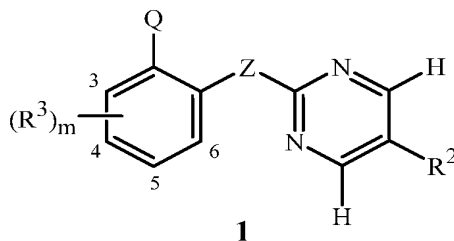


Amendments to the Claims

This claim listing replaces all previous listings and prior versions of the claims.

1. (Currently amended) A compound selected from Formula 1, *N*-oxides and salts thereof,



Q is a 5- or 6-membered aromatic heterocyclic ring, bound to the remainder of Formula 1 through a carbon atom, and optionally substituted with 1 to 4 R¹;

Z is O or S;

each R¹ is independently selected from the group consisting of halogen, cyano, nitro, SF₅, CHO, C(=O)NH₂, C(=S)NH₂, SO₂NH₂, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ haloalkyl, C₂-C₄ haloalkenyl, C₂-C₄ haloalkynyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₄-C₈ alkylcycloalkyl, C₄-C₈ cycloalkylalkyl, C₂-C₆ alkylcarbonyl, C₂-C₆ haloalkylcarbonyl, C₂-C₆ alkoxy carbonyl, C₃-C₇ cycloalkylcarbonyl, C₂-C₈ alkylaminocarbonyl, C₃-C₁₀ dialkylaminocarbonyl, C₁-C₄ alkoxy, C₃-C₄ alkenyloxy, C₃-C₄ alkynyloxy, C₁-C₄ haloalkoxy, C₃-C₄ haloalkenyloxy, C₃-C₄ haloalkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₄-C₈ cycloalkylalkoxy, C₂-C₆ alkoxyalkyl, C₂-C₆ haloalkoxyalkyl, C₂-C₆ alkoxyhaloalkyl, C₂-C₆ alkoxyalkoxy, C₂-C₄ alkylcarbonyloxy, C₂-C₆ cyanoalkyl, C₂-C₆ cyanoalkoxy, C₁-C₄ hydroxyalkyl, C₂-C₄ alkylthioalkyl, SO_nR^{1A}, Si(CH₃)₃, ~~or~~ B(-OC(R^{1B})₂C(R^{1B})₂O-); ~~or~~ a phenyl ring optionally substituted with up to 5 substituents independently selected from R^{1C}; ~~or~~ and a 5- or 6-membered heteroaromatic ring containing ring members selected from carbon atoms and up to 4 heteroatoms independently selected from up to 2 O, up to 2 S and up to 4 N atoms, each ring optionally substituted with up to 3 substituents independently selected from R^{1C} on carbon atom ring members and R^{1D} on nitrogen atom ring members;

R² is selected from the group consisting of halogen, cyano, nitro, C₁-C₄ alkoxy, C₁-C₄ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, SO_nR^{2A}, C₁-C₄ haloalkyl ~~or~~ and C₃-C₆ cycloalkyl;

