZOLE; nipyraclofen+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; nipyraclofen+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; nipyraclofen+metolachlor+mesotrione+glufosinate+FURILAZOLE; nipyraclofen+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; nipyraclofen+metolachlor+atrazine+glufosinate+FURILAZOLE; nipyraclofen+S-metolachlor+atrazine+glufosinate+FURILAZOLE; nipyraclofen+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; nipyraclofen+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; nipyraclofen+atrazine+nicosulfuron+glufosinate+FURILAZOLE; benzfendizone+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; benzfendizone+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; benzfendizone+metolachlor+mesotrione+glufosinate+FURILAZOLE; benzfendizone+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; benzfendizone+metolachlor+atrazine+glufosinate+FURILAZOLE; benzfendizone+S-metolachlor+atrazine+glufosinate+FURILAZOLE; benzfendizone+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; benzfendizone+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; benzfendizone+atrazine+nicosulfuron+glufosinate+FURILAZOLE; thidiazimin+metolachlor+isoxaflutole+glufosinate+FURILAZOLE; thidiazimin+S-metolachlor+isoxaflutole+glufosinate+FURILAZOLE; thidiazimin+metolachlor+mesotrione+glufosinate+FURILAZOLE; thidiazimin+S-metolachlor+mesotrione+glufosinate+FURILAZOLE; thidiazimin+metolachlor+atrazine +glufosinate+FURILAZOLE; thidiazimin+S-metolachlor+atrazine+glufosinate+FURILAZOLE; thidiazimin+metolachlor+terbuthylazine+glufosinate+FURILAZOLE; thidiazimin+S-metolachlor+terbuthylazine+glufosinate+FURILAZOLE; and thidiazimin+atrazine+nicosulfuron+glufosinate+FURILAZOLE.

[0151] Acifluorfen+prosulfuron+primisulfuron+sulfosate; acifluorfen+prosulfuron+dicamba+sulfosate; acifluorfen+primisulfuron+dicamba+sulfosate; acifluorfen+nicosulfuron+primisulfuron+sulfosate; acifluorfen+nicosulfuron+prosulfuron+sulfosate; acifluorfen+rimsulfuron+primisulfuron+sulfosate; acifluorfen+rimsulfuron+prosulfuron+sulfosate; acifluorfen+metolachlor+isoxaflutole+sulfosate; acifluorfen+metolachlor+isoxaflutole +sulfosate+benoxacor; acifluorfen+S-metolachlor+isoxaflutole+sulfosate; acifluorfen+S-metolachlor+isoxaflutole+sulfosate+benoxacor; acifluorfen+metolachlor+mesotrione+sulfosate; acifluorfen+metolachlor+mesotrione+sulfosate+benoxacor; acifluorfen+S-metolachlor+mesotrione+sulfosate; acifluorfen+S-metolachlor+mesotrione+benoxacor+sulfosate; acifluorfen+metolachlor+atrazine+sulfosate; acifluorfen+metolachlor+atrazine+sulfosate+benoxacor; acifluorfen+S-metolachlor+atrazine+sulfosate; acifluorfen+S-metolachlor+atrazine+sulfosate+benoxacor; acifluorfen+metolachlor+terbuthylazine+sulfosate; acifluorfen+metolachlor+terbuthylazine+sulfosate+benoxacor; acifluorfen+S-metolachlor+terbuthylazine+sulfosate; acifluorfen+S-metolachlor+terbuthylazine+sulfosate+benoxacor; acifluorfen +atrazine+nicosulfuron+sulfosate; acifluorfen+

atrazine+nicosulfuron+sulfosate+benoxacor; aclonifen+prosulfuron+primisulfuron+sulfosate; aclonifen+prosulfuron+dicamba+sulfosate; aclonifen+primisulfuron+dicamba+sulfosate; aclonifen+nicosulfuron+primisulfuron+sulfosate; aclonifen+nicosulfuron+prosulfuron+sulfosate; aclonifen+rimsulfuron+primisulfuron+sulfosate; aclonifen+rimsulfuron+prosulfuron+sulfosate; aclonifen+metolachlor+isoxaflutole+sulfosate; aclonifen+metolachlor+isoxaflutole+sulfosate+benoxacor; aclonifen+S-metolachlor+isoxaflutole+sulfosate; aclonifen+S-metolachlor+isoxaflutole+sulfosate+benoxacor; aclonifen+metolachlor+mesotrione+sulfosate; aclonifen+metolachlor+mesotrione+sulfosate+benoxacor; aclonifen+S-metolachlor+mesotrione+sulfosate; aclonifen+S-metolachlor+mesotrione+sulfosate+benoxacor; aclonifen+metolachlor+atrazine+sulfosate; aclonifen+metolachlor+atrazine+sulfosate+benoxacor; aclonifen+S-metolachlor+atrazine+sulfosate; aclonifen+S-metolachlor+atrazine+sulfosate+benoxacor; aclonifen+metolachlor+terbuthylazine+sulfosate; aclonifen+metolachlor+terbuthylazine+sulfosate+benoxacor; aclonifen+S-metolachlor+terbuthylazine+sulfosate; aclonifen+S-metolachlor+terbuthylazine+sulfosate+benoxacor; aclonifen+atrazine+nicosulfuron +sulfosate; aclonifen+atrazine+nicosulfuron+sulfosate+benoxacor; bifenox+prosulfuron+primisulfuron+sulfosate; bifenox+prosulfuron+dicamba+sulfosate; bifenox+primisulfuron+dicamba+sulfosate; bifenox+nicosulfuron+primisulfuron+sulfosate; bifenox+nicosulfuron+prosulfuron+sulfosate; bifenox+rimsulfuron+primisulfuron+sulfosate; bifenox+rimsulfuron+prosulfuron+sulfosate; bifenox+metolachlor+isoxaflutole+sulfosate; bifenox+metolachlor+isoxaflutole+sulfosate+benoxacor; bifenox+S-metolachlor+isoxaflutole+sulfosate; bifenox+S-metolachlor+isoxaflutole+sulfosate+benoxacor; bifenox+metolachlor+mesotrione+sulfosate; bifenox+metolachlor+mesotrione+sulfosate+benoxacor; bifenox+S-metolachlor+mesotrione+sulfosate; bifenox+S-metolachlor+mesotrione+sulfosate+benoxacor; bifenox+metolachlor+atrazine+sulfosate; bifenox+metolachlor+atrazine+sulfosate+benoxacor; bifenox+S-metolachlor+atrazine+sulfosate; bifenox+S-metolachlor+atrazine+sulfosate+benoxacor; bifenox+metolachlor+terbuthylazine+sulfosate; bifenox+metolachlor+terbuthylazine+sulfosate+benoxacor; bifenox+S-metolachlor+terbuthylazine+sulfosate; bifenox+S-metolachlor+terbuthylazine+sulfosate+benoxacor; bifenox+atrazine+nicosulfuron+sulfosate; bifenox+atrazine+nicosulfuron +sulfosate+benoxacor; chlomitrofen+prosulfuron+primisulfuron+sulfosate; chlomitrofen+prosulfuron+dicamba+sulfosate; chlomitrofen+primisulfuron+dicamba+sulfosate; chlomitrofen+nicosulfuron+primisulfuron+sulfosate; chlomitrofen+nicosulfuron+prosulfuron+sulfosate; chlomitrofen+rimsulfuron+primisulfuron+sulfosate; chlomitrofen+rimsulfuron+prosulfuron+sulfosate; chlomitrofen+metolachlor +isoxaflutole+sulfosate; chlomitrofen+metolachlor+isoxaflutole+sulfosate+benoxacor; chlomitrofen+S-metolachlor+isoxaflutole+sulfosate; chlomitrofen+S-metolachlor+isoxaflutole+sulfosate+benoxacor; chlomitrofen+metolachlor+mesotrione+sulfosate; chlomitrofen+metolachlor+mesotrione+sulfosate+benoxacor; chlomitrofen+S-metolachlor+mesotrione+sulfosate; chlomitrofen+S-metolachlor+mesotrione+sulfosate+benoxacor; chlomitrofen+metolachlor+atrazine+sulfosate; chlomitrofen+metolachlor+atrazine+sulfosate+benoxacor; chlomitrofen+S-metolachlor+atrazine+sulfosate; chlomitrofen+S-metolachlor+atrazine+sulfosate+benoxacor; chlomitrofen+metolachlor+terbuthylazine+sulfosate; chlomitrofen+metolachlor+terbuthylazine+sulfosate+benoxacor; chlomitrofen+S-metolachlor+terbuthylazine+sulfosate; chlomitrofen+S-metolachlor+terbuthylazine+sulfosate+benoxacor; chlomitrofen+atrazine+nicosulfuron+sulfosate; chlomitrofen+atrazine+nicosulfuron+sulfosate+benoxacor; ethoxyfen+prosulfuron+primisulfuron+sulfosate; ethoxyfen+prosulfuron+dicamba+sulfosate; ethoxyfen+primisulfuron+dicamba+sulfosate; ethoxyfen+nicosulfuron+primisulfuron+sulfosate; ethoxyfen+nicosulfuron+prosulfuron+sulfosate; ethoxyfen+rimsulfuron+primisulfuron+sulfosate; ethoxyfen+rimsulfuron+prosulfuron+sulfosate; ethoxyfen+metolachlor+isoxaflutole+sulfosate; ethoxyfen+metolachlor+isoxaflutole+sulfosate+benoxacor; ethoxyfen+S-metolachlor +isoxaflutole+sulfosate; ethoxyfen+S-metolachlor+isoxaflutole+sulfosate+benoxacor; ethoxyfen+metolachlor+mesotrione+sulfosate; ethoxyfen+metolachlor+mesotrione+sulfosate+benoxacor; ethoxyfen+S-metolachlor+mesotrione+sulfosate; ethoxyfen+S-metolachlor+mesotrione+sulfosate+benoxacor; ethoxyfen+metolachlor+atrazine+sulfosate; ethoxyfen+metolachlor+atrazine+sulfosate+benoxacor; ethoxyfen+S-metolachlor+atrazine+sulfosate; ethoxyfen+S-metolachlor+atrazine+sulfosate+benoxacor; ethoxyfen+metolachlor+terbuthylazine+sulfosate; ethoxyfen+metolachlor+terbuthylazine+sulfosate+benoxacor; ethoxyfen+S-metolachlor+terbuthylazine+sulfosate; ethoxyfen+S-metolachlor+terbuthylazine+sulfosate+benoxacor; ethoxyfen+atrazine+nicosulfuron+sulfosate; ethoxyfen+atrazine+nicosulfuron+sulfosate+benoxacor; fluoroglycofen+prosulfuron+primisulfuron+sulfosate; fluoroglycofen+prosulfuron+dicamba+sulfosate; fluoroglycofen+primisulfuron+dicamba+sulfosate; fluoroglycofen+nicosulfuron+primisulfuron+sulfosate; fluoroglycofen+nicosulfuron+prosulfuron+sulfosate; fluoroglycofen+rimsulfuron+primisulfuron+sulfosate; fluoroglycofen+rimsulfuron+prosulfuron+sulfosate; fluoroglycofen+metolachlor+isoxaflutole+sulfosate; fluoroglycofen+metolachlor+isoxaflutole+sulfosate+benoxacor; fluoroglycofen+S-metolachlor+isoxaflutole+sulfosate; fluoroglycofen+S-metolachlor+isoxaflutole+sulfosate+benoxacor; fluoroglycofen+metolachlor+mesotrione+sulfosate; fluoroglycofen+metolachlor+mesotrione+sulfosate+benoxacor; fluoroglycofen+S-metolachlor+mesotrione+sulfosate; fluoroglycofen+S-metolachlor+mesotrione+sulfosate+benoxacor; fluoroglycofen+metolachlor+atrazine+sulfosate; fluoroglycofen+metolachlor+atrazine+sulfosate+benoxacor; fluoroglycofen+S-metolachlor+atrazine+sulfosate; fluoroglycofen+S-metolachlor+atrazine+sulfosate+benoxacor; fluoroglycofen+metolachlor+terbuthylazine+sulfosate; fluoroglycofen+metolachlor+terbuthylazine+sulfosate+benoxacor; fluoroglycofen+S-metolachlor+terbuthylazine+sulfosate; fluoroglycofen+S-metolachlor+terbuthylazine+sulfosate+benoxacor; fluoroglycofen+atrazine+nicosulfuron+sulfosate; fluoroglycofen+atrazine+nicosulfuron+sulfosate+benoxacor; fomesafen+prosulfuron+primisulfuron+sulfosate; fomesafen+prosulfuron+dicamba+sulfosate; fomesafen+primisulfuron+dicamba+sulfosate; fomesafen+nicosulfuron+primisulfuron+sulfosate; fomesafen+nicosulfuron+prosulfuron+sulfosate; fomesafen+rimsulfuron+primisulfuron+sulfosate; fomesafen+rimsulfuron+

prosulfuron+sulfosate; fomesafen+metolachlor+isoxaflutole+sulfosate; fomesafen+metolachlor+isoxaflutole+sulfosate+benoxacor; fomesafen+S-metolachlor +isoxaflutole+sulfosate; fomesafen+S-metolachlor+isoxaflutole+sulfosate+benoxacor; fomesafen+metolachlor+mesotrione+sulfosate; fomesafen+metolachlor+mesotrione+sulfosate+benoxacor; fomesafen+S-metolachlor+mesotrione+sulfosate; fomesafen+S-metolachlor+mesotrione+sulfosate+benoxacor; fomesafen+metolachlor +atrazine+sulfosate; fomesafen+metolachlor+atrazine+sulfosate+benoxacor; fomesafen+S-metolachlor+atrazine+sulfosate; fomesafen+S-metolachlor+atrazine+sulfosate+benoxacor; fomesafen+metolachlor+terbuthylazine+sulfosate; fomesafen+metolachlor+terbuthylazine+sulfosate+benoxacor; fomesafen+S-metolachlor+terbuthylazine+sulfosate; fomesafen+S-metolachlor+terbuthylazine+sulfosate+benoxacor; fomesafen+atrazine+nicosulfuron+sulfosate; fomesafen+atrazine+nicosulfuron+sulfosate+benoxacor; lactofen+prosulfuron+primisulfuron+sulfosate; lactofen+prosulfuron+dicamba+sulfosate; lactofen+primisulfuron+dicamba+sulfosate; lactofen+nicosulfuron+primisulfuron+sulfosate; lactofen+nicosulfuron+prosulfuron+sulfosate; lactofen+rimsulfuron+primisulfuron+sulfosate; lactofen+rimsulfuron+prosulfuron+sulfosate; lactofen+metolachlor+isoxaflutole+sulfosate; lactofen+metolachlor+isoxaflutole+sulfosate+benoxacor; lactofen+S-metolachlor+isoxaflutole+sulfosate; lactofen+S-metolachlor+isoxaflutole+sulfosate+benoxacor; lactofen+metolachlor+mesotrione+sulfosate; lactofen+metolachlor+mesotrione+sulfosate+benoxacor; lactofen+S-metolachlor+mesotrione+sulfosate; lactofen+S-metolachlor+mesotrione+sulfosate+benoxacor; lactofen+metolachlor+atrazine+sulfosate; lactofen+metolachlor+atrazine+benoxacor; lactofen+S-metolachlor+atrazine; lactofen+S-metolachlor+atrazine+sulfosate+benoxacor; lactofen+metolachlor+terbuthylazine+sulfosate; lactofen+metolachlor+terbuthylazine+sulfosate +benoxacor; lactofen+S-metolachlor+terbuthylazine+sulfosate; lactofen+S-metolachlor+terbuthylazine+sulfosate+benoxacor; lactofen+atrazine+nicosulfuron+sulfosate; lactofen+atrazine+nicosulfuron+sulfosate+benoxacor; oxyfluorfen+prosulfuron+primisulfuron+sulfosate; oxyfluorfen+prosulfuron+dicamba+sulfosate; oxyfluorfen+primisulfuron+dicamba+sulfosate; oxyfluorfen+nicosulfuron+primisulfuron+sulfosate; oxyfluorfen+nicosulfuron+prosulfuron+sulfosate; oxyfluorfen+rimsulfuron+primisulfuron+sulfosate; oxyfluorfen+rimsulfuron+prosulfuron+sulfosate; oxyfluorfen+metolachlor+isoxaflutole+sulfosate; oxyfluorfen+metolachlor+isoxaflutole +sulfosate+benoxacor; oxyfluorfen+S-metolachlor+isoxaflutole+sulfosate; oxyfluorfen +S-metolachlor+isoxaflutole+sulfosate+benoxacor; oxyfluorfen+metolachlor+mesotrione+sulfosate; oxyfluorfen+metolachlor+mesotrione+sulfosate+benoxacor; oxyfluorfen+S-metolachlor+mesotrione+sulfosate; oxyfluorfen+S-metolachlor+mesotrione+sulfosate+benoxacor; oxyfluorfen+metolachlor+atrazine+sulfosate; oxyfluorfen+metolachlor+atrazine+sulfosate+benoxacor; oxyfluorfen+S-metolachlor+atrazine+sulfosate; oxyfluorfen+S-metolachlor+atrazine+sulfosate+benoxacor; oxyfluorfen+metolachlor+terbuthylazine+sulfosate; oxyfluorfen+metolachlor+terbuthylazine+sulfosate+benoxacor; oxyfluorfen+S-metolachlor+terbuthylazine+sulfosate; oxyfluorfen+S-metolachlor+terbuthylazine+sulfosate+benoxacor; oxyfluorfen +atrazine+nicosulfuron+sulfosate; oxyfluorfen+atrazine+nicosulfuron+sulfosate+benoxacor; azafenidin+prosulfuron+primisulfuron+sulfosate; azafenidin+prosulfuron+dicamba+sulfosate; azafenidin+primisulfuron+dicamba+sulfosate; azafenidin+nicosulfuron+primisulfuron+sulfosate; azafenidin+nicosulfuron+prosulfuron+sulfosate; azafenidin+rimsulfuron+primisulfuron+sulfosate; azafenidin+rimsulfuron+prosulfuron+sulfosate; azafenidin+metolachlor+isoxaflutole+sulfosate; azafenidin+metolachlor+isoxaflutole+sulfosate+benoxacor; azafenidin+S-metolachlor+isoxaflutole+sulfosate; azafenidin+S-metolachlor+isoxaflutole+sulfosate+benoxacor; azafenidin+metolachlor+mesotrione+sulfosate; azafenidin+metolachlor+mesotrione+sulfosate+benoxacor; azafenidin+S-metolachlor+mesotrione+sulfosate; azafenidin+S-metolachlor+mesotrione+sulfosate+benoxacor; azafenidin+metolachlor+atrazine+sulfosate; azafenidin+metolachlor+atrazine+sulfosate+benoxacor; azafenidin+S-metolachlor+atrazine+sulfosate; azafenidin+S-metolachlor+atrazine+sulfosate+benoxacor; azafenidin+metolachlor+terbuthylazine+sulfosate; azafenidin+metolachlor +terbuthylazine+sulfosate+benoxacor; azafenidin+S-metolachlor+terbuthylazine+sulfosate; azafenidin+S-metolachlor+terbuthylazine+sulfosate+benoxacor; azafenidin +atrazine+nicosulfuron+sulfosate; azafenidin+atrazine+nicosulfuron+sulfosate+benoxacor; carfentrazone-ethyl+prosulfuron+primisulfuron+sulfosate; carfentrazone-ethyl+prosulfuron+dicamba+sulfosate; carfentrazone-ethyl+primisulfuron+dicamba+sulfosate; carfentrazone-ethyl+nicosulfuron+primisulfuron+sulfosate; carfentrazone-ethyl+nicosulfuron+prosulfuron+sulfosate; carfentrazone-ethyl+rimsulfuron+primisulfuron+sulfosate; carfentrazone-ethyl+rimsulfuron+prosulfuron+sulfosate; carfentrazone-ethyl+metolachlor+isoxaflutole+sulfosate; carfentrazone-ethyl+metolachlor+isoxaflutole+sulfosate+benoxacor; carfentrazone-ethyl+S-metolachlor+isoxaflutole+sulfosate; carfentrazone-ethyl+S-metolachlor+isoxaflutole+sulfosate+benoxacor; carfentrazone-ethyl+metolachlor+mesotrione+sulfosate; carfentrazone-ethyl +metolachlor+mesotrione+sulfosate+benoxacor; carfentrazone-ethyl+S-metolachlor+mesotrione+sulfosate; carfentrazone-ethyl+S-metolachlor+mesotrione+sulfosate+benoxacor; carfentrazone-ethyl+metolachlor+atrazine+sulfosate; carfentrazone-ethyl+metolachlor+atrazine+sulfosate+benoxacor; carfentrazone-ethyl+S-metolachlor+atrazine+sulfosate; carfentrazone-ethyl+S-metolachlor+atrazine+sulfosate+benoxacor; carfentrazone-ethyl+metolachlor+terbuthylazine+sulfosate; carfentrazone-ethyl+metolachlor+terbuthylazine+sulfosate+benoxacor; carfentrazone-ethyl+S-metolachlor+terbuthylazine+sulfosate; carfentrazone-ethyl+S-metolachlor+terbuthylazine+sulfosate+benoxacor; carfentrazone-ethyl+atrazine+nicosulfuron+sulfosate; carfentrazone-ethyl+atrazine+nicosulfuron+sulfosate+benoxacor; 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lachlor+isoxaflutole+sulfosate; compound of the formula A+S-metolachlor+isoxaflutole+sulfosate+benoxacor; compound of the formula A+metolachlor+mesotrione+sulfosate; compound of the formula A+metolachlor+mesotrione+sulfosate+benoxacor; compound of the formula A+S-metolachlor+mesotrione+sulfosate; compound of the formula A+S-metolachlor+mesotrione+sulfosate+benoxacor; compound of the formula A+metolachlor+atrazine+sulfosate; compound of the formula A+metolachlor+atrazine+sulfosate+benoxacor; compound of the formula A+S-metolachlor+atrazine+sulfosate; compound of the formula A+S-metolachlor+atrazine+sulfosate+benoxacor; compound of the formula A+metolachlor+terbuthylazine+sulfosate; compound of the formula A+metolachlor+terbuthylazine+sulfosate+benoxacor; compound of the formula A+S-metolachlor+terbuthylazine+sulfosate; compound of the formula A+S-metolachlor+terbuthylazine+sulfosate+benoxacor; compound of the formula A+atrazine+nicosulfuron+sulfosate; compound of the formula A+atrazine+nicosulfuron+sulfosate+benoxacor; 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metolachlor+isoxaflutole+sulfosate+benoxacor; pyraflufen-ethyl+S-metolachlor+isoxaflutole+sulfosate; pyraflufen-ethyl+S-metolachlor+isoxaflutole+sulfosate+benoxacor; pyraflufen-ethyl+metolachlor+mesotrione+sulfosate; pyraflufen-ethyl+metolachlor+mesotrione+sulfosate+benoxacor; pyraflufen-ethyl+S-metolachlor+mesotrione+sulfosate; pyraflufen-ethyl+S-metolachlor+mesotrione+sulfosate+benoxacor; pyraflufen-ethyl+metolachlor+atrazine+sulfosate; pyraflufen-ethyl+metolachlor+atrazine+sulfosate+benoxacor; pyraflufen-ethyl+S-metolachlor+atrazine+sulfosate; pyraflufen-ethyl+S-metolachlor+atrazine+sulfosate+benoxacor; pyraflufen-ethyl+metolachlor+terbuthylazine+sulfosate; pyraflufen-ethyl+metolachlor+terbuthylazine+sulfosate+benoxacor; pyraflufen-ethyl+S-metolachlor+terbuthylazine+sulfosate; pyraflufen-ethyl+S-metolachlor+terbuthylazine+sulfosate+benoxacor; pyraflufen-ethyl+atrazine+nicosulfuron+sulfosate; pyraflufen-ethyl+atrazine +nicosulfuron+sulfosate+benoxacor; flumipropyn+prosulfuron+primisulfuron+sulfosate; flumipropyn+prosulfuron+dicamba+sulfosate; flumipropyn+primisulfuron+dicamba+sulfosate; flumipropyn+nicosulfuron+primisulfuron+sulfosate; flumipropyn+nicosulfuron+prosulfuron+sulfosate; flumipropyn+rimsulfuron+primisulfuron+sulfosate; flumipropyn+rimsulfuron+prosulfuron+sulfosate; flumipropyn+metolachlor+isoxaflutole+sulfosate; flumipropyn+metolachlor+isoxaflutole+sulfosate+benoxacor; flumipropyn+S-metolachlor+isoxaflutole+sulfosate; flumipropyn+S-metolachlor+isoxaflutole+sulfosate+benoxacor; flumipropyn+metolachlor+mesotrione+sulfosate; flumipropyn+metolachlor+mesotrione+sulfosate+benoxacor; flumipropyn+S-metolachlor+mesotrione+sulfosate; flumipropyn+S-metolachlor+mesotrione+sulfosate +benoxacor; flumipropyn+metolachlor+atrazine+sulfosate; flumipropyn+metolachlor+atrazine+sulfosate+benoxacor; flumipropyn+S-metolachlor+atrazine+sulfosate; flumipropyn+S-metolachlor+atrazine+sulfosate+benoxacor; flumipropyn+metolachlor +terbuthylazine+sulfosate; flumipropyn+metolachlor+terbuthylazine+sulfosate+benoxacor; flumipropyn+S-metolachlor+terbuthylazine+sulfosate; flumipropyn+S-metolachlor+terbuthylazine+sulfosate+benoxacor; flumipropyn+atrazine+nicosulfuron +sulfosate; flumipropyn+atrazine+nicosulfuron+sulfosate+benoxacor; flupropacil+prosulfuron+primisulfuron+sulfosate; flupropacil+prosulfuron+dicamba+sulfosate; flupropacil+primisulfuron+dicamba+sulfosate; flupropacil+nicosulfuron+primisulfuron +sulfosate; flupropacil+nicosulfuron+prosulfuron+sulfosate; flupropacil+rimsulfuron+primisulfuron+sulfosate; flupropacil+rimsulfuron+prosulfuron+sulfosate; flupropacil+metolachlor+isoxaflutole+sulfosate; flupropacil+metolachlor+isoxaflutole+sulfosate+benoxacor; flupropacil+S-metolachlor+isoxaflutole+sulfosate; flupropacil+S-metolachlor+isoxaflutole+sulfosate+benoxacor; flupropacil+metolachlor+mesotrione+sulfosate; flupropacil+metolachlor+mesotrione+sulfosate+benoxacor; flupropacil+S-metolachlor+mesotrione+sulfosate; flupropacil+S-metolachlor+mesotrione+sulfosate +benoxacor; flupropacil+metolachlor+atrazine+sulfosate; flupropacil+metolachlor+atrazine+sulfosate+benoxacor; flupropacil+S-metolachlor+atrazine+sulfosate; flupropacil+S-metolachlor+atrazine+sulfosate+benoxacor; flupropacil+metolachlor+terbuthylazine+sulfosate; flupropacil+metolachlor+terbuthylazine+sulfosate+benoxacor; flupropacil+S-metolachlor+terbuthylazine+sulfosate; flupropacil+S-metolachlor+terbuthylazine+sulfosate+benoxacor; flupropacil+atrazine+nicosulfuron +sulfosate; flupropacil+atrazine+nicosulfuron+sulfosate+benoxacor; nipyraclofen+prosulfuron+primisulfuron+sulfosate; nipyraclofen+prosulfuron+dicamba+sulfosate; nipyraclofen+primisulfuron+dicamba+sulfosate; nipyraclofen+nicosulfuron+primisulfuron+sulfosate; nipyraclofen+nicosulfuron+prosulfuron+sulfosate; nipyraclofen +rimsulfuron+primisulfuron+sulfosate; nipyraclofen+rimsulfuron+prosulfuron+sulfosate; nipyraclofen+metolachlor+isoxaflutole+sulfosate; nipyraclofen+metolachlor +isoxaflutole+sulfosate+benoxacor; nipyraclofen+S-metolachlor+isoxaflutole+sulfosate; nipyraclofen+S-metolachlor+isoxaflutole+sulfosate+benoxacor; nipyraclofen +metolachlor+mesotrione+sulfosate; nipyraclofen+metolachlor+mesotrione+sulfosate+benoxacor; nipyraclofen+S-metolachlor+mesotrione+sulfosate; nipyraclofen +S-metolachlor+mesotrione+sulfosate+benoxacor; nipyraclofen+metolachlor+atrazine+sulfosate; nipyraclofen+metolachlor+atrazine+sulfosate+benoxacor; nipyraclofen+S-metolachlor+atrazine+sulfosate; nipyraclofen+S-metolachlor+atrazine +sulfosate+benoxacor; nipyraclofen+metolachlor+terbuthylazine+sulfosate; nipyraclofen+metolachlor+terbuthylazine+sulfosate+benoxacor; nipyraclofen+S-metolachlor+terbuthylazine+sulfosate; nipyraclofen+S-metolachlor+terbuthylazine+sulfosate+benoxacor; nipyraclofen+atrazine+nicosulfuron+sulfosate; nipyraclofen+atrazine+nicosulfuron+sulfosate+benoxacor; benzfendizone+prosulfuron+primisulfuron+sulfosate; benzfendizone+prosulfuron+dicamba+sulfosate; benzfendizone+primisulfuron+dicamba+sulfosate; benzfendizone+nicosulfuron+primisulfuron+sulfosate; benzfendizone+nicosulfuron+prosulfuron+sulfosate; benzfendizone+rimsulfuron+primisulfuron+sulfosate; benzfendizone+rimsulfuron+prosulfuron+sulfosate; benzfendizone+metolachlor+isoxaflutole+sulfosate; benzfendizone+metolachlor+isoxaflutole+sulfosate+benoxacor; benzfendizone+S-metolachlor+isoxaflutole+sulfosate; benzfendizone+S-metolachlor+isoxaflutole+sulfosate+benoxacor; benzfendizone+metolachlor+mesotrione+sulfosate; benzfendizone+metolachlor+mesotrione+sulfosate+benoxacor; benzfendizone+S-metolachlor+mesotrione+sulfosate; benzfendizone+S-metolachlor+mesotrione+sulfosate+benoxacor; benzfendizone+metolachlor+atrazine+sulfosate; benzfendizone +metolachlor+atrazine+sulfosate+benoxacor; benzfendizone+S-metolachlor+atrazine+sulfosate; benzfendizone+S-metolachlor+atrazine+sulfosate+benoxacor; benzfendizone+metolachlor+terbuthylazine+sulfosate; benzfendizone+metolachlor+terbuthylazine+sulfosate+benoxacor; benzfendizone+S-metolachlor+terbuthylazine+sulfosate; benzfendizone+S-metolachlor+terbuthylazine+sulfosate+benoxacor; benzfendizone+atrazine+nicosulfuron+sulfosate; benzfendizone+atrazine+nicosulfuron+sulfosate+benoxacor; thidiazimin+prosulfuron+primisulfuron+sulfosate; thidiazimin+prosulfuron+dicamba+sulfosate; thidiazimin+primisulfuron+dicamba+sulfosate; thidiazimin+nicosulfuron+primisulfuron+sulfosate; thidiazimin+nicosulfuron+prosulfuron+sulfosate; thidiazimin+rimsulfuron+primisulfuron+sulfosate; thidiazimin+rimsulfuron+prosulfuron+sulfosate; thidiazimin+metolachlor+isoxaflutole+sulfosate; thidiazimin+metolachlor+isoxaflutole+sulfosate+benoxacor;

thidiazimin+S-metolachlor +isoxaflutole+sulfosate; thidiazimin+S-metolachlor+isoxaflutole+sulfosate+benoxacor; thidiazimin+metolachlor+mesotrione+sulfosate; thidiazimin+metolachlor+mesotrione+sulfosate+benoxacor; thidiazimin+S-metolachlor+mesotrione+sulfosate; thidiazimin+S-metolachlor+mesotrione+sulfosate+benoxacor; thidiazimin+metolachlor +atrazine+sulfosate; thidiazimin+metolachlor+atrazine+sulfosate+benoxacor; thidiazimin+S-metolachlor+atrazine+sulfosate; thidiazimin+S-metolachlor+atrazine+sulfosate+benoxacor; thidiazimin+metolachlor+terbuthylazine+sulfosate; thidiazimin+metolachlor+terbuthylazine+sulfosate+benoxacor; thidiazimin+S-metolachlor+terbuthylazine+sulfosate; thidiazimin+S-metolachlor+terbuthylazine+sulfosate+benoxacor; thidiazimin+atrazine+nicosulfuron+sulfosate; and thidiazimin+atrazine+nicosulfuron+sulfosate+benoxacor.

[**0152**] Acifluorfen+metolachlor+isoxaflutole+sulfosate+MON 4660; acifluorfen+S-metolachlor+isoxaflutole+sulfosate+MON 4660; acifluorfen+metolachlor+mesotrione +sulfosate+MON 4660; acifluorfen+S-metolachlor+mesotrione+sulfosate+MON 4660; acifluorfen+metolachlor+atrazine+sulfosate+MON 4660; acifluorfen+S-metolachlor+atrazine+sulfosate+MON 4660; acifluorfen+metolachlor+terbuthylazine+sulfosate+MON 4660; acifluorfen+S-metolachlor+terbuthylazine+sulfosate+MON 4660; acifluorfen+atrazine+nicosulfuron+sulfosate+MON 4660; aclonifen+metolachlor +isoxaflutole+sulfosate+MON 4660; aclonifen+S-metolachlor+isoxaflutole+sulfosate +MON 4660; aclonifen+metolachlor+mesotrione+sulfosate+MON 4660; aclonifen+S-metolachlor+mesotrione+sulfosate+MON 4660; aclonifen+metolachlor+atrazine+sulfosate+MON 4660; aclonifen+S-metolachlor+atrazine+sulfosate+MON 4660; aclonifen+metolachlor+terbuthylazine+sulfosate+MON 4660; aclonifen+S-metolachlor +terbuthylazine+sulfosate+MON 4660; aclonifen+atrazine+nicosulfuron+sulfosate+MON 4660; bifenox+metolachlor+isoxaflutole+sulfosate+MON 4660; bifenox+S-metolachlor+isoxaflutole+sulfosate+MON 4660; bifenox+metolachlor+mesotrione+sulfosate+MON 4660; bifenox+S-metolachlor+mesotrione+sulfosate+MON 4660; bifenox+metolachlor+atrazine+sulfosate+MON 4660; bifenox+S-metolachlor+atrazine+sulfosate+MON 4660; bifenox+metolachlor+terbuthylazine+sulfosate+MON 4660; bifenox+S-metolachlor+terbuthylazine+sulfosate+MON 4660; bifenox+atrazine+nicosulfuron+sulfosate+MON 4660; chlomitrofen+metolachlor+isoxaflutole+sulfosate+MON 4660; chlomitrofen+S-metolachlor+isoxaflutole+sulfosate+MON 4660; chlomitrofen+metolachlor+mesotrione+sulfosate+MON 4660; chlomitrofen+S-metolachlor+mesotrione+sulfosate+MON 4660; chlomitrofen+metolachlor+atrazine+sulfosate+MON 4660; chlomitrofen+S-metolachlor+atrazine+sulfosate+MON 4660; chlomitrofen+metolachlor+terbuthylazine+sulfosate+MON 4660; chlomitrofen+S-metolachlor+terbuthylazine+sulfosate+MON 4660; chlomitrofen+atrazine+nicosulfuron+sulfosate+MON 4660; ethoxyfen+metolachlor+isoxaflutole+sulfosate+MON 4660; ethoxyfen+S-metolachlor+isoxaflutole+sulfosate+MON 4660; ethoxyfen+metolachlor+mesotrione+sulfosate+MON 4660; ethoxyfen+S-metolachlor+mesotrione +sulfosate+MON 4660; ethoxyfen+metolachlor+atrazine+sulfosate+MON 4660; ethoxyfen+S-metolachlor+atrazine+sulfosate+MON 4660; ethoxyfen+metolachlor+terbuthylazine+sulfosate+MON 4660; ethoxyfen+S-metolachlor+terbuthylazine+sulfosate+MON 4660; ethoxyfen+atrazine+nicosulfuron+sulfosate+MON 4660; fluoroglycofen+metolachlor+isoxaflutole+sulfosate+MON 4660; fluoroglycofen+S-metolachlor+isoxaflutole+sulfosate+MON 4660; fluoroglycofen+metolachlor+mesotrione+sulfosate+MON 4660; fluoroglycofen+S-metolachlor+mesotrione+sulfosate+MON 4660; fluoroglycofen+metolachlor+atrazine+sulfosate+MON 4660; fluoroglycofen+S-metolachlor+atrazine+sulfosate+MON 4660; fluoroglycofen+metolachlor+terbuthylazine+sulfosate+MON 4660; fluoroglycofen+S-metolachlor+terbuthylazine+sulfosate+MON 4660; fluoroglycofen+atrazine+nicosulfuron+sulfosate +MON 4660; fomesafen+metolachlor+isoxaflutole+sulfosate+MON 4660; fomesafen +S-metolachlor+isoxaflutole+sulfosate+MON 4660; fomesafen+metolachlor+mesotrione+sulfosate+MON 4660; fomesafen+S-metolachlor+mesotrione+sulfosate+MON 4660; fomesafen+metolachlor+atrazine+sulfosate+MON 4660; fomesafen+S-metolachlor+atrazine+sulfosate+MON 4660; fomesafen+metolachlor+terbuthylazine +sulfosate+MON 4660; fomesafen+S-metolachlor+terbuthylazine+sulfosate+MON 4660; fomesafen+atrazine+nicosulfuron+sulfosate+MON 4660; lactofen+metolachlor +isoxaflutole+sulfosate+MON 4660; lactofen+S-metolachlor+isoxaflutole+sulfosate+MON 4660; lactofen+metolachlor+mesotrione+sulfosate+MON 4660; lactofen+S-metolachlor+mesotrione+sulfosate+MON 4660; lactofen+metolachlor+atrazine+sulfosate+MON 4660; lactofen+S-metolachlor+atrazine+MON 4660; lactofen+metolachlor+terbuthylazine+sulfosate+MON 4660; lactofen+S-metolachlor+terbuthylazine+sulfosate+MON 4660; lactofen+atrazine+nicosulfuron+sulfosate+MON 4660; oxyfluorfen+metolachlor+isoxaflutole+sulfosate+MON 4660; oxyfluorfen+S-metolachlor+isoxaflutole+sulfosate+MON 4660; oxyfluorfen+metolachlor+mesotrione+sulfosate+MON 4660; oxyfluorfen+S-metolachlor+mesotrione+sulfosate +MON 4660; oxyfluorfen+metolachlor+atrazine+sulfosate+MON 4660; oxyfluorfen+S-metolachlor+atrazine+sulfosate+MON 4660; oxyfluorfen+metolachlor+terbuthylazine+sulfosate+MON 4660; oxyfluorfen+S-metolachlor+terbuthylazine+sulfosate+MON 4660; oxyfluorfen+atrazine+nicosulfuron+sulfosate+MON 4660; azafenidin+metolachlor+isoxaflutole+sulfosate+MON 4660; azafenidin+S-metolachlor +isoxaflutole+sulfosate+MON 4660; azafenidin+metolachlor+mesotrione+sulfosate+MON 4660; azafenidin+S-metolachlor+mesotrione+sulfosate+MON 4660; azafenidin+metolachlor+atrazine+sulfosate+MON 4660; azafenidin+S-metolachlor+atrazine+sulfosate+MON 4660; azafenidin+metolachlor+terbuthylazine+sulfosate+MON 4660; azafenidin+S-metolachlor+terbuthylazine+sulfosate+MON 4660; azafenidin+atrazine +nicosulfuron+sulfosate+MON 4660; carfentrazone-ethyl+metolachlor+isoxaflutole+sulfosate+MON 4660; carfentrazone-ethyl+S-metolachlor+isoxaflutole+sulfosate+MON 4660; carfentrazone-ethyl+metolachlor+mesotrione+sulfosate+MON 4660; carfentrazone-ethyl+S-metolachlor+mesotrione+sulfosate+MON 4660; carfentrazone-ethyl+metolachlor+atrazine+sulfosate+MON 4660; carfentrazone-ethyl+S-metolachlor +atrazine+sulfosate+MON 4660; carfentrazone-ethyl+metolachlor+terbuthylazine+sulfosate+MON 4660; carfentrazone-ethyl+S-metolachlor+terbuthylazine+sulfosate+MON 4660; carfentrazone-ethyl+atrazine+nicosulfuron+sulfosate+MON 4660; compound of the formula A+metolachlor+isoxaflutole+sulfosate+MON

4660; compound of the formula A+S-metolachlor+isoxaflutole+sulfosate+MON 4660; compound of the formula A+metolachlor+mesotrione+sulfosate+MON 4660; compound of the formula A+S-metolachlor+mesotrione+sulfosate+MON 4660; compound of the formula A+metolachlor+atrazine+sulfosate+MON 4660; compound of the formula A+S-metolachlor+atrazine+sulfosate+MON 4660; compound of the formula A+metolachlor+terbuthylazine+sulfosate+MON 4660; compound of the formula A+S-metolachlor+terbuthylazine+sulfosate+MON 4660; compound of the formula A+atrazine+nicosulfuron+sulfosate+MON 4660; cinidon-ethyl+metolachlor+isoxaflutole+sulfosate+MON 4660; cinidon-ethyl+S-metolachlor+isoxaflutole+sulfosate+MON 4660; cinidon-ethyl+metolachlor+mesotrione+sulfosate+MON 4660; cinidon-ethyl+S-metolachlor+mesotrione+sulfosate+MON 4660; cinidon-ethyl+metolachlor+atrazine+sulfosate+MON 4660; cinidon-ethyl+S-metolachlor+atrazine+sulfosate+MON 4660; cinidon-ethyl+metolachlor+terbuthylazine+sulfosate+MON 4660; cinidon-ethyl+S-metolachlor+terbuthylazine+sulfosate+MON 4660; cinidon-ethyl +atrazine+nicosulfuron+sulfosate+MON 4660; flumiclorac-pentyl+metolachlor+isoxaflutole+sulfosate+MON 4660; flumiclorac-pentyl+S-metolachlor+isoxaflutole+sulfosate+MON 4660; flumiclorac-pentyl+metolachlor+mesotrione+sulfosate+MON 4660; flumiclorac-pentyl+S-metolachlor+mesotrione+sulfosate+MON 4660; flumiclorac-pentyl+metolachlor+atrazine+sulfosate+MON 4660; flumiclorac-pentyl+S-metolachlor +atrazine+sulfosate+MON 4660; flumiclorac-pentyl+metolachlor+terbuthylazine+sulfosate+MON 4660; flumiclorac-pentyl+S-metolachlor+terbuthylazine+sulfosate+MON 4660; flumiclorac-pentyl+atrazine+nicosulfuron+sulfosate+MON 4660; flumioxazin+metolachlor+isoxaflutole+sulfosate+MON 4660; flumioxazin+S-metolachlor+isoxaflutole+sulfosate+MON 4660; flumioxazin+metolachlor+mesotrione +sulfosate+MON 4660; flumioxazin+S-metolachlor+mesotrione+sulfosate+MON 4660; flumioxazin+metolachlor+atrazine+sulfosate+MON 4660; flumioxazin+S-metolachlor+atrazine+sulfosate+MON 4660; flumioxazin+metolachlor+terbuthylazine +sulfosate+MON 4660; flumioxazin+S-metolachlor+terbuthylazine+sulfosate+MON 4660; flumioxazin+atrazine+nicosulfuron+sulfosate+MON 4660; fluthiacet-methyl+metolachlor+isoxaflutole+sulfosate+MON 4660; fluthiacet-methyl+S-metolachlor+isoxaflutole+sulfosate+MON 4660; fluthiacet-methyl+metolachlor+mesotrione+sulfosate+MON 4660; fluthiacet-methyl+S-metolachlor+mesotrione+sulfosate+MON 4660; fluthiacet-methyl+metolachlor+atrazine+sulfosate+MON 4660; fluthiacet-methyl +S-metolachlor+atrazine+sulfosate+MON 4660; fluthiacet-methyl+metolachlor+terbuthylazine+sulfosate+MON 4660; fluthiacet-methyl+S-metolachlor+terbuthylazine+sulfosate+MON 4660; fluthiacet-methyl+atrazine+nicosulfuron+sulfosate+MON 4660; oxadiargyl+metolachlor+isoxaflutole+sulfosate+MON 4660; oxadiargyl+S-metolachlor +isoxaflutole+sulfosate+MON 4660; oxadiargyl+metolachlor+mesotrione+sulfosate+MON 4660; oxadiargyl+S-metolachlor+mesotrione+sulfosate+MON 4660; oxadiargyl+metolachlor+atrazine+sulfosate+MON 4660; oxadiargyl+S-metolachlor+atrazine+sulfosate+MON 4660; oxadiargyl+metolachlor+terbuthylazine+sulfosate+MON 4660; oxadiargyl+S-metolachlor+terbuthylazine+sulfosate+MON 4660; oxadiargyl+atrazine +nicosulfuron+sulfosate+MON 4660; oxadiazon+metolachlor+isoxaflutole+sulfosate +MON 4660; oxadiazon+S-metolachlor+isoxaflutole+sulfosate+MON 4660; oxadiazon +metolachlor+mesotrione+sulfosate+MON 4660; oxadiazon+S-metolachlor+mesotrione+sulfosate+MON 4660; oxadiazon+metolachlor+atrazine+sulfosate+MON 4660; oxadiazon+S-metolachlor+atrazine+sulfosate+MON 4660; oxadiazon+metolachlor+terbuthylazine+sulfosate+MON 4660; oxadiazon+S-metolachlor+terbuthylazine+sulfosate+MON 4660; oxadiazon+atrazine+nicosulfuron+sulfosate+MON 4660; pentoxazone+metolachlor+isoxaflutole+sulfosate+MON 4660; pentoxazone+S-metolachlor+isoxaflutole+sulfosate+MON 4660; pentoxazone+metolachlor+mesotrione+sulfosate+MON 4660; pentoxazone+S-metolachlor+mesotrione+sulfosate+MON 4660; pentoxazone+metolachlor+atrazine+sulfosate+MON 4660; pentoxazone+S-metolachlor+atrazine+sulfosate+MON 4660; pentoxazone +metolachlor+terbuthylazine+sulfosate+MON 4660; pentoxazone+S-metolachlor+terbuthylazine+sulfosate+MON 4660; pentoxazone+atrazine+nicosulfuron+sulfosate +MON 4660; sulfentrazone+metolcarb; or+isoxaflutole+sulfosate+MON 4660; sulfentrazone+S-metolachlor+isoxaflutole+sulfosate+MON 4660; sulfentrazone+metolachlor+mesotrione+sulfosate+MON 4660; sulfentrazone+S-metolachlor+mesotrione+sulfosate+MON 4660; sulfentrazone+metolachlor+atrazine+sulfosate+MON 4660; sulfentrazone+S-metolachlor+atrazine+sulfosate+MON 4660; sulfentrazone+metolachlor+terbuthylazine+sulfosate+MON 4660; sulfentrazone+S-metolachlor+terbuthylazine+sulfosate+MON 4660; sulfentrazone+atrazine+nicosulfuron+sulfosate+MON 4660; fluazolate+metolachlor+isoxaflutole+sulfosate+MON 4660; fluazolate+S-metolachlor+isoxaflutole+sulfosate+MON 4660; fluazolate+metolachlor+mesotrione+sulfosate+MON 4660; fluazolate+S-metolachlor+mesotrione +sulfosate+MON 4660; fluazolate+metolachlor+atrazine+sulfosate+MON 4660; fluazolate+S-metolachlor+atrazine+sulfosate+MON 4660; fluazolate+metolachlor+terbuthylazine+sulfosate+MON 4660; fluazolate+S-metolachlor+terbuthylazine+sulfosate+MON 4660; fluazolate+atrazine+nicosulfuron+sulfosate+MON 4660; pyraflufen-ethyl+metolachlor+isoxaflutole+sulfosate+MON 4660; pyraflufen-ethyl+S-metolachlor+isoxaflutole+sulfosate+MON 4660; pyraflufen-ethyl+metolachlor+mesotrione+sulfosate+MON 4660; pyraflufen-ethyl+S-metolachlor+mesotrione+sulfosate+MON 4660; pyraflufen-ethyl+metolachlor+atrazine+sulfosate+MON 4660; pyraflufen-ethyl+S-metolachlor+atrazine+sulfosate+MON 4660; pyraflufen-ethyl+metolachlor+terbuthylazine+sulfosate+MON 4660; pyraflufen-ethyl+S-metolachlor+terbuthylazine+sulfosate+MON 4660; pyraflufen-ethyl+atrazine+nicosulfuron+sulfosate+MON 4660; flumipropyn+metolachlor+isoxaflutole+sulfosate+MON 4660; flumipropyn+S-metolachlor+isoxaflutole+sulfosate+MON 4660; flumipropyn+metolachlor+mesotrione+sulfosate+MON 4660; flumipropyn+S-metolachlor+mesotrione+sulfosate+MON 4660; flumipropyn+metolachlor+atrazine+sulfosate+MON 4660; flumipropyn+S-metolachlor+atrazine+sulfosate+MON 4660; flumipropyn+metolachlor+terbuthylazine+sulfosate+MON 4660; flumipropyn+S-metolachlor+terbuthylazine+sulfosate+MON 4660; flumipropyn+atrazine+nicosulfuron+sulfosate+MON 4660; flupropacil+metolachlor+isoxaflutole+sulfosate+MON 4660; flupropacil+S-metolachlor+isoxaflutole+sulfosate+MON

4660; flupropacil+metolachlor+mesotrione+sulfosate+MON 4660; flupropacil+S-metolachlor+mesotrione+sulfosate+MON 4660; flupropacil+metolachlor+atrazine+sulfosate+MON 4660; flupropacil+S-metolachlor+atrazine+sulfosate+MON 4660; flupropacil+metolachlor+terbuthylazine+sulfosate+MON 4660; flupropacil+S-metolachlor+terbuthylazine+sulfosate+MON 4660; flupropacil+atrazine+nicosulfuron+sulfosate+MON 4660; nipyraclofen+metolachlor+isoxaflutole+sulfosate+MON 4660; nipyraclofen+S-metolachlor+isoxaflutole+sulfosate+MON 4660; nipyraclofen+metolachlor+mesotrione+sulfosate+MON 4660; nipyraclofen+S-metolachlor+mesotrione+sulfosate+MON 4660; nipyraclofen+metolachlor+atrazine+sulfosate+MON 4660; nipyraclofen+S-metolachlor+atrazine+sulfosate+MON 4660; nipyraclofen+metolachlor+terbuthylazine +sulfosate+MON 4660; nipyraclofen+S-metolachlor+terbuthylazine+sulfosate+MON 4660; nipyraclofen+atrazine+nicosulfuron+sulfosate+MON 4660; benzfendizone+metolachlor+isoxaflutole+sulfosate+MON 4660; benzfendizone+S-metolachlor+isoxaflutole+sulfosate+MON 4660; benzfendizone+metolachlor+mesotrione+sulfosate+MON 4660; benzfendizone+S-metolachlor+mesotrione+sulfosate+MON 4660; benzfendizone+metolachlor+atrazine+sulfosate+MON 4660; benzfendizone+S-metolachlor+atrazine+sulfosate+MON 4660; benzfendizone+metolachlor+terbuthylazine+sulfosate+MON 4660; benzfendizone+S-metolachlor+terbuthylazine+sulfosate+MON 4660; benzfendizone+atrazine+nicosulfuron+sulfosate+MON 4660; thidiazimin+metolachlor+isoxaflutole+sulfosate+MON 4660; thidiazimin+S-metolachlor+isoxaflutole+sulfosate+MON 4660; thidiazimin+metolachlor+mesotrione +sulfosate+MON 4660; thidiazimin+S-metolachlor+mesotrione+sulfosate+MON 4660; thidiazimin+metolachlor+atrazine+sulfosate+MON 4660; thidiazimin+S-metolachlor+atrazine+sulfosate+MON 4660; thidiazimin+metolachlor+terbuthylazine +sulfosate+MON 4660; thidiazimin+S-metolachlor+terbuthylazine+sulfosate+MON 4660; and thidiazimin+atrazine+nicosulfuron+sulfosate+MON 4660.

[0153] Acifluorfen+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; acifluorfen+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; acifluorfen+metolachlor+mesotrione+sulfosate+FLURAZOLE; acifluorfen+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; acifluorfen+metolachlor+atrazine+sulfosate+FLURAZOLE; acifluorfen+S-metolachlor+atrazine+sulfosate+FLURAZOLE; acifluorfen+metolachlor +terbuthylazine+sulfosate+FLURAZOLE; acifluorfen+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; acifluorfen+atrazine+nicosulfuron+sulfosate+FLURAZOLE; aclonifen+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; aclonifen+S-metolachlor +isoxaflutole+sulfosate+FLURAZOLE; aclonifen+metolachlor+mesotrione+sulfosate +FLURAZOLE; aclonifen+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; aclonifen+metolachlor+atrazine+sulfosate+FLURAZOLE; aclonifen+S-metolachlor+atrazine+sulfosate+FLURAZOLE; aclonifen+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; aclonifen+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; aclonifen+atrazine+nicosulfuron+sulfosate+FLURAZOLE; bifenox+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; bifenox+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; bifenox+metolachlor+mesotrione+sulfosate+FLURAZOLE; bifenox+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; bifenox+metolachlor+atrazine+sulfosate+FLURAZOLE; bifenox+S-metolachlor+atrazine+sulfosate+FLURAZOLE; bifenox+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; bifenox+S-metolachlor +terbuthylazine+sulfosate+FLURAZOLE; bifenox+atrazine+nicosulfuron+sulfosate+FLURAZOLE; chlomitrofen+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; chlomitrofen+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; chlomitrofen+metolachlor+mesotrione+sulfosate+FLURAZOLE; chlomitrofen+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; chlomitrofen+metolachlor+atrazine+sulfosate+FLURAZOLE; chiomitrofen+S-metolachlor+atrazine+sulfosate+FLURAZOLE; chiomitrofen+metolachilor+terbuthylazine+sulfosate+FLURAZOLE; chlomitrofen+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; chlomitrofen+atrazine+nicosulfuron+sulfosate+FLURAZOLE; ethoxyfen+metolachlor+isoxaflutole+sulfosate +FLURAZOLE; ethoxyfen+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; ethoxyfen+metolachlor+mesotrione+sulfosate+FLURAZOLE; ethoxyfen+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; ethoxyfen+metolachlor+atrazine+sulfosate+FLURAZOLE; ethoxyfen+S-metolachlor+atrazine+sulfosate+FLURAZOLE; ethoxyfen+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; ethoxyfen+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; ethoxyfen+atrazine+nicosulfuron+sulfosate+FLURAZOLE; fluoroglycofen+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; fluoroglycofen+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; fluoroglycofen+metolachlor+mesotrione+sulfosate+FLURAZOLE; fluoroglycofen+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; fluoroglycofen+metolachlor+atrazine+sulfosate+FLURAZOLE; fluoroglycofen+S-metolachlor+atrazine+sulfosate+FLURAZOLE; fluoroglycofen+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; fluoroglycofen+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; fluoroglycofen+atrazine+nicosulfuron+sulfosate+FLURAZOLE; fomesafen+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; fomesafen+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; fomesafen+metolachlor+mesotrione+sulfosate+FLURAZOLE; fomesafen+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; fomesafen+metolachlor+atrazine+sulfosate+FLURAZOLE; fomesafen+S-metolachlor+atrazine+sulfosate+FLURAZOLE; fomesafen+metolachlor +terbuthylazine+sulfosate+FLURAZOLE; fomesafen+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; fomesafen+atrazine+nicosulfuron+sulfosate+FLURAZOLE; lactofen+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; lactofen+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; lactofen+metolachlor+mesotrione+sulfosate+FLURAZOLE; lactofen+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; lactofen+metolachlor+atrazine+sulfosate+FLURAZOLE; lactofen+S-metolachlor+atrazine+sulfosate+FLURAZOLE; lactofen+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; lactofen+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; lactofen+atrazine+nicosulfuron+sulfosate+FLURAZOLE; oxyfluorfen+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; oxyfluorfen+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; oxyfluorfen+metolachlor+mesotrione+sulfosate+FLURAZOLE; oxyfluorfen+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; oxyfluorfen+

metolachlor+atrazine+sulfosate+FLURAZOLE; oxyfluorfen+S-metolachlor+atrazine+sulfosate+FLURAZOLE; oxyfluorfen+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; oxyfluorfen+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; oxyfluorfen+atrazine+nicosulfuron+sulfosate+FLURAZOLE; azafenidin+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; azafenidin+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; azafenidin+metolachlor+mesotrione+sulfosate+FLURAZOLE; azafenidin+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; azafenidin+metolachlor+atrazine+sulfosate+FLURAZOLE; azafenidin+S-metolachlor+atrazine+sulfosate+FLURAZOLE; azafenidin+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; azafenidin+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; azafenidin+atrazine+nicosulfuron+sulfosate+FLURAZOLE; carfentrazone-ethyl+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; carfentrazone-ethyl+metolachlor+mesotrione+sulfosate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; carfentrazone-ethyl+metolachlor+atrazine+sulfosate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+atrazine+sulfosate+FLURAZOLE; carfentrazone-ethyl+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; carfentrazone-ethyl+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; carfentrazone-ethyl+atrazine+nicosulfuron+sulfosate+FLURAZOLE; compound of the formula A+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; compound of the formula A+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; compound of the formula A+metolachlor+mesotrione+sulfosate+FLURAZOLE; compound of the formula A+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; compound of the formula A+metolachlor+atrazine+sulfosate+FLURAZOLE; compound of the formula A+S-metolachlor+atrazine+sulfosate+FLURAZOLE; compound of the formula A+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; compound of the formula A+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; compound of the formula A+atrazine+nicosulfuron+sulfosate+FLURAZOLE; cinidon-ethyl+metolachlor +isoxaflutole+sulfosate+FLURAZOLE; cinidon-ethyl+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; cinidon-ethyl+metolachlor+mesotrione+sulfosate+FLURAZOLE; cinidon-ethyl+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; cinidon-ethyl+metolachlor+atrazine+sulfosate+FLURAZOLE; cinidon-ethyl+S-metolachlor+atrazine+sulfosate+FLURAZOLE; cinidon-ethyl+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; cinidon-ethyl+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; cinidon-ethyl+atrazine+nicosulfuron+sulfosate+FLURAZOLE; flumiclorac-pentyl+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; flumiclorac-pentyl+metolachlor+mesotrione+sulfosate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; flumiclorac-pentyl+metolachlor+atrazine+sulfosate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+atrazine+sulfosate+FLURAZOLE; flumiclorac-pentyl+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; flumiclorac-pentyl+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; flumiclorac-pentyl+atrazine+nicosulfuron+sulfosate+FLURAZOLE; flumioxazin+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; flumioxazin+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; flumioxazin+metolachlor+mesotrione+sulfosate+FLURAZOLE; flumioxazin+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; flumioxazin+metolachlor+atrazine+sulfosate+FLURAZOLE; flumioxazin+S-metolachlor+atrazine+sulfosate+FLURAZOLE; flumioxazin+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; flumioxazin+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; flumioxazin+atrazine+nicosulfuron+sulfosate +FLURAZOLE; fluthiacet-methyl+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; fluthiacet-methyl+metolachlor+mesotrione+sulfosate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; fluthiacet-methyl+metolachlor+atrazine+sulfosate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+atrazine+sulfosate +FLURAZOLE; fluthiacet-methyl+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; fluthiacet-methyl+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; fluthiacet-methyl+atrazine+nicosulfuron+sulfosate+FLURAZOLE; oxadiargyl+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; oxadiargyl+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; oxadiargyl+metolachlor+mesotrione+sulfosate+FLURAZOLE; oxadiargyl+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; oxadiargyl+metolachlor+atrazine+sulfosate+FLURAZOLE; oxadiargyl+S-metolachlor +atrazine+sulfosate+FLURAZOLE; oxadiargyl+metolachlor+terbuthylazine+sulfosate +FLURAZOLE; oxadiargyl+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; oxadiargyl+atrazine+nicosulfuron+sulfosate+FLURAZOLE; oxadiazon+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; oxadiazon+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; oxadiazon+metolachlor+mesotrione+sulfosate+FLURAZOLE; oxadiazon+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; oxadiazon+metolachlor+atrazine+sulfosate+FLURAZOLE; oxadiazon+S-metolachlor +atrazine+sulfosate+FLURAZOLE; oxadiazon+metolachlor+terbuthylazine+sulfosate +FLURAZOLE; oxadiazon+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; oxadiazon+atrazine+nicosulfuron+sulfosate+FLURAZOLE; pentoxazone+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; pentoxazone+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; pentoxazone+metolachlor+mesotrione+sulfosate+FLURAZOLE; pentoxazone+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; pentoxazone+metolachlor+atrazine+sulfosate+FLURAZOLE; pentoxazone+S-metolachlor+atrazine+sulfosate+FLURAZOLE; pentoxazone+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; pentoxazone+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; pentoxazone+atrazine+nicosulfuron+sulfosate+FLURAZOLE; sulfentrazone+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; sulfentrazone+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; sulfentrazone+metolachlor+mesotrione+sulfosate+FLURAZOLE; sulfentrazone+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; sulfentrazone+metolachlor+atrazine+sulfosate+FLURAZOLE; sulfentrazone+S-metolachlor+atrazine+sulfosate+FLURAZOLE; sulfentrazone+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; sulfentrazone+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; sulfentrazone+

atrazine+nicosulfuron+sulfosate+FLURAZOLE; fluazolate+metolachlor+isoxaflutole +sulfosate+FLURAZOLE; fluazolate+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; fluazolate+metolachlor+mesotrione+sulfosate+FLURAZOLE; fluazolate +S-metolachlor+mesotrione+sulfosate+FLURAZOLE; fluazolate+metolachlor+atrazine+sulfosate+FLURAZOLE; fluazolate+S-metolachlor+atrazine+sulfosate+FLURAZOLE; fluazolate+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; fluazolate+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; fluazolate+atrazine +nicosulfuron+sulfosate+FLURAZOLE; pyraflufen-ethyl+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; pyraflufen-ethyl+metolachlor+mesotrione+sulfosate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; pyraflufen-ethyl+metolachlor+atrazine+sulfosate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+atrazine+sulfosate+FLURAZOLE; pyraflufen-ethyl+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; pyraflufen-ethyl+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; pyraflufen-ethyl+atrazine+nicosulfuron+sulfosate+FLURAZOLE; flumipropyn+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; flumipropyn+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; flumipropyn+metolachlor+mesotrione+sulfosate+FLURAZOLE; flumipropyn+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; flumipropyn+metolachlor+atrazine+sulfosate+FLURAZOLE; flumipropyn+S-metolachlor+atrazine+sulfosate+FLURAZOLE; flumipropyn+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; flumipropyn+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; flumipropyn+atrazine+nicosulfuron+sulfosate +FLURAZOLE; flupropacil+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; flupropacil+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; flupropacil+metolachlor+mesotrione+sulfosate+FLURAZOLE; flupropacil+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; flupropacil+metolachlor+atrazine+sulfosate+FLURAZOLE; flupropacil+S-metolachlor+atrazine+sulfosate+FLURAZOLE; flupropacil +metolachlor+terbuthylazine+sulfosate+FLURAZOLE; flupropacil+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; flupropacil+atrazine+nicosulfuron+sulfosate +FLURAZOLE; nipyraclofen+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; nipyraclofen+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; nipyraclofen+metolachlor+mesotrione+sulfosate+FLURAZOLE; nipyraclofen+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; nipyraclofen+metolachlor+atrazine+sulfosate+FLURAZOLE; nipyraclofen+S-metolachlor+atrazine+sulfosate+FLURAZOLE; nipyraclofen+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; nipyraclofen+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; nipyraclofen+atrazine+nicosulfuron+sulfosate+FLURAZOLE; benzfendizone+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; benzfendizone+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; benzfendizone+metolachlor+mesotrione+sulfosate+FLURAZOLE; benzfendizone+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; benzfendizone+metolachlor+atrazine+sulfosate+FLURAZOLE; benzfendizone+S-metolachlor+atrazine+sulfosate+FLURAZOLE; benzfendizone+metolachlor+terbuthylazine+sulfosate+FLURAZOLE; benzfendizone+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; benzfendizone+atrazine+nicosulfuron+sulfosate+FLURAZOLE; thidiazimin+metolachlor+isoxaflutole+sulfosate+FLURAZOLE; thidiazimin+S-metolachlor+isoxaflutole+sulfosate+FLURAZOLE; thidiazimin+metolachlor+mesotrione+sulfosate+FLURAZOLE; thidiazimin+S-metolachlor+mesotrione+sulfosate+FLURAZOLE; thidiazimin+metolachlor+atrazine+sulfosate+FLURAZOLE; thidiazimin+S-metolachlor+atrazine+sulfosate+FLURAZOLE; thidiazimin+metolachlor +terbuthylazine+sulfosate+FLURAZOLE; thidiazimin+S-metolachlor+terbuthylazine+sulfosate+FLURAZOLE; and thidiazimin+atrazine+nicosulfuron+sulfosate+FLURAZOLE.

