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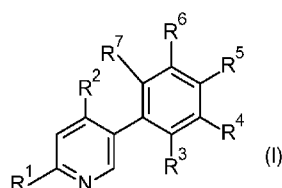
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(54) Title: HERBICIDAL PYRIDINE COMPOUNDS



(57) Abstract: The present invention relates to the pyridine compounds of formula (I), (I), or their agriculturally acceptable salts or derivatives as herbicides, wherein the variables are defined according to the description, use of pyridine compounds of formula (I) as herbicide, compositions comprising them and their use as herbicides, i.e. for controlling harmful plants, and also a method for controlling unwanted vegetation which comprises allowing a herbicidal effective amount of at least one pyridine compounds of the formula (I) to act on plants, their seed and/or their habitat.



Herbicide pyridine compounds

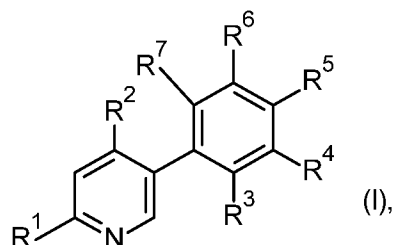
The present invention relates to pyridine compounds of the general formula (I) defined below and to their use as herbicides. Moreover, the invention relates to compositions for crop protection and to a method for controlling unwanted vegetation.

Description:

In agriculture, there is a constant demand to develop novel active ingredients, which complement or outperform present methods of treatment regarding activity, selectivity and environmental safety.

These and further objects are achieved by pyridine compounds of formula (I), defined below, and by their agriculturally suitable salts.

Accordingly, the present invention provides pyridine compounds of formula (I)



wherein

R¹ C₁-C₆-alkyl, C₁-C₆-haloalkyl, hydroxy-C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₂-C₆-alkynyl, C₃-C₆-haloalkynyl, C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆-alkoxy, C₃-C₆-alkenyloxy, C₃-C₆-haloalkenyloxy, C₃-C₆-alkynyloxy, C₃-C₆-haloalkynyloxy, C₁-C₆-haloalkoxy, C₃-C₆-cycloalkoxy, C₃-C₆-halocycloalkoxy, C₃-C₆-cycloalkenyloxy, C₃-C₆-halocycloalkenyloxy, C₁-C₆-alkylthio, C₁-C₆-haloalkylthio, (C₁-C₆-alkyl)amino, di(C₁-C₆-alkyl)amino, C₁-C₆-alkylsulfinyl, C₁-C₆-alkylsulfonyl, C₃-C₆-cycloalkyl, C₃-C₆-cycloalkenyl, C₃-C₆-halocycloalkyl, C₃-C₆-halocycloalkenyl, [1-(C₁-C₆-alkyl)]-C₃-C₆-cycloalkyl, [1-(C₂-C₆-alkenyl)]-C₃-C₆-cycloalkyl, [1-(C₂-C₆-alkynyl)]-C₃-C₆-cycloalkyl, [1-(C₁-C₆-haloalkyl)]-C₃-C₆-cycloalkyl, [1-(C₂-C₆-haloalkenyl)]-C₃-C₆-cycloalkyl, [1-(C₃-C₆-haloalkynyl)]-C₃-C₆-cycloalkyl, C₃-C₆-cycloalkyl-C₁-C₆-alkyl, C₃-C₆-cycloalkyl-C₁-C₆-haloalkyl, C₃-C₆-cycloalkyl-C₁-C₆-alkoxy, C₃-C₆-cycloalkyl-C₁-C₆-haloalkoxy, phenyl, 5- or 6-membered heteroaryl, or 3- to 6-membered heterocyclyl; wherein the cyclic groups of R¹ are unsubstituted or substituted by R^a;

R² is C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₁-C₆-alkoxy-C₂-C₆-alkenyl, C₁-C₆-alkoxy-C₂-C₆-haloalkenyl, C₁-C₆-haloalkoxy-C₂-C₆-alkenyl, C₁-C₆-haloalkoxy-C₂-C₆-haloalkenyl, C₂-C₆-alkynyl, C₂-C₆-haloalkynyl, C₁-C₆-alkoxy-C₂-C₆-alkynyl, C₁-C₆-alkoxy-C₃-C₆-haloalkynyl, C₁-C₆-haloalkoxy-C₂-C₆-alkynyl, C₁-C₆-haloalkoxy-C₃-C₆-haloalkynyl, C₃-C₆-cycloalkyl, C₃-C₆-halocycloalkyl, C₃-C₆-cycloalkenyl, C₃-C₆-halocycloalkenyl, C₃-C₆-cycloalkyl-C₁-C₆-alkyl, C₃-C₆-cycloalkyl-C₁-C₆-haloalkyl, C₃-C₆-halocycloalkyl-C₁-C₆-alkyl, C₃-C₆-halocycloalkyl-C₁-C₆-haloalkyl, C₃-C₆-cycloalkenyl-C₁-C₆-alkyl, C₃-C₆-cycloalkenyl-C₁-C₆-haloalkyl, C₃-C₆-halocycloalkenyl-C₁-C₆-alkyl, C₃-C₆-halocycloalkenyl-C₁-C₆-haloalkyl, C₃-C₆-cycloalkyl-C₂-C₆-alkenyl, C₃-C₆-cycloalkyl-C₂-C₆-haloalkenyl, C₃-C₆-halocycloalkyl-C₂-C₆-alkenyl, C₃-C₆-halocycloalkyl-C₂-C₆-haloalkenyl, C₃-C₆-cycloalkenyl-C₂-C₆-alkenyl, C₃-C₆-cycloalkenyl-C₂-C₆-haloalkenyl, C₃-C₆-halocycloalkenyl-C₂-C₆-alkenyl, C₃-C₆-halocycloalkenyl-C₂-C₆-haloalkenyl, C₃-C₆-cycloalkyl-C₂-C₆-alkynyl, C₃-C₆-cycloalkyl-C₃-C₆-haloalkynyl, C₃-C₆-halocycloalkyl-C₂-C₆-alkynyl, C₃-C₆-halocycloalkyl-C₃-

C₆-haloalkynyl, C₃-C₆-cycloalkenyl-C₂-C₆-alkynyl, C₃-C₆-cycloalkenyl-C₃-C₆-haloalkynyl, C₃-C₆-halocycloalkenyl-C₂-C₆-alkynyl, C₃-C₆-halocycloalkenyl-C₃-C₆-haloalkynyl, C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl, C₃-C₆-cycloalkyl-C₂-C₆-haloalkylidenyl, C₃-C₆-halocycloalkyl-C₁-C₆-alkylidenyl, C₃-C₆-halocycloalkyl-C₂-C₆-haloalkylidenyl, C₃-C₆-cycloalkenyl-C₁-C₆-alkylidenyl, C₃-C₆-cycloalkenyl-C₂-C₆-haloalkylidenyl, C₃-C₆-halocycloalkenyl-C₁-C₆-alkylidenyl, C₃-C₆-halocycloalkenyl-C₂-C₆-haloalkylidenyl, heterocyclyl-C₁-C₆-alkylidenyl, heterocyclyl-C₂-C₆-haloalkylidenyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-haloalkyl, C₃-C₆-hydroxycycloalkenyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkenyl-C₁-C₆-haloalkyl, C₁-C₆-hydroxyalkyl, C₂-C₆-hydroxyhaloalkyl, C₃-C₆-hydroxyalkenyl, C₃-C₆-hydroxyhaloalkenyl, C₃-C₆-hydroxyalkynyl, C₄-C₆-hydroxyhaloalkynyl, C₃-C₆-hydroxycycloalkyl, C₃-C₆-hydroxyhalocycloalkyl, C₃-C₆-hydroxycycloalkenyl, C₃-C₆-hydroxyhalocycloalkenyl, C₃-C₆-cycloalkyl-C₁-C₆-hydroxyalkyl, C₃-C₆-cycloalkyl-C₂-C₆-hydroxyhaloalkyl, C₃-C₆-halocycloalkyl-C₁-C₆-hydroxyalkyl, C₃-C₆-halocycloalkyl-C₂-C₆-hydroxyhaloalkyl, C₃-C₆-cycloalkenyl-C₁-C₆-hydroxyalkyl, C₃-C₆-cycloalkenyl-C₂-C₆-hydroxyhaloalkyl, C₃-C₆-halocycloalkenyl-C₁-C₆-hydroxyalkyl, C₃-C₆-halocycloalkenyl-C₂-C₆-hydroxyhaloalkyl, C₃-C₆-cycloalkyl-C₃-C₆-hydroxyalkenyl, C₃-C₆-cycloalkyl-C₃-C₆-hydroxyhaloalkenyl, C₃-C₆-halocycloalkyl-C₃-C₆-hydroxyhaloalkenyl, C₃-C₆-cycloalkenyl-C₃-C₆-hydroxyalkenyl, C₃-C₆-cycloalkenyl-C₃-C₆-hydroxyhaloalkenyl, C₃-C₆-halocycloalkenyl-C₃-C₆-hydroxyalkenyl, C₃-C₆-halocycloalkenyl-C₃-C₆-hydroxyhaloalkenyl, C₃-C₆-cycloalkyl-C₃-C₆-hydroxyalkynyl, C₃-C₆-halocycloalkyl-C₃-C₆-hydroxyalkynyl, C₃-C₆-cycloalkenyl-C₃-C₆-hydroxyalkynyl, C₃-C₆-halocycloalkenyl-C₃-C₆-hydroxyalkynyl, C₃-C₆-cycloalkyl-C₂-C₆-hydroxyalkylidenyl, C₃-C₆-halocycloalkyl-C₂-C₆-hydroxyalkylidenyl, C₃-C₆-cycloalkenyl-C₂-C₆-hydroxyalkylidenyl, C₃-C₆-halocycloalkyl-C₂-C₆-hydroxyalkylidenyl, heterocyclyl-C₂-C₆-hydroxyalkylidenyl, hydroxycarbonyl-C₁-C₆-hydroxyalkyl, hydroxycarbonyl-C₁-C₆-alkyl, hydroxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-hydroxyalkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-hydroxyalkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-alkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-hydroxyalkyl, C₃-C₆-hydroxycycloalkenyl-C₁-C₆-hydroxyalkyl, C₃-C₆-hydroxycycloalkyl-C₃-C₆-hydroxyalkenyl, C₃-C₆-hydroxycycloalkenyl-C₃-C₆-hydroxyalkenyl, C₂-C₆-dihydroxyalkyl, C₃-C₆-dihydroxyhaloalkyl, C₄-C₆-dihydroxyalkenyl, C₄-C₆-dihydroxyhaloalkenyl, C₄-C₆-dihydroxyalkynyl, C₅-C₆-dihydroxyhaloalkynyl, C₄-C₆-dihydroxycycloalkyl, C₄-C₆-dihydroxyhalocycloalkyl, C₄-C₆-dihydroxycycloalkenyl, C₄-C₆-dihydroxyhalocycloalkenyl, C₃-C₆-cycloalkyl-C₂-C₆-dihydroxyalkyl, C₃-C₆-halocycloalkyl-C₂-C₆-dihydroxyalkyl, C₃-C₆-cycloalkenyl-C₂-C₆-dihydroxyalkenyl, C₃-C₆-halocycloalkyl-C₃-C₆-dihydroxyalkenyl, C₃-C₆-cycloalkenyl-C₃-C₆-dihydroxyalkenyl, C₃-C₆-halocycloalkenyl-C₃-C₆-dihydroxyalkenyl, C₃-C₆-cycloalkyl-C₄-C₆-dihydroxyalkynyl, C₃-C₆-halocycloalkyl-C₄-C₆-dihydroxyalkynyl, C₃-C₆-cycloalkenyl-C₄-C₆-dihydroxyalkylidenyl, C₃-C₆-halocycloalkyl-C₃-C₆-dihydroxyalkylidenyl, heterocyclyl-C₃-C₆-dihydroxyalkylidenyl, hydroxycarbonyl-C₂-C₆-dihydroxyalkyl, hydroxycarbonyl-C₃-C₆-dihydroxyhaloalkyl, C₁-C₆-alkoxycarbonyl-C₂-C₆-dihydroxyalkyl, C₁-C₆-haloalkoxycarbonyl-C₂-C₆-

dihydroxyalkyl, C₁-C₆-haloalkoxycarbonyl-C₃-C₆-dihydroxyhaloalkyl, C₃-C₆-dihydroxycycloalkyl- C₁-C₆-alkyl, C₃-C₆-dihydroxycycloalkyl- C₁-C₆-haloalkyl, C₃-C₆-dihydroxycycloalkyl- C₂-C₆-alkenyl, C₃-C₆-dihydroxycycloalkyl- C₂-C₆-haloalkenyl, C₃-C₆-dihydroxycycloalkyl- C₂-C₆-alkynyl, C₃-C₆-dihydroxycycloalkyl- C₃-C₆-haloalkynyl, C₁-C₆-alkylcarbonyl-C₁-C₆-alkyl, C₁-C₆-haloalkylcarbonyl-C₁-C₆-alkyl, C₁-C₆-alkylcarbonyl-C₁-C₆-haloalkyl, C₁-C₆-haloalkylcarbonyl-C₁-C₆-haloalkyl, hydroxycarbonyl-C₂-C₆-alkenyl, hydroxycarbonyl-C₂-C₆-haloalkenyl, C₁-C₆-alkoxycarbonyl-C₂-C₆-alkenyl, C₁-C₆-haloalkoxycarbonyl-C₂-C₆-alkenyl, C₁-C₆-alkoxycarbonyl-C₂-C₆-haloalkenyl, C₁-C₆-haloalkoxycarbonyl-C₂-C₆-haloalkenyl, hydroxycarbonyl-C₂-C₆-alkynyl, hydroxycarbonyl-C₃-C₆-haloalkynyl, C₁-C₆-alkoxycarbonyl-C₂-C₆-alkynyl, C₁-C₆-haloalkoxycarbonyl-C₂-C₆-alkynyl, C₁-C₆-alkoxycarbonyl-C₃-C₆-haloalkynyl, C₁-C₆-haloalkoxycarbonyl-C₃-C₆-haloalkynyl, C₁-C₆-cyanoalkyl, C₂-C₆-cyanohaloalkyl, C₁-C₆-dicyanoalkyl, C₂-C₆-dicyanohaloalkyl, di(hydroxycarbonyl)-C₁-C₆-alkyl, di(hydroxycarbonyl)-C₁-C₆-haloalkyl, di(C₁-C₆-alkoxycarbonyl)-C₁-C₆-alkyl, di(C₁-C₆-haloalkoxycarbonyl)-C₁-C₆-alkyl, di(C₁-C₆-alkoxycarbonyl)-C₁-C₆-haloalkyl, di(C₁-C₆-haloalkoxycarbonyl)-C₁-C₆-haloalkyl, di(C₁-C₆-alkoxyl)phosphoryl-C₁-C₆-alkyl, di(C₁-C₆-haloalkoxyl)phosphoryl-C₁-C₆-alkyl, di(C₁-C₆-alkoxyl)phosphoryl-C₁-C₆-haloalkyl, di(C₁-C₆-haloalkoxyl)phosphoryl-C₁-C₆-haloalkyl, phosphoryl-C₁-C₆-alkyl, phosphoryl-C₁-C₆-haloalkyl, di[di(C₁-C₆-alkoxyl)phosphoryl-]C₁-C₆-alkyl, di[di(C₁-C₆-haloalkoxyl)phosphoryl-]C₁-C₆-alkyl, di[di(C₁-C₆-alkoxyl)phosphoryl-]C₁-C₆-haloalkyl, di[di(C₁-C₆-haloalkoxyl)phosphoryl-]C₁-C₆-haloalkyl, diphosphoryl-C₁-C₆-alkyl, diphosphoryl-C₁-C₆-haloalkyl, C₁-C₆-alkylthio-C₁-C₆-alkyl, C₁-C₆-haloalkylthio-C₁-C₆-alkyl, C₁-C₆-alkylthio-C₁-C₆-haloalkyl, C₁-C₆-haloalkylthio-C₁-C₆-haloalkyl, C₁-C₆-alkylsulfinyl-C₁-C₆-alkyl, C₁-C₆-haloalkylsulfinyl-C₁-C₆-alkyl, C₁-C₆-alkylsulfinyl-C₁-C₆-haloalkyl, C₁-C₆-haloalkylsulfinyl-C₁-C₆-haloalkyl, C₁-C₆-alkylsulfonyl-C₁-C₆-alkyl, C₁-C₆-haloalkylsulfonyl-C₁-C₆-alkyl, C₁-C₆-haloalkylsulfonyl-C₁-C₆-haloalkyl, phenyl, 5- or 6-membered heteroaryl, 3- to 6-membered heterocyclyl;

wherein hydroxy groups of R² are unsubstituted or substituted by R^b;

cyclic groups of R² are unsubstituted or substituted by R^c; and

acyclic aliphatic groups of R² are unsubstituted or substituted by R^d.

R^b is C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₃-C₆-alkenyl, C₃-C₆-haloalkenyl, C₃-C₆-alkynyl, C₃-C₆-haloalkynyl, C₃-C₆-cycloalkyl, C₃-C₆-halocycloalkyl, C₄-C₆-cycloalkenyl, C₃-C₆-halocycloalkenyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-alkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-alkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-alkylcarbonyl, C₁-C₆-haloalkylcarbonyl, hydroxycarbonyl-C₁-C₆-alkyl, hydroxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-alkyloxycarbonyl, C₁-C₆-haloalkyloxycarbonyl, C₁-C₆-alkylthiocarbonyl, C₁-C₆-haloalkylthiocarbonyl, C₁-C₆-alkylaminocarbonyl, C₁-C₆-haloalkylaminocarbonyl, C₁-C₆-dialkylaminocarbonyl, C₁-C₆-dihaloalkylaminocarbonyl, C₁-C₆-alkylsulfonyl, C₁-C₆-haloalkylsulfonyl, C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆-haloalkoxy-C₁-C₆-alkyl, C₁-C₆-alkoxy-C₁-C₆-haloalkyl, C₁-C₆-haloalkoxy-C₁-C₆-haloalkyl, phenyl-C₁-C₆-alkyl, or phenyl-C₁-C₆-haloalkyl;

R^c is halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, hydroxy, C₁-C₆-alkoxy or C₁-C₆-haloalkoxy, C₁-C₆-alkylthio, C₁-C₆-alkylsulfinyl, or C₁-C₆-alkylsulfonyl;

R^d is phenyl, 5- or 6-membered heteroaryl, or 3- to 6-membered heterocyclyl; wherein the substituent R^d is unsubstituted or substituted by R^e;

R^e is halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, hydroxy, C₁-C₆-alkoxy or C₁-C₆-haloalkoxy, C₁-C₆-alkylsulfonyl;

R³ halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkylcarbonyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₂-C₆-alkynyl, C₂-C₆-haloalkynyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₃-C₆-alkenyloxy, C₃-C₆-haloalkenyloxy, C₃-C₆-alkynyloxy, C₃-C₆-haloalkynyloxy, C₁-C₆-alkoxy-C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, C₁-C₆-alkylthio, C₁-C₆-haloalkylthio, NH₂, (C₁-C₆-alkyl)amino, di(C₁-C₆-alkyl)amino, (C₁-C₆-alkyl)sulfinyl, (C₁-C₆-alkyl)sulfonyl, C₃-C₆-cycloalkyl, (C₃-C₆-cycloalkyl)oxy or phenyl;

wherein the cyclic groups of R³ are unsubstituted or substituted by substituents R^a;

R⁴, R⁵, R⁶ and R⁷ independently of one another are H, halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkylcarbonyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₂-C₆-alkynyl, C₂-C₆-haloalkynyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₃-C₆-alkenyloxy, C₃-C₆-haloalkenyloxy, C₃-C₆-alkynyloxy, C₃-C₆-haloalkynyloxy, C₁-C₆-alkoxy-C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, C₁-C₆-alkylthio, C₁-C₆-haloalkylthio, NH₂, (C₁-C₆-alkyl)amino, di(C₁-C₆-alkyl)amino, (C₁-C₆-alkyl)sulfinyl, (C₁-C₆-alkyl)sulfonyl, C₃-C₆-cycloalkyl, (C₃-C₆-cycloalkyl)oxy or phenyl;

wherein the cyclic groups of R⁴, R⁵, R⁶ and R⁷ are unsubstituted or substituted by R^a;

R^a is halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkoxy, or C₁-C₆-haloalkoxy;

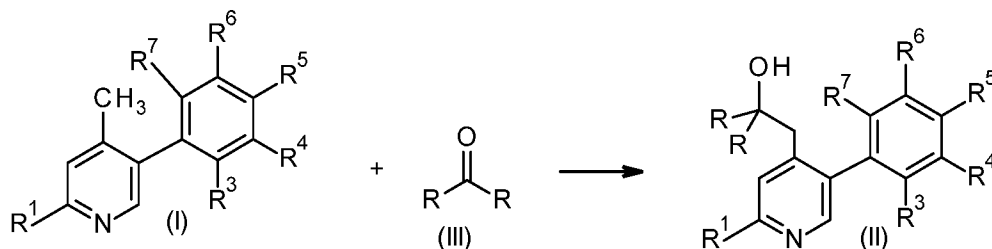
including agriculturally acceptable salts or derivatives of the pyridine compounds of formula (I) having an acidic functionality.

The present invention also provides use of the pyridine compounds of formula (I) as described herein including agriculturally acceptable salts or derivatives of the pyridine compounds of formula (I) having an acidic functionality, as herbicide.

The pyridine compounds of formula (I) according to the invention can be prepared by standard processes of organic chemistry, e.g. by the following processes:

Process A:

The pyridines of formula (II) can be obtained by reacting respective pyridines of formula (I; R₂ = CH₃) (prepared analogous to known procedures like e.g. in WO2003066623) with base and an electrophile, e.g. a carbonyl compound (III) (analogous procedures e.g. Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999), (10), 2141-5, 1980; Journal of Heterocyclic Chemistry, 41(3), 443-447, 2004):



The reaction of the pyridine (I) with the electrophile (III), with R independent of each other equals hydrogen, alkyl, cycloalkyl, halocycloalkyl, haloalkyl, cycloalkenyl, halocycloalkenyl, alkenyl, haloalkenyl, alkynyl, phenyl, heterocyclyl, heteroaryl or both R form together a carbocycle or a heterocycle, is usually carried out at temperatures from -100 °C to the boiling point of

the reaction mixture, preferably from $-80\text{ }^{\circ}\text{C}$ to $20\text{ }^{\circ}\text{C}$, particularly preferably from $-80\text{ }^{\circ}\text{C}$ to $-20\text{ }^{\circ}\text{C}$, in an inert organic solvent in the presence of a base.

Suitable solvents are aliphatic hydrocarbons, such as pentane, hexane, cyclohexane and mixtures of C_5 - C_8 -alkanes, aromatic hydrocarbons, such as toluene, o-, m- and p-xylene, ethers, such as diethyl ether, diisopropyl ether, tert-butyl methyl ether (TBME), dioxane, anisole and tetrahydrofuran (THF), and also dimethyl sulfoxide (DMSO), dimethylformamide (DMF) and N,N-dimethylacetamide (DMAC), particularly diethyl ether, dioxane and THF.

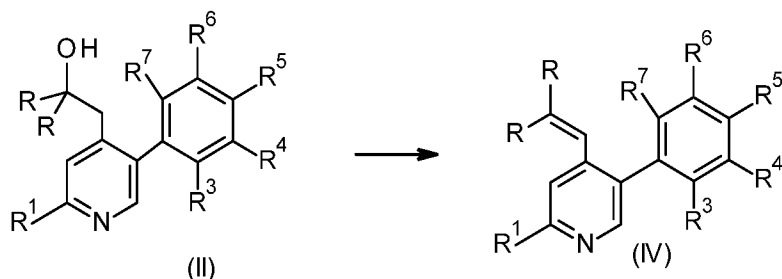
It is also possible to use mixtures of the solvents mentioned.

Suitable bases are, in general, inorganic compounds, such as alkali metal and alkaline earth metal anhydrides, such as lithium hydride (LiH), sodium hydride (NaH), potassium hydride (KH) and calcium hydride (CaH), alkali metal amides, such as lithium hexamethydisilazide (LHMDS) and lithium diisopropylamide (LDA), organometallic compounds, in particular alkali metal alkyls, such as methyllithium (MeLi), butyllithium (BuLi) and phenyllithium (PhLi), and also alkali metal and alkaline earth metal alkoxides, such as sodium methoxide (NaOCH_3), sodium ethoxide (NaOC_2H_5), potassium ethoxide (KOC_2H_5), potassium tert-butoxide (tBuOK), potassium tert-pentoxide and dimethoxymagnesium, moreover organic bases, e.g. tertiary amines, such as trimethylamine (TMA), triethylamine (TEA), diisopropylethylamine (DIPEA) and N-methylpiperidine, pyridine, substituted pyridines, such as collidine, lutidine and 4-dimethylaminopyridine, and also bicyclic amines. Particular preference is given to NaH, LHMDS and lithium diisopropylamide (LDA).

The bases are generally employed in equimolar amounts; however, they can also be employed in catalytic amounts, in excess or, if appropriate, as solvents.

The starting materials are generally reacted with one another in equimolar amounts. It may be advantageous to employ an excess of base and/or the electrophile, based on the pyridine compounds (I).

The olefin (IV) can be obtained by elimination of the alcohol (analogous procedures e.g. Synlett, (5), 561-562, 1997; Journal of Organic Chemistry, 48(15), 2622-5, 1983):



The elimination of the alcohol of the pyridine (II) is usually carried out at temperatures from $-100\text{ }^{\circ}\text{C}$ to the boiling point of the reaction mixture, preferably from $0\text{ }^{\circ}\text{C}$ to $120\text{ }^{\circ}\text{C}$, particularly preferably from $20\text{ }^{\circ}\text{C}$ to $100\text{ }^{\circ}\text{C}$, in an inert solvent optionally in the presence of an acid.

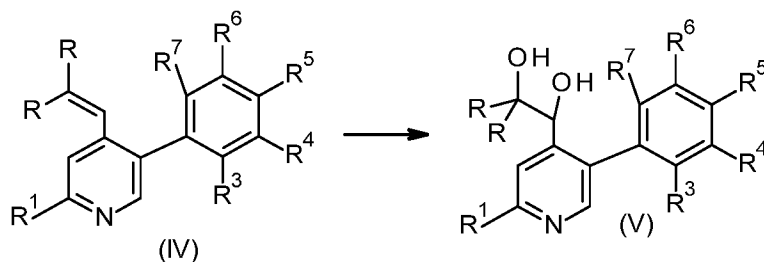
Suitable solvents are aliphatic hydrocarbons, such as pentane, hexane, cyclohexane and mixtures of C_5 - C_8 -alkanes, aromatic hydrocarbons, such as toluene, o-, m- and p-xylene, ethers, such as diethyl ether, diisopropyl ether, TBME, dioxane, anisole and THF, and also DMSO, DMF and DMAC, particularly preferably toluene and o-xylene.

It is also possible to use mixtures of the solvents mentioned.

Suitable acids are inorganic acids, such as HCl, HBr, sulfuric acid; organic acids p-toluenesulfonic acid, benzene sulfonic acid, pyridinium p-toluol sulfonic acid, methanesulfonic acid, acetic acid; preferably p-toluenesulfonic acid and HCl.

The acids are generally employed in equimolar amounts; however, they can also be employed in catalytic amounts, in excess or, if appropriate, as solvents.

The diol (V) can be obtained e.g. by dihydroxylation of the olefin (IV) (analogous procedures e.g. Journal of Inorganic Biochemistry, 105(4), 509-517; 2011):



The oxidation of the olefin (IV) to the diol (V) is usually carried out at temperatures from -100 °C to the boiling point of the reaction mixture, preferably from 0 °C to 120 °C, particularly preferably from 20 °C to 100 °C, in an inert solvent.

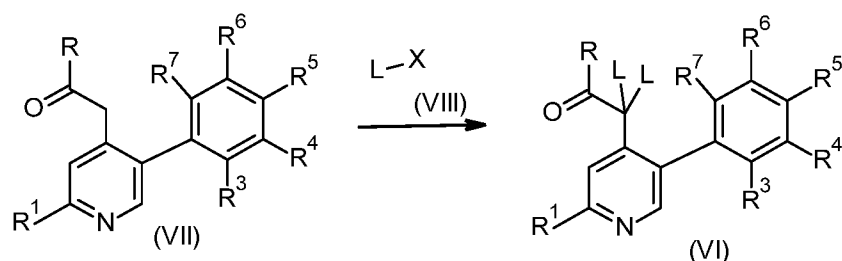
The reaction may in principle be carried out in substance. However, preference is given to reacting the pyridines (IV) with the oxidant in an organic solvent.