each R^3 is independently selected from the group consisting of halogen, cyano, hydroxy, nitro, amino, CHO, C(=O)NH₂, C(=S)NH₂, SO₂NH₂, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ haloalkyl, C₂-C₄ haloalkenyl, C₂-C₄ haloalkynyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₄-C₈ alkylcycloalkyl, C₄-C₈ cycloalkylalkyl, C₂-C₆ alkylcarbonyl, C₂-C₆ haloalkylcarbonyl, C₂-C₆ alkoxycarbonyl, C₃-C₇ cycloalkylcarbonyl, C₁-C₄ alkoxy, C₃-C₄ alkenyloxy, C₃-C₄ alkynyloxy, C₁-C₄ haloalkoxy, C₃-C₄ haloalkenyloxy, C₃-C₄ haloalkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₄-C₈ cycloalkylalkoxy, C₂-C₆ alkoxyalkyl, C₂-C₆ haloalkoxyalkyl, C₂-C₆ alkoxyhaloalkyl, C₂-C₆ alkoxyalkoxy, C₂-C₄ alkylcarbonyloxy, C₂-C₆ cyanoalkyl, C₂-C₆ cyanoalkoxy, C₂-C₄ alkylthioalkyl, Si(CH₃)₃, C≡CSi(CH₃)₃, C(=O)N(R^{3A})(R^{3B}), C(=NOR^{3C})H, C(=NR^{3D})H, SO_nR^{3E}; ~~or~~ a phenyl ring optionally substituted with up to 5 substituents independently selected from R^{3F}; ~~or~~ and a 5- or 6-membered heteroaromatic ring containing ring members selected from carbon atoms and up to 4 heteroatoms independently selected from up to 2 O, up to 2 S and up to 4 N atoms, each ring optionally substituted with up to 3 substituents independently selected from R^{3F} on carbon atom ring members and R^{3G} on nitrogen atom ring members; or pyrimidinyloxy;

m is selected from the group consisting of 0, 1, 2 ~~or~~ and 3;

each n is independently selected from the group consisting of 0, 1 ~~or~~ and 2;

each R^{1A}, R^{2A} and R^{3E} is independently selected from the group consisting of C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkylamino ~~or~~ and C₂-C₆ dialkylamino;

each R^{1B} is independently selected from the group consisting of H ~~or~~ and C₁-C₄ alkyl;

each R^{1C} is independently selected from the group consisting of hydroxy, halogen, cyano, nitro, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy ~~or~~ and C₁-C₆ haloalkoxy;

each R^{1D} is independently selected from the group consisting of cyano, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy ~~or~~ and C₂-C₆ alkylcarbonyl;

each R^{3A} is independently selected from the group consisting of C₁-C₄ alkyl ~~or~~ and C₁-C₄ haloalkyl;

each R^{3B} is independently selected from the group consisting of H, C₁-C₄ alkyl ~~or~~ and C₁-C₄ haloalkyl;

each R^{3C} is independently selected from the group consisting of H ~~or~~ and C₁-C₄ alkyl;