[0154] acifluorfen+metolachlor+isoxaflutole+sulfosate+DICHLORMID; acifluorfen+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; acifluorfen+metolachlor+mesotrione+sulfosate+DICHLORMID; acifluorfen+S-metolachlor+mesotrione+sulfosate+DICHLORMID; acifluorfen+metolachlor+atrazine+sulfosate+DICHLORMID; acifluorfen+S-metolachlor+atrazine+sulfosate+DICHLORMID; acifluorfen+metolachlor +terbuthylazine+sulfosate+DICHLORMID; acifluorfen+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; acifluorfen+atrazine+nicosulfuron+sulfosate+DICHLORMID; aclonifen+metolachlor+isoxaflutole+sulfosate+DICHLORMID; aclonifen+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; aclonifen+metolachlor+mesotrione+sulfosate+DICHLORMID; aclonifen+S-metolachlor+mesotrione+DICHLORMID; aclonifen+metolachlor+atrazine+sulfosate+DICHLORMID; aclonifen+S-metolachlor+atrazine+sulfosate+DICHLORMID; aclonifen+metolachlor+terbuthylazine+sulfosate+DICHLORMID; aclonifen+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; aclonifen+atrazine+nicosulfuron+sulfosate+DICHLORMID; bifenox+metolachlor+isoxaflutole+sulfosate+DICHLORMID; bifenox+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; bifenox+metolachlor+mesotrione+sulfosate+DICHLORMID; bifenox+S-metolachlor+mesotrione+sulfosate+DICHLORMID; bifenox+metolachlor+atrazine+sulfosate+DICHLORMID; bifenox+S-metolachlor+atrazine+sulfosate+DICHLORMID; bifenox+metolachlor+terbuthylazine+sulfosate+DICHLORMID; bifenox+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; bifenox+atrazine+nicosulfuron+sulfosate+DICHLORMID; chlomitrofen+metolachlor+isoxaflutole+sulfosate+DICHLORMID; chlomitrofen+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; chlomitrofen+metolachlor+mesotrione+sulfosate+DICHLORMID; chlomitrofen+S-metolachlor+mesotrione+sulfosate+DICHLORMID; chlomitrofen+metolachlor+atrazine+sulfosate+DICHLORMID; chlomitrofen+S-metolachlor+atrazine+sulfosate+DICHLORMID; chlomitrofen+metolachlor+terbuthylazine+sulfosate+DICHLORMID; chlomitrofen+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; chlomitrofen+atrazine+nicosulfuron+sulfosate+DICHLORMID; ethoxyfen+metolachlor+isoxaflutole+sulfosate+DICHLORMID; ethoxyfen+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; ethoxyfen+metolachlor+mesotrione+sulfosate+DICHLORMID; ethoxyfen+S-metolachlor+mesotrione+sulfosate+DICHLORMID; ethoxyfen+metolachlor+atrazine+sulfosate+DICHLORMID; ethoxyfen+S-metolachlor+atrazine+sulfosate+DICHLORMID; ethoxyfen +metolachlor+

terbuthylazine+sulfosate+DICHLORMID; ethoxyfen+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; ethoxyfen+atrazine+nicosulfuron+sulfosate +DICHLORMID; fluoroglycofen+metolachlor+isoxaflutole+sulfosate+DICHLORMID; fluoroglycofen+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; fluoroglycofen+metolachlor+mesotrione+sulfosate+DICHLORMID; fluoroglycofen+S-metolachlor+mesotrione+sulfosate+DICHLORMID; fluoroglycofen+metolachlor+atrazine+sulfosate +DICHLORMID; fluoroglycofen+S-metolachlor+atrazine+sulfosate+DICHLORMID; fluoroglycofen+metolachlor+terbuthylazine+sulfosate+DICHLORMID; fluoroglycofen+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; fluoroglycofen+atrazine+nicosulfuron+sulfosate+DICHLORMID; fomesafen+metolachlor+isoxaflutole+sulfosate+DICHLORMID; fomesafen+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; fomesafen+metolachlor+mesotrione+sulfosate+DICHLORMID; fomesafen+S-metolachlor+mesotrione+sulfosate+DICHLORMID; fomesafen+metolachlor+atrazine+sulfosate+DICHLORMID; fomesafen+S-metolachlor+atrazine+sulfosate+DICHLORMID; fomesafen+metolachlor+terbuthylazine+sulfosate+DICHLORMID; fomesafen+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; fomesafen+atrazine+nicosulfuron+sulfosate+DICHLORMID; lactofen+metolachlor+isoxaflutole+sulfosate+DICHLORMID; lactofen+S-metolachlor+isoxaflutole+sulfosate +DICHLORMID; lactofen+metolachlor+mesotrione+sulfosate+DICHLORMID; lactofen +S-metolachlor+mesotrione+sulfosate+DICHLORMID; lactofen+metolachlor+atrazine +sulfosate+DICHLORMID; lactofen+S-metolachlor+atrazine+sulfosate+DICHLORMID; lactofen+metolachlor+terbuthylazine+sulfosate+DICHLORMID; lactofen +S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; lactofen+atrazine+nicosulfuron+sulfosate+DICHLORMID; oxyfluorfen+metolachlor+isoxaflutole+sulfosate+DICHLORMID; oxyfluorfen+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; oxyfluorfen+metolachlor+mesotrione+sulfosate+DICHLORMID; oxyfluorfen+S-metolachlor+mesotrione+sulfosate+DICHLORMID; oxyfluorfen+metolachlor+atrazine+sulfosate+DICHLORMID; oxyfluorfen+S-metolachlor+atrazine+sulfosate+DICHLORMID; oxyfluorfen+metolachlor+terbuthylazine+sulfosate+DICHLORMID; oxyfluorfen+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; oxyfluorfen+atrazine+nicosulfuron+sulfosate+DICHLORMID; azafenidin+metolachlor +isoxaflutole+sulfosate+DICHLORMID; azafenidin+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; azafenidin+metolachlor+mesotrione+sulfosate+DICHLORMID; azafenidin+S-metolachlor+mesotrione+sulfosate+DICHLORMID; azafenidin+metolachlor+atrazine+sulfosate+DICHLORMID; azafenidin+S-metolachlor +atrazine+sulfosate+DICHLORMID; azafenidin+metolachlor+terbuthylazine+sulfosate+DICHLORMID; azafenidin+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; azafenidin+atrazine+nicosulfuron+sulfosate+DICHLORMID; carfentrazone-ethyl+metolachlor+isoxaflutole+sulfosate+DICHLORMID; carfentrazone-ethyl+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; carfentrazone-ethyl+metolachlor+mesotrione+sulfosate+DICHLORMID; carfentrazone-ethyl+S-metolachlor +mesotrione+sulfosate+DICHLORMID; carfentrazone-ethyl+metolachlor+atrazine+sulfosate+DICHLORMID; carfentrazone-ethyl+S-metolachlor+atrazine+sulfosate+DICHLORMID; carfentrazone-ethyl+metolachlor+terbuthylazine+sulfosate+DICHLORMID; carfentrazone-ethyl+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; carfentrazone-ethyl+atrazine+nicosulfuron+DICHLORMID; compound of the formula A+metolachlor+isoxaflutole+sulfosate+DICHLORMID; compound of the formula A+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; compound of the formula A+metolachlor+mesotrione+sulfosate+DICHLORMID; compound of the formula A+S-metolachlor+mesotrione+sulfosate+DICHLORMID; compound of the formula A+metolachlor+atrazine+sulfosate+DICHLORMID; compound of the formula A +S-metolachlor+atrazine+sulfosate+DICHLORMID; compound of the formula A+metolachlor+terbuthylazine+sulfosate+DICHLORMID; compound of the formula A+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; compound of the formula A+atrazine+nicosulfuron+sulfosate+DICHLORMID; cinidon-ethyl+metolachlor+isoxaflutole+sulfosate+DICHLORMID; cinidon-ethyl+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; cinidon-ethyl+metolachlor+mesotrione+sulfosate+DICHLORMID; cinidon-ethyl+S-metolachlor+mesotrione+sulfosate+DICHLORMID; cinidon-ethyl+metolachlor+atrazine+sulfosate+DICHLORMID; cinidon-ethyl+S-metolachlor+atrazine+sulfosate+DICHLORMID; cinidon-ethyl+metolachlor+terbuthylazine+sulfosate+DICHLORMID; cinidon-ethyl+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; cinidon-ethyl+atrazine+nicosulfuron+sulfosate+DICHLORMID; flumiclorac-pentyl+metolachlor+isoxaflutole+DICHLORMID; flumiclorac-pentyl+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; flumiclorac-pentyl+metolachlor+mesotrione+sulfosate+DICHLORMID; flumiclorac-pentyl+S-metolachlor+mesotrione+sulfosate+DICHLORMID; flumiclorac-pentyl+metolachlor+atrazine+sulfosate+DICHLORMID; flumiclorac-pentyl+S-metolachlor+atrazine+sulfosate+DICHLORMID; flumiclorac-pentyl+metolachlor+terbuthylazine+sulfosate+DICHLORMID; flumiclorac-pentyl+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; flumiclorac-pentyl+atrazine+nicosulfuron+sulfosate+DICHLORMID; flumioxazin+metolachlor+isoxaflutole+sulfosate+DICHLORMID; flumioxazin+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; flumioxazin+metolachlor+mesotrione+sulfosate+DICHLORMID; flumioxazin+S-metolachlor+mesotrione+sulfosate+DICHLORMID; flumioxazin+metolachlor+atrazine+sulfosate+DICHLORMID; flumioxazin+S-metolachlor+atrazine+sulfosate+DICHLORMID; flumioxazin+metolachlor+terbuthylazine+sulfosate+DICHLORMID; flumioxazin+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; flumioxazin+atrazine+nicosulfuron+sulfosate +DICHLORMID; fluthiacet-methyl+metolachlor+isoxaflutole+sulfosate+DICHLORMID; fluthiacet-methyl+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; fluthiacet-methyl+metolachlor+mesotrione+sulfosate+DICHLORMID; fluthiacet-methyl+S-metolachlor+mesotrione+sulfosate+DICHLORMID; fluthiacet-methyl+metolachlor+atrazine+sulfosate+DICHLORMID; fluthiacet-methyl+S-metolachlor+atrazine+sulfosate+DICHLORMID; fluthiacet-methyl+metolachlor+terbuthylazine+sulfosate+DICHLORMID; fluthiacet-methyl+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; fluthiacet-methyl+atrazine+nicosulfuron+sulfosate+DICHLORMID;

oxadiargyl+metolachlor+isoxaflutole+sulfosate+DICHLORMID; oxadiargyl+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; oxadiargyl+metolachlor+mesotrione+sulfosate+DICHLORMID; oxadiargyl+S-metolachlor+mesotrione+sulfosate+DICHLORMID; oxadiargyl+metolachlor+atrazine+sulfosate+DICHLORMID; oxadiargyl+S-metolachlor+atrazine+sulfosate+DICHLORMID; oxadiargyl+metolachlor +terbuthylazine+sulfosate+DICHLORMID; oxadiargyl+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; oxadiargyl+atrazine+nicosulfuron+sulfosate+DICHLORMID; oxadiazon+metolachlor+isoxaflutole+sulfosate+DICHLORMID; oxadiazon+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; oxadiazon+metolachlor+mesotrione+sulfosate+DICHLORMID; oxadiazon+S-metolachlor+mesotrione+sulfosate+DICHLORMID; oxadiazon+metolachlor+atrazine+sulfosate+DICHLORMID; oxadiazon+S-metolachlor+atrazine+sulfosate+DICHLORMID; oxadiazon+metolachlor +terbuthylazine+sulfosate+DICHLORMID; oxadiazon+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; oxadiazon+atrazine+nicosulfuron+sulfosate+DICHLORMID; pentoxazone+metolachlor+isoxaflutole+sulfosate+DICHLORMID; pentoxazone+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; pentoxazone+metolachlor+mesotrione+sulfosate+DICHLORMID; pentoxazone+S-metolachlor+mesotrione+sulfosate+DICHLORMID; pentoxazone+metolachlor+atrazine+sulfosate+DICHLORMID; pentoxazone+S-metolachlor+atrazine+sulfosate+DICHLORMID; pentoxazone+metolachlor+terbuthylazine+sulfosate+DICHLORMID; pentoxazone+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; pentoxazone+atrazine+nicosulfuron+sulfosate+DICHLORMID; sulfentrazone+metolachlor+isoxaflutole+sulfosate+DICHLORMID; sulfentrazone+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; sulfentrazone+metolachlor+mesotrione+sulfosate+DICHLORMID; sulfentrazone+S-metolachlor+mesotrione+sulfosate+DICHLORMID; sulfentrazone+metolachlor+atrazine+sulfosate+DICHLORMID; sulfentrazone+S-metolachlor+atrazine+sulfosate+DICHLORMID; sulfentrazone+metolachlor+terbuthylazine+sulfosate+DICHLORMID; sulfentrazone+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; sulfentrazone+atrazine+nicosulfuron+sulfosate+DICHLORMID; fluazolate+metolachlor+isoxaflutole+sulfosate+DICHLORMID; fluazolate+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; fluazolate+metolachlor+mesotrione+sulfosate+DICHLORMID; fluazolate+S-metolachlor+mesotrione+sulfosate+DICHLORMID; fluazolate+metolachlor+atrazine+sulfosate+DICHLORMID; fluazolate+S-metolachlor+atrazine+sulfosate+DICHLORMID; fluazolate+metolachlor +terbuthylazine+sulfosate+DICHLORMID; fluazolate+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; fluazolate+atrazine+nicosulfuron+sulfosate+DICHLORMID; pyraflufen-ethyl+metolachlor+isoxaflutole+sulfosate+DICHLORMID; pyraflufen-ethyl+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; pyraflufen-ethyl+metolachlor+mesotrione+sulfosate+DICHLORMID; pyraflufen-ethyl+S-metolachlor+mesotrione+sulfosate+DICHLORMID; pyraflufen-ethyl+metolachlor+atrazine+sulfosate+DICHLORMID; pyraflufen-ethyl+S-metolachlor+atrazine+sulfosate+DICHLORMID; pyraflufen-ethyl+metolachlor+terbuthylazine+sulfosate+DICHLORMID; pyraflufen-ethyl +S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; pyraflufen-ethyl+atrazine+nicosulfuron+sulfosate+DICHLORMID; flumipropyn+metolachlor+isoxaflutole+sulfosate+DICHLORMID; flumipropyn+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; flumipropyn+metolachlor+mesotrione+sulfosate+DICHLORMID; flumipropyn+S-metolachlor+mesotrione+sulfosate+DICHLORMID; flumipropyn+metolachlor+atrazine+sulfosate+DICHLORMID; flumipropyn+S-metolachlor+atrazine +sulfosate+DICHLORMID; flumipropyn+metolachlor+terbuthylazine+sulfosate+DICHLORMID; flumipropyn+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; flumipropyn+atrazine+nicosulfuron+sulfosate+DICHLORMID; flupropacil+metolachlor+isoxaflutole+sulfosate+DICHLORMID; flupropacil+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; flupropacil+metolachlor+mesotrione+sulfosate +DICHLORMID; flupropacil+S-metolachlor+mesotrione+sulfosate+DICHLORMID; flupropacil+metolachlor+atrazine+sulfosate+DICHLORMID; flupropacil+S-metolachlor +atrazine+sulfosate+DICHLORMID; flupropacil+metolachlor+terbuthylazine+sulfosate+DICHLORMID; flupropacil+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; flupropacil+atrazine+nicosulfuron+sulfosate+DICHLORMID; nipyraclofen+metolachlor+isoxaflutole+sulfosate+DICHLORMID; nipyraclofen+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; nipyraclofen+metolachlor+mesotrione+sulfosate+DICHLORMID; nipyraclofen+S-metolachlor+mesotrione+sulfosate+DICHLORMID; nipyraclofen+metolachlor+atrazine+sulfosate+DICHLORMID; nipyraclofen+S-metolachlor+atrazine+sulfosate+DICHLORMID; nipyraclofen+metolachlor+terbuthylazine+sulfosate+DICHLORMID; nipyraclofen+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; nipyraclofen+atrazine+nicosulfuron+sulfosate+DICHLORMID; benzfendizone+metolachlor+isoxaflutole+sulfosate+DICHLORMID; benzfendizone+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; benzfendizone+metolachlor+mesotrione+sulfosate+DICHLORMID; benzfendizone+S-metolachlor+mesotrione+sulfosate+DICHLORMID; benzfendizone+metolachlor+atrazine+sulfosate+DICHLORMID; benzfendizone+S-metolachlor+atrazine+sulfosate+DICHLORMID; benzfendizone+metolachlor+terbuthylazine+sulfosate+DICHLORMID; benzfendizone+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; benzfendizone+atrazine+nicosulfuron+sulfosate+DICHLORMID; thidiazimin+metolachlor+isoxaflutole+sulfosate+DICHLORMID; thidiazimin+S-metolachlor+isoxaflutole+sulfosate+DICHLORMID; thidiazimin+metolachlor+mesotrione+sulfosate+DICHLORMID; thidiazimin+S-metolachlor+mesotrione+sulfosate+DICHLORMID; thidiazimin+metolachlor+atrazine+sulfosate+DICHLORMID; thidiazimin+S-metolachlor+atrazine+sulfosate+DICHLORMID; thidiazimin+metolachlor+terbuthylazine+sulfosate+DICHLORMID; thidiazimin+S-metolachlor+terbuthylazine+sulfosate+DICHLORMID; and thidiazimin+atrazine+nicosulfuron+sulfosate+DICHLORMID.

[0155] Acifluorfen+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; acifluorfen+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; acifluorfen+metolachlor+mesotrione+sulfosate+FURILAZOLE; acifluorfen+S-metolachlor+mesotrione+sulfosate+FURILAZOLE;

acifluorfen+metolachlor+atrazine+sulfosate+FURILAZOLE; acifluorfen+S-metolachlor+atrazine+sulfosate+FURILAZOLE; acifluorfen+metolachlor +terbuthylazine+sulfosate+FURILAZOLE; acifluorfen+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; acifluorfen+atrazine+nicosulfuron+sulfosate+FURILAZOLE; aclonifen+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; aclonifen+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; aclonifen+metolachlor+mesotrione +sulfosate+FURILAZOLE; aclonifen+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; aclonifen+metolachlor+atrazine+sulfosate+FURILAZOLE; aclonifen+S-metolachlor+atrazine+sulfosate+FURILAZOLE; aclonifen+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; aclonifen+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; aclonifen+atrazine+nicosulfuron+sulfosate+FURILAZOLE; bifenox+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; bifenox+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; bifenox+metolachlor+mesotrione+sulfosate+FURILAZOLE; bifenox+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; bifenox+metolachlor+atrazine+sulfosate+FURILAZOLE; bifenox+S-metolachlor+atrazine+sulfosate+FURILAZOLE; bifenox+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; bifenox+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; bifenox+atrazine+nicosulfuron+sulfosate+FURILAZOLE; chlomitrofen+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; chlomitrofen+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; chlomitrofen+metolachlor+mesotrione+sulfosate+FURILAZOLE; chlomitrofen+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; chlomitrofen+metolachlor+atrazine+sulfosate+FURILAZOLE; chlomitrofen+S-metolachlor+atrazine+sulfosate+FURILAZOLE; chlomitrofen+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; chlomitrofen+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; chlomitrofen+atrazine+nicosulfuron+sulfosate+FURILAZOLE; ethoxyfen+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; ethoxyfen+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; ethoxyfen+metolachlor+mesotrione+sulfosate+FURILAZOLE; ethoxyfen+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; ethoxyfen+metolachlor+atrazine+sulfosate+FURILAZOLE; ethoxyfen+S-metolachlor+atrazine+sulfosate+FURILAZOLE; ethoxyfen +metolachlor+terbuthylazine+sulfosate+FURILAZOLE; ethoxyfen+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; ethoxyfen+atrazine+nicosulfuron+sulfosate +FURILAZOLE; fluoroglycofen+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; fluoroglycofen+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; fluoroglycofen+metolachlor+mesotrione+sulfosate+FURILAZOLE; fluoroglycofen+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; fluoroglycofen+metolachlor+atrazine+sulfosate +FURILAZOLE; fluoroglycofen+S-metolachlor+atrazine+sulfosate+FURILAZOLE; fluoroglycofen+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; fluoroglycofen+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; fluoroglycofen+atrazine+nicosulfuron+sulfosate+FURILAZOLE; fomesafen+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; fomesafen+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; fomesafen+metolachlor+mesotrione+sulfosate+FURILAZOLE; fomesafen+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; fomesafen+metolachlor+atrazine+sulfosate+FURILAZOLE; fomesafen+S-metolachlor+atrazine+sulfosate+FURILAZOLE; fomesafen+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; fomesafen+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; fomesafen+atrazine+nicosulfuron+sulfosate+FURILAZOLE; lactofen+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; lactofen+S-metolachlor+isoxaflutole+sulfosate +FURILAZOLE; lactofen+metolachlor+mesotrione+sulfosate+FURILAZOLE; lactofen +S-metolachlor+mesotrione+sulfosate+FURILAZOLE; lactofen+metolachlor+atrazine +sulfosate+FURILAZOLE; lactofen+S-metolachlor+atrazine+sulfosate+FURILAZOLE; lactofen+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; lactofen +S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; lactofen+atrazine+nicosulfuron+sulfosate+FURILAZOLE; oxyfluorfen+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; oxyfluorfen+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; oxyfluorfen+metolachlor+mesotrione+sulfosate+FURILAZOLE; oxyfluorfen+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; oxyfluorfen+metolachlor+atrazine+sulfosate+FURILAZOLE; oxyfluorfen+S-metolachlor+atrazine+sulfosate+FURILAZOLE; oxyfluorfen+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; oxyfluorfen+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; oxyfluorfen+atrazine+nicosulfuron+sulfosate+FURILAZOLE; azafenidin+metolachlor +isoxaflutole+sulfosate+FURILAZOLE; azafenidin+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; azafenidin+metolachlor+mesotrione+sulfosate+FURILAZOLE; azafenidin+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; azafenidin+metolachlor+atrazine+sulfosate+FURILAZOLE; azafenidin+S-metolachlor +atrazine+sulfosate+FURILAZOLE; azafenidin+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; azafenidin+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; azafenidin+atrazine+nicosulfuron+sulfosate+FURILAZOLE; carfentrazone-ethyl+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; carfentrazone-ethyl+metolachlor+mesotrione+sulfosate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor +mesotrione+sulfosate+FURILAZOLE; carfentrazone-ethyl+metolachlor+atrazine+sulfosate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+atrazine+sulfosate+FURILAZOLE; carfentrazone-ethyl+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; carfentrazone-ethyl+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; carfentrazone-ethyl+atrazine+nicosulfuron+sulfosate+FURILAZOLE; compound of the formula A+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; compound of the formula A+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; compound of the formula A+metolachlor+mesotrione+sulfosate+FURILAZOLE; compound of the formula A+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; compound of the formula A+metolachlor+atrazine+sulfosate+FURILAZOLE; compound of the formula A+S-metolachlor+atrazine+sulfosate+FURILAZOLE; compound of the formula A+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; compound of the formula A+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; compound of the formula A+atrazine+nicosulfuron+sulfosate+FURILAZOLE; cinidon-ethyl+meto-

lachlor +isoxaflutole+sulfosate+FURILAZOLE; cinidon-ethyl+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; cinidon-ethyl+metolachlor+mesotrione+sulfosate+FURILAZOLE; cinidon-ethyl+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; cinidon-ethyl+metolachlor+atrazine+sulfosate+FURILAZOLE; cinidon-ethyl+S-metolachlor+atrazine+sulfosate+FURILAZOLE; cinidon-ethyl+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; cinidon-ethyl+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; cinidon-ethyl+atrazine+nicosulfuron+sulfosate+FURILAZOLE; flumiclorac-pentyl+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; flumiclorac-pentyl+metolachlor+mesotrione+sulfosate+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; flumiclorac-pentyl+metolachlor+atrazine+sulfosate+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+atrazine+sulfosate+FURILAZOLE; flumiclorac-pentyl+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; flumiclorac-pentyl+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; flumiclorac-pentyl+atrazine+nicosulfuron+sulfosate+FURILAZOLE; flumioxazin+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; flumioxazin+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; flumioxazin+metolachlor+mesotrione+sulfosate+FURILAZOLE; flumioxazin+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; flumioxazin+metolachlor+atrazine+sulfosate+FURILAZOLE; flumioxazin+S-metolachlor+atrazine+sulfosate+FURILAZOLE; flumioxazin+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; flumioxazin+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; flumioxazin+atrazine+nicosulfuron+sulfosate +FURILAZOLE; fluthiacet-methyl+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; fluthiacet-methyl+metolachlor+mesotrione+sulfosate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; fluthiacet-methyl+metolachlor+atrazine+sulfosate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+atrazine+sulfosate+FURILAZOLE; fluthiacet-methyl+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; fluthiacet-methyl+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; fluthiacet-methyl+atrazine+nicosulfuron+sulfosate+FURILAZOLE; oxadiargyl+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; oxadiargyl+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; oxadiargyl+metolachlor+mesotrione+sulfosate+FURILAZOLE; oxadiargyl+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; oxadiargyl+metolachlor+atrazine+sulfosate+FURILAZOLE; oxadiargyl+S-metolachlor+atrazine+sulfosate+FURILAZOLE; oxadiargyl+metolachlor +terbuthylazine+sulfosate+FURILAZOLE; oxadiargyl+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; oxadiargyl+atrazine+nicosulfuron+sulfosate+FURILAZOLE; oxadiazon+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; oxadiazon+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; oxadiazon+metolachlor+mesotrione+sulfosate+FURILAZOLE; oxadiazon+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; oxadiazon+metolachlor+atrazine+sulfosate+FURILAZOLE; oxadiazon+S-metolachlor+atrazine+sulfosate+FURILAZOLE; oxadiazon+metolachlor +terbuthylazine+sulfosate+FURILAZOLE; oxadiazon+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; oxadiazon+atrazine+nicosulfuron+sulfosate+FURILAZOLE; pentoxazone+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; pentoxazone+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; pentoxazone+metolachlor+mesotrione+sulfosate+FURILAZOLE; pentoxazone+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; pentoxazone+metolachlor+atrazine+sulfosate+FURILAZOLE; pentoxazone+S-metolachlor+atrazine+sulfosate+FURILAZOLE; pentoxazone+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; pentoxazone+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; pentoxazone+atrazine+nicosulfuron+sulfosate+FURILAZOLE; sulfentrazone+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; sulfentrazone+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; sulfentrazone+metolachlor+mesotrione+sulfosate+FURILAZOLE; sulfentrazone+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; sulfentrazone+metolachlor+atrazine+sulfosate+FURILAZOLE; sulfentrazone+S-metolachlor+atrazine+sulfosate+FURILAZOLE; sulfentrazone+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; sulfentrazone+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; sulfentrazone+atrazine+nicosulfuron+sulfosate+FURILAZOLE; fluazolate+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; fluazolate+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; fluazolate+metolachlor+mesotrione+sulfosate+FURILAZOLE; fluazolate+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; fluazolate+metolachlor+atrazine+sulfosate+FURILAZOLE; fluazolate+S-metolachlor+atrazine+sulfosate+FURILAZOLE; fluazolate+metolachlor +terbuthylazine+sulfosate+FURILAZOLE; fluazolate+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; fluazolate+atrazine+nicosulfuron+sulfosate+FURILAZOLE; pyraflufen-ethyl+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; pyraflufen-ethyl+metolachlor+mesotrione+sulfosate+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; pyraflufen-ethyl+metolachlor+atrazine+sulfosate+FURILAZOLE; pyraflufen-ethyl+S-metolachlor+atrazine+sulfosate+FURILAZOLE; pyraflufen-ethyl+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; pyraflufen-ethyl +p-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; pyraflufen-ethyl+atrazine+nicosulfuron+sulfosate+FURILAZOLE; flumipropyn+metolachlor+isoxaflutole+sulfosate+FURILAZOLE; flumipropyn+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; flumipropyn+metolachlor+mesotrione+sulfosate+FURILAZOLE; flumipropyn+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; flumipropyn+metolachlor+atrazine+sulfosate+FURILAZOLE; flumipropyn+S-metolachlor+atrazine +sulfosate+FURILAZOLE; flumipropyn+metolachlor+terbuthylazine+sulfosate+FURILAZOLE; flumipropyn+S-metolachlor+terbuthylazine+sulfosate+FURILAZOLE; flumipropyn+atrazine+nicosulfuron+sulfosate+FURILAZOLE; flupropacil+metolachlor +isoxaflutole+sulfosate+FURILAZOLE; flupropacil+S-metolachlor+isoxaflutole+sulfosate+FURILAZOLE; flupropacil+metolachlor+mesotrione+sulfosate+FURILAZOLE; flupropacil+S-metolachlor+mesotrione+sulfosate+FURILAZOLE; flupropacil+metolachlor+atrazine+sulfosate+FURILAZOLE;

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[0156] The weeds to be controlled can be both monocotyledonous and dicotyledonous weeds, for example Stellaria, Nasturtium, Agrostis, Digitaria, Avena, Setaria, Sinapis, Lolium, Solanum, Echinochloa, Scirpus, Monochoria, Sagittaria, Bromus, Alopecurus, Sorghum halepense, Rottboellia, Cyperus, Abutilon, Sida, Xanthium, Amaranthus, Chenopodium, Ipomoea, Chrysanthemum, Galium, Viola and Veronica.

[0157] Areas under cultivation are the areas on which the crop plants are already growing, or on which the seeds of these crop plants have been sown, and also the soils which are intended to be cultivated with these crop plants.

[0158] Depending on the intended use, the safener c), for example benoxacor (61) and cloquintocet-mexyl (154), can be employed for pretreating the seeds of the crop plant (dressing of the seeds or the seedlings), or it fan be worked into the soil before or after seeding. However, it can also be applied on its own or together with the herbicide after the plants have emerged. Thus, the treatment of the plants or the seeds with the safener can, in principle, be carried out independently of when the herbicide is applied. However, the plant can also be treated by simultaneous application of herbicide and safener, for example as so-called "ready-mix" or as tank mix. The application rate of safener to herbicide to be applied depends essentially on the type of application. In an outdoor treatment which is carried out either by using a tank mix of a combination of safener and herbicide or by separate application of safener and herbicide, the ratio of herbicide to safener is generally from 100: to 1:10, preferably from 20:1 to 1:1.

[0159] In an outdoor treatment, generally from 1 to 2000 g of safener/ha, preferably from 1 to 500 g of safener/ha, are applied.

[0160] The application rates of herbicide a) and pesticide(s) b) are generally between 1 and 5000 g/ha, but preferably between 5 and 1000 g/ha.

[0161] The compositions according to the invention are suitable for all application methods which are customary in agriculture, for example pre-emergence application, post-emergence application and seed dressing.

[0162] For seed dressing, generally 0.001 to 10 g of safener/kg of seed, preferably 0.05 to 2 g of safener/kg of seed, are applied. If the safener c) applied in liquid form while swelling the seeds shortly before seeding, it is advantageous to employ safener solutions which comprise the active compound in a concentration of from 1 to 10,000, preferably from 100 to 1000 ppm.

[0163] For application, the safener c) and the herbicides under a) and b) are advantageously processed together with the auxiliaries conventionally used in the art of formulation, for example to give emulsion concentrates, spreadable pastes, directly sprayable or dilutable solutions, dilute emulsions, wettable powders, soluble powders, dusts, granules or microcapsules.

[0164] Such formulations are described, for example, in WO 97/34485 on pages 9 to 13. The formulations are prepared in a known manner, for example by intimate mixing and/or grinding of the active compounds with liquid or solid formulation auxiliaries, for example solvents or solid carriers. Surplus-active compounds (surfactants) can furthermore additionally be used during preparation of the formulations. Solvents and solid carriers which are suitable for this purpose are mentioned, for example, in WO 97/34485 on page 6.

[0165] Suitable surface-active compounds are, depending on the nature of the active compounds under a) and b) to be formulated, nonionic, cationic and/or anionic surfactants and surfactant mixtures having good emulsifying, dispersing and wetting properties. Examples of suitable anionic, nonionic and cationic surfactants are listed, for example, in WO 97/34485 on pages 7 and 8. The surfactants conventionally used in the art of formulation and which can also be used in the preparation of the herbicidal compositions according to the invention are described, inter alia, in 'Mc Cutcheon's Detergents and Emulsifiers Annual" MC publishing Corp., Ridgewood, N.J., 1981, Stache, H., "Tensid-Taschenbuch" [Surfactant Handbook], Carl Hanser Verlag, Munich/Vienna, 1981 and M. and J. Ash, "Encyclopedia of Surfactants", Vol I-III, Chemical publishing Co., New York, 1980-81.

[0166] The herbicidal formulations generally comprise 0.1 to 99% by weight, in particular 0.1 to 95% by weight, of the active compound mixture of the compound under a), the compounds selected under b) and the compounds under c),

1 to 99.9% by weight of a solid or liquid formulation auxiliary and 0 to 25% by weight, in particular 0.1 to 25% by weight, of a surfactant.

[0167] While concentrate compositions are usually preferred as commercial goods, the end user generally uses dilute compositions.

[0168] The compositions can also comprise further additives, such as stabilizers, for example epoxidized or non-epoxidized vegetable oils (epoxidized coconut oil, reepseed oil or Soya oil), defoamers, for example silicone oil, preservators, viscosity regulators, binders, tackifiers and fertilizers or other active substances. For using the safeners c) or compositions comprising them to protect crop plants against damaging effects of herbicides under a) and b), various methods and techniques are suitable, for example the following:

[0169] i) Seed dressing

[0170] a) Dressing of the seeds with an active compound c) formulated as a wettable powder by shaking in a vessel until even distribution on the surface of the seeds is achieved (dry dressing). Here, approximately 1 to 500 g of active compound under c) (4 g to 2 kg of wettable powder) are employed per 100 kg of seed.

[0171] b) Dressing the seeds using an emulsion concentrate of the active compound under c) according to method a) (wet dressing).

[0172] c) Dressing by dipping the seeds for 1 to 72 hours into a liquor containing 100-1000 ppm of active compound under c), with or without subsequent drying of the seeds (dip dressing).

[0173] Seed dressing or the treatment of the germinated seedlings are the naturally preferred application methods, since the treatment with active compound is completely directed at the target culture. In general, 1 to 1000 g of antidote c), preferably 5 to 250 g of antidote c), are employed per 100 kg of seed, but, depending on the method, which also permits the addition of other active compounds or micronutrients, it is possible to deviate above or below the stated limit concentration (repeat dressing).

[0174] ii) Application as tank mix

[0175] A liquid preparation of a mixture of antidote c) and herbicide a) and b) (neutral ratio between 10:1 and 1:100) is employed, the application rate of herbicide being from 5 to 5000 g per hector. Such tank mixers are applied before or after seeding.

[0176] iii) Application in the seed ferrule

[0177] The active compound under c) is applied into the open seeded seed ferrule as an emulsion concentrate, a wettable powder or as granules. After the seed ferrule has been covered, the herbicide is applied in a customary manner by the pre-emergence method.

[0178] iv) Controlled release of active compound

[0179] The active compound under c) is absorbed in solution onto mineral granule carriers or polymerized granules (urea/formaldehyde) and dried. If appropriate, a coating which allows the active compound to be released in metered form over a certain period of time can be applied (coated granules).

What is claimed is:

1. A herbicidal synergistic composition for the selective control of broad-leaved weeds and grasses in crops of useful plants resistant to protoporphyrinogen oxidase inhibitors, comprising, in addition to customary inert formulation auxiliaries, as active compounds a mixture of

a) a herbicide which inhibits the action of protoporphyrinogen oxidases and

b) at least one further pesticide selected from the group consisting of co-herbicides, fungicides and insecticides/parasites.

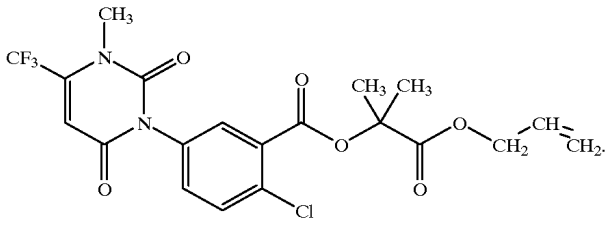
2. A composition according to claim 1, which comprises at least one further co-herbicide.

3. A herbicidal composition according to claim 2, comprising as herbicide a) a compound selected from the group of the diphenyl ethers, imides and phenylpyrazoles, and also fluazolate and thidiazimin.

4. A herbicidal composition according to claim 3, comprising as diphenyl ether acifluorphen, aclonifen, bifenox, chlomitrophen, ethoxyfen, fluoroglycofen-ethyl, fomesafen, lactofen or oxyfluorfen.

5. A herbicidal composition according to claim 3, comprising as imide azafenidin, carfentrazon-ethyl, cinidon-ethyl, flumiclorac-pentyl, flumioxazin, fluthiacet-methyl, oxadiargyl, oxadiazon, pentoxazone (KPP 314), sulfentrazone, flumipropyn, flupropacil, benzfendizone or the compound of the formula A

(A)

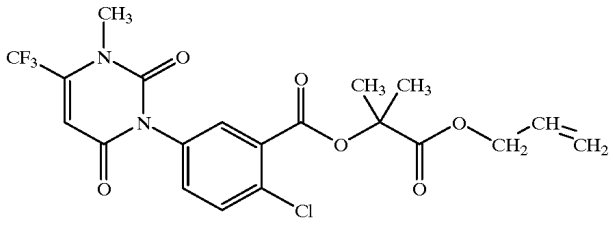


6. A herbicidal composition according to claim 3, comprising as phenylpyrazole nipyraclofen or pyraflufen-ethyl (ET 751).

7. A herbicidal composition according to claim 1 for controlling broad-leaved weeds and grasses in crops of maize, sugar beet, soya beans, rape, cotton, sunflowers, cereals, rice and sugar cane which are resistant to protoporphyrinogen oxidase inhibitors.

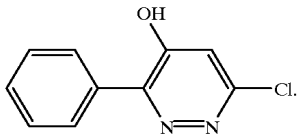
8. A herbicidal composition according to claim 1, for controlling weeds and grasses in crops of maize which are resistant to protoporphyrinogen inhibitors, where the co-herbicide b) is a compound selected from the group consisting of atrazine, terbuthylazine, (S)-metolachlor, metolachlor, terbutryn, simazine, dimethenamid or (S)-dimethenamid, flufenacet, acetochlor, alachlor, isoxaflutole, isoxachlortole, mesotrione, sulcotrione, metosulam, flumetsulam, pendimethalin, bromoxynil, bentazone, carfentrazone-ethyl, clomazone, nicosulfuron, rimsulfuron, halosulfuron-methyl, metribuzin, flumiclorac-pentyl, prosulfuron, primisulfuron-methyl, dicamba, fluthiacet-methyl, pyridate, 2,4-D, clopyralide, diflufenzopyr, fluroxypyr, MCPA, MCPB, mecoprop (MCPP), metobenzuron, thifensulfuron-methyl, aclonifen, EPTC, glyphosate, glufosinate, sulfosate and cyanazine, and compounds of the formulae A

(A)



and B

(B)



9. A herbicidal composition according to claim 8, where the co-herbicide b) is a compound selected from the group consisting of (S)-metolachlor, metolachlor, dimethenamid or (S)-dimethenamid, acetochlor and alachlor.

10. A herbicidal composition according to claim 9, comprising as additional component c) a safener of the benzoxazin type, in particular benoxacor, or MON 4660, flurazole, dichlormid or furilazole.

11. A herbicidal composition according to claim 1, for controlling weeds in crops of sugar beet resistant to protoporphyrinogen oxidase inhibitors, where the Go-herbicide b) is a compound selected from the group consisting of metolachlor, (S)-metolachlor, propaquizafop, metamitron, pyramin, phenmedipham, desmedipham, ethofumesate, triasulfuron, chloridazon, lenacil, triallate, fluazifop, sethoxydim, quizalofop, fenoxaprop, glyphosate, glufosinate, sulfosate and clethodim.

12. A herbicidal composition according to claim 1, for controlling weeds in crops of soya resistant to photoporphyrinogen oxidase inhibitors, where the co-herbicide b) is a compound selected from the group consisting of metolachlor, (S)-metolachlor, oxasulfuron, fluthiacet-methyl, propaquizafop, alachlor, dimethenamid or (S)-dimethenamid, acifluorfen, benazolin-ethyl, bentazone, carfentrazone-ethyl, sulfentrazone, chlorimuron-ethyl, cloransulam-methyl, thifensulfuron-methyl, clopyralid, flumiclorac-pentyl, flumetsulam, fomesafen, imazamox, imazaquin, imazethapyr, imazapyr, lactofen, pyridate, sethoxydim, fluazifop, quizalofop, clethodim, fenoxaprop(P-ethyl), thidiazuron, tribufos, pendimethalin, glyphosate, glufosinate, sulfosate and trifluralin.

13. A herbicidal composition according to claim 1, for controlling weeds in crops of rape resistant to protoporphyrinogen oxidase inhibitors, where the co-herbicide b) is a compound selected from the group consisting of dimethachlor, propaquizafop, clomazone, napropamide, quinmerac, metazachlor, carbetamide, dimefuron, propyzamide, clopyralid, ethametsulfuron-methyl, sethoxydim, fluazifop, quizalofop, clethodim, fenoxaprop(P-ethyl), glyphosate, glufosinate, sulfosate and tebutam.

14. A herbicidal composition according to claim 1, for controlling weeds in crops of cotton resistant to protoporphyrinogen oxidase inhibitors, where the co-herbicide b) is a compound selected from the group consisting of fluometuron, prometryn, metolachlor, (S)-metolachlor, norflurazon, propaquizafop, pyrithiobac-sodium, trifluralin, pendimethalin, bromoxynil, clomazone, MSMA, DMSA, fluazifop, quizalofop, fenoxaprop(P-ethyl), sethoxydim, clethodim, diuron, cyanazine, alachlor, acetochlor, flurochloridone, dithiopyr, thiazopyr, lactofen, oxyfluorfen, glyphosate, glufosinate, sulfosate and ethalfluralin, and also the compound of the formula C.

15. A herbicidal composition according to claim 1, for controlling weeds in crops of sunflowers resistant to protoporphyrinogen oxidase inhibitors, where the co-herbicide b) is a compound selected from the group consisting of metolachlor, (S)-metolachlor, pendimethalin, aclonifen, flurochloridon, prometryn, sethoxydim, fluazifop, quizalofop, clethodim, fenoxaprop(P-ethyl), terbutryn, acetochlor, glyphosate, glufosinate, sulfosate and trifluralin.

16. A herbicidal composition according to claim 1, for controlling weeds in crops of cereals resistant to protoporphyrinogen oxidase inhibitors, where the co-herbicide b) is a compound selected from the group consisting of triasulfuron, prosulfuron, clodinafop, terbutryn, amidosulfuron, bromoxynil, carfentrazone-ethyl, dicamba, diclofop-methyl, diflufenican, ethoxysulfuron, fenoxaprop(P-ethyl), fentrazamide, flazasulfuron, florasulam, fluazolate, flucarbazone, flufenacet, flupyrsulfuron-methyl sodium, flurtamone, iodosulfuron, isoproturon, chlortoluron, MCPA, MCPB, mecoprop (MCPP), chlorsulfuron, metsulfuron-methyl, sulfosulfuron, thifensulfuron-methyl, tribenuron-methyl, 2,4-D, 2,4-DB, 2,4-DP, bifenox, ethametsulfuron-methyl, flamprop-M, imazamethabenz-methyl, ioxynil, bromoxynil, metosulam, pyridate, quinmerac, tralkoxydim, fluoroglycofen-ethyl, methabenzthiazuron, ethalfluralin, pendimethalin, trifluralin, isoxaben, prosulfocarb, triallate, clopyralid, fluroxypyr, benazolin-ethyl, glyphosate, glufosinate, sulfosate and difenzoquat-metilsulfate.

17. A herbicidal composition according to claim 16, where the co-herbicide b) is a compound selected from the group consisting of triasulfuron, prosulfuron, clodinafop, amidosulfuron, diclofop-methyl, fenoxaprop(P-ethyl), flazasulfuron, flupyrsulfuron-methyl sodium, iodosulfuron, mecoprop (MCPP), chlorsulfuron, metsulfuron-methyl, sulfosulfuron and thifensulfuron-methyl.

18. A herbicidal composition according to claim 17, comprising as additional component c) a safener of the quinoline type, in particular cloquintocet-mexyl.

19. A herbicidal composition according to claim 1, for controlling weeds in crops of rice resistant to protoporphyrinogen oxidase inhibitors, where the co-herbicide b) is a compound selected from the group consisting of pretilachlor, cinosulfuron, triasulfuron, fenclorim, clodinafop, bensulfuron-methyl, imazosulfuron, pyrazosulfuron-ethyl, metsulfuron-methyl, azimsulfuron, halosulfuron-methyl, esprocarb, mefenacet, molinate, propanil, pyrazolate, cyhalofop-butyl, fenoxaprop(P-ethyl), bispyribac-sodium, pyriminobac-methyl, cafenstrole, oxadiargyl, oxadiazon, bromobutide, MY-100, dymron, NB 061, MK243, HW-52, glyphosate, glufosinate, sulfosate and AC 014, and also the compound of the formula D.

20. A herbicidal composition according to claim 1, for controlling weeds in crops of sugar cane resistant to protoporphyrinogen oxidase inhibitors, where the co-herbicide b) is a compound selected from the group consisting of atrazine, ametryn, dicamba, terbutryn, prosulfuron, hexazinone, asulam, diuron, 2,4-D, halosulfuron-methyl, flazasulfuron, isoxaflutole, azafenidin, tebuthiuron, sulcotrione, pendimethalin, clomazone, metribuzin, thiazopyr, glyphosate, glufosinate, sulfosate and ethoxysulfuron, and also the compound of the formula C.

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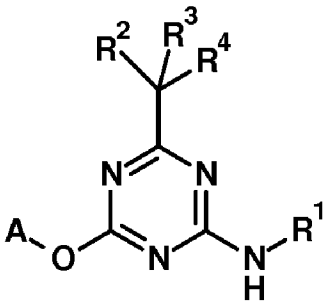
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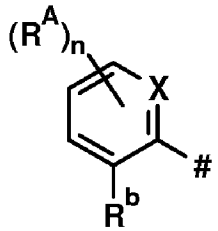
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[Continued on next page]

(54) Title: PHENOXY- OR PYRIDIN-2-YLOXY-AMINOTRIAZINE COMPOUNDS AND THEIR USE AS HERBICIDES



(I)



(A.1)

(57) Abstract: The present invention relates to phenoxy- or pyridyloxy-aminotriazine compounds and to their use as herbicides. The present invention also relates to agrochemical compositions for crop protection and to a method for controlling unwanted vegetation. (I) wherein A is a radical of formula (A.1) and X is CR^{A4} or N; R^1 is inter alia H, OH, $S(O)_2NH_2$, CN, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, C_1-C_6-alkoxy, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, etc.; R^2 is inter alia H, halogen, OH, CN, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, (C_1-C_6-alkoxy)- C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, C_1-C_6- alkoxy, C_2-C_6-alkenyloxy, C_2-C_6-alkynyloxy, C_3-C_6-cycloalkoxy or (C_3-C_6-cycloalkyl)-C_1-C_4-alkoxy, ect.; R^3 is inter alia selected from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy and C_1-C_6-haloalkoxy; R^4 is inter alia selected from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, C_3-C_6-cycloalkyl, ect.; R^3 and R^4 together with the carbon atom to which they are attached form a moiety selected from the group consisting of carbonyl, C_2-C_6-alkenyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and three- to six-membered heterocyclyl, ect. including their agriculturally acceptable salts.

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PHENOXY- OR PYRIDIN-2-YLOXY-AMINOTRIAZINE COMPOUNDS AND THEIR USE AS HERBICIDES

The present invention relates to phenoxy- or pyridyloxy-aminotriazine compounds and to their use as herbicides. The present invention also relates to agrochemical compositions for crop protection and to a method for controlling unwanted vegetation.

US 3,816,419 describes 4-haloalkyl or 4-haloalkenyl-2,4-aminotriazines and their use as herbicides. Simlar compounds are known from US 3,932,167.

DE 197 44 711 describes herbicidally active 2,4-diamino-1,3,5-triazine compounds, which carry a group A-Z in the 6-position, where A is alkylene and Z is a carbocylic or heterocyclic radical.

DE 198 30 902 describes amino-chloro-triazine compounds and their use as herbicides.

EP 0545 149 describes 6-triflouromethyl-1,3,5-triazine compounds and their use as intermediates for crop protecting agents.

However, the herbicidal properties of the known triazine type compounds are not always entirely satisfactory.

Earlier filed WO 2014/064094 describes 2-phenylamino-6-aminotriazine compounds having herbicide activity.

Earlier filed WO 2015/007711 describes 2-(hetaryl)amino-6-aminotriazine compounds having herbicide activity.

EP 0 373 472 discloses the following compounds 4-(2-fluorophenoxy)-6-methyl-1,3,5-triazin-2-amine, 4-(2-chlorophenoxy)-6-methyl-1,3,5-triazin-2-amine, 2-[(4-amino-6-methyl-1,3,5-triazin-2-yl)oxy]benzonitrile, 4-methyl-6-(2,4,6-trichlorophenoxy)-1,3,5-triazin-2-amine, 4-[2-chloro-4-(trifluoromethyl)phenoxy]-6-methyl-1,3,5-triazin-2-amine, 4-(2-fluorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine, 4-(2-chlorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine, 2-[(4-amino-6-(trifluoromethyl)-1,3,5-triazin-2-yl)oxy]benzonitrile, 4-(2,4,6-trichlorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine, 4-[2-chloro-4-(trifluoromethyl)phenoxy]-6-(trifluoromethyl)-1,3,5-triazin-2-amine. These compounds are used as precursor for the preapartion of substituted sulfonylureas.

GB 943 637 discloses 4-(2,6-dichlorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine which is used as an intermediate for the preparation of polymers.

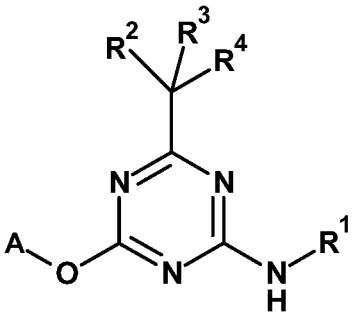
WO 97/35580 discloses 4-(2-bromo-4-isopropenyl-6-methoxy-phenoxy)-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine and 4-(2-bromo-4-isopropyl-6-methoxy-phenoxy)-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine. These compounds are used in pharmaceutical compositions for the treatment of several diseases such as anxiety, depression, Alzheimer's disease etc..

The following compounds 4-[2-bromo-4-methoxy-6-(1-methylethenyl)phenoxy]-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine, 4-[2-bromo-4-methoxy-6-(1-methylethyl)phenoxy]-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine, 1-[3-bromo-5-methoxy-4-[[4-[[1-(methoxymethyl)propyl]amino]-6-methyl-1,3,5-triazin-2-yl]oxy]phenyl]-ethanone are known from chemical abstracts CAS-RN: 1349525-90-1, CAS-RN: 1349522-79-7 and CAS-RN: 1348221-62-4, respectively.

It is an object of the present invention to provide compounds having improved herbicidal

action, in particular good herbicide activity at low application rates. Moreover, the herbicids should be sufficiently compatible with crop plants for commercial utilization.

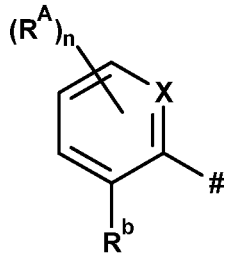
These and further objects are achieved by aminotriazine compounds of formula (I), defined below, and by their agriculturally suitable salts:



(I)

In formula (I) the variables A, R^1, R^2, R^3 and R^4 are as defined herein:

A is a radical of formula (A.1)



(A.1)

wherein # indicates the point of attachment to the oxygen

X is CR^{A4} or N;

R^A is selected from the group consisting of halogen, OH, CN, amino, NO_2, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_6-alkoxy, C_2-C_6-alkenyloxy, C_2-C_6-alkynyloxy, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkoxy, (C_1-C_6-alkoxy)-C_2-C_6-alkenyl, (C_1-C_6-alkoxy)-C_2-C_6-alkynyl, C_1-C_6-alkylthio, (C_1-C_6-alkyl)sulfinyl, (C_1-C_6-alkyl)sulfonyl, (C_1-C_6-alkyl)amino, di(C_1-C_6-alkyl)amino, (C_1-C_6-alkyl)-carbonyl, (C_1-C_6-alkoxy)-carbonyl, (C_1-C_6-alkyl)-carbonyloxy, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, (C_3-C_6-cycloalkyl)-C_1-C_4-alkoxy, where the aliphatic and cycloaliphatic parts of the 22 aforementioned radicals are unsubstituted, partly or completely halogenated and where the cycloaliphatic parts of the last 4 mentioned radicals may carry 1, 2, 3, 4, 5 or 6 methyl groups, it being possible that two radicals R^A which are bound to adjacent ring atoms of phenyl or 6-membered hetaryl may form a fused 5- or 6- membered carbocyclic or heterocyclic ring, which itself is substituted or unsubstituted by 1, 2, 3, 4 or 5 identical or different substituents R^B selected from the group consisting of halogen, OH, CN, amino, NO_2, C_1-C_6-

alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_6-alkoxy, C_2-C_6-alkenyloxy, C_2-C_6-alkynyloxy, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkoxy, (C_1-C_6-alkoxy)-C_2-C_6-alkenyl, (C_1-C_6-alkoxy)-C_2-C_6-alkynyl, C_1-C_6-alkylthio, (C_1-C_6-alkyl)sulfinyl, (C_1-C_6-alkyl)sulfonyl, (C_1-C_6-alkyl)amino, di(C_1-C_6-alkyl)amino, (C_1-C_6-alkyl)-carbonyl, (C_1-C_6-alkoxy)-carbonyl, (C_1-C_6-alkyl)-carbonyloxy, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, (C_3-C_6-cycloalkyl)-C_1-C_4-alkoxy, where the aliphatic and cycloaliphatic parts of the 22 aforementioned radicals are unsubstituted, partly or completely halogenated and where the cycloaliphatic parts of the last 4 mentioned radicals may carry 1, 2, 3, 4, 5 or 6 methyl groups, it being possible that two radicals R^B which are bound at the same carbon atom may together be =O or =NR^b;

R^{A4} is hydrogen or has one of the meanings given for R^A;

n is 0, 1, 2 or 3 ;

R^b is selected from the group consisting of halogen and CN;

R^1 is selected from the group consisting of H, OH, $S(O)_2NH_2$, CN, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, C_1-C_6-alkoxy, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkyl)sulfonyl, (C_1-C_6-alkylamino)carbonyl, di(C_1-C_6-alkyl)aminocarbonyl, (C_1-C_6-alkylamino)sulfonyl, di(C_1-C_6-alkyl)aminosulfonyl and (C_1-C_6-alkoxy)sulfonyl, where the aliphatic and cycloaliphatic parts of the 14 aforementioned radicals are unsubstituted, partly or completely halogenated,
phenyl, phenylsulfonyl, phenylaminosulfonyl, phenyl-C_1-C_6 alkyl, phenoxy, phenylcarbonyl and phenoxycarbonyl,
wherein phenyl in the last 7 mentioned radicals is unsubstituted or substituted by 1, 2, 3, 4 or 5 identical or different substituents selected from the group consisting of halogen, CN, NO_2, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy and C_1-C_6-haloalkoxy;

R^2 is H, halogen, OH, CN, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, C_1-C_6-alkoxy, C_2-C_6-alkenyloxy, C_2-C_6-alkynyloxy, C_3-C_6-cycloalkoxy or (C_3-C_6-cycloalkyl)-C_1-C_4-alkoxy, where the aliphatic and cycloaliphatic parts of the 12 aforementioned radicals are unsubstituted, partly or completely halogenated,
phenyl, phenyl-C_1-C_6-alkyl,
wherein phenyl in the last 2 mentioned radicals are unsubstituted or substituted by 1, 2, 3, 4 or 5 identical or different substituents selected from the group consisting of halogen, CN, NO_2, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy and C_1-C_6-haloalkoxy,

R^3 is selected from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy and C_1-C_6-haloalkoxy;

R^4 is selected from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, C_3-C_6-cycloalkyl, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, C_3-C_6-cycloalkenyl and C_1-C_6-alkoxy-C_1-C_6-alkyl, where the aliphatic and cycloaliphatic parts of the 7 aforementioned radicals are unsubstituted, partly or completely halogenated; or

R^3 and R^4 together with the carbon atom to which they are attached form a moiety selected from the group consisting of carbonyl, C_2-C_6-alkenyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and three- to six-membered saturated or partially unsaturated heterocyclyl,

wherein the C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, or three- to six-membered heterocyclyl is unsubstituted or substituted by one to six substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy; or

R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl, which is unsubstituted or substituted by one to six substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy.

According to a first aspect, thepresent invention also relates to the use of aminotriazine compound of formula (I) as defined above or of its agriculturally acceptable salts as herbicides, i.e. for controlling unwanted and/or harmful vegetation or plants.

According to a second aspect, the present invention relates to the use of aminotriazine compound of formula (I) as defined above or of its agriculturally acceptable salts for the desiccation/defoliation of plants.

According to a third aspect, the present invention also relates to agrochemical compositions comprising at least one aminotriazine compound of formula (I) and at least one auxiliary customary for formulating crop protection agents.

The present invention furthermore provides a method for controlling unwanted plants. The method includes allowing a herbicidally effective amount of at least one aminotriazine compound of the formula (I) as defined above or its agriculturally acceptable salts to act on the unwanted plants or vegetation, their seeds and/or their habitat. Application can be done before, during and/or after, preferably during and/or after, the emergence of the unwanted plants.

Moreover, the invention relates to processes for preparing aminotriazine compound of formula (I) as defined above or its agriculturally acceptable salts and to intermediates.In yet a further aspect, the present invention relates to compounds of the general formula (I) and their agriculturally acceptable salts, exept for

- 4-(2-fluorophenoxy)-6-methyl-1,3,5-triazin-2-amine,
- 4-(2-chlorophenoxy)-6-methyl-1,3,5-triazin-2-amine,
- 2-[(4-amino-6-methyl-1,3,5-triazin-2-yl)oxy]benzonitrile,
- 4-methyl-6-(2,4,6-trichlorophenoxy)-1,3,5-triazin-2-amine,
- 4-[2-chloro-4-(trifluoromethyl)phenoxy]-6-methyl-1,3,5-triazin-2-amine,
- 4-(2-fluorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine,
- 4-(2-chlorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine,
- 2-[(4-amino-6-(trifluoromethyl)-1,3,5-triazin-2-yl)oxy]benzonitrile,
- 4-(2,4,6-trichlorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine,

- 4-[2-chloro-4-(trifluoromethyl)phenoxy]-6-(trifluoromethyl)-1,3,5-triazin-2-amine,
- 4-(2,6-dichlorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine,
- 4-(2-bromo-4-isopropenyl-6-methoxy-phenoxy)-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine,
- 4-(2-bromo-4-isopropyl-6-methoxy-phenoxy)-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine,
- 4-[2-bromo-4-methoxy-6-(1-methylethenyl)phenoxy]-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine,
- 4-[2-bromo-4-methoxy-6-(1-methylethyl)phenoxy]-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine and
- 1-[3-bromo-5-methoxy-4-[[4-[[1-(methoxymethyl)propyl]amino]-6-methyl-1,3,5-triazin-2-yl]oxy]phenyl]-ethanone.

Further embodiments of the present invention are evident from the claims, the description and the examples. It is to be understood that the features mentioned above and still to be illustrated below of the subject matter of the invention can be applied not only in the combination given in each particular case but also in other combinations, without leaving the scope of the invention.

As used herein, the terms "controlling" and "combating" are synonyms.

As used herein, the terms "undesirable vegetation", "unwanted vegetation", unwanted plants" and "harmful plants" are synonyms.

In the context of substituents, the term “one or more substitutents” means that the number of substituents is e.g. from 1 to 10, in particular 1, 2, 3, 4, 5, 6, 7 or 8.

If the aminotriazine compounds of formula (I) as described herein is capable of forming geometrical isomers, for example E/Z isomers, the invention relates to both the pure isomers and mixtures thereof. Likeweise, the invention relates to the use of the pure isomers and to the use of their mixtures and to compositions containing the pure isomers or mixtures thereof.

If the aminotriazine compounds of formula (I) as described herein have one or more centres of chirality and, as a consequence, are present as enantiomers or diastereomers, the invention relates to both the pure enantiomers or diastereomers, and mixtures thereof. Likeweise, the invention relates to the use of the pure enantiomers or diasteremers and to the use of the mixtures thereof and to compositions containing the pure enantiomers or diastereomers or mixtures thereof.

If the aminotriazine compounds of formula (I) as described herein have ionizable functional groups, they can also be employed in the form of their agriculturally acceptable salts. Suitable are, in general, the salts of those cations and the acid addition salts of those acids whose cations and anions, respectively, have no adverse effect on the activity of the active compounds.

Preferred cations are the ions of the alkali metals, preferably of lithium, sodium and potassium, of the alkaline earth metals, preferably of calcium and magnesium, and of the transition metals, preferably of manganese, copper, zinc and iron, further ammonium and substituted ammonium in which one to four hydrogen atoms are replaced by C_1-C_4-alkyl, hydroxy-C_1-C_4-

alkyl, (C_1-C_4-alkoxy)-C_1-C_4-alkyl, hydroxy-(C_1-C_4-alkoxy)-C_1-C_4-alkyl, phenyl or benzyl, preferably ammonium, methylammonium, isopropylammonium, dimethylammonium, diisopropylammonium, trimethylammonium, heptylammonium, dodecylammonium, tetradecylammonium, tetramethylammonium, tetraethylammonium, tetrabutylammonium, 2-hydroxyethyl-ammonium (olamine salt), 2-(2-hydroxyeth-1-oxy)eth-1-ylammonium (diglycolamine salt), di(2-hydroxyeth-1-yl)-ammonium (diolamine salt), tris(2-hydroxyethyl)ammonium (trolamine salt), tris(2-hydroxypropyl)ammonium, benzyltrimethylammonium, benzyltriethylammonium, N,N,N-trimethylethanolammonium (choline salt), furthermore phosphonium ions, sulfonium ions, preferably tri(C_1-C_4-alkyl)sulfonium, such as trimethylsulfonium, and sulfoxonium ions, preferably tri(C_1-C_4-alkyl)sulfoxonium, and finally the salts of polybasic amines such as N,N-bis-(3-aminopropyl)methylamine and diethylenetriamine.

Anions of useful acid addition salts are primarily chloride, bromide, fluoride, iodide, hydrogensulfate, methylsulfate, sulfate, dihydrogenphosphate, hydrogenphosphate, nitrate, bicarbonate, carbonate, hexafluorosilicate, hexafluorophosphate, benzoate and also the anions of C_1-C_4-alkanoic acids, preferably formate, acetate, propionate and butyrate.

Further embodiments of the present invention are evident from the claims, the description and the examples. It is to be understood that the features mentioned above and still to be illustrated below of the subject matter of the invention can be applied not only in the combination given in each particular case but also in other combinations, without leaving the scope of the invention.

The organic moieties mentioned in the definition of the variables, e.g. A, A.1, R^A, R^{A4}, R^b, R^1, R^2, R^3, R^4, X are - like the term halogen - collective terms for individual enumerations of the individual group members. The term halogen denotes in each case fluorine, chlorine, bromine or iodine. All hydrocarbon chains, i.e. all alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, (alkyl)amino, di(alkyl)amino, alkoxyalkyl, (alky)carbonyl, (alkoxy)carbonyl chains can be straight-chain or branched, the prefix C_n-C_m denoting in each case the possible number of carbon atoms in the group. The same applies to composed radicals, such as cycloalkylalkyl and phenylalkyl.