Suitable in principle are all solvents which are capable of dissolving the pyridines (IV) and the oxidant at least partly and preferably fully under the reaction conditions.

Suitable solvents are aliphatic hydrocarbons, such as pentane, hexane, cyclohexane and mixtures of C₅-C₈-alkanes, aromatic hydrocarbons, such as toluene, o-, m- and p-xylene, ethers, such as diethyl ether, diisopropyl ether, TBME, dioxane, anisole and THF, and also DMSO, DMF and DMAC, particularly preferably TBME, THF. It is also possible to use mixtures of the solvents mentioned.

Suitable oxidants are e.g. potassium permanganate, potassium perruthenate, osmium tetroxide and other osmium salts, like potassium osmate. The oxidant can be used in equimolar amounts or in catalytic amounts together with a reoxidant like N-methylmorpholine-N-oxide or potassium hexacyanoferrate in stoichiometric amounts or in excess.

Process B:



Pyridine compounds (VI), with R equals alkyl, haloalkyl, alkoxy, haloalkoxy, can be obtained by reacting respective pyridine compounds of formula (VII) with base and an electrophile (VIII) (analogous procedures e.g. Journal of the American Chemical Society, 132(31), 10706-10716; 2010).

Electrophile (VIII) can be an alkyl-, alkenyl- or alkynyl-halide, e.g. methyl iodide, allyl bromide or propargyl bromide, or a halogenating agent, e.g. Cl₂, Br₂, I₂, NCS (*N*-Chlorosuccinimide), NBS (*N*-Bromosuccinimide), NIS (*N*-Iodosuccinimide), NFSI (*N*-Fluorobenzenesulfonylimide), Selectfluor (1-Chloromethyl-4-fluoro-1,4-diazoniabicyclo[2.2.2]octane bis(tetrafluoroborate)).

The reaction of the pyridine (VII) with the electrophile is usually carried out at temperatures from -100 °C to the boiling point of the reaction mixture, preferably from -80 °C to 80 °C, particularly preferably from -80 °C to 30 °C, in an inert organic solvent in the presence of a base.

Suitable in principle are all solvents which are capable of dissolving the pyridine (VII) and the electrophile (VIII) at least partly and preferably fully under the reaction conditions.

Examples of suitable solvents are aromatic hydrocarbons such as benzene, chlorobenzene, toluene, cresols, o-, m- and p-xylene, ethers such as diethyl ether, diisopropyl ether, TBME, dioxane, anisole and THF, as well as dipolar aprotic solvents such as sulfolane, dimethylsulfoxide, DMF, DMAC, DMI, N,N'-dimethylpropylene urea (DMPU), DMSO and 1-methyl-2 pyrrolidinone (NMP).

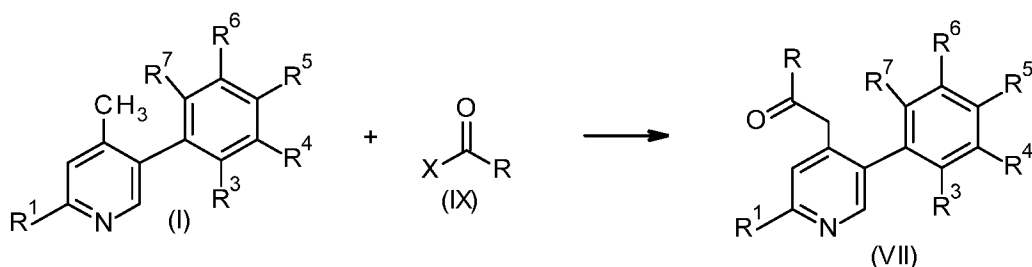
It is also possible to use mixtures of the solvents mentioned.

Suitable bases are, in general, inorganic compounds, such as alkali metal and alkaline earth metal anhydrides, such as LiH, NaH, KH and CaH, alkali metal amides, such as LDA, LHMDs, lithium 2,2,6,6-tetramethylpiperidide (LTMP), organometallic compounds, in particular alkali metal alkyls, such as MeLi, BuLi and PhLi, and also alkali metal and alkaline earth metal alkoxides, such as NaOCH₃, NaOC₂H₅, KOC₂H₅, tBuOK, potassium tert-pentoxide and dimethoxymagnesium, moreover organic bases, e.g. tertiary amines, such as TMA, TEA, DIPEA and N-methylpiperidine, pyridine, substituted pyridines, such as collidine, lutidine and 4-dimethylaminopyridine, and also bicyclic amines. Particular preference is given to NaH, LTMP and LDA.

The bases are generally employed in equimolar amounts; however, they can also be employed in catalytic amounts, in excess or, if appropriate, as solvents.

The starting materials are generally reacted with one another in equimolar amounts. It may be advantageous to employ an excess of base and/or the electrophile (VIII), based on the pyridine (VII).

The pyridine compounds of formula (VII) can be obtained by reacting respective pyridines of formula (I) (prepared analogous to known procedures like e.g. in Angewandte Chemie, International Edition, 49(11), 2014-2017, S2014/1-S2014/76; 2010; WO 2014142273; WO 2008124610) with base and an electrophile (IX), e.g. a dialkylcarbonate (X = R = alkoxy), an alkyl chloroformate (X = halogene, R = alkoxy) or an acid halide (X = halogene, R = alkyl or haloalkyl) (analogous procedures e.g. Tetrahedron, 44(14), 4351-5, 1988; Bioorganic & Medicinal Chemistry Letters, 12(20), 3009-3013, 2002):



The reaction of the pyridine (I) with the electrophile (IX) is usually carried out at temperatures from -100 °C to the boiling point of the reaction mixture, preferably from -80 °C to 80 °C, particularly preferably from -80 °C to 30 °C, in an inert organic solvent in the presence of a base.

Suitable in principle are all solvents which are capable of dissolving the pyridine (I) and the electrophile (IX) at least partly and preferably fully under the reaction conditions.

Examples of suitable solvents are aromatic hydrocarbons such as benzene, chlorobenzene, toluene, cresols, o-, m- and p-xylene, ethers such as diethyl ether, diisopropyl ether, TBME, dioxane, anisole and THF, as well as dipolar aprotic solvents such as sulfolane, dimethylsulfoxide, DMF, DMAC, DMI, N,N'-dimethylpropylene urea (DMPU), DMSO and 1-methyl-2 pyrrolidinone (NMP).

It is also possible to use mixtures of the solvents mentioned.

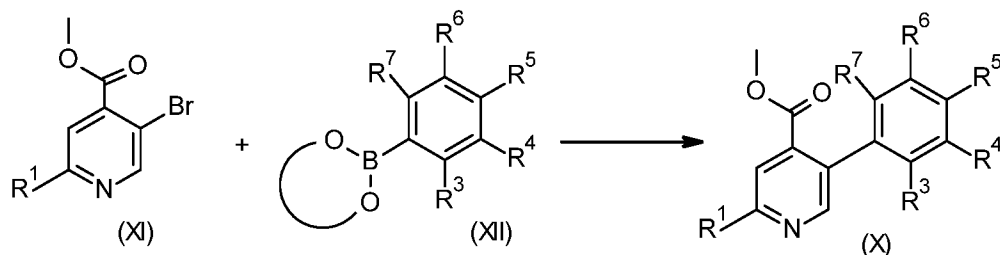
Suitable bases are, in general, inorganic compounds, such as alkali metal and alkaline earth metal anhydrides, such as lithium hydride, sodium hydride, potassium hydride and calcium hydride, alkali metal azides, such as lithium hexamethyldisilazide, organometallic compounds, in particular alkali metal alkyls, such as methyllithium, butyllithium and phenyllithium, and also alkali metal and alkaline earth metal alkoxides, such as sodium methoxide, sodium ethoxide, potassium ethoxide, potassium tert-butoxide, potassium tert-pentoxide and dimethoxymagnesium, moreover organic bases, e.g. tertiary amines, such as trimethylamine, triethylamine, diisopropylethylamine and N-methylpiperidine, pyridine, substituted pyridines, such as collidine, lutidine and 4-dimethylaminopyridine, and also bicyclic amines. Particular preference is given to sodium hydride, lithium hexamethyldisilazide and lithium diisopropylamide.

The bases are generally employed in equimolar amounts; however, they can also be employed in catalytic amounts, in excess or, if appropriate, as solvents.

The starting materials are generally reacted with one another in equimolar amounts. It may be advantageous to employ an excess of base and/or the electrophile (IX), based on the pyridine (I).

Process C:

The pyridines of formula (X) can be obtained by reacting respective pyridines of formula (XI) with boronic acids/esters of formula (XII):



The reaction of pyridines (XI) with boronic acids/esters (XII) is usually carried out from 0 °C to the boiling point of the reaction mixture, preferably from 15 °C to 110 °C, particularly preferably from 40 °C to 100 °C, in an inert organic solvent in the presence of a base and a catalyst.

The reaction may in principle be carried out in substance. However, preference is given to reacting the pyridines (XI) with the boronic acids/esters (XII) in an organic solvent with or without water as co-solvent.

Suitable in principle are all solvents which are capable of dissolving the pyridines (XI) and the boronic acids (XII) at least partly and preferably fully under the reaction conditions.

Examples of suitable solvents are aromatic hydrocarbons such as benzene, chlorobenzene, toluene, cresols, o-, m- and p-xylene, ethers such as diethyl ether, diisopropyl ether, TBME, dioxane, anisole and THF, as well as dipolar aprotic solvents such as sulfolane, dimethylsulfoxide, DMF, DMAC, DMI, DMPU, DMSO and 1-methyl-2 pyrrolidinone (NMP).

It is also possible to use mixtures of the solvents mentioned.

Examples of suitable metal-containing bases are inorganic compounds including metal-containing bases such as alkali metal and alkaline earth metal hydroxides, and other metal hydroxides, such as LiOH, NaOH, KOH, Mg(OH)₂, Ca(OH)₂ and Al(OH)₃; alkali metal and alkaline earth metal oxide, and other metal oxides, such as Li₂O, Na₂O, K₂O, MgO, and CaO, Fe₂O₃, Ag₂O; alkali metal and alkaline earth metal carbonates such as Li₂CO₃, Na₂CO₃, K₂CO₃,

Cs_2CO_3 , MgCO_3 , and CaCO_3 , as well as alkali metal hydrogen carbonates (bicarbonates) such as LiHCO_3 , NaHCO_3 , KHCO_3 ; alkali metal and alkaline earth metal phosphates such as potassium phosphate (K_3PO_4), calcium phosphate ($\text{Ca}_3(\text{PO}_4)_2$); alkali metal and alkaline earth metal acetates such as sodium acetate or potassium acetate.

Preferred 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 and alkali metal or alkaline earth metal carbonates such as lithium carbonate, sodium carbonate, potassium carbonate, cesium carbonate, magnesium carbonate, and calcium carbonate and alkaline earth metal phosphates such as potassium phosphate; ; alkali metal and alkaline earth metal acetates such as sodium acetate.

Especially preferred 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 and alkaline earth metal phosphates such as potassium phosphate.

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 are used preferably from 1 to 10 equivalents based on the pyridine (XI), more preferably from 1.0 to 5.0 equivalents based on the pyridine (XI), most preferably from 1.2 to 2.5 equivalents based on the pyridine (XI).

It may be advantageous to add the base offset over a period of time.

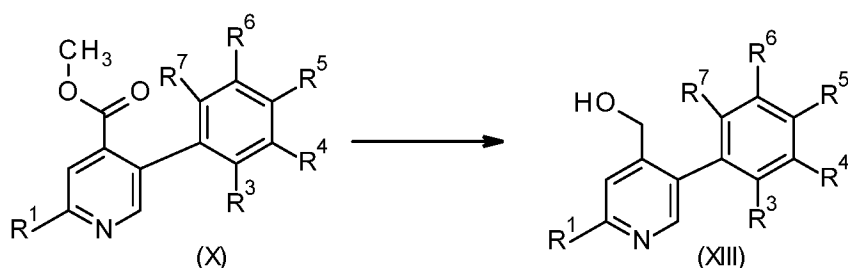
The reaction of the pyridines (XI) with the boronic acids/esters (XII) is carried out in the presence of a catalyst. Examples of suitable catalysts include e.g., palladium based catalysts like, e.g., palladium(II)acetate, tetrakis(triphenylphosphine)-palladium(0), bis(triphenylphosphine)palladium(II)chloride or (1,1'-bis(diphenylphosphino)-ferrocene)-dichloropalladium(II), and optionally suitable additives such as, e.g., phosphines like, e.g., $\text{P}(\text{o-tolyl})_3$, triphenylphosphine or BINAP (2,2'-Bis(diphenylphosphino)-1,1'-binaphthyl).

The amount of catalyst is usually 0.01 to 20 mol % (0.0001 to 0.2 equivalents) based on the pyridine (XI).

The halopyridines (XI) are known from the literature (e.g. WO2015181747; WO2014055548) are commercially available or can be prepared by known procedures.

The boronic acids/esters (XII) required for the preparation of pyridines of formula (XIV) are commercially available, known from literature or can easily be prepared analogously to published procedures (e.g. Kamei et al. Tetrahedron Lett. 2014, 55, 4245 - 4247).

The pyridines of formula (XIII) can be obtained by reacting respective pyridines of formula (X) with a reducing agent such as LAH or DIBALH.



The reduction of pyridines (X) is usually carried out from $-80\text{ }^{\circ}\text{C}$ to the boiling point of the reaction mixture, preferably from $-20\text{ }^{\circ}\text{C}$ to $60\text{ }^{\circ}\text{C}$, particularly preferably from $0\text{ }^{\circ}\text{C}$ to $25\text{ }^{\circ}\text{C}$, in an inert organic solvent.

Suitable solvents are aliphatic hydrocarbons, such as pentane, hexane, cyclohexane and mixtures of C_5 - C_8 -alkanes, aromatic hydrocarbons, such as toluene, o-, m- and p-xylene, ethers, such as diethyl ether, diisopropyl ether, TBME, dioxane, anisole and THF, and also DMSO, DMF and DMAC, particularly preferably diethyl ether, dioxane and THF.

It is also possible to use mixtures of the solvents mentioned.

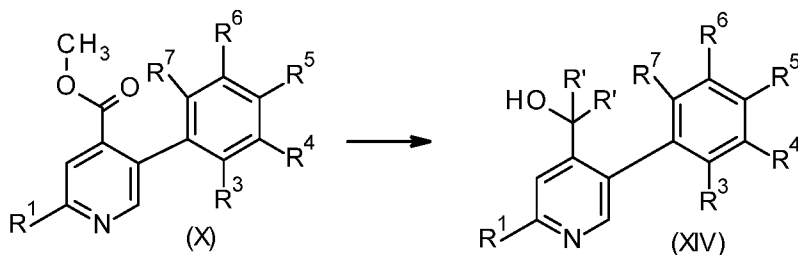
Examples of reducing agents for pyridines (X) include LAH, DIBALH, LiBH_4 or Lithium triethylborohydride.

Preferred agents include LAH and DIBALH.

The hydride-source is used preferably from 1 to 10 equivalents based on the pyridine (X), more preferably from 1.0 to 5.0 equivalents based on the pyridine (X), most preferably from 1.2 to 2.5 equivalents based on the pyridine (X).

Process D:

The pyridines of formula (XIV) can be obtained by reacting respective pyridines of formula (X) with a metal organic species like a Grignard reagent ($\text{R}'\text{MgX}$, $\text{X} = \text{Cl}, \text{Br}, \text{I}$; $\text{R}' = \text{alkyl, haloalkyl, alkenyl, alkynyl, cycloalkyl, phenyl, heterocyclyl, or heteroaryl}$).



The reaction of pyridines (X) with a metal organic species is usually carried out from $-80\text{ }^{\circ}\text{C}$ to the boiling point of the reaction mixture, preferably from $-20\text{ }^{\circ}\text{C}$ to $60\text{ }^{\circ}\text{C}$, particularly preferably from $-20\text{ }^{\circ}\text{C}$ to $25\text{ }^{\circ}\text{C}$, in an inert organic solvent.

Suitable solvents are aliphatic hydrocarbons, such as pentane, hexane, cyclohexane and mixtures of C_5 - C_8 -alkanes, aromatic hydrocarbons, such as toluene, o-, m- and p-xylene, ethers, such as diethyl ether, diisopropyl ether, TBME, dioxane, anisole and THF, and also DMSO, DMF and DMAC, particularly preferably diethyl ether, dioxane and THF.

It is also possible to use mixtures of the solvents mentioned.

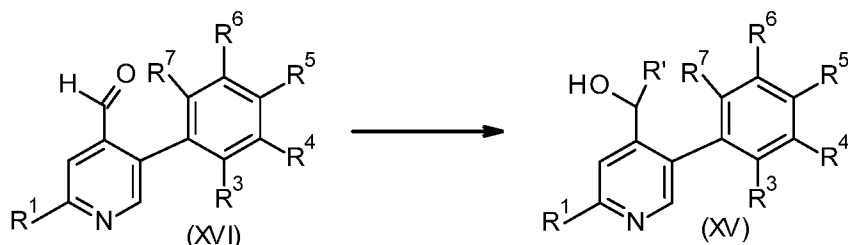
Examples of metal organic species for the synthesis of pyridines (XIV) are Grignard reagents like $\text{R}'\text{MgCl}$, $\text{R}'\text{MgBr}$ or $\text{R}'\text{MgI}$, lithium organic species, aluminum organic species like $\text{R}'_3\text{Al}$, $\text{R}'_2\text{AlX}$ and $\text{R}'\text{AlX}_2$, titanium organic species like $\text{R}'_4\text{Ti}$, $\text{R}'_3\text{TiX}$, $\text{R}'_2\text{TiX}_2$ and $\text{R}'\text{TiX}_3$.

Preferred agents include Grignard reagents and lithium organic species.

The metal organic species is used preferably from 2 to 10 equivalents based on the pyridine (X), more preferably from 2.0 to 5.0 equivalents based on the pyridine (X), most preferably from 2.0 to 3.0 equivalents based on the pyridine (X).

Process E:

The pyridines of formula (XV) can be obtained by reacting respective pyridines of formula (XVI) with a metal organic species like a Grignard reagent ($R'MgX$, $X = Cl, Br, I$; $R' = \text{alkyl, haloalkyl, alkenyl, alkynyl, cycloalkyl, phenyl, heterocyclyl, or heteroaryl}$).



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The reaction of pyridines (XVI) with a metal organic species is usually carried out from $-80\text{ }^{\circ}\text{C}$ to the boiling point of the reaction mixture, preferably from $-20\text{ }^{\circ}\text{C}$ to $60\text{ }^{\circ}\text{C}$, particularly preferably from $-20\text{ }^{\circ}\text{C}$ to $25\text{ }^{\circ}\text{C}$, in an inert organic solvent.

Suitable solvents are aliphatic hydrocarbons, such as pentane, hexane, cyclohexane and mixtures of C_5 - C_8 -alkanes, aromatic hydrocarbons, such as toluene, o-, m- and p-xylene, ethers, such as diethyl ether, diisopropyl ether, TBME, dioxane, anisole and THF, and also DMSO, DMF and DMAC, particularly preferably diethyl ether, dioxane and THF.

It is also possible to use mixtures of the solvents mentioned.

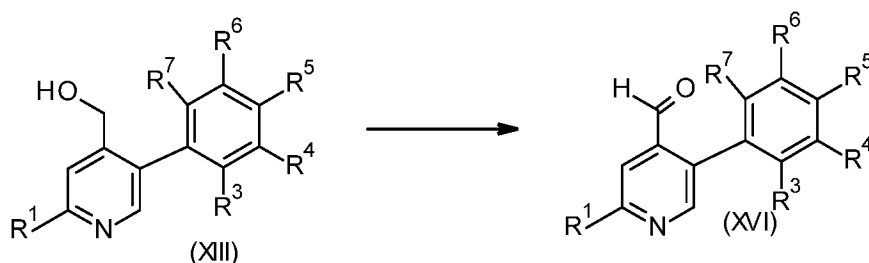
Examples of metal organic species for the synthesis of pyridines (XV) are Grignard reagents like $R'MgCl$, $R'MgBr$ or $R'MgI$, lithium organic species, aluminum organic species like R'_3Al , R'_2AlX and $R'AlX_2$, titanium organic species like R'_4Ti , R'_3TiX , R'_2TiX_2 and $R'TiX_3$.

Preferred agents include Grignard reagents and lithium organic species.

The metal organic species is used preferably from 2 to 10 equivalents based on the pyridine (XVI), more preferably from 2.0 to 5.0 equivalents based on the pyridine (XVI), most preferably from 2.0 to 3.0 equivalents based on the pyridine (XVI).

Process F:

The pyridines of formula (XVI) can be obtained by oxidizing respective pyridines of formula (XIII).



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The oxidation of pyridines (XIII) is usually carried out from $-80\text{ }^{\circ}\text{C}$ to the boiling point of the reaction mixture, preferably from $-20\text{ }^{\circ}\text{C}$ to $100\text{ }^{\circ}\text{C}$, particularly preferably from $0\text{ }^{\circ}\text{C}$ to $75\text{ }^{\circ}\text{C}$, in an inert organic solvent.

The reaction may in principle be carried out in substance. However, preference is given to reacting the pyridines (XIII) in an organic solvent.

Suitable in principle are all solvents which are capable of dissolving the pyridines (XIII) at least partly and preferably fully under the reaction conditions.

Examples of suitable solvents are aromatic hydrocarbons such as benzene, chlorobenzene, toluene, cresols, o-, m- and p-xylene, halogenated hydrocarbons such as CH_2Cl_2 , $CHCl_3$,

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$\text{CCH}_2\text{ClCH}_2\text{Cl}$ or CCl_4 , ethers such as diethyl ether, diisopropyl ether, tert.-butyl methylether (TBME), dioxane, anisole and THF, as well as dipolar aprotic solvents such as sulfolane, DMSO, DMF, DMAC, 1,3-dimethyl-2-imidazolidinone (DMI), DMPU, and NMP.

It is also possible to use mixtures of the solvents mentioned.

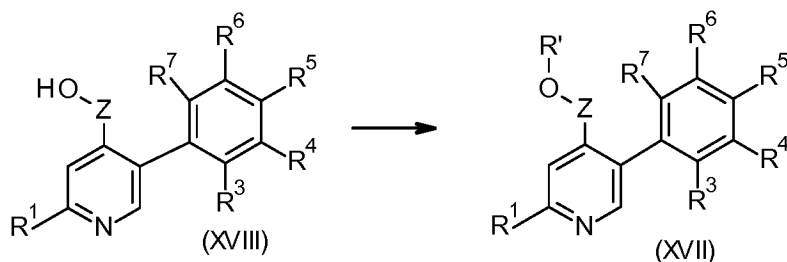
- 5 Examples of oxidizing agents for the synthesis of pyridines (XVI) are metal oxides such as MnO_2 , KMnO_4 , CrO_3 or PCC, and non-metal oxides such as NaClO , NaIO_4 or pyridine/ SO_3 – complex. In addition methods like the Swern oxidation or the TEMPO oxidation known to a person skilled in the art can be used to obtain pyridines of formula (XVI).

Preferred agents include MnO_2 , KMnO_4 and PCC, more preferred MnO_2 .

- 10 The oxidizing agent is used preferably from 1 to 50 equivalents based on the pyridine (XIII), more preferably from 1.0 to 20.0 equivalents based on the pyridine (XIII), most preferably from 1.0 to 10.0 equivalents based on the pyridine (XIII).

Process G:

- 15 The pyridines of formula (XVII) (Z = cycloalkyl, halocycloalkyl, alkyl, haloalkyl, alkenyl, alkynyl, phenyl, heteroaryl, heterocyclyl, alkylidenyl or halo alkylidenyl and R' = alkyl, haloalkyl, alkenyl, alkynyl, cycloalkyl, heterocyclyl, alkoxycarbonylalkyl) can be obtained reacting respective pyridines of formula (XVIII) with base and an electrophile.



- 20 Electrophiles can be an alkyl-, alkenyl- or alkynyl-halide, e.g. methyl iodide, allyl bromide propargyl bromide, ethyl iodide, propyl bromide, or ethyl 2-bromoacetate.

The reaction of the pyridine (XVIII) with the electrophile is usually carried out at temperatures from $-100\text{ }^\circ\text{C}$ to the boiling point of the reaction mixture, preferably from $-20\text{ }^\circ\text{C}$ to $100\text{ }^\circ\text{C}$, particularly preferably from $-0\text{ }^\circ\text{C}$ to $30\text{ }^\circ\text{C}$, in an inert organic solvent in the presence of a base.

- 25 Suitable in principle are all solvents which are capable of dissolving the pyridine (XVIII) and the electrophile at least partly and preferably fully under the reaction conditions.

Examples of suitable solvents are aromatic hydrocarbons such as benzene, chlorobenzene, toluene, cresols, o-, m- and p-xylene, ethers such as diethyl ether, diisopropyl ether, TBME, dioxane, anisole and THF, nitriles such as acetonitrile and propionitrile, as well as dipolar aprotic solvents such as sulfolane, DMSO, DMF, DMAC, DMI, DMPU, and NMP.

- 30 It is also possible to use mixtures of the solvents mentioned.

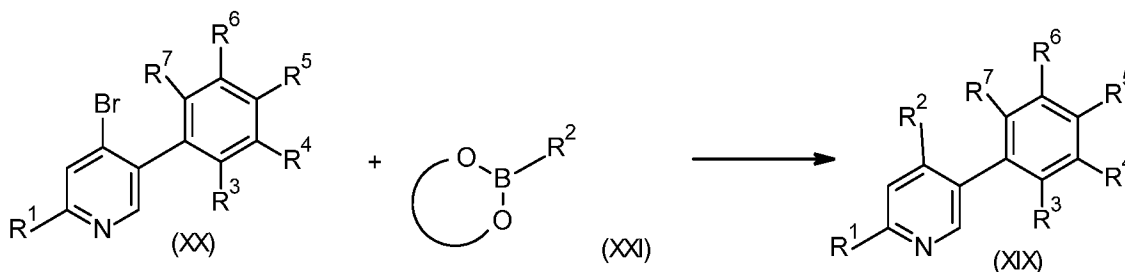
- Suitable bases are, in general, inorganic compounds, such as alkali metal and alkaline earth metal anhydrides, such as LiH , NaH , KH and CaH , alkali metal azides, such as lithium hexamethyldisilazide (LHMDS), organometallic compounds, in particular alkali metal alkyls, such as MeLi , BuLi and PhLi , and also alkali metal and alkaline earth metal alkoxides, such as NaOCH_3 , NaOC_2H_5 , KOC_2H_5 , tBuOK , potassium tert-pentoxide and dimethoxymagnesium, moreover organic bases, e.g. tertiary amines, such as trimethylamine, triethylamine, diisopropylethylamine and N-methylpiperidine, pyridine, substituted pyridines, such as collidine, lutidine and 4-dimethylaminopyridine, and also bicyclic amines. Particular preference is given to sodium hydride, lithium hexamethyldisilazide and lithium diisopropylamide.

The bases are generally employed in equimolar amounts; however, they can also be employed in catalytic amounts, in excess or, if appropriate, as solvents.

The starting materials are generally reacted with one another in equimolar amounts. It may be advantageous to employ an excess of base and/or the electrophile, based on the pyridine (XVIII).

The end of the reaction can easily be determined by the skilled worker by means of routine Process H:

The pyridines of formula (XIX) can be obtained by reacting respective pyridines of formula (XX), obtained e.g. in analogy to Synlett, (5), 808-810, 2002, with boronic acids/esters of formula (XXI):



The reaction of pyridines (XX) with boronic acids/esters (XXI) is usually carried out from 0 °C to the boiling point of the reaction mixture, preferably from 15 °C to 110 °C, particularly preferably from 40 °C to 100 °C, in an inert organic solvent in the presence of a base and a catalyst.

The reaction may in principle be carried out in substance. However, preference is given to reacting the pyridines (XX) with the boronic acids/esters (XXI) in an organic solvent with or without water as co-solvent.