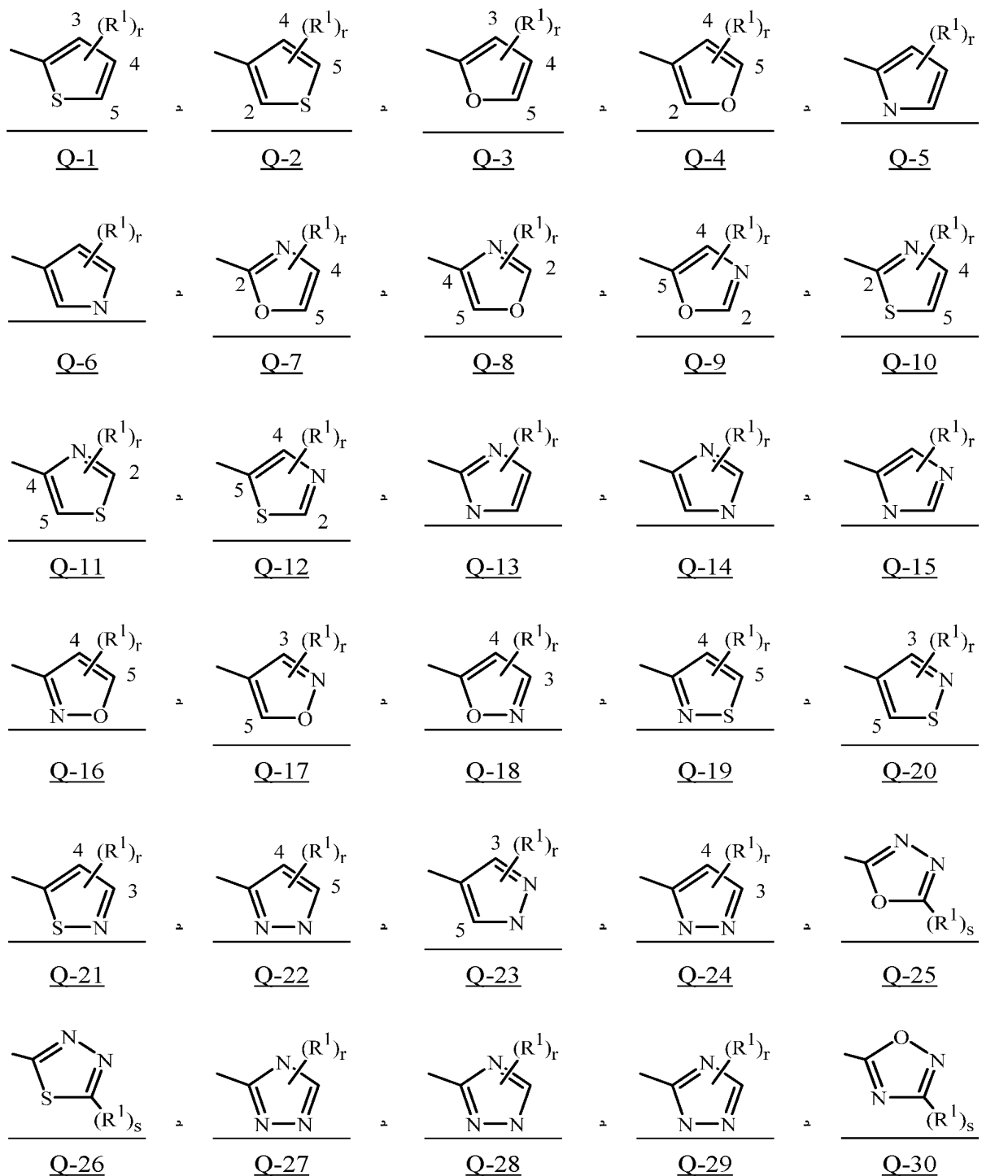
each R^{3D} is independently selected from the group consisting of H, amino, C₁-C₄ alkyl ~~or~~ and C₁-C₄ alkylamino;