Examples of such meanings are:

- C_1-C_4-alkyl: for example CH_3, C_2H_5, n-propyl, $CH(CH_3)_2$, n-butyl, $CH(CH_3)$–C_2H_5, CH_2–$CH(CH_3)_2$ and $C(CH_3)_3$;
- C_1-C_6-alkyl and also the C_1-C_6-alkyl moieties of (C_1-C_6-alkyl)carbonyl, C_1-C_6-alkyoxy-C_1-C_6-alkyl, C_3-C_6-cycloalkyl-C_1-C_6-alky, phenyl-C_1-C_6-alkyl, C_1-C_4-alkyl as mentioned above, and also, for example, n-pentyl, 1-methylbutyl, 2-methylbutyl, 3-methylbutyl, 2,2-dimethylpropyl, 1-ethylpropyl, n-hexyl, 1,1-dimethylpropyl, 1,2-dimethylpropyl, 1-methylpentyl, 2-methylpentyl, 3-methylpentyl, 4-methylpentyl, 1,1-dimethylbutyl, 1,2-dimethylbutyl, 1,3-dimethylbutyl, 2,2-dimethylbutyl, 2,3-dimethylbutyl, 3,3-dimethylbutyl, 1-ethylbutyl, 2-ethylbutyl, 1,1,2-trimethylpropyl, 1,2,2-trimethylpropyl, 1-ethyl-1-methylpropyl or 1-ethyl-2-methylpropyl, preferably methyl, ethyl, n–propyl, 1–methylethyl, n–butyl, 1,1–dimethylethyl, n–pentyl or n–hexyl;
- C_2-C_6-alkenyl: a linear or branched ethylenically unsaturated hydrocarbon group having 2 to 6 carbon atoms and a C=C-double bond in any position, such as ethenyl, 1-propenyl, 2-propenyl, 1-methyl-ethenyl, 1-butenyl, 2-butenyl, 3-butenyl, 1-methyl-1-propenyl, 2-methyl-1-propenyl, 1-methyl-2-propenyl, 2-methyl-2-propenyl, 1-pentenyl, 2-pentenyl, 3-pentenyl, 4-

pentenyl, 1-methyl-1-butenyl, 2-methyl-1-butenyl, 3-methyl-1-butenyl, 1-methyl-2-butenyl, 2-methyl-2-butenyl, 3-methyl-2-butenyl, 1-methyl-3-butenyl, 2-methyl-3-butenyl, 3-methyl-3-butenyl, 1,1-dimethyl-2-propenyl, 1,2-dimethyl-1-propenyl, 1,2-dimethyl-2-propenyl, 1-ethyl-1-propenyl, 1-ethyl-2-propenyl, 1-hexenyl, 2-hexenyl, 3-hexenyl, 4-hexenyl, 5-hexenyl, 1-methyl-1-pentenyl, 2-methyl-1-pentenyl, 3-methyl-1-pentenyl, 4-methyl-1-pentenyl, 1-methyl-2-pentenyl, 2-methyl-2-pentenyl, 3-methyl-2-pentenyl, 4-methyl-2-pentenyl, 1-methyl-3-pentenyl, 2-methyl-3-pentenyl, 3-methyl-3-pentenyl, 4-methyl-3-pentenyl, 1-methyl-4-pentenyl, 2-methyl-4-pentenyl, 3-methyl-4-pentenyl, 4-methyl-4-pentenyl, 1,1-dimethyl-2-butenyl, 1,1-dimethyl-3-butenyl, 1,2-dimethyl-1-butenyl, 1,2-dimethyl-2-butenyl, 1,2-dimethyl-3-butenyl, 1,3-dimethyl-1-butenyl, 1,3-dimethyl-2-butenyl, 1,3-dimethyl-3-butenyl, 2,2-dimethyl-3-butenyl, 2,3-dimethyl-1-butenyl, 2,3-dimethyl-2-butenyl, 2,3-dimethyl-3-butenyl, 3,3-dimethyl-1-butenyl, 3,3-dimethyl-2-butenyl, 1-ethyl-1-butenyl, 1-ethyl-2-butenyl, 1-ethyl-3-butenyl, 2-ethyl-1-butenyl, 2-ethyl-2-butenyl, 2-ethyl-3-butenyl, 1,1,2-trimethyl-2-propenyl, 1-ethyl-1-methyl-2-propenyl, 1-ethyl-2-methyl-1-propenyl and 1-ethyl-2-methyl-2-propenyl;

- C_2-C_6-alkynyl: linear or branched unsaturated hydrocarbon group having 2 to 6 carbon atoms and containing at least one C-C-triple bond, such as ethynyl, propynyl, 1-butynyl, 2-butynyl, and the like;
- C_1-C_4-haloalkyl: a C_1-C_4-alkyl radical as mentioned above which is partially or fully substituted by fluorine, chlorine, bromine and/or iodine, for example, chloro-methyl, dichloromethyl, trichloromethyl, fluoromethyl, difluoromethyl, trifluoromethyl, chlorofluoromethyl, dichlorofluoromethyl, chlorodifluoromethyl, bromomethyl, iodomethyl, 2-fluoroethyl, 2-chloroethyl, 2-bromoethyl, 2-iodoethyl, 2,2-difluoroethyl, 2,2,2-trifluoroethyl, 2-chloro-2-fluoroethyl, 2-chloro-2,2-difluoroethyl, 2,2-dichloro-2-fluoroethyl, 2,2,2-trichloroethyl, pentafluoroethyl, 2-fluoropropyl, 3-fluoropropyl, 2,2-difluoropropyl, 2,3-difluoropropyl, 2-chloropropyl, 3-chloropropyl, 2,3-dichloropropyl, 2-bromopropyl, 3-bromopropyl, 3,3,3-trifluoropropyl, 3,3,3-trichloropropyl, 2,2,3,3,3-pentafluoropropyl, heptafluoropropyl, 1-(fluoromethyl)-2-fluoroethyl, 1-(chloromethyl)-2-chloroethyl, 1-(bromomethyl)-2-bromoethyl, 4-fluorobutyl, 4-chlorobutyl, 4-bromobutyl, nonafluorobutyl, 1,1,2,2,-tetrafluoroethyl and 1-trifluoromethyl-1,2,2,2-tetrafluoroethyl;
- C_1-C_6-haloalkyl: C_1-C_4-haloalkyl as mentioned above, and also, for example, 5-fluoropentyl, 5-chloropentyl, 5-bromopentyl, 5-iodopentyl, undecafluoropentyl, 6-fluorohexyl, 6-chlorohexyl, 6-bromohexyl, 6-iodohexyl and dodecafluorohexyl;
- C_3-C_6-cycloalkyl: monocyclic saturated hydrocarbons having 3 to 6 ring members, such as cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl;
- C_1-C_4-alkoxy: for example methoxy, ethoxy, propoxy, 1-methylethoxy butoxy, 1-methylpropoxy, 2-methylpropoxy and 1,1-dimethylethoxy;
- C_1-C_6-alkoxy and also the C_1-C_6-alkoxy moieties of (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl: C_1-C_4-alkoxy as mentioned above, and also, for example, pentoxy, 1-methylbutoxy, 2-methylbutoxy, 3-methoxylbutoxy, 1,1-dimethylpropoxy, 1,2-dimethylpropoxy, 2,2-dimethylpropoxy, 1-ethylpropoxy, hexoxy, 1-methylpentoxy, 2-methylpentoxy, 3-methylpentoxy, 4-methylpentoxy, 1,1-dimethylbutoxy, 1,2-dimethylbutoxy, 1,3-dimethylbutoxy, 2,2-dimethylbutoxy, 2,3-dimethylbutoxy, 3,3-dimethylbutoxy, 1-ethylbutoxy, 2-ethylbutoxy, 1,1,2-trimethylpropoxy, 1,2,2-trimethylpropoxy, 1-ethyl-1-methylpropoxy and 1-ethyl-2-methylpropoxy;
- C_1-C_4-haloalkoxy: a C_1-C_4-alkoxy radical as mentioned above which is partially or fully

substituted by fluorine, chlorine, bromine and/or iodine, for example, chloro-methoxy, dichloromethoxy, trichloromethoxy, fluoromethoxy, difluoromethoxy, trifluoromethoxy, chlorofluoromethoxy, dichlorofluoromethoxy, chlorodifluoromethoxy2-fluoroethoxy, 2-chloroethoxy, 2-bromoethxoy, 2,2-difluoroethoxy, 2,2,2-trifluoroethoxy, 2-chloro-2-fluoroethoxy, 2-chloro-2,2-difluoroethoxy, 2,2-dichloro-2-fluoroethoxy, 2,2,2-trichloroethoxy, pentafluoroethoxy, 2-fluoropropoxy, 3-fluoropropoxy, 2,2-difluoropropoxy, 2,3-difluoropropoxy, 2-chloropropoxy, 3-chloropropoxy, 2,3-dichloropropoxy, 3,3,3-trifluoropropoxy, 3,3,3-trichloropropoxy, 2,2,3,3,3-pentafluoropropoxy, heptafluoropropoxy, 1-(fluoromethyl)-2-fluoroethoxy, 4-fluorobutoxy, nonafluorobutoxy, 1,1,2,2,-tetrafluoroethoxy and 1-trifluoromethyl-1,2,2,2-tetrafluoroethoxy;

- C_1-C_6-haloalkoxy: C_1-C_4-alkoxy as mentioned above: C_1-C_4-haloalkoxy as mentioned above, and also, for example, 5-fluoropentyl, 5-chloropentyl, 5-bromopentyl, 5-iodopentyl, undecafluoropentyl, 6-fluorohexyl, 6-chlorohexyl, 6-bromohexyl, 6-iodohexyl and dodecafluorohexyl;
- C_2-C_6-alkenyloxy: is a C_2-C_6-alkenyl group, as defined above, attached via an oxygen atom, for example ethenyloxy, propen-1-yloxy, allyloxy (propen-2-yl-oxy), buten-1-oxy, buten-2-oxy, buten-3-oxy, and the like;
- C_2-C_6-haloalkenyloxy: is a C_2-C_6-haloalkenyl group, as defined above, attached via an oxygen atom;
- C_2-C_6-alkynyloxy: is a C_2-C_6-alkynyl group, as defined above, attached via an oxygen atom, for example ethynyloxy, propyn-1-yloxy, propargyloxy (propyn-2-yl-oxy), butyn-1-oxy, butyn-2-oxy, butyn-3-oxy, and the like;
- C_2-C_6-haloalkynyloxy: is a C_2-C_6-haloalkynyl group, as defined above, attached via an oxygen atom;
- C_1-C_4-alkoxy-C_1-C_4-alkyl: refers to a straight-chain or branched alkyl group having 1 to 4 carbon atoms, as defined above, where one hydrogen atom is replaced by a C_1-C_4-alkoxy group, as defined above;
- C_1-C_6-alkoxy-C_1-C_4-alkyl: refers to a straight-chain or branched alkyl group having 1 to 4 carbon atoms, as defined above, where one hydrogen atom is replaced by a C_1-C_6-alkoxy group, as defined above, for example methoxymethyl, ethoxymethyl, propoxymethyl, isopropoxymethyl, n-butoxymethyl, sec-butoxymethyl, isobutoxymethyl, tert-butoxymethyl, 1-methoxyethyl, 1-ethoxyethyl, 1-propoxyethyl, 1-isopropoxyethyl, 1-n-butoxyethyl, 1-sec-butoxyethyl, 1-isobutoxyethyl, 1-tert-butoxyethyl, 2-methoxyethyl, 2-ethoxyethyl, 2-propoxyethyl, 2-isopropoxyethyl, 2-n-butoxyethyl, 2-sec-butoxyethyl, 2-isobutoxyethyl, 2-tert-butoxyethyl, 1-methoxypropyl, 1-ethoxypropyl, 1-propoxypropyl, 1-isopropoxypropyl, 1-n-butoxypropyl, 1-sec-butoxypropyl, 1-isobutoxypropyl, 1-tert-butoxypropyl, 2-methoxypropyl, 2-ethoxypropyl, 2-propoxypropyl, 2-isopropoxypropyl, 2-n-butoxypropyl, 2-sec-butoxypropyl, 2-isobutoxypropyl, 2-tert-butoxypropyl, 3-methoxypropyl, 3-ethoxypropyl, 3-propoxypropyl, 3-isopropoxypropyl, 3-n-butoxypropyl, 3-sec-butoxypropyl, 3-isobutoxypropyl, 3-tert-butoxypropyl and the like;
- C_1-C_4-alkoxy-methyl: refers to methyl in which one hydrogen atom is replaced by a C_1-C_4-alkoxy group, as defined above;
- C_1-C_6-alkoxy-methyl: refers to methyl in which one hydrogen atom is replaced by a C_1-C_6-alkoxy group, as defined above, for example methoxymethyl, ethoxymethyl, propoxymethyl,

isopropoxymethyl, n-butoxymethyl, sec-butoxymethyl, isobutoxymethyl, tert-butoxymethyl, pentyloxymethyl, hexyloxymethyl and the like;

- C_1-C_6-haloalkoxy-C_1-C_4-alkyl: is a straight-chain or branched alkyl group having from 1 to 4 carbon atoms, wherein one of the hydrogen atoms is replaced by a C_1-C_6-alkoxy group and wherein at least one, e.g. 1, 2, 3, 4 or all of the remaining hydrogen atoms (either in the alkoxy moiety or in the alkyl moiety or in both) are replaced by halogen atoms;
- C_1-C_4-haloalkoxy-C_1-C_4-alkyl is a straight-chain or branched alkyl group having from 1 to 4 carbon atoms, wherein one of the hydrogen atoms is replaced by a C_1-C_4-alkoxy group and wherein at least one, e.g. 1, 2, 3, 4 or all of the remaining hydrogen atoms (either in the alkoxy moiety or in the alkyl moiety or in both) are replaced by halogen atoms, for example difluoromethoxymethyl (CHF_2OCH_2), trifluoromethoxymethyl, 1-difluoromethoxyethyl, 1-trifluoromethoxyethyl, 2-difluoromethoxyethyl, 2-trifluoromethoxyethyl, difluoro-methoxy-methyl (CH_3OCF_2), 1,1-difluoro-2-methoxyethyl, 2,2-difluoro-2-methoxyethyl and the like;
- (C_1-C_6-alkoxy)-C_1-C_6-alkoxy: is a C_1-C_6-alkoxy group, in particular C_1-C_4-alkoxy as defined above, such as methoxy or ethoxy, wherein 1 hydrogen atom is replaced by C_1-C_6-alkoxy as defined above, examples including methoxymethoxy, ethoxymethoxy, n-propoxymethoxy, butoxymethoxy, 2-methoxyethoxy, 2-ethoxyethoxy, 2-(n-propoxy)ethoxy and 2-butoxyethoxy;
- (C_1-C_6-alkoxy)-C_2-C_6-alkenyl: is a C_1-C_6-alkoxy group, in particular C_1-C_4-alkoxy as defined above, such as methoxy or ethoxy, wherein 1 hydrogen atom is replaced by C_2-C_6-alkenyl as defined above;
- (C_1-C_6-alkoxy)-C_2-C_6-alkynyl: is a C_1-C_6-alkoxy group, in particular C_1-C_4-alkoxy as defined above, such as methoxy or ethoxy, wherein 1 hydrogen atom is replaced by C_2-C_6-alkynyl as defined above;
- alkylcarbonyl: is a C_1-C_6-alkyl ("C_1-C_6-alkylcarbonyl"), preferably a C_1-C_4-alkyl ("C_1-C_4-alkylcarbonyl") group, as defined above, attached via a carbonyl [C(=O)] group, for example acetyl (methylcarbonyl), propionyl (ethylcarbonyl), propylcarbonyl, isopropylcarbonyl, n-butylcarbonyl and the like;
- haloalkylcarbonyl: is a C_1-C_6-haloalkyl ("C_1-C_6-haloalkylcarbonyl"), preferably a C_1-C_4-haloalkyl ("C_1-C_4-haloalkylcarbonyl") group, as defined above, attached via a carbonyl [C(=O)] group, for eample trifluoromethylcarbonyl, 2,2,2-trifluoroethylcarbonyl and the like;
- alkoxycarbonyl: is a C_1-C_6-alkoxy ("C_1-C_6-alkoxycarbonyl"), preferably a C_1-C_4-alkoxy ("C_1-C_4-alkoxycarbonyl") group, as defined above, attached via a carbonyl [C(=O)] group, for example methoxycarbonyl, ethoxycarbonyl, propoxycarbonyl, isopropoxycarbonyl, n-butoxycarbonyl and the like;
- haloalkoxycarbonyl: is a C_1-C_6-haloalkoxy ("C_1-C_6-haloalkoxycarbonyl"), preferably a C_1-C_4-haloalkoxy ("C_1-C_4-haloalkoxycarbonyl") group, as defined above, attached via a carbonyl [C(=O)] group, for example trifluoromethoxycarbonyl, 2,2,2-trifluoroethoxycarbonyl and the like;
- C_1-C_4-alkylthio: for example methylthio, ethylthio, propylthio, 1-methylethylthio, butylthio, 1-methylpropylthio, 2-methylpropylthio and 1,1-dimethylethylthio;
- C_1-C_6-alkylthio: C_1-C_4-alkylthio as mentioned above, and also, for example, pentylthio, 1-methylbutylthio, 2-methylbutylthio, 3-methylbutylthio, 2,2-dimethylpropylthio, 1-ethylpropylthio,

hexylthio, 1,1-dimethylpropylthio, 1,2-dimethylpropylthio, 1-methylpentylthio, 2-methylpentylthio, 3-methylpentylthio, 4-methylpentylthio, 1,1-dimethylbutylthio, 1,2-dimethylbutylthio, 1,3-dimethylbutylthio, 2,2-dimethylbutylthio, 2,3-dimethylbutylthio, 3,3-dimethylbutylthio, 1-ethylbutylthio, 2-ethylbutylthio, 1,1,2-trimethylpropylthio, 1,2,2-trimethylpropylthio, 1-ethyl-1-methylpropylthio and 1- ethyl-2-methylpropylthio;

- C_1-C_6-alkylsulfinyl (C_1-C_6-alkyl-S(=O)-): z.B. methylsulfinyl, ethylsulfinyl, propylsulfinyl, 1-methylethylsulfinyl, butylsulfinyl, 1-methylpropylsulfinyl, 2-methylpropylsulfinyl, 1,1-dimethylethylsulfinyl, pentylsulfinyl, 1-methylbutylsulfinyl, 2-methylbutylsulfinyl, 3-methylbutylsulfinyl, 2,2-dimethylpropylsulfinyl, 1-ethylpropylsulfinyl, 1,1-dimethylpropylsulfinyl, 1,2-dimethylpropylsulfinyl, hexylsulfinyl, 1-methylpentylsulfinyl, 2-methylpentylsulfinyl, 3-methylpentylsulfinyl, 4-methylpentyl-sulfinyl, 1,1-dimethylbutylsulfinyl, 1,2-dimethylbutylsulfinyl, 1,3-dimethylbutyl-sulfinyl, 2,2-dimethylbutylsulfinyl, 2,3-dimethylbutylsulfinyl, 3,3-dimethylbutyl-sulfinyl, 1-ethylbutylsulfinyl, 2-ethylbutylsulfinyl, 1,1,2-trimethylpropylsulfinyl, 1,2,2-trimethylpropylsulfinyl, 1-ethyl-1-methylpropylsulfinyl and 1-ethyl-2-methylpropylsulfinyl;
- C_1-C_6-alkylsulfonyl (C_1-C_6-alkyl-S(O)$_2$-): for example methylsulfonyl, ethylsulfonyl, propyl-sulfonyl, 1-methylethylsulfonyl, butylsulfonyl, 1-methylpropylsulfonyl, 2-methyl-propylsulfonyl, 1,1-dimethylethylsulfonyl, pentylsulfonyl, 1-methylbutylsulfonyl, 2-methylbutylsulfonyl, 3-methylbutylsulfonyl, 1,1-dimethylpropylsulfonyl, 1,2-dimethylpropylsulfonyl, 2,2-dimethylpropylsulfonyl, 1-ethylpropylsulfonyl, hexylsulfonyl, 1-methylpentylsulfonyl, 2-methylpentylsulfonyl, 3-methylpentylsulfonyl, 4-methylpentylsulfonyl, 1,1-dimethylbutylsulfonyl, 1,2-dimethylbutylsulfonyl, 1,3-dimethylbutylsulfonyl, 2,2-dimethylbutylsulfonyl, 2,3-dimethyl-butylsulfonyl, 3,3-dimethylbutylsulfonyl, 1-ethylbutylsulfonyl, 2-ethylbutylsulfonyl, 1,1,2-trimethyl-propylsulfonyl, 1,2,2-trimethylpropylsulfonyl, 1-ethyl-1-methylpropylsulfonyl and 1-ethyl-2-methylpropylsulfonyl;
- (C_1-C_4-alkyl)amino: for example methylamino, ethylamino, propylamino, 1-methylethylamino, butylamino, 1-methylpropylamino, 2-methylpropylamino or 1,1-dimethylethylamino;
- (C_1-C_6-alkyl)amino: (C_1-C_4-alkylamino) as mentioned above, and also, for example, pentylamino, 1-methylbutylamino, 2-methylbutylamino, 3-methylbutylamino, 2,2-dimethylpropylamino, 1-ethylpropylamino, hexylamino, 1,1-dimethylpropylamino, 1,2-dimethylpropylamino, 1-methylpentylamino, 2-methylpentylamino, 3-methylpentylamino, 4-methylpentylamino, 1,1-dimethylbutylamino, 1,2-dimethylbutylamino, 1,3-dimethylbutylamino, 2,2-dimethylbutylamino, 2,3-dimethylbutyl-amino 3,3-dimethylbutylamino, 1-ethylbutylamino, 2-ethylbutylamino, 1,1,2-trimethylpropylamino, 1,2,2-trimethyl-propylamino, 1-ethyl-1-methylpropylamino or 1-ethyl-2-methylpropylamino;
- di(C_1-C_4-alkyl)amino: for example N,N-dimethylamino, N,N-diethylamino, N,N-di(1-methylethyl)amino, N,N-dipropylamino, N,N-dibutylamino, N,N-di(1-methylpropyl)amino, N,N-di(2-methylpropyl)amino, N,N-di(1,1-dimethylethyl)amino, N-ethyl-N-methylamino, N-methyl-N-propylamino, N-methyl-N-(1-methylethyl)amino, N-butyl-N-methylamino, N-methyl-N-(1-methylpropyl)amino, N-methyl-N-(2-methylpropyl)amino, N-(1,1-dimethylethyl)-N-methylamino, N-ethyl-N-propylamino, N-ethyl-N-(1-methylethyl)amino, N-butyl-N-ethylamino, N-ethyl-N-(1-

methylpropyl)amino, N-ethyl-N-(2-methylpropyl)amino, N-ethyl-N-(1,1-dimethylethyl)amino, N-(1-methylethyl)-N-propylamino, N-butyl-N-propylamino, N-(1-methylpropyl)-N-propylamino, N-(2-methylpropyl)-N-propylamino, N-(1,1-dimethylethyl)-N-propylamino, N-butyl-N-(1-methylethyl)amino, N-(1-methylethyl)-N-(1-methylpropyl)amino, N-(1-methylethyl)-N-(2-methylpropyl)amino, N-(1,1-dimethylethyl)-N-(1-methylethyl)amino, N-butyl-N-(1-methylpropyl)amino, N-butyl-N-(2-methylpropyl)amino, N-butyl-N-(1,1-dimethylethyl)amino, N-(1-methylpropyl)-N-(2-methylpropyl)amino, N-(1,1-dimethylethyl)-N-(1-methylpropyl)amino or N-(1,1-dimethylethyl)-N-(2-methylpropyl)amino;

- di(C_1-C_6-alkyl)amino: di(C_1-C_4-alkyl)amino as mentioned above, and also, for example, N-methyl-N-pentylamino, N-methyl-N-(1-methylbutyl)amino, N-methyl-N-(2-methylbutyl)amino, N-methyl-N-(3-methylbutyl)amino, N-methyl-N-(2,2-dimethylpropyl)amino, N-methyl-N-(1-ethylpropyl)amino, N-methyl-N-hexylamino, N-methyl-N-(1,1-dimethylpropyl)amino, N-methyl-N-(1,2-dimethylpropyl)amino, N-methyl-N-(1-methylpentyl)amino, N-methyl-N-(2-methylpentyl)amino, N-methyl-N-(3-methylpentyl)amino, N-methyl-N-(4-methylpentyl)amino, N-methyl-N-(1,1-dimethylbutyl)amino, N-methyl-N-(1,2-dimethylbutyl)amino, N-methyl-N-(1,3-dimethylbutyl)amino, N-methyl-N-(2,2-dimethylbutyl)amino, N-methyl-N-(2,3-dimethylbutyl)amino, N-methyl-N-(3,3-dimethylbutyl)amino, N-methyl-N- (1-ethylbutyl)amino, N-methyl-N-(2-ethylbutyl)amino, N-methyl-N-(1,1,2-trimethylpropyl)amino, N-methyl-N- (1,2,2-trimethylpropyl)amino, N-methyl-N-(1-ethyl-1-methylpropyl)amino, N-methyl-N- (1-ethyl-2-methylpropyl)amino, N-ethyl-N-pentylamino, N-ethyl-N-(1-methylbutyl)amino, N-ethyl-N-(2-methylbutyl)amino, N-ethyl-N-(3-methylbutyl)amino, N-ethyl-N-(2,2-dimethylpropyl)amino, N-ethyl-N-(1-ethylpropyl)amino, N-ethyl-N-hexylamino, N-ethyl-N-(1,1-dimethylpropyl)amino, N-ethyl-N-(1,2-dimethylpropyl)amino, N-ethyl-N-(1-methylpentyl)amino, N-ethyl-N-(2-methylpentyl)amino, N-ethyl-N-(3-methylpentyl)amino, N-ethyl-N-(4-methylpentyl)amino, N-ethyl-N-(1,1-dimethylbutyl)amino, N-ethyl-N-(1,2-dimethylbutyl)amino, N-ethyl-N-(1,3-dimethylbutyl)amino, N-ethyl-N-(2,2-dimethylbutyl)amino, N-ethyl-N-(2,3-dimethylbutyl)amino, N-ethyl-N-(3,3-dimethylbutyl)amino, N-ethyl-N-(1-ethylbutyl)amino, N-ethyl-N-(2-ethylbutyl)amino, N-ethyl-N-(1,1,2-trimethylpropyl)amino, N-ethyl-N-(1,2,2-trimethylpropyl)amino, N-ethyl-N-(1-ethyl-1-methylpropyl)amino, N-ethyl-N-(1-ethyl-2-methylpropyl)amino, N-propyl-N-pentylamino, N-butyl-N-pentylamino, N,N-dipentylamino, N-propyl-N-hexylamino, N-butyl-N-hexylamino, N-pentyl-N-hexylamino or N,N-dihexylamino;

- C_3-C_6-cyclolalkyl: a cycloaliphatic radical having 3 to 6 carbon atoms, such as cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl;

- C_3-C_6-cyclolalkyl-C_1-C_6-alkyl: C_1-C_6-alkyl, in particular C_1-C_4-alkyl as defined above, such as methyl or ethyl, wherein 1 hydrogen atom is replaced by C_3-C_6-cyclolalkyl as defined above, examples including cyclopropylmethyl (CH_2-cyclopropyl), cyclobutylmethyl, cyclopentylmethyl, cycloexylmethyl, 1-cyclopropylethyl ($CH(CH_3)$-cyclopropyl), 1-cyclobutylethyl, 1-cyclopentylethyl, 1-cycloexylethyl, 1-cyclopropylethyl ($CH(CH_3)$-cyclopropyl), 1-cyclobutylethyl, 1-cyclopentylethyl or 1-cycloexylethyl;

- C_3-C_6-cycloalkoxy: is a C_3-C_6-cycloalkyl group, as defined above, which is attached via an oxygen atom, C_3-C_8-cycloalkoxy: is a C_3-C_8-cycloalkyl group, as defined above, which is at-

tached via an oxygen atom, for example C_3-C_6-cycloalkoxy comprise cyclopropoxy, cyclobutoxy, cyclopentoxy and cyclohexoxy, for example C_3-C_8-cycloalkoxy comprise, in addition to those mentioned for C_3-C_6-cycloalkoxy, cycloheptoxy and cyclooctyloxy;

- C_3-C_6-halocycloalkoxy: is a C_3-C_6-halocycloalkyl group, as defined above, which is attached via an oxygen atom, C_3-C_8-halocycloalkoxy: is a C_3-C_8-halocycloalkyl group, as defined above, which is attached via an oxygen atom;
- C_3-C_8-Cycloalkyl-C_1-C_4-alkoxy: is C_1-C_4-alkoxy, as defined above wherein one of the hydrogen atoms is replaced by a C_3-C_8-cycloalkyl group;
- C_3-C_8-Halocycloalkyl-C_1-C_4-alkoxy: is C_1-C_4-alkoxy, as defined above wherein one of the hydrogen atoms is replaced by a C_3-C_8-cycloalkyl group and wherein at least one, e.g. 1, 2, 3, 4 or all of the remaining hydrogen atoms (either in the cycloalkyl moiety or in the alkoxy moiety or in both) are replaced by halogen atoms;
- aminocarbonyl: is a group -C(O)-NH_2;
- C_1-C_6-alkylaminocarbonyl: is a group -C(O)-N(H)C_1-C_6-alkyl, for example methylaminocarbonyl, ethylaminocarbonyl, propylaminocarbonyl, isopropylaminocarbonyl, butylaminocarbonyl and the like;
- di-(C_1-C_6-alkyl)-aminocarbonyl: is a group -C(O)-N(C_1-C_6-alkyl)$_2$, for example dimethylaminocarbonyl, diethylaminocarbonyl, ethylmethylaminocarbonyl, dipropylaminocarbonyl, diisopropylaminocarbonyl, methylpropylaminocarbonyl, methylisopropylaminocarbonyl, ethylpropylaminocarbonyl, ethylisopropylaminocarbonyl, dibutylaminocarbonyl and the like;
- C_1-C_6-alkylaminosulfonyl: is a C_1-C_6-alkylamino group as mentioned above, which is bound to the remainder of the molecule by a sulfonyl group ($S(O)_2$);
- di-(C_1-C_6-alkyl)-aminosulfonyl: is a di-(C_1-C_6-alkyl)-amino group as mentioned above, which is bound to the remainder of the molecule by a sulfonyl group;
- C_1-C_6-alkoxysulfonyl: is a C_1-C_6-alkoxy group as mentioned above, which is bound to the remainder of the molecule by a sulfonyl group;
- phenyl-C_1-C_6-alkyl: C_1-C_6-alkyl, in particular C_1-C_4-alkyl as defined above, such as methyl or ethyl, wherein 1 hydrogen atom is replaced by phenyl, examples including benzyl, 1-phenylethyl, 2-phenylethyl, 1-phenylpropyl, 2-phenylpropyl, 1-phenyl-1-methylethyl etc.;
- phenylsulfonyl: is a phenyl group as mentioned above, which is bound to the remainder of the molecule by a sulfonyl group;
- phenylcarbonyl: is a phenyl group, which is bound to the reminder molecule by a carbonyl group;
- phenoxycarbonyl: is a phenoxy group, which is bound to the reminder molecule by a carbonyl group;
- phenylaminosulfonyl: is a group -$S(O)_2$-NH-R, where R is phenyl;
- three- to six-membered heterocyclyl: monocyclic saturated, partially unsaturated or aromatic ring having three to six ring members as mentioned above which, in addition to carbon atoms, contains one or two heteroatoms selected from O, S and N;

for example

saturated heterocyclies such as 2-oxiranyl, 2-oxetanyl, 3-oxetanyl, 2-aziridinyl, 3-thietanyl, 1-azetidinyl, 2-azetidinyl, 2-tetrahydrofuranyl, 3-tetrahydrofuranyl, 2-tetrahydrothienyl, 3-tetrahydrothienyl, 2-pyrrolidinyl, 3-pyrrolidinyl, 3-isoxazolidinyl, 4-isoxazolidinyl, 5-isoxazolidinyl, 3-isothiazolidinyl, 4-isothiazolidinyl, 5-isothiazolidinyl, 3-pyrazolidinyl, 4-pyrazolidinyl, 5-pyrazolidinyl, 2-oxazolidinyl, 4-oxazolidinyl, 5-oxazolidinyl, 2-thiazolidinyl, 4-thiazolidinyl, 5-thiazolidinyl, 2-imidazolidinyl, 4-imidazolidinyl, 2-piperidinyl, 3-piperidinyl, 4-piperidinyl, 1,3-dioxan-2-yl, 1,3-dioxan-4-yl, 1,3–dioxan–5–yl, 1,4-dioxan-2-yl, 1,3-dithian-2-yl, 1,3-dithian-4-yl, 1,4-dithian-2-yl, 1,3-dithian-5-yl, 2–tetrahydropyranyl, 3-tetrahydropyranyl, 4-tetrahydropyranyl, 2–tetrahydrothiopyranyl, 3-tetrahydrothiopyranyl, 4–tetrahydro-thiopyranyl, 3-hexahydropyridazinyl, 4-hexahydropyridazinyl, 2-hexahydropyrimidinyl, 4-hexahydropyrimidinyl, 5-hexahydropyrimidinyl, 2-piperazinyl, tetrahydro-1,3-oxazin-2-yl, tetrahydro-1,3-oxazin-6-yl, 2-morpholinyl, 3-morpholinyl or 4-morpholinyl, for example 2H-pyran-2-yl, 2H-pyran-3-yl, 2H-pyran-4-yl, 2H-pyran-5-yl, 2H-pyran-6-yl, 2H-thiopyran-2-yl, 2H-thiopyran-3-yl, 2H-thiopyran-4-yl, 2H-thiopyran-5-yl, 2H-thiopyran-6-yl;

partially unsaturated heterocycles such as 2,3-dihydrofur-2-yl, 2,3-dihydrofur-3-yl, 2,4-dihydrofur-2-yl, 2,4-dihydrofur-3-yl, 2,3-dihydrothien-2-yl, 2,3-dihydrothien-3-yl, 2,4-dihydrothien-2-yl, 2,4-dihydrothien-3-yl, 4,5-dihydropyrrol-2-yl, 4,5-dihydropyrrol-3-yl, 2,5-dihydropyrrol-2-yl, 2,5-dihydropyrrol-3-yl, 4,5-dihydroisoxazol-3-yl, 2,5-dihydroisoxazol-3-yl, 2,3-dihydroisoxazol-3-yl, 4,5-dihydroisoxazol-4-yl, 2,5-dihydroisoxazol-4-yl, 2,3-dihydroisoxazol-4-yl, 4,5-dihydroisoxazol-5-yl, 2,5-dihydroisoxazol-5-yl, 2,3-dihydroisoxazol-5-yl, 4,5-dihydroisothiazol-3-yl, 2,5-dihydroisothiazol-3-yl, 2,3-dihydroisothiazol-3-yl, 4,5-dihydroisothiazol-4-yl, 2,5-dihydroisothiazol-4-yl, 2,3-dihydroisothiazol-4-yl, 4,5-dihydroisothiazol-5-yl, 2,5-dihydroisothiazol-5-yl, 2,3-dihydroisothiazol-5-yl, 2,3-dihydropyrazol-2-yl, 2,3-dihydropyrazol-3-yl, 2,3-dihydropyrazol-4-yl, 2,3-dihydropyrazol-5-yl, 3,4-dihydropyrazol-3-yl, 3,4-dihydropyrazol-4-yl, 3,4-dihydropyrazol-5-yl, 4,5-dihydropyrazol-3-yl, 4,5-dihydropyrazol-4-yl, 4,5-dihydropyrazol-5-yl, 2,3-dihydroimidazol-2-yl, 2,3-dihydroimidazol-3-yl, 2,3-dihydroimidazol-4-yl, 2,3-dihydroimidazol-5-yl, 4,5-dihydroimidazol-2-yl, 4,5-dihydroimidazol-4-yl, 4,5-dihydroimidazol-5-yl, 2,5-dihydroimidazol-2-yl, 2,5-dihydroimidazol-4-yl, 2,5-dihydroimidazol-5-yl, 2,3-dihydrooxazol-3-yl, 2,3-dihydrooxazol-4-yl, 2,3-dihydrooxazol-5-yl, 3,4-dihydrooxazol-3-yl, 3,4-dihydrooxazol-4-yl, 3,4-dihydrooxazol-5-yl, 2,3-dihydrothiazol-3-yl, 2,3-dihydrothiazol-4-yl, 2,3-dihydrothiazol-5-yl, 3,4-dihydrothiazol-3-yl, 3,4-dihydrothiazol-4-yl, 3,4-dihydrothiazol-5-yl, 3,4-dihydrothiazol-2-yl, 3,4-dihydrothiazol-3-yl, 3,4-dihydrothiazol-4-yl, 3,6-dihydro-2H-pyran-2-yl, 3,6-dihydro-2H-pyran-3-yl, 3,6-dihydro-2H-pyran-4-yl, 3,6-dihydro-2H-pyran-5-yl, 3,6-dihydro-2H-pyran-6-yl, 3,4-dihydro-2H-pyran-3-yl, 3,4-dihydro-2H-pyran-4-yl, 3,4-dihydro-2H-pyran-6-yl, 5,6-dihydro-4H-1,3-oxazin-2-yl;

5- or 6-membered aromatic heterocyclic rings, also termed heteroaromatic rings or hetaryl, include: 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyrrolyl, 3-pyrrolyl, 3-pyrazolyl, 4-pyrazolyl, 5-pyrazolyl, 2-oxazolyl, 4-oxazolyl, 5-oxazolyl, 2-thiazolyl, 4 thiazolyl, 5-thiazolyl, 2-imidazolyl, 4-imidazolyl, 1,3,4-triazol-2-yl, 2-pyridinyl, 3-pyridinyl, 4-pyridinyl, 3-pyridazinyl, 4-pyridazinyl, 2-pyrimidinyl, 4-pyrimidinyl, 5-pyrimidinyl and 2-pyrazinyl;

- a fused 5- or 6- membered carbocyclic or heterocyclic ring refers to a carbocyclic or heterocyclic ring as defined above fused to a phenyl ring or 6-membered hetaryl ring.

The preferred embodiments of the invention mentioned herein below have to be understood as being preferred either independently from each other or in combination with one another. Particular groups of embodiments of the invention relate to those aminotriazines of formula (I), wherein the variables A, R^1, R^2, R^3, R^4, R^b, and X, either independently of one another or in combination with one another, have the following meanings:

Particular groups of embodiments relate to the aminotriazine compounds of formula (I), wherein

X is CR^{A4}. In particular

X is CR^{A4};

R^b is F;

n 0, 1, 2 or 3, in particular 1, 2 or 3, more particularly 2 or 3;

R^A has one of the meanings as defined above, which are

in particular selected from the group consisting of halogen, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_6-alkynyl, C_2-C_6-alkenyl, C_1-C_6-alkoxy, C_3-C_6-alkenyloxy, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy, C_2-C_6-alkynyloxy, C_2-C_6-alkenyloxy or C_1-C_6-haloalkoxy;

more particularly selected from the group consisting of halogen, CN, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_4-alkenyl, C_2-C_4-alkynyl, C_1-C_4-alkoxy, C_3-C_6-alkenyloxy, C_2-C_4-alkenyloxy, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy or C_1-C_4-haloalkoxy;even more particularly selected from the group consisting of F, Cl, Br, CN, CF_3, methyl, vinyl, ethynyl and cyclopropyl, methoxy, ethoxy, isopropyloxy, allyloxy, propargyloxy, cyclopropyloxy, cyclobutyloxy, cyclopentyloxy, (cyclopropyl)methoxy or 2-butyloxy;

even more particularly selected from the group consisting of F, Cl, Br, CN, CF_3, methyl, vinyl, ethynyl and cyclopropyl;

especially selected from the group consisting of F, Cl, Br and CN; and

R^{A4} is H or has one of the meanings from R^A,

in particular selected from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_6-alkynyl, C_2-C_6-alkenyl, C_1-C_6-alkoxy, C_3-C_6-alkenyloxy, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy, C_2-C_6-alkynyloxy, C_2-C_6-alkenyloxy or C_1-C_6-haloalkoxy;

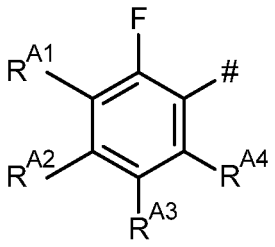
more particularly selected from the group consisting of H, halogen, CN, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_4-alkenyl, C_2-C_4-alkynyl, C_1-C_4-alkoxy, C_3-C_6-alkenyloxy, C_2-C_4-alkenyloxy, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy or C_1-C_4-haloalkoxy;

even more particularly selected from the group consisting of H, F, Cl, Br, CN, CF_3, methyl, vinyl, ethynyl and cyclopropyl, methoxy, ethoxy, isopropyloxy, allyloxy, propargyloxy, cyclopropyloxy, cyclobutyloxy, cyclopentyloxy, (cyclopropyl)methoxy or 2-butyloxy;

even more particularly selected from the group consisting of H, F, Cl, Br, CN, CF_3, methyl, vinyl, ethynyl and cyclopropyl;

especially selected from the group consisting of H, F, Cl, Br and CN.

More particularly A is a moiety of the following formula,



(A.2)

wherein # indicates the point of attachment to the oxygen;

R^{A1} is hydrogen or halogen, in particular hydrogen or fluorine;

R^{A2} is hydrogen or has one of the meanings given for R^A, and is in particular selected from the group consisting of hydrogen, halogen, CN, C_1-C_6-alkyl, C_1- C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_6-alkynyl and C_2-C_6-alkenyl;
more particularly selected from hydrogen, halogen, CN, C_1-C_4-alkyl, C_2-C_4-alkynyl, C_1-C_4-haloalkyl and C_3-C_6-cycloalkyl;
even more particularly from the group consisting of H, F, Cl, Br, I, CN, CF_3, methyl, vinyl, ethynyl and cyclopropyl;
especially selected from the group consisting of H, F, Br, I and CN;

R^{A3} is hydrogen or halogen, in particular hydrogen or fluorine;

R^{A4} is hydrogen or has one of the meanings given for R^A, and is in particular selected from the group consisting of hydrogen, halogen, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_6-alkynyl and C_2-C_6-alkenyl;
more particularly selected from halogen, CN, C_1-C_4-alkyl, C_2-C_4-alkynyl, C_1-C_4-haloalkyl and C_3-C_6-cycloalkyl;
even more particularly from the group consisting of F, Cl, Br, CN, CF_3, methyl, vinyl, ethynyl and cyclopropyl;
especially selected from the group consisting of F, Cl, Br and CN.

Especially preferred examples of A include 2,6-difluorophenyl, 2,3-difluorophenyl, 2-chloro-6-fluorophenyl, 2-bromo-6-fluorophenyl, 2-fluoro-6-methylphenyl, 2-fluoro-6-cyanophenyl, 2,3,6-trifluorophenyl, 2,4,6-trifluorophenyl, 2-chloro-4,6-difluorophenyl, 2-chloro-5,6-difluorophenyl, 3-chloro-2,6-difluorophenyl, 2-chloro-3,6-difluorophenyl, 2,3-difluoro-6-cyanophenyl, 2,6-difluoro-3-cyanophenyl, 2,5-difluoro-6-cyanophenyl, 2,4-difluoro-6-cyanophenyl, 2,3,4,6-tetrafluorophenyl, 2,3,4,5-tetrafluorophenyl, 2,3,5,6-tetrafluorophenyl, 2-chloro-3,4,6-trifluorophenyl, 2-chloro-3,5,6-trifluorophenyl, 3-chloro-2,4,6-trifluorophenyl, 3-chloro-2,5,6-trifluorophenyl, 6-cyano-2,4,5-trifluorophenyl, 3-cyano-2,4,6-trifluorophenyl, 6-cyano-2,3,4-trifluorophenyl, 6-cyano-2,3,5-trifluorophenyl, 3-cyano-2,5,6-trifluorophenyl, pentafluorophenyl, 2-chloro-3,4,5,6-tetrafluorophenyl, 3-chloro-2,4,5,6-tetrafluorophenyl, 6-cyano-2,3,4,5-tetrafluorophenyl, 5-cyano-2,3,4,6-tetrafluorophenyl, 4-bromo-2,3,5,6-tetrafluorophenyl, 4-iodo-2,3,5,6-tetrafluorophenyl, 4-ethynyl-2,3,5,6-tetrafluorophenyl, 3-chloro-2-fluoro-6-(trifluoromethyl)phenyl, 2,3,5,6-tetrafluoro-4-iodophenyl, 2,3,5,6-tetrafluoro-4-bromophenyl and

2,3,5,6-tetrafluoro-4-chlorophenyl, preferably 2,3,4,5,6-pentafluorophenyl, 2,3,6-trifluorophenyl, 2,3-difluorophenyl, 2,3,5,6-tetrafluorophenyl, 2,4,5,6-tetrafluorophenyl, 2,3,5,6-tetrafluoro-4-iodophenyl, 2,3,5,6-tetrafluoro-4-bromophenyl and 2,3,5,6-tetrafluoro-4-chlorophenyl, with particular preference given to 2,6-difluorophenyl, 2,3,6-trifluorophenyl, 2,3,5,6-tetrafluorophenyl and 2,3,4,5,6-pentafluorophenyl.

Other particular groups of embodiments relate to the aminotriazine compounds of formula (I), wherein

X is N; R^A and R^b has one of the meanings as defined above. In particular

X is N;

R^b is selected from halogen in particular F;

n is 0, 1, 2 or 3, in particular 1, 2 or 3;

R^A has one of the meanings as defined above, which are preferably selected from the group consisting of halogen, CN, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy, C_2-C_6-alkynyl, C_2-C_6-alkenyl, C_2-C_6-alkynyloxy, C_2-C_6-alkenyloxy or C_1-C_6-haloalkoxy;

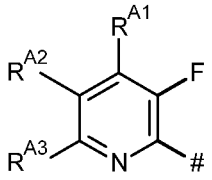
particularly selected from the group consisting of halogen, CN, C_1-C_6-alkyl, C_1- C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_6-alkynyl and C_2-C_6-alkenyl;

more particularly selected from the group consisting of halogen, CN, C_1-C_4-alkyl, C_2-C_4-alkynyl, C_1-C_4-haloalkyl and C_3-C_6-cycloalkyl;

even more particularly selected from the group consisting of F, Cl, Br, CN, CF_3, methyl, vinyl, ethynyl and cyclopropyl;

especially selected from the group consisting of F, Cl, Br and CN.

If X is N, A has especially a moiety of the following formula



(A.3)

wherein

R^{A1}, R^{A2} and R^{A3} independently of one another are hydrogen, halogen, CN, NO_2, C_1-C_6-alkyl, C_1-C_6-haloalkyl, OH, C_1-C_6-alkoxy, C_1-C_6-alkylthio, (C_1-C_6-alkyl)sulfinyl, (C_1-C_6-alkyl)sulfonyl, amino, (C_1-C_6-alkyl)amino, di(C_1-C_6-alkyl)amino, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl;

particularly preferred R^{A1}, R^{A2} and R^{A3} independently of one another are hydrogen, halogen, CN, NO_2, C_1-C_6-alkyl, C_1-C_6-haloalkyl or C_1-C_6-alkoxy;

especially preferred R^{A1}, R^{A2} and R^{A3} independently of one another are hydrogen, halogen, CN, C_1-C_6-alkyl or C_1-C_6-alkoxy;

more preferred R^{A1}, R^{A2} and R^{A3} independently of one another are hydrogen, halogen or CN;

most preferred R^{A1}, R^{A2} and R^{A3} are hydrogen;

also most preferred R^{A1} and R^{A3} are F or Cl; and
R^{A2} is H or F.

Among this group of embodiment A is in particular 4-chloro-3,5,6-trifluoro-2-pyridyl.

Particular groups of embodiments relate to the aminotriazine compounds of formula (I), wherein;

R^1 is H, CN, C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, (C_1-C_6-alkyl)carbonyl or (C_1-C_6-alkyl)sulfonyl, where the aliphatic parts of the 4 aforementioned radicals unsubstituted partly or completely halogenated,
phenyl and phenyl-C_1-C_6 alkyl,
wherein phenyl in the last 2 mentioned radical is unsubstituted or substituted by 1, 2, 3, 4, or 5 identical or different substituents selected from the group consisting of halogen, CN, NO_2, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy and C_1-C_6-haloalkoxy;
in particular H, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, C_1-C_6-alkoxy, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-haloalkyl)carbonyl, (C_1-C_6-alkyl)sulfonyl or (C_1-C_6-haloalkyl)sulfonyl;
more particularly H, CN, C_1-C_4-alkyl, (C_1-C_4-alkoxy)-C_1-C_4-alkyl, C_1-C_4-alkoxy, (C_1-C_4-alkyl)carbonyl or (C_1-C_4-alkyl)sulfonyl;even more particularly H, CN, CH_3, CH_2OCH_3, OCH_3, $C(O)CH_3$ or SO_2CH_3;
especially hydrogen.

Further particular groups of embodiments relate to the aminotriazine compounds of formula (I), wherein;

R^2 is selected from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy C_1-C_6-haloalkoxy and phenyl, in particular from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy C_1-C_6-haloalkoxy, more particular from the group consisting of H, fluorine, chlorine, C_1-C_4-alkyl, such as methyl, ethyl, n-propyl, 2-propyl, n-butyl, 2-butyl, isobutyl or tert.-butyl, C_1-C_4-haloalkyl, such as difluoromethyl, trifluoromethyl, 2,2,2-trifluoroethyl, 1,1-difluoroethyl, 1,1,2,2-tetrafluoroethyl or pentafluoroethyl, C_1-C_4-alkoxy, such as methoxy or ethoxy and C_1-C_4-haloalkoxy, such as difluoromethoxy or trifluoromethoxy.

Further particular groups (1) of embodiments relate to the aminotriazine compounds of formula (I), wherein R^3 is selected from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy and C_1-C_6-haloalkoxy, in particular from the group consisting of hydrogen, fluorine and C_1-C_4-alkyl, more particularly from hydrogen, fluorine and methyl, especially from hydrogen and fluorine.

In groups (1) of embodiments, R^4 is as defined above and preferably selected from the group consisting of C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl,

C_3-C_6-cycloalkenyl, C_1-C_6-alkoxy and C_1-C_6-alkoxy-C_1-C_6-alkyl or from C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, C_1-C_6-alkoxy and C_1-C_6-alkoxy-C_1-C_6-alkyl.

In groups (1) of embodiments, R^4 is in particular selected from the group consisting of C_1-C_4-alkyl, such as ethyl, n-propyl, 2-propyl, n-butyl, 2-butyl, isobutyl or tert.-butyl, C_1-C_4-haloalkyl, such as difluoromethyl, trifluoromethyl, 2,2,2-trifluoroethyl, 1,1-difluoroethyl, 1,1,2,2-tetrafluoroethyl or pentafluoroethyl, C_2-C_4-alkenyl, such as vinyl or allyl, C_3-C_4-alkynyl, such as propargyl, C_3-C_6-cycloalkyl, such as cyclopropyl, cyclobutyl, cylopentyl or cyclohexyl, and C_1-C_4-alkoxy-C_1-C_4-alkyl, such as methoxymethyl, ethoxymethyl, 2-methoxyethyl or 2-ethoxyethyl.

Further particular groups (2) of embodiments relate to the aminotriazine compounds of formula (I), wherein R^3 and R^4 together with the carbon atom to which they are attached form a moiety selected from the group consisting of carbonyl, C_2-C_6-alkenyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and three- to six-membered heterocyclyl, wherein the C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, or three- to six-membered heterocyclyl is unsubstituted or substituted by one to six substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy and wherein C_2-C_6-alkenyl is a $C=CR^{3a}R^{3b}$ radical, wherein R^{3a} and R^{3b} independently selected from the group of H and C_1-C_4-alkyl, wherein the sum of the carbon atoms of R^{3a} and R^{3b} radicals is an integer from 0 to 4. A skilled person will readily appreciate that the cycloalkyl or cycloalkenyl radical and the heterocyclic radical are ipso-connected, i.e. the radical R^2 and the triazine ring of formula (I) are bound to the same carbon atom of the carbocyclic radical and the heterocyclic radical formed by R^3 and R^4 together with the carbon atom, to which R^3 and R^4 are attached. Therefore, the carbocyclic radical and the heterocyclic radical are also termed ipso-radicals. The carbocyclic radical and the heterocyclic radical are unsubstituted or substituted by one to six substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy.Further particular groups (2) of embodiments relate to the aminotriazine compounds of formula (I), wherein R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl, which is unsubstituted or substituted by one to six substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy.

Suitable ipso-carbocyclic radicals, which are formed by R^3 and R^4 together with the carbon atom to which they are attached, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkan-1,1-diyl, C_3-C_6-cycloalkenyl and ipso-C_3-C_6-cycloalkendiyl as defined above. Suitable ipso-heterocyclic radicals, which are formed by R^3 and R^4 together with the carbon atom to which they are attached, may be saturated partally unsaturated or aromatic, or R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl Suitable ipso-heterocyclic radicals are 3- to 6-membered, i.e. they have 3, 4, 5 or 6 ring atoms, wherein at least 1 ring atom, e.g. 1, 2 or 3 ring atoms are a heteroatom, which is preferably selected from O, S and N, while the other ring atoms are carbon atoms. Examples of heterocyclyl radicals and ipso-heterocyclodiyl radicals include oxiran-2,2-diyl, oxiranyl, oxetan-2,2-diyl, oxetan-2-yl, oxetan-3-yl, oxetan-3,3-diyl, oxolan-2,2-diyl, oxolan-2-yl, oxolan-3,3-diyl, oxolan-3-yl, 1,3-dioxolan-2,2-diyl, 1,3-dioxolanyl, oxan-2,2-diyl, oxan-2-yl, oxan-3,3-diyl, oxan-3yl, oxan-4,4-diyl, oxan-4-yl, 1,3-dioxan-2,2-diyl, 1,3-dioxanyl, thiolan-2,2-diyl, thiolan-2-yl, thio-

lan-3,3-diyl, thiolan-3-yl, pyrrolidin-2,2-diyl, pyrrolidin-2-yl, pyrrolidin-3,3-diyl, pyrrolidin-3-yl, piperidin-2,2,-diyl, piperidin-2-yl, piperidin-3,3-diyl, piperidin-3-yl, piperidin-4,4-diyl, piperidin-4-yl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyrrolyl, 3-pyrrolyl, 3-pyrazolyl, 4-pyrazolyl, 5-pyrazolyl, 2-oxazolyl, 4-oxazolyl, 5-oxazolyl, 2-thiazolyl, 4 thiazolyl, 5-thiazolyl, 2-imidazolyl, 4-imidazolyl, 1,3,4-triazol-2-yl, 2-pyridinyl, 3-pyridinyl, 4-pyridinyl, 3-pyridazinyl, 4-pyridazinyl, 2-pyrimidinyl, 4-pyrimidinyl, 5-pyrimidinyl, 2-pyrazinyl where the aforementioned radicals may also be unsubstituted or substituted by one to six substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy.

In groups (2) of embodiments, R^3 and R^4 together with the carbon atom to which they are attached form in particular a moiety selected from the group consisting of C_3-C_6-cycloalkyl, C_3-C_6-cycloalkan-1,1-diyl, C_3-C_6-cycloalkenyl, ipso-C_3-C_6-cycloalkendiyl, three- to six-membered saturated, partially unsaturated or aromatic heterocyclyl and ipso-heterocyclodiyl, where the carbocycle and the heterocycle are unsubstituted or substituted by one to four substituents selected from halogen and C_1-C_6-alkyl groups and where the heterocycle preferably has 1 or 2 oxygen atoms as ring members.

Further in groups (2) of embodiments, R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl, which is unsubstituted or substituted by one to four substituents selected from halogen and C_1-C_6-alkyl groups and where the heterocycle preferably has 1 or 2 oxygen atoms as ring members.

In groups (2) of embodiments, R^3 and R^4 together with the carbon atom to which they are attached more particularly form a moiety selected from the group consisting of C_3-C_6-cycloalkyl, C_3-C_6-cycloalkan-1,1-diyl or three- to six-membered saturated, partially unsaturated or aromatic heterocyclyl containing one or two heteroatoms selected from O, S and N, ipso-heterocyclodiyl, where the carbocycle and the heterocycle are unsubstituted or substituted by one to four substituents selected from halogen and C_1-C_6-alkyl groups, and where heterocyclyl preferably has 1 or 2 oxygen or sulfur atoms as ring members.

Further in groups (2) of embodiments, R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl, which is unsubstituted or substituted by one to four substituents selected from halogen and C_1-C_6-alkyl groups, and where heterocyclyl preferably has 1 or 2 oxygen or sulfur atoms as ring members.

Preference is given to compounds of formula (I), wherein

R^2 is selected from the group consisting of H, halogen, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy C_1-C_6-haloalkoxy and phenyl;

in particular from the group consisting of H, halogen, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy and C_1-C_6-haloalkoxy;

more particular from the group consisting of H, halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of H, halogen, C_1-C_6-alkyl and C_1-C_6-haloalkyl;

particularly preferred from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; also particularly preferred is H, F, Cl, CH_3 or CF_3 or OCH_3

Particular groups of embodiments relate to compounds of formula (I), wherein

R^3 and R^4 independently of one another preferably are H, halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; or

together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and three- to six-membered heterocyclyl, or

R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl,

wherein the C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl or the three- to six-membered heterocyclyl is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy.

particularly preferred are H, halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; or

together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl and C_3-C_6-cycloalkenyl,

wherein the C_3-C_6-cycloalkyl or C_3-C_6-cycloalkenyl is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy;

especially preferred are H, halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; or

together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl, wherein the C_3-C_6-cycloalkyl is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy;

more preferred are H, halogen or C_1-C_6-alkyl.

Preference is given to compounds of formula (I), wherein

R^2 is as defined above and has in particular one of the preferred meanings and is especially selected from the group consisting of fluorine, C_1-C_4-alkyl, such as methyl, C_1-C_4-haloalkyl, such as trifluoromethyl, C_1-C_4-alkoxy, such as methoxy, and C_1-C_6-haloalkoxy such as trifluoromethoxy;

in particular from the group consisting of H, halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of H, halogen, C_1-C_6-alkyland C_1-C_6-haloalkyl;

particularly preferred from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; also particularly preferred is H, F, Cl, CH_3 or CF_3 or OCH_3;

R^3 is selected from the group consisting of hydrogen, fluorine, C_1-C_4-alkyl, such as methyl, C_1-C_4-haloalkyl, such as trifluoromethyl, C_1-C_4-alkoxy, such as methoxy, and C_1-C_6-haloalkoxy such as trifluoromethoxy;

R^4 is selected from the group consisting of C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, and C_1-C_6-alkoxy-C_1-C_6-alkyl or

R^3 and R^4 together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl or five memered heteroaryl wherein the C_3-C_6-cycloalkyl and the five memered heteroaryl is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy, or

R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl, which is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy, or

R^3 and R^4 together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl or five memered saturated or partially saturated heterocyclyl wherein the C_3-C_6-cycloalkyl and the five memered heterocycly is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy.

Particular preference is given to compounds of formula (I), wherein

R^2 is selected from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of H, halogen, C_1-C_6-alkyland C_1-C_6-haloalkyl; particularly preferred from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; also particularly preferred is H, F, Cl, CH_3 or CF_3 or OCH_3;

R^3 is selected from the group consisting of hydrogen, fluorine, C_1-C_4-alkyl, such as methyl, C_1-C_4-haloalkyl, such as trifluoromethyl, C_1-C_4-alkoxy, such as methoxy, and C_1-C_6-haloalkoxy such as trifluoromethoxy;

R^4 is selected from the group consisting of C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, and C_1-C_6-alkoxy-C_1-C_6-alkyl or

R^3 and R^4 together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl or five memered heteroaryl wherein the C_3-C_6-cycloalkyl or the five memered heteroaryl is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy or

R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl, which is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy, or

R^3 and R^4 together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl or five memered saturated or partially unsaturated heterocyclyl wherein the C_3-C_6-cycloalkyl or the five memered heterocyclyl is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy.

Preference is also given to compounds of formula (I), wherein

R^2 is as defined above and has in particular one of the preferred meanings and is especially selected from the group consisting of H, fluorine, C_1-C_4-alkyl, such as methyl, C_1-C_4-haloalkyl, such as trifluoromethyl, C_1-C_4-alkoxy, such as methoxy, and C_1-C_6-haloalkoxy such as trifluoromethoxy;

in particular from the group consisting of H, halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of H, halogen, C_1-C_6-alkyland C_1-C_6-haloalkyl; particularly preferred from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; also particularly preferred is H, F, Cl, CH_3 or CF_3 or OCH_3;

R^3 and R^4 together with the carbon atom to which they are attached, form an ipso carbocyclic radical selected from C_3-C_6-cycloalkyl, C_3-C_6-cycloalkan-1,1-diyl, C_3-C_6-cycloalkenyl, ipso-C_3-C_6-cycloalkendiyl, where the ipso carbocyclic radical is unsubstituted or substituted by one to four substituents selected from halogen, CN and C_1-C_6-alkyl groups.

Preference is also given to compounds of formula (I), wherein

R^2 is as defined above and has in particular one of the preferred meanings and is especially selected from the group consisting of H, fluorine, C_1-C_4-alkyl, such as methyl, C_1-C_4-haloalkyl, such as trifluoromethyl, C_1-C_4-alkoxy, such as methoxy, and C_1-C_6-haloalkoxy such as trifluoromethoxy;

in particular from the group consisting of H, halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of H, halogen, C_1-C_6-alkyland C_1-C_6-haloalkyl; particularly preferred from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; also particularly preferred is H, F, Cl, CH_3 or CF_3 or OCH_3;

R^3 and R^4 together with the carbon atom to which they are attached, form three- to six-membered saturated partially unsaturated or aromatic heterocyclyl or ipso-heterocyclodiyl, where heterocyclyl or ipso-heterocyclodiyl is unsubstituted or substituted by one to four substituents selected from halogen, CN and C_1-C_6-alkyl groups and where the heterocyclyl, ipso-heterocyclodiyl preferably has 1 or 2 oxygen or sulfur atoms as ring members;

R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl, which is unsubstituted or substituted by one to four substituents selected from halogen, CN and C_1-C_6-alkyl groups and where the where the heterocyclyl preferably has 1 or 2 oxygen or sulfur atoms as ring members.

Particular preference is given to compounds of formula (I), wherein

R^2 is selected from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of H, halogen, C_1-C_6-alkyland C_1-C_6-haloalkyl; particularly preferred from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; also particularly preferred is H, F, Cl, CH_3 or CF_3 or OCH_3;

R^3 is selected from the group consisting of hydrogen, fluorine, C_1-C_4-alkyl, such as methyl, C_1-C_4-haloalkyl, such as trifluoromethyl, C_1-C_4-alkoxy, such as methoxy, and C_1-C_6-haloalkoxy such as trifluoromethoxy;

R^4 is selected from the group consisting of C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, and C_1-C_6-alkoxy-C_1-C_6-alkyl.

Particular preference is also given to compounds of formula (I), wherein

R^2 is selected from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of H, halogen, C_1-C_6-alkyland C_1-C_6-haloalkyl; particularly preferred from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkyl or from the group consisting of halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; also particularly preferred is H, F, Cl, CH_3 or CF_3 or OCH_3;

R^3 and R^4 together with the carbon atom to which they are attached more particularly form a moiety selected from the group consisting of C_3-C_6-cycloalkyl, C_3-C_6-cycloalkan-1,1-diyl or three- to six-membered saturated, partially unsaturated or aromatic heterocyclyl or ipso-heterocyclodiyl, where the carbocycle and the heterocycle are unsubstituted or substituted by one to four substituents selected from halogen, CN and C_1-C_6-alkyl groups, and where heterocyclyl preferably has 1 or 2 oxygen or sulfur atoms as ring members;

R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl, which is unsubstituted or substituted by one to four substituents selected from halogen, CN and C_1-C_6-alkyl groups and where the where the heterocyclyl preferably has 1 or 2 oxygen or sulfur atoms as ring members.

Also preferred are the azines of formula (I), wherein

R^2 is H, halogen, C_1-C_6-alkyl; and

R^3 and R^4 are independently of one another H, halogen, C_1-C_6-alkyl, or together with the carbon atom to which they are attached form a C_3-C_6-cycloalkyl;

particularly preferred R^2 is H, halogen or C_1-C_6-alkyl;
R^3 is C_1-C_6-alkyl;
R^4 is H, halogen or C_1-C_6-alkyl;
R^3 and R^4 together with the carbon atom to which they are attached form a C_3-C_6-cycloalkyl;
R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- membered aromatic heterocyclyl, containing one or two heteroatoms selected from O, S or N, which is unsubstituted or substituted by one substituent selected from halogen, methyl or ethyl;

especially preferred R^2 is halogen or C_1-C_6-alkyl;
R^3 is C_1-C_6-alkyl;
R^4 is H or C_1-C_6-alkyl;

more preferred R^2 is halogen; and
R^3 and R^4 are C_1-C_6-alkyl.

