

From the INTERNATIONAL SEARCHING AUTHORITY

To:

PCTWRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference BCS161030-WO		Date of mailing (day/month/year)	02 January 2018
		FOR FURTHER ACTION See paragraph 2 below	
International application No. PCT/EP2017/080954	International filing date (day/month/year) 30 November 2017	Priority date (day/month/year) 07 December 2016	
International Patent Classification (IPC) or both national classification and IPC A01N 43/66(2006.01)i; A01N 43/68(2006.01)i; A01P 13/00(2006.01)i			
Applicant BAYER CROPSCIENCE AKTIENGESELLSCHAFT			

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/	Date of completion of this opinion	Authorized officer

WRITTEN OPINION OF THE
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International application No.

PCT/EP2017/080954

Box No. I

Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed.
 - ☐ a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a)).
3. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. ☐ forming part of the international application as filed:
 - ☐ in the form of an Annex C/ST.25 text file.
 - ☐ on paper or in the form of an image file.
 - b. ☐ furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. ☐ furnished subsequent to the international filing date for the purposes of international search only:
 - ☐ in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - ☐ on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2017/080954

Box No. V

Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step and industrial applicability;
citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 1-7 YES

Claims NO

Inventive step (IS)

Claims YES

Claims 1-7 NO

Industrial applicability (IA)

Claims 1-7 YES

Claims NO

2. Citations and explanations :

See Supplemental Box

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2017/080954**Box No. VIII Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

See Supplemental Box

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2017/080954**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Reference is made to the following documents:

D1	DE 10 2008 037630 A1 (BAYER CROPS SCIENCE AG [DE]) 18 February 2010 (2010-02-18) cited in the application
D2	MIZUKI TATENO ET AL: "Cellulose biosynthesis inhibitors - a multifunctional toolbox", JOURNAL OF EXPERIMENTAL BOTANY, vol. 67, no. 2, 19 November 2015 (2015-11-19), pages 533-542, XP055343439, GB, ISSN: 0022-0957, DOI: 10.1093/jxb/erv489

Box V

Reasoned statement with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

[1] Novelty

The present application is directed to an herbicidal combination containing (A) Triafamone (CAS 874195-61-6) and (B) Indaziflam (CAS 950782-86-2).

Document D1 discloses herbicidal combinations containing (A-1) Triafamone and (B) an herbicide from the group of the triazines, for example, (B1-1) Triaziflam (claims 1-3). The combination of Triafamone and Triaziflam exhibits a synergistic effect against pest plants (paragraph [0085]).

D1 does not disclose any herbicidal combination containing Indaziflam.

Document D2 discloses that Indaziflam and Triaziflam belong to the group of the cellulose biosynthesis inhibitors having an alkylazine structure. However, despite the structural commonalities, there may be a difference in the mechanism of action (page 535, column 1, lines 11-19).

D2 does not disclose any herbicidal combination containing Triafamone.

The subject matter of claims 1-7 of the present application is novel (PCT Article 33(2)) since none of the cited documents discloses methods, uses and/or compositions having the same features as those claimed by the applicant.

[2] Inventive step

The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claims 1-7 does not involve an inventive step (PCT Article 33(3)).

Document D1 is considered to be the prior art closest to the subject matter of claim 1 and discloses herbicidal combinations containing (A-1) Triafamone and (B1-1) Triaziflam, which exhibit a synergistic effect.

Therefore, the subject matter of claim 1 differs from this known herbicidal combination in that Indaziflam is used instead of Triaziflam.

The applicant has shown that a synergistic effect is achieved when Triafamone and Indaziflam are used together.

The problem addressed by the present invention can therefore be considered that of providing a further herbicidal composition having high effectiveness.

The solution proposed in claim 1 of the present application cannot be considered inventive (PCT Article 33(3)).

It is known to a person skilled in the art from document D1 that Triafamone achieves a synergistic effect with various triazine herbicides. However, D1 does not provide any detailed information in this regard. It is known

Supplemental Box

to a person skilled in the art that Indaziflam is also one of the triazine herbicides. This herbicide, like Triaziflam, is an inhibitor of the biosynthesis of cellulose. D2 notes that, despite a certain structural closeness between Triaziflam and Indaziflam, it would be difficult to link the structure to a mechanism of action, because the inhibiting effect appears to be based on a different mechanism (page 535, column 1, lines 11-19). Although a person skilled in the art would have been able in principle to provide a further herbicidal combination from the active ingredients Triafamone and Indaziflam known to them, the prior art would not have provided said person with any indication that would have led them to expect that precisely this combination is a particularly advantageous combination having a synergistic effect. As previously mentioned, this synergistic effect has been demonstrated by the applicant (tables 1-8).

A person skilled in the art could not have predicted such a synergistic effect. Therefore, an inventive step could be acknowledged for the present claim 1, were the term "combination" interpreted to mean "composition". For the same reason, an inventive step could also be acknowledged for claims 2-7.

However, such an inventive step cannot be acknowledged for the present claims 1-7, since the "combination" relates to components that are separate from each other and that are applied at different times. In the case of this approach, there is no taking into consideration of the time component, and therefore it has not been demonstrated either that anything more than an additive effect is achieved when there is a relatively large time interval between the separate applications.

[3] Industrial applicability

The subject matter of the present application appears to be industrially applicable.

Box VIII**Certain observations on the international application**

The present claims 1-7 do not meet the requirements of PCT Article 6. A "combination", as claimed, comprises compositions in which the components are formulated together. However, a "combination" is not limited thereto. The lack of this limitation is justified because the components can also be used one after the other. In that case, however, even a warehouse in which the components are stored together would be an anticipation. At current there is no suggestion of such joint storage. However, the applicant is advised that third parties can present corresponding evidence at any time later in the procedure. Moreover, there is no time limitation for the use of the components of the "combination". There would be no positive interaction and therefore a surprising and unexpected technical effect of the "combination" of the components if the first component were already washed out, decomposed or otherwise deactivated before the second component is used.

The present claim 6 fails to meet the requirements of PCT Article 6. For the features placed between parentheses containing no reference signs, there is a lack of clarity, because it is not clear whether or not the features should be considered limiting. Therefore, such features between parentheses are not permissible.