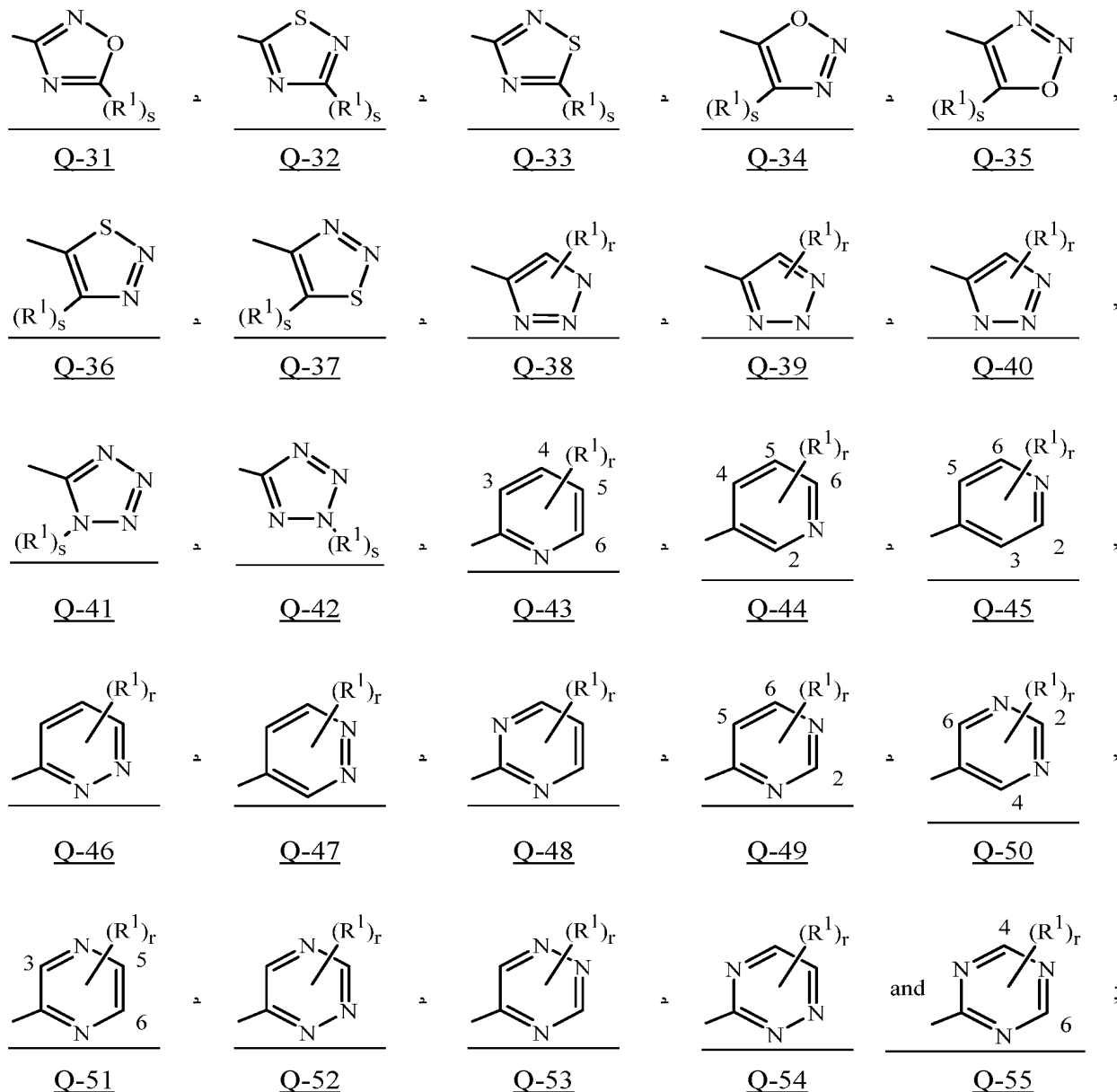
each R^{3F} is independently selected from the group consisting of hydroxy, halogen, cyano, nitro, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy ~~or~~ and C₁-C₆ haloalkoxy; and

each R^3G is independently selected from the group consisting of cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy ~~or~~ and C_2-C_6 alkylcarbonyl₂.

2. (Currently amended) A compound of Claim 1 wherein

Q is selected from the group consisting of





wherein r is selected from the group consisting of 0, 1, 2 and 3; and s is selected from the group consisting of 0 and 1;

each R¹ is independently selected from the group consisting of halogen, cyano, SF₅, CHO, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ haloalkyl, C₂-C₄ haloalkenyl, C₂-C₄ haloalkynyl, C₂-C₆ alkylcarbonyl, C₂-C₆ haloalkylcarbonyl, C₂-C₆ alkoxy carbonyl, C₁-C₄ alkoxy, C₃-C₄ alkenyloxy, C₃-C₄ alkynyloxy, C₁-C₄ haloalkoxy, C₃-C₄ haloalkenyloxy, C₃-C₄ haloalkynyloxy, C₂-C₆ alkoxyalkyl, C₂-C₆ haloalkoxyalkyl, C₂-C₆ cyanoalkyl, C₁-C₄ hydroxyalkyl, C₂-C₄ alkylthioalkyl and SO_nR^{1A};