Also preferred are the azines of formula (I), wherein
R^2 is H, halogen, C_1-C_6-alkyl; and
R^3 and R^4 together with the carbon atom to which they are attached form a saturated or partially unsaturated or aromatic 3, 4, 5- or 6-membered heterocylcyl, or
R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl, in particular heterocyclyl, which comprises 1 or 2 oxygen or sulfur atoms as ring memberes, wherein the heretocycles are unsubtituted or substituted by one substituent selected from halogen or methyl, especially an oxiran-2,2-diyl, oxiranyl, oxetan-2,2-diyl, oxetan-2-yl, oxetan-3,3-diyl, oxetan-3-yl, oxolan-2,2-diyl, oxolan-2-yl, oxolan-3-yl, oxan-2,2-diyl, oxan-2-yl, oxan-3,3-diyl, oxan-3-yl, 2-furyl, 3-furyl, 2-thienyl and 3-thienyl, 2-oxazolyl, 4-oxazolyl, 5-oxazolyl, more especially oxolan-2-yl, oxolan-3-yl, 2-furyl, 3-furyl, 2-thienyl and 3-thienyl, 2-oxazolyl, 4-oxazolyl, 5-oxazolyl, wherein the last afrometioned radical are unsubtituted or substituted by one substituent selected from halogen or methyl;
particularly preferred
R^2 is H, fluorine or C_1-C_4-alkyl;
R^3 and R^4 together with the carbon atom to which they are attached form a saturated, partially unsaturated or aromatic 3, 4, 5- or 6-membered heterocylcyl, or
R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl, in particular heterocyclyl, which comprises 1 or 2 oxygen or sulfur atoms as ring memberes wherein the heretocycle are unsubtituted or substituted by one substituent selected from halogen or methyl, especially an oxiran-2,2-diyl, oxiranyl, oxetan-2,2-diyl, oxetan-2-yl, oxolan-2,2-diyl, oxan-2-yl, oxan-2,2-diyl, oxan-3-yl, 2-furyl, 3-furyl, 2-thienyl or 3-thienyl, 2-oxazolyl, 4-oxazolyl, 5-oxazolyl, more especially oxolan-2-yl, oxolan-3-yl, 2-furyl, 3-furyl, 2-thienyl and 3-thienyl, 2-oxazolyl, 4-oxazolyl, 5-oxazolyl, wherein the last afrometioned radical are unsubtituted or substituted by one substituent selected from halogen or methyl.

Also preferred are the azines of formula (I), wherein
R^2 is H, halogen, C_1-C_6-alkyl or C_1-C_6-alkoxy; and
R^3 and R^4 together with the carbon atom to which they are attached form C_3-C_6-cycloalkan-1,1-diyl.

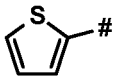
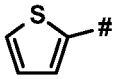
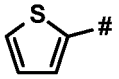
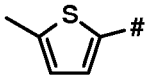
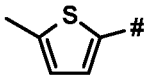
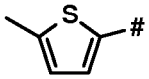
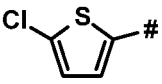
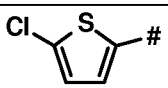
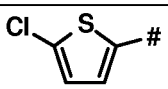
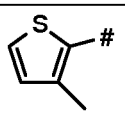
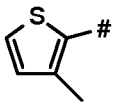
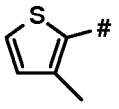
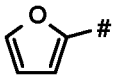
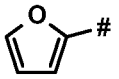
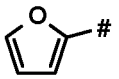
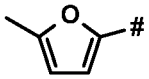
Also preferred are the azines of formula (I), wherein
R^2 is H, halogen, C_1-C_6-alkyl or C_1-C_6-alkoxy; and
R^3 and R^4 together with the carbon atom to which they are attached form C_3-C_6-cycloalkyl, in particular cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl.

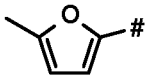
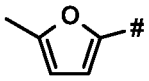
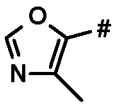
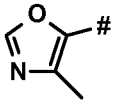
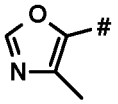
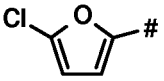
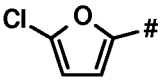
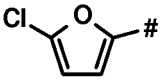
Examples of suitable combinations of R^2, R^3 and R^4 are given in the following table 1:

Table 1

#	R^2	R^3	R^4
1.	H	H	H
2.	H	H	CH_3
3.	H	CH_3	CH_3
4.	CH_3	CH_3	CH_3
5.	F	F	F
6.	F	F	CH_3
7.	F	CH_3	CH_3
8.	F	H	CH_3
9.	F	H	C_2H_5
10.	H	CH_3	C_2H_5
11.	F	CH_3	C_2H_5
12.	CN	CN	CN
13.	CN	CN	CH_3
14.	CN	CH_3	CH_3
15.	CN	H	CH_3
16.	CN	H	C_2H_5
17.	CN	CH_3	C_2H_5
18.	CN	C_2H_5	C_2H_5
19.	H	OCH_3	CH_3
20.	H	OCH_3	C_2H_5
21.	F	C_2H_5	C_2H_5
22.	H	OCH_3	C_2H_5
23.	H	H	$CH(CH_3)_2$
24.	H	F	$CH(CH_3)_2$
25.	F	F	$CH(CH_3)_2$
26.	H	CH_3	$CH(CH_3)_2$
27.	H	OCH_3	$CH(CH_3)_2$
28.	F	CH_3	$CH(CH_3)_2$
29.	H	H	$CH_2CH_2CH_3$
30.	H	F	$CH_2CH_2CH_3$
31.	F	F	$CH_2CH_2CH_3$
32.	H	CH_3	$CH_2CH_2CH_3$
33.	H	OCH_3	$CH_2CH_2CH_3$
34.	F	CH_3	$CH_2CH_2CH_3$
35.	H	H	$C(CH_3)_3$

#	R^2	R^3	R^4
36.	H	F	$C(CH_3)_3$
37.	F	F	$C(CH_3)_3$
38.	H	CH_3	$C(CH_3)_3$
39.	H	OCH_3	$C(CH_3)_3$
40.	F	CH_3	$C(CH_3)_3$
41.	H	H	c-C_3H_5
42.	H	F	c-C_3H_5
43.	F	F	c-C_3H_5
44.	H	CH_3	c-C_3H_5
45.	H	OCH_3	c-C_3H_5
46.	F	CH_3	c-C_3H_5
47.	H	CH_3	CF_3
48.	F	CH_3	CF_3
49.	H	CH_2-CH_2	
50.	CH_3	CH_2-CH_2	
51.	OCH_3	CH_2-CH_2	
52.	F	CH_2-CH_2	
53.	Cl	CH_2-CH_2	
54.	CN	CH_2-CH_2	
55.	H	CH_2-CH_2-CH_2	
56.	CH_3	CH_2-CH_2-CH_2	
57.	OCH_3	CH_2-CH_2-CH_2	
58.	F	CH_2-CH_2-CH_2	
59.	Cl	CH_2-CH_2-CH_2	
60.	CN	CH_2-CH_2-CH_2	
61.	H	CH_2-CH_2-CH_2-CH_2	
62.	CH_3	CH_2-CH_2-CH_2-CH_2	
63.	OCH_3	CH_2-CH_2-CH_2-CH_2	
64.	F	CH_2-CH_2-CH_2-CH_2	
65.	Cl	CH_2-CH_2-CH_2-CH_2	
66.	CN	CH_2-CH_2-CH_2-CH_2	
67.	H	CH_2-CH_2-CH_2-CH_2-CH_2	
68.	CH_3	CH_2-CH_2-CH_2-CH_2-CH_2	
69.	OCH_3	CH_2-CH_2-CH_2-CH_2-CH_2	
70.	F	CH_2-CH_2-CH_2-CH_2-CH_2	
71.	Cl	CH_2-CH_2-CH_2-CH_2-CH_2	
72.	CN	CH_2-CH_2-CH_2-CH_2-CH_2	
73.	H	O-CH_2-CH_2-CH_2	
74.	CH_3	O-CH_2-CH_2-CH_2	

#	R^2	R^3	R^4
75.	OCF_3	O-CH_2-CH_2-CH_2	
76.	H	O-CH_2-CH_2-CH_2-CH_2	
77.	CH_3	O-CH_2-CH_2-CH_2-CH_2	
78.	OCF_3	O-CH_2-CH_2-CH_2-CH_2	
79.	H		
80.	F		
81.	CH_3		
82.	H		
83.	F		
84.	CH_3		
85.	H		
86.	F		
87.	CH_3		
88.	H		
89.	F		
90.	CH_3		
91.	H		
92.	F		
93.	CH_3		
94.	H		

#	R^2	R^3	R^4
95.	F		
96.	CH_3		
97.	H		
98.	F		
99.	CH_3		
100.	H		
101.	F		
102.	CH_3		

The following approvations were used in Tabel A

c-C_3H_5: Cyclopropyl

Particularly preferred are the aminotriazine compounds of formula (I), wherein X is CR^{A4}, wherein R^{A4} has the meanings as defined above. In particular

X is CR^{A4};

R^b is F;

n is 0, 1, 2 or 3, in particular 1, 2 or 3, more particularly 2 or 3;

R^A has one of the meanings as defined above, which are

in particular selected from the group consisting of halogen, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_6-alkynyl, C_2-C_6-alkenyl, C_1-C_6-alkoxy, C_3-C_6-alkenyloxy, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy, C_2-C_6-alkynyloxy, C_2-C_6-alkenyloxy or C_1-C_6-haloalkoxy;

more particularly selected from the group consisting of halogen, CN, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_4-alkenyl, C_2-C_4-alkynyl, C_1-C_4-alkoxy, C_3-C_6-alkenyloxy, C_2-C_4-alkenyloxy, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy or C_1-C_4-haloalkoxy;even more particularly selected from the group consisting of F, Cl, Br, CN, CF_3, methyl, vinyl, ethynyl and cyclopropyl, methoxy, ethoxy, isopropyloxy, allyloxy, propargyloxy, cyclopropyloxy, cyclobutyloxy, cyclopentyloxy, (cyclopropyl)methoxy or 2-butyloxy;

even more particularly selected from the group consisting of F, Cl, Br, CN, CF_3, methyl, vinyl, ethynyl and cyclopropyl;

especially selected from the group consisting of F, Cl, Br and CN; and

R^{A4} is H or has one of the meanings from R^A,
in particular selected from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_6-alkynyl, C_2-C_6-alkenyl, C_1-C_6-alkoxy, C_3-C_6-alkenyloxy, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy, C_2-C_6-alkynyloxy, C_2-C_6-alkenyloxy or C_1-C_6-haloalkoxy;
more particularly selected from the group consisting of H, halogen, CN, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl, C_2-C_4-alkenyl, C_2-C_4-alkynyl, C_1-C_4-alkoxy, C_3-C_6-alkenyloxy, C_2-C_4-alkenyloxy, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy or C_1-C_4-haloalkoxy;
even more particularly selected from the group consisting of H, F, Cl, Br, CN, CF_3, methyl, vinyl, ethynyl and cyclopropyl, methoxy, ethoxy, isopropyloxy, allyloxy, propargyloxy, cyclopropyloxy, cyclobutyloxy, cyclopentyloxy, (cyclopropyl)methoxy or 2-butyloxy;
even more particularly selected from the group consisting of H, F, Cl, Br, CN, CF_3, methyl, vinyl, ethynyl and cyclopropyl;
especially selected from the group consisting of H, F, Cl, Br and CN. ;
especially selected from the group consisting of H, F, Cl and CN.

Especially preferred A is 2,6-difluorophenyl, 2-chloro-6-fluorophenyl, 2-bromo-6-fluorophenyl, 2-fluoro-6-methylphenyl, 2-fluoro-6-cyanophenyl, 2,3,6-trifluorophenyl, 2,4,6-trifluorophenyl, 2-chloro-4,6-difluorophenyl, 2-chloro-5,6-difluorophenyl, 3-chloro-2,6-difluorophenyl, 2-chloro-3,6-difluorophenyl, 2,3-difluoro-6-cyanophenyl, 2,6-difluoro-3-cyanophenyl, 2,5-difluoro-6-cyanophenyl, 2,4-difluoro-6-cyanophenyl, 2,3,4,6-tetrafluorophenyl, 2,3,4,5-tetrafluorophenyl, 2,3,5,6-tetrafluorophenyl, 2-chloro-3,4,6-trifluorophenyl, 2-chloro-3,5,6-trifluorophenyl, 3-chloro-2,4,6-trifluorophenyl, 3-chloro-2,5,6-trifluorophenyl, 6-cyano-2,4,5-trifluorophenyl, 3-cyano-2,4,6-trifluorophenyl, 6-cyano-2,3,4-trifluorophenyl, 6-cyano-2,3,5-trifluorophenyl, 3-cyano-2,5,6-trifluorophenyl, pentafluorophenyl, 2-chloro-3,4,5,6-tetrafluorophenyl, 3-chloro-2,4,5,6-tetrafluorophenyl, 6-cyano-2,3,4,5-tetrafluorophenyl, 5-cyano-2,3,4,6-tetrafluorophenyl, 4-bromo-2,3,5,6-tetrafluorophenyl, 4-iodo-2,3,5,6-tetrafluorophenyl, 4-ethynyl-2,3,5,6-tetrafluorophenyl and 3-chloro-2-fluoro-6-(trifluoromethyl)phenyl.

R^1 is H, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy-C_1-C_6-alkyl, C_1-C_6-alkoxy, (C_1-C_6-alkyl)carbonyl or (C_1-C_6-alkyl)sulfonyl;
particularly preferred H, CN, C_1-C_6-alkyl, C_1-C_6-alkoxy-C_1-C_6-alkyl, C_1-C_6-alkoxy, (C_1-C_6-alkyl)carbonyl or (C_1-C_6-alkyl)sulfonyl;
especially preferred H, CN, CH_3, CH_2OCH_3, OCH_3, $COCH_3$ or SO_2CH_3;
more preferred hydrogen;

R^2 is H, halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl;
particularly preferred halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl;
also particularly preferred H, F, CH_3 or CF_3;

R^3 and R^4 are independently of one another H, halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; or

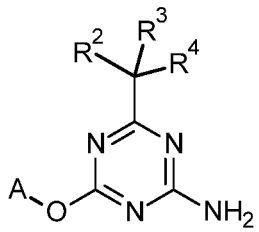
together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and three- to six-membered heterocyclyl,
wherein the C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl or the three- to six-membered heterocyclyl is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy;

independently of one another particularly preferred H, halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; or together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl or three- to six-membered heterocyclyl containing one or two heteroatoms selected from O, S and N,
wherein the C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl or three- to six-membered heterocyclyl is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy;

independently of one another especially preferred H, halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl;

independently of one another more preferred H, halogen or C_1-C_6-alkyl.

Particular preference is given to aminotriazine compounds of formula (Ia), which correspond to aminotriazines of formula (I) wherin R^1 is hydrogen and where R^2, R^3 and R^4 are as defined in the rows of the following table A and wherein A is as defined in the following tables A-1 to A-35:



(I.a)

Table A-1: Compounds of the formula I.a, where A is 2,6-difluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-2: Compounds of the formula I.a, where A is 2-chloro-6-fluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-3: Compounds of the formula I.a, where A is 2-bromo-6-fluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-4: Compounds of the formula I.a, where A is 2-fluoro-6-methylphenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-5: Compounds of the formula I.a, where A is 2-fluoro-6-cyanophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-6: Compounds of the formula I.a, where A is 2,3,6-trifluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-7: Compounds of the formula I.a, where A is 2,4,6-trifluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-8: Compounds of the formula I.a, where A is 2-chloro-4,6-difluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-9: Compounds of the formula I.a, where A is 2-chloro-5,6-difluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-10: Compounds of the formula I.a, where A is 3-chloro-2,6-difluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-11: Compounds of the formula I.a, where A is 2-chloro-3,6-difluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-12: Compounds of the formula I.a, where A is 2,3-difluoro-6-cyanophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-13: Compounds of the formula I.a, where A is 2,6-difluoro-3-cyanophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-14: Compounds of the formula I.a, where A is 2,5-difluoro-6-cyanophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-15: Compounds of the formula I.a, where A is 2,3,4,6-tetrafluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-16: Compounds of the formula I.a, where A is 2,3,4,5-tetrafluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-17: Compounds of the formula I.a, where A is 2,3,5,6-tetrafluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-18: Compounds of the formula I.a, where A is 2-chloro-3,4,6-trifluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-19: Compounds of the formula I.a, where A is 2-chloro-3,5,6-trifluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-20: Compounds of the formula I.a, where A is 3-chloro-2,4,6-trifluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-21: Compounds of the formula I.a, where A is 3-chloro-2,5,6-trifluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-22: Compounds of the formula I.a, where A is 6-cyano-2,4,5-trifluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-23: Compounds of the formula I.a, where A is 3-cyano-2,4,6-trifluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-24: Compounds of the formula I.a, where A is 6-cyano-2,3,4-trifluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-25: Compounds of the formula I.a, where A is 6-cyano-2,3,5-trifluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-26: Compounds of the formula I.a, where A is 3-cyano-2,5,6-trifluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-27: Compounds of the formula I.a, where A is pentafluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-28: Compounds of the formula I.a, where A is 2-chloro-3,4,5,6-tetrafluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-29: Compounds of the formula I.a, where A is 3-chloro-2,4,5,6-tetrafluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-30: Compounds of the formula I.a, where A is 6-cyano-2,3,4,5-tetrafluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-31: Compounds of the formula I.a, where A is 5-cyano-2,3,4,6-tetrafluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-32: Compounds of the formula I.a, where A is 4-bromo-2,3,5,6-tetrafluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A-33: Compounds of the formula I.a, where A is 4-iodo-2,3,5,6-tetrafluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

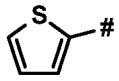
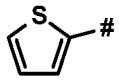
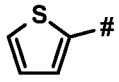
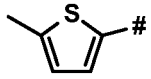
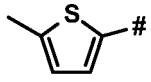
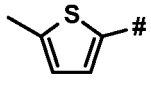
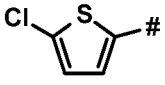
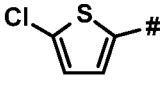
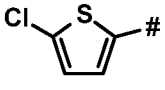
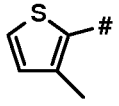
Table A-34: Compounds of the formula I.a, where A is 4-ethynyl-2,3,5,6-tetrafluorophenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

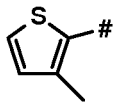
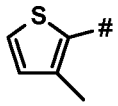
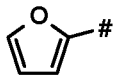
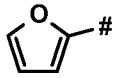
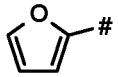
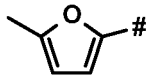
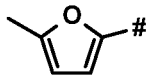
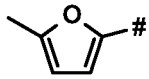
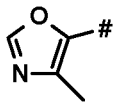
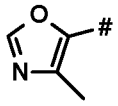
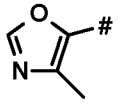
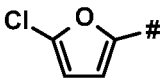
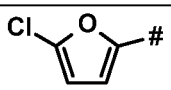
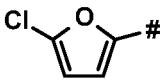
Table A-35: Compounds of the formula I.a, where A is and 3-chloro-2-fluoro-6-(trifluoromethyl)phenyl and R^2, R^3 and R^4 are as defined in the rows of the following table A.

Table A:

#	R^2	R^3	R^4
1.	H	H	H
2.	H	H	CH_3
3.	H	CH_3	CH_3
4.	CH_3	CH_3	CH_3
5.	F	F	F
6.	F	F	CH_3
7.	F	CH_3	CH_3
8.	F	H	CH_3
9.	F	H	C_2H_5
10.	H	CH_3	C_2H_5
11.	F	CH_3	C_2H_5
12.	CN	CN	CN
13.	CN	CN	CH_3
14.	CN	CH_3	CH_3
15.	CN	H	CH_3
16.	CN	H	C_2H_5
17.	CN	CH_3	C_2H_5
18.	CN	C_2H_5	C_2H_5
19.	H	OCH_3	CH_3
20.	H	OCH_3	C_2H_5
21.	F	C_2H_5	C_2H_5
22.	H	OCH_3	C_2H_5
23.	H	H	$CH(CH_3)_2$

#	R^2	R^3	R^4
24.	H	F	$CH(CH_3)_2$
25.	F	F	$CH(CH_3)_2$
26.	H	CH_3	$CH(CH_3)_2$
27.	H	OCH_3	$CH(CH_3)_2$
28.	F	CH_3	$CH(CH_3)_2$
29.	H	H	$CH_2CH_2CH_3$
30.	H	F	$CH_2CH_2CH_3$
31.	F	F	$CH_2CH_2CH_3$
32.	H	CH_3	$CH_2CH_2CH_3$
33.	H	OCH_3	$CH_2CH_2CH_3$
34.	F	CH_3	$CH_2CH_2CH_3$
35.	H	H	$C(CH_3)_3$
36.	H	F	$C(CH_3)_3$
37.	F	F	$C(CH_3)_3$
38.	H	CH_3	$C(CH_3)_3$
39.	H	OCH_3	$C(CH_3)_3$
40.	F	CH_3	$C(CH_3)_3$
41.	H	H	Cyclopropyl
42.	H	F	Cyclopropyl
43.	F	F	Cyclopropyl
44.	H	CH_3	Cyclopropyl
45.	H	OCH_3	Cyclopropyl
46.	F	CH_3	Cyclopropyl
47.	H	CH_3	CF_3
48.	F	CH_3	CF_3
49.	H	CH_2-CH_2	
50.	CH_3	CH_2-CH_2	
51.	OCH_3	CH_2-CH_2	
52.	F	CH_2-CH_2	
53.	Cl	CH_2-CH_2	
54.	CN	CH_2-CH_2	
55.	H	CH_2-CH_2-CH_2	
56.	CH_3	CH_2-CH_2-CH_2	
57.	OCH_3	CH_2-CH_2-CH_2	
58.	F	CH_2-CH_2-CH_2	
59.	Cl	CH_2-CH_2-CH_2	
60.	CN	CH_2-CH_2-CH_2	
61.	H	CH_2-CH_2-CH_2-CH_2	
62.	CH_3	CH_2-CH_2-CH_2-CH_2	

#	R^2	R^3	R^4
63.	OCH_3	CH_2-CH_2-CH_2-CH_2	
64.	F	CH_2-CH_2-CH_2-CH_2	
65.	Cl	CH_2-CH_2-CH_2-CH_2	
66.	CN	CH_2-CH_2-CH_2-CH_2	
67.	H	CH_2-CH_2-CH_2-CH_2-CH_2	
68.	CH_3	CH_2-CH_2-CH_2-CH_2-CH_2	
69.	OCH_3	CH_2-CH_2-CH_2-CH_2-CH_2	
70.	F	CH_2-CH_2-CH_2-CH_2-CH_2	
71.	Cl	CH_2-CH_2-CH_2-CH_2-CH_2	
72.	CN	CH_2-CH_2-CH_2-CH_2-CH_2	
73.	H	O-CH_2-CH_2-CH_2	
74.	CH_3	O-CH_2-CH_2-CH_2	
75.	OCF_3	O-CH_2-CH_2-CH_2	
76.	H	O-CH_2-CH_2-CH_2-CH_2	
77.	CH_3	O-CH_2-CH_2-CH_2-CH_2	
78.	OCF_3	O-CH_2-CH_2-CH_2-CH_2	
79.	H		
80.	F		
81.	CH_3		
82.	H		
83.	F		
84.	CH_3		
85.	H		
86.	F		
87.	CH_3		
88.	H		

#	R^2	R^3	R^4
89.	F		
90.	CH_3		
91.	H		
92.	F		
93.	CH_3		
94.	H		
95.	F		
96.	CH_3		
97.	H		
98.	F		
99.	CH_3		
100.	H		
101.	F		
102.	CH_3		

Also preferred are the azines of formula (I), wherein X is N, R^A and R^b have one of the meanings as defined above; in particular wherein

X is N;

R^b is selected from halogen in particular F;

n is 0, 1, 2 or 3, in particular 1, 2 or 3;

R^A has one of the meanings as defined above, which are in particular selected from

the group consisting of halogen, CN, NO_2, C_1-C_6-alkyl, C_1-C_6-haloalkyl, OH, C_1-C_6-alkoxy, C_1-C_6-alkylthio, (C_1-C_6-alkyl)sulfinyl, (C_1-C_6-alkyl)sulfonyl, amino, (C_1-C_6-alkyl)amino, di(C_1-C_6-alkyl)amino, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl;

particulary preferred preferred selected from the group consisting ofhalogen, CN, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy, C_2-C_6-alkynyl, C_2-C_6-alkenyl, C_2-C_6-alkynyloxy, C_2-C_6-alkenyloxy or C_1-C_6-haloalkoxy;

more particularly preferred selected from the group consisting of halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy;

especially preferred selected from halogen and CN;

also especially preferred selected from the group consisting of F, Cl, CN and CH_3;

more preferred selected from the group consisting of F, Cl and CN..

R^1 is H, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy-C_1-C_6-alkyl, C_1-C_6-alkoxy, (C_1-C_6-alkyl)carbonyl or (C_1-C_6-alkyl)sulfonyl;

particularly preferred H, CN, C_1-C_6-alkyl, C_1-C_6-alkoxy-C_1-C_6-alkyl, C_1-C_6-alkoxy, (C_1-C_6-alkyl)carbonyl or (C_1-C_6-alkyl)sulfonyl;

especially preferred H, CN, CH_3, CH_2OCH_3, OCH_3, $COCH_3$ or SO_2CH_3;

more preferred hydrogen;

R^2 is H, halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl;

particularly preferred halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl;

also particularly preferred H, F, CH_3 or CF_3;

R^3 and R^4 are independently of one another H, halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; or together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and three- to six-membered heterocyclyl containing one or two heteroatoms selected from O, S and N,

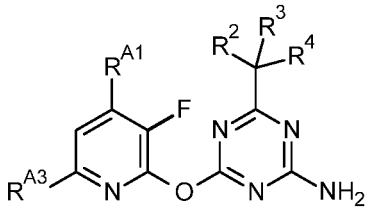
wherein the C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl or the three- to six-membered heterocyclyl is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy;

independently of one another particularly preferred H, halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl; or together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl or three- to six-membered heterocyclyl, wherein the C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl or three- to six-membered heterocyclyl is unsubstituted or substituted by one to three substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy;

independently of one another especially preferred H, halogen, C_1-C_6-alkyl or C_1-C_6-haloalkyl;

independently of one another more preferred H, halogen or C_1-C_6-alkyl.

Particular preference is given to azines of formula (I.b), which correspond to azines of formula (I) wherein A is (A.3) with R^{A2} is H, and R^1 is H:



(I.b)

wherein the variables R^{A1}, R^{A3}, R^2, R^3 and R^4 have the meanings, in particular the preferred meanings, as defined above;

special preference is given to the azines of the formulae (I.a.1) to (I.a.546) of Table 1, where the definitions of the variables R^{A1}, R^{A3}, R^2, R^3 and R^4 are of particular importance for the compounds according to the invention not only in combination with one another but in each case also on their own:

Table 1

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.1	F	H	CH_3	H	H
I.b.2	F	H	CH_3	CH_3	H
I.b.3	F	H	CH_3	CH_3	CH_3
I.b.4	F	H	F	F	F
I.b.5	F	H	F	CF_3	F
I.b.6	F	H	F	CH_3	F
I.b.7	F	H	F	CH_3	H
I.b.8	F	H	F	CH_3	CH_3
I.b.9	F	H	Cl	CH_3	CH_3
I.b.10	F	H	F	C_2H_5	CH_3
I.b.11	F	H	F	C_2H_5	C_2H_5
I.b.12	F	H	H	$-(CH_2)_2-$	
I.b.13	F	H	H	$-(CH_2)_3-$	
I.b.14	F	H	H	$-(CH_2)_4-$	
I.b.15	F	H	H	$-(CH_2)_5-$	
I.b.16	F	H	CH_3	$-(CH_2)_2-$	
I.b.17	F	H	CH_3	$-(CH_2)_3-$	
I.b.18	F	H	CH_3	$-(CH_2)_4-$	
I.b.19	F	H	CH_3	$-(CH_2)_5-$	
I.b.20	F	H	F	$-(CH_2)_2-$	
I.b.21	F	H	F	$-(CH_2)_3-$	
I.b.22	F	H	F	$-(CH_2)_4-$	
I.b.23	F	H	F	$-(CH_2)_5-$	

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.24	F	H	Cl	$-(CH_2)_2-$	
I.b.25	F	H	Cl	$-(CH_2)_3-$	
I.b.26	F	H	Cl	$-(CH_2)_4-$	
I.b.27	F	H	Cl	$-(CH_2)_5-$	
I.b.28	F	F	CH_3	H	H
I.b.29	F	F	CH_3	CH_3	H
I.b.30	F	F	CH_3	CH_3	CH_3
I.b.31	F	F	F	F	F
I.b.32	F	F	F	CF_3	F
I.b.33	F	F	F	CH_3	F
I.b.34	F	F	F	CH_3	H
I.b.35	F	F	F	CH_3	CH_3
I.b.36	F	F	Cl	CH_3	CH_3
I.b.37	F	F	F	C_2H_5	CH_3
I.b.38	F	F	F	C_2H_5	C_2H_5
I.b.39	F	F	H	$-(CH_2)_2-$	
I.b.40	F	F	H	$-(CH_2)_3-$	
I.b.41	F	F	H	$-(CH_2)_4-$	
I.b.42	F	F	H	$-(CH_2)_5-$	
I.b.43	F	F	CH_3	$-(CH_2)_2-$	
I.b.44	F	F	CH_3	$-(CH_2)_3-$	
I.b.45	F	F	CH_3	$-(CH_2)_4-$	
I.b.46	F	F	CH_3	$-(CH_2)_5-$	
I.b.47	F	F	F	$-(CH_2)_2-$	
I.b.48	F	F	F	$-(CH_2)_3-$	
I.b.49	F	F	F	$-(CH_2)_4-$	
I.b.50	F	F	F	$-(CH_2)_5-$	
I.b.51	F	F	Cl	$-(CH_2)_2-$	
I.b.52	F	F	Cl	$-(CH_2)_3-$	
I.b.53	F	F	Cl	$-(CH_2)_4-$	
I.b.54	F	F	Cl	$-(CH_2)_5-$	
I.b.55	F	Cl	CH_3	H	H
I.b.56	F	Cl	CH_3	CH_3	H
I.b.57	F	Cl	CH_3	CH_3	CH_3
I.b.58	F	Cl	F	F	F
I.b.59	F	Cl	F	CF_3	F
I.b.60	F	Cl	F	CH_3	F
I.b.61	F	Cl	F	CH_3	H
I.b.62	F	Cl	F	CH_3	CH_3
I.b.63	F	Cl	Cl	CH_3	CH_3
I.b.64	F	Cl	F	C_2H_5	CH_3

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.65	F	Cl	F	C_2H_5	C_2H_5
I.b.66	F	Cl	H	$-(CH_2)_2-$	
I.b.67	F	Cl	H	$-(CH_2)_3-$	
I.b.68	F	Cl	H	$-(CH_2)_4-$	
I.b.69	F	Cl	H	$-(CH_2)_5-$	
I.b.70	F	Cl	CH_3	$-(CH_2)_2-$	
I.b.71	F	Cl	CH_3	$-(CH_2)_3-$	
I.b.72	F	Cl	CH_3	$-(CH_2)_4-$	
I.b.73	F	Cl	CH_3	$-(CH_2)_5-$	
I.b.74	F	Cl	F	$-(CH_2)_2-$	
I.b.75	F	Cl	F	$-(CH_2)_3-$	
I.b.76	F	Cl	F	$-(CH_2)_4-$	
I.b.77	F	Cl	F	$-(CH_2)_5-$	
I.b.78	F	Cl	Cl	$-(CH_2)_2-$	
I.b.79	F	Cl	Cl	$-(CH_2)_3-$	
I.b.80	F	Cl	Cl	$-(CH_2)_4-$	
I.b.81	F	Cl	Cl	$-(CH_2)_5-$	
I.b.82	F	CN	CH_3	H	H
I.b.83	F	CN	CH_3	CH_3	H
I.b.84	F	CN	CH_3	CH_3	CH_3
I.b.85	F	CN	F	F	F
I.b.86	F	CN	F	CF_3	F
I.b.87	F	CN	F	CH_3	F
I.b.88	F	CN	F	CH_3	H
I.b.89	F	CN	F	CH_3	CH_3
I.b.90	F	CN	Cl	CH_3	CH_3
I.b.91	F	CN	F	C_2H_5	CH_3
I.b.92	F	CN	F	C_2H_5	C_2H_5
I.b.93	F	CN	H	$-(CH_2)_2-$	
I.b.94	F	CN	H	$-(CH_2)_3-$	
I.b.95	F	CN	H	$-(CH_2)_4-$	
I.b.96	F	CN	H	$-(CH_2)_5-$	
I.b.97	F	CN	CH_3	$-(CH_2)_2-$	
I.b.98	F	CN	CH_3	$-(CH_2)_3-$	
I.b.99	F	CN	CH_3	$-(CH_2)_4-$	
I.b.100	F	CN	CH_3	$-(CH_2)_5-$	
I.b.101	F	CN	F	$-(CH_2)_2-$	
I.b.102	F	CN	F	$-(CH_2)_3-$	
I.b.103	F	CN	F	$-(CH_2)_4-$	
I.b.104	F	CN	F	$-(CH_2)_5-$	
I.b.105	F	CN	Cl	$-(CH_2)_2-$	

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.106	F	CN	Cl	$-(CH_2)_3-$	
I.b.107	F	CN	Cl	$-(CH_2)_4-$	
I.b.108	F	CN	Cl	$-(CH_2)_5-$	
I.b.109	Cl	H	CH_3	H	H
I.b.110	Cl	H	CH_3	CH_3	H
I.b.111	Cl	H	CH_3	CH_3	CH_3
I.b.112	Cl	H	F	F	F
I.b.113	Cl	H	F	CF_3	F
I.b.114	Cl	H	F	CH_3	F
I.b.115	Cl	H	F	CH_3	H
I.b.116	Cl	H	F	CH_3	CH_3
I.b.117	Cl	H	Cl	CH_3	CH_3
I.b.118	Cl	H	F	C_2H_5	CH_3
I.b.119	Cl	H	F	C_2H_5	C_2H_5
I.b.120	Cl	H	H	$-(CH_2)_2-$	
I.b.121	Cl	H	H	$-(CH_2)_3-$	
I.b.122	Cl	H	H	$-(CH_2)_4-$	
I.b.123	Cl	H	H	$-(CH_2)_5-$	
I.b.124	Cl	H	CH_3	$-(CH_2)_2-$	
I.b.125	Cl	H	CH_3	$-(CH_2)_3-$	
I.b.126	Cl	H	CH_3	$-(CH_2)_4-$	
I.b.127	Cl	H	CH_3	$-(CH_2)_5-$	
I.b.128	Cl	H	F	$-(CH_2)_2-$	
I.b.129	Cl	H	F	$-(CH_2)_3-$	
I.b.130	Cl	H	F	$-(CH_2)_4-$	
I.b.131	Cl	H	F	$-(CH_2)_5-$	
I.b.132	Cl	H	Cl	$-(CH_2)_2-$	
I.b.133	Cl	H	Cl	$-(CH_2)_3-$	
I.b.134	Cl	H	Cl	$-(CH_2)_4-$	
I.b.135	Cl	H	Cl	$-(CH_2)_5-$	
I.b.136	Cl	F	CH_3	H	H
I.b.137	Cl	F	CH_3	CH_3	H
I.b.138	Cl	F	CH_3	CH_3	CH_3
I.b.139	Cl	F	F	F	F
I.b.140	Cl	F	F	CF_3	F
I.b.141	Cl	F	F	CH_3	F
I.b.142	Cl	F	F	CH_3	H
I.b.143	Cl	F	F	CH_3	CH_3
I.b.144	Cl	F	Cl	CH_3	CH_3
I.b.145	Cl	F	F	C_2H_5	CH_3
I.b.146	Cl	F	F	C_2H_5	C_2H_5

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.147	Cl	F	H	$-(CH_2)_2-$	
I.b.148	Cl	F	H	$-(CH_2)_3-$	
I.b.149	Cl	F	H	$-(CH_2)_4-$	
I.b.150	Cl	F	H	$-(CH_2)_5-$	
I.b.151	Cl	F	CH_3	$-(CH_2)_2-$	
I.b.152	Cl	F	CH_3	$-(CH_2)_3-$	
I.b.153	Cl	F	CH_3	$-(CH_2)_4-$	
I.b.154	Cl	F	CH_3	$-(CH_2)_5-$	
I.b.155	Cl	F	F	$-(CH_2)_2-$	
I.b.156	Cl	F	F	$-(CH_2)_3-$	
I.b.157	Cl	F	F	$-(CH_2)_4-$	
I.b.158	Cl	F	F	$-(CH_2)_5-$	
I.b.159	Cl	F	Cl	$-(CH_2)_2-$	
I.b.160	Cl	F	Cl	$-(CH_2)_3-$	
I.b.161	Cl	F	Cl	$-(CH_2)_4-$	
I.b.162	Cl	F	Cl	$-(CH_2)_5-$	
I.b.163	CN	H	CH_3	H	H
I.b.164	CN	H	CH_3	CH_3	H
I.b.165	CN	H	CH_3	CH_3	CH_3
I.b.166	CN	H	F	F	F
I.b.167	CN	H	F	CF_3	F
I.b.168	CN	H	F	CH_3	F
I.b.169	CN	H	F	CH_3	H
I.b.170	CN	H	F	CH_3	CH_3
I.b.171	CN	H	Cl	CH_3	CH_3
I.b.172	CN	H	F	C_2H_5	CH_3
I.b.173	CN	H	F	C_2H_5	C_2H_5
I.b.174	CN	H	H	$-(CH_2)_2-$	
I.b.175	CN	H	H	$-(CH_2)_3-$	
I.b.176	CN	H	H	$-(CH_2)_4-$	
I.b.177	CN	H	H	$-(CH_2)_5-$	
I.b.178	CN	H	CH_3	$-(CH_2)_2-$	
I.b.179	CN	H	CH_3	$-(CH_2)_3-$	
I.b.180	CN	H	CH_3	$-(CH_2)_4-$	
I.b.181	CN	H	CH_3	$-(CH_2)_5-$	
I.b.182	CN	H	F	$-(CH_2)_2-$	
I.b.183	CN	H	F	$-(CH_2)_3-$	
I.b.184	CN	H	F	$-(CH_2)_4-$	
I.b.185	CN	H	F	$-(CH_2)_5-$	
I.b.186	CN	H	Cl	$-(CH_2)_2-$	
I.b.187	CN	H	Cl	$-(CH_2)_3-$	

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.188	CN	H	Cl	$-(CH_2)_4-$	
I.b.189	CN	H	Cl	$-(CH_2)_5-$	
I.b.190	CN	F	CH_3	H	H
I.b.191	CN	F	CH_3	CH_3	H
I.b.192	CN	F	CH_3	CH_3	CH_3
I.b.193	CN	F	F	F	F
I.b.194	CN	F	F	CF_3	F
I.b.195	CN	F	F	CH_3	F
I.b.196	CN	F	F	CH_3	H
I.b.197	CN	F	F	CH_3	CH_3
I.b.198	CN	F	Cl	CH_3	CH_3
I.b.199	CN	F	F	C_2H_5	CH_3
I.b.200	CN	F	F	C_2H_5	C_2H_5
I.b.201	CN	F	H	$-(CH_2)_2-$	
I.b.202	CN	F	H	$-(CH_2)_3-$	
I.b.203	CN	F	H	$-(CH_2)_4-$	
I.b.204	CN	F	H	$-(CH_2)_5-$	
I.b.205	CN	F	CH_3	$-(CH_2)_2-$	
I.b.206	CN	F	CH_3	$-(CH_2)_3-$	
I.b.207	CN	F	CH_3	$-(CH_2)_4-$	
I.b.208	CN	F	CH_3	$-(CH_2)_5-$	
I.b.209	CN	F	F	$-(CH_2)_2-$	
I.b.210	CN	F	F	$-(CH_2)_3-$	
I.b.211	CN	F	F	$-(CH_2)_4-$	
I.b.212	CN	F	F	$-(CH_2)_5-$	
I.b.213	CN	F	Cl	$-(CH_2)_2-$	
I.b.214	CN	F	Cl	$-(CH_2)_3-$	
I.b.215	CN	F	Cl	$-(CH_2)_4-$	
I.b.216	CN	F	Cl	$-(CH_2)_5-$	
I.b.217	F	H	F	H	C_2H_5
I.b.218	F	H	OCH_3	H	C_2H_5
I.b.219	F	H	H	H	$C(CH_3)_3$
I.b.220	F	H	F	H	$C(CH_3)_3$
I.b.221	F	H	F	F	$C(CH_3)_3$
I.b.222	F	H	CH_3	H	$C(CH_3)_3$
I.b.223	F	H	OCH_3	H	$C(CH_3)_3$
I.b.224	F	H	CH_3	F	$C(CH_3)_3$
I.b.225	F	H	H	H	$CH(CH_3)_2$
I.b.226	F	H	F	H	$CH(CH_3)_2$
I.b.227	F	H	F	F	$CH(CH_3)_2$
I.b.228	F	H	CH_3	H	$CH(CH_3)_2$

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.229	F	H	OCH_3	H	$CH(CH_3)_2$
I.b.230	F	H	CH_3	F	$CH(CH_3)_2$
I.b.231	F	H	H	H	c-C_3H_5
I.b.232	F	H	F	H	c-C_3H_5
I.b.233	F	H	F	F	c-C_3H_5
I.b.234	F	H	CH_3	H	c-C_3H_5
I.b.235	F	H	OCH_3	H	c-C_3H_5
I.b.236	F	H	CH_3	F	c-C_3H_5
I.b.237	F	H	H	H	$CH_2CH_2CH_3$
I.b.238	F	H	F	H	$CH_2CH_2CH_3$
I.b.239	F	H	F	F	$CH_2CH_2CH_3$
I.b.240	F	H	CH_3	H	$CH_2CH_2CH_3$
I.b.241	F	H	CH_2CH_3	H	$CH_2CH_2CH_3$
I.b.242	F	H	OCH_3	H	$CH_2CH_2CH_3$
I.b.243	F	H	CH_3	F	$CH_2CH_2CH_3$
I.b.244	F	H	CH_3	H	CF_3
I.b.245	F	H	CH_3	F	CF_3
I.b.246	F	H	H	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.247	F	H	H	-O-$(CH_2)_2$-	
I.b.248	F	H	H	-O-$(CH_2)_3$-	
I.b.249	F	H	H	-O-$(CH_2)_4$-	
I.b.250	F	H	CH_3	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.251	F	H	CH_3	-O-$(CH_2)_2$-	
I.b.252	F	H	CH_3	-O-$(CH_2)_3$-	
I.b.253	F	H	CH_3	-O-$(CH_2)_4$-	
I.b.254	F	H	F	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.255	F	H	F	-O-$(CH_2)_2$-	
I.b.256	F	H	F	-O-$(CH_2)_3$-	
I.b.257	F	H	F	-O-$(CH_2)_4$-	
I.b.258	F	H	Cl	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.259	F	H	Cl	-O-$(CH_2)_2$-	
I.b.260	F	H	Cl	-O-$(CH_2)_3$-	
I.b.261	F	H	Cl	-O-$(CH_2)_4$-	
I.b.262	F	H	CH_3	-O-$(CH_2)_3$-	
I.b.263	F	H	CH_3	-O-$(CH_2)_4$-	
I.b.264	F	H	OCH_3	-O-$(CH_2)_3$-	
I.b.265	F	H	OCH_3	-O-$(CH_2)_4$-	
I.b.266	F	H	OCF_3	-O-$(CH_2)_3$-	
I.b.267	F	H	OCF_3	-O-$(CH_2)_4$-	
I.b.268	F	H	OCH_3	-$(CH_2)_2$-	
I.b.269	F	H	OCH_3	-$(CH_2)_3$-	

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.270	F	H	OCH_3	$-(CH_2)_4-$	
I.b.271	F	H	OCH_3	$-(CH_2)_5-$	
I.b.272	F	F	F	H	C_2H_5
I.b.273	F	F	OCH_3	H	C_2H_5
I.b.274	F	F	H	H	$C(CH_3)_3$
I.b.275	F	F	F	H	$C(CH_3)_3$
I.b.276	F	F	F	F	$C(CH_3)_3$
I.b.277	F	F	CH_3	H	$C(CH_3)_3$
I.b.278	F	F	OCH_3	H	$C(CH_3)_3$
I.b.279	F	F	CH_3	F	$C(CH_3)_3$
I.b.280	F	F	H	H	$CH(CH_3)_2$
I.b.281	F	F	F	H	$CH(CH_3)_2$
I.b.282	F	F	F	F	$CH(CH_3)_2$
I.b.283	F	F	CH_3	H	$CH(CH_3)_2$
I.b.284	F	F	OCH_3	H	$CH(CH_3)_2$
I.b.285	F	F	CH_3	F	$CH(CH_3)_2$
I.b.286	F	F	H	H	$c\text{-}C_3H_5$
I.b.287	F	F	F	H	$c\text{-}C_3H_5$
I.b.288	F	F	F	F	$c\text{-}C_3H_5$
I.b.289	F	F	CH_3	H	$c\text{-}C_3H_5$
I.b.290	F	F	OCH_3	H	$c\text{-}C_3H_5$
I.b.291	F	F	CH_3	F	$c\text{-}C_3H_5$
I.b.292	F	F	H	H	$CH_2CH_2CH_3$
I.b.293	F	F	F	H	$CH_2CH_2CH_3$
I.b.294	F	F	F	F	$CH_2CH_2CH_3$
I.b.295	F	F	CH_3	H	$CH_2CH_2CH_3$
I.b.296	F	F	CH_2CH_3	H	$CH_2CH_2CH_3$
I.b.297	F	F	OCH_3	H	$CH_2CH_2CH_3$
I.b.298	F	F	CH_3	F	$CH_2CH_2CH_3$
I.b.299	F	F	CH_3	H	CF_3
I.b.300	F	F	CH_3	F	CF_3
I.b.301	F	F	H	H	OH
I.b.302	F	F	H	H	OCH_3
I.b.303	F	F	H	H	OCF_3
I.b.304	F	F	CH_3	H	OH
I.b.305	F	F	CH_3	H	OCH_3
I.b.306	F	F	CH_3	H	OCF_3
I.b.307	F	F	CH_3	CH_3	OH
I.b.308	F	F	CH_3	CH_3	OCH_3
I.b.309	F	F	CH_3	CH_3	OCF_3
I.b.310	F	F	H	$-(CH_2)_2-CH(CH_3)-(CH_2)_2-$	

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.311	F	F	H	-O-$(CH_2)_2$-	
I.b.312	F	F	H	-O-$(CH_2)_3$-	
I.b.313	F	F	H	-O-$(CH_2)_4$-	
I.b.314	F	F	CH_3	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.315	F	F	CH_3	-O-$(CH_2)_2$-	
I.b.316	F	F	CH_3	-O-$(CH_2)_3$-	
I.b.317	F	F	CH_3	-O-$(CH_2)_4$-	
I.b.318	F	F	F	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.319	F	F	F	-O-$(CH_2)_2$-	
I.b.320	F	F	F	-O-$(CH_2)_3$-	
I.b.321	F	F	F	-O-$(CH_2)_4$-	
I.b.322	F	F	Cl	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.323	F	F	Cl	-O-$(CH_2)_2$-	
I.b.324	F	F	Cl	-O-$(CH_2)_3$-	
I.b.325	F	F	Cl	-O-$(CH_2)_4$-	
I.b.326	F	F	CH_3	-O-$(CH_2)_3$-	
I.b.327	F	F	CH_3	-O-$(CH_2)_4$-	
I.b.328	F	F	OCH_3	-O-$(CH_2)_3$-	
I.b.329	F	F	OCH_3	-O-$(CH_2)_4$-	
I.b.330	F	F	OCF_3	-O-$(CH_2)_3$-	
I.b.331	F	F	OCF_3	-O-$(CH_2)_4$-	
I.b.332	F	F	OCH_3	-$(CH_2)_2$-	
I.b.333	F	F	OCH_3	-$(CH_2)_3$-	
I.b.334	F	F	OCH_3	-$(CH_2)_4$-	
I.b.335	F	F	OCH_3	-$(CH_2)_5$-	
I.b.336	F	F	OH	-$(CH_2)_2$-	
I.b.337	F	F	OH	-$(CH_2)_3$-	
I.b.338	F	F	OH	-$(CH_2)_4$-	
I.b.339	F	F	OH	-$(CH_2)_5$-	
I.b.340	F	F	OCF_3	-$(CH_2)_2$-	
I.b.341	F	F	OCF_3	-$(CH_2)_3$-	
I.b.342	F	F	OCF_3	-$(CH_2)_4$-	
I.b.343	F	F	OCF_3	-$(CH_2)_5$-	
I.b.344	F	H	H	H	OH
I.b.345	F	H	H	H	OCH_3
I.b.346	F	H	H	H	OCF_3
I.b.347	F	H	CH_3	H	OH
I.b.348	F	H	CH_3	H	OCH_3
I.b.349	F	H	CH_3	H	OCF_3
I.b.350	F	H	CH_3	CH_3	OH
I.b.351	F	H	CH_3	CH_3	OCH_3

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.352	F	H	CH_3	CH_3	OCF_3
I.b.353	F	H	OH	$-(CH_2)_2-$	
I.b.354	F	H	OH	$-(CH_2)_3-$	
I.b.355	F	H	OH	$-(CH_2)_4-$	
I.b.356	F	H	OH	$-(CH_2)_5-$	
I.b.357	F	H	OCF_3	$-(CH_2)_2-$	
I.b.358	F	H	OCF_3	$-(CH_2)_3-$	
I.b.359	F	H	OCF_3	$-(CH_2)_4-$	
I.b.360	F	H	OCF_3	$-(CH_2)_5-$	
I.b.361	F	Cl	F	H	C_2H_5
I.b.362	F	Cl	OCH_3	H	C_2H_5
I.b.363	F	Cl	H	H	$C(CH_3)_3$
I.b.364	F	Cl	F	H	$C(CH_3)_3$
I.b.365	F	Cl	F	F	$C(CH_3)_3$
I.b.366	F	Cl	CH_3	H	$C(CH_3)_3$
I.b.367	F	Cl	OCH_3	H	$C(CH_3)_3$
I.b.368	F	Cl	CH_3	F	$C(CH_3)_3$
I.b.369	F	Cl	H	H	$CH(CH_3)_2$
I.b.370	F	Cl	F	H	$CH(CH_3)_2$
I.b.371	F	Cl	F	F	$CH(CH_3)_2$
I.b.372	F	Cl	CH_3	H	$CH(CH_3)_2$
I.b.373	F	Cl	OCH_3	H	$CH(CH_3)_2$
I.b.374	F	Cl	CH_3	F	$CH(CH_3)_2$
I.b.375	F	Cl	H	H	$c\text{-}C_3H_5$
I.b.376	F	Cl	F	H	$c\text{-}C_3H_5$
I.b.377	F	Cl	F	F	$c\text{-}C_3H_5$
I.b.378	F	Cl	CH_3	H	$c\text{-}C_3H_5$
I.b.379	F	Cl	OCH_3	H	$c\text{-}C_3H_5$
I.b.380	F	Cl	CH_3	F	$c\text{-}C_3H_5$
I.b.381	F	Cl	H	H	$CH_2CH_2CH_3$
I.b.382	F	Cl	F	H	$CH_2CH_2CH_3$
I.b.383	F	Cl	F	F	$CH_2CH_2CH_3$
I.b.384	F	Cl	CH_3	H	$CH_2CH_2CH_3$
I.b.385	F	Cl	CH_2CH_3	H	$CH_2CH_2CH_3$
I.b.386	F	Cl	OCH_3	H	$CH_2CH_2CH_3$
I.b.387	F	Cl	CH_3	F	$CH_2CH_2CH_3$
I.b.388	F	Cl	CH_3	H	CF_3
I.b.389	F	Cl	CH_3	F	CF_3
I.b.390	F	Cl	H	$-(CH_2)_2-CH(CH_3)-(CH_2)_2-$	
I.b.391	F	Cl	H	$-O-(CH_2)_2-$	
I.b.392	F	Cl	H	$-O-(CH_2)_3-$	

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.393	F	Cl	H	-O-$(CH_2)_4$-	
I.b.394	F	Cl	CH_3	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.395	F	Cl	CH_3	-O-$(CH_2)_2$-	
I.b.396	F	Cl	CH_3	-O-$(CH_2)_3$-	
I.b.397	F	Cl	CH_3	-O-$(CH_2)_4$-	
I.b.398	F	Cl	F	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.399	F	Cl	F	-O-$(CH_2)_2$-	
I.b.400	F	Cl	F	-O-$(CH_2)_3$-	
I.b.401	F	Cl	F	-O-$(CH_2)_4$-	
I.b.402	F	Cl	Cl	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.403	F	Cl	Cl	-O-$(CH_2)_2$-	
I.b.404	F	Cl	Cl	-O-$(CH_2)_3$-	
I.b.405	F	Cl	Cl	-O-$(CH_2)_4$-	
I.b.406	F	Cl	CH_3	-O-$(CH_2)_3$-	
I.b.407	F	Cl	CH_3	-O-$(CH_2)_4$-	
I.b.408	F	Cl	OCH_3	-O-$(CH_2)_3$-	
I.b.409	F	Cl	OCH_3	-O-$(CH_2)_4$-	
I.b.410	F	Cl	OCF_3	-O-$(CH_2)_3$-	
I.b.411	F	Cl	OCF_3	-O-$(CH_2)_4$-	
I.b.412	F	Cl	OCH_3	-$(CH_2)_2$-	
I.b.413	F	Cl	OCH_3	-$(CH_2)_3$-	
I.b.414	F	Cl	OCH_3	-$(CH_2)_4$-	
I.b.415	F	Cl	OCH_3	-$(CH_2)_5$-	
I.b.416	F	Cl	H	H	OH
I.b.417	F	Cl	H	H	OCH_3
I.b.418	F	Cl	H	H	OCF_3
I.b.419	F	Cl	CH_3	H	OH
I.b.420	F	Cl	CH_3	H	OCH_3
I.b.421	F	Cl	CH_3	H	OCF_3
I.b.422	F	Cl	CH_3	CH_3	OH
I.b.423	F	Cl	CH_3	CH_3	OCH_3
I.b.424	F	Cl	CH_3	CH_3	OCF_3
I.b.425	F	Cl	OH	-$(CH_2)_2$-	
I.b.426	F	Cl	OH	-$(CH_2)_3$-	
I.b.427	F	Cl	OH	-$(CH_2)_4$-	
I.b.428	F	Cl	OH	-$(CH_2)_5$-	
I.b.429	F	Cl	OCF_3	-$(CH_2)_2$-	
I.b.430	F	Cl	OCF_3	-$(CH_2)_3$-	
I.b.431	F	Cl	OCF_3	-$(CH_2)_4$-	
I.b.432	F	Cl	OCF_3	-$(CH_2)_5$-	
I.b.433	Cl	F	F	H	C_2H_5

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.434	Cl	F	OCH_3	H	C_2H_5
I.b.435	Cl	F	H	H	$C(CH_3)_3$
I.b.436	Cl	F	F	H	$C(CH_3)_3$
I.b.437	Cl	F	F	F	$C(CH_3)_3$
I.b.438	Cl	F	CH_3	H	$C(CH_3)_3$
I.b.439	Cl	F	OCH_3	H	$C(CH_3)_3$
I.b.440	Cl	F	CH_3	F	$C(CH_3)_3$
I.b.441	Cl	F	H	H	$CH(CH_3)_2$
I.b.442	Cl	F	F	H	$CH(CH_3)_2$
I.b.443	Cl	F	F	F	$CH(CH_3)_2$
I.b.444	Cl	F	CH_3	H	$CH(CH_3)_2$
I.b.445	Cl	F	OCH_3	H	$CH(CH_3)_2$
I.b.446	Cl	F	CH_3	F	$CH(CH_3)_2$
I.b.447	Cl	F	H	H	c-C_3H_5
I.b.448	Cl	F	F	H	c-C_3H_5
I.b.449	Cl	F	F	F	c-C_3H_5
I.b.450	Cl	F	CH_3	H	c-C_3H_5
I.b.451	Cl	F	OCH_3	H	c-C_3H_5
I.b.452	Cl	F	CH_3	F	c-C_3H_5
I.b.453	Cl	F	H	H	$CH_2CH_2CH_3$
I.b.454	Cl	F	F	H	$CH_2CH_2CH_3$
I.b.455	Cl	F	F	F	$CH_2CH_2CH_3$
I.b.456	Cl	F	CH_3	H	$CH_2CH_2CH_3$
I.b.457	Cl	F	CH_2CH_3	H	$CH_2CH_2CH_3$
I.b.458	Cl	F	OCH_3	H	$CH_2CH_2CH_3$
I.b.459	Cl	F	CH_3	F	$CH_2CH_2CH_3$
I.b.460	Cl	F	CH_3	H	CF_3
I.b.461	Cl	F	CH_3	F	CF_3
I.b.462	Cl	F	H	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.463	Cl	F	H	-O-$(CH_2)_2$-	
I.b.464	Cl	F	H	-O-$(CH_2)_3$-	
I.b.465	Cl	F	H	-O-$(CH_2)_4$-	
I.b.466	Cl	F	CH_3	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.467	Cl	F	CH_3	-O-$(CH_2)_2$-	
I.b.468	Cl	F	CH_3	-O-$(CH_2)_3$-	
I.b.469	Cl	F	CH_3	-O-$(CH_2)_4$-	
I.b.470	Cl	F	F	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.471	Cl	F	F	-O-$(CH_2)_2$-	
I.b.472	Cl	F	F	-O-$(CH_2)_3$-	
I.b.473	Cl	F	F	-O-$(CH_2)_4$-	
I.b.474	Cl	F	Cl	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.475	Cl	F	Cl	-O-$(CH_2)_2$-	
I.b.476	Cl	F	Cl	-O-$(CH_2)_3$-	
I.b.477	Cl	F	Cl	-O-$(CH_2)_4$-	
I.b.478	Cl	F	CH_3	-O-$(CH_2)_3$-	
I.b.479	Cl	F	CH_3	-O-$(CH_2)_4$-	
I.b.480	Cl	F	OCH_3	-O-$(CH_2)_3$-	
I.b.481	Cl	F	OCH_3	-O-$(CH_2)_4$-	
I.b.482	Cl	F	OCF_3	-O-$(CH_2)_3$-	
I.b.483	Cl	F	OCF_3	-O-$(CH_2)_4$-	
I.b.484	Cl	F	OCH_3	-$(CH_2)_2$-	
I.b.485	Cl	F	OCH_3	-$(CH_2)_3$-	
I.b.486	Cl	F	OCH_3	-$(CH_2)_4$-	
I.b.487	Cl	F	OCH_3	-$(CH_2)_5$-	
I.b.488	Cl	F	H	H	OH
I.b.489	Cl	F	H	H	OCH_3
I.b.490	Cl	F	H	H	OCF_3
I.b.491	Cl	F	CH_3	H	OH
I.b.492	Cl	F	CH_3	H	OCH_3
I.b.493	Cl	F	CH_3	H	OCF_3
I.b.494	Cl	F	CH_3	CH_3	OH
I.b.495	Cl	F	CH_3	CH_3	OCH_3
I.b.496	Cl	F	CH_3	CH_3	OCF_3
I.b.497	Cl	F	OH	-$(CH_2)_2$-	
I.b.498	Cl	F	OH	-$(CH_2)_3$-	
I.b.499	Cl	F	OH	-$(CH_2)_4$-	
I.b.500	Cl	F	OH	-$(CH_2)_5$-	
I.b.501	Cl	F	OCF_3	-$(CH_2)_2$-	
I.b.502	Cl	F	OCF_3	-$(CH_2)_3$-	
I.b.503	Cl	F	OCF_3	-$(CH_2)_4$-	
I.b.504	Cl	F	OCF_3	-$(CH_2)_5$-	
I.b.505	Cl	H	F	H	C_2H_5
I.b.506	Cl	H	OCH_3	H	C_2H_5
I.b.507	Cl	H	H	H	$C(CH_3)_3$
I.b.508	Cl	H	F	H	$C(CH_3)_3$
I.b.509	Cl	H	F	F	$C(CH_3)_3$
I.b.510	Cl	H	CH_3	H	$C(CH_3)_3$
I.b.511	Cl	H	OCH_3	H	$C(CH_3)_3$
I.b.512	Cl	H	CH_3	F	$C(CH_3)_3$
I.b.513	Cl	H	H	H	$CH(CH_3)_2$
I.b.514	Cl	H	F	H	$CH(CH_3)_2$
I.b.515	Cl	H	F	F	$CH(CH_3)_2$

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.516	Cl	H	CH_3	H	$CH(CH_3)_2$
I.b.517	Cl	H	OCH_3	H	$CH(CH_3)_2$
I.b.518	Cl	H	CH_3	F	$CH(CH_3)_2$
I.b.519	Cl	H	H	H	c-C_3H_5
I.b.520	Cl	H	F	H	c-C_3H_5
I.b.521	Cl	H	F	F	c-C_3H_5
I.b.522	Cl	H	CH_3	H	c-C_3H_5
I.b.523	Cl	H	OCH_3	H	c-C_3H_5
I.b.524	Cl	H	CH_3	F	c-C_3H_5
I.b.525	Cl	H	H	H	$CH_2CH_2CH_3$
I.b.526	Cl	H	F	H	$CH_2CH_2CH_3$
I.b.527	Cl	H	F	F	$CH_2CH_2CH_3$
I.b.528	Cl	H	CH_3	H	$CH_2CH_2CH_3$
I.b.529	Cl	H	CH_2CH_3	H	$CH_2CH_2CH_3$
I.b.530	Cl	H	OCH_3	H	$CH_2CH_2CH_3$
I.b.531	Cl	H	CH_3	F	$CH_2CH_2CH_3$
I.b.532	Cl	H	CH_3	H	CF_3
I.b.533	Cl	H	CH_3	F	CF_3
I.b.534	Cl	H	H	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.535	Cl	H	H	-O-$(CH_2)_2$-	
I.b.536	Cl	H	H	-O-$(CH_2)_3$-	
I.b.537	Cl	H	H	-O-$(CH_2)_4$-	
I.b.538	Cl	H	CH_3	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.539	Cl	H	CH_3	-O-$(CH_2)_2$-	
I.b.540	Cl	H	CH_3	-O-$(CH_2)_3$-	
I.b.541	Cl	H	CH_3	-O-$(CH_2)_4$-	
I.b.542	Cl	H	F	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.543	Cl	H	F	-O-$(CH_2)_2$-	
I.b.544	Cl	H	F	-O-$(CH_2)_3$-	
I.b.545	Cl	H	F	-O-$(CH_2)_4$-	
I.b.546	Cl	H	Cl	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.547	Cl	H	Cl	-O-$(CH_2)_2$-	
I.b.548	Cl	H	Cl	-O-$(CH_2)_3$-	
I.b.549	Cl	H	Cl	-O-$(CH_2)_4$-	
I.b.550	Cl	H	CH_3	-O-$(CH_2)_3$-	
I.b.551	Cl	H	CH_3	-O-$(CH_2)_4$-	
I.b.552	Cl	H	OCH_3	-O-$(CH_2)_3$-	
I.b.553	Cl	H	OCH_3	-O-$(CH_2)_4$-	
I.b.554	Cl	H	OCF_3	-O-$(CH_2)_3$-	
I.b.555	Cl	H	OCF_3	-O-$(CH_2)_4$-	
I.b.556	Cl	H	OCH_3	-$(CH_2)_2$-	