Suitable in principle are all solvents which are capable of dissolving the pyridines (XX) and the boronic acids (XXI) at least partly and preferably fully under the reaction conditions.

Examples of suitable solvents are aromatic hydrocarbons such as benzene, chlorobenzene, toluene, cresols, o-, m- and p-xylene, ethers such as diethyl ether, diisopropyl ether, TBME, dioxane, anisole and THF, as well as dipolar aprotic solvents such as sulfolane, DMSO, DMF, DMAC, DMI, DMPU, and NMP.

It is also possible to use mixtures of the solvents mentioned.

Examples of suitable metal-containing bases are inorganic compounds including metal-containing bases such as alkali metal and alkaline earth metal hydroxides, and other metal hydroxides, such as LiOH, NaOH, KOH, Mg(OH)₂, Ca(OH)₂ and Al(OH)₃; alkali metal and alkaline earth metal oxide, and other metal oxides, such as Li₂O, Na₂O, K₂O, MgO, and CaO, Fe₂O₃, Ag₂O; alkali metal and alkaline earth metal carbonates such as Li₂CO₃, Na₂CO₃, K₂CO₃, Cs₂CO₃, MgCO₃, and CaCO₃, as well as alkali metal hydrogen carbonates (bicarbonates) such as LiHCO₃, NaHCO₃, KHCO₃; alkali metal and alkaline earth metal phosphates such as potassium phosphate (K₃PO₄), calcium phosphate (Ca₃(PO₄)₂); alkali metal and alkaline earth metal acetates such as sodium acetate or potassium acetate.

Preferred 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 and alkali metal or alkaline earth metal carbonates such as lithium carbonate, sodium carbonate, potassium carbonate, cesium carbonate, magnesium carbonate, and calcium carbonate and alkaline earth

metal phosphates such as potassium phosphate; ; alkali metal and alkaline earth metal acetates such as sodium acetate.

Especially preferred 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 and alkaline earth metal phosphates such as potassium phosphate.

The term base as used herein also includes mixtures of two or more, preferably two of the above bases. Particular preference is given to the use of one base.

The bases are used preferably from 1 to 10 equivalents based on the pyridine (XX), more preferably from 1.0 to 5.0 equivalents based on the pyridine (XX), most preferably from 1.2 to 2.5 equivalents based on the pyridine (XX).

It may be advantageous to add the base offset over a period of time.

The reaction of the pyridines (XX) with the boronic acids/esters (XXI) is carried out in the presence of a catalyst. Examples of suitable catalysts include e.g., palladium based catalysts like, e.g., 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, e.g., phosphines like, e.g., P(o-tolyl)₃, triphenylphosphine or BINAP (2,2'-Bis(diphenylphosphino)-1,1'-binaphthyl).

The amount of catalyst is usually 0.01 to 20 mol % (0.0001 to 0.2 equivalents) based on the pyridine (XX).

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, e.g. by mixing with water, separation of the phases and, if appropriate, chromatographic purification of the crude product.

Some of the intermediates and end products are obtained in the form of viscous oils, which can be purified or freed from volatile components under reduced pressure and at moderately elevated temperature.

If the intermediates and the end products are obtained as solid, purification can also be carried out by recrystallization or digestion.

The boronic acids/esters (XXI) required for the preparation of pyridines of formula (XIX) are commercially available, known from literature or can easily be prepared analogously to published procedures (e.g. Kamei et al. Tetrahedron Lett. 2014, 55, 4245 - 4247).

The present invention also provides agrochemical compositions comprising at least one pyridine compounds of formula (I) and auxiliaries customary for formulating crop protection agents.

The present invention furthermore provides a method for controlling unwanted vegetation where a herbicidal effective amount of at least one pyridine compounds of formula (I) is allowed to act on plants, their seeds and/or their habitat. Application can be done before, during and/or after, preferably during and/or after, the emergence of the undesirable plants.

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.

5 If the pyridine compounds of formula (I) as described herein are capable of forming geometrical isomers, e.g. E/Z isomers, it is possible to use both, the pure isomers and mixtures thereof, in the compositions according to the invention.

10 If the pyridine compounds of formula (I) as described herein have one or more centres of chirality and, as a consequence, are present as enantiomers or diastereomers, it is possible to use both, the pure enantiomers and diastereomers and their mixtures, in the compositions according to the invention.

15 If the pyridine compounds of formula (I) as described herein have ionisable functional groups, preferably an acidic functionality, 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
20 in which one to four H atoms are replaced by C₁-C₄-alkyl, hydroxy-C₁-C₄-alkyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, hydroxy-C₁-C₄-alkoxy-C₁-C₄-alkyl, phenyl or benzyl, preferably ammonium, methyl-ammonium, isopropylammonium, dimethylammonium, diisopropylammonium, trimethylammonium, heptylammonium, dodecylammonium, tetradecylammonium, tetramethylammonium, tetraethylamm-onium, tetrabutylammonium, 2-hydroxyethylammonium (olamine salt), 2-(2-hydroxy-
25 eth-1-oxy)eth-1-ylammonium (diglycolamine salt), di(2-hydroxyeth-1-yl)ammonium (diolamine salt), tris(2-hydroxy-ethyl)ammonium (trolamine salt), tris(2-hydroxypropyl)ammonium, benzyltrimethylammonium, benzyltriethylammonium, N,N,N-trimethylethanolammonium (choline salt), furthermore phosphonium ions, sulfonium ions, preferably tri(C₁-C₄-alkyl)sulfonium, such as trimethylsulfonium, and sulfoxonium ions, preferably tri(C₁-C₄-alkyl)sulfoxonium, and finally the
30 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, hydrogen-sulfate, methylsulfate, sulfate, dihydrogenphosphate, hydrogenphosphate, nitrate, bicarbonate, carbonate, hexafluorosilicate, hexafluorophosphate, benzoate and also the anions of C₁-C₄-alkanoic acids, preferably formate, acetate, propionate and butyrate.

35 Pyridine compounds of formula (I) as described herein having an acidic functionality can be employed, if applicable, in the form of the acid, in the form of an agriculturally suitable salt, whereby the cations are defined as mentioned above, or else in the form of an agriculturally acceptable derivative, e.g. as amides, such as mono- and di-C₁-C₆-alkylamides or arylamides, as esters, e.g. as allyl esters, propargyl esters, C₁-C₁₀-alkyl esters, alkoxyalkyl esters, tetrahydrofuran-2-yl)methyl) esters and also as thioesters, e.g. as C₁-C₁₀-alkylthio esters. Preferred mono- and di-C₁-C₆-alkylamides are the CH₃ and the dimethylamides. Preferred arylamides are, e.g., the anilides and the 2-chloroanilides. Preferred alkyl esters are, e.g., the methyl,
40 ethyl, propyl, isopropyl, butyl, isobutyl, pentyl, hexyl (1-methylhexyl), heptyl (1-methylheptyl), heptyl, octyl or isooctyl (2-ethylhexyl) esters. Preferred C₁-C₄-alkoxy-C₁-C₄-alkyl esters are the

straight-chain or branched C₁-C₄-alkoxy ethyl esters, e.g. the 2-methoxyethyl, 2-ethoxyethyl, 2-butoxyethyl (butotyl), 2-butoxypropyl or 3-butoxypropyl ester. An example of a straight-chain or branched C₁-C₁₀-alkylthio ester is the ethylthio ester.

The organic moieties mentioned in the definition of the variables R¹, R², A, Z, R³, R^{3A}, and R⁴, are - like the term halogen - collective terms for individual enumerations of the individual group members. The term halogen denotes in each case F, Cl, Br, or I. All hydrocarbon chains, e.g. all alkyl, alkenyl, alkynyl, alkoxy 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.

Examples of such meanings are:

- C₁-C₄-alkyl: e.g. CH₃, C₂H₅, n-propyl, CH(CH₃)₂, n-butyl, CH(CH₃)-C₂H₅, CH₂-CH(CH₃)₂, and C(CH₃)₃;
- C₁-C₆-alkyl: C₁-C₄-alkyl as mentioned above, and also, e.g., 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;
- C₁-C₄-haloalkyl: C₁-C₄-alkyl as mentioned above which is partially or fully substituted by fluorine, chlorine, bromine and/or iodine, e.g., chloromethyl, 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, heptafluoro-propyl, 1-(fluoromethyl)-2-fluoroethyl, 1-(chloromethyl)-2-chloroethyl, 1-(bromomethyl)-2-bromo-ethyl, 4-fluorobutyl, 4-chlorobutyl, 4-bromobutyl, nonafluorobutyl, 1,1,2,2,-tetrafluoroethyl, and 1-trifluoromethyl-1,2,2,2-tetrafluoroethyl;
- C₁-C₆-haloalkyl: C₁-C₄-haloalkyl as mentioned above, and also, e.g., 5-fluoropentyl, 5-chloropentyl, 5-bromopentyl, 5-iodopentyl, undecafluoropentyl, 6-fluorohexyl, 6-chlorohexyl, 6-bromohexyl, 6-iodohexyl, and dodecafluorohexyl;
- C₃-C₆-cycloalkyl: monocyclic saturated hydrocarbons having 3 to 6 ring members, such as cyclopropyl, cyclobutyl, cyclopentyl, and cyclohexyl;
- C₃-C₆-alkenyl: e.g. 1-propenyl, 2-propenyl, 1-methylethenyl, 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;

- C₃-C₆-haloalkenyl: a C₃-C₆-alkenyl substituent as mentioned above which is partially or fully substituted by fluorine, chlorine, bromine and/or iodine, e.g. 2-chloroprop-2-en-1-yl, 3-chloroprop-2-en-1-yl, 2,3-dichloroprop-2-en-1-yl, 3,3-dichloroprop-2-en-1-yl, 2,3,3-trichloro-2-en-1-yl, 2,3-dichlorobut-2-en-1-yl, 2-bromoprop-2-en-1-yl, 3-bromoprop-2-en-1-yl, 2,3-dibromoprop-2-en-1-yl, 3,3-dibromoprop-2-en-1-yl, 2,3,3-tribromo-2-en-1-yl, or 2,3-dibromobut-2-en-1-yl;

- C₃-C₆-alkynyl: e.g. 1-propynyl, 2-propynyl, 1-butylnyl, 2-butylnyl, 3-butylnyl, 1-methyl-2-propynyl, 1-pentylnyl, 2-pentylnyl, 3-pentylnyl, 4-pentylnyl, 1-methyl-2-butylnyl, 1-methyl-3-butylnyl, 2-methyl-3-butylnyl, 3-methyl-1-butylnyl, 1,1-dimethyl-2-propynyl, 1-ethyl-2-propynyl, 1-hexynyl, 2-hexynyl, 3-hexynyl, 4-hexynyl, 5-hexynyl, 1-methyl-2-pentylnyl, 1-methyl-3-pentylnyl, 1-methyl-4-pentylnyl, 2-methyl-3-pentylnyl, 2-methyl-4-pentylnyl, 3-methyl-1-pentylnyl, 3-methyl-4-pentylnyl, 4-methyl-1-pentylnyl, 4-methyl-2-pentylnyl, 1,1-dimethyl-2-butylnyl, 1,1-dimethyl-3-butylnyl, 1,2-dimethyl-3-butylnyl, 2,2-dimethyl-3-butylnyl, 3,3-dimethyl-1-butylnyl, 1-ethyl-2-butylnyl, 1-ethyl-3-butylnyl, 2-ethyl-3-butylnyl, and 1-ethyl-1-methyl-2-propynyl;

- C₂-C₆-alkynyl: C₃-C₆-alkynyl as mentioned above and also ethynyl;

- C₃-C₆-haloalkynyl: a C₃-C₆-alkynyl radical as mentioned above which is partially or fully substituted by F, Cl, Br and/or I, e.g. 1,1-difluoroprop-2-yn-1-yl, 3-chloroprop-2-yn-1-yl, 3-bromoprop-2-yn-1-yl, 3-iodoprop-2-yn-1-yl, 4-fluorobut-2-yn-1-yl, 4-chlorobut-2-yn-1-yl, 1,1-difluorobut-2-yn-1-yl, 4-iodobut-3-yn-1-yl, 5-fluoropent-3-yn-1-yl, 5-iodopent-4-yn-1-yl, 6-fluorohex-4-yn-1-yl, or 6-iodohex-5-yn-1-yl;

- C₁-C₄-alkoxy: e.g. methoxy, ethoxy, propoxy, 1-methylethoxy, butoxy, 1-methylpropoxy, 2-methylpropoxy, and 1,1-dimethylethoxy;

- C₁-C₆-alkoxy: C₁-C₄-alkoxy as mentioned above, and also, e.g., pentoxy, 1-methylbutoxy, 2-methylbutoxy, 3-methoxybutoxy, 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.

- C₁-C₄-haloalkoxy: a C₁-C₄-alkoxy radical as mentioned above which is partially or fully substituted by fluorine, chlorine, bromine and/or iodine, i.e., e.g., fluoromethoxy, difluoromethoxy, trifluoromethoxy, chlorodifluoromethoxy, bromodifluoromethoxy, 2-fluoroethoxy, 2-chloroethoxy, 2-bromomethoxy, 2-iodoethoxy, 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-chloropropoxy, 3-chloropropoxy, 2-bromopropoxy, 3-bromopropoxy, 2,2-difluoropropoxy, 2,3-difluoropropoxy, 2,3-dichloropropoxy, 3,3,3-trifluoropropoxy, 3,3,3-trichloropropoxy, 2,2,3,3,3-pentafluoropropoxy, heptafluoropropoxy, 1-(fluoromethyl)-2-fluoroethoxy, 1-(chloromethyl)-2-chloroethoxy, 1-(bromomethyl)-2-bromoethoxy, 4-fluorobutoxy, 4-chlorobutoxy, 4-bromobutoxy, and nonafluorobutoxy;

- C₁-C₆-haloalkoxy: a C₁-C₄-haloalkoxy as mentioned above, and also, e.g., 5-fluoropentoxy, 5-chloropentoxy, 5-bromopentoxy, 5-iodopentoxy, undecafluoropentoxy, 6-fluorohexoxy, 6-chlorohexoxy, 6-bromohexoxy, 6-iodohexoxy and dodecafluorohexoxy;

- C₁-C₄-alkylthio: e.g. methylthio, ethylthio, propylthio, 1-methylethylthio, butylthio, 1-methylpropylthio, 2-methylpropylthio, and 1,1-dimethylethylthio;

- C₁-C₆-alkylthio: C₁-C₄-alkylthio as mentioned above, and also, e.g., 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;

- (C₁-C₄-alkyl)amino: e.g. methylamino, ethylamino, propylamino, 1-methylethylamino, butylamino, 1-methylpropylamino, 2-methylpropylamino, or 1,1-dimethylethylamino;

- (C₁-C₆-alkyl)amino: (C₁-C₄-alkylamino) as mentioned above, and also, e.g., 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-dimethylbutylamino, 3,3-dimethylbutylamino, 1-ethylbutylamino, 2-ethylbutylamino, 1,1,2-trimethylpropylamino, 1,2,2-trimethylpropylamino, 1-ethyl-1-methylpropylamino, or 1-ethyl-2-methylpropylamino;

- di(C₁-C₄-alkyl)amino: e.g. 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-dimethyl-ethyl)-N-(1-methylpropyl)amino, or N-(1,1-dimethylethyl)-N-(2-methylpropyl)amino;

- di(C₁-C₆-alkyl)amino: di(C₁-C₄-alkyl)amino as mentioned above, and also, e.g., 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;

- C₁-C₆-alkylsulfinyl (C₁-C₆-Alkyl-S(=O)-): e.g. 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-methylpentylsulfinyl, 1,1-dimethylbutylsulfinyl, 1,2-dimethylbutylsulfinyl, 1,3-dimethylbutylsulfinyl, 2,2-dimethylbutylsulfinyl, 2,3-dimethylbutylsulfinyl, 3,3-dimethylbutylsulfinyl, 1-ethylbutylsulfinyl, 2-ethylbutylsulfinyl, 1,1,2-trimethylpropylsulfinyl, 1,2,2-trimethylpropylsulfinyl, 1-ethyl-1-methylpropylsulfinyl, and 1-ethyl-2-methylpropylsulfinyl;

- C₁-C₆-alkylsulfonyl (C₁-C₆-alkyl-S(O)₂-): e.g. methylsulfonyl, ethylsulfonyl, propylsulfonyl, 1-methylethylsulfonyl, butylsulfonyl, 1-methylpropylsulfonyl, 2-methylpropylsulfonyl, 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-dimethylbutylsulfonyl, 3,3-dimethylbutylsulfonyl, 1-ethylbutylsulfonyl, 2-ethylbutylsulfonyl, 1,1,2-trimethylpropylsulfonyl, 1,2,2-trimethylpropylsulfonyl, 1-ethyl-1-methylpropylsulfonyl, and 1-ethyl-2-methylpropylsulfonyl;

- C₃-C₆-cycloalkyl: a monocyclic saturated hydrocarbon having 3 to 6 ring members, such as cyclopropyl, cyclobutyl, cyclopentyl, and cyclohexyl;

- C₃-C₆-cycloalkenyl: 1-cyclopropenyl, 2-cyclopropenyl, 1-cyclobutenyl, 2-cyclobutenyl, 1-cyclopentenyl, 2-cyclopentenyl, 1,3-cyclopentadienyl, 1,4-cyclopentadienyl, 2,4-cyclopentadienyl, 1-cyclohexenyl, 2-cyclohexenyl, 3-cyclohexenyl, 1,3-cyclohexadienyl, 1,4-cyclohexadienyl, or 2,5-cyclohexadienyl;

- heterocyclyl: a 3- to 6-membered heterocyclyl: a saturated or partial unsaturated cycle having three to six ring members which comprises apart from carbon atoms one to four nitrogen atoms, or one or two oxygen atoms, or one or two sulfur atoms, or one to three nitrogen atoms and an oxygen atom, or one to three nitrogen atoms and a sulfur atom, or one sulfur and one oxygen atom, e.g. 3- or 4-membered heterocycles like 2-oxiranyl, 2-aziridinyl, 2-thiiranyl, 2-oxetanyl, 3-oxetanyl, 2-thietanyl, 3-thietanyl, 1-azetidiny, 2-azetidiny, 1-azetiny, or 2-azetiny;

5-membered saturated heterocycles like 2-tetrahydrofuranyl, 3-tetrahydrofuranyl, 2-tetrahydrothienyl, 3-tetrahydrothienyl, 1-pyrrolidinyl, 2-pyrrolidinyl, 3-pyrrolidinyl, 3-isoxazolidinyl, 4-isoxazolidinyl, 5-isoxazolidinyl, 2-isothiazolidinyl, 3-isothiazolidinyl, 4-isothiazolidinyl, 5-isothiazolidinyl, 1-pyrazolidinyl, 3-pyrazolidinyl, 4-pyrazolidinyl, 5-pyrazolidinyl, 2-oxazolidinyl, 4-oxazolidinyl, 5-oxazolidinyl, 2-thiazolidinyl, 4-thiazolidinyl, 5-thiazolidinyl, 1-imidazolidinyl, 2-imidazolidinyl, 4-imidazolidinyl, 3-oxazolidinyl, 1,2,4-oxadiazolidin-3-yl, 1,2,4-oxadiazolidin-5-yl, 3-thiazolidinyl, 1,2,4-thiadiazolidin-3-yl, 1,2,4-thiadiazolidin-5-yl, 1,2,4-triazolidin-3-yl, 1,2,4-oxadiazolidin-2-yl, 1,2,4-oxadiazolidin-4-yl, 1,3,4-oxadiazolidin-2-yl, 1,2,4-thiadiazolidin-2-yl, 1,2,4-thiadiazolidin-4-yl, 1,3,4-thiadiazolidin-2-yl, 1,2,4-triazolidin-1-yl, or 1,3,4-triazolidin-2-yl;

5-membered partial unsaturated heterocycles like 2,3-dihydrofur-2-yl, 2,3-dihydrofur-3-yl, 2,4-dihydrofur-2-yl, 2,4-dihydrofur-3-yl, dioxolan-2-yl, 1,3-dioxol-2-yl, 2,3-dihydrothien-2-yl, 2,3-dihydrothien-3-yl, 2,4-dihydrothien-2-yl, 2,4-dihydrothien-3-yl, 4,5-dihydropyrrol-1-yl, 4,5-dihydropyrrol-2-yl, 4,5-dihydropyrrol-3-yl, 2,5-dihydropyrrol-1-yl, 2,5-dihydropyrrol-2-yl, 2,5-dihydropyrrol-3-yl, 2,3-dihydroisoxazol-1-yl, 2,3-dihydroisoxazol-3-yl, 2,3-dihydroisoxazol-4-yl, 2,3-dihydroisoxazol-5-yl, 2,5-dihydroisoxazol-3-yl, 2,5-dihydroisoxazol-4-yl, 2,5-dihydroisoxazol-5-yl, 4,5-dihydroisoxazol-2-yl, 4,5-dihydroisoxazol-3-yl, 4,5-dihydroisoxazol-4-yl, 4,5-dihydroisoxazol-5-yl, 2,3-dihydroisothiazol-1-yl, 2,3-dihydroisothiazol-3-yl, 2,3-dihydroisothiazol-4-yl, 2,3-dihydroisothiazol-5-yl, 2,5-dihydroisothiazol-3-yl, 2,5-dihydroisothiazol-4-yl, 2,5-dihydroisothiazol-5-yl, 4,5-dihydroisothiazol-1-yl, 4,5-dihydroisothiazol-3-yl, 4,5-dihydroisothiazol-4-yl, 4,5-dihydroisothiazol-5-yl, 2,3-dihydropyrazol-1-yl, 2,3-dihydropyrazol-2-yl, 2,3-dihydropyrazol-3-yl, 2,3-dihydropyrazol-4-yl, 2,3-dihydropyrazol-5-yl, 3,4-dihydropyrazol-1-yl, 3,4-dihydropyrazol-3-yl, 3,4-dihydropyrazol-4-yl, 3,4-dihydropyrazol-5-yl, 4,5-dihydropyrazol-1-yl, 4,5-dihydropyrazol-3-yl, 4,5-dihydropyrazol-4-yl, 4,5-dihydropyrazol-5-yl, 2,3-dihydroimidazol-1-yl, 2,3-dihydroimidazol-2-yl, 2,3-dihydroimidazol-3-yl, 2,3-dihydroimidazol-4-yl, 2,3-dihydroimidazol-5-yl, 4,5-dihydroimidazol-1-yl, 4,5-dihydroimidazol-2-yl, 4,5-dihydroimidazol-4-yl, 4,5-dihydroimidazol-5-yl, 2,5-dihydroimidazol-1-yl, 2,5-dihydroimidazol-2-yl, 2,5-dihydroimidazol-4-yl, 2,5-dihydroimidazol-5-yl, 2,3-dihydrooxazol-2-yl, 2,3-dihydrooxazol-3-yl, 2,3-dihydrooxazol-4-yl, 2,3-dihydrooxazol-5-yl, 3,4-dihydrooxazol-2-yl, 3,4-dihydrooxazol-3-yl, 3,4-dihydrooxazol-4-yl, 3,4-dihydrooxazol-5-yl, 2,3-dihydrothiazol-2-yl, 2,3-dihydrothiazol-3-yl, 2,3-dihydrothiazol-4-yl, 2,3-dihydrothiazol-5-yl, 3,4-dihydrothiazol-2-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, or 3,4-dihydrothiazol-4-yl;

6-membered saturated heterocycles like 1-piperidinyl, 2-piperidinyl, 3-piperidinyl, 4-piperidinyl, 1,3-dioxan-5-yl, 1,4-dioxanyl, 1,3-dithian-5-yl, 1,3-dithianyl, 1,3-oxathian-5-yl, 1,4-oxathianyl, 2-tetrahydropyranyl, 3-tetrahydropyranyl, 4-tetrahydropyranyl, 2-tetrahydrothiopyranyl, 3-tetrahydrothiopyranyl, 4-tetrahydrothiopyranyl, 1-hexahydropyridazinyl, 3-hexahydropyridazinyl, 4-hexahydropyridazinyl, 1-hexahydropyrimidinyl, 2-hexahydropyrimidinyl, 4-hexahydropyrimidinyl, 5-hexahydropyrimidinyl, 1-piperazinyl, 2-piperazinyl, 1,3,5-hexahydrotriazin-1-yl, 1,3,5-hexahydrotriazin-2-yl, 1,2,4-hexahydrotriazin-1-yl, 1,2,4-hexahydrotriazin-3-yl, tetrahydro-1,3-oxazin-1-yl, tetrahydro-1,3-oxazin-2-yl, tetrahydro-1,3-oxazin-6-yl, 1-morpholinyl, or 2-morpholinyl, 3-morpholinyl;

6-membered partial unsaturated heterocycles like 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, or 5,6-dihydro-4H-1,3-oxazin-2-yl.

- heteroaryl: a 5- or 6-membered heteroaryl: monocyclic aromatic heteroaryl having 5 to 6 ring members which, in addition to carbon atoms and independent of their position in the ring, contains 1 to 4 nitrogen atoms, or 1 to 3 nitrogen atoms and an oxygen or sulfur atom, or an oxygen or a sulfur atom, e.g. 5-membered aromatic rings like furyl (e.g. 2-furyl, 3-furyl), thienyl (e.g. 2-thienyl, 3-thienyl), pyrrolyl (e.g. pyrrol-2-yl, pyrrol-3-yl), pyrazolyl (e.g. pyrazol-3-yl, pyrazol-4-yl), isoxazolyl (e.g. isoxazol-3-yl, isoxazol-4-yl, isoxazol-5-yl), isothiazolyl (e.g. isothiazol-3-yl, isothiazol-4-yl, isothiazol-5-yl), imidazolyl (e.g. imidazole-2-yl, imidazole-4-yl), oxazolyl (e.g. oxazol-2-yl, oxazol-4-yl, oxazol-5-yl), thiazolyl (e.g. thiazol-2-yl, thiazol-4-yl, thiazol-5-yl), oxadiazolyl (e.g. 1,2,3-oxadiazol-4-yl, 1,2,3-oxadiazol-5-yl, 1,2,4-oxadiazol-3-yl, 1,2,4-oxadiazol-5-yl, 1,3,4-oxadiazol-2-yl), thiadiazolyl (e.g. 1,2,3-thiadiazol-4-yl, 1,2,3-thiadiazol-5-yl, 1,2,4-thiadiazol-3-yl, 1,2,4-thiadiazol-5-yl, 1,3,4-thiadiazolyl-2-yl), triazolyl (e.g. 1,2,3-triazol-4-yl, 1,2,4-triazol-3-yl); 1-tetrazolyl; 6-membered aromatic rings like pyridyl (e.g. pyridine-2-yl, pyridine-3-yl, pyridine-4-yl), pyrazinyl (e.g. pyridazin-3-yl, pyridazin-4-yl), pyrimidinyl (e.g. pyrimidin-2-yl, pyrimidin-4-yl, pyrimidin-5-yl), pyrazin-2-yl, triazinyl (e.g. 1,3,5-triazin-2-yl, or 1,2,4-triazin-3-yl, 1,2,4-triazin-5-yl, 1,2,4-triazin-6-yl);

The term "substituted" if not specified otherwise refers to substituted by 1, 2 or maximum possible number of substituents. If substituents as defined in compounds of formula I are more than one then they are independently from each other are same or different if not mentioned otherwise.

The term "acidic functionality" if not specified otherwise refers to a functionality capable of donating a hydrogen (proton or hydrogen ion H^+), such as a carboxylic group or sulphonic group, or, alternatively, capable of forming a covalent bond with an electron pair.

The terms "compounds of formula (I)", "Pyridine compounds of formula (I)", "Compounds I" and "compounds of invention" are synonyms.

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.

In general, pyridine compounds of formula (I) are suitable as herbicides.