R³ is independently selected from the group consisting of halogen, cyano, CHO, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ haloalkyl, C₂-C₄ haloalkenyl, C₂-C₄ haloalkynyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₄-C₈ alkylcycloalkyl, C₂-C₆ alkylcarbonyl, C₂-C₆ haloalkylcarbonyl, C₂-C₆ alkoxycarbonyl, C₁-C₄ alkoxy, C₃-C₄ alkenyloxy, C₃-C₄ alkynyloxy, C₁-C₄ haloalkoxy, C₃-C₄ haloalkenyloxy, C₃-C₄ haloalkynyloxy, C₃-C₆ cycloalkoxy, C₃-C₆ halocycloalkoxy, C₂-C₆ alkoxyalkyl, C₂-C₆ haloalkoxyalkyl, C₂-C₄ alkylcarbonyloxy, C₂-C₆ cyanoalkyl, C(=O)N(R^{3A})(R^{3B}), C(=NOR^{3C})H, SO_nR^{3E}; ~~or~~ a phenyl ring optionally substituted with up to 5 substituents independently selected from R^{3F}; ~~or~~ and a 5- or 6-membered heteroaromatic ring containing ring members selected from carbon atoms and up to 4 heteroatoms independently selected from up to 2 O, up to 2 S and up to 4 N atoms, each ring optionally substituted with up to 3 substituents independently selected from R^{3F} on carbon atom ring members and R^{3G} on nitrogen atom ring members;

Z is O; and

m is selected from the group consisting of 0, 1 ~~or~~ and 2.

3. (Currently amended) A compound of Claim 2 wherein each R¹ is independently selected from the group consisting of halogen, cyano, CHO, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ haloalkyl, C₂-C₄ haloalkenyl, C₂-C₄ haloalkynyl, C₁-C₄ alkoxy, C₃-C₄ alkenyloxy, C₃-C₄ alkynyloxy, C₁-C₄ haloalkoxy, C₃-C₄ haloalkenyloxy, C₃-C₄ haloalkynyloxy, C₂-C₆ alkoxyalkyl, C₂-C₆ haloalkoxyalkyl, C₁-C₄ hydroxyalkyl, C₂-C₄ alkylthioalkyl ~~or~~ and SO_nR^{1A};

R² is selected from the group consisting of halogen, C₁-C₄ alkyl ~~or~~ and C₁-C₄ haloalkyl;

each R³ is independently selected from the group consisting of halogen, cyano, CHO, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ haloalkyl, C₂-C₄ haloalkenyl, C₂-C₄ haloalkynyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₂-C₆ alkylcarbonyl, C₂-C₆ haloalkylcarbonyl, C₂-C₆ alkoxycarbonyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, C₂-C₆ alkoxyalkyl, C₂-C₆ haloalkoxyalkyl, C₂-C₆ cyanoalkyl, SO_nR^{3E}; ~~or~~ and a 5- or 6-membered heteroaromatic ring containing ring members selected from carbon atoms and up to 4 heteroatoms independently selected from up to 2 O, up to 2 S and up to 4 N atoms, each ring optionally substituted with up to 3 substituents independently selected from R^{3F} on carbon atom ring members and R^{3G} on nitrogen atom ring members; and

m is selected from the group consisting of 0 ~~or~~ and 1.

4. (Currently amended) A compound of Claim 3 wherein Q is selected from the group consisting of Q-7 through Q-24; each R¹ is independently selected from the group consisting of halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy ~~or~~ and SO_nR^{1A}; R² is selected from the group consisting of halogen ~~or~~ and C₁-C₄ alkyl; each R³ is independently selected from the group consisting of halogen, cyano, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ haloalkyl, C₂-C₆ alkylcarbonyl, C₂-C₆ haloalkylcarbonyl, C₂-C₆ alkoxy carbonyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, C₂-C₆ alkoxyalkyl ~~or~~ and C₂-C₆ haloalkoxyalkyl; and each R^{1A} is independently selected from the group consisting of C₁-C₄ alkyl ~~or~~ and C₁-C₄ haloalkyl.

5. (Currently amended) A compound of Claim 4 wherein Q is selected from the group consisting of Q-16 and Q-18; each R¹ is independently selected from the group consisting of halogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl ~~or~~ and C₁-C₄ haloalkoxy; R² is selected from the group consisting of halogen ~~or~~ and CH₃; and each R³ is independently selected from the group consisting of halogen, cyano, C₁-C₄ alkyl ~~or~~ and C₁-C₄ haloalkyl.