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.557	Cl	H	OCH_3	$-(CH_2)_3-$	
I.b.558	Cl	H	OCH_3	$-(CH_2)_4-$	
I.b.559	Cl	H	OCH_3	$-(CH_2)_5-$	
I.b.560	Cl	H	H	H	OH
I.b.561	Cl	H	H	H	OCH_3
I.b.562	Cl	H	H	H	OCF_3
I.b.563	Cl	H	CH_3	H	OH
I.b.564	Cl	H	CH_3	H	OCH_3
I.b.565	Cl	H	CH_3	H	OCF_3
I.b.566	Cl	H	CH_3	CH_3	OH
I.b.567	Cl	H	CH_3	CH_3	OCH_3
I.b.568	Cl	H	CH_3	CH_3	OCF_3
I.b.569	Cl	H	OH	$-(CH_2)_2-$	
I.b.570	Cl	H	OH	$-(CH_2)_3-$	
I.b.571	Cl	H	OH	$-(CH_2)_4-$	
I.b.572	Cl	H	OH	$-(CH_2)_5-$	
I.b.573	Cl	H	OCF_3	$-(CH_2)_2-$	
I.b.574	Cl	H	OCF_3	$-(CH_2)_3-$	
I.b.575	Cl	H	OCF_3	$-(CH_2)_4-$	
I.b.576	Cl	H	OCF_3	$-(CH_2)_5-$	
I.b.577	CN	F	F	H	C_2H_5
I.b.578	CN	F	OCH_3	H	C_2H_5
I.b.579	CN	F	H	H	$C(CH_3)_3$
I.b.580	CN	F	F	H	$C(CH_3)_3$
I.b.581	CN	F	F	F	$C(CH_3)_3$
I.b.582	CN	F	CH_3	H	$C(CH_3)_3$
I.b.583	CN	F	OCH_3	H	$C(CH_3)_3$
I.b.584	CN	F	CH_3	F	$C(CH_3)_3$
I.b.585	CN	F	H	H	$CH(CH_3)_2$
I.b.586	CN	F	F	H	$CH(CH_3)_2$
I.b.587	CN	F	F	F	$CH(CH_3)_2$
I.b.588	CN	F	CH_3	H	$CH(CH_3)_2$
I.b.589	CN	F	OCH_3	H	$CH(CH_3)_2$
I.b.590	CN	F	CH_3	F	$CH(CH_3)_2$
I.b.591	CN	F	H	H	$c\text{-}C_3H_5$
I.b.592	CN	F	F	H	$c\text{-}C_3H_5$
I.b.593	CN	F	F	F	$c\text{-}C_3H_5$
I.b.594	CN	F	CH_3	H	$c\text{-}C_3H_5$
I.b.595	CN	F	OCH_3	H	$c\text{-}C_3H_5$
I.b.596	CN	F	CH_3	F	$c\text{-}C_3H_5$
I.b.597	CN	F	H	H	$CH_2CH_2CH_3$

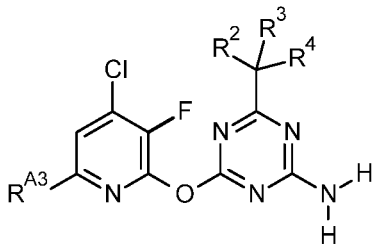
No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.598	CN	F	F	H	$CH_2CH_2CH_3$
I.b.599	CN	F	F	F	$CH_2CH_2CH_3$
I.b.600	CN	F	CH_3	H	$CH_2CH_2CH_3$
I.b.601	CN	F	CH_2CH_3	H	$CH_2CH_2CH_3$
I.b.602	CN	F	OCH_3	H	$CH_2CH_2CH_3$
I.b.603	CN	F	CH_3	F	$CH_2CH_2CH_3$
I.b.604	CN	F	CH_3	H	CF_3
I.b.605	CN	F	CH_3	F	CF_3
I.b.606	CN	F	H	$-(CH_2)_2-CH(CH_3)-(CH_2)_2-$	
I.b.607	CN	F	H	$-O-(CH_2)_2-$	
I.b.608	CN	F	H	$-O-(CH_2)_3-$	
I.b.609	CN	F	H	$-O-(CH_2)_4-$	
I.b.610	CN	F	CH_3	$-(CH_2)_2-CH(CH_3)-(CH_2)_2-$	
I.b.611	CN	F	CH_3	$-O-(CH_2)_2-$	
I.b.612	CN	F	CH_3	$-O-(CH_2)_3-$	
I.b.613	CN	F	CH_3	$-O-(CH_2)_4-$	
I.b.614	CN	F	F	$-(CH_2)_2-CH(CH_3)-(CH_2)_2-$	
I.b.615	CN	F	F	$-O-(CH_2)_2-$	
I.b.616	CN	F	F	$-O-(CH_2)_3-$	
I.b.617	CN	F	F	$-O-(CH_2)_4-$	
I.b.618	CN	F	Cl	$-(CH_2)_2-CH(CH_3)-(CH_2)_2-$	
I.b.619	CN	F	Cl	$-O-(CH_2)_2-$	
I.b.620	CN	F	Cl	$-O-(CH_2)_3-$	
I.b.621	CN	F	Cl	$-O-(CH_2)_4-$	
I.b.622	CN	F	CH_3	$-O-(CH_2)_3-$	
I.b.623	CN	F	CH_3	$-O-(CH_2)_4-$	
I.b.624	CN	F	OCH_3	$-O-(CH_2)_3-$	
I.b.625	CN	F	OCH_3	$-O-(CH_2)_4-$	
I.b.626	CN	F	OCF_3	$-O-(CH_2)_3-$	
I.b.627	CN	F	OCF_3	$-O-(CH_2)_4-$	
I.b.628	CN	F	OCH_3	$-(CH_2)_2-$	
I.b.629	CN	F	OCH_3	$-(CH_2)_3-$	
I.b.630	CN	F	OCH_3	$-(CH_2)_4-$	
I.b.631	CN	F	OCH_3	$-(CH_2)_5-$	
I.b.632	CN	H	F	H	C_2H_5
I.b.633	CN	H	OCH_3	H	C_2H_5
I.b.634	CN	H	H	H	$C(CH_3)_3$
I.b.635	CN	H	F	H	$C(CH_3)_3$
I.b.636	CN	H	F	F	$C(CH_3)_3$
I.b.637	CN	H	CH_3	H	$C(CH_3)_3$
I.b.638	CN	H	OCH_3	H	$C(CH_3)_3$

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.639	CN	H	CH_3	F	$C(CH_3)_3$
I.b.640	CN	H	H	H	$CH(CH_3)_2$
I.b.641	CN	H	F	H	$CH(CH_3)_2$
I.b.642	CN	H	F	F	$CH(CH_3)_2$
I.b.643	CN	H	CH_3	H	$CH(CH_3)_2$
I.b.644	CN	H	OCH_3	H	$CH(CH_3)_2$
I.b.645	CN	H	CH_3	F	$CH(CH_3)_2$
I.b.646	CN	H	H	H	c-C_3H_5
I.b.647	CN	H	F	H	c-C_3H_5
I.b.648	CN	H	F	F	c-C_3H_5
I.b.649	CN	H	CH_3	H	c-C_3H_5
I.b.650	CN	H	OCH_3	H	c-C_3H_5
I.b.651	CN	H	CH_3	F	c-C_3H_5
I.b.652	CN	H	H	H	$CH_2CH_2CH_3$
I.b.653	CN	H	F	H	$CH_2CH_2CH_3$
I.b.654	CN	H	F	F	$CH_2CH_2CH_3$
I.b.655	CN	H	CH_3	H	$CH_2CH_2CH_3$
I.b.656	CN	H	CH_2CH_3	H	$CH_2CH_2CH_3$
I.b.657	CN	H	OCH_3	H	$CH_2CH_2CH_3$
I.b.658	CN	H	CH_3	F	$CH_2CH_2CH_3$
I.b.659	CN	H	CH_3	H	CF_3
I.b.660	CN	H	CH_3	F	CF_3
I.b.661	CN	H	H	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.662	CN	H	H	-O-$(CH_2)_2$-	
I.b.663	CN	H	H	-O-$(CH_2)_3$-	
I.b.664	CN	H	H	-O-$(CH_2)_4$-	
I.b.665	CN	H	CH_3	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.666	CN	H	CH_3	-O-$(CH_2)_2$-	
I.b.667	CN	H	CH_3	-O-$(CH_2)_3$-	
I.b.668	CN	H	CH_3	-O-$(CH_2)_4$-	
I.b.669	CN	H	F	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.670	CN	H	F	-O-$(CH_2)_2$-	
I.b.671	CN	H	F	-O-$(CH_2)_3$-	
I.b.672	CN	H	F	-O-$(CH_2)_4$-	
I.b.673	CN	H	Cl	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.674	CN	H	Cl	-O-$(CH_2)_2$-	
I.b.675	CN	H	Cl	-O-$(CH_2)_3$-	
I.b.676	CN	H	Cl	-O-$(CH_2)_4$-	
I.b.677	CN	H	CH_3	-O-$(CH_2)_3$-	
I.b.678	CN	H	CH_3	-O-$(CH_2)_4$-	
I.b.679	CN	H	OCH_3	-O-$(CH_2)_3$-	

No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.680	CN	H	OCH_3	-O-$(CH_2)_4$-	
I.b.681	CN	H	OCF_3	-O-$(CH_2)_3$-	
I.b.682	CN	H	OCF_3	-O-$(CH_2)_4$-	
I.b.683	CN	H	OCH_3	-$(CH_2)_2$-	
I.b.684	CN	H	OCH_3	-$(CH_2)_3$-	
I.b.685	CN	H	OCH_3	-$(CH_2)_4$-	
I.b.686	CN	H	OCH_3	-$(CH_2)_5$-	
I.b.687	F	CN	F	H	C_2H_5
I.b.688	F	CN	OCH_3	H	C_2H_5
I.b.689	F	CN	H	H	$C(CH_3)_3$
I.b.690	F	CN	F	H	$C(CH_3)_3$
I.b.691	F	CN	F	F	$C(CH_3)_3$
I.b.692	F	CN	CH_3	H	$C(CH_3)_3$
I.b.693	F	CN	OCH_3	H	$C(CH_3)_3$
I.b.694	F	CN	CH_3	F	$C(CH_3)_3$
I.b.695	F	CN	H	H	$CH(CH_3)_2$
I.b.696	F	CN	F	H	$CH(CH_3)_2$
I.b.697	F	CN	F	F	$CH(CH_3)_2$
I.b.698	F	CN	CH_3	H	$CH(CH_3)_2$
I.b.699	F	CN	OCH_3	H	$CH(CH_3)_2$
I.b.700	F	CN	CH_3	F	$CH(CH_3)_2$
I.b.701	F	CN	H	H	c-C_3H_5
I.b.702	F	CN	F	H	c-C_3H_5
I.b.703	F	CN	F	F	c-C_3H_5
I.b.704	F	CN	CH_3	H	c-C_3H_5
I.b.705	F	CN	OCH_3	H	c-C_3H_5
I.b.706	F	CN	CH_3	F	c-C_3H_5
I.b.707	F	CN	H	H	$CH_2CH_2CH_3$
I.b.708	F	CN	F	H	$CH_2CH_2CH_3$
I.b.709	F	CN	F	F	$CH_2CH_2CH_3$
I.b.710	F	CN	CH_3	H	$CH_2CH_2CH_3$
I.b.711	F	CN	CH_2CH_3	H	$CH_2CH_2CH_3$
I.b.712	F	CN	OCH_3	H	$CH_2CH_2CH_3$
I.b.713	F	CN	CH_3	F	$CH_2CH_2CH_3$
I.b.714	F	CN	CH_3	H	CF_3
I.b.715	F	CN	CH_3	F	CF_3
I.b.716	F	CN	H	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	
I.b.717	F	CN	H	-O-$(CH_2)_2$-	
I.b.718	F	CN	H	-O-$(CH_2)_3$-	
I.b.719	F	CN	H	-O-$(CH_2)_4$-	
I.b.720	F	CN	CH_3	-$(CH_2)_2$-CH(CH_3)-$(CH_2)_2$-	

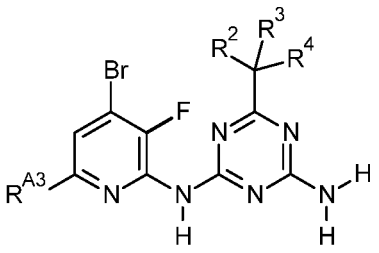
No.	R^{A1}	R^{A3}	R^2	R^3	R^4
I.b.721	F	CN	CH_3	$-O-(CH_2)_2-$	
I.b.722	F	CN	CH_3	$-O-(CH_2)_3-$	
I.b.723	F	CN	CH_3	$-O-(CH_2)_4-$	
I.b.724	F	CN	F	$-(CH_2)_2-CH(CH_3)-(CH_2)_2-$	
I.b.725	F	CN	F	$-O-(CH_2)_2-$	
I.b.726	F	CN	F	$-O-(CH_2)_3-$	
I.b.727	F	CN	F	$-O-(CH_2)_4-$	
I.b.728	F	CN	Cl	$-(CH_2)_2-CH(CH_3)-(CH_2)_2-$	
I.b.729	F	CN	Cl	$-O-(CH_2)_2-$	
I.b.730	F	CN	Cl	$-O-(CH_2)_3-$	
I.b.731	F	CN	Cl	$-O-(CH_2)_4-$	
I.b.732	F	CN	CH_3	$-O-(CH_2)_3-$	
I.b.733	F	CN	CH_3	$-O-(CH_2)_4-$	
I.b.734	F	CN	OCH_3	$-O-(CH_2)_3-$	
I.b.735	F	CN	OCH_3	$-O-(CH_2)_4-$	
I.b.736	F	CN	OCF_3	$-O-(CH_2)_3-$	
I.b.737	F	CN	OCF_3	$-O-(CH_2)_4-$	
I.b.738	F	CN	OCH_3	$-(CH_2)_2-$	
I.b.739	F	CN	OCH_3	$-(CH_2)_3-$	
I.b.740	F	CN	OCH_3	$-(CH_2)_4-$	
I.b.741	F	CN	OCH_3	$-(CH_2)_5-$	

Also preferred are the azines of formula (I.c), particularly preferred the azines of formulae (I.c.1) to (I.c.741) which differ from the corresponding azines of formulae (I.b.1) to (I.b.741) only in that R^{A1} is Cl:



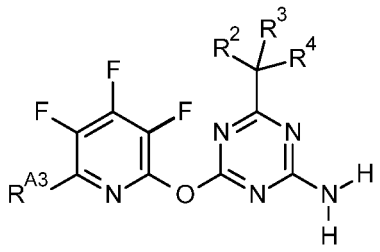
(I.c)

Also preferred are the azines of formula (I.d), particularly preferred the azines of formulae (I.d.1) to (I.d.741) which differ from the corresponding azines of formulae (I.b.1) to (I.b.741) only in that R^{A1} is Br:



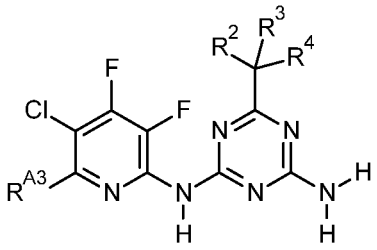
(I.d)

Also preferred are the azines of formula (I.e), particularly preferred the azines of formulae (I.e.1) to (I.e.741) which differ from the corresponding azines of formulae (I.b.1) to (I.b.741) only in that, R^{A1} and R^{A2} are F:



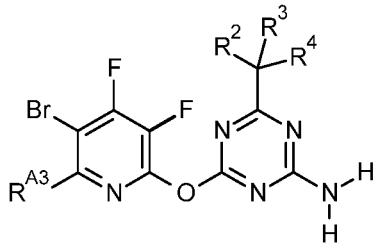
(I.e)

Also preferred are the azines of formula (I.f), particularly preferred the azines of formulae (I.f.1) to (I.f.741) which differ from the corresponding azines of formulae (I.b.1) to (I.b.741) only in that R^{A1} is F and R^{A2} is Cl:



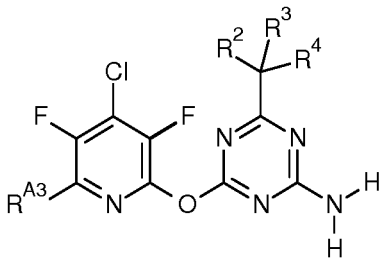
(I.f),

Also preferred are the azines of formula (I.g), particularly preferred the azines of formulae (I.g.1) to (I.g.741) which differ from the corresponding azines of formulae (I.b.1) to (I.b.741) only in that R^{A1} is F and R^{A2} is Br:



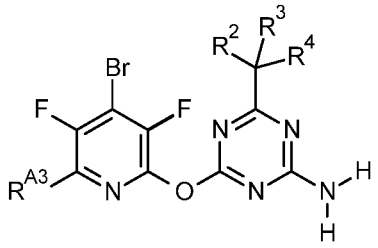
(I.g),

Also preferred are the azines of formula (I.h), particularly preferred the azines of formulae (I.h.1) to (I.h.741) which differ from the corresponding azines of formulae (I.b.1) to (I.b.741) only in that R^{A1} is Cl and R^{A2} is F:



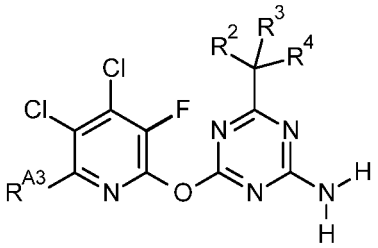
(I.h),

Also preferred are the azines of formula (I.i), particularly preferred the azines of formulae (I.i.1) to (I.i.741) which differ from the corresponding azines of formulae (I.b.1) to (I.b.741) only in that R^{A1} is Br and R^{A2} is F:



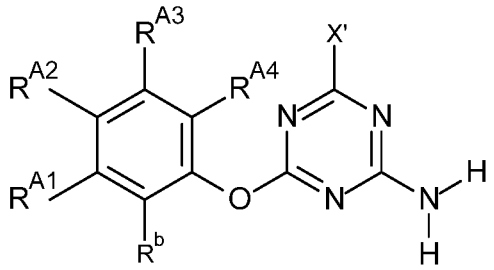
(I.i),

Also preferred are the azines of formula (I.j), particularly preferred the azines of formulae (I.j.1) to (I.j.741) which differ from the corresponding azines of formulae (I.b.1) to (I.b.741) only in that R^{A1} and R^{A2} is Cl:



(I.j),

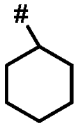
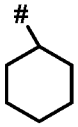
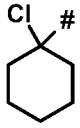
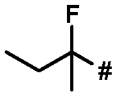
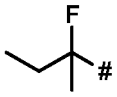
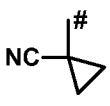
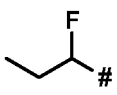
A special group of embodiments relates to compounds of the formula (I')

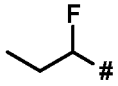
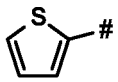
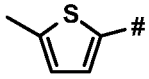
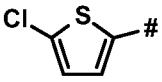
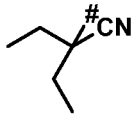
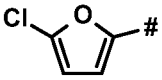
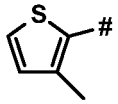
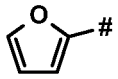
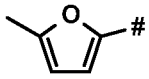
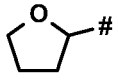
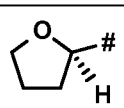
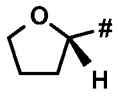
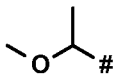


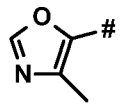
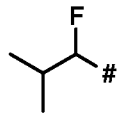
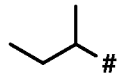
(I')

and to their agriculturally acceptable salts, where X' corresponds to the group $CR^2R^3R^4$, R^b and R^{A4} are as defined herein and R^{A1}, R^{A2}, R^{A3} are hydrogen or have one of the meanings given for R^A. Particular examples of these groups of embodiments are the compounds of formula (I'), which are selected from the group consisting of compounds E.1 to E.45 and their agriculturally acceptable salts, where R^{A1}, R^{A2}, R^{A3}, R^{A4} R^b and X' are as defined in the following table:

Compound	R^b	R^{A4}	R^{A3}	R^{A2}	R^{A1}	X'
E.1	F	F	F	F	F	$CHFCH_3$
E.2	F	F	F	F	F	$CF(CH_3)_2$

Compound	R^b	R^{A4}	R^{A3}	R^{A2}	R^{A1}	X'
E.3	F	H	H	F	H	$CHFCH_3$
E.4	CN	H	H	H	H	$CHFCH_3$
E.5	F	F	H	H	F	$CF(CH_3)_2$
E.6	F	H	H	H	F	$CF(CH_3)_2$
E.7	F	H	H	H	F	$CHFCH_3$
E.8	F	F	H	H	F	$CHFCH_3$
E.9	F	F	H	F	F	$CHFCH_3$
E.10	F	F	H	F	F	CF_2CH_3
E.11	F	F	H	F	F	CF_3
E.12	F	F	H	F	F	$C(CH_3)_3$
E.13	F	F	H	F	F	
E.14	F	F	H	H	F	$C(CH_3)_3$
E.15	F	F	F	F	F	
E.16	F	H	H	H	F	
E.17	F	F	F	F	F	
E.18	F	F	H	H	F	CF_2CH_3
E.19	F	F	H	F	F	
E.20	F	F	H	H	F	
E.21	F	F	H	F	F	
E.22	F	F	F	F	F	$C(CH_3)_2CN$
E.23	F	F	H	F	F	

Compound	R^b	R^{A4}	R^{A3}	R^{A2}	R^{A1}	X'
E.24	F	F	F	F	F	
E.25	F	F	H	F	F	
E.26	F	F	H	F	F	
E.27	F	F	H	F	F	
E.28	F	F	H	F	F	
E.29	F	F	H	F	F	
E.30	F	F	H	F	F	
E.31	F	F	H	F	F	
E.32	F	F	H	F	F	
E.33	F	F	H	F	F	
E.34	F	F	H	F	F	
E.35	F	F	H	F	F	
E.36	F	F	H	F	F	
E.37	F	Cl	H	H	F	$CHFCH_3$

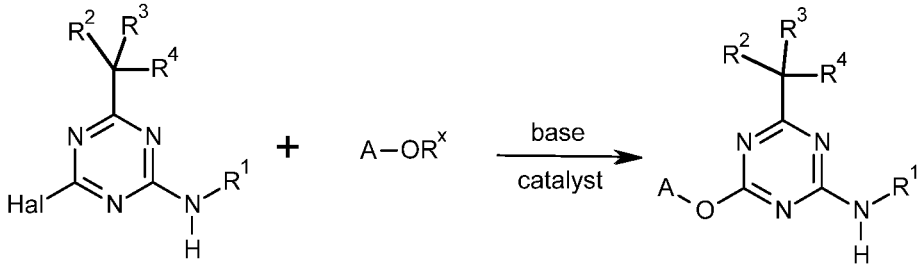
Compound	R^b	R^{A4}	R^{A3}	R^{A2}	R^{A1}	X'
E.38	F	F	H	F	F	
E.39	F	F	I	F	F	$CHFCH_3$
E.40	F	F	Br	F	F	$CHFCH_3$
E.41	F	F	Cl	F	F	$CHFCH_3$
E.42	F	F	H	F	F	
E.43	F	F	H	F	F	CH_2CH_3
E.44	F	F	H	F	F	$CH(CH_3)_2$
E.45	F	F	H	F	F	

The aminotriazine compounds of formula (I) according to the invention can be prepared by standard processes of organic chemistry, for example by the following processes:

Process A)

The aminotriazine compounds of formula (I), wherein R^1 is as defined above and in particular H, C_1-C_6-alkyl or (C_1-C_6-alkoxy)-C_1-C_6-alkyl, can be prepared by reacting halotriazines of formula (II) with alkohols in the presence of a base or the corresponding alkoholates of formula (III) optionally in the presence of a catalyst as depicted in the following scheme 1:

Scheme 1:



(II) (III) (I)

In scheme 1, the variables R^1, R^2, R^3, R^4 and A have the above meanings, in particular the preferred meanings, as in formula (I) mentioned above; while Hal is halogen, in particular bromine or chlorine and especially chlorine,

R^1 is in particular H, C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl;

more particularly H, C_1-C_4-alkoxy-C_1-C_4-alkyl, such as CH_2OCH_3;

especially hydrogen;

R^x is particularly H, Na, K, Li, NH_4 or positively charged ion equivalent;
especially hydrogen.

The reaction of the halotriazines of formula (II) with the alkohols in the presence of a base or the corresponding alkoholates of formula (III) is usually carried out at temperatures in the range from from 15°C to the boiling point of the reaction mixture, preferably from 20°C to 150°C, particularly preferably from 20°C to 80°C, in an inert organic solvent (e.g. –R. J. Goetz et al. Chem. Comm. 2008, 3384-3386).

The reaction can be carried out at atmospheric pressure or under elevated pressure, if appropriate, under an inert gas, continuously or batchwise.

In one embodiment of the process according to the invention, the halotriazines of formula (II) and the alkohols in the presence of a base or the corresponding alkoholates of formula (III) are used in equimolar amounts.

In another embodiment of the process according to the invention, the alkohols in the presence of a base or the corresponding alkoholates of formula (III) are used in excess with regard to the halotriazines of formula (II).

Preferably the molar ratio of the alkohols in the presence of a base or the corresponding alkoholates of formula (III) to the halotriazines of formula (II) is in the range from 2 : 1 to 1 : 1, preferably 1.5 : 1 to 1 : 1, especially preferred 1.2 : 1.

The reaction of the halotriazines of formula (II) with the alkohols in the presence of a base or the corresponding alkoholates of formula (III) is usually carried out in an organic solvent. Suitable in principle are all solvents which are capable of dissolving the halotriazines of formula (II) and the alkohols in the presence of a base or the corresponding alkoholates of formula (III) at least partly and preferably fully under reaction conditions. Examples of suitable solvents are aliphatic hydrocarbons such as pentane, hexane, cyclohexane, nitromethane and mixtures of C_5-C_8-alkanes, aromatic hydrocarbons such as benzene, chlorobenzene, toluene, cresols, o-, m- and p-xylene, halogenated hydrocarbons such as dichloromethane, 1,2-dichloroethane, chloroform, carbon tetrachloride and chlorobenzene, ethers such as diethyl ether, diisopropyl ether, tert.-butyl methylether (TBME), dioxane, anisole and tetrahydrofuran (THF), esters such as ethyl acetate and butyl acetate; nitriles such as acetonitrile and propionitrile, as well as dipolar aprotic solvents such as sulfolane, N,N-dimethylformamide (DMF), N,N-dimethylacetamide (DMAC), 1,3-dimethyl-2-imidazolidinone (DMI), N,N′-dimethylpropylene urea (DMPU), dimethyl sulfoxide (DMSO) and 1-methyl-2 pyrrolidinone (NMP). Preferred solvents are ethers as defined above. The term solvent as used herein also includes mixtures of two or more of the above compounds.

The reaction of the halotriazines of formula (II) with the alkohols in the presence of a base or the corresponding alkoholates of formula (III) is usually carried out in the presence of a base. Examples of suitable bases include metal-containing bases and nitrogen-containing bases. Examples of suitable metal-containing bases are inorganic compounds such as alkali metal and alkaline earth metal hydroxides, and other metal hydroxides, such as lithium hydroxide, sodium hydroxide, potassium hydroxide, magnesium hydroxide, calcium hydroxide and aluminum hydroxide; alkali metal and alkaline earth metal oxide, and other metal oxides, such as lithium oxide, sodium oxide, potassium oxide, magnesium oxide, calcium oxide and magnesium oxide,

iron oxide, silver oxide; alkali metal and alkaline earth metal hydrides such as lithium hydride, sodium hydride, potassium hydride and calcium hydride, alkali metal and alkaline earth metal formates, acetates and other metal salts of carboxylic acids, such as sodium formate, sodium benzoate, lithium acetate, sodium acetate, potassium acetate, magnesium acetate, and calcium acetate; alkali metal and alkaline earth metal carbonates such as lithium carbonate, sodium carbonate, potassium carbonate, magnesium carbonate, and calcium carbonate, as well as alkali metal hydrogen carbonates (bicarbonates) such as lithium hydrogen carbonate, sodium hydrogen carbonate, potassium hydrogen carbonate; alkali metal and alkaline earth metal phosphates such as sodium phosphate, potassium phosphate and calcium phosphate; alkali metal and alkaline earth metal alkoxides such as sodium methoxide, sodium ethoxide, potassium ethoxide, potassium tert-butoxide, potassium tert-pentoxide and dimethoxymagnesium; and furthermore organic bases, such as tertiary amines such as tri-C_1-C_6-alkylamines, for example triethylamine, trimethylamine, N-ethyldiisopropylamine, and N-methylpiperidine, pyridine, substituted pyridines such as collidine, lutidine, N-methylmorpholine and also bicyclic amines such as 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU) or 1,5-diazabicyclo[4.3.0]non-5-ene (DBN). Preferred bases are alkali metal and alkaline earth metal alkoxides as defined above. The term base as used herein also includes mixtures of two or more, preferably two of the above compounds. Particular preference is given to the use of one base. The bases can be used in excess, preferably from 1 to 10, especially preferred from 2 to 4 base equivalents based on the halotriazines of formula (II), and they may also be used as the solvent.

The reaction of the halotriazines of formula (II) with the alkohols in the presence of a base or the corresponding alkoholates of formula (III) may be carried out in the presence of a catalyst. Examples of suitable catalysts include for example, palladium based catalysts like, for example, Palladium(II)acetate, tetrakis(triphenylphosphine)palladium(0), bis(triphenylphosphine)palladium(II)chloride or (1,1,-bis(diphenylphosphino)ferrocene)-dichloropalladium(II), and optionally suitable additives such as, for example, phosphines like, for example, P(o-tolyl)$_3$, triphenylphosphine or BINAP (2,2'-Bis(diphenylphospino)-1,1'-binaphthyl). The amount of catalyst is usually 10 to 20 mol % (0.1 to 0.2 equivalents) based on the halotriazines of formula (II).

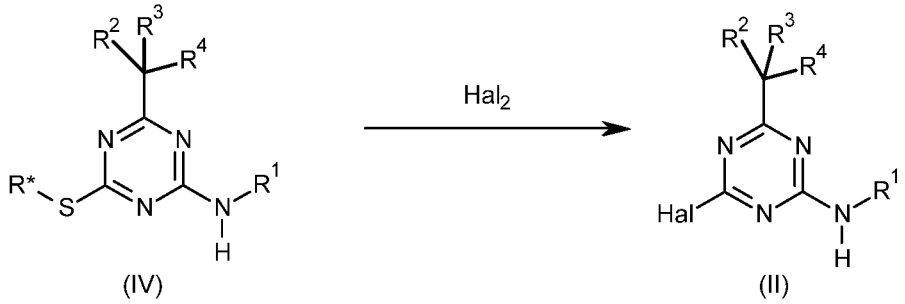
The end of the reaction can easily be determined by the skilled worker by means of routine methods.

The reaction mixtures are worked up in a customary manner, for example by mixing with water, separation of the phases and, if appropriate, chromatographic purification of the crude product.

The alkohols in the presence of a base or the corresponding alkoholates of formula (III) used for the preparation of aminotriazine compounds of formula (I), wherein R^1 is H, C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl or C_1-C_6-alkoxy, are commercially available and/or can be prepared by analogy to known literature.

The halotriazines of formula (II) required for the preparation of aminotriazine compounds of formula (I), wherein R^1 is H, C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl or C_1-C_6-alkoxy, can be prepared by analogy (e.g. J. K.Chakrabarti et al., Tetrahedron 1975, 31, 1879 - 1882) by reacting thiotriazines of formula (IV) with a halogen, as depicted in scheme 2:

Scheme 2:



(IV) (II)

The variables R^1, R^2, R^3, R^4 in formulae (II) and (IV) have the meanings, in particular the preferred meanings, as defined above in context of formula (I);

Hal is halogen;

Preferably Cl or Br;

Particular preferred Cl;

R* is C_1-C_6-alkyl, C_2-C_6-haloalkyl or phenyl;

in particular C_1-C_4-alkyl or C_2-C_4-haloalkyl;

more particularly C_1-C_4-alkyl;

especially CH_3.

The reaction of the thiotriazines of formula (IV) with the halogen is usually carried out from 0°C to the boiling point of the reaction mixture, preferably from 15°C to the boiling point of the reaction mixture, particularly preferably from 15°C to 40°C, in an inert organic solvent (e.g. J. K. Chakrabarti et al., Tetrahedron 1975, 31, 1879 - 1882).

The reaction can be carried out at atmospheric pressure or under elevated pressure, if appropriate under an inert gas, continuously or batchwise.

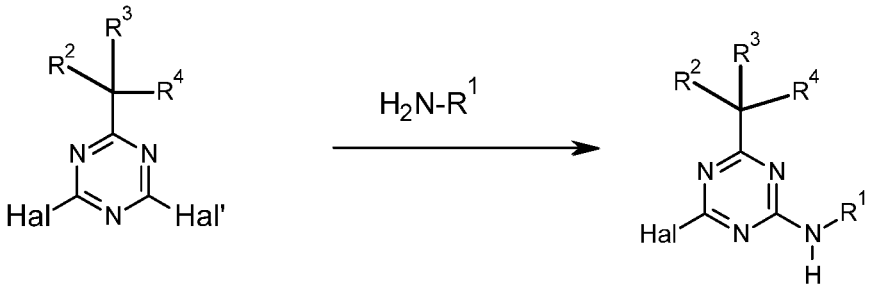
In the reaction of the thiotriazines of formula (IV) with, halogen is generally used in excess with regard to the thiotriazines of formula (IV).

The reaction of the thiotriazines of formula (IV) with the halogen is usually carried out in an organic solvent.

Suitable in principle are all solvents which are capable of dissolving the thiotriazines of formula (IV) and the halogen at least partly and preferably fully under reaction conditions. Examples of suitable solvents are aliphatic hydrocarbons such as pentane, hexane, cyclohexane and mixtures of C_5-C_8-alkanes, halogenated hydrocarbons such as dichloromethane, 1,2-dichloroethane, chloroform and carbon tetrachloride; ethers such as diethyl ether, diisopropyl ether, tert.-butyl methylether (TBME), dioxane, anisole and tetrahydrofuran (THF), alcohols such as methanol, ethanol, n-propanol, isopropanol, n-butanol and tert.-butanol, as well as organic acids like formic acid, acetic acid, propionic acid, oxalic acid, citric acid, trifluoroacetic acid. Preferred solvents are halogenated hydrocarbons and organic acids as defined above. The term solvent as used herein also includes mixtures of two or more of the above compounds. The end of the reaction can easily be determined by the skilled worker by means of routine methods. The reaction mixtures are worked up in a customary manner, for example by mixing with water, separation of the phases and, if appropriate, chromatographic purification of the crude product.

The halotriazines of formula (II) required for the preparation of aminotriazine compounds of formula (I), wherein R^1 is H, C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, can also be prepared by reacting 2,4-dichlorotriazines of formula (VII) with a an amine H_2N-R^1, in particular with ammonia, as depicted in scheme 3:

Scheme 3:



(V) (II)

The variables R^2, R^3 and R^4 in formulae (II) and (V) has the meanings, in particular the preferred meanings, as defined above in context of formula (I).

Hal and Hal' are each, indepentently, halogen, in particular bromine or chlorine, especially chlorine.

The reaction depicted in scheme 3 can be performed by simply mixing the required amounts of the compound of formula (V) with the amine H_2N-R^1 or by analogy to the reaction depicted in step 1.

Preferably the molar ratio of the amine to the halotriazines of formula (II) is in the range from 10 : 1 to 1 : 1, preferably 5: 1 to 1 : 1.

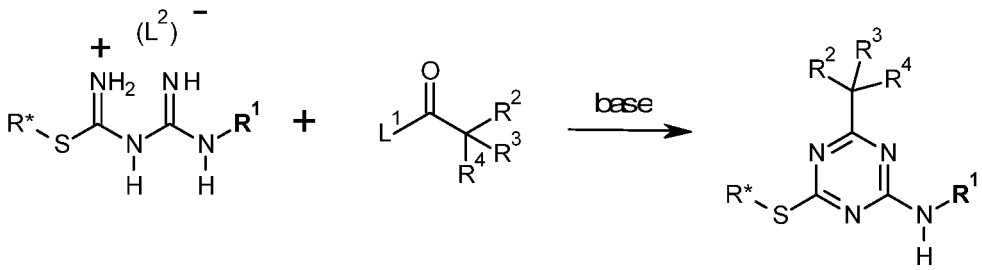
The reaction depicted in scheme 3 is preferably carried out in an inert solvent. Examples of suitable solvents are nitromethane, aromatic hydrocarbons such as benzene, chlorobenzene, toluene, cresols, o-, m- and p-xylene, halogenated hydrocarbons such as dichloromethane, 1,2-dichloroethane, chloroform, carbon tetrachloride and chlorobenzene, ethers such as diethyl ether, diisopropyl ether, tert.-butyl methylether (TBME), dioxane, anisole and tetrahydrofuran (THF), esters such as ethyl acetate and butyl acetate; nitriles such as acetonitrile and propionitrile, as well as dipolar aprotic solvents such as sulfolane, dimethylsulfoxide, N,N-dimethylformamide (DMF), N,N-dimethylacetamide (DMAC), 1,3-dimethyl-2-imidazolidinone (DMI), N,N′-dimethylpropylene urea (DMPU), dimethyl sulfoxide (DMSO) and 1-methyl-2 pyrrolidinone (NMP) and mixtures thereof with with water or with aliphatic hydrocarbons such as pentane, hexane, cyclohexane or with mixtures of C_5-C_8-alkane. Preferred solvents are ethers as defined above and mixtures thereof with water. The term solvent as used herein also includes mixtures of two or more of the above compounds.

The reaction depicted in scheme 1 may be performed in the presence of an auxiliary base. Suitable bases are those mentioned in context with the reaction depicted in scheme 1. However, the amine H_2N-R^1 may itself serve as an auxiliary base. In this case, usually an excess of the amine H_2N-R^1 is used.

The thiotriazines of formula (IV) required for the preparation of halotriazines of formula (II) can be prepared in accordance by reacting guanidine-salts of formula (VIII) with carbonyl com-

pounds of formula (IX) in the presence of a base, depicted in scheme 2a:

Scheme 2a:



(VIII) (IX) (IV)

In scheme 2a, the variables R^1, R^2, R^3, R^4 have the above meanings, in particular the preferred meanings, as in formula (I) mentioned above; while

R* is C_1-C_6-alkyl, C_2-C_6-haloalkyl or phenyl;
preferably C_1-C_6-alkyl or C_2-C_6-haloalkyl;
particularly preferred C_1-C_6-alkyl;
especially preferred CH_3;

L^1 is a nucleophilically displaceable leaving group such as halogen, CN, C_1-C_6-alkoxy, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyloxy or C_1-C_6-alkoxycarbonyloxy;
preferably halogen or C_1-C_6-alkoxy;
particularly preferred Cl or C_1-C_6-alkoxy,
also particularly preferred halogen;
especially preferred Cl; and

L^2 is a nucleophilically displaceable leaving group such as halogen, C_1-C_6-alkylsulfonyloxy, C_1-C_6-haloalkylsufonyloxy, C_1-C_6-alkoxysulfonyloxy or phenylsulfonyloxy;
preferably halogen or C_1-C_6-haloalkylsufonyloxy;
particularly preferred halogen;
especially preferred I; and

The reaction of the guanidine-salt of formula (VIII) with the carbonyl compound of formula (IX) is usually carried out at temperatures from 50°C to the boiling point of the reaction mixture, preferably from 50°C to 100°C.

The reaction can be carried out at atmospheric pressure or under elevated pressure, if appropriate under an inert gas, continuously or batchwise.

In one embodiment of the process according to the invention, the guanidine-salts of formula (VIII) and the carbonyl compound of formula (IX) are used in equimolar amounts.

In another embodiment of the process according to the invention, the carbonyl compound of formula (IX) is used in excess with regard to the guanidine-salts of formula (VIII).

Preferably the molar ratio of the carbonyl compound of formula (IX) to the guanidine-salt of formula (VIII) is in the range from 1.5 : 1 to 1 : 1, preferably 1.2 : 1 to 1 : 1, especially preferred 1.2 : 1, also especially preferred 1 : 1.

The reaction of the guanidine-salt of formula (VIII) with the carbonyl compound of formula (IX) is usually carried out in an organic solvent.

Suitable in principle are all solvents which are capable of dissolving the guanidine-salt of formula (VIII) and the carbonyl compound of formula (IX) at least partly and preferably fully under reaction conditions.

Examples of suitable solvents are halogenated hydrocarbons, ethers, nitriles, dipolar aprotic solvents and mixtures thereof.

Halogenated hydrocarbons are for example dichloromethane, 1,2-dichloroethane, chloroform, carbon tetrachloride, chlorobenzene and mixtures thereof.

Ethers are for example diethyl ether, diisopropyl ether, tert.-butyl methylether (TBME), dioxane, anisole, tetrahydrofuran (THF) and mixtures thereof.

Nitriles are for example acetonitrile, propionitrile and mixtures thereof.

Dipolar aprotic solvents are for example sulfolane, dimethylsulfoxide, N,N-dimethylformamide (DMF), N,N-dimethylacetamide (DMAC), 1,3-dimethyl-2-imidazolidinone (DMI), N,N′-dimethylpropylene urea (DMPU), dimethyl sulfoxide (DMSO), 1-methyl-2 pyrrolidinone (NMP) and mixtures thereof.

Preferred solvents are ethers and dipolar aprotic solvents as defined above.

More preferred solvents are ethers as defined above.

The reaction of the guanidine-salts of formula (VIII) with the carbonyl compound of formula (IX) is carried out in the presence of a base.

Examples of suitable bases include metal-containing bases and nitrogen-containing bases.

Examples of suitable metal-containing bases are inorganic compounds, alkali metal hydrides, alkaline earth metal hydrides, alkali metal carbonates, alkaline earth metal carbonates, alkali metal hydrogen carbonates (bicarbonates), of alkali metal phosphates, alkaline earth metal phosphates, organic bases and mixtures thereof.

Examples of inorganic compounds are alkali metal and alkaline earth metal oxide, and other metal oxides, such as lithium oxide, sodium oxide, potassium oxide, magnesium oxide, calcium oxide and magnesium oxide, iron oxide, silver oxide and mixtures thereof.

Examples of alkali metal and alkaline earth metal hydrides are lithium hydride, sodium hydride, potassium hydride and calcium hydride.

Examples of alkali metal and alkaline earth metal carbonates are lithium carbonate, sodium carbonate, potassium carbonate, magnesium carbonate, and calcium carbonate and mixtures thereof.

Examples of alkali metal hydrogen carbonates (bicarbonates) are lithium hydrogen carbonate, sodium hydrogen carbonate, potassium hydrogen carbonate and mixtures thereof.

Examples of alkali metal and alkaline earth metal phosphates are sodium phosphate, potassium phosphate and calcium phosphate and mixtures thereof.

Examples of organic bases, are tertiary amines such as tri-C_1-C_6-alkylamines, for example triethylamine, trimethylamine, N-ethyldiisopropylamine and mixtures thereof, and N-methylpiperidine, pyridine, substituted pyridines such as collidine, lutidine, N-methylmorpholine, and also bicyclic amines such as 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU) or 1,5-diazabicyclo[4.3.0]non-5-ene (DBN) and mixtures thereof.

Preferred bases are tri-C_1-C_6-alkylamines, especially preferred are triethylamine, trimethylamine, N-ethyldiisopropylamine, N-methylpiperidine and mixtures thereof.

The bases are generally employed in excess; however they can also be employed in

equimolar amounts, or, if appropriate, can be used as solvent.

Preferably from 1 to 5 equivalents of the base, particularly preferred 3 equivalents of the base are used, based on the guanidine-salts of formula (VIII).

The end of the reaction can easily be determined by the skilled worker by means of routine methods.

The reaction mixtures are worked up in a customary manner, for example by mixing with water, separation of the phases and, if appropriate, chromatographic purification of the crude product.

The carbonyl compounds of formula (IX) required for the preparation of azines of formula (IV) are known from the literature. They can be prepared in accordance and/or are commercially available.

The guanidine-salt of formula (VIII), wherein L^2 is iodine, required for the preparation of thiotriazines of formula (IV) is known from the literature (e.g. M. Freund et al., Chem. Ber. 1901, 34, 3110 - 3122; H. Eilingsfeld et al., Chem. Ber. 1967, 100, 1874 - 1891).

The guanidine-salts of formula (VIII) are commercially available and/or can be prepared in accordance with the literature cited.

Process B)

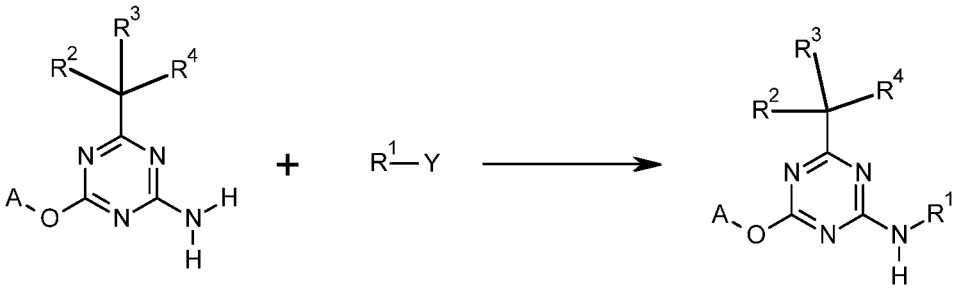
The aminotriazine compounds of formula (I), wherein

R^1 is different from hydrogen, e.g. C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, CN, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkyl)sulfonyl, phenylsulfonyl, phenyl, phenyl-C_1-C_6 alkyl, phenylcarbonyl or phenoxycarbonyl,

wherein the phenyl is unsubstituted or substituted as defined above for the respective radicals in formula (I);

can be prepared by reacting azines of formula (I), wherein R^1 is hydrogen with a compound of formula (VI) as depicted in scheme 4:

Scheme 4:



(I) (VI) (I)

The variables A, R^2, R^3 and R^4 have the meanings, in particular the preferred meanings, as in formula (I) mentioned above,

R^1 is different from hydrogen, e.g. C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, CN, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkyl)sulfonyl, phenylsulfonyl, phenyl, phe-

nyl-C_1-C_6 alkyl, phenylcarbonyl or phenoxycarbonyl,
wherein the phenyl is unsubstituted or substituted as defined above for the respective radicals in formula (I);
in particular C_1-C_4-alkyl, CN, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl or (C_1-C_6-alkyl)sulfonyl;
especially CN, $COCH_3$, $COOCH_3$ or SO_2CH_3; and

Y is halogen or oxycarbonyl-C_1-C_6-alkyl;
in particular halogen;
especially Cl or Br.

The process B is usually carried out at from 0°C to the boiling point of the reaction mixture, preferably from 23°C to 130°C, particularly preferably from 23°C to 100°C, (e.g. Y. Yuki et al., Polym. J. 1992, 24, 791-799).

The process B can be carried out at atmospheric pressure or under elevated pressure, if appropriate under an inert gas, continuously or batchwise.

In one embodiment of process B according to the invention, the aminotriazine compounds of formula (I), wherein R^1 is hydrogen are used in excess with regard to the compound of formula (VI).

In another embodiment of process B according to the invention the aminotriazine compounds of formula (I), wherein R^1 respectively, is hydrogen and the compound of formula (VI), are used in equimolar amounts.

Preferably the molar ratio of the aminotriazine compounds of formula (I), wherein R^1 is hydrogen to the compound of formula (VI) is in the range from 1 : 1.5 to 1 : 1, preferably 1 : 1.2 to 1 : 1, especially preferred 1 : 1.

The process B is usually carried out in an organic solvent. Suitable in principle are all solvents which are capable of dissolving the aminotriazine compounds of formula (I), wherein R^1 is hydrogen and the compound of formula (VI), at least partly and preferably fully under reaction conditions. Examples of suitable solvents are halogenated hydrocarbons such as dichloromethane, 1,2-dichloroethane, chloroform, carbon tetrachloride and chlorobenzene; ethers such as diethyl ether, diisopropyl ether, tert.-butyl methylether (TBME), dioxane, anisole and tetrahydrofuran (THF); nitriles such as acetonitrile and propionitrile; alcohols such as methanol, ethanol, n-propanol, isopropanol, n-butanol and tert.-butanol; organic acids like formic acid, acetic acid, propionic acid, oxalic acid, methylbenzenesulfonic acid, benzenesulfonic acid, camphorsulfonic acid, citric acid, trifluoroacetic acid as well as dipolar aprotic solvents such as sulfolane, dimethylsulfoxide, N,N-dimethylformamide (DMF), N,N-dimethylacetamide (DMAC), 1,3-dimethyl-2-imidazolidinone (DMI), N,N′-dimethylpropylene urea (DMPU), dimethyl sulfoxide (DMSO) and 1-methyl-2 pyrrolidinone (NMP). Preferred solvents are halogenated hydrocarbons, ethers and dipolar aprotic solvents as mentioned above. More preferred solvents are dichloromethane or dioxane. It is also possible to use mixtures of the solvents mentioned. The term solvent as used herein also includes mixtures of two or more of the above compounds.

The process B is optionally carried out in the presence of a base. Examples of suitable bases include metal-containing bases and nitrogen-containing bases. Examples of suitable metal-containing bases are inorganic compounds such as alkali metal and alkaline earth metal

hydrides such as lithium hydride, sodium hydride, potassium hydride and calcium hydride, alkali metal and alkaline earth metal carbonates such as lithium carbonate, sodium carbonate, potassium carbonate, magnesium carbonate, and calcium carbonate, as well as alkali metal hydrogen carbonates (bicarbonates) such as lithium hydrogen carbonate, sodium hydrogen carbonate, potassium hydrogen carbonate; alkali metal and alkaline earth metal phosphates such as sodium phosphate, potassium phosphate and calcium phosphate; and furthermore organic bases, such as tertiary amines such as tri-C_1-C_6-alkylamines, for example triethylamine, trimethylamine, N-ethyldiisopropylamine, and N-methylpiperidine, pyridine, substituted pyridines such as collidine, lutidine, N-methylmorpholine and 4-dimethylaminopyridine (DMAP), and also bicyclic amines such as 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU) or 1,5-diazabicyclo[4.3.0]non-5-ene (DBN). Preferred bases are organic bases and alkali metal carbonates as mentioned above. Especially preferred bases are organic bases as mentioned above. The term base as used herein also includes mixtures of two or more, preferably two of the above compounds. The bases are generally employed in excess; however they can also be employed in equimolar amounts, or, if appropriate, can be used as solvent. Preferably from 1 to 5 base equivalents, particularly preferred 3 base equivalents of base are used, based on the aminotriazine compounds of formula (I).

Work-up of the reaction mixture is performed by standard procedures.

The compounds of formula (VI) are known compounds. They are commercially available or can be prepared in analogy to known methods.

The compounds of formula (I) have herbicidal activity. Therefore, they can be used for controlling unwanted or undesired plants or vegetation. They can also be used in a method for controlling unwanted or undesired plants or vegetation, which method comprises allowing at least one compound of formula (I) or a salt thereof to act on plants, their environment or on seed. In order to allow the compound of formula (I) or a salt thereof to act on plants, their environment or on seed the compounds of the invention are applied to the plants, their environment or to the seed of said plants.

To widen the spectrum of action and to achieve synergistic effects, the aminotriazine compounds of formula (I) may be mixed with a large number of representatives of other herbicidal or growth-regulating active ingredient groups and then applied concomitantly.

Suitable components for mixtures are, for example, herbicides from the classes of the acetamides, amides, aryloxyphenoxypropionates, benzamides, benzofuran, benzoic acids, benzothiadiazinones, bipyridylium, carbamates, chloroacetamides, chlorocarboxylic acids, cyclohexanediones, dinitroanilines, dinitrophenol, diphenyl ether, glycines, imidazolinones, isoxazoles, isoxazolidinones, nitriles, N-phenylphthalimides, oxadiazoles, oxazolidinediones, oxyacetamides, phenoxycarboxylic acids, phenylcarbamates, phenylpyrazoles, phenylpyrazolines, phenylpyridazines, phosphinic acids, phosphoroamidates, phosphorodithioates, phthalamates, pyrazoles, pyridazinones, pyridines, pyridinecarboxylic acids, pyridinecarboxamides, pyrimidinediones, pyrimidinyl(thio)benzoates, quinolinecarboxylic acids, semicarbazones, sulfonylaminocarbonyltriazolinones, sulfonylureas, tetrazolinones, thiadiazoles, thiocarbamates, triazines, triazinones, triazoles, triazolinones, triazolocarboxamides, triazolopyrimidines, triketones, uracils, ureas.

It may furthermore be beneficial to apply the aminotriazine compounds of formula (I) alone

or in combination with other herbicides, or else in the form of a mixture with other crop protection agents, for example together with agents for controlling pests or phytopathogenic fungi or bacteria. Also of interest is the miscibility with mineral salt solutions, which are employed for treating nutritional and trace element deficiencies. Other additives such as non-phytotoxic oils and oil concentrates may also be added.

The invention also relates to agrochemical compositions comprising at least an auxiliary and at least one aminotriazine compound of formula (I) according to the invention.

The invention also relates to combinations of diaminotriazine compounds of formula (I) with at least one further herbicide B and/or at least one safener C).

The further herbicidal compound B (component B) is in particular selected from the herbicides of class b1) to b15):

b1) lipid biosynthesis inhibitors;
b2) acetolactate synthase inhibitors (ALS inhibitors);
b3) photosynthesis inhibitors;
b4) protoporphyrinogen-IX oxidase inhibitors,
b5) bleacher herbicides;
b6) enolpyruvyl shikimate 3-phosphate synthase inhibitors (EPSP inhibitors);
b7) glutamine synthetase inhibitors;
b8) 7,8-dihydropteroate synthase inhibitors (DHP inhibitors);
b9) mitosis inhibitors;
b10) inhibitors of the synthesis of very long chain fatty acids (VLCFA inhibitors);
b11) cellulose biosynthesis inhibitors;
b12) decoupler herbicides;
b13) auxinic herbicides;
b14) auxin transport inhibitors; and
b15) other herbicides selected from the group consisting of bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, indaziflam, maleic hydrazide, mefluidide, metam, methiozolin (CAS 403640-27-7), methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine, triaziflam, tridiphane and 6-chloro-3-(2-cyclopropyl-6-methylphenoxy)-4-pyridazinol (CAS 499223-49-3) and its salts and esters;

including their agriculturally acceptable salts or derivatives such as ethers, esters or amides.

In one embodiment of the present invention the compositions according to the present invention comprise at least one diaminotriazine compound of formula (I) and at least one further active compound B (herbicide B).

According to a further embodiment of the invention the compositions contain at least one inhibitor of the lipid biosynthesis (herbicide b1). These are compounds that inhibit lipid biosynthesis. Inhibition of the lipid biosynthesis can be affected either through inhibition of acetylCoA carboxylase (hereinafter termed ACC herbicides) or through a different mode of action (hereinafter termed non-ACC herbicides). The ACC herbicides belong to the group A of the HRAC classification system whereas the non-ACC herbicides belong to the group N of the HRAC classification.

According to a further embodiment of the invention the compositions contain at least one ALS inhibitor (herbicide b2). The herbicidal activity of these compounds is based on the inhibition of acetolactate synthase and thus on the inhibition of the branched chain amino acid biosynthesis. These inhibitors belong to the group B of the HRAC classification system.

According to a further embodiment of the invention the compositions contain at least one inhibitor of photosynthesis (herbicide b3). The herbicidal activity of these compounds is based either on the inhibition of the photosystem II in plants (so-called PSII inhibitors, groups C1, C2 and C3 of HRAC classification) or on diverting the electron transfer in photosystem I in plants (so-called PSI inhibitors, group D of HRAC classification) and thus on an inhibition of photosynthesis. Amongst these, PSII inhibitors are preferred.

According to a further embodiment of the invention the compositions contain at least one inhibitor of protoporphyrinogen-IX-oxidase (herbicide b4). The herbicidal activity of these compounds is based on the inhibition of the protoporphyrinogen-IX-oxidase. These inhibitors belong to the group E of the HRAC classification system.

According to a further embodiment of the invention the compositions contain at least one bleacher-herbicide (herbicide b5). The herbicidal activity of these compounds is based on the inhibition of the carotenoid biosynthesis. These include compounds which inhibit carotenoid biosynthesis by inhibition of phytoene desaturase (so-called PDS inhibitors, group F1 of HRAC classification), compounds that inhibit the 4-hydroxyphenylpyruvate-dioxygenase (HPPD inhibitors, group F2 of HRAC classification), compounds that inhibit DOXsynthase (group F4 of HRAC class) and compounds which inhibit carotenoid biosynthesis by an unknown mode of action (bleacher - unknown target, group F3 of HRAC classification).

According to a further embodiment of the invention the compositions contain at least one EPSP synthase inhibitor (herbicide b6). The herbicidal activity of these compounds is based on the inhibition of enolpyruvyl shikimate 3-phosphate synthase, and thus on the inhibition of the amino acid biosynthesis in plants. These inhibitors belong to the group G of the HRAC classification system.

According to a further embodiment of the invention the compositions contain at least one glutamine synthetase inhibitor (herbicide b7). The herbicidal activity of these compounds is based on the inhibition of glutamine synthetase, and thus on the inhibition of the aminoacid biosynthesis in plants. These inhibitors belong to the group H of the HRAC classification system.

According to an further embodiment of the invention the compositions contain at least one DHP synthase inhibitor (herbicide b8). The herbicidal activity of these com-

pounds is based on the inhibition of 7,8-dihydropteroate synthase. These inhibitors belong to the group I of the HRAC classification system.

According to a further embodiment of the invention the compositions contain at least one mitosis inhibitor (herbicide b9). The herbicidal activity of these compounds is based on the disturbance or inhibition of microtubule formation or organization, and thus on the inhibition of mitosis. These inhibitors belong to the groups K1 and K2 of the HRAC classification system. Among these, compounds of the group K1, in particular dinitroanilines, are preferred.

According to a further embodiment of the invention the compositions contain at least one VLCFA inhibitor (herbicide b10). The herbicidal activity of these compounds is based on the inhibition of the synthesis of very long chain fatty acids and thus on the disturbance or inhibition of cell division in plants. These inhibitors belong to the group K3 of the HRAC classification system.

According to an further embodiment of the invention the compositions contain at least one cellulose biosynthesis inhibitor (herbicide b11). The herbicidal activity of these compounds is based on the inhibition of the biosynthesis of cellulose and thus on the inhibition of the synthesis of cell walls in plants. These inhibitors belong to the group L of the HRAC classification system.

According to a further embodiment of the invention the compositions contain at least one decoupler herbicide (herbicide b12). The herbicidal activity of these compounds is based on the disruption of the cell membrane. These inhibitors belong to the group M of the HRAC classification system.

According to a further embodiment of the invention the compositions contain at least one auxinic herbicide (herbicide b13). These include compounds that mimic auxins, i.e. plant hormones, and affect the growth of the plants. These compounds belong to the group O of the HRAC classification system.

According to a further embodiment of the invention the compositions contain at least one auxin transport inhibitor (herbicide b14). The herbicidal activity of these compounds is based on the inhibition of the auxin transport in plants. These compounds belong to the group P of the HRAC classification system.

As to the given mechanisms of action and classification of the active substances, see e.g. "HRAC, Classification of Herbicides According to Mode of Action", http://www.plantprotection.org/hrac/MOA.html).

Preference is given to those compositions according to the present invention comprising at least one herbicide B selected from herbicides of class b1, b6, b9, b10 and b11.

Preference is also given to those compositions according to the present invention comprising at least one herbicide B selected from herbicides of class b2, b3, b4, b5, b6, b9 and b10.

Specific preference is given to those compositions according to the present invention which comprise at least one herbicide B selected from the herbicides of class b4, b6 b9 and b10.

Particular preference is given to those compositions according to the present inven-

tion which comprise at least one herbicide B selected from the herbicides of class b4, b6 and b10.