According to a preferred embodiment of the invention preference is given pyridine compounds of formula (I), and their use as herbicides, wherein the variables, either independently of one another or in combination with one another, have the following meanings:

Preferred R^1 is C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, C_1 - C_6 -haloalkoxy, C_3 - C_6 -alkenyloxy, C_3 - C_6 -haloalkenyloxy, C_3 - C_6 -alkynyloxy, C_4 - C_6 -haloalkynyloxy, C_1 - C_6 -alkylthio, C_3 - C_6 -cycloalkyl, wherein the cycloalkyl substituent is unsubstituted;

particularly preferred R^1 is C_1 - C_6 -alkyl, C_1 - C_6 -alkoxy, or C_3 - C_6 -cycloalkyl, wherein the cycloalkyl substituent is unsubstituted;

especially preferred R^1 is C_3 - C_6 -cycloalkyl, wherein the cycloalkyl substituent is unsubstituted;

also especially preferred R^1 is C_2H_5 , i - C_3H_7 , i - C_4H_9 , OCH_3 , c - C_3H_5 , or c - C_4H_7 ;

more preferred R^1 is C_2H_5 , OCH_3 , or c - C_3H_5 ;

most preferred R^1 is c - C_3H_5 .

Preferred R^2 is C_2 - C_6 -alkenyl, C_2 - C_6 -haloalkenyl, C_1 - C_6 -alkoxy- C_2 - C_6 -alkenyl, C_2 - C_6 -alkynyl, C_3 - C_6 -cycloalkenyl, C_3 - C_6 -cycloalkenyl- C_1 - C_6 -alkyl, C_3 - C_6 -cycloalkyl- C_1 - C_6 -alkylidenyl, C_3 - C_6 -halocycloalkyl- C_1 - C_6 -alkylidenyl, C_3 - C_6 -cycloalkenyl- C_1 - C_6 -alkylidenyl, C_3 - C_6 -hydroxycycloalkyl- C_1 - C_6 -alkyl, C_3 - C_6 -hydroxycycloalkenyl- C_1 - C_6 -alkyl, C_1 - C_6 -hydroxyalkyl, C_3 - C_6 -cycloalkyl- C_2 - C_6 -hydroxyalkylidenyl, hydroxycarbonyl- C_1 - C_6 -alkyl, hydroxycarbonyl- C_1 - C_6 -haloalkyl, C_1 - C_6 -

alkoxycarbonyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-hydroxyalkyl, C₂-C₆-dihydroxyalkyl, C₃-C₆-cycloalkyl-C₃-C₆-dihydroxyalkylidenyl, hydroxycarbonyl-C₂-C₆-dihydroxyalkyl, C₁-C₆-alkoxycarbonyl-C₂-C₆-dihydroxyalkyl, C₁-C₆-dicyanoalkyl, or 5- or 6-membered heteroaryl; wherein hydroxy groups of R² are unsubstituted or substituted by R^b;

5 cyclic groups of R² are unsubstituted or substituted by R^c;

acyclic aliphatic groups of R² are unsubstituted or substituted by R^d.

particularly preferred R² is C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₃-C₆-cycloalkenyl, C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl, C₃-C₆-halocycloalkyl-C₁-C₆-alkylidenyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-hydroxyalkyl, C₂-C₆-dihydroxyalkyl, or 5- or 6-membered heteroaryl;

10 also particularly preferred R² is C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₃-C₆-cycloalkenyl-C₁-C₆-alkyl, C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl, C₁-C₆-hydroxyalkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-alkyl, C₂-C₆-dihydroxyalkyl, C₁-C₆-dicyanoalkyl, or 5- or 6-membered heteroaryl;

wherein hydroxy groups of R² are unsubstituted or substituted by R^b;

15 cyclic groups of R² are unsubstituted or substituted by R^c;

acyclic aliphatic groups of R² are unsubstituted or substituted by R^d.

especially preferred R² is C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-alkyl, and 5- or 6-membered heteroaryl;

20 also especially preferred R² is C₂-C₆-alkenyl, C₁-C₆-hydroxyalkyl, C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl, C₂-C₆-dihydroxyalkyl, C₁-C₆-dicyanoalkyl and 5- or 6-membered heteroaryl;

also especially preferred R² is C₂-C₆-alkenyl, C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl, C₁-C₆-hydroxyalkyl, C₂-C₆-dihydroxyalkyl, or 5- or 6-membered heteroaryl;

wherein hydroxy groups of R² are unsubstituted or substituted by R^b;

cyclic groups of R² are unsubstituted or substituted by R^c;

25 acyclic aliphatic groups of R² are unsubstituted or substituted by R^d.

more preferred R² is C₂-C₆-alkenyl, C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl, or 5- or 6-membered heteroaryl;

also more preferred R² is C₁-C₆-hydroxyalkyl, C₂-C₆-dihydroxyalkyl, C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl, or 5- or 6-membered heteroaryl;

30 wherein hydroxy groups of R² are unsubstituted or substituted by R^b;

cyclic groups of R² are unsubstituted or substituted by R^c;

acyclic aliphatic groups of R² are unsubstituted or substituted by R^d.

most preferred R² is C₂-C₆-alkenyl;

also most preferred R² is C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl;

35 also most preferred R² is 5- or 6-membered heteroaryl;

also most preferred R² is C₁-C₆-hydroxyalkyl

also most preferred R² is C₂-C₆-dihydroxyalkyl;

wherein hydroxy groups of R² are unsubstituted or substituted by R^b;

cyclic groups of R² are unsubstituted or substituted by R^c;

40 acyclic aliphatic groups of R² are unsubstituted or substituted by R^d.

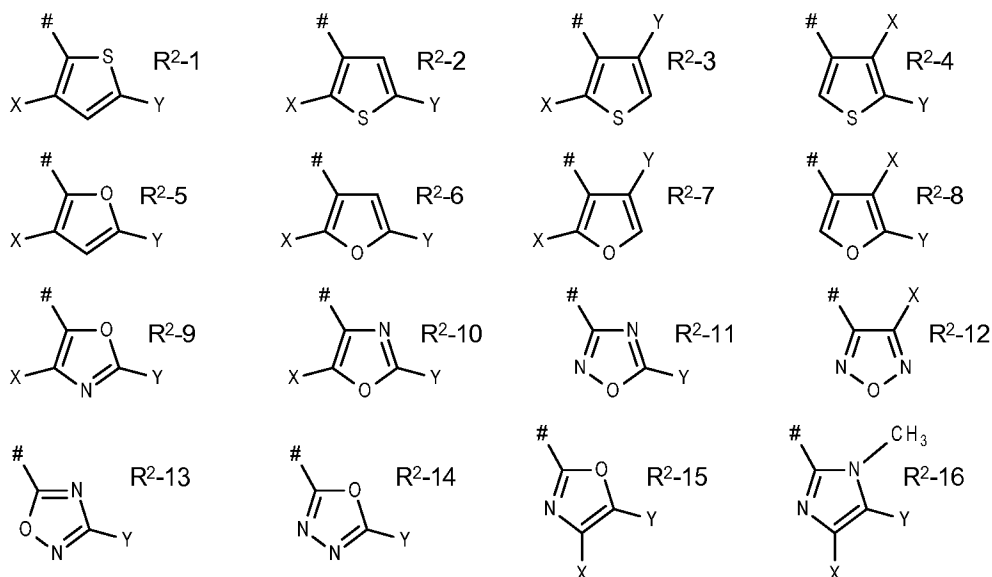
also more preferred R² is CH=CH-CH₃, CH=C(CH₂)₃, or CH=C(CH₂)₄;

also more preferred R² is 2-furyl, 3-furyl, 2-methyl-3-furyl, 4-methyl-2-furyl or 4-methyloxazol-5-yl;

also most preferred R² is CH=CH-CH₃, CH=C(CH₂)₃, 2-furyl, 3-furyl or 4-methyloxazol-5-yl;

also most preferred R^2 is $\text{CHOH-CHOH-C}_6\text{H}_5$, CHOH-CHOH-2-furyl , CHOH-CHOH-CH_3 or 4-methyloxazol-5-yl.

also most preferred R^2 is selected from R^2 -1 to R^2 -16 as shown below,



wherein $\#$ denotes attachment to the pyrimidine ring, X and Y denotes R^c which independently of each other are identical or different;

preferred R^2 is R^2 -1, R^2 -2, R^2 -3, R^2 -4, R^2 -5, R^2 -6, R^2 -7, or R^2 -8;

also preferred R^2 is R^2 -9, R^2 -10, R^2 -11, R^2 -13, R^2 -14, or R^2 -15;

more preferred R^2 is R^2 -9, R^2 -10, or R^2 -15;

most preferred R^2 is R^2 -9;

preferred X is H, halogen, CN, C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl, OH, C_1 - C_6 -alkoxy, C_1 - C_6 -haloalkoxy, or C_1 - C_6 -alkylthio;

particularly preferred X is H, halogen, CN, C_1 - C_6 -alkyl, OH, C_1 - C_6 -alkoxy, or C_1 - C_6 -alkylthio;

also particularly preferred X is H, halogen, CN, C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl, C_1 - C_6 -alkoxy, or C_1 - C_6 -haloalkoxy;

especially preferred X is H, halogen, CN, C_1 - C_4 -alkyl, OH, C_1 - C_4 -alkoxy, or C_1 - C_4 -alkylthio;

more preferred X is H, CH_3 , C_2H_5 , n-propyl, iso-propyl, iso-butyl, n-butyl, OH, OCH_3 , SCH_3 , F, Cl, Br, or I;

most preferred X is H, CH_3 , C_2H_5 , OH, or OCH_3 ;

also most preferred X is H, CH_3 , C_2H_5 , or SCH_3 ;

also most preferred X is H, CH_3 , C_2H_5 , F, Cl, Br, or I.

Preferred Y is H, halogen, CN, C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl, OH, C_1 - C_6 -alkoxy, C_1 - C_6 -haloalkoxy, or C_1 - C_6 -alkylthio;

particularly preferred Y is H, halogen, CN, C_1 - C_6 -alkyl, OH, C_1 - C_6 -alkoxy, or C_1 - C_6 -alkylthio;

also particularly preferred Y is H, halogen, CN, C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl, C_1 - C_6 -alkoxy, or C_1 - C_6 -haloalkoxy;

especially preferred Y is H, halogen, CN, C_1 - C_4 -alkyl, C_1 - C_2 -fluoroalkyl, OH, C_1 - C_4 -alkoxy, or C_1 - C_4 -alkylthio;

more preferred Y is H, CH_3 , C_2H_5 , n-propyl, iso-propyl, iso-butyl, n-butyl, 2-butyl, t-butyl, OH, OCH_3 , SCH_3 , F, Cl, Br, or I;

most preferred Y is H, CH₃, C₂H₅, n-propyl, iso-propyl, iso-butyl, n-butyl, 2-butyl, OH, or OCH₃;
 also most preferred Y is H, CH₃, C₂H₅, n-propyl, iso-propyl, OH, OCH₃, or SCH₃;
 also most preferred Y is H, CH₃, C₂H₅, n-propyl, iso-propyl, F, Cl, Br, or I.

Particularly preferred R² is 4-methyl-5-oxazolyl, 4-ethyl-5-oxazolyl, 2,4-dimethyl-5-oxazolyl, 2-ethyl-4-methyl-5-oxazolyl, 2-methyl-4-ethyl-5-oxazolyl, or 2,4-diethyl-5-oxazolyl.

Examples of particularly preferred R² are provided in Table R²-9, Table R²-10, and Table R²-15.

Table R²-9: examples of particularly preferred R² are R²-9.1 to R²-9.676 wherein R² is R²-9 and combinations of variables X and Y are as defined in each row of table R2, numbering of each compound e.g. R²-9.1 means R² is R²-9 wherein X and Y are as defined in row 1 of table R2;

Table R²-10: examples of particularly preferred R² are R²-10.1 to R²-10.676 wherein R² is R²-10 and combinations of variables X and Y are as defined in each row of table R2, numbering of each compound e.g. R²-10.1 means R² is R²-10 wherein X and Y are as defined in row 1 of table R2;

Table R²-15: examples of particularly preferred R² are R²-15.1 to R²-15.676 wherein R² is R²-15 and combinations of variables X and Y are as defined in each row of table R2, numbering of each compound e.g. R²-15.1 means R² is R²-15 wherein X and Y are as defined in row 1 of table R2.

Table R2:

row	X	Y
1	H	H
2	H	CH ₃
3	H	C ₂ H ₅
4	H	n-propyl
5	H	CH(CH ₃) ₂
6	H	iso-butyl
7	H	n-butyl
8	H	2-butyl
9	H	C(CH ₃) ₃
10	H	OH
11	H	OCH ₃
12	H	SCH ₃
13	H	S(O)CH ₃
14	H	S(O) ₂ CH ₃
15	H	CN
16	H	F
17	H	Cl
18	H	Br
19	H	I

row	X	Y
20	H	CH ₂ CF ₃
21	H	CF ₂ CF ₃
22	H	CF ₂ CH ₃
23	H	CF ₃
24	H	CF ₂ H
25	H	OCF ₂ H
26	H	OCF ₃
27	CH ₃	H
28	CH ₃	CH ₃
29	CH ₃	C ₂ H ₅
30	CH ₃	n-propyl
31	CH ₃	CH(CH ₃) ₂
32	CH ₃	iso-butyl
33	CH ₃	n-butyl
34	CH ₃	2-butyl
35	CH ₃	C(CH ₃) ₃
36	CH ₃	OH
37	CH ₃	OCH ₃
38	CH ₃	SCH ₃

row	X	Y
39	CH ₃	S(O)CH ₃
40	CH ₃	S(O) ₂ CH ₃
41	CH ₃	CN
42	CH ₃	F
43	CH ₃	Cl
44	CH ₃	Br
45	CH ₃	I
46	CH ₃	CH ₂ CF ₃
47	CH ₃	CF ₂ CF ₃
48	CH ₃	CF ₂ CH ₃
49	CH ₃	CF ₃
50	CH ₃	CF ₂ H
51	CH ₃	OCF ₂ H
52	CH ₃	OCF ₃
53	C ₂ H ₅	H
54	C ₂ H ₅	CH ₃
55	C ₂ H ₅	C ₂ H ₅
56	C ₂ H ₅	n-propyl
57	C ₂ H ₅	CH(CH ₃) ₂

row	X	Y
58	C ₂ H ₅	iso-butyl
59	C ₂ H ₅	n-butyl
60	C ₂ H ₅	2-butyl
61	C ₂ H ₅	C(CH ₃) ₃
62	C ₂ H ₅	OH
63	C ₂ H ₅	OCH ₃
64	C ₂ H ₅	SCH ₃
65	C ₂ H ₅	S(O)CH ₃
66	C ₂ H ₅	S(O) ₂ CH ₃
67	C ₂ H ₅	CN
68	C ₂ H ₅	F
69	C ₂ H ₅	Cl
70	C ₂ H ₅	Br
71	C ₂ H ₅	I
72	C ₂ H ₅	CH ₂ CF ₃
73	C ₂ H ₅	CF ₂ CF ₃
74	C ₂ H ₅	CF ₂ CH ₃
75	C ₂ H ₅	CF ₃
76	C ₂ H ₅	CF ₂ H
77	C ₂ H ₅	OCF ₂ H
78	C ₂ H ₅	OCF ₃
79	n-propyl	H
80	n-propyl	CH ₃
81	n-propyl	C ₂ H ₅
82	n-propyl	n-propyl
83	n-propyl	CH(CH ₃) ₂
84	n-propyl	iso-butyl
85	n-propyl	n-butyl
86	n-propyl	2-butyl
87	n-propyl	C(CH ₃) ₃
88	n-propyl	OH
89	n-propyl	OCH ₃
90	n-propyl	SCH ₃
91	n-propyl	S(O)CH ₃
92	n-propyl	S(O) ₂ CH ₃
93	n-propyl	CN

row	X	Y
94	n-propyl	F
95	n-propyl	Cl
96	n-propyl	Br
97	n-propyl	I
98	n-propyl	CH ₂ CF ₃
99	n-propyl	CF ₂ CF ₃
100	n-propyl	CF ₂ CH ₃
101	n-propyl	CF ₃
102	n-propyl	CF ₂ H
103	n-propyl	OCF ₂ H
104	n-propyl	OCF ₃
105	CH(CH ₃) ₂	H
106	CH(CH ₃) ₂	CH ₃
107	CH(CH ₃) ₂	C ₂ H ₅
108	CH(CH ₃) ₂	n-propyl
109	CH(CH ₃) ₂	CH(CH ₃) ₂
110	CH(CH ₃) ₂	iso-butyl
111	CH(CH ₃) ₂	n-butyl
112	CH(CH ₃) ₂	2-butyl
113	CH(CH ₃) ₂	C(CH ₃) ₃
114	CH(CH ₃) ₂	OH
115	CH(CH ₃) ₂	OCH ₃
116	CH(CH ₃) ₂	SCH ₃
117	CH(CH ₃) ₂	S(O)CH ₃
118	CH(CH ₃) ₂	S(O) ₂ CH ₃
119	CH(CH ₃) ₂	CN
120	CH(CH ₃) ₂	F
121	CH(CH ₃) ₂	Cl
122	CH(CH ₃) ₂	Br
123	CH(CH ₃) ₂	I
124	CH(CH ₃) ₂	CH ₂ CF ₃
125	CH(CH ₃) ₂	CF ₂ CF ₃
126	CH(CH ₃) ₂	CF ₂ CH ₃
127	CH(CH ₃) ₂	CF ₃
128	CH(CH ₃) ₂	CF ₂ H
129	CH(CH ₃) ₂	OCF ₂ H

row	X	Y
130	CH(CH ₃) ₂	OCF ₃
131	iso-butyl	H
132	iso-butyl	CH ₃
133	iso-butyl	C ₂ H ₅
134	iso-butyl	n-propyl
135	iso-butyl	CH(CH ₃) ₂
136	iso-butyl	iso-butyl
137	iso-butyl	n-butyl
138	iso-butyl	2-butyl
139	iso-butyl	C(CH ₃) ₃
140	iso-butyl	OH
141	iso-butyl	OCH ₃
142	iso-butyl	SCH ₃
143	iso-butyl	S(O)CH ₃
144	iso-butyl	S(O) ₂ CH ₃
145	iso-butyl	CN
146	iso-butyl	F
147	iso-butyl	Cl
148	iso-butyl	Br
149	iso-butyl	I
150	iso-butyl	CH ₂ CF ₃
151	iso-butyl	CF ₂ CF ₃
152	iso-butyl	CF ₂ CH ₃
153	iso-butyl	CF ₃
154	iso-butyl	CF ₂ H
155	iso-butyl	OCF ₂ H
156	iso-butyl	OCF ₃
157	n-butyl	H
158	n-butyl	CH ₃
159	n-butyl	C ₂ H ₅
160	n-butyl	n-propyl
161	n-butyl	CH(CH ₃) ₂
162	n-butyl	iso-butyl
163	n-butyl	n-butyl
164	n-butyl	2-butyl
165	n-butyl	C(CH ₃) ₃

row	X	Y
166	n-butyl	OH
167	n-butyl	OCH ₃
168	n-butyl	SCH ₃
169	n-butyl	S(O)CH ₃
170	n-butyl	S(O) ₂ CH ₃
171	n-butyl	CN
172	n-butyl	F
173	n-butyl	Cl
174	n-butyl	Br
175	n-butyl	I
176	n-butyl	CH ₂ CF ₃
177	n-butyl	CF ₂ CF ₃
178	n-butyl	CF ₂ CH ₃
179	n-butyl	CF ₃
180	n-butyl	CF ₂ H
181	n-butyl	OCF ₂ H
182	n-butyl	OCF ₃
183	2-butyl	H
184	2-butyl	CH ₃
185	2-butyl	C ₂ H ₅
186	2-butyl	n-propyl
187	2-butyl	CH(CH ₃) ₂
188	2-butyl	iso-butyl
189	2-butyl	n-butyl
190	2-butyl	2-butyl
191	2-butyl	C(CH ₃) ₃
192	2-butyl	OH
193	2-butyl	OCH ₃
194	2-butyl	SCH ₃
195	2-butyl	S(O)CH ₃
196	2-butyl	S(O) ₂ CH ₃
197	2-butyl	CN
198	2-butyl	F
199	2-butyl	Cl
200	2-butyl	Br
201	2-butyl	I

row	X	Y
202	2-butyl	CH ₂ CF ₃
203	2-butyl	CF ₂ CF ₃
204	2-butyl	CF ₂ CH ₃
205	2-butyl	CF ₃
206	2-butyl	CF ₂ H
207	2-butyl	OCF ₂ H
208	2-butyl	OCF ₃
209	C(CH ₃) ₃	H
210	C(CH ₃) ₃	CH ₃
211	C(CH ₃) ₃	C ₂ H ₅
212	C(CH ₃) ₃	n-propyl
213	C(CH ₃) ₃	CH(CH ₃) ₂
214	C(CH ₃) ₃	iso-butyl
215	C(CH ₃) ₃	n-butyl
216	C(CH ₃) ₃	2-butyl
217	C(CH ₃) ₃	C(CH ₃) ₃
218	C(CH ₃) ₃	OH
219	C(CH ₃) ₃	OCH ₃
220	C(CH ₃) ₃	SCH ₃
221	C(CH ₃) ₃	S(O)CH ₃
222	C(CH ₃) ₃	S(O) ₂ CH ₃
223	C(CH ₃) ₃	CN
224	C(CH ₃) ₃	F
225	C(CH ₃) ₃	Cl
226	C(CH ₃) ₃	Br
227	C(CH ₃) ₃	I
228	C(CH ₃) ₃	CH ₂ CF ₃
229	C(CH ₃) ₃	CF ₂ CF ₃
230	C(CH ₃) ₃	CF ₂ CH ₃
231	C(CH ₃) ₃	CF ₃
232	C(CH ₃) ₃	CF ₂ H
233	C(CH ₃) ₃	OCF ₂ H
234	C(CH ₃) ₃	OCF ₃
235	OH	H
236	OH	CH ₃
237	OH	C ₂ H ₅

row	X	Y
238	OH	n-propyl
239	OH	CH(CH ₃) ₂
240	OH	iso-butyl
241	OH	n-butyl
242	OH	2-butyl
243	OH	C(CH ₃) ₃
244	OH	OH
245	OH	OCH ₃
246	OH	SCH ₃
247	OH	S(O)CH ₃
248	OH	S(O) ₂ CH ₃
249	OH	CN
250	OH	F
251	OH	Cl
252	OH	Br
253	OH	I
254	OH	CH ₂ CF ₃
255	OH	CF ₂ CF ₃
256	OH	CF ₂ CH ₃
257	OH	CF ₃
258	OH	CF ₂ H
259	OH	OCF ₂ H
260	OH	OCF ₃
261	OCH ₃	H
262	OCH ₃	CH ₃
263	OCH ₃	C ₂ H ₅
264	OCH ₃	n-propyl
265	OCH ₃	CH(CH ₃) ₂
266	OCH ₃	iso-butyl
267	OCH ₃	n-butyl
268	OCH ₃	2-butyl
269	OCH ₃	C(CH ₃) ₃
270	OCH ₃	OH
271	OCH ₃	OCH ₃
272	OCH ₃	SCH ₃
273	OCH ₃	S(O)CH ₃

row	X	Y
274	OCH ₃	S(O) ₂ CH ₃
275	OCH ₃	CN
276	OCH ₃	F
277	OCH ₃	Cl
278	OCH ₃	Br
279	OCH ₃	I
280	OCH ₃	CH ₂ CF ₃
281	OCH ₃	CF ₂ CF ₃
282	OCH ₃	CF ₂ CH ₃
283	OCH ₃	CF ₃
284	OCH ₃	CF ₂ H
285	OCH ₃	OCF ₂ H
286	OCH ₃	OCF ₃
287	SCH ₃	H
288	SCH ₃	CH ₃
289	SCH ₃	C ₂ H ₅
290	SCH ₃	n-propyl
291	SCH ₃	CH(CH ₃) ₂
292	SCH ₃	iso-butyl
293	SCH ₃	n-butyl
294	SCH ₃	2-butyl
295	SCH ₃	C(CH ₃) ₃
296	SCH ₃	OH
297	SCH ₃	OCH ₃
298	SCH ₃	SCH ₃
299	SCH ₃	S(O)CH ₃
300	SCH ₃	S(O) ₂ CH ₃
301	SCH ₃	CN
302	SCH ₃	F
303	SCH ₃	Cl
304	SCH ₃	Br
305	SCH ₃	I
306	SCH ₃	CH ₂ CF ₃
307	SCH ₃	CF ₂ CF ₃
308	SCH ₃	CF ₂ CH ₃
309	SCH ₃	CF ₃

row	X	Y
310	SCH ₃	CF ₂ H
311	SCH ₃	OCF ₂ H
312	SCH ₃	OCF ₃
313	S(O)CH ₃	H
314	S(O)CH ₃	CH ₃
315	S(O)CH ₃	C ₂ H ₅
316	S(O)CH ₃	n-propyl
317	S(O)CH ₃	CH(CH ₃) ₂
318	S(O)CH ₃	iso-butyl
319	S(O)CH ₃	n-butyl
320	S(O)CH ₃	2-butyl
321	S(O)CH ₃	C(CH ₃) ₃
322	S(O)CH ₃	OH
323	S(O)CH ₃	OCH ₃
324	S(O)CH ₃	SCH ₃
325	S(O)CH ₃	S(O)CH ₃
326	S(O)CH ₃	S(O) ₂ CH ₃
327	S(O)CH ₃	CN
328	S(O)CH ₃	F
329	S(O)CH ₃	Cl
330	S(O)CH ₃	Br
331	S(O)CH ₃	I
332	S(O)CH ₃	CH ₂ CF ₃
333	S(O)CH ₃	CF ₂ CF ₃
334	S(O)CH ₃	CF ₂ CH ₃
335	S(O)CH ₃	CF ₃
336	S(O)CH ₃	CF ₂ H
337	S(O)CH ₃	OCF ₂ H
338	S(O)CH ₃	OCF ₃
339	S(O) ₂ CH ₃	H
340	S(O) ₂ CH ₃	CH ₃
341	S(O) ₂ CH ₃	C ₂ H ₅
342	S(O) ₂ CH ₃	n-propyl
343	S(O) ₂ CH ₃	CH(CH ₃) ₂
344	S(O) ₂ CH ₃	iso-butyl
345	S(O) ₂ CH ₃	n-butyl

row	X	Y
346	S(O) ₂ CH ₃	2-butyl
347	S(O) ₂ CH ₃	C(CH ₃) ₃
348	S(O) ₂ CH ₃	OH
349	S(O) ₂ CH ₃	OCH ₃
350	S(O) ₂ CH ₃	SCH ₃
351	S(O) ₂ CH ₃	S(O)CH ₃
352	S(O) ₂ CH ₃	S(O) ₂ CH ₃
353	S(O) ₂ CH ₃	CN
354	S(O) ₂ CH ₃	F
355	S(O) ₂ CH ₃	Cl
356	S(O) ₂ CH ₃	Br
357	S(O) ₂ CH ₃	I
358	S(O) ₂ CH ₃	CH ₂ CF ₃
359	S(O) ₂ CH ₃	CF ₂ CF ₃
360	S(O) ₂ CH ₃	CF ₂ CH ₃
361	S(O) ₂ CH ₃	CF ₃
362	S(O) ₂ CH ₃	CF ₂ H
363	S(O) ₂ CH ₃	OCF ₂ H
364	S(O) ₂ CH ₃	OCF ₃
365	CN	H
366	CN	CH ₃
367	CN	C ₂ H ₅
368	CN	n-propyl
369	CN	CH(CH ₃) ₂
370	CN	iso-butyl
371	CN	n-butyl
372	CN	2-butyl
373	CN	C(CH ₃) ₃
374	CN	OH
375	CN	OCH ₃
376	CN	SCH ₃
377	CN	S(O)CH ₃
378	CN	S(O) ₂ CH ₃
379	CN	CN
380	CN	F
381	CN	Cl

row	X	Y
382	CN	Br
383	CN	I
384	CN	CH ₂ CF ₃
385	CN	CF ₂ CF ₃
386	CN	CF ₂ CH ₃
387	CN	CF ₃
388	CN	CF ₂ H
389	CN	OCF ₂ H
390	CN	OCF ₃
391	F	H
392	F	CH ₃
393	F	C ₂ H ₅
394	F	n-propyl
395	F	CH(CH ₃) ₂
396	F	iso-butyl
397	F	n-butyl
398	F	2-butyl
399	F	C(CH ₃) ₃
400	F	OH
401	F	OCH ₃
402	F	SCH ₃
403	F	S(O)CH ₃
404	F	S(O) ₂ CH ₃
405	F	CN
406	F	F
407	F	Cl
408	F	Br
409	F	I
410	F	CH ₂ CF ₃
411	F	CF ₂ CF ₃
412	F	CF ₂ CH ₃
413	F	CF ₃
414	F	CF ₂ H
415	F	OCF ₂ H
416	F	OCF ₃
417	Cl	H