6. (Currently amended) A compound of Claim 3 wherein Q is selected from the group consisting of Q-43, Q-44, Q-45, Q-48, Q-49 and Q-50; each R¹ is independently selected from the group consisting of halogen, cyano, C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy ~~or~~ and SO_nR^{1A}; R² is selected from the group consisting of halogen ~~or~~ and C₁-C₄ alkyl; each R³ is independently selected from the group consisting of halogen, cyano, C₁-C₄ alkyl, C₂-C₄ alkenyl, C₂-C₄ alkynyl, C₁-C₄ haloalkyl, C₂-C₆ alkylcarbonyl, C₂-C₆ haloalkylcarbonyl, C₂-C₆ alkoxy carbonyl, C₁-C₄ alkoxy, C₁-C₄ haloalkoxy, C₂-C₆ alkoxyalkyl ~~or~~ and C₂-C₆ haloalkoxyalkyl; and each R^{1A} is independently selected from the group consisting of C₁-C₄ alkyl ~~or~~ and C₁-C₄ haloalkyl.

7. (Currently amended) A compound of Claim 6 wherein Q is selected from the group consisting of Q-43, Q-44 and Q-45; each R¹ is independently selected from the group consisting of halogen, C₁-C₄ alkyl, C₁-C₄ haloalkyl ~~or~~ and C₁-C₄ haloalkoxy; R² is selected from the group consisting of halogen ~~or~~ and CH₃; and each R³ is independently selected from the group consisting of halogen, cyano, C₁-C₄ alkyl ~~or~~ and C₁-C₄ haloalkyl.

8. (Original) A compound of Claim 1 selected from the group consisting of 5-chloro-2-[2-(5-chloro-2-pyridinyl)phenoxy]pyrimidine, 5-chloro-2-[2-[5-(fluoromethyl)-3-isoxazolyl]phenoxy]pyrimidine, 2-[2-(3-bromo-5-isoxazolyl)phenoxy]-5-chloropyrimidine, 5-chloro-2-[2-[5-(trifluoromethyl)-2-pyridinyl]phenoxy]pyrimidine, 5-chloro-2-[3-chloro-2-(5-chloro-2-pyridinyl)phenoxy]pyrimidine, 4-[2-[(5-bromo-2-pyrimidinyl)oxy]phenyl]-2-(trifluoromethyl)pyrimidine, 2-[2-(2-bromo-5-thiazolyl)phenoxy]-5-(trifluoromethyl)pyrimidine, 5-chloro-2-[4-methyl-2-[2-(trifluoromethyl)-4-pyridinyl]phenoxy]pyrimidine, 5-chloro-2-[2-[5-(difluoromethyl)-3-isoxazolyl]phenoxy]pyrimidine, 5-chloro-2-[2-[3-(difluoromethyl)-5-isoxazolyl]phenoxy]pyrimidine, 5-chloro-2-[2-[5-(difluoromethyl)-3-isoxazolyl]-3-fluorophenoxy]pyrimidine, 5-bromo-2-[2-[5-(difluoromethyl)-3-isoxazolyl]phenoxy]pyrimidine, 5-chloro-2-[2-[3-(trifluoromethyl)-5-isoxazolyl]phenoxy]pyrimidine, 5-chloro-2-[2-[3-(difluoromethyl)-5-isoxazolyl]-3-fluorophenoxy]pyrimidine, 5-bromo-2-[2-[3-(difluoromethyl)-5-isoxazolyl]-3-fluorophenoxy]pyrimidine, 5-chloro-2-[2-[5-(trifluoromethyl)-3-isoxazolyl]-3-fluorophenoxy]pyrimidine and 5-chloro-2-[2-[5-(trifluoromethyl)-3-isoxazolyl]phenoxy]pyrimidine.
9. (Original) A herbicidal composition comprising a compound of Claim 1 and at least one component selected from the group consisting of surfactants, solid diluents and liquid diluents.
10. (Original) A herbicidal composition comprising a compound of Claim 1, at least one additional active ingredient selected from the group consisting of other herbicides and herbicide safeners, and at least one component selected from the group consisting of surfactants, solid diluents and liquid diluents.
11. (Currently amended) A herbicidal mixture comprising (a) a compound of Claim 1, and (b) at least one additional active ingredient selected from the group consisting of (b1) photosystem II inhibitors, (b2) acetohydroxy acid synthase (AHAS) inhibitors, (b3) acetyl-CoA carboxylase (ACCase) inhibitors, (b4) auxin mimics and (b5) 5-enol-pyruvylshikimate-3-phosphate (EPSP) synthase inhibitors, (b6) photosystem I electron diverters, (b7) protoporphyrinogen oxidase (PPO) inhibitors, (b8) glutamine synthetase (GS) inhibitors, (b9) very long chain fatty acid (VLCFA) elongase inhibitors, (b10) auxin transport inhibitors, (b11) phytoene desaturase (PDS) inhibitors, (b12) 4-hydroxyphenyl-pyruvate dioxygenase (HPPD) inhibitors, (b13) homogentisate solanesyltransferase (HST) inhibitors, (b14) cellulose biosynthesis inhibitors, (b15) other herbicides including mitotic disruptors, organic arsenicals, asulam, bromobutide, cinmethylin,