Examples of herbicides B which can be used in combination with the diaminitriazine compounds of formula (I) according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors:

ACC-herbicides such as alloxydim, alloxydim-sodium, butroxydim, clethodim, clodinafop, clodinafop-propargyl, cycloxydim, cyhalofop, cyhalofop-butyl, diclofop, diclofop-methyl, fenoxaprop, fenoxaprop-ethyl, fenoxaprop-P, fenoxaprop-P-ethyl, fluazifop, fluazifop-butyl, fluazifop-P, fluazifop-P-butyl, haloxyfop, haloxyfop-methyl, haloxyfop-P, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop, quizalofop-ethyl, quizalofop-tefuryl, quizalofop-P, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim, tralkoxydim, 4-(4'-Chloro-4-cyclopropyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5-hydroxy-2,2,6,6-tetramethyl-2H-pyran-3(6H)-one (CAS 1312337-72-6); 4-(2',4'-Dichloro-4-cyclopropyl[1,1'-biphenyl]-3-yl)-5-hydroxy-2,2,6,6-tetramethyl-2H-pyran-3(6H)-one (CAS 1312337-45-3); 4-(4'-Chloro-4-ethyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5-hydroxy-2,2,6,6-tetramethyl-2H-pyran-3(6H)-one (CAS 1033757-93-5); 4-(2',4'-Dichloro-4-ethyl[1,1'-biphenyl]-3-yl)-2,2,6,6-tetramethyl-2H-pyran-3,5(4H,6H)-dione (CAS 1312340-84-3); 5-(Acetyloxy)-4-(4'-chloro-4-cyclopropyl-2'-fluoro[1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one (CAS 1312337-48-6); 5-(Acetyloxy)-4-(2´,4'-dichloro-4-cyclopropyl- [1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one; 5-(Acetyloxy)-4-(4'-chloro-4-ethyl-2'-fluoro[1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one (CAS 1312340-82-1); 5-(Acetyloxy)-4-(2',4'-dichloro-4-ethyl[1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one (CAS 1033760-55-2); 4-(4'-Chloro-4-cyclopropyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester (CAS 1312337-51-1); 4-(2´,4'-Dichloro -4-cyclopropyl- [1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester; 4-(4'-Chloro-4-ethyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester (CAS 1312340-83-2); 4-(2',4'-Dichloro-4-ethyl[1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester (CAS 1033760-58-5); and non ACC herbicides such as benfuresate, butylate, cycloate, dalapon, dimepiperate, EPTC, esprocarb, ethofumesate, flupropanate, molinate, orbencarb, pebulate, prosulfocarb, TCA, thiobencarb, tiocarbazil, triallate and vernolate;

b2) from the group of the ALS inhibitors:

sulfonylureas such as amidosulfuron, azimsulfuron, bensulfuron, bensulfuron-methyl, chlorimuron, chlorimuron-ethyl, chlorsulfuron, cinosulfuron, cyclosulfamuron, ethametsulfuron, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, flucetosulfuron, flupyrsulfuron, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron, halosulfuron-methyl, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, iofensulfuron, iofensulfuron-sodium, mesosulfuron, metazosulfuron, metsulfuron, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, primisulfuron, primisulfuron-methyl, propyrisulfuron, prosulfuron, pyrazosulfuron, pyrazosulfuron-ethyl, rimsulfuron, sulfometuron, sulfometuron-methyl, sulfosulfuron, thifensulfuron, thifensulfuron-methyl, triasulfuron, tribenuron,

tribenuron-methyl, trifloxysulfuron, triflusulfuron, triflusulfuron-methyl and tritosulfuron,

imidazolinones such as imazamethabenz, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin and imazethapyr, triazolopyrimidine herbicides and sulfonanilides such as cloransulam, cloransulam-methyl, diclosulam, flumetsulam, florasulam, metosulam, penoxsulam, pyrimisulfan and pyroxsulam,

pyrimidinylbenzoates such as bispyribac, bispyribac-sodium, pyribenzoxim, pyriftalid, pyriminobac, pyriminobac-methyl, pyrithiobac, pyrithiobac-sodium, 4-[[[2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]phenyl]methyl]amino]-benzoic acid-1-methylethyl ester (CAS 420138-41-6), 4-[[[2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]phenyl]methyl]amino]-benzoic acid propyl ester (CAS 420138-40-5), N-(4-bromophenyl)-2-[(4,6-dimethoxy-2-pyrimidinyl)oxy]benzenemethanamine (CAS 420138-01-8),

sulfonylaminocarbonyl-triazolinone herbicides such as flucarbazone, flucarbazone-sodium, propoxycarbazone, propoxycarbazone-sodium, thiencarbazone and thiencarbazone-methyl; and triafamone;

among these, a preferred embodiment of the invention relates to those compositions comprising at least one imidazolinone herbicide;

b3) from the group of the photosynthesis inhibitors:

amicarbazone, inhibitors of the photosystem II, e.g. triazine herbicides, including of chlorotriazine, triazinones, triazindiones, methylthiotriazines and pyridazinones such as ametryn, atrazine, chloridazone, cyanazine, desmetryn, dimethametryn,hexazinone, metribuzin, prometon, prometryn, propazine, simazine, simetryn, terbumeton, terbuthylazin, terbutryn and trietazin, aryl urea such as chlorobromuron, chlorotoluron, chloroxuron, dimefuron, diuron, fluometuron, isoproturon, isouron, linuron, metamitron, methabenzthiazuron, metobenzuron, metoxuron, monolinuron, neburon, siduron, tebuthiuron and thiadiazuron, phenyl carbamates such as desmedipham, karbutilat, phenmedipham, phenmedipham-ethyl, nitrile herbicides such as bromofenoxim, bromoxynil and its salts and esters, ioxynil and its salts and esters, uraciles such as bromacil, lenacil and terbacil, and bentazon and bentazon-sodium, pyridate, pyridafol, pentanochlor and propanil and inhibitors of the photosystem I such as diquat, diquat-dibromide, paraquat, paraquat-dichloride and paraquat-dimetilsulfate. Among these, a preferred embodiment of the invention relates to those compositions comprising at least one aryl urea herbicide. Among these, likewise a preferred embodiment of the invention relates to those compositions comprising at least one triazine herbicide. Among these, likewise a preferred embodiment of the invention relates to those compositions comprising at least one nitrile herbicide;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:

acifluorfen, acifluorfen-sodium, azafenidin, bencarbazone, benzfendizone, bifenox, butafenacil, carfentrazone, carfentrazone-ethyl, chlomethoxyfen, cinidon-ethyl, fluazolate, flufenpyr, flufenpyr-ethyl, flumiclorac, flumiclorac-pentyl, flumioxazin, fluoroglycofen, fluoroglycofen-ethyl, fluthiacet, fluthiacet-methyl, fomesafen, halosafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, profluazol, pyraclonil, pyraflufen, pyraflufen-ethyl, saflufenacil, sulfentrazone, thidiazimin, tiafenacil, trifludimoxazin ***(BAS 850 H)***, ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-

yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100***; Sumitomo; LS 5296489***), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452100-03-7), 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione (CAS 451484-50-7) (LS 4061013), 2-(2,2,7-trifluoro-3-oxo-4-prop-2-ynyl-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl)-4,5,6,7-tetrahydro-isoindole-1,3-dione (CAS 1300118-96-0) (LS 567 0033 = F2-Flumioxazin), 1-methyl-6-trifluoromethyl-3-(2,2,7-trifluoro-3-oxo-4-prop-2-ynyl-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl)-1H-pyrimidine-2,4-dione (CAS 1304113-05-0) (LS 568 1323 = Uracil-F2-PPO), methyl (*E*)-4-[2-chloro-5-[4-chloro-5-(difluoromethoxy)-1*H*-methyl-pyrazol-3-yl]-4-fluoro-phenoxy]-3-methoxy-but-2-enoate (CAS 948893-00-3) (Isagro, IR6396), and 3-[7-chloro-5-fluoro-2-(trifluoromethyl)-1H-benzimidazol-4-yl]-1-methyl-6-(trifluoromethyl)-1H-pyrimidine-2,4-dione (CAS 212754-02-4) (FMC Trifluoromethyluracil);

b5) from the group of the bleacher herbicides:

PDS inhibitors: beflubutamid, diflufenican, fluridone, flurochloridone, flurtamone, norflurazon, picolinafen, and 4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7), HPPD inhibitors: benzobicyclon, benzofenap, bicyclopyrone, clomazone, fenquintrione, isoxaflutole, mesotrione, pyrasulfotole, pyrazolynate, pyrazoxyfen, sulcotrione, tefuryltrione, tembotrione, tolpyralate, topramezone, bleacher, unknown target: aclonifen, amitrole and flumeturon;

b6) from the group of the EPSP synthase inhibitors:

glyphosate, glyphosate-isopropylammonium, glyposate-potassium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors:

bilanaphos (bialaphos), bilanaphos-sodium, glufosinate, glufosinate-P and glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors:

asulam;

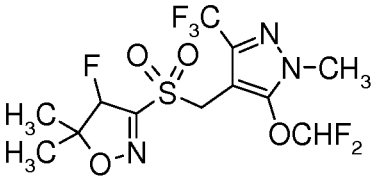
b9) from the group of the mitosis inhibitors:

compounds of group K1: dinitroanilines such as benfluralin, butralin, dinitramine, ethalfluralin, fluchloralin, oryzalin, pendimethalin, prodiamine and trifluralin, phosphoramidates such as amiprophos, amiprophos-methyl, and butamiphos, benzoic acid herbicides such as chlorthal, chlorthal-dimethyl, pyridines such as dithiopyr and thiazopyr, benzamides such as propyzamide and tebutam; compounds of group K2: carbetamide, chlorpropham, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl and propham ; among these, compounds of group K1, in particular dinitroanilines are preferred;

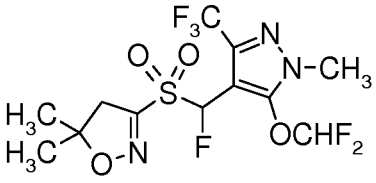
b10) from the group of the VLCFA inhibitors:

chloroacetamides such as acetochlor, alachlor, butachlor, dimethachlor, dimethenamid, dimethenamid-P, metazachlor, metolachlor, metolachlor-S, pethoxamid, preti-

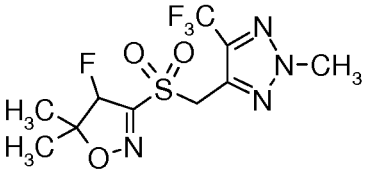
lachlor, propachlor, propisochlor and thenylchlor, oxyacetanilides such as flufenacet and mefenacet, acetanilides such as diphenamid, naproanilide, napropamide and napropamide-M, tetrazolinones such fentrazamide, and other herbicides such as anilofos, cafenstrole, fenoxasulfone, ipfencarbazone, piperophos, pyroxasulfone and isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9



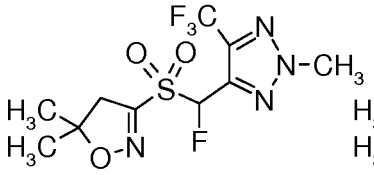
II.1



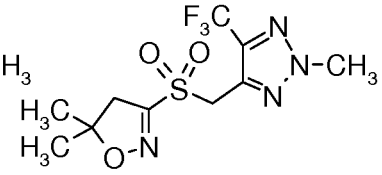
II.2



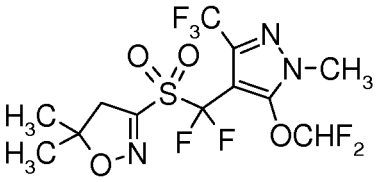
II.3



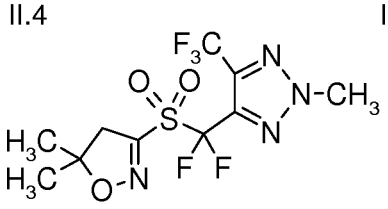
II.4



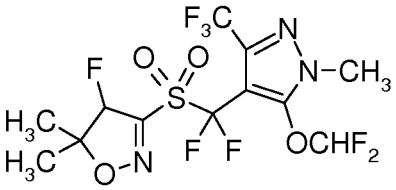
II.5



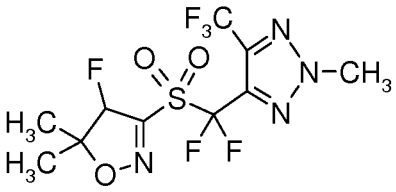
II.6



II.7



II.8



II.9

the isoxazoline compounds of the formula (I)I are known in the art, e.g. from WO 2006/024820, WO 2006/037945, WO 2007/071900 and WO 2007/096576;

among the VLCFA inhibitors, preference is given to chloroacetamides and oxyacetamides;

b11) from the group of the cellulose biosynthesis inhibitors:

chlorthiamid, dichlobenil, flupoxam, indaziflam, isoxaben, triaziflam and 1-cyclohexyl-5-pentafluorphenyloxy-1^4-[1,2,4,6]thiatriazin-3-ylamine (CAS 175899-01-1);

b12) from the group of the decoupler herbicides:

dinoseb, dinoterb and DNOC and its salts;

b13) from the group of the auxinic herbicides:

2,4-D and its salts and esters such as clacyfos, 2,4-DB and its salts and esters, aminocyclopyrachlor and its salts and esters, aminopyralid and its salts such as aminopyralid-dimethylammonium, aminopyralid-tris(2-hydroxypropyl)ammonium and its esters,

benazolin, benazolin-ethyl, chloramben and its salts and esters, clomeprop, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr, fluroxypyr-butometyl, fluroxypyr-meptyl, halauxifen and its salts and esters (CAS 943832-60-8 DOW, LS 566509); MCPA and its salts and esters, MCPA-thioethyl, MCPB and its salts and esters, mecoprop and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, TBA (2,3,6) and its salts and esters, triclopyr and its salts and esters, 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)-5-fluoropyridine-2-carboxylic acid (DOW, "Rinskor-acid") and benzyl 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)-5-fluoropyridine-2-carboxylate (CAS 1390661-72-9) (DOW, "Rinskor");

b14) from the group of the auxin transport inhibitors: diflufenzopyr, diflufenzopyr-sodium, naptalam and naptalam-sodium;

b15) from the group of the other herbicides: bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, cyclopyrimorate (CAS 499223-49-3 Mitsui; SW-065; H-965) and its salts and esters, dalapon, dazomet, difenzoquat, difenzoquat-metilsulfate, dimethipin, DSMA, dymron, endothal and its salts, etobenzanid, flurenol, flurenol-butyl, flurprimidol, fosamine, fosamine-ammonium, indanofan, maleic hydrazide, mefluidide, metam, methiozolin (CAS 403640-27-7), methyl azide, methyl bromide, methyl-dymron, methyl iodide, MSMA, oleic acid, oxaziclomefone, pelargonic acid, pyributicarb, quinoclamine and tridiphane.

Preferred herbicides B that can be used in combination with the diaminotriazine compounds of the formula (I) according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors:

clethodim, clodinafop-propargyl, cycloxydim, cyhalofop-butyl, diclofop-methyl, fenoxaprop-P-ethyl, fluazifop-P-butyl, haloxyfop-P-methyl, metamifop, pinoxaden, profoxydim, propaquizafop, quizalofop-P-ethyl, quizalofop-P-tefuryl, sethoxydim, tepraloxydim, tralkoxydim, 4-(4'-Chloro-4-cyclopropyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5-hydroxy-2,2,6,6-tetramethyl-2H-pyran-3(6H)-one (CAS 1312337-72-6); 4-(2',4'-Dichloro-4-cyclopropyl[1,1'-biphenyl]-3-yl)-5-hydroxy-2,2,6,6-tetramethyl-2H-pyran-3(6H)-one (CAS 1312337-45-3); 4-(4'-Chloro-4-ethyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5-hydroxy-2,2,6,6-tetramethyl-2H-pyran-3(6H)-one (CAS 1033757-93-5); 4-(2',4'-Dichloro-4-ethyl[1,1'-biphenyl]-3-yl)-2,2,6,6-tetramethyl-2H-pyran-3,5(4H,6H)-dione (CAS 1312340-84-3); 5-(Acetyloxy)-4-(4'-chloro-4-cyclopropyl-2'-fluoro[1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one (CAS 1312337-48-6); 5-(Acetyloxy)-4-(2´,4'-dichloro-4-cyclopropyl- [1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one; 5-(Acetyloxy)-4-(4'-chloro-4-ethyl-2'-fluoro[1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one (CAS 1312340-82-1); 5-(Acetyloxy)-4-(2',4'-dichloro-4-ethyl[1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one (CAS 1033760-55-2); 4-(4'-Chloro-4-cyclopropyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester (CAS 1312337-51-1); 4-(2´,4'-Dichloro -4-cyclopropyl- [1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester; 4-(4'-Chloro-4-ethyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester (CAS

1312340-83-2); 4-(2',4'-Dichloro-4-ethyl[1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester (CAS 1033760-58-5); benfuresate, dimepiperate, EPTC, esprocarb, ethofumesate, molinate, orbencarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors:

amidosulfuron, azimsulfuron, bensulfuron-methyl, bispyribac-sodium, chlorimuron-ethyl, chlorsulfuron, cloransulam-methyl, cyclosulfamuron, diclosulam, ethametsulfuron-methyl, ethoxysulfuron, flazasulfuron, florasulam, flucarbazone-sodium, flucetosulfuron, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, halosulfuron-methyl, imazamethabenz-methyl, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, iofensulfuron, iofensulfuron-sodium, mesosulfuron, metazosulfuron, metosulam, metsulfuron-methyl, nicosulfuron, orthosulfamuron, oxasulfuron, penoxsulam, primisulfuron-methyl, propoxycarbazon-sodium, propyrisulfuron, prosulfuron, pyrazosulfuron-ethyl, pyribenzoxim, pyrimisulfan, pyriftalid, pyriminobac-methyl, pyrithiobac-sodium, pyroxsulam, rimsulfuron, sulfometuron-methyl, sulfosulfuron, thiencarbazone-methyl, thifensulfuron-methyl, triasulfuron, tribenuron-methyl, trifloxysulfuron, triflusulfuron-methyl, tritosulfuron and triafamone;

b3) from the group of the photosynthesis inhibitors:

ametryn, amicarbazone, atrazine, bentazone, bentazone-sodium, bromoxynil and its salts and esters, chloridazone, chlorotoluron, cyanazine, desmedipham, diquat-dibromide, diuron, fluometuron, hexazinone, ioxynil and its salts and esters, isoproturon, lenacil, linuron, metamitron, methabenzthiazuron, metribuzin, paraquat, paraquat-dichloride, phenmedipham, propanil, pyridate, simazine, terbutryn, terbuthylazine and thidiazuron;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors:

acifluorfen-sodium, bencarbazone, benzfendizone, butafenacil, carfentrazone-ethyl, cinidon-ethyl, flufenpyr-ethyl, flumiclorac-pentyl, flumioxazin, fluoroglycofen-ethyl, fomesafen, lactofen, oxadiargyl, oxadiazon, oxyfluorfen, pentoxazone, pyraflufen, pyraflufen-ethyl, saflufenacil, sulfentrazone, tiafenacil, trifludimoxazin (BAS 850 H), ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100; Sumitomo; LS 5296489), N-ethyl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1*H*-pyrazole-1-carboxamide (CAS 452100-03-7), 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione (CAS 451484-50-7) (LS 4061013), 2-(2,2,7-trifluoro-3-oxo-4-prop-2-ynyl-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl)-4,5,6,7-tetrahydro-isoindole-1,3-dione (CAS 1300118-96-0) (LS 567 0033 = F2-Flumioxazin) ;1-methyl-6-trifluoromethyl-3-(2,2,7-trifluoro-3-oxo-4-prop-2-ynyl-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl)-1H-pyrimidine-2,4-dione (CAS 1304113-05-0) (LS 568 1323 = Uracil-F2-PPO), and 3-[7-chloro-5-fluoro-2-(trifluoromethyl)-1H-benzimidazol-4-yl]-1-

methyl-6-(trifluoromethyl)-1H-pyrimidine-2,4-dione (CAS 212754-02-4) (FMC Trifluoromethyluracil);

b5) from the group of the bleacher herbicides:

aclonifen, amitrole, beflubutamid, benzobicyclon, bicyclopyrone, clomazone, diflufenican, fenquintrione, flumeturon, flurochloridone, flurtamone, isoxaflutole, mesotrione, norflurazon, picolinafen, pyrasulfotole, pyrazolynate, sulcotrione, tefuryltrione, tembotrione, tolpyralate, topramezone and 4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)pyrimidine (CAS 180608-33-7);

b6) from the group of the EPSP synthase inhibitors:

glyphosate, glyphosate-isopropylammonium, glyphosate-potassium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors:

glufosinate, glufosinate-P, glufosinate-ammonium;

b8) from the group of the DHP synthase inhibitors: asulam;

b9) from the group of the mitosis inhibitors:

benfluralin, dithiopyr, ethalfluralin, flamprop, flamprop-isopropyl, flamprop-methyl, flamprop-M-isopropyl, flamprop-M-methyl, oryzalin, pendimethalin, thiazopyr and trifluralin;

b10) from the group of the VLCFA inhibitors:

acetochlor, alachlor, anilofos, butachlor, cafenstrole, dimethenamid, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, naproanilide, napropamide, napropamide-M, pretilachlor, fenoxasulfone, ipfencarbazone, pyroxasulfone thenylchlor and isoxazoline-compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: dichlobenil, flupoxam, indaziflam, isoxaben, triaziflam and 1-cyclohexyl-5-pentafluorphenyloxy-1^{4}-[1,2,4,6]thiatriazin-3-ylamine (CAS 175899-01-1);

b13) from the group of the auxinic herbicides:

2,4-D and its salts and esters, aminocyclopyrachlor and its salts and esters, aminopyralid and its salts such as aminopyralid-dimethylammonium, aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, dichlorprop-P and its salts and esters, fluroxypyr-meptyl, halauxifen and its salts and esters (CAS 943832-60-8 DOW, LS 566509), MCPA and its salts and esters, MCPB and its salts and esters, mecoprop-P and its salts and esters, picloram and its salts and esters, quinclorac, quinmerac, triclopyr and its salts and esters, 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)-5-fluoropyridine-2-carboxylic acid (DOW, “Rinskor-acid”) and benzyl 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)-5-fluoropyridine-2-carboxylate (CAS 1390661-72-9) (DOW, “Rinskor”);

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyr-sodium;

b15) from the group of the other herbicides: bromobutide, cinmethylin, cumyluron, cyclopyrimorate (CAS 499223-49-3 Mitsui; SW-065; H-965) and its salts and esters, dala-

pon, difenzoquat, difenzoquat-metilsulfate, DSMA, dymron (= daimuron), indanofan, metam, methylbromide, MSMA, oxaziclomefone, pyributicarb and tridiphane.

Particularly preferred herbicides B that can be used in combination with the diaminotriazine compounds of the formula (I) according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors: clodinafop-propargyl, cycloxydim, cyhalofop-butyl, fenoxaprop-P-ethyl, pinoxaden, profoxydim, tepraloxydim, tralkoxydim, 4-(4'-Chloro-4-cyclopropyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5-hydroxy-2,2,6,6-tetramethyl-2H-pyran-3(6H)-one (CAS 1312337-72-6); 4-(2',4'-Dichloro-4-cyclopropyl[1,1'-biphenyl]-3-yl)-5-hydroxy-2,2,6,6-tetramethyl-2H-pyran-3(6H)-one (CAS 1312337-45-3); 4-(4'-Chloro-4-ethyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5-hydroxy-2,2,6,6-tetramethyl-2H-pyran-3(6H)-one (CAS 1033757-93-5); 4-(2',4'-Dichloro-4-ethyl[1,1'-biphenyl]-3-yl)-2,2,6,6-tetramethyl-2H-pyran-3,5(4H,6H)-dione (CAS 1312340-84-3); 5-(Acetyloxy)-4-(4'-chloro-4-cyclopropyl-2'-fluoro[1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one (CAS 1312337-48-6); 5-(Acetyloxy)-4-(2´,4'-dichloro-4-cyclopropyl- [1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one; 5-(Acetyloxy)-4-(4'-chloro-4-ethyl-2'-fluoro[1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one (CAS 1312340-82-1); 5-(Acetyloxy)-4-(2',4'-dichloro-4-ethyl[1,1'-biphenyl]-3-yl)-3,6-dihydro-2,2,6,6-tetramethyl-2H-pyran-3-one (CAS 1033760-55-2); 4-(4'-Chloro-4-cyclopropyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester (CAS 1312337-51-1); 4-(2´,4'-Dichloro -4-cyclopropyl- [1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester; 4-(4'-Chloro-4-ethyl-2'-fluoro[1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester (CAS 1312340-83-2); 4-(2',4'-Dichloro-4-ethyl[1,1'-biphenyl]-3-yl)-5,6-dihydro-2,2,6,6-tetramethyl-5-oxo-2H-pyran-3-yl carbonic acid methyl ester (CAS 1033760-58-5); esprocarb, prosulfocarb, thiobencarb and triallate;

b2) from the group of the ALS inhibitors: bensulfuron-methyl, bispyribac-sodium, cyclosulfamuron, diclosulam, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, iofensulfuron, iofensulfuron-sodium, mesosulfuron, metazosulfuron, nicosulfuron, penoxsulam, propoxycarbazon-sodium, propyrisulfuron, pyrazosulfuron-ethyl, pyroxsulam, rimsulfuron, sulfosulfuron, thiencarbazon-methyl, tritosulfuron and triafamone;

b3) from the group of the photosynthesis inhibitors: ametryn, atrazine, diuron, fluometuron, hexazinone, isoproturon, linuron, metribuzin, paraquat, paraquat-dichloride, propanil, terbutryn and terbuthylazine;

b4) from the group of the protoporphyrinogen-IX oxidase inhibitors: flumioxazin, oxyfluorfen, pyraflufen, pyraflufen-ethyl, saflufenacil, sulfentrazone, trifludimoxazin (BAS 850 H), ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100; Sumitomo; LS 5296489), 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione (CAS 451484-50-7) **(LS 4061013)** , 2-(2,2,7-trifluoro-3-oxo-4-prop-2-ynyl-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl)-4,5,6,7-tetrahydro-isoindole-1,3-dione (CAS 1300118-96-0) (LS 567 0033 = F2-Flumioxazin), and

1-methyl-6-trifluoromethyl-3-(2,2,7-trifluoro-3-oxo-4-prop-2-ynyl-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl)-1H-pyrimidine-2,4-dione (CAS 1304113-05-0) (LS 568 1323 = Uracil-F2-PPO);

b5) from the group of the bleacher herbicides: amitrole, bicyclopyrone, clomazone, diflufenican, fenquintrione, flumeturon, flurochloridone, isoxaflutole, mesotrione, picolinafen, sulcotrione, tefuryltrione, tembotrione, tolpyralate and topramezone;

b6) from the group of the EPSP synthase inhibitors: glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate);

b7) from the group of the glutamine synthase inhibitors: glufosinate, glufosinate-P and glufosinate-ammonium;

b9) from the group of the mitosis inhibitors: pendimethalin and trifluralin;

b10) from the group of the VLCFA inhibitors: acetochlor, cafenstrole, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, fenoxasulfone, ipfencarbazone and pyroxasulfone; likewise, preference is given to isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9 as mentioned above;

b11) from the group of the cellulose biosynthesis inhibitors: indaziflam, isoxaben and triaziflam;

b13) from the group of the auxinic herbicides: 2,4-D and its salts and esters such as clacyfos, and aminocyclopyrachlor and its salts and esters, aminopyralid and its salts and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, fluroxypyr-meptyl, halauxifen, halauxifen-methyl, quinclorac, quinmerac, 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)-5-fluoropyridine-2-carboxylic acid (DOW, “Rinskor-acid”) and benzyl 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)-5-fluoropyridine-2-carboxylate (CAS 1390661-72-9) (DOW, “Rinskor”);

b14) from the group of the auxin transport inhibitors: diflufenzopyr and diflufenzopyr-sodium,

b15) from the group of the other herbicides: dymron (= daimuron), indanofan, oxaziclomefone.

Particularly preferred herbicides B are the herbicides B as defined above; in particular the herbicides B.1 - B.196 listed below in table B:

Table B:

	Herbicide B
B.1	clethodim
B.2	clodinafop-propargyl
B.3	cycloxydim
B.4	cyhalofop-butyl
B.5	fenoxaprop-ethyl
B.6	fenoxaprop-P-ethyl
B.7	metamifop
B.8	pinoxaden
B.9	profoxydim

	Herbicide B
B.10	sethoxydim
B.11	tepraloxydim
B.12	tralkoxydim
B.13	esprocarb
B.14	ethofumesate
B.15	molinate
B.16	prosulfocarb
B.17	thiobencarb
B.18	triallate

	Herbicide B
B.19	bensulfuron-methyl
B.20	bispyribac-sodium
B.21	cloransulam-methyl
B.22	chlorsulfuron
B.23	clorimuron
B.24	cyclosulfamuron
B.25	diclosulam
B.26	florasulam
B.27	flumetsulam
B.28	flupyrsulfuron-methyl-sodium
B.29	foramsulfuron
B.30	imazamox
B.31	imazamox-ammonium
B.32	imazapic
B.33	imazapic-ammonium
B.34	imazapic-isopropylammonium
B.35	imazapyr
B.36	imazapyr-ammonium
B.37	imazapyr-isopropylammonium
B.38	imazaquin
B.39	imazaquin-ammonium
B.40	imazethapyr
B.41	imazethapyr-ammonium
B.42	imazethapyr-isopropylammonium
B.43	imazosulfuron
B.44	iodosulfuron-methyl-sodium
B.45	iofensulfuron
B.46	iofensulfuron-sodium
B.47	mesosulfuron-methyl
B.48	metazosulfuron
B.49	metsulfuron-methyl
B.50	metosulam
B.51	nicosulfuron
B.52	penoxsulam

	Herbicide B
B.53	propoxycarbazon-sodium
B.54	pyrazosulfuron-ethyl
B.55	pyribenzoxim
B.56	pyriftalid
B.57	pyroxsulam
B.58	propyrisulfuron
B.59	rimsulfuron
B.60	sulfosulfuron
B.61	thiencarbazone-methyl
B.62	thifensulfuron-methyl
B.63	tribenuron-methyl
B.64	tritosulfuron
B.65	triafamone
B.66	ametryne
B.67	atrazine
B.68	bentazon
B.69	bromoxynil
B.70	bromoxynil-octanoate
B.71	bromoxynil-heptanoate
B.72	bromoxynil-potassium
B.73	diuron
B.74	fluometuron
B.75	hexazinone
B.76	isoproturon
B.77	linuron
B.78	metamitron
B.79	metribuzin
B.80	propanil
B.81	simazin
B.82	terbuthylazine
B.83	terbutryn
B.84	paraquat-dichloride
B.85	acifluorfen
B.86	butafenacil
B.87	carfentrazone-ethyl
B.88	flumioxazin
B.89	fomesafen
B.90	oxadiargyl
B.91	oxyfluorfen

	Herbicide B
B.92	pyraflufen
B.93	pyraflufen-ethyl
B.94	saflufenacil
B.95	sulfentrazone
B.96	trifludimoxazin (BAS 850 H)
B.97	ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydro-pyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6) Sumitomo; LS 5296489
B.98	benzobicyclon
B.99	bicyclopyrone
B.100	clomazone
B.101	diflufenican
B.102	flurochloridone
B.103	isoxaflutole
B.104	mesotrione
B.105	norflurazone
B.106	picolinafen
B.107	sulcotrione
B.108	tefuryltrione
B.109	tembotrione
B.110	tolpyralate
B.111	topramezone
B.112	topramezone-sodium
B.113	amitrole
B.114	fluometuron
B.115	fenquintrione
B.116	glyphosate
B.117	glyphosate-ammonium
B.118	glyphosate-dimethylammonium
B.119	glyphosate-isopropylammonium
B.120	glyphosate-trimesium (sulfosate)

	Herbicide B
B.121	glyphosate-potassium
B.122	glufosinate
B.123	glufosinate-ammonium
B.124	glufosinate-P
B.125	glufosinate-P-ammonium
B.126	pendimethalin
B.127	trifluralin
B.128	acetochlor
B.129	butachlor
B.130	cafenstrole
B.131	dimethenamid-P
B.132	fentrazamide
B.133	flufenacet
B.134	mefenacet
B.135	metazachlor
B.136	metolachlor
B.137	S-metolachlor
B.138	pretilachlor
B.139	fenoxasulfone
B.140	indaziflam
B.141	isoxaben
B.142	triaziflam
B.143	ipfencarbazone
B.144	pyroxasulfone
B.145	2,4-D
B.146	2,4-D-isobutyl
B.147	2,4-D-dimethylammonium
B.148	2,4-D-N,N,N-trimethylethanolammonium
B.149	aminopyralid
B.150	aminopyralid-methyl
B.151	aminopyralid-dimethyl-ammonium
B.152	aminopyralid-tris(2-hydroxypropyl)ammonium
B.153	clopyralid
B.154	clopyralid-methyl
B.155	clopyralid-olamine
B.156	dicamba

	Herbicide B
B.157	dicamba-butotyl
B.158	dicamba-diglycolamine
B.159	dicamba-dimethylammonium
B.160	dicamba-diolamine
B.161	dicamba-isopropylammonium
B.162	dicamba-potassium
B.163	dicamba-sodium
B.164	dicamba-trolamine
B.165	dicamba-N,N-bis-(3-aminopropyl)methylamine
B.166	dicamba-diethylenetriamine
B.167	fluroxypyr
B.168	fluroxypyr-meptyl
B.169	halauxifen
B.170	halauxifen-methyl
B.171	MCPA
B.172	MCPA-2-ethylhexyl
B.173	MCPA-dimethylammonium
B.174	quinclorac
B.175	quinclorac-dimethylammonium
B.176	quinmerac
B.177	quinmerac-dimethylammonium

	Herbicide B
B.178	4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)-5-fluoropyridine-2-carboxylic acid (DOW, “Rinskor-acid”)
B.179	benzyl 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxy-phenyl)-5-fluoropyridine-2-carboxylate (CAS 1390661-72-9) (DOW, “Rinskor”)
B.180	aminocyclopyrachlor
B.181	aminocyclopyrachlor-potassium
B.182	aminocyclopyrachlor-methyl
B.183	diflufenzopyr
B.184	diflufenzopyr-sodium
B.185	dymron
B.186	indanofan
B.187	oxaziclomefone
B.188	II.1
B.189	II.2
B.190	II.3
B.191	II.4
B.192	II.5
B.193	II.6
B.194	II.7
B.195	II.8
B.196	II.9

In another embodiment of the present invention the compositions according to the present invention comprise at least one diaminotriazine compound of formula (I) and at least one safener C.

Safeners are chemical compounds which prevent or reduce damage on useful plants without having a major impact on the herbicidal action of the herbicidal active components of the present compositions towards unwanted plants. They can be applied either before sowings (e.g. on seed treatments, shoots or seedlings) or in the pre-emergence application or post-

emergence application of the useful plant. The safeners and the diaminotriazine compound of formula (I) and/or the herbicides B can be applied simultaneously or in succession.

Suitable safeners are e.g. (quinolin-8-oxy)acetic acids, 1-phenyl-5-haloalkyl-1H-1,2,4-triazol-3-carboxylic acids, 1-phenyl-4,5-dihydro-5-alkyl-1H-pyrazol-3,5-dicarboxylic acids, 4,5-dihydro-5,5-diaryl-3-isoxazol carboxylic acids, dichloroacetamides, alpha-oximinophenylacetonitriles, acetophenonoximes, 4,6-dihalo-2-phenylpyrimidines, N-[[4-(aminocarbonyl)phenyl]sulfonyl]-2-benzoic amides, 1,8-naphthalic anhydride, 2-halo-4-(haloalkyl)-5-thiazol carboxylic acids, phosphorthiolates and N-alkyl-O-phenylcarbamates and their agriculturally acceptable salts and their agriculturally acceptable derivatives such amides, esters, and thioesters, provided they have an acid group.

Examples of preferred safeners C are benoxacor, cloquintocet, cyometrinil, cyprosulfamide, dichlormid, dicyclonon, dietholate, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, mephenate, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3), 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4) and N-(2-Methoxybenzoyl)-4-[(methylaminocarbonyl)amino]benzenesulfonamide (CAS 129531-12-0).

Especially preferred safeners C are benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefenpyr, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3), 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4) and N-(2-Methoxybenzoyl)-4-[(methylaminocarbonyl)amino]benzenesulfonamide (CAS 129531-12-0).

Particularly preferred safeners C are benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, naphtalic anhydride, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3), 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4) and N-(2-Methoxybenzoyl)-4-[(methylaminocarbonyl)amino]benzenesulfonamide (CAS 129531-12-0).

Particularly preferred safeners C, which, as component C, are constituent of the composition according to the invention are the safeners C as defined above; in particular the safeners C.1 - C.17 listed below in table C:

Table C

	Safener C
C.1	benoxacor
C.2	cloquintocet
C.3	cloquintocet-mexyl
C.4	cyprosulfamide
C.5	dichlormid
C.6	fenchlorazole
C.7	fenchlorazole-ethyl
C.8	fenclorim
C.9	furilazole
C.10	isoxadifen

C.11	isoxadifen-ethyl
C.12	mefenpyr
C.13	mefenpyr-diethyl
C.14	naphtalic acid anhydride
C.15	4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3)
C.16	2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4)
C.17	N-(2-Methoxybenzoyl)-4-[(methylaminocarbonyl)amino]benzenesulfonamide (CAS 129531-12-0)

The active compounds B of groups b1) to b15) and the active compounds C are known herbicides and safeners, see, for example, The Compendium of Pesticide Common Names (http://www.alanwood.net/pesticides/); Farm Chemicals Handbook 2000 volume 86, Meister Publishing Company, 2000; B. Hock, C. Fedtke, R. R. Schmidt, Herbizide [Herbicides], Georg Thieme Verlag, Stuttgart 1995; W. H. Ahrens, Herbicide Handbook, 7th edition, Weed Science Society of America, 1994; and K. K. Hatzios, Herbicide Handbook, Supplement for the 7th edition, Weed Science Society of America, 1998. 2,2,5-Trimethyl-3-(dichloroacetyl)-1,3-oxazolidine [CAS No. 52836-31-4] is also referred to as R-29148. 4-(Dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane [CAS No. 71526-07-3] is also referred to as AD-67 and MON 4660.

The assignment of the active compounds to the respective mechanisms of action is based on current knowledge. If several mechanisms of action apply to one active compound, this substance was only assigned to one mechanism of action.

Active compounds B and C having a carboxyl group can be employed in the form of the acid, in the form of an agriculturally suitable salt as mentioned above or else in the form of an agriculturally acceptable derivative in the compositions according to the invention.

In the case of dicamba, suitable salts include those, where the counterion is an agriculturally acceptable cation. For example, suitable salts of dicamba are dicamba-sodium, dicamba-potassium, dicamba-methylammonium, dicamba-dimethylammonium, dicamba-isopropylammonium, dicamba-diglycolamine, dicamba-olamine, dicamba-diolamine, dicamba-trolamine, dicamba-N,N-bis-(3-aminopropyl)methylamine and dicamba-diethylenetriamine. Examples of a suitable ester are dicamba-methyl and dicamba-butotyl.

Suitable salts of 2,4-D are 2,4-D-ammonium, 2,4-D-dimethylammonium, 2,4-D-diethylammonium, 2,4-D-diethanolammonium (2,4-D-diolamine), 2,4-D-triethanolammonium, 2,4-D-isopropylammonium, 2,4-D-triisopropanolammonium, 2,4-D-heptylammonium, 2,4-D-dodecylammonium, 2,4-D-tetradecylammonium, 2,4-D-triethylammonium, 2,4-D-tris(2-hydroxypropyl)ammonium, 2,4-D-tris(isopropyl)ammonium, 2,4-D-trolamine, 2,4-D-lithium, 2,4-D-sodium. Examples of suitable esters of 2,4-D are 2,4-D-butotyl, 2,4-D-2-butoxypropyl, 2,4-D-3-butoxypropyl, 2,4-D-butyl, 2,4-D-ethyl, 2,4-D-ethylhexyl, 2,4-D-isobutyl, 2,4-D-isooctyl, 2,4-D-isopropyl, 2,4-D-meptyl, 2,4-D-methyl, 2,4-D-octyl, 2,4-D-pentyl, 2,4-D-propyl, 2,4-D-tefuryl and clacyfos.

Suitable salts of 2,4-DB are for example 2,4-DB-sodium, 2,4-DB-potassium and 2,4-DB-dimethylammonium. Suitable esters of 2,4-DB are for example 2,4-DB-butyl and 2,4-DB-isoctyl.

Suitable salts of dichlorprop are for example dichlorprop-sodium, dichlorprop-potassium and dichlorprop-dimethylammonium. Examples of suitable esters of dichlorprop are dichlorprop-butotyl and dichlorprop-isoctyl.

Suitable salts and esters of MCPA include MCPA-butotyl, MCPA-butyl, MCPA-dimethylammonium, MCPA-diolamine, MCPA-ethyl, MCPA-thioethyl, MCPA-2-ethylhexyl, MCPA-isobutyl, MCPA-isoctyl, MCPA-isopropyl, MCPA-isopropylammonium, MCPA-methyl, MCPA-olamine, MCPA-potassium, MCPA-sodium and MCPA-trolamine.

A suitable salt of MCPB is MCPB sodium. A suitable ester of MCPB is MCPB-ethyl.

Suitable salts of clopyralid are clopyralid-potassium, clopyralid-olamine and clopyralid-tris-(2-hydroxypropyl)ammonium. Example of suitable esters of clopyralid is clopyralid-methyl.

Examples of a suitable ester of fluroxypyr are fluroxypyr-meptyl and fluroxypyr-2-butoxy-1-methylethyl, wherein fluroxypyr-meptyl is preferred.

Suitable salts of picloram are picloram-dimethylammonium, picloram-potassium, picloram-triisopropanolammonium, picloram-triisopropylammonium and picloram-trolamine. A suitable ester of picloram is picloram-isoctyl.

A suitable salt of triclopyr is triclopyr-triethylammonium. Suitable esters of triclopyr are for example triclopyr-ethyl and triclopyr-butotyl.

Suitable salts and esters of chloramben include chloramben-ammonium, chloramben-diolamine, chloramben-methyl, chloramben-methylammonium and chloramben-sodium. Suitable salts and esters of 2,3,6-TBA include 2,3,6-TBA-dimethylammonium, 2,3,6-TBA-lithium, 2,3,6-TBA-potassium and 2,3,6-TBA-sodium.

Suitable salts and esters of aminopyralid include aminopyralid-potassium, aminopyralid-dimethylammonium, and aminopyralid-tris(2-hydroxypropyl)ammonium.

Suitable salts of glyphosate are for example glyphosate-ammonium, glyphosate-diammonium, glyphoste-dimethylammonium, glyphosate-isopropylammonium, glyphosate-potassium, glyphosate-sodium, glyphosate-trimesium as well as the ethanolamine and diethanolamine salts, preferably glyphosate-diammonium, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate).

A suitable salt of glufosinate is for example glufosinate-ammonium.

A suitable salt of glufosinate-P is for example glufosinate-P-ammonium.

Suitable salts and esters of bromoxynil are for example bromoxynil-butyrate, bromoxynil-heptanoate, bromoxynil-octanoate, bromoxynil-potassium and bromoxynil-sodium.

Suitable salts and esters of ioxonil are for example ioxonil-octanoate, ioxonil-potassium and ioxonil-sodium.

Suitable salts and esters of mecoprop include mecoprop-butotyl, mecoprop-dimethylammonium, mecoprop-diolamine, mecoprop-ethadyl, mecoprop-2-ethylhexyl, mecoprop-isoctyl, mecoprop-methyl, mecoprop-potassium, mecoprop-sodium and mecoprop-trolamine.

Suitable salts of mecoprop-P are for example mecoprop-P-butotyl, mecoprop-P-dimethylammonium, mecoprop-P-2-ethylhexyl, mecoprop-P-isobutyl, mecoprop-P-potassium and mecoprop-P-sodium.

A suitable salt of diflufenzopyr is for example diflufenzopyr-sodium.

A suitable salt of naptalam is for example naptalam-sodium.

Suitable salts and esters of aminocyclopyrachlor are for example aminocyclopyrachlor-dimethylammonium, aminocyclopyrachlor-methyl, aminocyclopyrachlor-triisopropanolammonium, aminocyclopyrachlor-sodium and aminocyclopyrachlor-potassium.

A suitable salt of quinclorac is for example quinclorac-dimethylammonium.

A suitable salt of quinmerac is for example quinmerac-dimethylammonium.

A suitable salt of imazamox is for example imazamox-ammonium.

Suitable salts of imazapic are for example imazapic-ammonium and imazapic-isopropylammonium.

Suitable salts of imazapyr are for example imazapyr-ammonium and imazapyr-isopropylammonium.

A suitable salt of imazaquin is for example imazaquin-ammonium.

Suitable salts of imazethapyr are for example imazethapyr-ammonium and imazethapyr-isopropylammonium.

A suitable salt of topramezone is for example topramezone-sodium.

According to a preferred embodiment of the invention, the composition comprises as herbicidal active compound B or component B at least one, preferably exactly one herbicide B.

According to another preferred embodiment of the invention, the composition comprises as herbicidal active compounds B or component B at least two, preferably exactly two herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as herbicidal active compounds B or component B at least three, preferably exactly three herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as safening component C or component C at least one, preferably exactly one safener C.

According to another preferred embodiment of the invention, the composition comprises as component B at least one, preferably exactly one herbicide B, and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises at least two, preferably exactly two, herbicides B different from each other, and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises at least three, preferably exactly three, herbicides B different from each other, and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises at least one, preferably exactly one compound of formula (I) and as component B at least one, preferably exactly one, herbicide B.

According to another preferred embodiment of the invention, the composition comprises at least one, preferably exactly one compound of formula (I) and at least two, preferably exactly two, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises at least one, preferably exactly one compound of formula (I) and at least three, preferably exactly three, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises at least one, preferably exactly one compound of formula (I) and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises at least one, preferably exactly one compound of formula (I) as component B at least one, preferably exactly one, herbicide B, and as component C at least one, preferably exactly one safener C.

According to another preferred embodiment of the invention, the composition comprises at least one, preferably exactly one compound of formula (I), at least two, preferably exactly two herbicides B different from each other, and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises at least one, preferably exactly one compound of formula (I) at least three, preferably exactly three herbicides B different from each other, and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b1), in particular selected from the group consisting of clodinafop-propargyl, cycloxydim, cyhalofop-butyl, fenoxaprop-P-ethyl, pinoxaden, profoxydim, tepraloxydim, tralkoxydim, esprocarb, prosulfocarb, thiobencarb and triallate.

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b2), in particular selected from the group consisting of bensulfuron-methyl, bispyribac-sodium, cyclosulfamuron, diclosulam, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, imazamox, imazapic, imazapyr, imazaquin, imazethapyr, imazosulfuron, iodosulfuron, iodosulfuron-methyl-sodium, mesosulfuron, metazosulfuron, nicosulfuron, penoxsulam, propoxycarbazon-sodium, pyrazosulfuron-ethyl, pyroxsulam, rimsulfuron, sulfosulfuron, thiencarbazon-methyl and tritosulfuron.

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b3), in particular selected from the group consisting of ametryn, atrazine, diuron, fluometuron, hexazinone, isoproturon, linuron, metribuzin, paraquat, paraquat-dichloride, propanil, terbutryn and terbuthylazine.

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally

active compound from group b4), in particular selected from the group consisting of flumioxazin, oxyfluorfen, pyraflufen, pyraflufen-ethyl, saflufenacil, sulfentrazone, trifludimoxazin (BAS 850 H), ethyl [3-[2-chloro-4-fluoro-5-(1-methyl-6-trifluoromethyl-2,4-dioxo-1,2,3,4-tetrahydropyrimidin-3-yl)phenoxy]-2-pyridyloxy]acetate (CAS 353292-31-6; S-3100; Sumitomo; LS 5296489) , 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione (CAS 451484-50-7) LS 4061013), 2-(2,2,7-trifluoro-3-oxo-4-prop-2-ynyl-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl)-4,5,6,7-tetrahydro-isoindole-1,3-dione (CAS 1300118-96-0) (LS 567 0033 = F2-Flumioxazin) and 1-methyl-6-trifluoromethyl-3-(2,2,7-trifluoro-3-oxo-4-prop-2-ynyl-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl)-1H-pyrimidine-2,4-dione (CAS 1304113-05-0) (LS 568 1323 = Uracil-F2-PPO).

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b5), in particular selected from the group consisting of amitrole, bicyclopyrone, clomazone, diflufenican, flumeturon, flurochloridone, isoxaflutole, mesotrione, picolinafen, sulcotrione, tefuryltrione, tembotrione, tolpyralate and topramezone.

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b6), in particular selected from the group consisting of glyphosate, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate).

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b7), in particular selected from the group consisting of glufosinate, glufosinate-P and glufosinate-ammonium.

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b9), in particular selected from the group consisting of pendimethalin and trifluralin.

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b10), in particular selected from the group consisting of acetochlor, cafenstrole, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, fenoxasulfone and pyroxasulfone. Likewise, preference is given to compositions comprising in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b10), in particular selected from the group consisting of isoxazoline compounds of the formulae II.1, II.2, II.3, II.4, II.5, II.6, II.7, II.8 and II.9, as defined above.

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b11), in particular indaziflam, isoxaben and triaziflam.

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally

active compound from group b13), in particular selected from the group consisting of 2,4-D and its salts and esters, aminocyclopyrachlor and its salts and esters, aminopyralid and its salts such as aminopyralid-dimethylammonium, aminopyralid-tris(2-hydroxypropyl)ammonium and its esters, clopyralid and its salts and esters, dicamba and its salts and esters, fluroxypyr-meptyl, halauxifen, halauxifen-methyl, quinclorac, quinmerac, 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)-5-fluoropyridine-2-carboxylic acid (DOW, "Rinskor-acid") and benzyl 4-amino-3-chloro-6-(4-chloro-2-fluoro-3-methoxyphenyl)-5-fluoropyridine-2-carboxylate (CAS 1390661-72-9) (DOW, "Rinskor").

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b14), in particular selected from the group consisting of diflufenzopyr and diflufenzopyr-sodium.

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one herbicidally active compound from group b15), in particular selected from the group consisting of dymron (= daimuron), indanofan and oxaziclomefone.

According to another preferred embodiment of the invention, the composition comprises, in addition to a compounds of formula (I), at least one and especially exactly one safener C, in particular selected from the group consisting of benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

Further preferred embodiments relate to ternary compositions which correspond to the binary compositions mentioned above and additionally comprise a safener C, in particular selected from the group consisting of benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3) and 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4).

Here and below, the term "binary compositions" includes compositions comprising one or more, for example 1, 2 or 3, active compounds of the formula (I) and either one or more, for example 1, 2 or 3, herbicides B or one or more safeners C.

Correspondingly, the term "ternary compositions" includes compositions comprising one or more, for example 1, 2 or 3, active compounds of the formula (I), one or more, for example 1, 2 or 3, herbicides B and one or more, for example 1, 2 or 3, safeners C.

In binary compositions comprising at least one compound of the formula (I) as component A and at least one herbicide B, the weight ratio of the active compounds A:B is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

In binary compositions comprising at least one compound of the formula (I) as component A and at least one safener C, the weight ratio of the active compounds A:C is generally in the

range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

In ternary compositions comprising at least one compound of formula (I) as component A, at least one herbicide B and at least one safener C, the relative proportions by weight of the components A:B are generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1, the weight ratio of the components A:C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1, and the weight ratio of the components B:C is generally in the range of from 1:1000 to 1000:1, preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1. The weight ratio of components A + B to component C is preferably in the range of from 1:500 to 500:1, in particular in the range of from 1:250 to 250:1 and particularly preferably in the range of from 1:75 to 75:1.

The weight ratios of the individual components in the preferred mixtures mentioned below are within the limits given above, in particular within the preferred limits.

Particularly preferred are the compositions mentioned below comprising the compounds of formula (I) as defined and the substance(s) as defined in the respective row of table 1;

especially preferred comprising as only herbicidal active compounds the compounds of formula (I) as defined and the substance(s) as defined in the respective row of table 1;

most preferably comprising as only active compounds the compounds of formula I as defined and the substance(s) as defined in the respective row of table 1.

Particularly preferred are compositions 1.1 to 1.3545, comprising the compounds of formula (I) and the substance(s) as defined in the respective row of table 1:

The following combinations indicated by the code A-X.Y.Z represent particular embodiments of the invention:

A-1.1.1 to A-1.102.3545,
A-2.1.1 to A-2.102.3545,
A-3.1.1 to A-3.102.3545,
A-4.1.1 to A-4.102.3545,
A-5.1.1 to A-5.102.3545,
A-6.1.1 to A-6.102.3545,
A-7.1.1 to A-7.102.3545,
A-8.1.1 to A-8.102.3545,
A-9.1.1 to A-9.102.3545,
A-10.1.1 to A-10.102.3545,
A-11.1.1 to A-11.102.3545,
A-12.1.1 to A-12.102.3545,
A-13.1.1 to A-13.102.3545,
A-14.1.1 to A-14.102.3545,
A-15.1.1 to A-15.102.3545,
A-16.1.1 to A-16.102.3545,
A-17.1.1 to A-17.102.3545,
A-18.1.1 to A-18.102.3545,
A-19.1.1 to A-19.102.3545,
A-20.1.1 to A-20.102.3545,
A-21.1.1 to A-21.102.3545,
A-22.1.1 to A-22.102.3545,
A-23.1.1 to A-23.102.3545,
A-24.1.1 to A-24.102.3545,
A-25.1.1 to A-25.102.3545,
A-26.1.1 to A-26.102.3545,

A-27.1.1 to A-27.102.3545,
A-28.1.1 to A-28.102.3545,
A-29.1.1 to A-29.102.3545,
A-30.1.1 to A-30.102.3545,
A-31.1.1 to A-31.102.3545,
A-32.1.1 to A-32.102.3545,
A-33.1.1 to A-33.102.3545,
A-34.1.1 to A-34.102.3545,
A-35.1.1 to A-35.102.3545.

In the above codes A-X refers to the numbers of tables A-1 to A-35. The integer Y refers to the row of table A, while the integer Z refers to the row of table 1 below.

Hence, the code A-1.1.1 refers to the combination of the compound of formula I.a of table A-1, wherein R^2, R^3, R^4 are as defined in row 1 of table A, with the combination of the herbicide B and and the safener C are as defined in combination no. 1.1 of table 1.

The code A-12.2.35 refers to the combination of the compound of formula I.a of table A-12, wherein R^2, R^3, R^4 are as defined in row 2 of table A, with the combination of the herbicide B and and the safener C are as defined in combination no. 1.35 of table 1.

The code A-35.102.3545 refers to the combination of the compound of formula I.a of table A-35, wherein R^2, R^3, R^4 are as defined in row 102 of table A, with the combination of the herbicide B and and the safener C are as defined in combination no. 1.3545 of table 1.

Table 1(compositions 1.1 to 1.3545):

comp. no.	herbicide B	safener C
1.1	B.1	--
1.2	B.2	--
1.3	B.3	--
1.4	B.4	--
1.5	B.5	--
1.6	B.6	--
1.7	B.7	--
1.8	B.8	--
1.9	B.9	--
1.10	B.10	--
1.11	B.11	--
1.12	B.12	--
1.13	B.13	--
1.14	B.14	--
1.15	B.15	--
1.16	B.16	--
1.17	B.17	--
1.18	B.18	--
1.19	B.19	--
1.20	B.20	--
1.21	B.21	--
1.22	B.22	--
1.23	B.23	--
1.24	B.24	--
1.25	B.25	--
1.26	B.26	--
1.27	B.27	--
1.28	B.28	--
1.29	B.29	--
1.30	B.30	--
1.31	B.31	--
1.32	B.32	--
1.33	B.33	--
1.34	B.34	--
1.35	B.35	--
1.36	B.36	--
1.37	B.37	--
1.38	B.38	--
1.39	B.39	--
1.40	B.40	--
1.41	B.41	--
1.42	B.42	--
1.43	B.43	--
1.44	B.44	--
1.45	B.45	--
1.46	B.46	--
1.47	B.47	--
1.48	B.48	--
1.49	B.49	--
1.50	B.50	--
1.51	B.51	--

comp. no.	herbi-cide B	safe-ner C
1.52	B.52	--
1.53	B.53	--
1.54	B.54	--
1.55	B.55	--
1.56	B.56	--
1.57	B.57	--
1.58	B.58.	--
1.59	B.59	--
1.60	B.60	--
1.61	B.61	--
1.62	B.62	--
1.63	B.63	--
1.64	B.64	--
1.65	B.65	--
1.66	B.66	--
1.67	B.67	--
1.68	B.68	--
1.69	B.69	--
1.70	B.70	--
1.71	B.71	--
1.72	B.72	--
1.73	B.73	--
1.74	B.74	--
1.75	B.75	--
1.76	B.76	--
1.77	B.77	--
1.78	B.78	--
1.79	B.79	--
1.80	B.80	--
1.81	B.81	--
1.82	B.82	--
1.83	B.83	--
1.84	B.84	--
1.85	B.85	--
1.86	B.86	--
1.87	B.87	--
1.88	B.88	--
1.89	B.89	--
1.90	B.90	--
1.91	B.91	--

comp. no.	herbi-cide B	safe-ner C
1.92	B.92	--
1.93	B.93	--
1.94	B.94	--
1.95	B.95	--
1.96	B.96	--
1.97	B.97	--
1.98	B.98	--
1.99	B.99	--
1.100	B.100	--
1.101	B.101	--
1.102	B.102	--
1.103	B.103	--
1.104	B.104	--
1.105	B.105	--
1.106	B.106	--
1.107	B.107	--
1.108	B.108	--
1.109	B.109	--
1.110	B.110	--
1.111	B.111	--
1.112	B.112	--
1.113	B.113	--
1.114	B.114	--
1.115	B.115	--
1.116	B.116	--
1.117	B.117	--
1.118	B.118	--
1.119	B.119	--
1.120	B.120	--
1.121	B.121	--
1.122	B.122	--
1.123	B.123	--
1.124	B.124	--
1.125	B.125	--
1.126	B.126	--
1.127	B.127	--
1.128	B.128	--
1.129	B.129	--
1.130	B.130	--
1.131	B.131	--

comp. no.	herbi-cide B	safe-ner C
1.132	B.132	--
1.133	B.133	--
1.134	B.134	--
1.135	B.135	--
1.136	B.136	--
1.137	B.137	--
1.138	B.138	--
1.139	B.139	--
1.140	B.140	--
1.141	B.141	--
1.142	B.142	--
1.143	B.143	--
1.144	B.144	--
1.145	B.145	--
1.146	B.146	--
1.147	B.147	--
1.148	B.148	--
1.149	B.149	--
1.150	B.150	--
1.151	B.151	--
1.152	B.152	--
1.153	B.153	--
1.154	B.154	--
1.155	B.155	--
1.156	B.156	--
1.157	B.157	--
1.158	B.158	--
1.159	B.159	--
1.160	B.160	--
1.161	B.161	--
1.162	B.162	--
1.163	B.163	--
1.164	B.164	--
1.165	B.165	--
1.166	B.166	--
1.167	B.167	--
1.168	B.168	--
1.169	B.169	--
1.170	B.170	--
1.171	B.171	--

comp. no.	herbi-cide B	safe-ner C
1.172	B.172	--
1.173	B.173	--
1.174	B.174	--
1.175	B.175	--
1.176	B.176	--
1.177	B.177	--
1.178	B.178	--
1.179	B.179	--
1.180	B.180	--
1.181	B.181	--
1.182	B.182	--
1.183	B.183	--
1.184	B.184	--
1.185	B.185	--
1.186	B.186	--
1.187	B.187	--
1.188	B.188	--
1.189	B.189	--
1.190	B.190	
1.191	B.191	
1.192	B.192	
1.193	B.193	
1.194	B.194	
1.195	B.195	
1.196	B.196	

1.197	B.1	C.1
1.198	B.2	C.1
1.199	B.3	C.1
1.200	B.4	C.1
1.201	B.5	C.1
1.202	B.6	C.1
1.203	B.7	C.1
1.204	B.8	C.1
1.205	B.9	C.1
1.206	B.10	C.1
1.207	B.11	C.1
1.208	B.12	C.1
1.209	B.13	C.1
1.210	B.14	C.1
1.211	B.15	C.1
1.212	B.16	C.1
1.213	B.17	C.1
1.214	B.18	C.1
1.215	B.19	C.1
1.216	B.20	C.1
1.217	B.21	C.1
1.218	B.22	C.1
1.219	B.23	C.1
1.220	B.24	C.1
1.221	B.25	C.1
1.222	B.26	C.1
1.223	B.27	C.1
1.224	B.28	C.1
1.225	B.29	C.1
1.226	B.30	C.1
1.227	B.31	C.1
1.228	B.32	C.1
1.229	B.33	C.1
1.230	B.34	C.1
1.231	B.35	C.1
1.232	B.36	C.1
1.233	B.37	C.1
1.234	B.38	C.1
1.235	B.39	C.1
1.236	B.40	C.1
1.237	B.41	C.1
1.238	B.42	C.1
1.239	B.43	C.1
1.240	B.44	C.1
1.241	B.45	C.1
1.242	B.46	C.1
1.243	B.47	C.1
1.244	B.48	C.1
1.245	B.49	C.1
1.246	B.50	C.1
1.247	B.51	C.1
1.248	B.52	C.1
1.249	B.53	C.1
1.250	B.54	C.1
1.251	B.55	C.1
1.252	B.56	C.1
1.253	B.57	C.1
1.254	B.58.	C.1
1.255	B.59	C.1
1.256	B.60	C.1
1.257	B.61	C.1
1.258	B.62	C.1
1.259	B.63	C.1
1.260	B.64	C.1
1.261	B.65	C.1
1.262	B.66	C.1
1.263	B.67	C.1
1.264	B.68	C.1
1.265	B.69	C.1
1.266	B.70	C.1
1.267	B.71	C.1
1.268	B.72	C.1
1.269	B.73	C.1
1.270	B.74	C.1
1.271	B.75	C.1
1.272	B.76	C.1
1.273	B.77	C.1
1.274	B.78	C.1
1.275	B.79	C.1
1.276	B.80	C.1
1.277	B.81	C.1
1.278	B.82	C.1
1.279	B.83	C.1
1.280	B.84	C.1
1.281	B.85	C.1
1.282	B.86	C.1
1.283	B.87	C.1
1.284	B.88	C.1
1.285	B.89	C.1
1.286	B.90	C.1
1.287	B.91	C.1
1.288	B.92	C.1
1.289	B.93	C.1
1.290	B.94	C.1
1.291	B.95	C.1
1.292	B.96	C.1
1.293	B.97	C.1
1.294	B.98	C.1
1.295	B.99	C.1
1.296	B.100	C.1
1.297	B.101	C.1
1.298	B.102	C.1
1.299	B.103	C.1
1.300	B.104	C.1
1.301	B.105	C.1
1.302	B.106	C.1
1.303	B.107	C.1
1.304	B.108	C.1
1.305	B.109	C.1
1.306	B.110	C.1
1.307	B.111	C.1
1.308	B.112	C.1
1.309	B.113	C.1
1.310	B.114	C.1
1.311	B.115	C.1
1.312	B.116	C.1
1.313	B.117	C.1
1.314	B.118	C.1
1.315	B.119	C.1
1.316	B.120	C.1
1.317	B.121	C.1
1.318	B.122	C.1
1.319	B.123	C.1
1.320	B.124	C.1
1.321	B.125	C.1

1.322	B.126	C.1
1.323	B.127	C.1
1.324	B.128	C.1
1.325	B.129	C.1
1.326	B.130	C.1
1.327	B.131	C.1
1.328	B.132	C.1
1.329	B.133	C.1
1.330	B.134	C.1
1.331	B.135	C.1
1.332	B.136	C.1
1.333	B.137	C.1
1.334	B.138	C.1
1.335	B.139	C.1
1.336	B.140	C.1
1.337	B.141	C.1
1.338	B.142	C.1
1.339	B.143	C.1
1.340	B.144	C.1
1.341	B.145	C.1
1.342	B.146	C.1
1.343	B.147	C.1
1.344	B.148	C.1
1.345	B.149	C.1
1.346	B.150	C.1
1.347	B.151	C.1
1.348	B.152	C.1
1.349	B.153	C.1
1.350	B.154	C.1
1.351	B.155	C.1
1.352	B.156	C.1
1.353	B.157	C.1
1.354	B.158	C.1
1.355	B.159	C.1
1.356	B.160	C.1
1.357	B.161	C.1
1.358	B.162	C.1
1.359	B.163	C.1
1.360	B.164	C.1
1.361	B.165	C.1
1.362	B.166	C.1
1.363	B.167	C.1
1.364	B.168	C.1
1.365	B.169	C.1
1.366	B.170	C.1
1.367	B.171	C.1
1.368	B.172	C.1
1.369	B.173	C.1
1.370	B.174	C.1
1.371	B.175	C.1
1.372	B.176	C.1
1.373	B.177	C.1
1.374	B.178	C.1
1.375	B.179	C.1
1.376	B.180	C.1
1.377	B.181	C.1
1.378	B.182	C.1
1.379	B.183	C.1
1.380	B.184	C.1
1.381	B.185	C.1
1.382	B.186	C.1
1.383	B.187	C.1
1.384	B.188	C.1
1.385	B.189	C.1
1.386	B.190	C.1
1.387	B.191	C.1
1.388	B.192	C.1
1.389	B.193	C.1
1.390	B.194	C.1
1.391	B.195	C.1
1.392	B.196	C.1

1.393	B.1	C.2
1.394	B.2	C.2
1.395	B.3	C.2
1.396	B.4	C.2
1.397	B.5	C.2
1.398	B.6	C.2
1.399	B.7	C.2
1.400	B.8	C.2
1.401	B.9	C.2
1.402	B.10	C.2
1.403	B.11	C.2
1.404	B.12	C.2
1.405	B.13	C.2
1.406	B.14	C.2
1.407	B.15	C.2
1.408	B.16	C.2
1.409	B.17	C.2
1.410	B.18	C.2
1.411	B.19	C.2
1.412	B.20	C.2
1.413	B.21	C.2
1.414	B.22	C.2
1.415	B.23	C.2
1.416	B.24	C.2
1.417	B.25	C.2
1.418	B.26	C.2
1.419	B.27	C.2
1.420	B.28	C.2
1.421	B.29	C.2
1.422	B.30	C.2
1.423	B.31	C.2
1.424	B.32	C.2
1.425	B.33	C.2
1.426	B.34	C.2
1.427	B.35	C.2
1.428	B.36	C.2
1.429	B.37	C.2
1.430	B.38	C.2
1.431	B.39	C.2
1.432	B.40	C.2
1.433	B.41	C.2
1.434	B.42	C.2
1.435	B.43	C.2
1.436	B.44	C.2
1.437	B.45	C.2
1.438	B.46	C.2
1.439	B.47	C.2
1.440	B.48	C.2
1.441	B.49	C.2
1.442	B.50	C.2
1.443	B.51	C.2
1.444	B.52	C.2
1.445	B.53	C.2
1.446	B.54	C.2
1.447	B.55	C.2
1.448	B.56	C.2
1.449	B.57	C.2
1.450	B.58.	C.2
1.451	B.59	C.2
1.452	B.60	C.2
1.453	B.61	C.2
1.454	B.62	C.2
1.455	B.63	C.2
1.456	B.64	C.2
1.457	B.65	C.2
1.458	B.66	C.2
1.459	B.67	C.2
1.460	B.68	C.2
1.461	B.69	C.2
1.462	B.70	C.2
1.463	B.71	C.2
1.464	B.72	C.2
1.465	B.73	C.2
1.466	B.74	C.2
1.467	B.75	C.2
1.468	B.76	C.2
1.469	B.77	C.2
1.470	B.78	C.2
1.471	B.79	C.2
1.472	B.80	C.2
1.473	B.81	C.2
1.474	B.82	C.2
1.475	B.83	C.2
1.476	B.84	C.2
1.477	B.85	C.2
1.478	B.86	C.2
1.479	B.87	C.2
1.480	B.88	C.2
1.481	B.89	C.2
1.482	B.90	C.2
1.483	B.91	C.2
1.484	B.92	C.2
1.485	B.93	C.2
1.486	B.94	C.2
1.487	B.95	C.2
1.488	B.96	C.2
1.489	B.97	C.2
1.490	B.98	C.2
1.491	B.99	C.2
1.492	B.100	C.2
1.493	B.101	C.2
1.494	B.102	C.2
1.495	B.103	C.2
1.496	B.104	C.2
1.497	B.105	C.2
1.498	B.106	C.2
1.499	B.107	C.2
1.500	B.108	C.2
1.501	B.109	C.2
1.502	B.110	C.2
1.503	B.111	C.2
1.504	B.112	C.2
1.505	B.113	C.2
1.506	B.114	C.2
1.507	B.115	C.2
1.508	B.116	C.2
1.509	B.117	C.2
1.510	B.118	C.2
1.511	B.119	C.2
1.512	B.120	C.2
1.513	B.121	C.2
1.514	B.122	C.2
1.515	B.123	C.2
1.516	B.124	C.2
1.517	B.125	C.2