row	X	Y
418	Cl	CH ₃
419	Cl	C ₂ H ₅
420	Cl	n-propyl
421	Cl	CH(CH ₃) ₂
422	Cl	iso-butyl
423	Cl	n-butyl
424	Cl	2-butyl
425	Cl	C(CH ₃) ₃
426	Cl	OH
427	Cl	OCH ₃
428	Cl	SCH ₃
429	Cl	S(O)CH ₃
430	Cl	S(O) ₂ CH ₃
431	Cl	CN
432	Cl	F
433	Cl	Cl
434	Cl	Br
435	Cl	I
436	Cl	CH ₂ CF ₃
437	Cl	CF ₂ CF ₃
438	Cl	CF ₂ CH ₃
439	Cl	CF ₃
440	Cl	CF ₂ H
441	Cl	OCF ₂ H
442	Cl	OCF ₃
443	Br	H
444	Br	CH ₃
445	Br	C ₂ H ₅
446	Br	n-propyl
447	Br	CH(CH ₃) ₂
448	Br	iso-butyl
449	Br	n-butyl
450	Br	2-butyl
451	Br	C(CH ₃) ₃
452	Br	OH
453	Br	OCH ₃

row	X	Y
454	Br	SCH ₃
455	Br	S(O)CH ₃
456	Br	S(O) ₂ CH ₃
457	Br	CN
458	Br	F
459	Br	Cl
460	Br	Br
461	Br	I
462	Br	CH ₂ CF ₃
463	Br	CF ₂ CF ₃
464	Br	CF ₂ CH ₃
465	Br	CF ₃
466	Br	CF ₂ H
467	Br	OCF ₂ H
468	Br	OCF ₃
469	I	H
470	I	CH ₃
471	I	C ₂ H ₅
472	I	n-propyl
473	I	CH(CH ₃) ₂
474	I	iso-butyl
475	I	n-butyl
476	I	2-butyl
477	I	C(CH ₃) ₃
478	I	OH
479	I	OCH ₃
480	I	SCH ₃
481	I	S(O)CH ₃
482	I	S(O) ₂ CH ₃
483	I	CN
484	I	F
485	I	Cl
486	I	Br
487	I	I
488	I	CH ₂ CF ₃
489	I	CF ₂ CF ₃

row	X	Y
490	I	CF ₂ CH ₃
491	I	CF ₃
492	I	CF ₂ H
493	I	OCF ₂ H
494	I	OCF ₃
495	CH ₂ CF ₃	H
496	CH ₂ CF ₃	CH ₃
497	CH ₂ CF ₃	C ₂ H ₅
498	CH ₂ CF ₃	n-propyl
499	CH ₂ CF ₃	CH(CH ₃) ₂
500	CH ₂ CF ₃	iso-butyl
501	CH ₂ CF ₃	n-butyl
502	CH ₂ CF ₃	2-butyl
503	CH ₂ CF ₃	C(CH ₃) ₃
504	CH ₂ CF ₃	OH
505	CH ₂ CF ₃	OCH ₃
506	CH ₂ CF ₃	SCH ₃
507	CH ₂ CF ₃	S(O)CH ₃
508	CH ₂ CF ₃	S(O) ₂ CH ₃
509	CH ₂ CF ₃	CN
510	CH ₂ CF ₃	F
511	CH ₂ CF ₃	Cl
512	CH ₂ CF ₃	Br
513	CH ₂ CF ₃	I
514	CH ₂ CF ₃	CH ₂ CF ₃
515	CH ₂ CF ₃	CF ₂ CF ₃
516	CH ₂ CF ₃	CF ₂ CH ₃
517	CH ₂ CF ₃	CF ₃
518	CH ₂ CF ₃	CF ₂ H
519	CH ₂ CF ₃	OCF ₂ H
520	CH ₂ CF ₃	OCF ₃
521	CF ₂ CF ₃	H
522	CF ₂ CF ₃	CH ₃
523	CF ₂ CF ₃	C ₂ H ₅
524	CF ₂ CF ₃	n-propyl
525	CF ₂ CF ₃	CH(CH ₃) ₂

row	X	Y
526	CF ₂ CF ₃	iso-butyl
527	CF ₂ CF ₃	n-butyl
528	CF ₂ CF ₃	2-butyl
529	CF ₂ CF ₃	C(CH ₃) ₃
530	CF ₂ CF ₃	OH
531	CF ₂ CF ₃	OCH ₃
532	CF ₂ CF ₃	SCH ₃
533	CF ₂ CF ₃	S(O)CH ₃
534	CF ₂ CF ₃	S(O) ₂ CH ₃
535	CF ₂ CF ₃	CN
536	CF ₂ CF ₃	F
537	CF ₂ CF ₃	Cl
538	CF ₂ CF ₃	Br
539	CF ₂ CF ₃	I
540	CF ₂ CF ₃	CH ₂ CF ₃
541	CF ₂ CF ₃	CF ₂ CF ₃
542	CF ₂ CF ₃	CF ₂ CH ₃
543	CF ₂ CF ₃	CF ₃
544	CF ₂ CF ₃	CF ₂ H
545	CF ₂ CF ₃	OCF ₂ H
546	CF ₂ CF ₃	OCF ₃
547	CF ₂ CH ₃	H
548	CF ₂ CH ₃	CH ₃
549	CF ₂ CH ₃	C ₂ H ₅
550	CF ₂ CH ₃	n-propyl
551	CF ₂ CH ₃	CH(CH ₃) ₂
552	CF ₂ CH ₃	iso-butyl
553	CF ₂ CH ₃	n-butyl
554	CF ₂ CH ₃	2-butyl
555	CF ₂ CH ₃	C(CH ₃) ₃
556	CF ₂ CH ₃	OH
557	CF ₂ CH ₃	OCH ₃
558	CF ₂ CH ₃	SCH ₃
559	CF ₂ CH ₃	S(O)CH ₃
560	CF ₂ CH ₃	S(O) ₂ CH ₃
561	CF ₂ CH ₃	CN

row	X	Y
562	CF ₂ CH ₃	F
563	CF ₂ CH ₃	Cl
564	CF ₂ CH ₃	Br
565	CF ₂ CH ₃	I
566	CF ₂ CH ₃	CH ₂ CF ₃
567	CF ₂ CH ₃	CF ₂ CF ₃
568	CF ₂ CH ₃	CF ₂ CH ₃
569	CF ₂ CH ₃	CF ₃
570	CF ₂ CH ₃	CF ₂ H
571	CF ₂ CH ₃	OCF ₂ H
572	CF ₂ CH ₃	OCF ₃
573	CF ₃	H
574	CF ₃	CH ₃
575	CF ₃	C ₂ H ₅
576	CF ₃	n-propyl
577	CF ₃	CH(CH ₃) ₂
578	CF ₃	iso-butyl
579	CF ₃	n-butyl
580	CF ₃	2-butyl
581	CF ₃	C(CH ₃) ₃
582	CF ₃	OH
583	CF ₃	OCH ₃
584	CF ₃	SCH ₃
585	CF ₃	S(O)CH ₃
586	CF ₃	S(O) ₂ CH ₃
587	CF ₃	CN
588	CF ₃	F
589	CF ₃	Cl
590	CF ₃	Br
591	CF ₃	I
592	CF ₃	CH ₂ CF ₃
593	CF ₃	CF ₂ CF ₃
594	CF ₃	CF ₂ CH ₃
595	CF ₃	CF ₃
596	CF ₃	CF ₂ H
597	CF ₃	OCF ₂ H

row	X	Y
598	CF ₃	OCF ₃
599	CF ₂ H	H
600	CF ₂ H	CH ₃
601	CF ₂ H	C ₂ H ₅
602	CF ₂ H	n-propyl
603	CF ₂ H	CH(CH ₃) ₂
604	CF ₂ H	iso-butyl
605	CF ₂ H	n-butyl
606	CF ₂ H	2-butyl
607	CF ₂ H	C(CH ₃) ₃
608	CF ₂ H	OH
609	CF ₂ H	OCH ₃
610	CF ₂ H	SCH ₃
611	CF ₂ H	S(O)CH ₃
612	CF ₂ H	S(O) ₂ CH ₃
613	CF ₂ H	CN
614	CF ₂ H	F
615	CF ₂ H	Cl
616	CF ₂ H	Br
617	CF ₂ H	I
618	CF ₂ H	CH ₂ CF ₃
619	CF ₂ H	CF ₂ CF ₃
620	CF ₂ H	CF ₂ CH ₃
621	CF ₂ H	CF ₃
622	CF ₂ H	CF ₂ H
623	CF ₂ H	OCF ₂ H
624	CF ₂ H	OCF ₃
625	OCF ₂ H	H
626	OCF ₂ H	CH ₃
627	OCF ₂ H	C ₂ H ₅
628	OCF ₂ H	n-propyl
629	OCF ₂ H	CH(CH ₃) ₂
630	OCF ₂ H	iso-butyl
631	OCF ₂ H	n-butyl
632	OCF ₂ H	2-butyl
633	OCF ₂ H	C(CH ₃) ₃

row	X	Y
634	OCF ₂ H	OH
635	OCF ₂ H	OCH ₃
636	OCF ₂ H	SCH ₃
637	OCF ₂ H	S(O)CH ₃
638	OCF ₂ H	S(O) ₂ CH ₃
639	OCF ₂ H	CN
640	OCF ₂ H	F
641	OCF ₂ H	Cl
642	OCF ₂ H	Br
643	OCF ₂ H	I
644	OCF ₂ H	CH ₂ CF ₃
645	OCF ₂ H	CF ₂ CF ₃
646	OCF ₂ H	CF ₂ CH ₃
647	OCF ₂ H	CF ₃
648	OCF ₂ H	CF ₂ H
649	OCF ₂ H	OCF ₂ H
650	OCF ₂ H	OCF ₃
651	OCF ₃	H
652	OCF ₃	CH ₃
653	OCF ₃	C ₂ H ₅
654	OCF ₃	n-propyl
655	OCF ₃	CH(CH ₃) ₂
656	OCF ₃	iso-butyl
657	OCF ₃	n-butyl
658	OCF ₃	2-butyl
659	OCF ₃	C(CH ₃) ₃
660	OCF ₃	OH
661	OCF ₃	OCH ₃
662	OCF ₃	SCH ₃
663	OCF ₃	S(O)CH ₃
664	OCF ₃	S(O) ₂ CH ₃
665	OCF ₃	CN
666	OCF ₃	F
667	OCF ₃	Cl
668	OCF ₃	Br
669	OCF ₃	I

row	X	Y
670	OCF ₃	CH ₂ CF ₃
671	OCF ₃	CF ₂ CF ₃
672	OCF ₃	CF ₂ CH ₃
673	OCF ₃	CF ₃
674	OCF ₃	CF ₂ H
675	OCF ₃	OCF ₂ H
676	OCF ₃	OCF ₃

Preferred R³ is halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkoxy or C₃-C₆-cycloalkyl;

also preferred R³ is halogen, CN, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy,

particularly preferred halogen, CN, C₁-C₆-alkyl or C₁-C₆-alkoxy;

especially preferred R³ is halogen or CH₃;

also especially preferred R³ is halogen;

more preferred R³ is Cl, Br or I;

most preferred R³ is Br or I.

also most preferred R³ is Br or Cl.

Also preferred is the pyridine compounds of formula (I), and their use as herbicide, wherein

R⁴, R⁵, R⁶ and R⁷ independently of one another are H, halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkylcarbonyl, C₂-C₆-alkenyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₁-C₆-alkoxy-C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, C₁-C₆-alkylthio, C₁-C₆-haloalkylthio, NH₂, (C₁-C₆-alkyl)amino, di(C₁-C₆-alkyl)amino, (C₁-C₆-alkyl)sulfinyl, (C₁-C₆-alkyl)sulfonyl, C₃-C₆-cycloalkyl, (C₃-C₆-cycloalkyl)oxy, or phenyl;

wherein the cyclic groups are unsubstituted or substituted by R^a.

Preferred R⁴ is H, halogen, CN, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy;

particularly preferred R⁴ is H, halogen or C₁-C₆-alkyl,

especially preferred R⁴ is H or halogen;

more preferred R⁴ is H or F;

most preferred R⁴ is H;

also most preferred R⁴ is F.

Preferred R⁵ is H, halogen, CN, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy;

particularly preferred R⁵ is H, halogen, C₁-C₆-alkyl C₁-C₆-haloalkyl or C₁-C₆-alkoxy;

especially preferred R⁵ is H, halogen, C₁-C₆-alkyl or C₁-C₆-haloalkyl;

more preferred R⁵ is H, F, Cl, CH₃ or CF₃;

also more preferred R⁵ is H or halogen;

most preferred R⁵ is H or F;

also most preferred R⁵ is H;

also most preferred R⁵ is F;

also most preferred R⁵ is CF₃.

Preferred R⁶ is H, halogen, C₁-C₆-alkyl or C₁-C₆-haloalkyl;

particularly preferred R⁶ is H, halogen or C₁-C₆-haloalkyl;

especially preferred R⁶ is H, halogen or CF₃;

more preferred R⁶ is H or halogen;

also more preferred R⁶ is CF₃;

most preferred R⁶ is H or F;

also most preferred R⁶ is H;

also most preferred R⁶ is F;

also most preferred R⁶ is CF₃.

Preferred R⁷ is H, halogen, CN, C₁-C₆-alkyl or C₁-C₆-alkoxy;

particularly preferred R⁷ is H, halogen, C₁-C₆-alkyl or C₁-C₆-alkoxy;

especially preferred R⁷ is H, halogen or C₁-C₆-haloalkyl;

more preferred R⁷ is H, F, Cl or CF₃

most preferred R⁷ is H, F or Cl;

also most preferred R⁷ is CF₃;

5 also most preferred R⁷ is H.

Also preferred is the pyridine compounds of formula (I), and their use as herbicide, wherein

R¹ is preferably C₁-C₆-alkyl, C₁-C₆-alkoxy, or C₃-C₆-cycloalkyl, wherein the cycloalkyl substituent is unsubstituted;

10 R² is preferably C₂-C₆-alkenyl, C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl, 5- or 6-membered heteroaryl, C₁-C₆-hydroxyalkyl, or C₂-C₆-dihydroxyalkyl;

particularly preferred R² is C₂-C₆-alkenyl, 5- or 6-membered heteroaryl, or C₁-C₆-hydroxyalkyl;

also particularly preferred R² is C₂-C₆-alkenyl, 5- or 6-membered heteroaryl, or C₁-C₆-hydroxyalkyl;

15 also particularly preferred R² is C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl, C₂-C₆-dihydroxyalkyl or 5- or 6-membered heteroaryl;

more preferred R² is CH=CH-CH₃, CH=C(CH₂)₃, or CH=C(CH₂)₄;

also more preferred R² is 2-furyl, 3-furyl, 2-methyl-3-furyl, or 4-methyl-2-furyl;

most preferred R² is CH=CH-CH₃, CH=C(CH₂)₃, 2-furyl, 3-furyl, CHOH-CHOH-C₆H₅, CHOH-CHOH-2-furyl, or 4-methyloxazol-5-yl.

20 wherein acyclic aliphatic groups of R² are unsubstituted or substituted by R^d.

R³ is preferably halogen, CN, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy;
particularly preferred halogen or CH₃;

R⁴ is preferably H;

R⁵ is preferably H, C₁-C₆-haloalkyl or halogen;

25 R⁶ is preferably H, C₁-C₆-haloalkyl or halogen;

R⁷ is H, halogen, C₁-C₆-alkyl, C₁-C₆-alkoxy.

Also preferred is the pyridine compounds of formula (I), and their use as herbicide, wherein

R¹ is c-C₃H₅ or n-C₃H₇;

30 R² is C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₃-C₆-cycloalkenyl- C₁-C₆-alkyl, C₁-C₆-hydroxyalkyl, C₃-C₆-hydroxyalkenyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkenyl-C₁-C₆-alkyl, 5- or 6-membered heteroaryl, or 3- to 6-membered heterocyclyl;

wherein hydroxy groups of R² are unsubstituted or substituted by R^b;

cyclic groups of R² are unsubstituted or substituted by R^c;

acyclic aliphatic groups of R² are unsubstituted or substituted by R^d;

35 R^b is C₁-C₆-alkyl ,

R^c is C₁-C₆-alkyl;

R^d is phenyl, or 5- or 6-membered heteroaryl;

wherein the substituent R^d is unsubstituted or substituted by R^e;

R³ is Cl or NH₂;

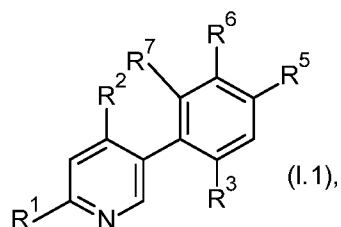
40 R⁴ is H;

R⁵ is H;

R⁶ is H;

R⁷ is H.

Also preferred is the pyridine compounds of formula (I.1) (corresponds to pyridine compounds of formula (I) wherein R⁴ is H), and their use as herbicide,



wherein R¹ is C₃-C₆-cycloalkyl, C₁-C₆-alkyl or C₁-C₆-alkoxy;

R² is CH=CH-CH₃, CH=C(CH₂)₃, 2-furyl, 3-furyl, CHOH-CHOH-C₆H₅, CHOH-CHOH-2-furyl or 4-methyloxazol-5-yl;

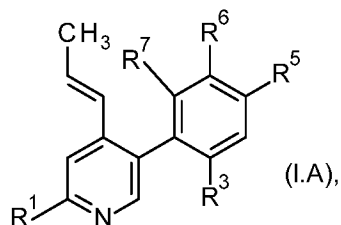
R³ is halogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy;

R⁵ is H, C₁-C₆-haloalkyl or halogen;

R⁶ is H, C₁-C₆-haloalkyl or halogen; and

R⁷ is H, halogen, C₁-C₆-alkyl or C₁-C₆-alkoxy.

Also preferred is the pyridine compounds of formula (I.A) (corresponds to pyridine compounds of formula (I) wherein R² is CH=CH-CH₃, R⁴ is H), and their use as herbicide,



wherein R¹ is C₃-C₆-cycloalkyl, C₁-C₆-alkyl or C₁-C₆-alkoxy;

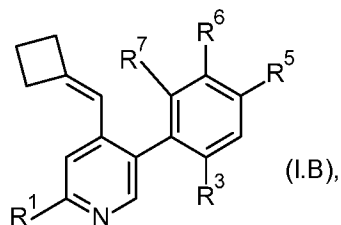
R³ is halogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy;

R⁵ is H, CF₃ or halogen;

R⁶ is H, CF₃ or halogen; and

R⁷ is H, halogen, C₁-C₆-alkyl or C₁-C₆-alkoxy.

Also preferred is the pyridine compounds of formula (I.B) (corresponds to pyridine compounds of formula (I) wherein R² is CH=C(CH₂)₃, R⁴ is H), and their use as herbicide,



wherein R¹ is C₃-C₆-cycloalkyl, C₁-C₆-alkyl or C₁-C₆-alkoxy;

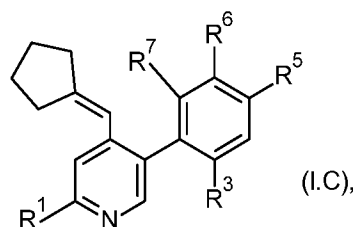
R³ is halogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy;

R⁵ is H, C₁-C₆-haloalkyl or halogen;

R⁶ is H, C₁-C₆-haloalkyl or halogen; and

R⁷ is H, halogen, C₁-C₆-alkyl or C₁-C₆-alkoxy.

Also preferred is the pyridine compounds of formula (I.C) (corresponds to pyridine compounds of formula (I) wherein R² is CH=C(CH₂)₄, R⁴ is H), and their use as herbicide,



wherein R^1 is C₃-C₆-cycloalkyl, C₁-C₆-alkyl or C₁-C₆-alkoxy;

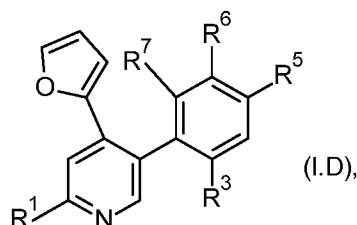
R^3 is halogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy;

R^5 is H, C₁-C₆-haloalkyl or halogen;

5 R^6 is H, C₁-C₆-haloalkyl or halogen; and

R^7 is H, halogen, C₁-C₆-alkyl or C₁-C₆-alkoxy;

Also preferred is the pyridine compounds of formula (I.D) (corresponds to pyridine compounds of formula (I) wherein R^2 is 2-furyl, R^4 is H), and their use as herbicide,



10 wherein R^1 is C₃-C₆-cycloalkyl, C₁-C₆-alkyl or C₁-C₆-alkoxy;

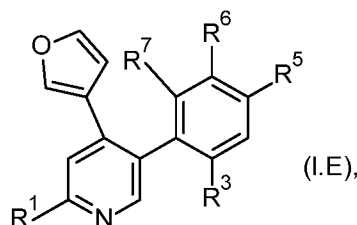
R^3 is halogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy;

R^5 is H, C₁-C₆-haloalkyl or halogen;

R^6 is H, C₁-C₆-haloalkyl or halogen; and

R^7 is H, halogen, C₁-C₆-alkyl or C₁-C₆-alkoxy;

15 Also preferred is the pyridine compounds of formula (I.E) (corresponds to pyridine compounds of formula (I) wherein R^2 is 3-furyl, R^4 is H), and their use as herbicide,



wherein R^1 is C₃-C₆-cycloalkyl, C₁-C₆-alkyl or C₁-C₆-alkoxy;

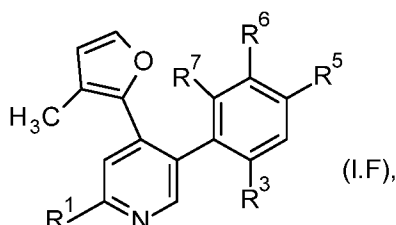
R^3 is halogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy;

20 R^5 is H, C₁-C₆-haloalkyl or halogen;

R^6 is H, C₁-C₆-haloalkyl or halogen; and

R^7 is H, halogen, C₁-C₆-alkyl or C₁-C₆-alkoxy;

Also preferred is the pyridine compounds of formula (I.F) (corresponds to pyridine compounds of formula (I) wherein R^2 is 3-methyl-2-furyl, R^4 is H), and their use as herbicide,



25

wherein R^1 is C₃-C₆-cycloalkyl, C₁-C₆-alkyl or C₁-C₆-alkoxy;

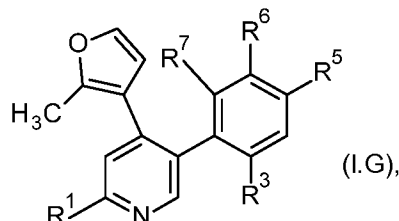
R^3 is halogen, C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl or C_1 - C_6 -alkoxy;

R^5 is H, C_1 - C_6 -haloalkyl or halogen;

R^6 is H, C_1 - C_6 -haloalkyl or halogen; and

R^7 is H, halogen, C_1 - C_6 -alkyl or C_1 - C_6 -alkoxy;

- 5 Also preferred is the pyridine compounds of formula (I.G) (corresponds to pyridine compounds of formula (I) wherein R^2 is 2-methyl-3-furyl, R^4 is H), and their use as herbicide,



wherein R^1 is C_3 - C_6 -cycloalkyl, C_1 - C_6 -alkyl or C_1 - C_6 -alkoxy;

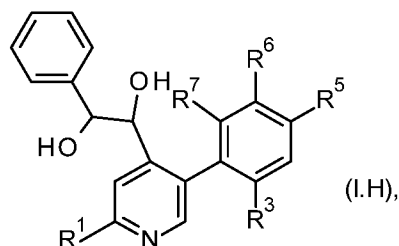
R^3 is halogen, C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl or C_1 - C_6 -alkoxy;

- 10 R^5 is H, C_1 - C_6 -haloalkyl or halogen;

R^6 is H, C_1 - C_6 -haloalkyl or halogen; and

R^7 is H, halogen, C_1 - C_6 -alkyl or C_1 - C_6 -alkoxy;

Also preferred is the pyridine compounds of formula (I.H) (corresponds to pyridine compounds of formula (I) wherein R^2 is $CHOH-CHOH-C_6H_5$, R^4 is H), and their use as herbicide,



15 wherein R^1 is C_3 - C_6 -cycloalkyl, C_1 - C_6 -alkyl or C_1 - C_6 -alkoxy;

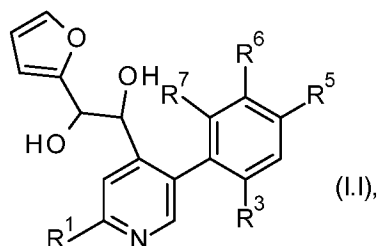
R^3 is halogen, C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl or C_1 - C_6 -alkoxy;

R^5 is H, C_1 - C_6 -haloalkyl or halogen;

R^6 is H, C_1 - C_6 -haloalkyl or halogen; and

- 20 R^7 is H, halogen, C_1 - C_6 -alkyl or C_1 - C_6 -alkoxy;

Also preferred is the pyridine compounds of formula (I.I) (corresponds to pyridine compounds of formula (I) wherein R^2 is $CHOH-CHOH-2$ -furyl, R^4 is H), and their use as herbicide,



25 wherein R^1 is C_3 - C_6 -cycloalkyl, C_1 - C_6 -alkyl or C_1 - C_6 -alkoxy;

R^3 is halogen, C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl or C_1 - C_6 -alkoxy;

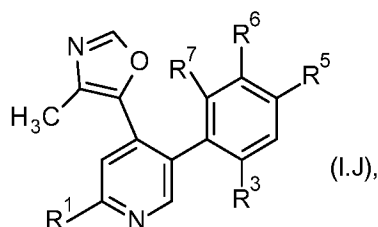
R^5 is H, C_1 - C_6 -haloalkyl or halogen;

R^6 is H, C_1 - C_6 -haloalkyl or halogen; and

R^7 is H, halogen, C_1 - C_6 -alkyl or C_1 - C_6 -alkoxy;

Also preferred is the pyridine compounds of formula (I.J) (corresponds to pyridine compounds of formula (I) wherein R^2 is 4-methyloxazol-5-yl, R^4 is H), and their use as herbicide,

30



wherein R¹ is C₃-C₆-cycloalkyl, C₁-C₆-alkyl or C₁-C₆-alkoxy;

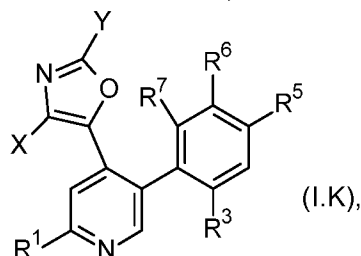
R³ is halogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy;

R⁵ is H, C₁-C₆-haloalkyl or halogen;

R⁶ is H, C₁-C₆-haloalkyl or halogen; and

R⁷ is H, halogen, C₁-C₆-alkyl or C₁-C₆-alkoxy;

Also preferred are the pyrimidine compounds of formula (I.K) (corresponds to pyrimidine compounds of formula (I) wherein R² is R²⁻⁹), and their use as herbicide,



wherein the dotted line (-----) is a single bond or a double bond;

X and Y independently are selected from H, CH₃, C₂H₅, n-propyl, iso-propyl, iso-butyl, n-butyl, 2-butyl, t-butyl, OH, OCH₃, SCH₃, S(O)CH₃, S(O)₂CH₃, CN, F, Cl, Br, I, CH₂CF₃, CF₂CF₃, CF₂CH₃, CF₃, CF₂H, OCF₂H, and OCF₃;

R¹ is C₃-C₆-cycloalkyl, C₁-C₆-alkyl or C₁-C₆-alkoxy;

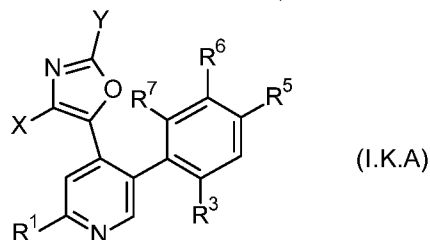
R³ is halogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl or C₁-C₆-alkoxy;

R⁵ is H, C₁-C₆-haloalkyl or halogen;

R⁶ is H, C₁-C₆-haloalkyl or halogen; and

R⁷ is H, halogen, C₁-C₆-alkyl or C₁-C₆-alkoxy.