cumyluron, dazomet, difenzoquat, dymron, etobenzanid, flurenol, fosamine, fosamine-ammonium, metam, methyldymron, oleic acid, oxaziclomefone, pelargonic acid and pyributicarb, through (b16) herbicide safeners; and salts of compounds of (b1) through (b16) thereof.

12. (Original) A method for controlling the growth of undesired vegetation comprising contacting the vegetation or its environment with a herbicidally effective amount of a compound of Claim 1.

13. (Currently amended) A method for controlling the growth of undesired vegetation in a genetically modified plants that exhibits at least one traits selected from the group consisting of glyphosate tolerance, glufosinate tolerance, ALS herbicide tolerance, dicamba tolerance, imidazolinone herbicide tolerance, 2,4-D tolerance, HPPD tolerance and mesotrione tolerance, comprising contacting the vegetation or its environment with a herbicidally effective amount of a compound of Claim 1.

14. (Currently amended) A herbicidal mixture comprising (a) a compound of Claim 1, and (b) at least one additional active ingredient selected from the group consisting of (b1) photosystem II inhibitors, (b2) acetohydroxy acid synthase (AHAS) inhibitors, (b4) auxin mimics, (b5) 5-enol-pyruvylshikimate-3-phosphate (EPSP) synthase inhibitors, (b7) protoporphyrinogen oxidase (PPO) inhibitors, (b9) very long chain fatty acid (VLCFA) elongase inhibitors and (b12) 4-hydroxyphenyl-pyruvate dioxygenase (HPPD) inhibitors.

15. (Original) A herbicidal mixture comprising (a) a compound of Claim 1, and (b) at least one additional active ingredient selected from the group consisting of 2,4-D, acetochlor, alachlor, atrazine, bromoxynil, bentazon, bicyclopyrone, carfentrazone-ethyl, cloransulam-methyl, dicamba, dimethenamid-p, florasulam, flufenacet, flumioxazin, flupyr-sulfuron-methyl, fluroxypyr-meptyl, glyphosate, halauxifen-methyl, isoxaflutole, MCPA, mesotrione, metolachlor, metsulfuron-methyl, nicosulfuron, pyrasulfotole, pyroxasulfone, pyroxsulam, rimsulfuron, saflufenacil, tembotrione, thifensulfuron-methyl, topramazine and tribenuron.