1.518	B.126	C.2
1.519	B.127	C.2
1.520	B.128	C.2
1.521	B.129	C.2
1.522	B.130	C.2
1.523	B.131	C.2
1.524	B.132	C.2
1.525	B.133	C.2
1.526	B.134	C.2
1.527	B.135	C.2
1.528	B.136	C.2
1.529	B.137	C.2
1.530	B.138	C.2
1.531	B.139	C.2
1.532	B.140	C.2
1.533	B.141	C.2
1.534	B.142	C.2
1.535	B.143	C.2
1.536	B.144	C.2
1.537	B.145	C.2
1.538	B.146	C.2
1.539	B.147	C.2
1.540	B.148	C.2
1.541	B.149	C.2
1.542	B.150	C.2
1.543	B.151	C.2
1.544	B.152	C.2
1.545	B.153	C.2
1.546	B.154	C.2
1.547	B.155	C.2
1.548	B.156	C.2
1.549	B.157	C.2
1.550	B.158	C.2
1.551	B.159	C.2
1.552	B.160	C.2
1.553	B.161	C.2
1.554	B.162	C.2
1.555	B.163	C.2
1.556	B.164	C.2
1.557	B.165	C.2
1.558	B.166	C.2
1.559	B.167	C.2
1.560	B.168	C.2
1.561	B.169	C.2
1.562	B.170	C.2
1.563	B.171	C.2
1.564	B.172	C.2
1.565	B.173	C.2
1.566	B.174	C.2
1.567	B.175	C.2
1.568	B.176	C.2
1.569	B.177	C.2
1.570	B.178	C.2
1.571	B.179	C.2
1.572	B.180	C.2
1.573	B.181	C.2
1.574	B.182	C.2
1.575	B.183	C.2
1.576	B.184	C.2
1.577	B.185	C.2
1.578	B.186	C.2
1.579	B.187	C.2
1.580	B.188	C.2
1.581	B.189	C.2
1.582	B.190	C.2
1.583	B.191	C.2
1.584	B.192	C.2
1.585	B.193	C.2
1.586	B.194	C.2
1.587	B.195	C.2
1.588	B.196	C.2

1.589	B.1	C.3
1.590	B.2	C.3
1.591	B.3	C.3
1.592	B.4	C.3
1.593	B.5	C.3
1.594	B.6	C.3
1.595	B.7	C.3
1.596	B.8	C.3
1.597	B.9	C.3
1.598	B.10	C.3
1.599	B.11	C.3
1.600	B.12	C.3
1.601	B.13	C.3
1.602	B.14	C.3
1.603	B.15	C.3
1.604	B.16	C.3
1.605	B.17	C.3
1.606	B.18	C.3
1.607	B.19	C.3
1.608	B.20	C.3
1.609	B.21	C.3
1.610	B.22	C.3
1.611	B.23	C.3
1.612	B.24	C.3
1.613	B.25	C.3
1.614	B.26	C.3
1.615	B.27	C.3
1.616	B.28	C.3
1.617	B.29	C.3
1.618	B.30	C.3
1.619	B.31	C.3
1.620	B.32	C.3
1.621	B.33	C.3
1.622	B.34	C.3
1.623	B.35	C.3
1.624	B.36	C.3
1.625	B.37	C.3
1.626	B.38	C.3
1.627	B.39	C.3
1.628	B.40	C.3
1.629	B.41	C.3
1.630	B.42	C.3
1.631	B.43	C.3
1.632	B.44	C.3
1.633	B.45	C.3
1.634	B.46	C.3
1.635	B.47	C.3
1.636	B.48	C.3
1.637	B.49	C.3
1.638	B.50	C.3
1.639	B.51	C.3
1.640	B.52	C.3
1.641	B.53	C.3
1.642	B.54	C.3
1.643	B.55	C.3
1.644	B.56	C.3
1.645	B.57	C.3
1.646	B.58.	C.3
1.647	B.59	C.3
1.648	B.60	C.3
1.649	B.61	C.3
1.650	B.62	C.3
1.651	B.63	C.3
1.652	B.64	C.3
1.653	B.65	C.3
1.654	B.66	C.3
1.655	B.67	C.3
1.656	B.68	C.3
1.657	B.69	C.3
1.658	B.70	C.3
1.659	B.71	C.3
1.660	B.72	C.3
1.661	B.73	C.3
1.662	B.74	C.3
1.663	B.75	C.3
1.664	B.76	C.3
1.665	B.77	C.3
1.666	B.78	C.3
1.667	B.79	C.3
1.668	B.80	C.3
1.669	B.81	C.3
1.670	B.82	C.3
1.671	B.83	C.3
1.672	B.84	C.3
1.673	B.85	C.3
1.674	B.86	C.3
1.675	B.87	C.3
1.676	B.88	C.3
1.677	B.89	C.3
1.678	B.90	C.3
1.679	B.91	C.3
1.680	B.92	C.3
1.681	B.93	C.3
1.682	B.94	C.3
1.683	B.95	C.3
1.684	B.96	C.3
1.685	B.97	C.3
1.686	B.98	C.3
1.687	B.99	C.3
1.688	B.100	C.3
1.689	B.101	C.3
1.690	B.102	C.3
1.691	B.103	C.3
1.692	B.104	C.3
1.693	B.105	C.3
1.694	B.106	C.3
1.695	B.107	C.3
1.696	B.108	C.3
1.697	B.109	C.3
1.698	B.110	C.3
1.699	B.111	C.3
1.700	B.112	C.3
1.701	B.113	C.3
1.702	B.114	C.3
1.703	B.115	C.3
1.704	B.116	C.3
1.705	B.117	C.3
1.706	B.118	C.3
1.707	B.119	C.3
1.708	B.120	C.3
1.709	B.121	C.3
1.710	B.122	C.3
1.711	B.123	C.3
1.712	B.124	C.3
1.713	B.125	C.3

1.714	B.126	C.3
1.715	B.127	C.3
1.716	B.128	C.3
1.717	B.129	C.3
1.718	B.130	C.3
1.719	B.131	C.3
1.720	B.132	C.3
1.721	B.133	C.3
1.722	B.134	C.3
1.723	B.135	C.3
1.724	B.136	C.3
1.725	B.137	C.3
1.726	B.138	C.3
1.727	B.139	C.3
1.728	B.140	C.3
1.729	B.141	C.3
1.730	B.142	C.3
1.731	B.143	C.3
1.732	B.144	C.3
1.733	B.145	C.3
1.734	B.146	C.3
1.735	B.147	C.3
1.736	B.148	C.3
1.737	B.149	C.3
1.738	B.150	C.3
1.739	B.151	C.3
1.740	B.152	C.3
1.741	B.153	C.3
1.742	B.154	C.3
1.743	B.155	C.3
1.744	B.156	C.3
1.745	B.157	C.3
1.746	B.158	C.3
1.747	B.159	C.3
1.748	B.160	C.3
1.749	B.161	C.3
1.750	B.162	C.3
1.751	B.163	C.3
1.752	B.164	C.3
1.753	B.165	C.3
1.754	B.166	C.3
1.755	B.167	C.3
1.756	B.168	C.3
1.757	B.169	C.3
1.758	B.170	C.3
1.759	B.171	C.3
1.760	B.172	C.3
1.761	B.173	C.3
1.762	B.174	C.3
1.763	B.175	C.3
1.764	B.176	C.3
1.765	B.177	C.3
1.766	B.178	C.3
1.767	B.179	C.3
1.768	B.180	C.3
1.769	B.181	C.3
1.770	B.182	C.3
1.771	B.183	C.3
1.772	B.184	C.3
1.773	B.185	C.3
1.774	B.186	C.3
1.775	B.187	C.3
1.776	B.188	C.3
1.777	B.189	C.3
1.778	B.190	C.3
1.779	B.191	C.3
1.780	B.192	C.3
1.781	B.193	C.3
1.782	B.194	C.3
1.783	B.195	C.3
1.784	B.196	C.3

1.785	B.1	C.4
1.786	B.2	C.4
1.787	B.3	C.4
1.788	B.4	C.4
1.789	B.5	C.4
1.790	B.6	C.4
1.791	B.7	C.4
1.792	B.8	C.4
1.793	B.9	C.4
1.794	B.10	C.4
1.795	B.11	C.4
1.796	B.12	C.4
1.797	B.13	C.4
1.798	B.14	C.4
1.799	B.15	C.4
1.800	B.16	C.4
1.801	B.17	C.4
1.802	B.18	C.4
1.803	B.19	C.4
1.804	B.20	C.4
1.805	B.21	C.4
1.806	B.22	C.4
1.807	B.23	C.4
1.808	B.24	C.4
1.809	B.25	C.4
1.810	B.26	C.4
1.811	B.27	C.4
1.812	B.28	C.4
1.813	B.29	C.4
1.814	B.30	C.4
1.815	B.31	C.4
1.816	B.32	C.4
1.817	B.33	C.4
1.818	B.34	C.4
1.819	B.35	C.4
1.820	B.36	C.4
1.821	B.37	C.4
1.822	B.38	C.4
1.823	B.39	C.4
1.824	B.40	C.4
1.825	B.41	C.4
1.826	B.42	C.4
1.827	B.43	C.4
1.828	B.44	C.4
1.829	B.45	C.4
1.830	B.46	C.4
1.831	B.47	C.4
1.832	B.48	C.4
1.833	B.49	C.4
1.834	B.50	C.4
1.835	B.51	C.4
1.836	B.52	C.4
1.837	B.53	C.4
1.838	B.54	C.4
1.839	B.55	C.4
1.840	B.56	C.4
1.841	B.57	C.4
1.842	B.58.	C.4
1.843	B.59	C.4
1.844	B.60	C.4
1.845	B.61	C.4
1.846	B.62	C.4
1.847	B.63	C.4
1.848	B.64	C.4
1.849	B.65	C.4
1.850	B.66	C.4
1.851	B.67	C.4
1.852	B.68	C.4
1.853	B.69	C.4
1.854	B.70	C.4
1.855	B.71	C.4
1.856	B.72	C.4
1.857	B.73	C.4
1.858	B.74	C.4
1.859	B.75	C.4
1.860	B.76	C.4
1.861	B.77	C.4
1.862	B.78	C.4
1.863	B.79	C.4
1.864	B.80	C.4
1.865	B.81	C.4
1.866	B.82	C.4
1.867	B.83	C.4
1.868	B.84	C.4
1.869	B.85	C.4
1.870	B.86	C.4
1.871	B.87	C.4
1.872	B.88	C.4
1.873	B.89	C.4
1.874	B.90	C.4
1.875	B.91	C.4
1.876	B.92	C.4
1.877	B.93	C.4
1.878	B.94	C.4
1.879	B.95	C.4
1.880	B.96	C.4
1.881	B.97	C.4
1.882	B.98	C.4
1.883	B.99	C.4
1.884	B.100	C.4
1.885	B.101	C.4
1.886	B.102	C.4
1.887	B.103	C.4
1.888	B.104	C.4
1.889	B.105	C.4
1.890	B.106	C.4
1.891	B.107	C.4
1.892	B.108	C.4
1.893	B.109	C.4
1.894	B.110	C.4
1.895	B.111	C.4
1.896	B.112	C.4
1.897	B.113	C.4
1.898	B.114	C.4
1.899	B.115	C.4
1.900	B.116	C.4
1.901	B.117	C.4
1.902	B.118	C.4
1.903	B.119	C.4
1.904	B.120	C.4
1.905	B.121	C.4
1.906	B.122	C.4
1.907	B.123	C.4
1.908	B.124	C.4
1.909	B.125	C.4

1.910	B.126	C.4
1.911	B.127	C.4
1.912	B.128	C.4
1.913	B.129	C.4
1.914	B.130	C.4
1.915	B.131	C.4
1.916	B.132	C.4
1.917	B.133	C.4
1.918	B.134	C.4
1.919	B.135	C.4
1.920	B.136	C.4
1.921	B.137	C.4
1.922	B.138	C.4
1.923	B.139	C.4
1.924	B.140	C.4
1.925	B.141	C.4
1.926	B.142	C.4
1.927	B.143	C.4
1.928	B.144	C.4
1.929	B.145	C.4
1.930	B.146	C.4
1.931	B.147	C.4
1.932	B.148	C.4
1.933	B.149	C.4
1.934	B.150	C.4
1.935	B.151	C.4
1.936	B.152	C.4
1.937	B.153	C.4
1.938	B.154	C.4
1.939	B.155	C.4
1.940	B.156	C.4
1.941	B.157	C.4
1.942	B.158	C.4
1.943	B.159	C.4
1.944	B.160	C.4
1.945	B.161	C.4
1.946	B.162	C.4
1.947	B.163	C.4
1.948	B.164	C.4
1.949	B.165	C.4
1.950	B.166	C.4
1.951	B.167	C.4
1.952	B.168	C.4
1.953	B.169	C.4
1.954	B.170	C.4
1.955	B.171	C.4
1.956	B.172	C.4
1.957	B.173	C.4
1.958	B.174	C.4
1.959	B.175	C.4
1.960	B.176	C.4
1.961	B.177	C.4
1.962	B.178	C.4
1.963	B.179	C.4
1.964	B.180	C.4
1.965	B.181	C.4
1.966	B.182	C.4
1.967	B.183	C.4
1.968	B.184	C.4
1.969	B.185	C.4
1.970	B.186	C.4
1.971	B.187	C.4
1.972	B.188	C.4
1.973	B.189	C.4
1.974	B.190	C.4
1.975	B.191	C.4
1.976	B.192	C.4
1.977	B.193	C.4
1.978	B.194	C.4
1.979	B.195	C.4
1.980	B.196	C.4

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1.982	B.2	C.5
1.983	B.3	C.5
1.984	B.4	C.5
1.985	B.5	C.5
1.986	B.6	C.5
1.987	B.7	C.5
1.988	B.8	C.5
1.989	B.9	C.5
1.990	B.10	C.5
1.991	B.11	C.5
1.992	B.12	C.5
1.993	B.13	C.5
1.994	B.14	C.5
1.995	B.15	C.5
1.996	B.16	C.5
1.997	B.17	C.5
1.998	B.18	C.5
1.999	B.19	C.5
1.1000	B.20	C.5
1.1001	B.21	C.5
1.1002	B.22	C.5
1.1003	B.23	C.5
1.1004	B.24	C.5
1.1005	B.25	C.5
1.1006	B.26	C.5
1.1007	B.27	C.5
1.1008	B.28	C.5
1.1009	B.29	C.5
1.1010	B.30	C.5
1.1011	B.31	C.5
1.1012	B.32	C.5
1.1013	B.33	C.5
1.1014	B.34	C.5
1.1015	B.35	C.5
1.1016	B.36	C.5
1.1017	B.37	C.5
1.1018	B.38	C.5
1.1019	B.39	C.5
1.1020	B.40	C.5
1.1021	B.41	C.5
1.1022	B.42	C.5
1.1023	B.43	C.5
1.1024	B.44	C.5
1.1025	B.45	C.5
1.1026	B.46	C.5
1.1027	B.47	C.5
1.1028	B.48	C.5
1.1029	B.49	C.5
1.1030	B.50	C.5
1.1031	B.51	C.5
1.1032	B.52	C.5
1.1033	B.53	C.5
1.1034	B.54	C.5
1.1035	B.55	C.5
1.1036	B.56	C.5
1.1037	B.57	C.5
1.1038	B.58.	C.5
1.1039	B.59	C.5
1.1040	B.60	C.5
1.1041	B.61	C.5
1.1042	B.62	C.5
1.1043	B.63	C.5
1.1044	B.64	C.5
1.1045	B.65	C.5
1.1046	B.66	C.5
1.1047	B.67	C.5
1.1048	B.68	C.5
1.1049	B.69	C.5
1.1050	B.70	C.5
1.1051	B.71	C.5
1.1052	B.72	C.5
1.1053	B.73	C.5
1.1054	B.74	C.5
1.1055	B.75	C.5
1.1056	B.76	C.5
1.1057	B.77	C.5
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1.1059	B.79	C.5
1.1060	B.80	C.5
1.1061	B.81	C.5
1.1062	B.82	C.5
1.1063	B.83	C.5
1.1064	B.84	C.5
1.1065	B.85	C.5
1.1066	B.86	C.5
1.1067	B.87	C.5
1.1068	B.88	C.5
1.1069	B.89	C.5
1.1070	B.90	C.5
1.1071	B.91	C.5
1.1072	B.92	C.5
1.1073	B.93	C.5
1.1074	B.94	C.5
1.1075	B.95	C.5
1.1076	B.96	C.5
1.1077	B.97	C.5
1.1078	B.98	C.5
1.1079	B.99	C.5
1.1080	B.100	C.5
1.1081	B.101	C.5
1.1082	B.102	C.5
1.1083	B.103	C.5
1.1084	B.104	C.5
1.1085	B.105	C.5
1.1086	B.106	C.5
1.1087	B.107	C.5
1.1088	B.108	C.5
1.1089	B.109	C.5
1.1090	B.110	C.5
1.1091	B.111	C.5
1.1092	B.112	C.5
1.1093	B.113	C.5
1.1094	B.114	C.5
1.1095	B.115	C.5
1.1096	B.116	C.5
1.1097	B.117	C.5
1.1098	B.118	C.5
1.1099	B.119	C.5
1.1100	B.120	C.5
1.1101	B.121	C.5
1.1102	B.122	C.5
1.1103	B.123	C.5
1.1104	B.124	C.5
1.1105	B.125	C.5

1.1106	B.126	C.5
1.1107	B.127	C.5
1.1108	B.128	C.5
1.1109	B.129	C.5
1.1110	B.130	C.5
1.1111	B.131	C.5
1.1112	B.132	C.5
1.1113	B.133	C.5
1.1114	B.134	C.5
1.1115	B.135	C.5
1.1116	B.136	C.5
1.1117	B.137	C.5
1.1118	B.138	C.5
1.1119	B.139	C.5
1.1120	B.140	C.5
1.1121	B.141	C.5
1.1122	B.142	C.5
1.1123	B.143	C.5
1.1124	B.144	C.5
1.1125	B.145	C.5
1.1126	B.146	C.5
1.1127	B.147	C.5
1.1128	B.148	C.5
1.1129	B.149	C.5
1.1130	B.150	C.5
1.1131	B.151	C.5
1.1132	B.152	C.5
1.1133	B.153	C.5
1.1134	B.154	C.5
1.1135	B.155	C.5
1.1136	B.156	C.5
1.1137	B.157	C.5
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1.1141	B.161	C.5
1.1142	B.162	C.5
1.1143	B.163	C.5
1.1144	B.164	C.5
1.1145	B.165	C.5
1.1146	B.166	C.5
1.1147	B.167	C.5
1.1148	B.168	C.5
1.1149	B.169	C.5
1.1150	B.170	C.5
1.1151	B.171	C.5
1.1152	B.172	C.5
1.1153	B.173	C.5
1.1154	B.174	C.5
1.1155	B.175	C.5
1.1156	B.176	C.5
1.1157	B.177	C.5
1.1158	B.178	C.5
1.1159	B.179	C.5
1.1160	B.180	C.5
1.1161	B.181	C.5
1.1162	B.182	C.5
1.1163	B.183	C.5
1.1164	B.184	C.5
1.1165	B.185	C.5
1.1166	B.186	C.5
1.1167	B.187	C.5
1.1168	B.188	C.5
1.1169	B.189	C.5
1.1170	B.190	C.5
1.1171	B.191	C.5
1.1172	B.192	C.5
1.1173	B.193	C.5
1.1174	B.194	C.5
1.1175	B.195	C.5
1.1176	B.196	C.5

1.1177	B.1	C.6
1.1178	B.2	C.6
1.1179	B.3	C.6
1.1180	B.4	C.6
1.1181	B.5	C.6
1.1182	B.6	C.6
1.1183	B.7	C.6
1.1184	B.8	C.6
1.1185	B.9	C.6
1.1186	B.10	C.6
1.1187	B.11	C.6
1.1188	B.12	C.6
1.1189	B.13	C.6
1.1190	B.14	C.6
1.1191	B.15	C.6
1.1192	B.16	C.6
1.1193	B.17	C.6
1.1194	B.18	C.6
1.1195	B.19	C.6
1.1196	B.20	C.6
1.1197	B.21	C.6
1.1198	B.22	C.6
1.1199	B.23	C.6
1.1200	B.24	C.6
1.1201	B.25	C.6
1.1202	B.26	C.6
1.1203	B.27	C.6
1.1204	B.28	C.6
1.1205	B.29	C.6
1.1206	B.30	C.6
1.1207	B.31	C.6
1.1208	B.32	C.6
1.1209	B.33	C.6
1.1210	B.34	C.6
1.1211	B.35	C.6
1.1212	B.36	C.6
1.1213	B.37	C.6
1.1214	B.38	C.6
1.1215	B.39	C.6
1.1216	B.40	C.6
1.1217	B.41	C.6
1.1218	B.42	C.6
1.1219	B.43	C.6
1.1220	B.44	C.6
1.1221	B.45	C.6
1.1222	B.46	C.6
1.1223	B.47	C.6
1.1224	B.48	C.6
1.1225	B.49	C.6
1.1226	B.50	C.6
1.1227	B.51	C.6
1.1228	B.52	C.6
1.1229	B.53	C.6
1.1230	B.54	C.6
1.1231	B.55	C.6
1.1232	B.56	C.6
1.1233	B.57	C.6
1.1234	B.58.	C.6
1.1235	B.59	C.6
1.1236	B.60	C.6
1.1237	B.61	C.6
1.1238	B.62	C.6
1.1239	B.63	C.6
1.1240	B.64	C.6
1.1241	B.65	C.6
1.1242	B.66	C.6
1.1243	B.67	C.6
1.1244	B.68	C.6
1.1245	B.69	C.6
1.1246	B.70	C.6
1.1247	B.71	C.6
1.1248	B.72	C.6
1.1249	B.73	C.6
1.1250	B.74	C.6
1.1251	B.75	C.6
1.1252	B.76	C.6
1.1253	B.77	C.6
1.1254	B.78	C.6
1.1255	B.79	C.6
1.1256	B.80	C.6
1.1257	B.81	C.6
1.1258	B.82	C.6
1.1259	B.83	C.6
1.1260	B.84	C.6
1.1261	B.85	C.6
1.1262	B.86	C.6
1.1263	B.87	C.6
1.1264	B.88	C.6
1.1265	B.89	C.6
1.1266	B.90	C.6
1.1267	B.91	C.6
1.1268	B.92	C.6
1.1269	B.93	C.6
1.1270	B.94	C.6
1.1271	B.95	C.6
1.1272	B.96	C.6
1.1273	B.97	C.6
1.1274	B.98	C.6
1.1275	B.99	C.6
1.1276	B.100	C.6
1.1277	B.101	C.6
1.1278	B.102	C.6
1.1279	B.103	C.6
1.1280	B.104	C.6
1.1281	B.105	C.6
1.1282	B.106	C.6
1.1283	B.107	C.6
1.1284	B.108	C.6
1.1285	B.109	C.6
1.1286	B.110	C.6
1.1287	B.111	C.6
1.1288	B.112	C.6
1.1289	B.113	C.6
1.1290	B.114	C.6
1.1291	B.115	C.6
1.1292	B.116	C.6
1.1293	B.117	C.6
1.1294	B.118	C.6
1.1295	B.119	C.6
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1.1297	B.121	C.6
1.1298	B.122	C.6
1.1299	B.123	C.6
1.1300	B.124	C.6
1.1301	B.125	C.6

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1.1303	B.127	C.6
1.1304	B.128	C.6
1.1305	B.129	C.6
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1.1310	B.134	C.6
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1.1314	B.138	C.6
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1.1316	B.140	C.6
1.1317	B.141	C.6
1.1318	B.142	C.6
1.1319	B.143	C.6
1.1320	B.144	C.6
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1.1322	B.146	C.6
1.1323	B.147	C.6
1.1324	B.148	C.6
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1.1332	B.156	C.6
1.1333	B.157	C.6
1.1334	B.158	C.6
1.1335	B.159	C.6
1.1336	B.160	C.6
1.1337	B.161	C.6
1.1338	B.162	C.6
1.1339	B.163	C.6
1.1340	B.164	C.6
1.1341	B.165	C.6
1.1342	B.166	C.6
1.1343	B.167	C.6
1.1344	B.168	C.6
1.1345	B.169	C.6
1.1346	B.170	C.6
1.1347	B.171	C.6
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1.1349	B.173	C.6
1.1350	B.174	C.6
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1.1356	B.180	C.6
1.1357	B.181	C.6
1.1358	B.182	C.6
1.1359	B.183	C.6
1.1360	B.184	C.6
1.1361	B.185	C.6
1.1362	B.186	C.6
1.1363	B.187	C.6
1.1364	B.188	C.6
1.1365	B.189	C.6
1.1366	B.190	C.6
1.1367	B.191	C.6
1.1368	B.192	C.6
1.1369	B.193	C.6
1.1370	B.194	C.6
1.1371	B.195	C.6
1.1372	B.196	C.6

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1.1375	B.3	C.7
1.1376	B.4	C.7
1.1377	B.5	C.7
1.1378	B.6	C.7
1.1379	B.7	C.7
1.1380	B.8	C.7
1.1381	B.9	C.7
1.1382	B.10	C.7
1.1383	B.11	C.7
1.1384	B.12	C.7
1.1385	B.13	C.7
1.1386	B.14	C.7
1.1387	B.15	C.7
1.1388	B.16	C.7
1.1389	B.17	C.7
1.1390	B.18	C.7
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1.1393	B.21	C.7
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1.1399	B.27	C.7
1.1400	B.28	C.7
1.1401	B.29	C.7
1.1402	B.30	C.7
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1.1423	B.51	C.7
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1.1431	B.59	C.7
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1.1437	B.65	C.7
1.1438	B.66	C.7
1.1439	B.67	C.7
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1.1455	B.83	C.7
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1.1458	B.86	C.7
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1.1460	B.88	C.7
1.1461	B.89	C.7
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1.1463	B.91	C.7
1.1464	B.92	C.7
1.1465	B.93	C.7
1.1466	B.94	C.7
1.1467	B.95	C.7
1.1468	B.96	C.7
1.1469	B.97	C.7
1.1470	B.98	C.7
1.1471	B.99	C.7
1.1472	B.100	C.7
1.1473	B.101	C.7
1.1474	B.102	C.7
1.1475	B.103	C.7
1.1476	B.104	C.7
1.1477	B.105	C.7
1.1478	B.106	C.7
1.1479	B.107	C.7
1.1480	B.108	C.7
1.1481	B.109	C.7
1.1482	B.110	C.7
1.1483	B.111	C.7
1.1484	B.112	C.7
1.1485	B.113	C.7
1.1486	B.114	C.7
1.1487	B.115	C.7
1.1488	B.116	C.7
1.1489	B.117	C.7
1.1490	B.118	C.7
1.1491	B.119	C.7
1.1492	B.120	C.7
1.1493	B.121	C.7
1.1494	B.122	C.7
1.1495	B.123	C.7
1.1496	B.124	C.7
1.1497	B.125	C.7

1.1498	B.126	C.7
1.1499	B.127	C.7
1.1500	B.128	C.7
1.1501	B.129	C.7
1.1502	B.130	C.7
1.1503	B.131	C.7
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1.1512	B.140	C.7
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1.1531	B.159	C.7
1.1532	B.160	C.7
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1.1536	B.164	C.7
1.1537	B.165	C.7
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1.1539	B.167	C.7
1.1540	B.168	C.7
1.1541	B.169	C.7
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1.1544	B.172	C.7
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1.1568	B.196	C.7

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1.1576	B.8	C.8
1.1577	B.9	C.8
1.1578	B.10	C.8
1.1579	B.11	C.8
1.1580	B.12	C.8
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1.1599	B.31	C.8
1.1600	B.32	C.8
1.1601	B.33	C.8
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1.1672	B.104	C.8
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1.1674	B.106	C.8
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1.1676	B.108	C.8
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1.1735	B.167	C.8
1.1736	B.168	C.8
1.1737	B.169	C.8
1.1738	B.170	C.8
1.1739	B.171	C.8
1.1740	B.172	C.8
1.1741	B.173	C.8
1.1742	B.174	C.8
1.1743	B.175	C.8
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1.1746	B.178	C.8
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1.1754	B.186	C.8
1.1755	B.187	C.8
1.1756	B.188	C.8
1.1757	B.189	C.8
1.1758	B.190	C.8
1.1759	B.191	C.8
1.1760	B.192	C.8
1.1761	B.193	C.8
1.1762	B.194	C.8
1.1763	B.195	C.8
1.1764	B.196	C.8

1.1765	B.1	C.9
1.1766	B.2	C.9
1.1767	B.3	C.9
1.1768	B.4	C.9
1.1769	B.5	C.9
1.1770	B.6	C.9
1.1771	B.7	C.9
1.1772	B.8	C.9
1.1773	B.9	C.9
1.1774	B.10	C.9
1.1775	B.11	C.9
1.1776	B.12	C.9
1.1777	B.13	C.9
1.1778	B.14	C.9
1.1779	B.15	C.9
1.1780	B.16	C.9
1.1781	B.17	C.9
1.1782	B.18	C.9
1.1783	B.19	C.9
1.1784	B.20	C.9
1.1785	B.21	C.9
1.1786	B.22	C.9
1.1787	B.23	C.9
1.1788	B.24	C.9
1.1789	B.25	C.9
1.1790	B.26	C.9
1.1791	B.27	C.9
1.1792	B.28	C.9
1.1793	B.29	C.9
1.1794	B.30	C.9
1.1795	B.31	C.9
1.1796	B.32	C.9
1.1797	B.33	C.9
1.1798	B.34	C.9
1.1799	B.35	C.9
1.1800	B.36	C.9
1.1801	B.37	C.9
1.1802	B.38	C.9
1.1803	B.39	C.9
1.1804	B.40	C.9
1.1805	B.41	C.9
1.1806	B.42	C.9
1.1807	B.43	C.9
1.1808	B.44	C.9
1.1809	B.45	C.9
1.1810	B.46	C.9
1.1811	B.47	C.9
1.1812	B.48	C.9
1.1813	B.49	C.9
1.1814	B.50	C.9
1.1815	B.51	C.9
1.1816	B.52	C.9
1.1817	B.53	C.9
1.1818	B.54	C.9
1.1819	B.55	C.9
1.1820	B.56	C.9
1.1821	B.57	C.9
1.1822	B.58.	C.9
1.1823	B.59	C.9
1.1824	B.60	C.9
1.1825	B.61	C.9
1.1826	B.62	C.9
1.1827	B.63	C.9
1.1828	B.64	C.9
1.1829	B.65	C.9
1.1830	B.66	C.9
1.1831	B.67	C.9
1.1832	B.68	C.9
1.1833	B.69	C.9
1.1834	B.70	C.9
1.1835	B.71	C.9
1.1836	B.72	C.9
1.1837	B.73	C.9
1.1838	B.74	C.9
1.1839	B.75	C.9
1.1840	B.76	C.9
1.1841	B.77	C.9
1.1842	B.78	C.9
1.1843	B.79	C.9
1.1844	B.80	C.9
1.1845	B.81	C.9
1.1846	B.82	C.9
1.1847	B.83	C.9
1.1848	B.84	C.9
1.1849	B.85	C.9
1.1850	B.86	C.9
1.1851	B.87	C.9
1.1852	B.88	C.9
1.1853	B.89	C.9
1.1854	B.90	C.9
1.1855	B.91	C.9
1.1856	B.92	C.9
1.1857	B.93	C.9
1.1858	B.94	C.9
1.1859	B.95	C.9
1.1860	B.96	C.9
1.1861	B.97	C.9
1.1862	B.98	C.9
1.1863	B.99	C.9
1.1864	B.100	C.9
1.1865	B.101	C.9
1.1866	B.102	C.9
1.1867	B.103	C.9
1.1868	B.104	C.9
1.1869	B.105	C.9
1.1870	B.106	C.9
1.1871	B.107	C.9
1.1872	B.108	C.9
1.1873	B.109	C.9
1.1874	B.110	C.9
1.1875	B.111	C.9
1.1876	B.112	C.9
1.1877	B.113	C.9
1.1878	B.114	C.9
1.1879	B.115	C.9
1.1880	B.116	C.9
1.1881	B.117	C.9
1.1882	B.118	C.9
1.1883	B.119	C.9
1.1884	B.120	C.9
1.1885	B.121	C.9
1.1886	B.122	C.9
1.1887	B.123	C.9
1.1888	B.124	C.9
1.1889	B.125	C.9

1.1890	B.126	C.9
1.1891	B.127	C.9
1.1892	B.128	C.9
1.1893	B.129	C.9
1.1894	B.130	C.9
1.1895	B.131	C.9
1.1896	B.132	C.9
1.1897	B.133	C.9
1.1898	B.134	C.9
1.1899	B.135	C.9
1.1900	B.136	C.9
1.1901	B.137	C.9
1.1902	B.138	C.9
1.1903	B.139	C.9
1.1904	B.140	C.9
1.1905	B.141	C.9
1.1906	B.142	C.9
1.1907	B.143	C.9
1.1908	B.144	C.9
1.1909	B.145	C.9
1.1910	B.146	C.9
1.1911	B.147	C.9
1.1912	B.148	C.9
1.1913	B.149	C.9
1.1914	B.150	C.9
1.1915	B.151	C.9
1.1916	B.152	C.9
1.1917	B.153	C.9
1.1918	B.154	C.9
1.1919	B.155	C.9
1.1920	B.156	C.9
1.1921	B.157	C.9
1.1922	B.158	C.9
1.1923	B.159	C.9
1.1924	B.160	C.9
1.1925	B.161	C.9
1.1926	B.162	C.9
1.1927	B.163	C.9
1.1928	B.164	C.9
1.1929	B.165	C.9
1.1930	B.166	C.9
1.1931	B.167	C.9
1.1932	B.168	C.9
1.1933	B.169	C.9
1.1934	B.170	C.9
1.1935	B.171	C.9
1.1936	B.172	C.9
1.1937	B.173	C.9
1.1938	B.174	C.9
1.1939	B.175	C.9
1.1940	B.176	C.9
1.1941	B.177	C.9
1.1942	B.178	C.9
1.1943	B.179	C.9
1.1944	B.180	C.9
1.1945	B.181	C.9
1.1946	B.182	C.9
1.1947	B.183	C.9
1.1948	B.184	C.9
1.1949	B.185	C.9
1.1950	B.186	C.9
1.1951	B.187	C.9
1.1952	B.188	C.9
1.1953	B.189	C.9
1.1954	B.190	C.9
1.1955	B.191	C.9
1.1956	B.192	C.9
1.1957	B.193	C.9
1.1958	B.194	C.9
1.1959	B.195	C.9
1.1960	B.196	C.9

1.1961	B.1	C.10
1.1962	B.2	C.10
1.1963	B.3	C.10
1.1964	B.4	C.10
1.1965	B.5	C.10
1.1966	B.6	C.10
1.1967	B.7	C.10
1.1968	B.8	C.10
1.1969	B.9	C.10
1.1970	B.10	C.10
1.1971	B.11	C.10
1.1972	B.12	C.10
1.1973	B.13	C.10
1.1974	B.14	C.10
1.1975	B.15	C.10
1.1976	B.16	C.10
1.1977	B.17	C.10
1.1978	B.18	C.10
1.1979	B.19	C.10
1.1980	B.20	C.10
1.1981	B.21	C.10
1.1982	B.22	C.10
1.1983	B.23	C.10
1.1984	B.24	C.10
1.1985	B.25	C.10
1.1986	B.26	C.10
1.1987	B.27	C.10
1.1988	B.28	C.10
1.1989	B.29	C.10
1.1990	B.30	C.10
1.1991	B.31	C.10
1.1992	B.32	C.10
1.1993	B.33	C.10
1.1994	B.34	C.10
1.1995	B.35	C.10
1.1996	B.36	C.10
1.1997	B.37	C.10
1.1998	B.38	C.10
1.1999	B.39	C.10
1.2000	B.40	C.10
1.2001	B.41	C.10
1.2002	B.42	C.10
1.2003	B.43	C.10
1.2004	B.44	C.10
1.2005	B.45	C.10
1.2006	B.46	C.10
1.2007	B.47	C.10
1.2008	B.48	C.10
1.2009	B.49	C.10
1.2010	B.50	C.10
1.2011	B.51	C.10
1.2012	B.52	C.10
1.2013	B.53	C.10
1.2014	B.54	C.10
1.2015	B.55	C.10
1.2016	B.56	C.10
1.2017	B.57	C.10
1.2018	B.58.	C.10
1.2019	B.59	C.10
1.2020	B.60	C.10
1.2021	B.61	C.10
1.2022	B.62	C.10
1.2023	B.63	C.10
1.2024	B.64	C.10
1.2025	B.65	C.10
1.2026	B.66	C.10
1.2027	B.67	C.10
1.2028	B.68	C.10
1.2029	B.69	C.10
1.2030	B.70	C.10
1.2031	B.71	C.10
1.2032	B.72	C.10
1.2033	B.73	C.10
1.2034	B.74	C.10
1.2035	B.75	C.10
1.2036	B.76	C.10
1.2037	B.77	C.10
1.2038	B.78	C.10
1.2039	B.79	C.10
1.2040	B.80	C.10
1.2041	B.81	C.10
1.2042	B.82	C.10
1.2043	B.83	C.10
1.2044	B.84	C.10
1.2045	B.85	C.10
1.2046	B.86	C.10
1.2047	B.87	C.10
1.2048	B.88	C.10
1.2049	B.89	C.10
1.2050	B.90	C.10
1.2051	B.91	C.10
1.2052	B.92	C.10
1.2053	B.93	C.10
1.2054	B.94	C.10
1.2055	B.95	C.10
1.2056	B.96	C.10
1.2057	B.97	C.10
1.2058	B.98	C.10
1.2059	B.99	C.10
1.2060	B.100	C.10
1.2061	B.101	C.10
1.2062	B.102	C.10
1.2063	B.103	C.10
1.2064	B.104	C.10
1.2065	B.105	C.10
1.2066	B.106	C.10
1.2067	B.107	C.10
1.2068	B.108	C.10
1.2069	B.109	C.10
1.2070	B.110	C.10
1.2071	B.111	C.10
1.2072	B.112	C.10
1.2073	B.113	C.10
1.2074	B.114	C.10
1.2075	B.115	C.10
1.2076	B.116	C.10
1.2077	B.117	C.10
1.2078	B.118	C.10
1.2079	B.119	C.10
1.2080	B.120	C.10
1.2081	B.121	C.10
1.2082	B.122	C.10
1.2083	B.123	C.10
1.2084	B.124	C.10
1.2085	B.125	C.10

1.2086	B.126	C.10
1.2087	B.127	C.10
1.2088	B.128	C.10
1.2089	B.129	C.10
1.2090	B.130	C.10
1.2091	B.131	C.10
1.2092	B.132	C.10
1.2093	B.133	C.10
1.2094	B.134	C.10
1.2095	B.135	C.10
1.2096	B.136	C.10
1.2097	B.137	C.10
1.2098	B.138	C.10
1.2099	B.139	C.10
1.2100	B.140	C.10
1.2101	B.141	C.10
1.2102	B.142	C.10
1.2103	B.143	C.10
1.2104	B.144	C.10
1.2105	B.145	C.10
1.2106	B.146	C.10
1.2107	B.147	C.10
1.2108	B.148	C.10
1.2109	B.149	C.10
1.2110	B.150	C.10
1.2111	B.151	C.10
1.2112	B.152	C.10
1.2113	B.153	C.10
1.2114	B.154	C.10
1.2115	B.155	C.10
1.2116	B.156	C.10
1.2117	B.157	C.10
1.2118	B.158	C.10
1.2119	B.159	C.10
1.2120	B.160	C.10
1.2121	B.161	C.10
1.2122	B.162	C.10
1.2123	B.163	C.10
1.2124	B.164	C.10
1.2125	B.165	C.10
1.2126	B.166	C.10
1.2127	B.167	C.10
1.2128	B.168	C.10
1.2129	B.169	C.10
1.2130	B.170	C.10
1.2131	B.171	C.10
1.2132	B.172	C.10
1.2133	B.173	C.10
1.2134	B.174	C.10
1.2135	B.175	C.10
1.2136	B.176	C.10
1.2137	B.177	C.10
1.2138	B.178	C.10
1.2139	B.179	C.10
1.2140	B.180	C.10
1.2141	B.181	C.10
1.2142	B.182	C.10
1.2143	B.183	C.10
1.2144	B.184	C.10
1.2145	B.185	C.10
1.2146	B.186	C.10
1.2147	B.187	C.10
1.2148	B.188	C.10
1.2149	B.189	C.10
1.2150	B.190	C.10
1.2151	B.191	C.10
1.2152	B.192	C.10
1.2153	B.193	C.10
1.2154	B.194	C.10
1.2155	B.195	C.10
1.2156	B.196	C.10

1.2157	B.1	C.11
1.2158	B.2	C.11
1.2159	B.3	C.11
1.2160	B.4	C.11
1.2161	B.5	C.11
1.2162	B.6	C.11
1.2163	B.7	C.11
1.2164	B.8	C.11
1.2165	B.9	C.11
1.2166	B.10	C.11
1.2167	B.11	C.11
1.2168	B.12	C.11
1.2169	B.13	C.11
1.2170	B.14	C.11
1.2171	B.15	C.11
1.2172	B.16	C.11
1.2173	B.17	C.11
1.2174	B.18	C.11
1.2175	B.19	C.11
1.2176	B.20	C.11
1.2177	B.21	C.11
1.2178	B.22	C.11
1.2179	B.23	C.11
1.2180	B.24	C.11
1.2181	B.25	C.11
1.2182	B.26	C.11
1.2183	B.27	C.11
1.2184	B.28	C.11
1.2185	B.29	C.11
1.2186	B.30	C.11
1.2187	B.31	C.11
1.2188	B.32	C.11
1.2189	B.33	C.11
1.2190	B.34	C.11
1.2191	B.35	C.11
1.2192	B.36	C.11
1.2193	B.37	C.11
1.2194	B.38	C.11
1.2195	B.39	C.11
1.2196	B.40	C.11
1.2197	B.41	C.11
1.2198	B.42	C.11
1.2199	B.43	C.11
1.2200	B.44	C.11
1.2201	B.45	C.11
1.2202	B.46	C.11
1.2203	B.47	C.11
1.2204	B.48	C.11
1.2205	B.49	C.11
1.2206	B.50	C.11
1.2207	B.51	C.11
1.2208	B.52	C.11
1.2209	B.53	C.11
1.2210	B.54	C.11
1.2211	B.55	C.11
1.2212	B.56	C.11
1.2213	B.57	C.11
1.2214	B.58.	C.11
1.2215	B.59	C.11
1.2216	B.60	C.11
1.2217	B.61	C.11
1.2218	B.62	C.11
1.2219	B.63	C.11
1.2220	B.64	C.11
1.2221	B.65	C.11
1.2222	B.66	C.11
1.2223	B.67	C.11
1.2224	B.68	C.11
1.2225	B.69	C.11
1.2226	B.70	C.11
1.2227	B.71	C.11
1.2228	B.72	C.11
1.2229	B.73	C.11
1.2230	B.74	C.11
1.2231	B.75	C.11
1.2232	B.76	C.11
1.2233	B.77	C.11
1.2234	B.78	C.11
1.2235	B.79	C.11
1.2236	B.80	C.11
1.2237	B.81	C.11
1.2238	B.82	C.11
1.2239	B.83	C.11
1.2240	B.84	C.11
1.2241	B.85	C.11
1.2242	B.86	C.11
1.2243	B.87	C.11
1.2244	B.88	C.11
1.2245	B.89	C.11
1.2246	B.90	C.11
1.2247	B.91	C.11
1.2248	B.92	C.11
1.2249	B.93	C.11
1.2250	B.94	C.11
1.2251	B.95	C.11
1.2252	B.96	C.11
1.2253	B.97	C.11
1.2254	B.98	C.11
1.2255	B.99	C.11
1.2256	B.100	C.11
1.2257	B.101	C.11
1.2258	B.102	C.11
1.2259	B.103	C.11
1.2260	B.104	C.11
1.2261	B.105	C.11
1.2262	B.106	C.11
1.2263	B.107	C.11
1.2264	B.108	C.11
1.2265	B.109	C.11
1.2266	B.110	C.11
1.2267	B.111	C.11
1.2268	B.112	C.11
1.2269	B.113	C.11
1.2270	B.114	C.11
1.2271	B.115	C.11
1.2272	B.116	C.11
1.2273	B.117	C.11
1.2274	B.118	C.11
1.2275	B.119	C.11
1.2276	B.120	C.11
1.2277	B.121	C.11
1.2278	B.122	C.11
1.2279	B.123	C.11
1.2280	B.124	C.11
1.2281	B.125	C.11

1.2282	B.126	C.11
1.2283	B.127	C.11
1.2284	B.128	C.11
1.2285	B.129	C.11
1.2286	B.130	C.11
1.2287	B.131	C.11
1.2288	B.132	C.11
1.2289	B.133	C.11
1.2290	B.134	C.11
1.2291	B.135	C.11
1.2292	B.136	C.11
1.2293	B.137	C.11
1.2294	B.138	C.11
1.2295	B.139	C.11
1.2296	B.140	C.11
1.2297	B.141	C.11
1.2298	B.142	C.11
1.2299	B.143	C.11
1.2300	B.144	C.11
1.2301	B.145	C.11
1.2302	B.146	C.11
1.2303	B.147	C.11
1.2304	B.148	C.11
1.2305	B.149	C.11
1.2306	B.150	C.11
1.2307	B.151	C.11
1.2308	B.152	C.11
1.2309	B.153	C.11
1.2310	B.154	C.11
1.2311	B.155	C.11
1.2312	B.156	C.11
1.2313	B.157	C.11
1.2314	B.158	C.11
1.2315	B.159	C.11
1.2316	B.160	C.11
1.2317	B.161	C.11
1.2318	B.162	C.11
1.2319	B.163	C.11
1.2320	B.164	C.11
1.2321	B.165	C.11
1.2322	B.166	C.11
1.2323	B.167	C.11
1.2324	B.168	C.11
1.2325	B.169	C.11
1.2326	B.170	C.11
1.2327	B.171	C.11
1.2328	B.172	C.11
1.2329	B.173	C.11
1.2330	B.174	C.11
1.2331	B.175	C.11
1.2332	B.176	C.11
1.2333	B.177	C.11
1.2334	B.178	C.11
1.2335	B.179	C.11
1.2336	B.180	C.11
1.2337	B.181	C.11
1.2338	B.182	C.11
1.2339	B.183	C.11
1.2340	B.184	C.11
1.2341	B.185	C.11
1.2342	B.186	C.11
1.2343	B.187	C.11
1.2344	B.188	C.11
1.2345	B.189	C.11
1.2346	B.190	C.11
1.2347	B.191	C.11
1.2348	B.192	C.11
1.2349	B.193	C.11
1.2350	B.194	C.11
1.2351	B.195	C.11
1.2352	B.196	C.11

1.2353	B.1	C.12
1.2354	B.2	C.12
1.2355	B.3	C.12
1.2356	B.4	C.12
1.2357	B.5	C.12
1.2358	B.6	C.12
1.2359	B.7	C.12
1.2360	B.8	C.12
1.2361	B.9	C.12
1.2362	B.10	C.12
1.2363	B.11	C.12
1.2364	B.12	C.12
1.2365	B.13	C.12
1.2366	B.14	C.12
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1.2368	B.16	C.12
1.2369	B.17	C.12
1.2370	B.18	C.12
1.2371	B.19	C.12
1.2372	B.20	C.12
1.2373	B.21	C.12
1.2374	B.22	C.12
1.2375	B.23	C.12
1.2376	B.24	C.12
1.2377	B.25	C.12
1.2378	B.26	C.12
1.2379	B.27	C.12
1.2380	B.28	C.12
1.2381	B.29	C.12
1.2382	B.30	C.12
1.2383	B.31	C.12
1.2384	B.32	C.12
1.2385	B.33	C.12
1.2386	B.34	C.12
1.2387	B.35	C.12
1.2388	B.36	C.12
1.2389	B.37	C.12
1.2390	B.38	C.12
1.2391	B.39	C.12
1.2392	B.40	C.12
1.2393	B.41	C.12
1.2394	B.42	C.12
1.2395	B.43	C.12
1.2396	B.44	C.12
1.2397	B.45	C.12
1.2398	B.46	C.12
1.2399	B.47	C.12
1.2400	B.48	C.12
1.2401	B.49	C.12
1.2402	B.50	C.12
1.2403	B.51	C.12
1.2404	B.52	C.12
1.2405	B.53	C.12
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1.2407	B.55	C.12
1.2408	B.56	C.12
1.2409	B.57	C.12
1.2410	B.58.	C.12
1.2411	B.59	C.12
1.2412	B.60	C.12
1.2413	B.61	C.12
1.2414	B.62	C.12
1.2415	B.63	C.12
1.2416	B.64	C.12
1.2417	B.65	C.12
1.2418	B.66	C.12
1.2419	B.67	C.12
1.2420	B.68	C.12
1.2421	B.69	C.12
1.2422	B.70	C.12
1.2423	B.71	C.12
1.2424	B.72	C.12
1.2425	B.73	C.12
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1.2428	B.76	C.12
1.2429	B.77	C.12
1.2430	B.78	C.12
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1.2434	B.82	C.12
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1.2439	B.87	C.12
1.2440	B.88	C.12
1.2441	B.89	C.12
1.2442	B.90	C.12
1.2443	B.91	C.12
1.2444	B.92	C.12
1.2445	B.93	C.12
1.2446	B.94	C.12
1.2447	B.95	C.12
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1.2449	B.97	C.12
1.2450	B.98	C.12
1.2451	B.99	C.12
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1.2453	B.101	C.12
1.2454	B.102	C.12
1.2455	B.103	C.12
1.2456	B.104	C.12
1.2457	B.105	C.12
1.2458	B.106	C.12
1.2459	B.107	C.12
1.2460	B.108	C.12
1.2461	B.109	C.12
1.2462	B.110	C.12
1.2463	B.111	C.12
1.2464	B.112	C.12
1.2465	B.113	C.12
1.2466	B.114	C.12
1.2467	B.115	C.12
1.2468	B.116	C.12
1.2469	B.117	C.12
1.2470	B.118	C.12
1.2471	B.119	C.12
1.2472	B.120	C.12
1.2473	B.121	C.12
1.2474	B.122	C.12
1.2475	B.123	C.12
1.2476	B.124	C.12
1.2477	B.125	C.12

1.2478	B.126	C.12
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1.2480	B.128	C.12
1.2481	B.129	C.12
1.2482	B.130	C.12
1.2483	B.131	C.12
1.2484	B.132	C.12
1.2485	B.133	C.12
1.2486	B.134	C.12
1.2487	B.135	C.12
1.2488	B.136	C.12
1.2489	B.137	C.12
1.2490	B.138	C.12
1.2491	B.139	C.12
1.2492	B.140	C.12
1.2493	B.141	C.12
1.2494	B.142	C.12
1.2495	B.143	C.12
1.2496	B.144	C.12
1.2497	B.145	C.12
1.2498	B.146	C.12
1.2499	B.147	C.12
1.2500	B.148	C.12
1.2501	B.149	C.12
1.2502	B.150	C.12
1.2503	B.151	C.12
1.2504	B.152	C.12
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1.2546	B.194	C.12
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1.2609	B.61	C.13
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1.2634	B.86	C.13
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1.2641	B.93	C.13
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1.2649	B.101	C.13
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1.2664	B.116	C.13
1.2665	B.117	C.13
1.2666	B.118	C.13
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1.2669	B.121	C.13
1.2670	B.122	C.13
1.2671	B.123	C.13
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1.2673	B.125	C.13

1.2674	B.126	C.13
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1.2677	B.129	C.13
1.2678	B.130	C.13
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1.2744	B.196	C.13

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1.2781	B.37	C.14
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1.2800	B.56	C.14
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1.2927	B.183	C.14
1.2928	B.184	C.14
1.2929	B.185	C.14
1.2930	B.186	C.14
1.2931	B.187	C.14
1.2932	B.188	C.14
1.2933	B.189	C.14
1.2934	B.190	C.14
1.2935	B.191	C.14
1.2936	B.192	C.14
1.2937	B.193	C.14
1.2938	B.194	C.14
1.2939	B.195	C.14
1.2940	B.196	C.14

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1.2943	B.3	C.15
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1.2945	B.5	C.15
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1.2947	B.7	C.15
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1.2949	B.9	C.15
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1.2966	B.26	C.15
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1.2981	B.41	C.15
1.2982	B.42	C.15
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1.2985	B.45	C.15
1.2986	B.46	C.15
1.2987	B.47	C.15
1.2988	B.48	C.15
1.2989	B.49	C.15
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1.2998	B.58.	C.15
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1.3001	B.61	C.15
1.3002	B.62	C.15
1.3003	B.63	C.15
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1.3013	B.73	C.15
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1.3507	B.175	C.17
1.3508	B.176	C.17
1.3509	B.177	C.17
1.3510	B.178	C.17
1.3511	B.179	C.17
1.3512	B.180	C.17
1.3513	B.181	C.17
1.3514	B.182	C.17
1.3515	B.183	C.17
1.3516	B.184	C.17
1.3517	B.185	C.17
1.3518	B.186	C.17
1.3519	B.187	C.17
1.3520	B.188	C.17
1.3521	B.189	C.17
1.3522	B.190	C.17
1.3523	B.191	C.17
1.3524	B.192	C.17
1.3525	B.193	C.17
1.3526	B.194	C.17
1.3527	B.195	C.17
1.3528	B.196	C.17

1.3529	--	C.1
1.3530	--	C.2
1.3531	--	C.3
1.3532	--	C.4
1.3533	--	C.5
1.3534	--	C.6

1.3535	--	C.7
1.3536	--	C.8
1.3537	--	C.9
1.3538	--	C.10
1.3539	--	C.11
1.3540	--	C.12

1.3541	--	C.13
1.3542	--	C.14
1.3543	--	C.15
1.3544	--	C.16
1.3545	--	C.17

The specific number for each single composition is deductible as follows:

Composition 1.200 for example comprises compounds of formula (I) cyhalofop-butyl (B.4) and benoxacor (C.1). Composition 2.200 for example comprises the compounds of formula (I), cyhalofop-butyl (B.4) and benoxacor (C.1).

Composition 7.200 for example comprises compounds of formula (I) imazapyr (B.35), cyhalofop-butyl (B.4) and benoxacor (C.1).

Also especially preferred are compositions 2.1. to 2.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they comprise as the active compound A the compounds of formula (Ia).

Also especially preferred are compositions 3.1. to 3.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.2 clodinafop-propargyl as further herbicide B.

Also especially preferred are compositions 4.1. to 4.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.8 pinoxaden as further herbicide B.

Also especially preferred are compositions 5.1. to 5.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.30 imazamox as further herbicide B.

Also especially preferred are compositions 6.1. to 6.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.32 imazapic as further herbicide B.

Also especially preferred are compositions 7.1. to 7.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.35 imazapyr as further herbicide B.

Also especially preferred are compositions 8.1. to 8.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.38 imazaquin as further herbicide B.

Also especially preferred are compositions 9.1. to 9.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.40 imazethapyr as further herbicide B.

Also especially preferred are compositions 10.1. to 10.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.51 nicosulfuron as further herbicide B.

Also especially preferred are compositions 11.1. to 11.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.55 pyribenzoxim as further herbicide B.

Also especially preferred are compositions 12.1. to 12.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.56 pyriftalid as further herbicide B.

Also especially preferred are compositions 13.1. to 13.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.64 tritosulfuron as further herbicide B.

Also especially preferred are compositions 14.1. to 14.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.66 ametryne as further herbicide B.

Also especially preferred are compositions 15.1. to 15.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.67 atrazine as further herbicide B.

Also especially preferred are compositions 16.1. to 16.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.68 bentazon as further herbicide B.

Also especially preferred are compositions 17.1. to 17.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.69 bromoxynil as further herbicide B.

Also especially preferred are compositions 18.1. to 18.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.73 diuron as further herbicide B.

Also especially preferred are compositions 19.1. to 19.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.76 isoproturon as further herbicide B.

Also especially preferred are compositions 20.1. to 20.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.81 simazin as further herbicide B.

Also especially preferred are compositions 21.1. to 21.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.82 terbuthylazin as further herbicide B.

Also especially preferred are compositions 22.1. to 22.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.85 acifluorfen as further herbicide B.

Also especially preferred are compositions 23.1. to 23.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.88 flumioxazin as further herbicide B.

Also especially preferred are compositions 24.1. to 24.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.89 fomesafen as

further herbicide B.

Also especially preferred are compositions 25.1. to 25.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.94 saflufenacil as further herbicide B.

Also especially preferred are compositions 26.1. to 26.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.95 sulfentrazone as further herbicide B.

Also especially preferred are compositions 27.1. to 27.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.98 benzbicyclone as further herbicide B.

Also especially preferred are compositions 28.1. to 28.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.100 clomazone as further herbicide B.

Also especially preferred are compositions 29.1. to 29.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.103 isoxaflutole as further herbicide B.

Also especially preferred are compositions 30.1. to 30.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.103 isoxaflutole and B.67 atrazine as further herbicides B.

Also especially preferred are compositions 31.1. to 31.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.103 isoxaflutole and B.76 isoproturon as further herbicides B.

Also especially preferred are compositions 32.1. to 32.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.103 isoxaflutole and B.82 terbutylazin as further herbicides B.

Also especially preferred are compositions 33.1. to 33.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.104 mesotrione as further herbicide B.

Also especially preferred are compositions 34.1. to 34.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.104 mesotrione and B.67 atrazine as further herbicides B.

Also especially preferred are compositions 35.1. to 35.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.104 mesotrione and B.76 isoproturon as further herbicides B.

Also especially preferred are compositions 36.1. to 36.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.104 mesotrione and B.82 terbutylazin as further herbicides B.

Also especially preferred are compositions 37.1. to 37.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.106 picolinafen as further herbicide B.

Also especially preferred are compositions 38.1. to 38.3545 which differ from the corre-

sponding compositions 1.1 to 1.3545 only in that they additionally comprise B.107 sulcotrione as further herbicide B.

Also especially preferred are compositions 39.1. to 39.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B. 107 sulcotrione and B.67 atrazine as further herbicides B.

Also especially preferred are compositions 40.1. to 40.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B. 107 sulcotrione and B.76 isoproturon as further herbicides B.

Also especially preferred are compositions 41.1. to 41.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B. 107 sulcotrione and B.82 terbutylazin as further herbicides B.

Also especially preferred are compositions 42.1. to 42.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.109 tembotrione as further herbicide B.

Also especially preferred are compositions 43.1. to 43.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.111 topramezone as further herbicide B.

Also especially preferred are compositions 44.1. to 44.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.111 topramezone and B.67 atrazine as further herbicides B.

Also especially preferred are compositions 45.1. to 45.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.111 topramezone and B.76 isoproturon as further herbicides B.

Also especially preferred are compositions 46.1. to 46.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.111 topramezone and B.82 terbutylazin as further herbicides B.

Also especially preferred are compositions 47.1. to 47.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.116 glyphosate as further herbicide B.

Also especially preferred are compositions 48.1. to 48.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.116 glyphosate and B.67 atrazine as further herbicides B.

Also especially preferred are compositions 49.1. to 49.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.116 glyphosate and B.94 saflufenacil as further herbicides B.

Also especially preferred are compositions 50.1. to 50.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.116 glyphosate and B.103 isoxaflutole as further herbicides B.

Also especially preferred are compositions 51.1. to 51.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.116 glyphosate and B.128 acetochlor as further herbicides B.

Also especially preferred are compositions 52.1. to 52.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.116 glyphosate and B.104 mesotrione as further herbicides B.

Also especially preferred are compositions 53.1. to 53.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.116 glyphosate and B.107 sulcotrione as further herbicides B.

Also especially preferred are compositions 54.1. to 54.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.116 glyphosate and B.111 topramezone as further herbicides B.

Also especially preferred are compositions 55.1. to 55.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.122 glufosinate as further herbicide B.

Also especially preferred are compositions 56.1. to 56.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.126 pendimethalin as further herbicide B.

Also especially preferred are compositions 57.1. to 57.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.128 acetochlor as further herbicide B.

Also especially preferred are compositions 58.1. to 58.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.131 dimethenamid-P as further herbicide B.

Also especially preferred are compositions 59.1. to 59.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.132 fentrazamide as further herbicide B.

Also especially preferred are compositions 60.1. to 60.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.133 flufenacet as further herbicide B.

Also especially preferred are compositions 61.1. to 61.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.135 metazachlor as further herbicide B.

Also especially preferred are compositions 62.1. to 62.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.137 S-metolachlor as further herbicide B.

Also especially preferred are compositions 63.1. to 63.3545 which differ from the corresponding compositions 11.1 to 1.3545 only in that they additionally comprise B.138 pretilachlor as further herbicide B.

Also especially preferred are compositions 64.1. to 64.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.140 indaziflam as further herbicide B.

Also especially preferred are compositions 65.1. to 65.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.145 2,4-D as fur-

ther herbicide B.

Also especially preferred are compositions 66.1. to 66.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.153 clopyralid as further herbicide B.

Also especially preferred are compositions 67.1. to 67.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.156 dicamba as further herbicide B.

Also especially preferred are compositions 68.1. to 68.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.171 MCPA as further herbicide B.

Also especially preferred are compositions 69.1. to 69.3545 which differ from the corresponding compositions 1.1 to 1.3545 only in that they additionally comprise B.174 quinclorac as further herbicide B.

The invention also relates to agrochemical compositions comprising an auxiliary and at least one diaminotriazine compound of formula (I) or a composition according to the invention.

Accordingly, a first embodiment of the invention relates to compositions in the form of a agrochemical composition formulated as a 1-component composition comprising the at least one active compound of formula (I) or the at least one active compound of formula (I) (active compound A) and at least one further active compound selected from the herbicides B and the safeners C and also a solid or liquid carrier and, if appropriate, one or more surfactants.

Accordingly, a second embodiment of the invention relates to compositions in the form of a agrochemical composition formulated as a 2-component composition comprising a first formulation (component) comprising the at least one active compound A, which is a compound of formula (I), a solid or liquid carrier and, if appropriate, one or more surfactants, and a second component comprising at least one further active compound selected from the herbicides B and safeners C, a solid or liquid carrier and, if appropriate, one or more surfactants.

The active compound A, which is a compound of formula (I) and the at least one further active compound B and/or C can be formulated and applied jointly or separately, simultaneously or in succession, before, during or after the emergence of the plants. In case of separate application, the order of the application of the active compounds A, B and/or C is of minor importance. The only thing that is important is that the at least one active compound A and the at least one further active compound B and/or C are present simultaneously at the site of action, i.e. are at the same time in contact with or taken up by the plant to be controlled or to be safened.

An agrochemical composition comprises a pesticidally effective amount of a aminotriazine compound of formula (I). The term "effective amount" denotes an amount of the composition or of the compounds I, which is sufficient for controlling unwanted plants, especially for controlling unwanted plants in cultivated plants and which does not result in a substantial damage to the treated plants. Such an amount can vary in a broad range and is dependent on various factors, such as the plants to be controlled, the treated cultivated plant or material, the climatic conditions and the specific aminotriazine compound of formula (I) used.

The aminotriazine compound of formula (I), their N-oxides or salts can be converted into customary types of agrochemical compositions, e. g. solutions, emulsions, suspensions, dusts,

powders, pastes, granules, pressings, capsules, and mixtures thereof. Examples for agrochemical composition types are suspensions (e.g. SC, OD, FS), emulsifiable concentrates (e.g. EC), emulsions (e.g. EW, EO, ES, ME), capsules (e.g. CS, ZC), pastes, pastilles, wettable powders or dusts (e.g. WP, SP, WS, DP, DS), pressings (e.g. BR, TB, DT), granules (e.g. WG, SG, GR, FG, GG, MG), insecticidal articles (e.g. LN), as well as gel formulations for the treatment of plant propagation materials such as seeds (e.g. GF). These and further agrochemical compositions types are defined in the "Catalogue of pesticide formulation types and international coding system", Technical Monograph No. 2, 6th Ed. May 2008, CropLife International.

The agrochemical compositions are prepared in a known manner, such as described by Mollet and Grubemann, Formulation technology, Wiley VCH, Weinheim, 2001; or Knowles, New developments in crop protection product formulation, Agrow Reports DS243, T&F Informa, London, 2005.

Suitable auxiliaries are solvents, liquid carriers, solid carriers or fillers, surfactants, dispersants, emulsifiers, wetters, adjuvants, solubilizers, penetration enhancers, protective colloids, adhesion agents, thickeners, humectants, repellents, attractants, feeding stimulants, compatibilizers, bactericides, anti-freezing agents, anti-foaming agents, colorants, tackifiers and binders.