Also preferred are the pyrimidine compounds of formula (I.K.A) (corresponds to pyrimidine compounds of formula (I) wherein R² is R²-9 and R⁴ is H), and their use as herbicide



wherein

X and Y independently are selected from H, CH₃, C₂H₅, n-propyl, iso-propyl, iso-butyl, n-butyl, 2-butyl, t-butyl, OH, OCH₃, SCH₃, S(O)CH₃, S(O)₂CH₃, CN, F, Cl, Br, I, CH₂CF₃, CF₂CF₃, CF₂CH₃, CF₃, CF₂H, OCF₂H, and OCF₃;

R¹ is c-C₃H₅:

R^3 is Cl, Br, I, CH_3 , CF_3 , or CF_2H ;

R^5 is H or F;

R⁶ is H, F, CF₃, Cl, or Br;

R⁷ is H or F.

Also preferred is the pyridine compounds of formula (I.1) (corresponds to pyridine compounds of formula (I) wherein R^4 is H), and their use as herbicide,

wherein R^1 is C_2H_5 , $c-C_3H_5$, $c-C_4H_7$, or OCH_3 ;

R^2 is $CH=CH-CH_3$, $CH=C(CH_2)_3$, 2-furyl, 3-furyl, $CHOH-CHOH-C_6H_5$, $CHOH-CHOH-2$ -furyl or 4-methyloxazol-5-yl, R^2 -9.1 to R^2 -9.676 from Table R^2 -9, R^2 -10.1 to R^2 -10.676 from Table R^2 -10, and R^2 -15.1 to R^2 -15.676 from Table R^2 -15;

R^3 is CF_3 , OCH_3 , CH_3 , or halogen;

R^5 is H or F

R^6 is H or F

R^7 is H, F, Cl, Br, CH_3 or OCH_3 ;

Each of the groups mentioned for a substituent in the tables is furthermore per se, independently of the combination in which it is mentioned, a particularly preferred aspect of the substituent in question.

According to particularly preferred embodiment of the compound of formula I, and their use as herbicide, compounds of the invention are the compounds of the formulae I that are compiled in the Tables 1 to 9.

Table 1. Compounds of formula I.1, wherein R^2 is $CH=CH-CH_3$ (compounds of formula 1.1), and the meaning for the combination of R^1 , R^3 , R^5 , R^6 and R^7 for each individual compound corresponds in each case to one line of Table A.

Table 2. Compounds of formula I.1, wherein R^2 is $CH=C(CH_2)_3$ (=compounds of formula 1.2), and the meaning for the combination of R^1 , R^3 , R^5 , R^6 and R^7 for each individual compound corresponds in each case to one line of Table A.

Table 3. Compounds of formula I.1, wherein R^2 is $CH=C(CH_2)_4$ (=compounds of formula 1.3), and the meaning for the combination of R^1 , R^3 , R^5 , R^6 and R^7 for each individual compound corresponds in each case to one line of Table A.

Table 4. Compounds of formula I.1, wherein R^2 is 2-furyl (=compounds of formula 1.4), and the meaning for the combination of R^1 , R^3 , R^5 , R^6 and R^7 for each individual compound corresponds in each case to one line of Table A.

Table 5. Compounds of formula I.1, wherein R^2 is 3-furyl (=compounds of formula 1.5), and the meaning for the combination of R^1 , R^3 , R^5 , R^6 and R^7 for each individual compound corresponds in each case to one line of Table A.

Table 6. Compounds of formula I.1, wherein R^2 is 3-methyl-2-furyl (=compounds of formula 1.6), and the meaning for the combination of R^1 , R^3 , R^5 , R^6 and R^7 for each individual compound corresponds in each case to one line of Table A.

Table 7. Compounds of formula I.1, wherein R^2 is 2-methyl-3-furyl (=compounds of formula 1.7), and the meaning for the combination of R^1 , R^3 , R^5 , R^6 and R^7 for each individual compound corresponds in each case to one line of Table A.

Table 8. Compounds of formula I.1, wherein R^2 is $CHOH-CHOH-C_6H_5$ (=compounds of formula 1.8), and the meaning for the combination of R^1 , R^3 , R^5 , R^6 and R^7 for each individual compound corresponds in each case to one line of Table A.

Table 9. Compounds of formula I.1, wherein R^2 is $CHOH-CHOH-2$ -furyl (=compounds of formula 1.9), and the meaning for the combination of R^1 , R^3 , R^5 , R^6 and R^7 for each individual compound corresponds in each case to one line of Table A.

Table 10. Compounds of formula I.1, wherein R^2 is 4-methyloxazol-5-yl (=compounds of

formula 1.10), and the meaning for the combination of R¹, R³, R⁵, R⁶ and R⁷ for each individual compound corresponds in each case to one line of Table A.

Table A:

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷	No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-1	c-C ₃ H ₅	F	H	H	H	I-40	c-C ₃ H ₅	Cl	F	H	Br
I-2	c-C ₃ H ₅	F	H	H	F	I-41	c-C ₃ H ₅	Cl	F	H	CH ₃
I-3	c-C ₃ H ₅	F	H	H	Cl	I-42	c-C ₃ H ₅	Cl	F	H	OCH ₃
I-4	c-C ₃ H ₅	F	H	H	Br	I-43	c-C ₃ H ₅	Cl	F	F	H
I-5	c-C ₃ H ₅	F	H	H	CH ₃	I-44	c-C ₃ H ₅	Cl	F	F	F
I-6	c-C ₃ H ₅	F	H	H	OCH ₃	I-45	c-C ₃ H ₅	Cl	F	F	Cl
I-7	c-C ₃ H ₅	F	H	F	H	I-46	c-C ₃ H ₅	Cl	F	F	Br
I-8	c-C ₃ H ₅	F	H	F	F	I-47	c-C ₃ H ₅	Cl	F	F	CH ₃
I-9	c-C ₃ H ₅	F	H	F	Cl	I-48	c-C ₃ H ₅	Cl	F	F	OCH ₃
I-10	c-C ₃ H ₅	F	H	F	Br	I-49	c-C ₃ H ₅	Br	H	H	H
I-11	c-C ₃ H ₅	F	H	F	CH ₃	I-50	c-C ₃ H ₅	Br	H	H	F
I-12	c-C ₃ H ₅	F	H	F	OCH ₃	I-51	c-C ₃ H ₅	Br	H	H	Cl
I-13	c-C ₃ H ₅	F	F	H	H	I-52	c-C ₃ H ₅	Br	H	H	Br
I-14	c-C ₃ H ₅	F	F	H	F	I-53	c-C ₃ H ₅	Br	H	H	CH ₃
I-15	c-C ₃ H ₅	F	F	H	Cl	I-54	c-C ₃ H ₅	Br	H	H	OCH ₃
I-16	c-C ₃ H ₅	F	F	H	Br	I-55	c-C ₃ H ₅	Br	H	F	H
I-17	c-C ₃ H ₅	F	F	H	CH ₃	I-56	c-C ₃ H ₅	Br	H	F	F
I-18	c-C ₃ H ₅	F	F	H	OCH ₃	I-57	c-C ₃ H ₅	Br	H	F	Cl
I-19	c-C ₃ H ₅	F	F	F	H	I-58	c-C ₃ H ₅	Br	H	F	Br
I-20	c-C ₃ H ₅	F	F	F	F	I-59	c-C ₃ H ₅	Br	H	F	CH ₃
I-21	c-C ₃ H ₅	F	F	F	Cl	I-60	c-C ₃ H ₅	Br	H	F	OCH ₃
I-22	c-C ₃ H ₅	F	F	F	Br	I-61	c-C ₃ H ₅	Br	F	H	H
I-23	c-C ₃ H ₅	F	F	F	CH ₃	I-62	c-C ₃ H ₅	Br	F	H	F
I-24	c-C ₃ H ₅	F	F	F	OCH ₃	I-63	c-C ₃ H ₅	Br	F	H	Cl
I-25	c-C ₃ H ₅	Cl	H	H	H	I-64	c-C ₃ H ₅	Br	F	H	Br
I-26	c-C ₃ H ₅	Cl	H	H	F	I-65	c-C ₃ H ₅	Br	F	H	CH ₃
I-27	c-C ₃ H ₅	Cl	H	H	Cl	I-66	c-C ₃ H ₅	Br	F	H	OCH ₃
I-28	c-C ₃ H ₅	Cl	H	H	Br	I-67	c-C ₃ H ₅	Br	F	F	H
I-29	c-C ₃ H ₅	Cl	H	H	CH ₃	I-68	c-C ₃ H ₅	Br	F	F	F
I-30	c-C ₃ H ₅	Cl	H	H	OCH ₃	I-69	c-C ₃ H ₅	Br	F	F	Cl
I-31	c-C ₃ H ₅	Cl	H	F	H	I-70	c-C ₃ H ₅	Br	F	F	Br
I-32	c-C ₃ H ₅	Cl	H	F	F	I-71	c-C ₃ H ₅	Br	F	F	CH ₃
I-33	c-C ₃ H ₅	Cl	H	F	Cl	I-72	c-C ₃ H ₅	Br	F	F	OCH ₃
I-34	c-C ₃ H ₅	Cl	H	F	Br	I-73	c-C ₃ H ₅	I	H	H	H
I-35	c-C ₃ H ₅	Cl	H	F	CH ₃	I-74	c-C ₃ H ₅	I	H	H	F
I-36	c-C ₃ H ₅	Cl	H	F	OCH ₃	I-75	c-C ₃ H ₅	I	H	H	Cl
I-37	c-C ₃ H ₅	Cl	F	H	H	I-76	c-C ₃ H ₅	I	H	H	Br
I-38	c-C ₃ H ₅	Cl	F	H	F	I-77	c-C ₃ H ₅	I	H	H	CH ₃
I-39	c-C ₃ H ₅	Cl	F	H	Cl	I-78	c-C ₃ H ₅	I	H	H	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-79	c-C ₃ H ₅	I	H	F	H
I-80	c-C ₃ H ₅	I	H	F	F
I-81	c-C ₃ H ₅	I	H	F	Cl
I-82	c-C ₃ H ₅	I	H	F	Br
I-83	c-C ₃ H ₅	I	H	F	CH ₃
I-84	c-C ₃ H ₅	I	H	F	OCH ₃
I-85	c-C ₃ H ₅	I	F	H	H
I-86	c-C ₃ H ₅	I	F	H	F
I-87	c-C ₃ H ₅	I	F	H	Cl
I-88	c-C ₃ H ₅	I	F	H	Br
I-89	c-C ₃ H ₅	I	F	H	CH ₃
I-90	c-C ₃ H ₅	I	F	H	OCH ₃
I-91	c-C ₃ H ₅	I	F	F	H
I-92	c-C ₃ H ₅	I	F	F	F
I-93	c-C ₃ H ₅	I	F	F	Cl
I-94	c-C ₃ H ₅	I	F	F	Br
I-95	c-C ₃ H ₅	I	F	F	CH ₃
I-96	c-C ₃ H ₅	I	F	F	OCH ₃
I-97	c-C ₃ H ₅	CH ₃	H	H	H
I-98	c-C ₃ H ₅	CH ₃	H	H	F
I-99	c-C ₃ H ₅	CH ₃	H	H	Cl
I-100	c-C ₃ H ₅	CH ₃	H	H	Br
I-101	c-C ₃ H ₅	CH ₃	H	H	CH ₃
I-102	c-C ₃ H ₅	CH ₃	H	H	OCH ₃
I-103	c-C ₃ H ₅	CH ₃	H	F	H
I-104	c-C ₃ H ₅	CH ₃	H	F	F
I-105	c-C ₃ H ₅	CH ₃	H	F	Cl
I-106	c-C ₃ H ₅	CH ₃	H	F	Br
I-107	c-C ₃ H ₅	CH ₃	H	F	CH ₃
I-108	c-C ₃ H ₅	CH ₃	H	F	OCH ₃
I-109	c-C ₃ H ₅	CH ₃	F	H	H
I-110	c-C ₃ H ₅	CH ₃	F	H	F
I-111	c-C ₃ H ₅	CH ₃	F	H	Cl
I-112	c-C ₃ H ₅	CH ₃	F	H	Br
I-113	c-C ₃ H ₅	CH ₃	F	H	CH ₃
I-114	c-C ₃ H ₅	CH ₃	F	H	OCH ₃
I-115	c-C ₃ H ₅	CH ₃	F	F	H
I-116	c-C ₃ H ₅	CH ₃	F	F	F
I-117	c-C ₃ H ₅	CH ₃	F	F	Cl
I-118	c-C ₃ H ₅	CH ₃	F	F	Br
I-119	c-C ₃ H ₅	CH ₃	F	F	CH ₃
I-120	c-C ₃ H ₅	CH ₃	F	F	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-121	c-C ₃ H ₅	OCH ₃	H	H	H
I-122	c-C ₃ H ₅	OCH ₃	H	H	F
I-123	c-C ₃ H ₅	OCH ₃	H	H	Cl
I-124	c-C ₃ H ₅	OCH ₃	H	H	Br
I-125	c-C ₃ H ₅	OCH ₃	H	H	CH ₃
I-126	c-C ₃ H ₅	OCH ₃	H	H	OCH ₃
I-127	c-C ₃ H ₅	OCH ₃	H	F	H
I-128	c-C ₃ H ₅	OCH ₃	H	F	F
I-129	c-C ₃ H ₅	OCH ₃	H	F	Cl
I-130	c-C ₃ H ₅	OCH ₃	H	F	Br
I-131	c-C ₃ H ₅	OCH ₃	H	F	CH ₃
I-132	c-C ₃ H ₅	OCH ₃	H	F	OCH ₃
I-133	c-C ₃ H ₅	OCH ₃	F	H	H
I-134	c-C ₃ H ₅	OCH ₃	F	H	F
I-135	c-C ₃ H ₅	OCH ₃	F	H	Cl
I-136	c-C ₃ H ₅	OCH ₃	F	H	Br
I-137	c-C ₃ H ₅	OCH ₃	F	H	CH ₃
I-138	c-C ₃ H ₅	OCH ₃	F	H	OCH ₃
I-139	c-C ₃ H ₅	OCH ₃	F	F	H
I-140	c-C ₃ H ₅	OCH ₃	F	F	F
I-141	c-C ₃ H ₅	OCH ₃	F	F	Cl
I-142	c-C ₃ H ₅	OCH ₃	F	F	Br
I-143	c-C ₃ H ₅	OCH ₃	F	F	CH ₃
I-144	c-C ₃ H ₅	OCH ₃	F	F	OCH ₃
I-145	c-C ₃ H ₅	CF ₃	H	H	H
I-146	c-C ₃ H ₅	CF ₃	H	H	F
I-147	c-C ₃ H ₅	CF ₃	H	H	Cl
I-148	c-C ₃ H ₅	CF ₃	H	H	Br
I-149	c-C ₃ H ₅	CF ₃	H	H	CH ₃
I-150	c-C ₃ H ₅	CF ₃	H	H	OCH ₃
I-151	c-C ₃ H ₅	CF ₃	H	F	H
I-152	c-C ₃ H ₅	CF ₃	H	F	F
I-153	c-C ₃ H ₅	CF ₃	H	F	Cl
I-154	c-C ₃ H ₅	CF ₃	H	F	Br
I-155	c-C ₃ H ₅	CF ₃	H	F	CH ₃
I-156	c-C ₃ H ₅	CF ₃	H	F	OCH ₃
I-157	c-C ₃ H ₅	CF ₃	F	H	H
I-158	c-C ₃ H ₅	CF ₃	F	H	F
I-159	c-C ₃ H ₅	CF ₃	F	H	Cl
I-160	c-C ₃ H ₅	CF ₃	F	H	Br
I-161	c-C ₃ H ₅	CF ₃	F	H	CH ₃
I-162	c-C ₃ H ₅	CF ₃	F	H	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-163	c-C ₃ H ₅	CF ₃	F	F	H
I-164	c-C ₃ H ₅	CF ₃	F	F	F
I-165	c-C ₃ H ₅	CF ₃	F	F	Cl
I-166	c-C ₃ H ₅	CF ₃	F	F	Br
I-167	c-C ₃ H ₅	CF ₃	F	F	CH ₃
I-168	c-C ₃ H ₅	CF ₃	F	F	OCH ₃
I-169	c-C ₄ H ₇	F	H	H	H
I-170	c-C ₄ H ₇	F	H	H	F
I-171	c-C ₄ H ₇	F	H	H	Cl
I-172	c-C ₄ H ₇	F	H	H	Br
I-173	c-C ₄ H ₇	F	H	H	CH ₃
I-174	c-C ₄ H ₇	F	H	H	OCH ₃
I-175	c-C ₄ H ₇	F	H	F	H
I-176	c-C ₄ H ₇	F	H	F	F
I-177	c-C ₄ H ₇	F	H	F	Cl
I-178	c-C ₄ H ₇	F	H	F	Br
I-179	c-C ₄ H ₇	F	H	F	CH ₃
I-180	c-C ₄ H ₇	F	H	F	OCH ₃
I-181	c-C ₄ H ₇	F	F	H	H
I-182	c-C ₄ H ₇	F	F	H	F
I-183	c-C ₄ H ₇	F	F	H	Cl
I-184	c-C ₄ H ₇	F	F	H	Br
I-185	c-C ₄ H ₇	F	F	H	CH ₃
I-186	c-C ₄ H ₇	F	F	H	OCH ₃
I-187	c-C ₄ H ₇	F	F	F	H
I-188	c-C ₄ H ₇	F	F	F	F
I-189	c-C ₄ H ₇	F	F	F	Cl
I-190	c-C ₄ H ₇	F	F	F	Br
I-191	c-C ₄ H ₇	F	F	F	CH ₃
I-192	c-C ₄ H ₇	F	F	F	OCH ₃
I-193	c-C ₄ H ₇	Cl	H	H	H
I-194	c-C ₄ H ₇	Cl	H	H	F
I-195	c-C ₄ H ₇	Cl	H	H	Cl
I-196	c-C ₄ H ₇	Cl	H	H	Br
I-197	c-C ₄ H ₇	Cl	H	H	CH ₃
I-198	c-C ₄ H ₇	Cl	H	H	OCH ₃
I-199	c-C ₄ H ₇	Cl	H	F	H
I-200	c-C ₄ H ₇	Cl	H	F	F
I-201	c-C ₄ H ₇	Cl	H	F	Cl
I-202	c-C ₄ H ₇	Cl	H	F	Br
I-203	c-C ₄ H ₇	Cl	H	F	CH ₃
I-204	c-C ₄ H ₇	Cl	H	F	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-205	c-C ₄ H ₇	Cl	F	H	H
I-206	c-C ₄ H ₇	Cl	F	H	F
I-207	c-C ₄ H ₇	Cl	F	H	Cl
I-208	c-C ₄ H ₇	Cl	F	H	Br
I-209	c-C ₄ H ₇	Cl	F	H	CH ₃
I-210	c-C ₄ H ₇	Cl	F	H	OCH ₃
I-211	c-C ₄ H ₇	Cl	F	F	H
I-212	c-C ₄ H ₇	Cl	F	F	F
I-213	c-C ₄ H ₇	Cl	F	F	Cl
I-214	c-C ₄ H ₇	Cl	F	F	Br
I-215	c-C ₄ H ₇	Cl	F	F	CH ₃
I-216	c-C ₄ H ₇	Cl	F	F	OCH ₃
I-217	c-C ₄ H ₇	Br	H	H	H
I-218	c-C ₄ H ₇	Br	H	H	F
I-219	c-C ₄ H ₇	Br	H	H	Cl
I-220	c-C ₄ H ₇	Br	H	H	Br
I-221	c-C ₄ H ₇	Br	H	H	CH ₃
I-222	c-C ₄ H ₇	Br	H	H	OCH ₃
I-223	c-C ₄ H ₇	Br	H	F	H
I-224	c-C ₄ H ₇	Br	H	F	F
I-225	c-C ₄ H ₇	Br	H	F	Cl
I-226	c-C ₄ H ₇	Br	H	F	Br
I-227	c-C ₄ H ₇	Br	H	F	CH ₃
I-228	c-C ₄ H ₇	Br	H	F	OCH ₃
I-229	c-C ₄ H ₇	Br	F	H	H
I-230	c-C ₄ H ₇	Br	F	H	F
I-231	c-C ₄ H ₇	Br	F	H	Cl
I-232	c-C ₄ H ₇	Br	F	H	Br
I-233	c-C ₄ H ₇	Br	F	H	CH ₃
I-234	c-C ₄ H ₇	Br	F	H	OCH ₃
I-235	c-C ₄ H ₇	Br	F	F	H
I-236	c-C ₄ H ₇	Br	F	F	F
I-237	c-C ₄ H ₇	Br	F	F	Cl
I-238	c-C ₄ H ₇	Br	F	F	Br
I-239	c-C ₄ H ₇	Br	F	F	CH ₃
I-240	c-C ₄ H ₇	Br	F	F	OCH ₃
I-241	c-C ₄ H ₇	I	H	H	H
I-242	c-C ₄ H ₇	I	H	H	F
I-243	c-C ₄ H ₇	I	H	H	Cl
I-244	c-C ₄ H ₇	I	H	H	Br
I-245	c-C ₄ H ₇	I	H	H	CH ₃
I-246	c-C ₄ H ₇	I	H	H	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-247	c-C ₄ H ₇	I	H	F	H
I-248	c-C ₄ H ₇	I	H	F	F
I-249	c-C ₄ H ₇	I	H	F	Cl
I-250	c-C ₄ H ₇	I	H	F	Br
I-251	c-C ₄ H ₇	I	H	F	CH ₃
I-252	c-C ₄ H ₇	I	H	F	OCH ₃
I-253	c-C ₄ H ₇	I	F	H	H
I-254	c-C ₄ H ₇	I	F	H	F
I-255	c-C ₄ H ₇	I	F	H	Cl
I-256	c-C ₄ H ₇	I	F	H	Br
I-257	c-C ₄ H ₇	I	F	H	CH ₃
I-258	c-C ₄ H ₇	I	F	H	OCH ₃
I-259	c-C ₄ H ₇	I	F	F	H
I-260	c-C ₄ H ₇	I	F	F	F
I-261	c-C ₄ H ₇	I	F	F	Cl
I-262	c-C ₄ H ₇	I	F	F	Br
I-263	c-C ₄ H ₇	I	F	F	CH ₃
I-264	c-C ₄ H ₇	I	F	F	OCH ₃
I-265	c-C ₄ H ₇	CH ₃	H	H	H
I-266	c-C ₄ H ₇	CH ₃	H	H	F
I-267	c-C ₄ H ₇	CH ₃	H	H	Cl
I-268	c-C ₄ H ₇	CH ₃	H	H	Br
I-269	c-C ₄ H ₇	CH ₃	H	H	CH ₃
I-270	c-C ₄ H ₇	CH ₃	H	H	OCH ₃
I-271	c-C ₄ H ₇	CH ₃	H	F	H
I-272	c-C ₄ H ₇	CH ₃	H	F	F
I-273	c-C ₄ H ₇	CH ₃	H	F	Cl
I-274	c-C ₄ H ₇	CH ₃	H	F	Br
I-275	c-C ₄ H ₇	CH ₃	H	F	CH ₃
I-276	c-C ₄ H ₇	CH ₃	H	F	OCH ₃
I-277	c-C ₄ H ₇	CH ₃	F	H	H
I-278	c-C ₄ H ₇	CH ₃	F	H	F
I-279	c-C ₄ H ₇	CH ₃	F	H	Cl
I-280	c-C ₄ H ₇	CH ₃	F	H	Br
I-281	c-C ₄ H ₇	CH ₃	F	H	CH ₃
I-282	c-C ₄ H ₇	CH ₃	F	H	OCH ₃
I-283	c-C ₄ H ₇	CH ₃	F	F	H
I-284	c-C ₄ H ₇	CH ₃	F	F	F
I-285	c-C ₄ H ₇	CH ₃	F	F	Cl
I-286	c-C ₄ H ₇	CH ₃	F	F	Br
I-287	c-C ₄ H ₇	CH ₃	F	F	CH ₃
I-288	c-C ₄ H ₇	CH ₃	F	F	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-289	c-C ₄ H ₇	OCH ₃	H	H	H
I-290	c-C ₄ H ₇	OCH ₃	H	H	F
I-291	c-C ₄ H ₇	OCH ₃	H	H	Cl
I-292	c-C ₄ H ₇	OCH ₃	H	H	Br
I-293	c-C ₄ H ₇	OCH ₃	H	H	CH ₃
I-294	c-C ₄ H ₇	OCH ₃	H	H	OCH ₃
I-295	c-C ₄ H ₇	OCH ₃	H	F	H
I-296	c-C ₄ H ₇	OCH ₃	H	F	F
I-297	c-C ₄ H ₇	OCH ₃	H	F	Cl
I-298	c-C ₄ H ₇	OCH ₃	H	F	Br
I-299	c-C ₄ H ₇	OCH ₃	H	F	CH ₃
I-300	c-C ₄ H ₇	OCH ₃	H	F	OCH ₃
I-301	c-C ₄ H ₇	OCH ₃	F	H	H
I-302	c-C ₄ H ₇	OCH ₃	F	H	F
I-303	c-C ₄ H ₇	OCH ₃	F	H	Cl
I-304	c-C ₄ H ₇	OCH ₃	F	H	Br
I-305	c-C ₄ H ₇	OCH ₃	F	H	CH ₃
I-306	c-C ₄ H ₇	OCH ₃	F	H	OCH ₃
I-307	c-C ₄ H ₇	OCH ₃	F	F	H
I-308	c-C ₄ H ₇	OCH ₃	F	F	F
I-309	c-C ₄ H ₇	OCH ₃	F	F	Cl
I-310	c-C ₄ H ₇	OCH ₃	F	F	Br
I-311	c-C ₄ H ₇	OCH ₃	F	F	CH ₃
I-312	c-C ₄ H ₇	OCH ₃	F	F	OCH ₃
I-313	c-C ₄ H ₇	CF ₃	H	H	H
I-314	c-C ₄ H ₇	CF ₃	H	H	F
I-315	c-C ₄ H ₇	CF ₃	H	H	Cl
I-316	c-C ₄ H ₇	CF ₃	H	H	Br
I-317	c-C ₄ H ₇	CF ₃	H	H	CH ₃
I-318	c-C ₄ H ₇	CF ₃	H	H	OCH ₃
I-319	c-C ₄ H ₇	CF ₃	H	F	H
I-320	c-C ₄ H ₇	CF ₃	H	F	F
I-321	c-C ₄ H ₇	CF ₃	H	F	Cl
I-322	c-C ₄ H ₇	CF ₃	H	F	Br
I-323	c-C ₄ H ₇	CF ₃	H	F	CH ₃
I-324	c-C ₄ H ₇	CF ₃	H	F	OCH ₃
I-325	c-C ₄ H ₇	CF ₃	F	H	H
I-326	c-C ₄ H ₇	CF ₃	F	H	F
I-327	c-C ₄ H ₇	CF ₃	F	H	Cl
I-328	c-C ₄ H ₇	CF ₃	F	H	Br
I-329	c-C ₄ H ₇	CF ₃	F	H	CH ₃
I-330	c-C ₄ H ₇	CF ₃	F	H	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-331	c-C ₄ H ₇	CF ₃	F	F	H
I-332	c-C ₄ H ₇	CF ₃	F	F	F
I-333	c-C ₄ H ₇	CF ₃	F	F	Cl
I-334	c-C ₄ H ₇	CF ₃	F	F	Br
I-335	c-C ₄ H ₇	CF ₃	F	F	CH ₃
I-336	c-C ₄ H ₇	CF ₃	F	F	OCH ₃
I-337	C ₂ H ₅	F	H	H	H
I-338	C ₂ H ₅	F	H	H	F
I-339	C ₂ H ₅	F	H	H	Cl
I-340	C ₂ H ₅	F	H	H	Br
I-341	C ₂ H ₅	F	H	H	CH ₃
I-342	C ₂ H ₅	F	H	H	OCH ₃
I-343	C ₂ H ₅	F	H	F	H
I-344	C ₂ H ₅	F	H	F	F
I-345	C ₂ H ₅	F	H	F	Cl
I-346	C ₂ H ₅	F	H	F	Br
I-347	C ₂ H ₅	F	H	F	CH ₃
I-348	C ₂ H ₅	F	H	F	OCH ₃
I-349	C ₂ H ₅	F	F	H	H
I-350	C ₂ H ₅	F	F	H	F
I-351	C ₂ H ₅	F	F	H	Cl
I-352	C ₂ H ₅	F	F	H	Br
I-353	C ₂ H ₅	F	F	H	CH ₃
I-354	C ₂ H ₅	F	F	H	OCH ₃
I-355	C ₂ H ₅	F	F	F	H
I-356	C ₂ H ₅	F	F	F	F
I-357	C ₂ H ₅	F	F	F	Cl
I-358	C ₂ H ₅	F	F	F	Br
I-359	C ₂ H ₅	F	F	F	CH ₃
I-360	C ₂ H ₅	F	F	F	OCH ₃
I-361	C ₂ H ₅	Cl	H	H	H
I-362	C ₂ H ₅	Cl	H	H	F
I-363	C ₂ H ₅	Cl	H	H	Cl
I-364	C ₂ H ₅	Cl	H	H	Br
I-365	C ₂ H ₅	Cl	H	H	CH ₃
I-366	C ₂ H ₅	Cl	H	H	OCH ₃
I-367	C ₂ H ₅	Cl	H	F	H
I-368	C ₂ H ₅	Cl	H	F	F
I-369	C ₂ H ₅	Cl	H	F	Cl
I-370	C ₂ H ₅	Cl	H	F	Br
I-371	C ₂ H ₅	Cl	H	F	CH ₃
I-372	C ₂ H ₅	Cl	H	F	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-373	C ₂ H ₅	Cl	F	H	H
I-374	C ₂ H ₅	Cl	F	H	F
I-375	C ₂ H ₅	Cl	F	H	Cl
I-376	C ₂ H ₅	Cl	F	H	Br
I-377	C ₂ H ₅	Cl	F	H	CH ₃
I-378	C ₂ H ₅	Cl	F	H	OCH ₃
I-379	C ₂ H ₅	Cl	F	F	H
I-380	C ₂ H ₅	Cl	F	F	F
I-381	C ₂ H ₅	Cl	F	F	Cl
I-382	C ₂ H ₅	Cl	F	F	Br
I-383	C ₂ H ₅	Cl	F	F	CH ₃
I-384	C ₂ H ₅	Cl	F	F	OCH ₃
I-385	C ₂ H ₅	Br	H	H	H
I-386	C ₂ H ₅	Br	H	H	F
I-387	C ₂ H ₅	Br	H	H	Cl
I-388	C ₂ H ₅	Br	H	H	Br
I-389	C ₂ H ₅	Br	H	H	CH ₃
I-390	C ₂ H ₅	Br	H	H	OCH ₃
I-391	C ₂ H ₅	Br	H	F	H
I-392	C ₂ H ₅	Br	H	F	F
I-393	C ₂ H ₅	Br	H	F	Cl
I-394	C ₂ H ₅	Br	H	F	Br
I-395	C ₂ H ₅	Br	H	F	CH ₃
I-396	C ₂ H ₅	Br	H	F	OCH ₃
I-397	C ₂ H ₅	Br	F	H	H
I-398	C ₂ H ₅	Br	F	H	F
I-399	C ₂ H ₅	Br	F	H	Cl
I-400	C ₂ H ₅	Br	F	H	Br
I-401	C ₂ H ₅	Br	F	H	CH ₃
I-402	C ₂ H ₅	Br	F	H	OCH ₃
I-403	C ₂ H ₅	Br	F	F	H
I-404	C ₂ H ₅	Br	F	F	F
I-405	C ₂ H ₅	Br	F	F	Cl
I-406	C ₂ H ₅	Br	F	F	Br
I-407	C ₂ H ₅	Br	F	F	CH ₃
I-408	C ₂ H ₅	Br	F	F	OCH ₃
I-409	C ₂ H ₅	I	H	H	H
I-410	C ₂ H ₅	I	H	H	F
I-411	C ₂ H ₅	I	H	H	Cl
I-412	C ₂ H ₅	I	H	H	Br
I-413	C ₂ H ₅	I	H	H	CH ₃
I-414	C ₂ H ₅	I	H	H	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-415	C ₂ H ₅	I	H	F	H
I-416	C ₂ H ₅	I	H	F	F
I-417	C ₂ H ₅	I	H	F	Cl
I-418	C ₂ H ₅	I	H	F	Br
I-419	C ₂ H ₅	I	H	F	CH ₃
I-420	C ₂ H ₅	I	H	F	OCH ₃
I-421	C ₂ H ₅	I	F	H	H
I-422	C ₂ H ₅	I	F	H	F
I-423	C ₂ H ₅	I	F	H	Cl
I-424	C ₂ H ₅	I	F	H	Br
I-425	C ₂ H ₅	I	F	H	CH ₃
I-426	C ₂ H ₅	I	F	H	OCH ₃
I-427	C ₂ H ₅	I	F	F	H
I-428	C ₂ H ₅	I	F	F	F
I-429	C ₂ H ₅	I	F	F	Cl
I-430	C ₂ H ₅	I	F	F	Br
I-431	C ₂ H ₅	I	F	F	CH ₃
I-432	C ₂ H ₅	I	F	F	OCH ₃
I-433	C ₂ H ₅	CH ₃	H	H	H
I-434	C ₂ H ₅	CH ₃	H	H	F
I-435	C ₂ H ₅	CH ₃	H	H	Cl
I-436	C ₂ H ₅	CH ₃	H	H	Br
I-437	C ₂ H ₅	CH ₃	H	H	CH ₃
I-438	C ₂ H ₅	CH ₃	H	H	OCH ₃
I-439	C ₂ H ₅	CH ₃	H	F	H
I-440	C ₂ H ₅	CH ₃	H	F	F
I-441	C ₂ H ₅	CH ₃	H	F	Cl
I-442	C ₂ H ₅	CH ₃	H	F	Br
I-443	C ₂ H ₅	CH ₃	H	F	CH ₃
I-444	C ₂ H ₅	CH ₃	H	F	OCH ₃
I-445	C ₂ H ₅	CH ₃	F	H	H
I-446	C ₂ H ₅	CH ₃	F	H	F
I-447	C ₂ H ₅	CH ₃	F	H	Cl
I-448	C ₂ H ₅	CH ₃	F	H	Br
I-449	C ₂ H ₅	CH ₃	F	H	CH ₃
I-450	C ₂ H ₅	CH ₃	F	H	OCH ₃
I-451	C ₂ H ₅	CH ₃	F	F	H
I-452	C ₂ H ₅	CH ₃	F	F	F
I-453	C ₂ H ₅	CH ₃	F	F	Cl
I-454	C ₂ H ₅	CH ₃	F	F	Br
I-455	C ₂ H ₅	CH ₃	F	F	CH ₃
I-456	C ₂ H ₅	CH ₃	F	F	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-457	C ₂ H ₅	OCH ₃	H	H	H
I-458	C ₂ H ₅	OCH ₃	H	H	F
I-459	C ₂ H ₅	OCH ₃	H	H	Cl
I-460	C ₂ H ₅	OCH ₃	H	H	Br
I-461	C ₂ H ₅	OCH ₃	H	H	CH ₃
I-462	C ₂ H ₅	OCH ₃	H	H	OCH ₃
I-463	C ₂ H ₅	OCH ₃	H	F	H
I-464	C ₂ H ₅	OCH ₃	H	F	F
I-465	C ₂ H ₅	OCH ₃	H	F	Cl
I-466	C ₂ H ₅	OCH ₃	H	F	Br
I-467	C ₂ H ₅	OCH ₃	H	F	CH ₃
I-468	C ₂ H ₅	OCH ₃	H	F	OCH ₃
I-469	C ₂ H ₅	OCH ₃	F	H	H
I-470	C ₂ H ₅	OCH ₃	F	H	F
I-471	C ₂ H ₅	OCH ₃	F	H	Cl
I-472	C ₂ H ₅	OCH ₃	F	H	Br
I-473	C ₂ H ₅	OCH ₃	F	H	CH ₃
I-474	C ₂ H ₅	OCH ₃	F	H	OCH ₃
I-475	C ₂ H ₅	OCH ₃	F	F	H
I-476	C ₂ H ₅	OCH ₃	F	F	F
I-477	C ₂ H ₅	OCH ₃	F	F	Cl
I-478	C ₂ H ₅	OCH ₃	F	F	Br
I-479	C ₂ H ₅	OCH ₃	F	F	CH ₃
I-480	C ₂ H ₅	OCH ₃	F	F	OCH ₃
I-481	C ₂ H ₅	CF ₃	H	H	H
I-482	C ₂ H ₅	CF ₃	H	H	F
I-483	C ₂ H ₅	CF ₃	H	H	Cl
I-484	C ₂ H ₅	CF ₃	H	H	Br
I-485	C ₂ H ₅	CF ₃	H	H	CH ₃
I-486	C ₂ H ₅	CF ₃	H	H	OCH ₃
I-487	C ₂ H ₅	CF ₃	H	F	H
I-488	C ₂ H ₅	CF ₃	H	F	F
I-489	C ₂ H ₅	CF ₃	H	F	Cl
I-490	C ₂ H ₅	CF ₃	H	F	Br
I-491	C ₂ H ₅	CF ₃	H	F	CH ₃
I-492	C ₂ H ₅	CF ₃	H	F	OCH ₃
I-493	C ₂ H ₅	CF ₃	F	H	H
I-494	C ₂ H ₅	CF ₃	F	H	F
I-495	C ₂ H ₅	CF ₃	F	H	Cl
I-496	C ₂ H ₅	CF ₃	F	H	Br
I-497	C ₂ H ₅	CF ₃	F	H	CH ₃
I-498	C ₂ H ₅	CF ₃	F	H	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-499	C ₂ H ₅	CF ₃	F	F	H
I-500	C ₂ H ₅	CF ₃	F	F	F
I-501	C ₂ H ₅	CF ₃	F	F	Cl
I-502	C ₂ H ₅	CF ₃	F	F	Br
I-503	C ₂ H ₅	CF ₃	F	F	CH ₃
I-504	C ₂ H ₅	CF ₃	F	F	OCH ₃
I-505	OCH ₃	F	H	H	H
I-506	OCH ₃	F	H	H	F
I-507	OCH ₃	F	H	H	Cl
I-508	OCH ₃	F	H	H	Br
I-509	OCH ₃	F	H	H	CH ₃
I-510	OCH ₃	F	H	H	OCH ₃
I-511	OCH ₃	F	H	F	H
I-512	OCH ₃	F	H	F	F
I-513	OCH ₃	F	H	F	Cl
I-514	OCH ₃	F	H	F	Br
I-515	OCH ₃	F	H	F	CH ₃
I-516	OCH ₃	F	H	F	OCH ₃
I-517	OCH ₃	F	F	H	H
I-518	OCH ₃	F	F	H	F
I-519	OCH ₃	F	F	H	Cl
I-520	OCH ₃	F	F	H	Br
I-521	OCH ₃	F	F	H	CH ₃
I-522	OCH ₃	F	F	H	OCH ₃
I-523	OCH ₃	F	F	F	H
I-524	OCH ₃	F	F	F	F
I-525	OCH ₃	F	F	F	Cl
I-526	OCH ₃	F	F	F	Br
I-527	OCH ₃	F	F	F	CH ₃
I-528	OCH ₃	F	F	F	OCH ₃
I-529	OCH ₃	Cl	H	H	H
I-530	OCH ₃	Cl	H	H	F
I-531	OCH ₃	Cl	H	H	Cl
I-532	OCH ₃	Cl	H	H	Br
I-533	OCH ₃	Cl	H	H	CH ₃
I-534	OCH ₃	Cl	H	H	OCH ₃
I-535	OCH ₃	Cl	H	F	H
I-536	OCH ₃	Cl	H	F	F
I-537	OCH ₃	Cl	H	F	Cl
I-538	OCH ₃	Cl	H	F	Br
I-539	OCH ₃	Cl	H	F	CH ₃
I-540	OCH ₃	Cl	H	F	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-541	OCH ₃	Cl	F	H	H
I-542	OCH ₃	Cl	F	H	F
I-543	OCH ₃	Cl	F	H	Cl
I-544	OCH ₃	Cl	F	H	Br
I-545	OCH ₃	Cl	F	H	CH ₃
I-546	OCH ₃	Cl	F	H	OCH ₃
I-547	OCH ₃	Cl	F	F	H
I-548	OCH ₃	Cl	F	F	F
I-549	OCH ₃	Cl	F	F	Cl
I-550	OCH ₃	Cl	F	F	Br
I-551	OCH ₃	Cl	F	F	CH ₃
I-552	OCH ₃	Cl	F	F	OCH ₃
I-553	OCH ₃	Br	H	H	H
I-554	OCH ₃	Br	H	H	F
I-555	OCH ₃	Br	H	H	Cl
I-556	OCH ₃	Br	H	H	Br
I-557	OCH ₃	Br	H	H	CH ₃
I-558	OCH ₃	Br	H	H	OCH ₃
I-559	OCH ₃	Br	H	F	H
I-560	OCH ₃	Br	H	F	F
I-561	OCH ₃	Br	H	F	Cl
I-562	OCH ₃	Br	H	F	Br
I-563	OCH ₃	Br	H	F	CH ₃
I-564	OCH ₃	Br	H	F	OCH ₃
I-565	OCH ₃	Br	F	H	H
I-566	OCH ₃	Br	F	H	F
I-567	OCH ₃	Br	F	H	Cl
I-568	OCH ₃	Br	F	H	Br
I-569	OCH ₃	Br	F	H	CH ₃
I-570	OCH ₃	Br	F	H	OCH ₃
I-571	OCH ₃	Br	F	F	H
I-572	OCH ₃	Br	F	F	F
I-573	OCH ₃	Br	F	F	Cl
I-574	OCH ₃	Br	F	F	Br
I-575	OCH ₃	Br	F	F	CH ₃
I-576	OCH ₃	Br	F	F	OCH ₃
I-577	OCH ₃	I	H	H	H
I-578	OCH ₃	I	H	H	F
I-579	OCH ₃	I	H	H	Cl
I-580	OCH ₃	I	H	H	Br
I-581	OCH ₃	I	H	H	CH ₃
I-582	OCH ₃	I	H	H	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-583	OCH ₃	I	H	F	H
I-584	OCH ₃	I	H	F	F
I-585	OCH ₃	I	H	F	Cl
I-586	OCH ₃	I	H	F	Br
I-587	OCH ₃	I	H	F	CH ₃
I-588	OCH ₃	I	H	F	OCH ₃
I-589	OCH ₃	I	F	H	H
I-590	OCH ₃	I	F	H	F
I-591	OCH ₃	I	F	H	Cl
I-592	OCH ₃	I	F	H	Br
I-593	OCH ₃	I	F	H	CH ₃
I-594	OCH ₃	I	F	H	OCH ₃
I-595	OCH ₃	I	F	F	H
I-596	OCH ₃	I	F	F	F
I-597	OCH ₃	I	F	F	Cl
I-598	OCH ₃	I	F	F	Br
I-599	OCH ₃	I	F	F	CH ₃
I-600	OCH ₃	I	F	F	OCH ₃
I-601	OCH ₃	CH ₃	H	H	H
I-602	OCH ₃	CH ₃	H	H	F
I-603	OCH ₃	CH ₃	H	H	Cl
I-604	OCH ₃	CH ₃	H	H	Br
I-605	OCH ₃	CH ₃	H	H	CH ₃
I-606	OCH ₃	CH ₃	H	H	OCH ₃
I-607	OCH ₃	CH ₃	H	F	H
I-608	OCH ₃	CH ₃	H	F	F
I-609	OCH ₃	CH ₃	H	F	Cl
I-610	OCH ₃	CH ₃	H	F	Br
I-611	OCH ₃	CH ₃	H	F	CH ₃
I-612	OCH ₃	CH ₃	H	F	OCH ₃
I-613	OCH ₃	CH ₃	F	H	H
I-614	OCH ₃	CH ₃	F	H	F
I-615	OCH ₃	CH ₃	F	H	Cl
I-616	OCH ₃	CH ₃	F	H	Br
I-617	OCH ₃	CH ₃	F	H	CH ₃
I-618	OCH ₃	CH ₃	F	H	OCH ₃
I-619	OCH ₃	CH ₃	F	F	H
I-620	OCH ₃	CH ₃	F	F	F
I-621	OCH ₃	CH ₃	F	F	Cl
I-622	OCH ₃	CH ₃	F	F	Br
I-623	OCH ₃	CH ₃	F	F	CH ₃
I-624	OCH ₃	CH ₃	F	F	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-625	OCH ₃	OCH ₃	H	H	H
I-626	OCH ₃	OCH ₃	H	H	F
I-627	OCH ₃	OCH ₃	H	H	Cl
I-628	OCH ₃	OCH ₃	H	H	Br
I-629	OCH ₃	OCH ₃	H	H	CH ₃
I-630	OCH ₃	OCH ₃	H	H	OCH ₃
I-631	OCH ₃	OCH ₃	H	F	H
I-632	OCH ₃	OCH ₃	H	F	F
I-633	OCH ₃	OCH ₃	H	F	Cl
I-634	OCH ₃	OCH ₃	H	F	Br
I-635	OCH ₃	OCH ₃	H	F	CH ₃
I-636	OCH ₃	OCH ₃	H	F	OCH ₃
I-637	OCH ₃	OCH ₃	F	H	H
I-638	OCH ₃	OCH ₃	F	H	F
I-639	OCH ₃	OCH ₃	F	H	Cl
I-640	OCH ₃	OCH ₃	F	H	Br
I-641	OCH ₃	OCH ₃	F	H	CH ₃
I-642	OCH ₃	OCH ₃	F	H	OCH ₃
I-643	OCH ₃	OCH ₃	F	F	H
I-644	OCH ₃	OCH ₃	F	F	F
I-645	OCH ₃	OCH ₃	F	F	Cl
I-646	OCH ₃	OCH ₃	F	F	Br
I-647	OCH ₃	OCH ₃	F	F	CH ₃
I-648	OCH ₃	OCH ₃	F	F	OCH ₃
I-649	OCH ₃	CF ₃	H	H	H
I-650	OCH ₃	CF ₃	H	H	F
I-651	OCH ₃	CF ₃	H	H	Cl
I-652	OCH ₃	CF ₃	H	H	Br
I-653	OCH ₃	CF ₃	H	H	CH ₃
I-654	OCH ₃	CF ₃	H	H	OCH ₃
I-655	OCH ₃	CF ₃	H	F	H
I-656	OCH ₃	CF ₃	H	F	F
I-657	OCH ₃	CF ₃	H	F	Cl
I-658	OCH ₃	CF ₃	H	F	Br
I-659	OCH ₃	CF ₃	H	F	CH ₃
I-660	OCH ₃	CF ₃	H	F	OCH ₃
I-661	OCH ₃	CF ₃	F	H	H
I-662	OCH ₃	CF ₃	F	H	F
I-663	OCH ₃	CF ₃	F	H	Cl
I-664	OCH ₃	CF ₃	F	H	Br
I-665	OCH ₃	CF ₃	F	H	CH ₃
I-666	OCH ₃	CF ₃	F	H	OCH ₃

No.	R ¹	R ³	R ⁵	R ⁶	R ⁷
I-667	OCH ₃	CF ₃	F	F	H
I-668	OCH ₃	CF ₃	F	F	F
I-669	OCH ₃	CF ₃	F	F	Cl
I-670	OCH ₃	CF ₃	F	F	Br
I-671	OCH ₃	CF ₃	F	F	CH ₃
I-672	OCH ₃	CF ₃	F	F	OCH ₃

The specific number for each single compound is deductible as follows:

Compound 1.1.I-3 e.g. comprises the compound of formula 1.1 from Table 1 and line I-3 from Table A;

5 To widen the spectrum of action and to achieve synergistic effects, the pyridine 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, e.g., herbicides from the classes of the acetamides, amides, aryloxyphenoxypropionates, benzamides, benzofuran, benzoic acids, benzothiadiazinones, bipyrpydylum, carbamates, chloroacetamides, chlorocarboxylic acids, cyclohexanediones, dinitroanilines, dinitrophenol, diphenyl ether, glycines, imidazolinones, isoxazoles, isoxazolidinones, nitriles, N-phenylphthalimides, oxadiazoles, oxazolidinediones, oxyacetamides, phenoxy-carboxylic acids, phenylcarbamates, phenylpyrazoles, phenylpyrazolines, phenylpyridazines, phosphinic acids, phosphoroamidates, phosphorodithioates, phthalamates, pyrazoles, pyridazinones, pyridines, pyridinecarboxylic acids, pyridinecarboxamides, pyrimidinediones, pyrimidinyl(thio)benzoates, quinolinecarboxylic acids, semicarbazones, sulfonylaminocarbonyl triazolinones, sulfonylureas, tetrazolinones, thiadiazoles, thiocarbamates, triazines, triazinones, triazoles, triazolinones, triazolocarbonyl amides, triazolopyrimidines, triketones, uracils, or ureas.

20 It may furthermore be beneficial to apply the pyridine compounds of formula (I) alone or in combination with other herbicides, or else in the form of a mixture with other crop protection agents, e.g. 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.

In one embodiment of the present invention the compositions according to the present invention comprise at least one pyridine compound of formula (I) (compound A) and at least one further active compound selected from herbicides B, preferably herbicides B of class b1) to b15), and safeners C (compound C).

30 In a preferred embodiment of the invention, the composition comprises as active compound A or component A at least one, preferably exactly one, pyridine compound of formula (I.A) (corresponds to pyridine compound of formula (I)), as defined herein;

In another preferred embodiment of the invention, the composition comprises as active compound A or component A at least one, preferably exactly one, pyridine compound of formula (I.B) (corresponds to pyridine compound of formula (I)), as defined herein;

In another preferred embodiment of the invention, the composition comprises as active compound A or component A at least one, preferably exactly one, pyridine compound of formula (I.C) (corresponds to pyridine compound of formula (I)), as defined herein;

40 In another preferred embodiment of the invention, the composition comprises as active compound A or component A at least one, preferably exactly one, pyridine compound of formula (I.D) (corresponds to pyridine compound of formula (I)), as defined herein;

In another preferred embodiment of the invention, the composition comprises as active compound A or component A at least one, preferably exactly one, pyridine compound of formula (I.E) (corresponds to pyridine compound of formula (I)), as defined herein;

In another preferred embodiment of the invention, the composition comprises as active compound A or component A at least one, preferably exactly one, pyridine compound of formula (I.F) (corresponds to pyridine compound of formula (I)), as defined herein;

5 In another preferred embodiment of the invention, the composition comprises as active compound A or component A at least one, preferably exactly one, pyridine compound of formula (I.G) (corresponds to pyridine compound of formula (I)), as defined herein;

In another preferred embodiment of the invention, the composition comprises as active compound A or component A at least one, preferably exactly one, pyridine compound of formula (I.H) (corresponds to pyridine compound of formula (I)), as defined herein;

10 In another preferred embodiment of the invention, the composition comprises as active compound A or component A at least one, preferably exactly one, pyridine compound of formula (I.I) (corresponds to pyridine compound of formula (I)), as defined herein;

In another preferred embodiment of the invention, the composition comprises as active compound A or component A at least one, preferably exactly one, pyridine compound of formula (I.J) (corresponds to pyridine compound of formula (I)), as defined herein;

15 In another preferred embodiment of the invention, the composition comprises as active compound A or component A at least one, preferably exactly one, pyridine compound of formula (I.K) (corresponds to pyridine compound of formula (I)), as defined herein;

20 Preferred compounds of the formula (I) which, as component A, are constituent of the composition according to the invention are the compounds I.A to I.K, as defined above;

In another embodiment of the present invention the compositions according to the present invention comprise at least one pyridine compound of formula (I) and at least one further active
25 compound B (herbicide B).

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

Mixing partners for the composition can be selected from below herbicides B as defined below:

30 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 (PPO inhibitors);

35 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;

40 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;

In one embodiment of the invention, the compositions contain at least one inhibitor of the lipid biosynthesis (herbicide b1). These compounds inhibit lipid biosynthesis. Inhibition of the lipid biosynthesis can be affected either through inhibition of acetylCoA carboxylase (hereinafter termed ACCase herbicides) or through a different mode of action (hereinafter termed non-ACCase herbicides). The ACCase herbicides belong to the group A of the HRAC classification system whereas the non-ACCase herbicides belong to the group N of the HRAC classification.

In another 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.

In another 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.

In another 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.

In another 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).

In another 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.

In another 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 amino acid biosynthesis in plants. These inhibitors belong to the group H of the HRAC classification system.

5 In another 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 synthase. These inhibitors belong to the group I of the HRAC classification system.

10 In another 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.

15 In another 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.

20 In another 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.

In another 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.

25 In another 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.

30 In another 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.

35 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, b2, b3, b4, b5, b6, b9, b10, b13, and b14.

40 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 b1, b2, b4, b5, b9, b10, b13, and b14.