Suitable solvents and liquid carriers are water and organic solvents, such as mineral oil fractions of medium to high boiling point, e.g. kerosene, diesel oil; oils of vegetable or animal origin; aliphatic, cyclic and aromatic hydrocarbons, e. g. toluene, paraffin, tetrahydronaphthalene, alkylated naphthalenes; alcohols, e.g. ethanol, propanol, butanol, benzylalcohol, cyclohexanol; glycols; DMSO; ketones, e.g. cyclohexanone; esters, e.g. lactates, carbonates, fatty acid esters, gamma-butyrolactone; fatty acids; phosphonates; amines; amides, e.g. N-methylpyrrolidone, fatty acid dimethylamides; and mixtures thereof.

Suitable solid carriers or fillers are mineral earths, e.g. silicates, silica gels, talc, kaolins, limestone, lime, chalk, clays, dolomite, diatomaceous earth, bentonite, calcium sulfate, magnesium sulfate, magnesium oxide; polysaccharides, e.g. cellulose, starch; fertilizers, e.g. ammonium sulfate, ammonium phosphate, ammonium nitrate, ureas; products of vegetable origin, e.g. cereal meal, tree bark meal, wood meal, nutshell meal, and mixtures thereof.

Suitable surfactants are surface-active compounds, such as anionic, cationic, nonionic and amphoteric surfactants, block polymers, polyelectrolytes, and mixtures thereof. Such surfactants can be used as emulsifier, dispersant, solubilizer, wetter, penetration enhancer, protective colloid, or adjuvant. Examples of surfactants are listed in McCutcheon's, Vol.1: Emulsifiers & Detergents, McCutcheon's Directories, Glen Rock, USA, 2008 (International Ed. or North American Ed.).

Suitable anionic surfactants are alkali, alkaline earth or ammonium salts of sulfonates, sulfates, phosphates, carboxylates, and mixtures thereof. Examples of sulfonates are alkylarylsulfonates, diphenylsulfonates, alpha-olefin sulfonates, lignine sulfonates, sulfonates of fatty acids and oils, sulfonates of ethoxylated alkylphenols, sulfonates of alkoxylated arylphenols, sulfonates of condensed naphthalenes, sulfonates of dodecyl- and tridecylbenzenes, sulfonates of naphthalenes and alkylnaphthalenes, sulfosuccinates or sulfosuccinamates. Examples of sulfates are sulfates of fatty acids and oils, of ethoxylated alkylphenols, of alcohols, of ethoxylated alcohols, or of fatty acid esters. Examples of phosphates are phosphate esters. Exam-

ples of carboxylates are alkyl carboxylates, and carboxylated alcohol or alkylphenol ethoxylates.

Suitable nonionic surfactants are alkoxylates, N-substituted fatty acid amides, amine oxides, esters, sugar-based surfactants, polymeric surfactants, and mixtures thereof. Examples of alkoxylates are compounds such as alcohols, alkylphenols, amines, amides, arylphenols, fatty acids or fatty acid esters which have been alkoxylated with 1 to 50 equivalents. Ethylene oxide and/or propylene oxide may be employed for the alkoxylation, preferably ethylene oxide. Examples of N-substituted fatty acid amides are fatty acid glucamides or fatty acid alkanolamides. Examples of esters are fatty acid esters, glycerol esters or monoglycerides. Examples of sugar-based surfactants are sorbitans, ethoxylated sorbitans, sucrose and glucose esters or alkylpolyglucosides. Examples of polymeric surfactants are home- or copolymers of vinylpyrrolidone, vinylalcohols, or vinylacetate.

Suitable cationic surfactants are quaternary surfactants, for example quaternary ammonium compounds with one or two hydrophobic groups, or salts of long-chain primary amines. Suitable amphoteric surfactants are alkylbetains and imidazolines. Suitable block polymers are block polymers of the A-B or A-B-A type comprising blocks of polyethylene oxide and polypropylene oxide, or of the A-B-C type comprising alkanol, polyethylene oxide and polypropylene oxide. Suitable polyelectrolytes are polyacids or polybases. Examples of polyacids are alkali salts of polyacrylic acid or polyacid comb polymers. Examples of polybases are polyvinylamines or polyethyleneamines.

Suitable adjuvants are compounds, which have a neglectable or even no pesticidally activity themselves, and which improve the biological performance of the compound I on the target. Examples are surfactants, mineral or vegetable oils, and other auxiliaries. Further examples are listed by Knowles, Adjuvants and additives, Agrow Reports DS256, T&F Informa UK, 2006, chapter 5.

Suitable thickeners are polysaccharides (e.g. xanthan gum, carboxymethylcellulose), inorganic clays (organically modified or unmodified), polycarboxylates, and silicates.

Suitable bactericides are bronopol and isothiazolinone derivatives such as alkylisothiazolinones and benzisothiazolinones.

Suitable anti-freezing agents are ethylene glycol, propylene glycol, urea and glycerin.

Suitable anti-foaming agents are silicones, long chain alcohols, and salts of fatty acids.

Suitable colorants (e.g. in red, blue, or green) are pigments of low water solubility and water-soluble dyes. Examples are inorganic colorants (e.g. iron oxide, titan oxide, iron hexacyanoferrate) and organic colorants (e.g. alizarin-, azo- and phthalocyanine colorants).

Suitable tackifiers or binders are polyvinylpyrrolidons, polyvinylacetates, polyvinyl alcohols, polyacrylates, biological or synthetic waxes, and cellulose ethers.

Examples for agrochemical composition types and their preparation are:

i) Water-soluble concentrates (SL, LS)

10-60 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention and 5-15 wt% wetting agent (e.g. alcohol alkoxylates) are dissolved in water and/or in a water-soluble solvent (e.g. alcohols) ad 100 wt%. The active substance dissolves upon dilution with water.

ii) Dispersible concentrates (DC)

5-25 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention and 1-10 wt% dispersant (e. g. polyvinylpyrrolidone) are dissolved in organic solvent (e.g. cyclohexanone) ad 100 wt%. Dilution with water gives a dispersion.

iii) Emulsifiable concentrates (EC)

15-70 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention and 5-10 wt% emulsifiers (e.g. calcium dodecylbenzenesulfonate and castor oil ethoxylate) are dissolved in water-insoluble organic solvent (e.g. aromatic hydrocarbon) ad 100 wt%. Dilution with water gives an emulsion.

iv) Emulsions (EW, EO, ES)

5-40 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention and 1-10 wt% emulsifiers (e.g. calcium dodecylbenzenesulfonate and castor oil ethoxylate) are dissolved in 20-40 wt% water-insoluble organic solvent (e.g. aromatic hydrocarbon). This mixture is introduced into water ad 100 wt% by means of an emulsifying machine and made into a homogeneous emulsion. Dilution with water gives an emulsion.

v) Suspensions (SC, OD, FS)

In an agitated ball mill, 20-60 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention are comminuted with addition of 2-10 wt% dispersants and wetting agents (e.g. sodium lignosulfonate and alcohol ethoxylate), 0,1-2 wt% thickener (e.g. xanthan gum) and water ad 100 wt% to give a fine active substance suspension. Dilution with water gives a stable suspension of the active substance. For FS type composition up to 40 wt% binder (e.g. polyvinylalcohol) is added.

vi) Water-dispersible granules and water-soluble granules (WG, SG)

50-80 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention are ground finely with addition of dispersants and wetting agents (e.g. sodium lignosulfonate and alcohol ethoxylate) ad 100 wt% and prepared as water-dispersible or water-soluble granules by means of technical appliances (e. g. extrusion, spray tower, fluidized bed). Dilution with water gives a stable dispersion or solution of the active substance.

vii) Water-dispersible powders and water-soluble powders (WP, SP, WS)

50-80 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention are ground in a rotor-stator mill with addition of 1-5 wt% dispersants (e.g. sodium lignosulfonate), 1-3 wt% wetting agents (e.g. alcohol ethoxylate) and solid carrier (e.g. silica gel) ad 100 wt%. Dilution with water gives a stable dispersion or solution of the active substance.

viii) Gel (GW, GF)

In an agitated ball mill, 5-25 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention are comminuted with addition of 3-10 wt% dispersants (e.g. sodium lignosulfonate), 1-5 wt% thickener (e.g. carboxymethylcellulose) and water ad 100 wt% to give a fine suspension of the active substance. Dilution with water gives a stable suspension of the active substance.

iv) Microemulsion (ME)

5-20 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention are added to 5-30 wt% organic solvent blend (e.g. fatty acid dimethylamide and cyclohexanone), 10-25 wt% surfactant blend (e.g. alcohol ethoxylate and arylphenol ethoxylate), and water ad 100 %. This mixture is stirred for 1 h to produce spontaneously a thermodynamically stable microemulsion.

iv) Microcapsules (CS)

An oil phase comprising 5-50 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention, 0-40 wt% water insoluble organic solvent (e.g. aromatic hydrocarbon), 2-15 wt% acrylic monomers (e.g. methylmethacrylate, methacrylic acid and a di- or triacrylate) are dispersed into an aqueous solution of a protective colloid (e.g. polyvinyl alcohol). Radical polymerization initiated by a radical initiator results in the formation of poly(meth)acrylate microcapsules. Alternatively, an oil phase comprising 5-50 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention, 0-40 wt% water insoluble organic solvent (e.g. aromatic hydrocarbon), and an isocyanate monomer (e.g. diphenylmethene-4,4'-diisocyanate) are dispersed into an aqueous solution of a protective colloid (e.g. polyvinyl alcohol). The addition of a polyamine (e.g. hexamethylenediamine) results in the formation of polyurea microcapsules. The monomers amount to 1-10 wt%. The wt% relate to the total CS composition.

ix) Dustable powders (DP, DS)

1-10 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention are ground finely and mixed intimately with solid carrier (e.g. finely divided kaolin) ad 100 wt%.

x) Granules (GR, FG)

0.5-30 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention is ground finely and associated with solid carrier (e.g. silicate) ad 100 wt%. Granulation is achieved by extrusion, spray-drying or the fluidized bed.

xi) Ultra-low volume liquids (UL)

1-50 wt% of an aminotriazine compound of formula (I) according to the invention or the herbicidal composition according to the invention are dissolved in organic solvent (e.g. aromatic hydrocarbon) ad 100 wt%.

The agrochemical compositions types i) to xi) may optionally comprise further auxiliaries, such as 0,1-1 wt% bactericides, 5-15 wt% anti-freezing agents, 0,1-1 wt% anti-foaming agents, and 0,1-1 wt% colorants.

The agrochemical compositions generally comprise between 0.01 and 95%, preferably between 0.1 and 90%, and in particular between 0.5 and 75%, by weight of the aminotriazine compounds of formula (I). The aminotriazine compounds of formula (I) or the herbicidal composition according to the invention are employed in a purity of from 90% to 100%, preferably from 95% to 100% (according to NMR spectrum).

Solutions for seed treatment (LS), suspoemulsions (SE), flowable concentrates (FS), powders for dry treatment (DS), water-dispersible powders for slurry treatment (WS), water-soluble powders (SS), emulsions (ES), emulsifiable concentrates (EC) and gels (GF) are usually employed for the purposes of treatment of plant propagation materials, particularly seeds. The

agrochemical compositions in question give, after two-to-tenfold dilution, active substance concentrations of from 0.01 to 60% by weight, preferably from 0.1 to 40% by weight, in the ready-to-use preparations. Application can be carried out before or during sowing.

Methods for applying aminotriazine compounds of formula (I) or agrochemical compositions thereof, on to plant propagation material, especially seeds, include dressing, coating, pelleting, dusting, soaking and in-furrow application methods of the propagation material. Preferably, compound I or the compositions thereof, respectively, are applied on to the plant propagation material by a method such that germination is not induced, e. g. by seed dressing, pelleting, coating and dusting.

Various types of oils, wetters, adjuvants, fertilizer, or micronutrients, and further pesticides (e.g. herbicides, insecticides, fungicides, growth regulators, safeners) may be added to the aminotriazine compounds of formula (I) or the agrochemical compositions comprising them as premix or, if appropriate not until immediately prior to use (tank mix). These agents can be admixed with the agrochemical compositions according to the invention in a weight ratio of 1:100 to 100:1, preferably 1:10 to 10:1.

The user applies the aminotriazine compounds of formula (I) according to the invention or the agrochemical compositions comprising them usually from a pre-dosage device, a knapsack sprayer, a spray tank, a spray plane, or an irrigation system. Usually, the agrochemical composition is made up with water, buffer, and/or further auxiliaries to the desired application concentration and the ready-to-use spray liquor or the agrochemical composition according to the invention is thus obtained. Usually, 20 to 2000 liters, preferably 50 to 400 liters, of the ready-to-use spray liquor are applied per hectare of agricultural useful area.

According to one embodiment, either individual components of the agrochemical composition according to the invention or partially premixed components, e. g. components comprising azines of formula (I) may be mixed by the user in a spray tank and further auxiliaries and additives may be added, if appropriate.

In a further embodiment, individual components of the agrochemical composition according to the invention such as parts of a kit or parts of a binary or ternary mixture may be mixed by the user himself in a spray tank and further auxiliaries may be added, if appropriate.

In a further embodiment, either individual components of the agrochemical composition according to the invention or partially premixed components, e. g components comprising aminotriazine compounds of formula (I), can be applied jointly (e.g. after tank mix) or consecutively.

The aminotriazine compounds of formula (I), are suitable as herbicides. They are suitable as such or as an appropriately formulated composition (agrochemical composition).

The aminotriazine compounds of formula (I), or the agrochemical compositions comprising the azines of formula (I), control vegetation on non-crop areas very efficiently, especially at high rates of application. They act against broad-leaved weeds and grass weeds in crops such as wheat, rice, maize, soya and cotton without causing any significant damage to the crop plants. This effect is mainly observed at low rates of application.

The aminotriazine compounds of formula (I), or the agrochemical compositions comprising them, are applied to the plants mainly by spraying the leaves or are applied to the soil in which the plant seeds have been sown. Here, the application can be carried out using, for example, water as carrier by customary spraying techniques using spray liquor amounts of from about

100 to 1000 l/ha (for example from 300 to 400 l/ha). The aminotriazine compounds of formula (I), or the agrochemical compositions comprising them, may also be applied by the low-volume or the ultra-low-volume method, or in the form of microgranules.

Application of the aminotriazine compounds of formula (I), or the agrochemical compositions comprising them, can be done before, during and/or after the emergence of the undesirable plants.

The aminotriazine compounds of formula (I), or the agrochemical compositions comprising them, can be applied pre-, post-emergence or pre-plant, or together with the seed of a crop plant. It is also possible to apply the aminotriazine compounds of formula (I), or the agrochemical compositions comprising them, by applying seed, pretreated with the aminotriazine compounds of formula (I), or the agrochemical compositions comprising them, of a crop plant. If the active ingredients are less well tolerated by certain crop plants, application techniques may be used in which the herbicidal compositions are sprayed, with the aid of the spraying equipment, in such a way that as far as possible they do not come into contact with the leaves of the sensitive crop plants, while the active ingredients reach the leaves of undesirable plants growing underneath, or the bare soil surface (post-directed, lay-by).

In a further embodiment, the aminotriazine compounds of formula (I), or the agrochemical compositions comprising them, can be applied by treating seed. The treatment of seeds comprises essentially all procedures familiar to the person skilled in the art (seed dressing, seed coating, seed dusting, seed soaking, seed film coating, seed multilayer coating, seed encrusting, seed dripping and seed pelleting) based on the aminotriazine compounds of formula (I), or the agrochemical compositions prepared therefrom. Here, the herbicidal compositions can be applied diluted or undiluted.

The term “seed” comprises seed of all types, such as, for example, corns, seeds, fruits, tubers, seedlings and similar forms. Here, preferably, the term seed describes corns and seeds. The seed used can be seed of the useful plants mentioned above, but also the seed of transgenic plants or plants obtained by customary breeding methods.

When employed in plant protection, the amounts of active substances applied, i.e. the aminotriazine compounds of formula (I), without formulation auxiliaries, are, depending on the kind of effect desired, from 0.001 to 2 kg per ha, preferably from 0.005 to 2 kg per ha, more preferably from 0.005 to 0.9 kg per ha and in particular from 0.05 to 0.5 kg per ha.

In another embodiment of the invention, the application rate of the aminotriazine compounds of formula (I) is from 0.001 to 3 kg/ha, preferably from 0.005 to 2.5 kg/ha, of active substance (a.s.).

In another preferred embodiment of the invention, the rates of application of the aminotriazine compounds of formula (I) according to the present invention (total amount of aminotriazine compounds of formula (I)) are from 0.1 g/ha to 3000 g/ha, preferably 10 g/ha to 1000 g/ha, depending on the control target, the season, the target plants and the growth stage.

In another preferred embodiment of the invention, the application rates of the aminotriazine compounds of formula (I) are in the range from 0.1 g/ha to 5000 g/ha and preferably in the range from 1 g/ha to 2500 g/ha or from 5 g/ha to 2000 g/ha.

In another preferred embodiment of the invention, the application rate of the aminotriazine compounds of formula (I) is 0.1 to 1000 g/ha, preferably1 to 750 g/ha, more preferably 5 to 500

g/ha.

In treatment of plant propagation materials such as seeds, e. g. by dusting, coating or drenching seed, amounts of active substance of from 0.1 to 1000 g, preferably from 1 to 1000 g, more preferably from 1 to 100 g and most preferably from 5 to 100 g, per 100 kilogram of plant propagation material (preferably seeds) are generally required.

In another embodiment of the invention, to treat the seed, the amounts of active substances applied, i.e. the aminotriazine compounds of formula (I) are generally employed in amounts of from 0.001 to 10 kg per 100 kg of seed.

When used in the protection of materials or stored products, the amount of active substance applied depends on the kind of application area and on the desired effect. Amounts customarily applied in the protection of materials are 0.001 g to 2 kg, preferably 0.005 g to 1 kg, of active substance per cubic meter of treated material.

Depending on the application method in question, the aminotriazine compounds of formula (I), or the agrochemical compositions comprising them, can additionally be employed in a further number of crop plants for eliminating undesirable plants. Examples of suitable crops are the following:

Allium cepa, Ananas comosus, Arachis hypogaea, Asparagus officinalis, Avena sativa, Beta vulgaris spec. altissima, Beta vulgaris spec. rapa, Brassica napus var. napus, Brassica napus var. napobrassica, Brassica rapa var. silvestris, Brassica oleracea, Brassica nigra, Camellia sinensis, Carthamus tinctorius, Carya illinoinensis, Citrus limon, Citrus sinensis, Coffea arabica (Coffea canephora, Coffea liberica), Cucumis sativus, Cynodon dactylon, Daucus carota, Elaeis guineensis, Fragaria vesca, Glycine max, Gossypium hirsutum, (Gossypium arboreum, Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hevea brasiliensis, Hordeum vulgare, Humulus lupulus, Ipomoea batatas, Juglans regia, Lens culinaris, Linum usitatissimum, Lycopersicon lycopersicum, Malus spec., Manihot esculenta, Medicago sativa, Musa spec., Nicotiana tabacum (N.rustica), Olea europaea, Oryza sativa, Phaseolus lunatus, Phaseolus vulgaris, Picea abies, Pinus spec., Pistacia vera, Pisum sativum, Prunus avium, Prunus persica, Pyrus communis, Prunus armeniaca, Prunus cerasus, Prunus dulcis and Prunus domestica, Ribes sylvestre, Ricinus communis, Saccharum officinarum, Secale cereale, Sinapis alba, Solanum tuberosum, Sorghum bicolor (s. vulgare), Theobroma cacao, Trifolium pratense, Triticum aestivum, Triticale, Triticum durum, Vicia faba, Vitis vinifera and Zea mays.

Preferred crops are Arachis hypogaea, Beta vulgaris spec. altissima, Brassica napus var. napus, Brassica oleracea, Citrus limon, Citrus sinensis, Coffea arabica (Coffea canephora, Coffea liberica), Cynodon dactylon, Glycine max, Gossypium hirsutum, (Gossypium arboreum, Gossypium herbaceum, Gossypium vitifolium), Helianthus annuus, Hordeum vulgare, Juglans regia, Lens culinaris, Linum usitatissimum, Lycopersicon lycopersicum, Malus spec., Medicago sativa, Nicotiana tabacum (N.rustica), Olea europaea, Oryza sativa , Phaseolus lunatus, Phaseolus vulgaris, Pistacia vera, Pisum sativum, Prunus dulcis, Saccharum officinarum, Secale cereale, Solanum tuberosum, Sorghum bicolor (s. vulgare), Triticale, Triticum aestivum, Triticum durum, Vicia faba, Vitis vinifera and Zea mays.

Especially preferred crops are crops of cereals, corn, soybeans, rice, oilseed rape, cotton, potatoes, peanuts or permanent crops.

The aminotriazine compounds of formula (I) according to the invention, or the agrochemical compositions comprising them, can also be used in genetically modified plants. The term "genetically modified plants" is to be understood as plants whose genetic material has been modified by the use of recombinant DNA techniques to include an inserted sequence of DNA that is not native to that plant species' genome or to exhibit a deletion of DNA that was native to that species' genome, wherein the modification(s) cannot readily be obtained by cross breeding, mutagenesis or natural recombination alone. Often, a particular genetically modified plant will be one that has obtained its genetic modification(s) by inheritance through a natural breeding or propagation process from an ancestral plant whose genome was the one directly treated by use of a recombinant DNA technique. Typically, one or more genes have been integrated into the genetic material of a genetically modified plant in order to improve certain properties of the plant. Such genetic modifications also include but are not limited to targeted post-translational modification of protein(s), oligo- or polypeptides. e. g., by inclusion therein of amino acid mutation(s) that permit, decrease, or promote glycosylation or polymer additions such as prenylation, acetylation farnesylation, or PEG moiety attachment.

Plants that have been modified by breeding, mutagenesis or genetic engineering, e.g. have been rendered tolerant to applications of specific classes of herbicides, such as auxin herbicides such as dicamba or 2,4-D; bleacher herbicides such as hydroxyphenylpyruvate dioxygenase (HPPD) inhibitors or phytoene desaturase (PDS) inhibitors; acetolactate synthase (ALS) inhibitors such as sulfonyl ureas or imidazolinones; enolpyruvyl shikimate 3-phosphate synthase (EPSP) inhibitors such as glyphosate; glutamine synthetase (GS) inhibitors such as glufosinate; protoporphyrinogen-IX oxidase inhibitors; lipid biosynthesis inhibitors such as acetyl CoA carboxylase (ACCase) inhibitors; or oxynil (i. e. bromoxynil or ioxynil) herbicides as a result of conventional methods of breeding or genetic engineering; furthermore, plants have been made resistant to multiple classes of herbicides through multiple genetic modifications, such as resistance to both glyphosate and glufosinate or to both glyphosate and a herbicide from another class such as ALS inhibitors, HPPD inhibitors, auxin herbicides, or ACCase inhibitors. These herbicide resistance technologies are, for example, described in Pest Management Science 61, 2005, 246; 61, 2005, 258; 61, 2005, 277; 61, 2005, 269; 61, 2005, 286; 64, 2008, 326; 64, 2008, 332; Weed Science 57, 2009, 108; Australian Journal of Agricultural Research 58, 2007, 708; Science 316, 2007, 1185; and references quoted therein. Several cultivated plants have been rendered tolerant to herbicides by mutagenesis and conventional methods of breeding, e. g., Clearfield® summer rape (Canola, BASF SE, Germany) being tolerant to imidazolinones, e. g., imazamox, or ExpressSun® sunflowers (DuPont, USA) being tolerant to sulfonyl ureas, e. g., tribenuron. Genetic engineering methods have been used to render cultivated plants such as soybean, cotton, corn, beets and rape, tolerant to herbicides such as glyphosate, imidazolinones and glufosinate, some of which are under development or commercially available under the brands or trade names RoundupReady® (glyphosate tolerant, Monsanto, USA), Cultivance® (imidazolinone tolerant, BASF SE, Germany) and LibertyLink® (glufosinate tolerant, Bayer CropScience, Germany).

Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more insecticidal proteins, especially those known from the bacterial genus Bacillus, particularly from Bacillus thuringiensis, such as delta-endotoxins, e. g., Cry-

IA(b), CryIA(c), CryIF, CryIF(a2), CryIIA(b), CryIIIA, CryIIIB(b1) or Cry9c; vegetative insecticidal proteins (VIP), e. g., VIP1, VIP2, VIP3 or VIP3A; insecticidal proteins of bacteria colonizing nematodes, e. g., Photorhabdus spp. or Xenorhabdus spp.; toxins produced by animals, such as scorpion toxins, arachnid toxins, wasp toxins, or other insect-specific neurotoxins; toxins produced by fungi, such as Streptomycetes toxins, plant lectins, such as pea or barley lectins; agglutinins; proteinase inhibitors, such as trypsin inhibitors, serine protease inhibitors, patatin, cystatin or papain inhibitors; ribosome-inactivating proteins (RIP), such as ricin, maize-RIP, abrin, luffin, saporin or bryodin; steroid metabolism enzymes, such as 3-hydroxy-steroid oxidase, ecdysteroid-IDP-glycosyl-transferase, cholesterol oxidases, ecdysone inhibitors or HMG-CoA-reductase; ion channel blockers, such as blockers of sodium or calcium channels; juvenile hormone esterase; diuretic hormone receptors (helicokinin receptors); stilbene synthase, bibenzyl synthase, chitinases or glucanases. In the context of the present invention these insecticidal proteins or toxins are to be understood expressly also as including pre-toxins, hybrid proteins, truncated or otherwise modified proteins. Hybrid proteins are characterized by a new combination of protein domains, (see, e. g., WO 02/015701). Further examples of such toxins or genetically modified plants capable of synthesizing such toxins are disclosed, e. g., in EP-A 374 753, WO 93/007278, WO 95/34656, EP-A 427 529, EP-A 451 878, WO 03/18810 und WO 03/52073. The methods for producing such genetically modified plants are generally known to the person skilled in the art and are described, e. g., in the publications mentioned above. These insecticidal proteins contained in the genetically modified plants impart to the plants producing these proteins tolerance to harmful pests from all taxonomic groups of arthropods, especially to beetles (Coeloptera), two-winged insects (Diptera), and moths (Lepidoptera) and to nematodes (Nematoda). Genetically modified plants capable to synthesize one or more insecticidal proteins are, e. g., described in the publications mentioned above, and some of which are commercially available such as YieldGard® (corn cultivars producing the Cry1Ab toxin), YieldGard® Plus (corn cultivars producing Cry1Ab and Cry3Bb1 toxins), Starlink® (corn cultivars producing the Cry9c toxin), Herculex® RW (corn cultivars producing Cry34Ab1, Cry35Ab1 and the enzyme Phosphinothricin-N-Acetyltransferase [PAT]); NuCOTN® 33B (cotton cultivars producing the Cry1Ac toxin), Bollgard® I (cotton cultivars producing the Cry1Ac toxin), Bollgard® II (cotton cultivars producing Cry1Ac and Cry2Ab2 toxins); VIPCOT® (cotton cultivars producing a VIP-toxin); NewLeaf® (potato cultivars producing the Cry3A toxin); Bt-Xtra®, NatureGard®, KnockOut®, BiteGard®, Protecta®, Bt11 (e. g., Agrisure® CB) and Bt176 from Syngenta Seeds SAS, France, (corn cultivars producing the Cry1Ab toxin and PAT enzyme), MIR604 from Syngenta Seeds SAS, France (corn cultivars producing a modified version of the Cry3A toxin, c.f. WO 03/018810), MON 863 from Monsanto Europe S.A., Belgium (corn cultivars producing the Cry3Bb1 toxin), IPC 531 from Monsanto Europe S.A., Belgium (cotton cultivars producing a modified version of the Cry1Ac toxin) and 1507 from Pioneer Overseas Corporation, Belgium (corn cultivars producing the Cry1F toxin and PAT enzyme).

Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more proteins to increase the resistance or tolerance of those plants to bacterial, viral or fungal pathogens. Examples of such proteins are the so-called “pathogenesis-related proteins” (PR proteins, see, e.g., EP-A 392 225), plant disease resistance genes (e. g., potato culti-vars, which express resistance genes acting against Phytophthora in-

festans derived from the Mexican wild potato, Solanum bulbocastanum) or T4-lyso-zym (e.g., potato cultivars capable of synthesizing these proteins with increased resistance against bacteria such as Erwinia amylovora). The methods for producing such genetically modi-fied plants are generally known to the person skilled in the art and are described, e.g., in the publications mentioned above.

Furthermore, plants are also covered that are by the use of recombinant DNA techniques capable to synthesize one or more proteins to increase the productivity (e.g., bio-mass production, grain yield, starch content, oil content or protein content), tolerance to drought, salinity or other growth-limiting environmental factors or tolerance to pests and fungal, bacterial or viral pathogens of those plants.

Furthermore, plants are also covered that contain by the use of recombinant DNA techniques a modified amount of ingredients or new ingredients, specifically to improve human or animal nutrition, e. g., oil crops that produce health-promoting long-chain omega-3 fatty acids or unsaturated omega-9 fatty acids (e. g., Nexera® rape, Dow AgroSciences, Canada).

Furthermore, plants are also covered that contain by the use of recombinant DNA techniques a modified amount of ingredients or new ingredients, specifically to improve raw material production, e.g., potatoes that produce increased amounts of amylopectin (e.g. Amflora® potato, BASF SE, Germany).

Furthermore, it has been found that the the compositions according to the invention are also suitable for the defoliation and/or desiccation of plant parts, for which crop plants such as cotton, potato, oilseed rape, sunflower, soybean or field beans, in particular cotton, are suitable. In this regard compositions have been found for the desiccation and/or defoliation of plants, processes for preparing these compositions, and methods for desiccating and/or defoliating plants using the compositions according to the invention.

As desiccants, the compositions according to the invention are suitable in particular for desiccating the above-ground parts of crop plants such as potato, oilseed rape, sunflower and soybean, but also cereals. This makes possible the fully mechanical harvesting of these important crop plants.

Also of economic interest is the facilitation of harvesting, which is made possible by concentrating within a certain period of time the dehiscence, or reduction of adhesion to the tree, in citrus fruit, olives and other species and varieties of pomaceous fruit, stone fruit and nuts. The same mechanism, i.e. the promotion of the development of abscission tissue between fruit part or leaf part and shoot part of the plants is also essential for the controlled defoliation of useful plants, in particular cotton.

Moreover, a shortening of the time interval in which the individual cotton plants mature leads to an increased fiber quality after harvesting.

Another aspect of the invention is an agrochemical composition comprising a herbicidal active amount of at least one compound of formula (I) as defined above and at least one inert liquid and/or solid carrier and, if appropriate, at least one surface-active substances.

A further aspect of the invention is a method of controlling undesired vegetation, which comprises allowing a herbicidally active amount of at least one compound of formu-

Ia (I) as as defined above to act on plants, their environment or on seed.

The preparation of the aminotriazine compounds of formula (I) is illustrated by examples; however, the subject matter of the present invention is not limited to the examples given.

The products shown below were characterized by the mass ([m/z]) or retention time (RT; [min.]) determined by HPLC-MS spectrometry.

HPLC-MS = high performance liquid chromatography-coupled mass spectrometry; HPLC column:

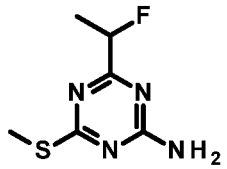
RP-18 column (Chromolith Speed ROD from Merck KgaA, Germany), 50*4.6 mm; mobile phase: acetonitrile + 0.1% trifluoroacetic acid (TFA)/water + 0.1% TFA using a gradient from 5:95 to 100:0 over 5 minutes at 40°C, flow rate 1.8 ml/min.

MS: quadrupole electrospray ionization, 80 V (positive mode).

A Preparation examples

Example 1 (E.1): 4-(1-fluoroethyl)-6-(2,3,5,6-tetrafluorophenoxy)-1,3,5-triazin-2-amine;

4-(1-fluoroethyl)-6-methylsulfanyl-1,3,5-triazin-2-amine

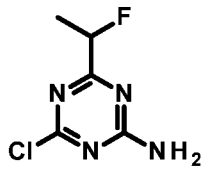


2-Fluoro-propanoyl chloride (24.5 g, 0.22 mol) and triethylamine (112 g, 1.11 mol) were added to a solution of 1-carbamimidoyl-2-methyl-isothiourea hydroiodide (57.7 g, 0.22 mol) in THF via two addition funnels. After the initial weak exothermic reaction was finished, the mixture was stirred for 3 h at 50 C. The reaction mixture was cooled to ambient temperature, diluted with water and ethyl acetate and the phases were separated. The organic phase was dried over anhydrous Na_2SO_4, filtered and concentrated under reduced pressure yielding the title compound as a colorless solid (13.6 g, 41.7% yield).

MS (ESI) m/z 189.1 $[M+H^+]$

^1H NMR (400 MHz, $CDCl_3$): δ = 6.18 (brs, 1H), 5.52 (brs, 1H), 5.42 - 5.29 (m, 1H), 2.50 (s, 3H), 1.69 – 1.62 (m, 3 H) ppm.

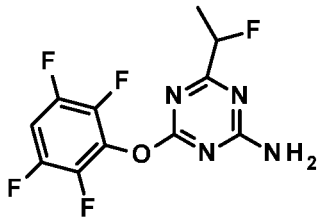
4-chloro-6-(1-fluoroethyl)-1,3,5-triazin-2-amine



4-(1-fluoroethyl)-6-methylsulfanyl-1,3,5-triazin-2-amine (13.2 g, 70.2 mmol) was dissolved in acetic acid and Cl_2 gas was bubbled through the solution for 30 min. The reaction mixture was stirred for an additional hour at ambient temperature and was then carefully added to a cold solution of NaOH (70 g) in water (1 L). Ethyl acetate was added and the phases were separated. The organic phase was dried over anhydrous Na_2SO_4, filtered and concentrated under reduced pressure yielding the title compound as a colorless solid (5.32 g, 43.0% yield).

MS (ESI) m/z 177.0 [M+H$^+$]

^{1}H NMR (400 MHz, $CDCl_3$): δ = 6.77(brs, 1H), 6.23 (brs, 1H), 5.42 (dq, J = 48.3 Hz, J = 6.7 Hz, 1H), 1.68 (dd, J = 24.2 Hz, J = 6.7 Hz, 3 H) ppm.



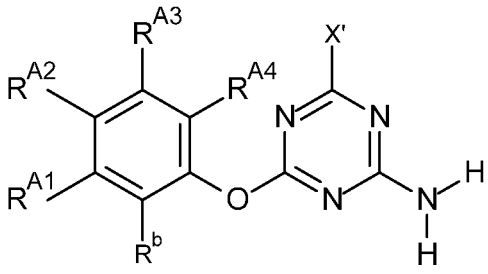
4-Chloro-6-(1-fluoroethyl)-1,3,5-triazin-2-amine (5.00 g, 28.32 mmol, 1.00 eq.) is added to a mixture of 2,3,5,6-tetrafluorophenol (4.70 g, 28.32 mmol, 1.00 eq.) and K_2CO_3 (7.83 g, 56.63 mmol, 2.00 eq.) in aceton. The reaction mixture is heated to 50 °C stirred for 14 hours before cooled to ambient temperature. Water and EtOAc are added, the phases separated and the organic phase is dried over Na_2SO_4. After filtration of the solids and removal of the volatiles under reduced pressure the crude product is purified via colum chromatography (ISCO-CombiFlash R*f*, cyclohexane/ethyl acetate) yielding the desired compound as a colorless solid (6.20 g, 71.5%).

MS (ESI) m/z 307.1 [M+H$^+$]

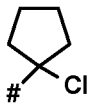
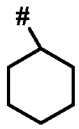
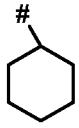
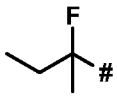
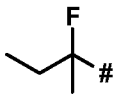
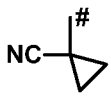
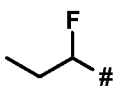
^{1}H NMR (400 MHz, $CDCl_3$): δ = 7.08 – 7.00 (m, 1H), 6.36 (brs, 1H), 5.58 (brs, 1H), 5.39 (dq, J = 48.4 Hz, J = 6.7 Hz, 1H), 1.66 (dd, J = 24.1 Hz, J = 6.7 Hz, 3 H) ppm.

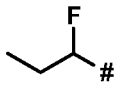
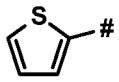
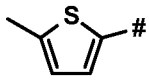
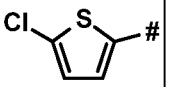
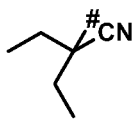
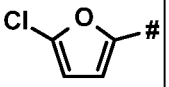
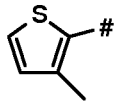
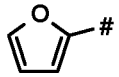
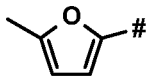
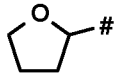
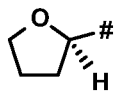
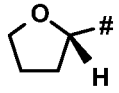
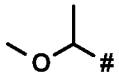
The compounds E.2 to E.45 listed below in table C have been prepared by analogy to the example E.1 mentioned above.

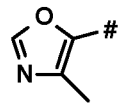
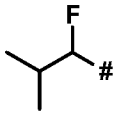
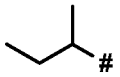
Table C:



Example	R^b	R^{A4}	R^{A3}	R^{A2}	R^{A1}	X'	MS [1] [m/z]
E.1	F	F	F	F	F	$CHFCH_3$	324.9
E.2	F	F	F	F	F	$CF(CH_3)_2$	339.0

Example	R^b	R^{A4}	R^{A3}	R^{A2}	R^{A1}	X'	MS [1] [m/z]
E.3	F	H	H	F	H	$CHFCH_3$	270.9
E.4	CN	H	H	H	H	$CHFCH_3$	259.9
E.5	F	F	H	H	F	$CF(CH_3)_2$	303.1
E.6	F	H	H	H	F	$CF(CH_3)_2$	285.0
E.7	F	H	H	H	F	$CHFCH_3$	271.0
E.8	F	F	H	H	F	$CHFCH_3$	289.0
E.9	F	F	H	F	F	$CHFCH_3$	307.0
E.10	F	F	H	F	F	CF_2CH_3	325.0
E.11	F	F	H	F	F	CF_3	329.0
E.12	F	F	H	F	F	$C(CH_3)_3$	317.0
E.13	F	F	H	F	F		363.0
E.14	F	F	H	H	F	$C(CH_3)_3$	299.0
E.15	F	F	F	F	F		361.0
E.16	F	H	H	H	F		307.0
E.17	F	F	F	F	F		395.0
E.18	F	F	H	H	F	CF_2CH_3	307.0
E.19	F	F	H	F	F		335.0
E.20	F	F	H	H	F		317.0
E.21	F	F	H	F	F		326.0
E.22	F	F	F	F	F	$C(CH_3)_2CN$	346.0
E.23	F	F	H	F	F		321.0

Example	R^b	R^{A4}	R^{A3}	R^{A2}	R^{A1}	X'	MS [1] [m/z]
E.24	F	F	F	F	F		339.0
E.25	F	F	H	F	F		343.0
E.26	F	F	H	F	F		357.0
E.27	F	F	H	F	F		377.0
E.28	F	F	H	F	F		356.0
E.29	F	F	H	F	F		361.0
E.30	F	F	H	F	F		357.0
E.31	F	F	H	F	F		327.0
E.32	F	F	H	F	F		341.0
E.33	F	F	H	F	F		331.1
E.34	F	F	H	F	F		331.1
E.35	F	F	H	F	F		331.1
E.36	F	F	H	F	F		319.5
E.37	F	Cl	H	H	F	$CHFCH_3$	304.7

Example	R^b	R^{A4}	R^{A3}	R^{A2}	R^{A1}	X'	MS 1) [m/z]
E.38	F	F	H	F	F		342.0
E.39	F	F	I	F	F	$CHFCH_3$	432.7
E.40	F	F	Br	F	F	$CHFCH_3$	384.7
E.41	F	F	Cl	F	F	$CHFCH_3$	340.7
E.42	F	F	H	F	F		335.3
E.43	F	F	H	F	F	CH_2CH_3	288.8
E.44	F	F	H	F	F	$CH(CH_3)_2$	303.3
E.45	F	F	H	F	F		317.3

1) Mass Spectrum M^+ [m/z]

B Use examples

The herbicidal activity of the azines of formula (I) was demonstrated by the following greenhouse experiments:

The culture containers used were plastic flowerpots containing loamy sand with approximately 3.0% of humus as the substrate. The seeds of the test plants were sown separately for each species.

For the pre-emergence treatment, the active ingredients, which had been suspended or emulsified in water, were applied directly after sowing by means of finely distributing nozzles. The containers were irrigated gently to promote germination and growth and subsequently covered with transparent plastic hoods until the plants had rooted. This cover caused uniform germination of the test plants, unless this had been impaired by the active ingredients.

For the post-emergence treatment, the test plants were first grown to a height of 3 to 15 cm, depending on the plant habit, and only then treated with the active ingredients which had been suspended or emulsified in water. For this purpose, the test plants were either sown directly and grown in the same containers, or they were first grown separately as seedlings and transplanted into the test containers a few days prior to treatment.

Depending on the species, the plants were kept at 10 – 25°C or 20 – 35°C, respectively.

The test period extended over 2 to 4 weeks. During this time, the plants were tended, and their response to the individual treatments was evaluated.

Evaluation was carried out using a scale from 0 to 100. 100 means no emergence of the plants, or complete destruction of at least the aerial moieties, and 0 means no damage, or normal course of growth. A moderate herbicidal activity is given at values of at least 60, a good

herbicidal activity is given at values of at least 70, and a very good herbicidal activity is given at values of at least 85.

The plants used in the greenhouse experiments were of the following species:

Bayer code	Scientific name
ABUTH	Abutilon theophrasti
ALOMY	Alopecurus agrestis
AMARE	Amaranthus retroflexus
APESV	Apera spica-venti
ECHCG	Echinocloa crus-galli
POLCO	Polygonum convolvulus
SETFA	Setaria faberi
SETVI	Setaria viridis
STEME	Stellaria media
VIOAR	Viola arvensis

Example 1 applied by post-emergence method at an application rate of 3000 g/ha, showed good herbicidal activity against ABUTH and very good herbicidal activity against ECHCG and SETFA.

Example 2 applied by post-emergence method at an application rate of 3000 g/ha, showed very good herbicidal activity against ECHCG and SETFA.

Example 5 applied by post-emergence method at an application rate of 1000 g/ha, showed very good herbicidal activity against AMARE.

Example 7 applied by post-emergence method at an application rate of 1000 g/ha, showed very good herbicidal activity against ECHCG and SETFA.

Example 8 applied by post-emergence method at an application rate of 1000 g/ha, showed very good herbicidal activity against AMARE, SEFTA and VIOR.

Example 9 applied by post-emergence method at an application rate of 1000 g/ha, showed very good herbicidal activity against AMARE, SEFTA and VIOR.

Example 11 applied by post-emergence method at an application rate of 1000 g/ha, showed very good herbicidal activity against SETFA.

Example 19 applied by post-emergence method at an application rate of 500 g/ha, showed very good herbicidal activity against AMARE.

Example 22 applied by post-emergence method at an application rate of 500 g/ha, showed good herbicidal activity against ALOMY.

Example 23 applied by pre-emergence method at an application rate of 1000 g/ha, showed very good herbicidal activity against AMARE, ECHCG and SETFA.

Example 24 applied by pre-emergence method at an application rate of 1000 g/ha, showed very good herbicidal activity against ABUTH, ECHCG and SETFA.

Example 25 applied by post-emergence method at an application rate of 500 g/ha, showed good herbicidal activity against ECHCG.

Example 27 applied by post-emergence method at an application rate of 500 g/ha, showed herbicidal activity against AMARE.

Example 32 applied by post-emergence method at an application rate of 1000 g/ha, showed very herbicidal activity against ABUTH.

Example 33 applied by post-emergence method at an application rate of 125 g/ha, showed very good herbicidal activity against POLCO.

Example 34 applied by pre-emergence method at an application rate of 500 g/ha, showed good herbicidal activity against AMARE and SETFA.

Example 35 applied by post-emergence method at an application rate of 500 g/ha, showed good herbicidal activity against AMARE.

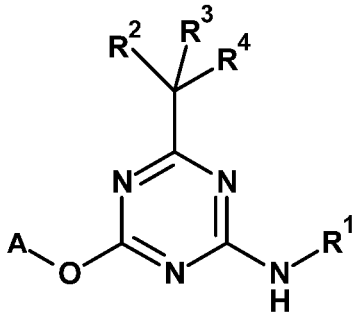
Example 38 applied by post-emergence method at an application rate of 1000 g/ha, showed good herbicidal activity against ECHCG.

Example 39 applied by post-emergence method at an application rate of 500 g/ha, showed good herbicidal activity against ECHCG and very good herbicidal activity against SETFA.

Example 42 applied by pre-emergence method at an application rate of 500 g/ha, showed good herbicidal activity against AMARE and ECHCG and very good herbicidal activity against SETFA.

Claims

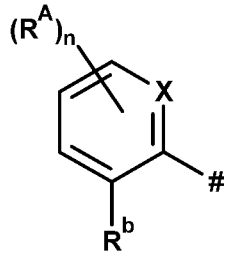
1, The use of a triazine compound of formula (I)



(I)

where

A is a radical of formula (A.1)



(A.1)

wherein

indicates the point of attachment to the oxygen;X is CR^{A4} or N;

R^A is selected from the group consisting of halogen, OH, CN, amino, NO_2, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_6-alkoxy, C_2-C_6-alkenyloxy, C_2-C_6-alkynyloxy, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkoxy, (C_1-C_6-alkoxy)-C_2-C_6-alkenyl, (C_1-C_6-alkoxy)-C_2-C_6-alkynyl, C_1-C_6-alkylthio, (C_1-C_6-alkyl)sulfinyl, (C_1-C_6-alkyl)sulfonyl, (C_1-C_6-alkyl)amino, di(C_1-C_6-alkyl)amino, (C_1-C_6-alkyl)-carbonyl, (C_1-C_6-alkoxy)-carbonyl, (C_1-C_6-alkyl)-carbonyloxy, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, (C_3-C_6-cycloalkyl)-C_1-C_4-alkoxy, where the aliphatic and cycloaliphatic parts of the 22 aforementioned radicals are unsubstituted, partly or completely halogenated and where the cycloaliphatic parts of the last 4 mentioned radicals may carry 1, 2, 3, 4, 5 or 6 methyl groups, it being possible that two radicals R^A which are bound to adjacent ring atoms of phenyl or 6-membered hetaryl may form a fused 5- or 6- membered carbocyclic or heterocyclic ring, which itself is substituted or unsubstituted by 1, 2, 3, 4 or 5 identical or different substituents R^B selected from the group consisting of halogen, OH, CN, amino, NO_2, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_6-alkoxy, C_2-C_6-alkenyloxy, C_2-C_6-alkynyloxy, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkoxy, (C_1-C_6-alkoxy)-C_2-C_6-alkenyl, (C_1-C_6-alkoxy)-C_2-C_6-alkynyl, C_1-C_6-alkylthio, (C_1-C_6-alkyl)sulfinyl, (C_1-C_6-alkyl)sulfonyl, (C_1-C_6-alkyl)amino, di(C_1-C_6-alkyl)amino, (C_1-C_6-alkyl)-carbonyl, (C_1-C_6-alkoxy)-carbonyl, (C_1-C_6-alkyl)-carbonyloxy, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, (C_3-C_6-

cycloalkyl)-C_1-C_4-alkoxy, where the aliphatic and cycloaliphatic parts of the 22 aforementioned radicals are unsubstituted, partly or completely halogenated and where the cycloaliphatic parts of the last 4 mentioned radicals may carry 1, 2, 3, 4, 5 or 6 methyl groups, it being possible that two radicals R^B which are bound at the same carbon atom may together be =O or =NR^b;

R^{A4} is hydrogen or has one of the meanings given for R^A;

n is 0, 1, 2 or 3;

R^b is selected from the group consisting of halogen and CN;

R^1 is selected from the group consisting of H, OH, $S(O)_2NH_2$, CN, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, C_1-C_6-alkoxy, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkyl)sulfonyl, (C_1-C_6-alkylamino)carbonyl, di(C_1-C_6-alkyl)aminocarbonyl, (C_1-C_6-alkylamino)sulfonyl, di(C_1-C_6-alkyl)aminosulfonyl and (C_1-C_6-alkoxy)sulfonyl, where the aliphatic and cycloaliphatic parts of the 14 aforementioned radicals are unsubstituted, partly or completely halogenated,
phenyl, phenylsulfonyl, phenylaminosulfonyl, phenyl-C_1-C_6 alkyl, phenoxy, phenylcarbonyl and phenoxycarbonyl,
wherein phenyl in the last 7 mentioned radicals is unsubstituted or substituted by 1, 2, 3, 4 or 5 identical or different substituents selected from the group consisting of halogen, CN, NO_2, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy and C_1-C_6-haloalkoxy;

R^2 is H, halogen, OH, CN, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, C_1-C_6-alkoxy, C_2-C_6-alkenyloxy, C_2-C_6-alkynyloxy, C_3-C_6-cycloalkoxy or (C_3-C_6-cycloalkyl)-C_1-C_4-alkoxy, where the aliphatic and cycloaliphatic parts of the 12 aforementioned radicals are unsubstituted, partly or completely halogenated,
phenyl, phenyl-C_1-C_6-alkyl,
wherein phenyl in the last 2 mentioned radicals are unsubstituted or substituted by 1, 2, 3, 4 or 5 identical or different substituents selected from the group consisting of halogen, CN, NO_2, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy and C_1-C_6-haloalkoxy,

R^3 is selected from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy and C_1-C_6-haloalkoxy;

R^4 is selected from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, C_3-C_6-cycloalkyl, (C_3-C_6-cycloalkyl)-C_1-C_4-alkyl, C_3-C_6-cycloalkenyl and C_1-C_6-alkoxy-C_1-C_6-alkyl, where the aliphatic and cycloaliphatic parts of the 7 aforementioned radicals are unsubstituted, partly or completely halogenated; or

R^3 and R^4 together with the carbon atom to which they are attached form a moiety selected from the group consisting of carbonyl, C_2-C_6-alkenyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and three- to six-membered saturated or partially unsaturated heterocyclyl,

wherein the C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, or three- to six-membered heterocyclyl is unsubstituted or substituted by one to six substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy; or

R^2 and R^3 and R^4 together with the carbon atom to which they are attached may form a moiety selected from a 5- or 6-membered aromatic heterocyclyl, which is unsubstituted or substituted by one to six substituents selected from halogen, CN, C_1-C_6-alkyl and C_1-C_6-alkoxy;

including their agriculturally acceptable salts, as herbicide or for the desiccation/defoliation of plants.

2. The use of the compound of claim 1, wherein R^A and R^B, if present, are selected from the group consisting of halogen, CN, C_1-C_4-alkyl, C_1-C_4-alkoxy and C_1-C_4-haloalkoxy, in particular from fluorine, chlorine or methyl, or two radicals R^B which are bound at the same carbon atom may together be =O or =NR^b, wherein R^b is selected from the group consisting of halogen and CN.

3. The use of the compound of claims 1 or 2, wherein
   X is CR^{A4};
   R^b is F;
   n is 0, 1, 2 or 3;
   R^A is selected from the group consisting of halogen, CN, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy, C_2-C_6-alkynyl, C_2-C_6-alkenyl, C_2-C_6-alkynyloxy, C_2-C_6-alkenyloxy or C_1-C_6-haloalkoxy; and
   R^{A4} is selected from the group consisting of H, halogen, CN, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy, C_2-C_6-alkynyl, C_2-C_6-alkenyl, C_2-C_6-alkynyloxy, C_2-C_6-alkenyloxy or C_1-C_6-haloalkoxy.

4. The use of the compound of claim 3, wherein
   X is CR^{A4};
   R^b is F;
   n is 0, 1, 2 or 3;
   R^A is selected from the group consisting of F, Br, Cl, CN, CF_3, methyl, vinyl, ethynyl, cyclopropyl, methoxy, ethoxy, isopropyloxy, allyloxy, propargyloxy, cyclopropyloxy, cyclobutyloxy, cyclopentyloxy, (cyclopropyl)methoxy or 2-butyloxy; and
   R^{A4} is selected from the group consisting of H, F, Cl, CN, CF_3, methyl, vinyl, ethynyl, cyclopropyl, methoxy, ethoxy, isopropyloxy, allyloxy, propargyloxy, cyclopropyloxy, cyclobutyloxy, cyclopentyloxy, (cyclopropyl)methoxy or 2-butyloxy.

5. The use of the compound of any of claims 3 or 4, wherein both R^b and R^{A4} are F.

6. The compounds of any of the preceding claimed, wherein A is selected from the group consisting of 2,6-difluorophenyl, 2-chloro-6-fluorophenyl, 2-bromo-6-fluorophenyl, 2-fluoro-6-methylphenyl, 2-fluoro-6-cyanophenyl, 2,3,6-trifluorophenyl, 2,4,6-trifluorophenyl, 2-chloro-4,6-difluorophenyl, 2-chloro-5,6-difluorophenyl, 3-chloro-2,6-difluorophenyl, 2-chloro-3,6-difluorophenyl, 2,3-difluoro-6-cyanophenyl, 2,6-difluoro-3-cyanophenyl, 2,5-

difluoro-6-cyanophenyl, 2,4-difluoro-6-cyanophenyl, 2,3,4,6-tetrafluorophenyl, 2,3,4,5-tetrafluorophenyl, 2,3,5,6-tetrafluorophenyl, 2-chloro-3,4,6-trifluorophenyl, 2-chloro-3,5,6-trifluorophenyl, 3-chloro-2,4,6-trifluorophenyl, 3-chloro-2,5,6-trifluorophenyl, 6-cyano-2,4,5-trifluorophenyl, 3-cyano-2,4,6-trifluorophenyl, 6-cyano-2,3,4-trifluorophenyl, 6-cyano-2,3,5-trifluorophenyl, 3-cyano-2,5,6-trifluorophenyl, 2,3,4,5,6-pentafluorophenyl, 2-chloro-3,4,5,6-tetrafluorophenyl, 3-chloro-2,4,5,6-tetrafluorophenyl, 6-cyano-2,3,4,5-tetrafluorophenyl, 5-cyano-2,3,4,6-tetrafluorophenyl, 4-bromo-2,3,5,6-tetrafluorophenyl, 4-iodo-2,3,5,6-tetrafluorophenyl, 4-ethynyl-2,3,5,6-tetrafluorophenyl, 3-chloro-2-fluoro-6-(trifluoromethyl)phenyl, with particular preference given to 2,6-difluorophenyl, 2,3,6-trifluorophenyl, 2,3,5,6-tetrafluorophenyl and 2,3,4,5,6-pentafluorophenyl.

7. The use of the compound of claim 1 or 2, wherein

X is N;

R^b is F;

R^A is selected from the group consisting of halogen, CN, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkoxy, (C_3-C_6-cycloalkyl)methoxy, C_2-C_6-alkynyl, C_2-C_6-alkenyl, C_2-C_6-alkynyloxy, C_2-C_6-alkenyloxy or C_1-C_6-haloalkoxy;

n is 0, 1, 2 or 3.

8. The use of the compound of any of the preceding claims, wherein R^1 is selected from the group consisting of H, CN, C_1-C_6-alkyl, (C_1-C_6-alkoxy)-C_1-C_6-alkyl, (C_1-C_6-alkyl)carbonyl, (C_3-C_6-cycloalkyl)-carbonyl, (C_1-C_6-alkyl)sulfonyl, (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkylamino)carbonyl, di(C_1-C_6-alkyl)aminocarbonyl, (C_1-C_6-alkylamino)sulfonyl, di(C_1-C_6-alkyl)aminosulfonyl, where the aliphatic parts of the 10 aforementioned radicals are unsubstituted, partly or completely halogenated,
phenyl, phenylcarbonyl and C_1-C_6 alkylphenyl,
wherein phenyl in the last 3 mentioned radical is unsubstituted or substituted by 1, 2, 3, 4, or 5 identical or different substituents selected from the group consisting of halogen, CN, NO_2, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy and halo-C_1-C_6-alkoxy.

9. The use of the compound of any of the preceding claims, wherein, R^2 is selected from the group consisting of H, halogen, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_4-alkoxy and, C_1-C_6-haloalkoxy.

10. The use of the compound of any of the preceding claims, wherein,

R^3 is selected from the group consisting of hydrogen, fluorine, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_1-C_4-alkoxy and C_1-C_6-haloalkoxy;

R^4 is selected from the group consisting of C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, and C_1-C_6-alkoxy-C_1-C_6-alkyl;

or

R^3 and R^4 together with the carbon atom to which they are attached form a moiety selected from the group consisting of C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl and three- to six-membered saturated or partially unsaturated heterocyclyl.

11. The use of the compound of any of the preceding claims, wherein R^1 is H.

12. An agrochemical composition comprising at least one compound as defined in any of claims 1 to 11 and at least one inert liquid and/or solid carrier and, if appropriate, at least one surface-active substances.

13. A process for the preparation of herbicidal active agrochemical compositions, which comprises mixing a herbicidally active amount of at least one compound as defined in any of claims 1 to 11 and at least one inert liquid and/or solid carrier and, if desired, at least one surface-active substance.

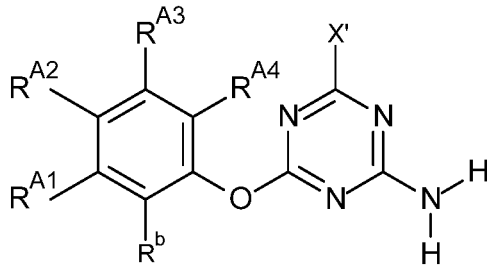
14. A method of controlling undesired vegetation, which comprises allowing a herbicidally active amount of at least one compound as defined in any of claims 1 to 11 to act on plants, their environment or on seed.

15. The compound of the formula (I), where A, R^1, R^2, R^3, R^4, R^A, R^b and n are as defined in any one of claims 1 to 11 and their their agriculturally acceptable salts except for the following compounds:

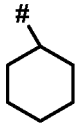
- 4-(2-fluorophenoxy)-6-methyl-1,3,5-triazin-2-amine,
- 4-(2-chlorophenoxy)-6-methyl-1,3,5-triazin-2-amine,
- 2-[(4-amino-6-methyl-1,3,5-triazin-2-yl)oxy]benzonitrile,
- 4-methyl-6-(2,4,6-trichlorophenoxy)-1,3,5-triazin-2-amine,
- 4-[2-chloro-4-(trifluoromethyl)phenoxy]-6-methyl-1,3,5-triazin-2-amine,
- 4-(2-fluorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine,
- 4-(2-chlorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine,
- 2-[(4-amino-6-(trifluoromethyl)-1,3,5-triazin-2-yl)oxy]benzonitrile,
- 4-(2,4,6-trichlorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine,
- 4-[2-chloro-4-(trifluoromethyl)phenoxy]-6-(trifluoromethyl)-1,3,5-triazin-2-amine,
- 4-(2,6-dichlorophenoxy)-6-(trifluoromethyl)-1,3,5-triazin-2-amine,
- 4-(2-bromo-4-isopropenyl-6-methoxy-phenoxy)-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine,
- 4-(2-bromo-4-isopropyl-6-methoxy-phenoxy)-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine,
- 4-[2-bromo-4-methoxy-6-(1-methylethenyl)phenoxy]-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine,

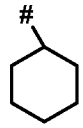
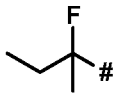
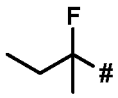
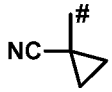
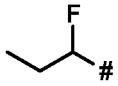
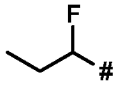
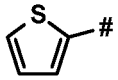
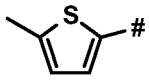
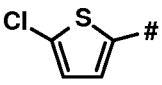
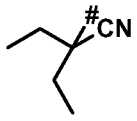
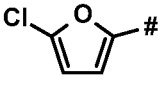
- 4-[2-bromo-4-methoxy-6-(1-methylethyl)phenoxy]-N-[1-(methoxymethyl)propyl]-6-methyl-1,3,5-triazin-2-amine and
- 1-[3-bromo-5-methoxy-4-[[4-[[1-(methoxymethyl)propyl]amino]-6-methyl-1,3,5-triazin-2-yl]oxy]phenyl]-ethanone.

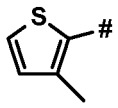
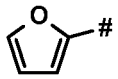
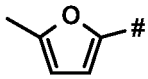
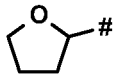
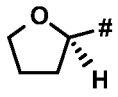
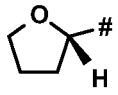
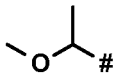
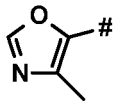
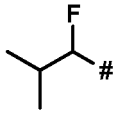
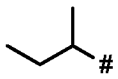
16. The compound as claimed in claim 15, selected from the group consisting of compounds E.1 to E.45, which are of the formula (I'), where R^{A1}, R^{A2}, R^{A3}, R^{A4} R^b and X' are as defined in the following table and their agriculturally acceptable salts:



(I')

Compound	R^b	R^{A4}	R^{A3}	R^{A2}	R^{A1}	X'
E.1	F	F	F	F	F	$CHFCH_3$
E.2	F	F	F	F	F	$CF(CH_3)_2$
E.3	F	H	H	F	H	$CHFCH_3$
E.4	CN	H	H	H	H	$CHFCH_3$
E.5	F	F	H	H	F	$CF(CH_3)_2$
E.6	F	H	H	H	F	$CF(CH_3)_2$
E.7	F	H	H	H	F	$CHFCH_3$
E.8	F	F	H	H	F	$CHFCH_3$
E.9	F	F	H	F	F	$CHFCH_3$
E.10	F	F	H	F	F	CF_2CH_3
E.11	F	F	H	F	F	CF_3
E.12	F	F	H	F	F	$C(CH_3)_3$
E.13	F	F	H	F	F	
E.14	F	F	H	H	F	$C(CH_3)_3$
E.15	F	F	F	F	F	

Compound	R^b	R^{A4}	R^{A3}	R^{A2}	R^{A1}	X'
E.16	F	H	H	H	F	
E.17	F	F	F	F	F	
E.18	F	F	H	H	F	CF_2CH_3
E.19	F	F	H	F	F	
E.20	F	F	H	H	F	
E.21	F	F	H	F	F	
E.22	F	F	F	F	F	$C(CH_3)_2CN$
E.23	F	F	H	F	F	
E.24	F	F	F	F	F	
E.25	F	F	H	F	F	
E.26	F	F	H	F	F	
E.27	F	F	H	F	F	
E.28	F	F	H	F	F	
E.29	F	F	H	F	F	

Compound	R^b	R^{A4}	R^{A3}	R^{A2}	R^{A1}	X'
E.30	F	F	H	F	F	
E.31	F	F	H	F	F	
E.32	F	F	H	F	F	
E.33	F	F	H	F	F	
E.34	F	F	H	F	F	
E.35	F	F	H	F	F	
E.36	F	F	H	F	F	
E.37	F	Cl	H	H	F	$CHFCH_3$
E.38	F	F	H	F	F	
E.39	F	F	I	F	F	$CHFCH_3$
E.40	F	F	Br	F	F	$CHFCH_3$
E.41	F	F	Cl	F	F	$CHFCH_3$
E.42	F	F	H	F	F	
E.43	F	F	H	F	F	CH_2CH_3
E.44	F	F	H	F	F	$CH(CH_3)_2$
E.45	F	F	H	F	F	

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2016/058206

A. CLASSIFICATION OF SUBJECT MATTER
INV. C07D251/16 C07D405/04 C07D409/04 C07D413/04 A01N43/88
A01P13/00
ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, CHEM ABS Data, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 373 472 A1 (BASF AG [DE]) 20 June 1990 (1990-06-20) the whole document; in particular, the intermediate compounds of formula (III) and the corresponding precursors of the compounds of the fifth, the tenth, the nineteenth, and the twenty-fourth entry of table C on page 20 -----	6,15
X	GB 943 637 A (ICI LTD) 4 December 1963 (1963-12-04) claims 1-4 -----	6,15

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
13 May 2016	13/06/2016

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Fink, Dieter

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Form PCT/ISA/210 (second sheet) (April 2005)

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/35580 A1 (DU PONT MERCK PHARMA [US]) 2 October 1997 (1997-10-02) the whole document; in particular, claim 1, the second compound of table 2 (page 42) and the third compound of table 3 (page 43) -----	6,15
A	WO 2014/064094 A1 (BASF SE [DE]) 1 May 2014 (2014-05-01) cited in the application the whole document -----	1-16

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2016/058206

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