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 b1, b2, b4, b5, b9, b10, and b13

Examples of herbicides B which can be used in combination with the compound 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, butoxydim, 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, tepraloxym, 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, propoxycarbazon, propoxycarbazon-sodium, thienencarbazon and thienencarbazon-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:

amicarbazon, inhibitors of the photosystem II, e.g. 1-(6-tert-butylpyrimidin-4-yl)-2-hydroxy-4-methoxy-3-methyl-2H-pyrrol-5-one (CAS 1654744-66-7), 1-(5-tert-butylisoxazol-3-yl)-2-hydroxy-4-methoxy-3-methyl-2H-pyrrol-5-one (CAS 1637455-12-9), 1-(5-tert-butylisoxazol-3-yl)-4-chloro-2-hydroxy-3-methyl-2H-pyrrol-5-one (CAS 1637453-94-1), 1-(5-tert-butyl-1-methyl-pyrazol-3-yl)-4-chloro-2-hydroxy-3-methyl-2H-pyrrol-5-one (CAS 1654057-29-0), 1-(5-tert-butyl-1-methyl-pyrazol-3-yl)-3-chloro-2-hydroxy-4-methyl-2H-pyrrol-5-one (CAS 1654747-80-4), 4-hydroxy-1-methoxy-5-methyl-3-[4-(trifluoromethyl)-2-pyridyl]imidazolidin-2-one; (CAS 2023785-78-4), 4-hydroxy-1,5-dimethyl-3-[4-(trifluoromethyl)-2-pyridyl]imidazolidin-2-one (CAS 2023785-79-5), 5-ethoxy-4-hydroxy-1-methyl-3-[4-(trifluoromethyl)-2-pyridyl]imidazolidin-2-one (CAS 1701416-69-4), 4-hydroxy-1-methyl-3-[4-(trifluoromethyl)-2-pyridyl]imidazolidin-2-one (CAS 1708087-22-2), 4-hydroxy-1,5-dimethyl-3-[1-methyl-5-(trifluoromethyl)pyrazol-3-yl]imidazolidin-2-one (CAS 2023785-80-8), 1-(5-tert-butylisoxazol-3-yl)-4-ethoxy-5-hydroxy-3-methyl-imidazolidin-2-one (CAS 1844836-64-1), 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, terbutometon, 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-dimethylsulfate. 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, chlorphthalim, 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, 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 452100-03-7), 3-[7-fluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2*H*-benzo[1,4]oxazin-6-yl]-1,5-dimethyl-6-thioxo-[1,3,5]triazinan-2,4-dione (CAS 451484-50-7), 2-(2,2,7-trifluoro-3-oxo-4-prop-2-ynyl-3,4-dihydro-2*H*-benzo[1,4]oxazin-6-yl)-4,5,6,7-tetrahydro-isoindole-1,3-dione (CAS 1300118-96-0), 1-methyl-6-trifluoromethyl-3-(2,2,7-trifluoro-3-oxo-4-prop-2-ynyl-3,4-dihydro-2*H*-benzo[1,4]oxazin-6-yl)-1*H*-pyrimidine-2,4-dione (CAS 1304113-05-0), 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), and 3-[7-chloro-5-fluoro-2-(trifluoromethyl)-1*H*-benzimidazol-4-yl]-1-methyl-6-(trifluoromethyl)-1*H*-pyrimidine-2,4-dione (CAS 212754-02-4);

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, fenquinotrine, isoxaflutole, mesotrione, oxotrione (CAS 1486617-21-3), pyrasulfotole, pyrazolynate, pyrazoxyfen, sulcotrione, tefuryltrione, tembotrione, tolpypalate, topramezone, bleacher, unknown target: aclonifen, amitrole flumeturon, 2-chloro-3-methylsulfanyl-N-(1-methyltetrazol-5-yl)-4-(trifluoromethyl)benzamide (CAS 1361139-71-0), 2-(2,4-dichlorophenyl)methyl-4,4-dimethyl-3-isoxazolidone (CAS 81777-95-9) and 2-(2,5-dichlorophenyl)methyl-4,4-dimethyl-3-isoxazolidinone (CAS 81778-66-7);

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;

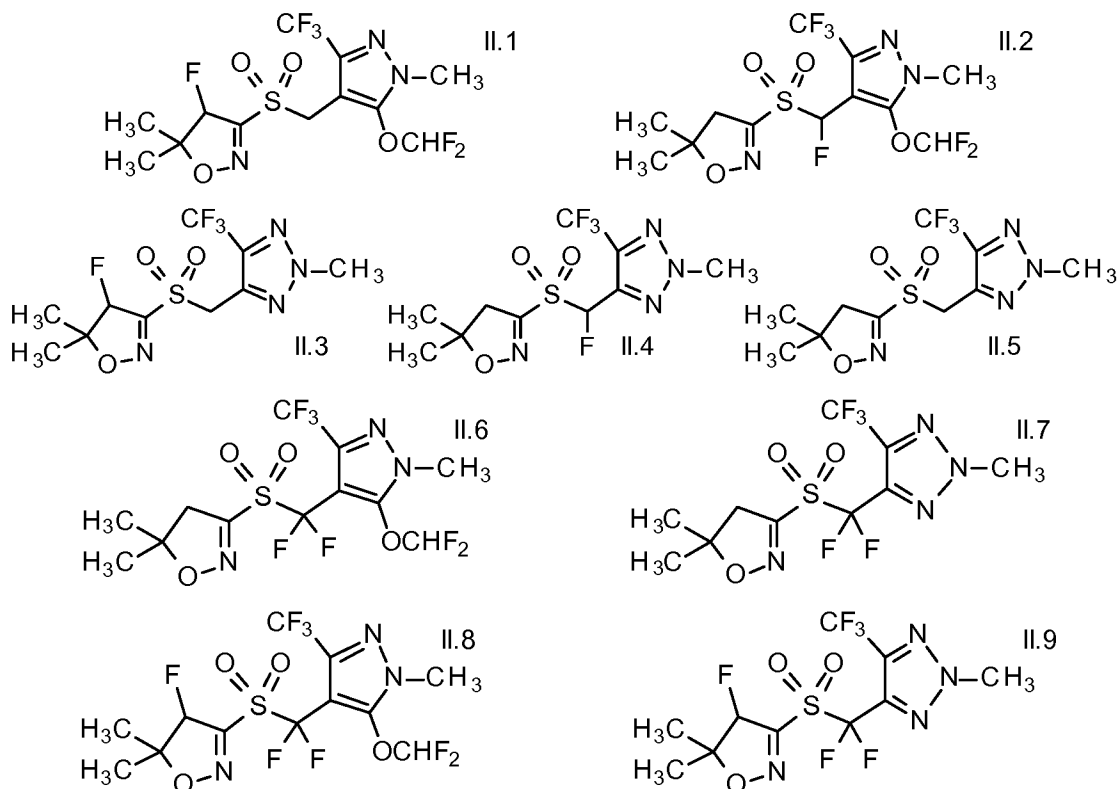
b8) from the group of the DHP synthase inhibitors: asulam;

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 amiprofos, amiprofos-methyl, and butamipfos, 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, amidochlor, 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, napropamide and napropamide-M, tetrazolinones such as 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



the isoxazoline compounds 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-pentafluorophenoxy-1⁴-[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, flopyrauxifen, fluroxypyr, fluroxypyr-butometyl, fluroxypyr-meptyl, halauxifen and its salts and esters (CAS 943832-60-8); 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, florypyrauxifen, florypyrauxifen-benzyl (CAS 1390661-72-9) and 4-amino-3-chloro-5-fluoro-6-(7-fluoro-1H-indol-6-yl)picolinic acid (CAS 1629965-65-6);

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

- 5 b15) from the group of the other herbicides: bromobutide, chlorflurenol, chlorflurenol-methyl, cinmethylin, cumyluron, cyclopyrimorate (CAS 499223-49-3 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 pyrimidine compounds of the formula (I) according to the present invention are:

b1) from the group of the lipid biosynthesis inhibitors:

- 15 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, tepraloxym, 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);
- 35 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,
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penoxsulam, primisulfuron-methyl, propoxycarbazone-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, thidiazuron, 1-(6-tert-butylpyrimidin-4-yl)-2-hydroxy-4-methoxy-3-methyl-2H-pyrrol-5-one (CAS 1654744-66-7), 1-(5-tert-butylisoxazol-3-yl)-2-hydroxy-4-methoxy-3-methyl-2H-pyrrol-5-one (CAS 1637455-12-9), 1-(5-tert-butylisoxazol-3-yl)-4-chloro-2-hydroxy-3-methyl-2H-pyrrol-5-one (CAS 1637453-94-1), 1-(5-tert-butyl-1-methyl-pyrazol-3-yl)-4-chloro-2-hydroxy-3-methyl-2H-pyrrol-5-one (CAS 1654057-29-0), 1-(5-tert-butyl-1-methyl-pyrazol-3-yl)-3-chloro-2-hydroxy-4-methyl-2H-pyrrol-5-one (CAS 1654747-80-4), 4-hydroxy-1-methoxy-5-methyl-3-[4-(trifluoromethyl)-2-pyridyl]imidazolidin-2-one; (CAS 2023785-78-4), 4-hydroxy-1,5-dimethyl-3-[4-(trifluoromethyl)-2-pyridyl]imidazolidin-2-one (CAS 2023785-79-5), 5-ethoxy-4-hydroxy-1-methyl-3-[4-(trifluoromethyl)-2-pyridyl]imidazolidin-2-one (CAS 1701416-69-4), 4-hydroxy-1-methyl-3-[4-(trifluoromethyl)-2-pyridyl]imidazolidin-2-one (CAS 1708087-22-2), 4-hydroxy-1,5-dimethyl-3-[1-methyl-5-(trifluoromethyl)pyrazol-3-yl]imidazolidin-2-one (CAS 2023785-80-8) and 1-(5-tert-butylisoxazol-3-yl)-4-ethoxy-5-hydroxy-3-methyl-imidazolidin-2-one (CAS 1844836-64-1);

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, 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-1H-pyrazole-1-carboxamide (CAS 452098-92-9), N-tetrahydrofurfuryl-3-(2,6-dichloro-4-trifluoromethylphenoxy)-5-methyl-1H-pyrazole-1-carboxamide (CAS 915396-43-9), N-ethyl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1H-pyrazole-1-carboxamide (CAS 452099-05-7), N-tetrahydrofurfuryl-3-(2-chloro-6-fluoro-4-trifluoromethylphenoxy)-5-methyl-1H-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), 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); 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), 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);

b5) from the group of the bleacher herbicides:

aclonifen, amitrole, beflubutamid, benzobicyclon, bicyclopyrone, clomazone, diflufenican, fenquinotrione, flumeturon, flurochloridone, flurtamone, isoxaflutole, mesotrione, oxotrione (CAS

1486617-21-3), norflurazon, picolinafen, pyrasulfotole, pyrazolynate, sulcotrione, tefuryltrione, tembotrione, tolpyralate, topramezone, 4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)-pyrimidine (CAS 180608-33-7), 2-chloro-3-methylsulfanyl-N-(1-methyltetrazol-5-yl)-4-(trifluoromethyl)benzamide (CAS 1361139-71-0, 2-(2,4-dichlorophenyl)methyl-4,4-dimethyl-3-isoxazolidone (CAS 81777-95-9) and 2-(2,5-dichlorophenyl)methyl-4,4-dimethyl-3-isoxazolidinone (CAS 81778-66-7);

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, amidochlor, 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-pentafluorophenoxy-1⁴-[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, flopyrauxifen, fluroxypyr-meptyl, halauxifen and its salts and esters (CAS 943832-60-8), 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, florpyrauxifen, florpyrauxifen-benzyl (CAS 1390661-72-9) and 4-amino-3-chloro-5-fluoro-6-(7-fluoro-1H-indol-6-yl)picolinic acid (CAS 1629965-65-6);

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) and its salts and esters, dalapon, 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 pyrimidine 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, thienencarbazon-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, terbuthylazine, 1-(5-tert-butylisoxazol-3-yl)-2-hydroxy-4-methoxy-3-methyl-2H-pyrrol-5-one (CAS 1637455-12-9), 1-(5-tert-butylisoxazol-3-yl)-4-chloro-2-hydroxy-3-methyl-2H-pyrrol-5-one (CAS 1637453-94-1), 1-(5-tert-butylisoxazol-3-yl)-4-ethoxy-5-hydroxy-3-methyl-imidazolidin-2-one (CAS 1844836-64-1);
- b4) from the group of the protoporphyrinogen-IX oxidase inhibitors: flumioxazin, oxyfluorfen, pyraflufen, pyraflufen-ethyl, saflufenacil, sulfentrazone, trifludimoxazin, 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; S-3100, 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), 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), 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);
- b5) from the group of the bleacher herbicides: amitrole, bicyclopypyrone, clomazone, diflufenican, fenquinotrine, flumeturon, flurochloridone, isoxaflutole, mesotrione, oxotrione (CAS 1486617-21-3), picolinafen, sulcotrione, tefuryltrione, tembotrione, tolypyralate, topramezone, 2-chloro-3-methylsulfanyl-N-(1-methyltetrazol-5-yl)-4-(trifluoromethyl)benzamide (CAS 1361139-71-0), 2-(2,4-dichlorophenyl)methyl-4,4-dimethyl-3-isoxazolidone (CAS 81777-95-9); and 2-(2,5-dichlorophenyl)methyl-4,4-dimethyl-3-isoxazolidinone (CAS 81778-66-7);
- 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, flopyrauxifen, fluroxypyr-meptyl, halauxifen, halauxifen-methyl, quinclorac, quinmerac, florpyrauxifen, florpyrauxifen-benzyl (CAS 1390661-72-9) and 4-amino-3-chloro-5-fluoro-6-(7-fluoro-1H-indol-6-yl)picolinic acid (CAS 1629965-65-6);

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

b15) from the group of the other herbicides: cinmethylin, dymon (= daimuron), indanofan, oxaziclomefone.

Particularly preferred herbicides B are the herbicides B as defined above; in particular, the herbicides B.1 - B.202 listed below in table B:

Table B

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
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
B.19	bensulfuron-methyl
B.20	bispyribac-sodium

B	Herbicide B
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	Herbicide B
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
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	Herbicide B
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
B.92	pyraflufen
B.93	pyraflufen-ethyl
B.94	saflufenacil
B.95	sulfentrazone
B.96	trifludimoxazin
B.97	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.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	fenquinoatrione
B.116	glyphosate
B.117	glyphosate-ammonium
B.118	glyphosate-dimethylammonium
B.119	glyphosate-isopropylammonium
B.120	glyphosate-trimesium (sulfosate)

B	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-dimethylammonium
B.152	aminopyralid-tris(2-hydroxypropyl)ammonium
B.153	clopyralid
B.154	clopyralid-methyl
B.155	clopyralid-olamine
B.156	dicamba
B.157	dicamba-butotyl
B.158	dicamba-diglycolamine
B.159	dicamba-dimethylammonium
B.160	dicamba-diolamine

B	Herbicide B
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
B.178	florpyrauxifen
B.179	florpyrauxifen-benzyl (CAS 1390661-72-9)
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
B.197	4-amino-3-chloro-5-fluoro-6-(7-fluoro-1H-indol-6-yl)picolinic acid (CAS 1629965-65-6)
B.198	flopyrauxifen

B	Herbicide B
B.199	oxotrione (CAS 1486617-21-3)
B.200	cinmethylin
B.201	2-chloro-3-methylsulfanyl-N-(1-methyltetrazol-5-yl)-4-(trifluoromethyl)benzamide (CAS 1361139-71-0)

B	Herbicide B
B.202	2-(2,4-dichlorophenyl)methyl-4,4-dimethyl-3-isoxazolidone (CAS 81777-95-9)

In another embodiment of the present invention the compositions according to the present invention comprise at least one pyrimidine 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 pyrimidine compounds 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-oximinophenylacetoneitriles, 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, phosphorothiolates 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), metcamifen and BPCMS (CAS 54091-06-4).

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), 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4) and metcamifen.

Particularly preferred safeners C are benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, naphthalic 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 metcamifen.

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:

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	fencloirim
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	metcamifen

The active compounds B of groups b1) to b15) and the active compounds C are known herbicides and safeners, see, e.g., 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, Herbicide [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. E.g., 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-butyl.

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-butyl, 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 e.g. 2,4-DB-sodium, 2,4-DB-potassium and 2,4-DB-dimethylammonium. Suitable esters of 2,4-DB are e.g. 2,4-DB-butyl and 2,4-DB-isooctyl.

Suitable salts of dichlorprop are e.g. dichlorprop-sodium, dichlorprop-potassium and dichlorprop-dimethylammonium. Examples of suitable esters of dichlorprop are dichlorprop-butyl and dichlorprop-isooctyl.

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-isooctyl, MCPA-isopropyl, MCPA-isopropylammonium, MCPA-methyl, MCPA-olamine, MCPA-potassium, MCPA-sodium and MCPA-trolamine.

5 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.

10 Suitable salts of picloram are picloram-dimethylammonium, picloram-potassium, picloram-triisopropanolammonium, picloram-triisopropylammonium and picloram-trolamine. A suitable ester of picloram is picloram-isooctyl.

A suitable salt of triclopyr is triclopyr-triethylammonium. Suitable esters of triclopyr are e.g. triclopyr-ethyl and triclopyr-butotyl.

15 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.

20 Suitable salts and esters of aminopyralid include aminopyralid-potassium, aminopyralid-dimethylammonium, and aminopyralid-tris(2-hydroxypropyl)ammonium.

Suitable salts of glyphosate are e.g. glyphosate-ammonium, glyphosate-diammonium, glyphosate-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).

25 A suitable salt of glufosinate is e.g. glufosinate-ammonium.

A suitable salt of glufosinate-P is e.g. glufosinate-P-ammonium.

Suitable salts and esters of bromoxynil are e.g. bromoxynil-butyrate, bromoxynil-heptanoate, bromoxynil-octanoate, bromoxynil-potassium and bromoxynil-sodium.

30 Suitable salts and esters of ioxonil are e.g. 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-isooctyl, mecoprop-methyl, mecoprop-potassium, mecoprop-sodium and mecoprop-trolamine.

35 Suitable salts of mecoprop-P are e.g. 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 e.g. diflufenzopyr-sodium.

40 A suitable salt of naptalam is e.g. naptalam-sodium.

Suitable salts and esters of aminocyclopyrachlor are e.g. aminocyclopyrachlor-dimethylammonium, aminocyclopyrachlor-methyl, aminocyclopyrachlor-triisopropanolammonium, aminocyclopyrachlor-sodium and aminocyclopyrachlor-potassium.

A suitable salt of quinclorac is e.g. quinclorac-dimethylammonium.

A suitable salt of quinmerac is e.g. quinmerac-dimethylammonium.

A suitable salt of imazamox is e.g. imazamox-ammonium.

Suitable salts of imazapic are e.g. imazapic-ammonium and imazapic-isopropylammonium.

Suitable salts of imazapyr are e.g. imazapyr-ammonium and imazapyr-isopropylammonium.

5 A suitable salt of imazaquin is e.g. imazaquin-ammonium.

Suitable salts of imazethapyr are e.g. imazethapyr-ammonium and imazethapyr-isopropylammonium.

A suitable salt of topramezone is e.g. topramezone-sodium.

10 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.

15 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.

20 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.

25 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.

30 According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.1), especially preferred the compound (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), or (1.1.I-73), and as component B at least one, preferably exactly one, herbicide B.

35 According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.1), especially preferred the compound (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), or (1.1.I-73), and at least two, preferably exactly two, herbicides B different from each other.

40 According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.1), especially preferred the compound (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), or (1.1.I-73), and at least three, preferably exactly three, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.1), especially preferred the compound (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), or (1.1.I-73), and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.1), especially preferred the compound (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), or (1.1.I-73), 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 as component A at least one, preferably exactly pyridine compound of formula (I), preferably of formula (1.1), especially preferred the compound (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), or (1.1.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.1), especially preferred the compound (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), or (1.1.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.2), especially preferred the compound (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), or (1.2.I-73), and as component B at least one, preferably exactly one, herbicide B.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.2), especially preferred the compound (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), or (1.2.I-73), and at least two, preferably exactly two, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.2), especially preferred the compound (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), or (1.2.I-73), and at least three, preferably exactly three, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.2), especially preferred the compound (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), or (1.2.I-73), and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.2), especially preferred the compound (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49),

(1.2.I-55), (1.2.I-61), or (1.2.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.2), especially preferred the compound (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), or (1.2.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.2), especially preferred the compound (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), or (1.2.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.3), especially preferred the compound (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), or (1.3.I-73), and as component B at least one, preferably exactly one, herbicide B.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.3), especially preferred the compound (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), or (1.3.I-73), and at least two, preferably exactly two, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.3), especially preferred the compound (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), or (1.3.I-73), and at least three, preferably exactly three, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.3), especially preferred the compound (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), or (1.3.I-73), and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.3), especially preferred the compound (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), or (1.3.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.3), especially preferred the compound (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), or (1.3.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably

of formula (1.3), especially preferred the compound (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), or (1.3.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.4), especially preferred the compound (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), or (1.4.I-73), and as component B at least one, preferably exactly one, herbicide B.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.4), especially preferred the compound (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), or (1.4.I-73), and at least two, preferably exactly two, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.4), especially preferred the compound (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), or (1.4.I-73), and at least three, preferably exactly three, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.4), especially preferred the compound (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), or (1.4.I-73), and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.4), especially preferred the compound (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), or (1.4.I-73), 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 as component A at least one, preferably exactly pyridine compound of formula (I), preferably of formula (1.4), especially preferred the compound (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), or (1.4.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.4), especially preferred the compound (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), or (1.4.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.5), especially preferred the compound (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), or (1.5.I-73), and as component B at least one, preferably exactly one, herbicide B.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.5), especially preferred the compound (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), or (1.5.I-73), and at least two, preferably exactly two, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.5), especially preferred the compound (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), or (1.5.I-73), and at least three, preferably exactly three, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.5), especially preferred the compound (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), or (1.5.I-73), and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.5), especially preferred the compound (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), or (1.5.I-73), 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 as component A at least one, preferably exactly pyridine compound of formula (I), preferably of formula (1.5), especially preferred the compound (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), or (1.5.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.5), especially preferred the compound (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), or (1.5.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.6), especially preferred the compound (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), or (1.6.I-73), and as component B at least one, preferably exactly one, herbicide B.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.6), especially preferred the compound (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), or (1.6.I-73), and at least two, preferably exactly two, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.6), especially preferred the compound (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49),

(1.6.I-55), (1.6.I-61), or (1.6.I-73), and at least three, preferably exactly three, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably
5 of formula (1.6), especially preferred the compound (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), or (1.6.I-73), and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably
10 of formula (1.6), especially preferred the compound (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), or (1.6.I-73), 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 as component A at least one, preferably exactly pyridine compound of formula (I), preferably of
15 formula (1.6), especially preferred the compound (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), or (1.6.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably
20 of formula (1.6), especially preferred the compound (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), or (1.6.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably
25 of formula (1.7), especially preferred the compound (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), or (1.7.I-73), and as component B at least one, preferably exactly one, herbicide B.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably
30 of formula (1.7), especially preferred the compound (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), or (1.7.I-73), and at least two, preferably exactly two, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably
35 of formula (1.7), especially preferred the compound (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), or (1.7.I-73), and at least three, preferably exactly three, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably
40 of formula (1.7), especially preferred the compound (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), or (1.7.I-73), and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably

of formula (1.7), especially preferred the compound (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), or (1.7.I-73), 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 as component A at least one, preferably exactly pyridine compound of formula (I), preferably of formula (1.7), especially preferred the compound (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), or (1.7.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.7), especially preferred the compound (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), or (1.7.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.8), especially preferred the compound (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), or (1.8.I-73), and as component B at least one, preferably exactly one, herbicide B.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.3), especially preferred the compound (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), or (1.8.I-73), and at least two, preferably exactly two, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.8), especially preferred the compound (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), or (1.8.I-73), and at least three, preferably exactly three, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.8), especially preferred the compound (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), or (1.8.I-73), and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.8), especially preferred the compound (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), or (1.8.I-73), 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 as component A at least one, preferably exactly pyridine compound of formula (I), preferably of formula (1.8), especially preferred the compound (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), or (1.8.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.8), especially preferred the compound (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), or (1.8.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.9), especially preferred the compound (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), or (1.9.I-73), and as component B at least one, preferably exactly one, herbicide B.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.9), especially preferred the compound (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), or (1.9.I-73), and at least two, preferably exactly two, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.9), especially preferred the compound (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), or (1.9.I-73), and at least three, preferably exactly three, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.9), especially preferred the compound (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), or (1.9.I-73), and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.9), especially preferred the compound (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), or (1.9.I-73), 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 as component A at least one, preferably exactly pyridine compound of formula (I), preferably of formula (1.9), especially preferred the compound (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), or (1.9.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.9), especially preferred the compound (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), or (1.9.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.10), especially preferred the compound (1.10.I-25), (1.10.I-31), (1.10.I-37),

(1.10.I-49), (1.10.I-55), (1.10.I-61), or (1.10.I-73), and as component B at least one, preferably exactly one, herbicide B.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.10), especially preferred the compound (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), or (1.10.I-73), and at least two, preferably exactly two, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.10), especially preferred the compound (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), or (1.10.I-73), and at least three, preferably exactly three, herbicides B different from each other.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.10), especially preferred the compound (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), or (1.10.I-73), and as component C at least one, preferably exactly one, safener C.

According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.10), especially preferred the compound (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), or (1.10.I-73), 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 as component A at least one, preferably exactly pyridine compound of formula (I), preferably of formula (1.10), especially preferred the compound (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), or (1.10.I-73), 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 as component A at least one, preferably exactly one pyridine compound of formula (I), preferably of formula (1.10), especially preferred the compound (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), or (1.10.I-73), 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 pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at least one and especially exactly one herbicidally active compound from group b1), in particular

selected from the group consisting of clethodim, clodinafop-propargyl, cycloxydim, cyhalofop-butyl, fenoxaprop-ethyl, fenoxaprop-P-ethyl, metamifop, pinoxaden, profoxydim, sethoxydim, tepraloxym, tralkoxydim, esprocarb, ethofumesate, molinate, prosulfocarb, thiobencarb and triallate.

5 According to another preferred embodiment of the invention, the composition comprises, in addition to a pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55),
10 (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at
15 least one and especially exactly one herbicidally active compound from group b2), in particular selected from the group consisting of bensulfuron-methyl, bispyribac-sodium, cloransulam-methyl, chlorsulfuron, clorimuron, cyclosulfamuron, diclosulam, florasulam, flumetsulam, flupyrsulfuron-methyl-sodium, foramsulfuron, imazamox, imazamox-ammonium, imazapic, imazapic-ammonium, imazapic-isopropylammonium, imazapyr, imazapyr-ammonium,
20 imazethapyr-isopropylammonium, imazaquin, imazaquin-ammonium, imazethapyr, imazethapyr-ammonium, imazethapyr-isopropylammonium, imazosulfuron, iodosulfuron-methyl-sodium, iofensulfuron, iofensulfuron-sodium, mesosulfuron-methyl, metazosulfuron, metsulfuron-methyl, metosulam, nicosulfuron, penoxsulam, propoxycarbazone-sodium, pyrazosulfuron-ethyl, pyribenzoxim, pyriftalid, pyroxsulam, propyrisulfuron, rimsulfuron,
25 sulfosulfuron, thienencarbazone-methyl, thifensulfuron-methyl, tribenuron-methyl, tritosulfuron and triafamone.

According to another preferred embodiment of the invention, the composition comprises, in addition to a pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at
30 least one and especially exactly one herbicidally active compound from group b3), in particular selected from the group consisting of ametryn, atrazine, bentazon, bromoxynil, bromoxynil-octanoate, bromoxynil-heptanoate, bromoxynil-potassium, diuron, fluometuron, hexazinone, isoproturon, linuron, metamilon, metribuzin, paraquat-dichloride, propanil, simazin, terbutryn and terbutylazine.
40

According to another preferred embodiment of the invention, the composition comprises, in addition to a pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25),

(1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at least one and especially exactly one herbicidally active compound from group b4), in particular selected from the group consisting of acifluorfen, butafencil, carfenetrazone-ethyl, flumioxazin, fomesafen, oxadiargyl, oxyfluorfen, pyraflufen, pyraflufen-ethyl, saflufenacil, sulfentrazone, trifludimoxazin, 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).

According to another preferred embodiment of the invention, the composition comprises, in addition to a pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at least one and especially exactly one herbicidally active compound from group b5), in particular selected from the group consisting of amitrole, benzobicyclon, bicyclopyrone, clomazone, diflufenican, fenquintrone, fluometuron, flurochloridone, isoxaflutole, mesotrione, norflurazone, oxotrione (CAS 1486617-21-3), picolinafen, sulcotrione, tefuryltrione, tembotrione, topralate, topramezone, topramezone-sodium and 2-chloro-3-methylsulfanyl-N-(1-methyltetrazol-5-yl)-4-(trifluoromethyl)benzamide (CAS 1361139-71-0).

According to another preferred embodiment of the invention, the composition comprises, in addition to a pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at least one and especially exactly one herbicidally active compound from group b6), in particular selected from the group consisting of glyphosate, glyphosate-ammonium, glyphosate-dimethylammonium, glyphosate-isopropylammonium and glyphosate-trimesium (sulfosate) and glyphosate-potassium.

According to another preferred embodiment of the invention, the composition comprises, in addition to a pyridine compounds of formula (I), especially an active compound from the group

consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at least one and especially exactly one herbicidally active compound from group b7), in particular selected from the group consisting of glufosinate, glufosinate-ammonium, glufosinate-P and glufosinate-P-ammonium.

According to another preferred embodiment of the invention, the composition comprises, in addition to a pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), 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 pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at least one and especially exactly one herbicidally active compound from group b10), in particular selected from the group consisting of acetochlor, butachlor, cafenstrole, dimethenamid-P, fentrazamide, flufenacet, mefenacet, metazachlor, metolachlor, S-metolachlor, fenoxasulfone, ipfencarbazone and pyroxasulfone. Likewise, preference is given to compositions comprising in addition to a pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49),

(1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), 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 pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), 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 pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at least one and especially exactly one herbicidally active compound from group b13), in particular selected from the group consisting of 2,4-D, 2,4-D-isobutyl, 2,4-D-dimethylammonium, 2,4-D-N,N,N-trimethylethanolammonium, aminocyclopyrachlor, aminocyclopyrachlor-potassium, aminocyclopyrachlor-methyl, aminopyralid, aminopyralid-methyl, aminopyralid-dimethylammonium, aminopyralid-tris(2-hydroxypropyl)ammonium, clopyralid, clopyralid-methyl, clopyralid-olamine, dicamba, dicamba-butotyl, dicamba-diglycolamine, dicamba-dimethylammonium, dicamba-dioline, dicamba-isopropylammonium, dicamba-potassium, dicamba-sodium, dicamba-trolamine, dicamba-N,N-bis-(3-aminopropyl)methylamine, dicamba-diethylenetriamine, floupyrauxifen, flouroxypyr, flouroxypyr-meptyl, halauxifen, halauxifen-methyl, MCPA, MCPA-2-ethylhexyl, MCPA-dimethylammonium, quinclorac, quinclorac-dimethylammonium, quinmerac, quinmerac-dimethylammonium, floupyrauxifen, floupyrauxifen-benzyl (CAS 1390661-72-9), and 4-amino-3-chloro-5-fluoro-6-(7-fluoro-1H-indol-6-yl)picolinic acid (CAS 1629965-65-6).

According to another preferred embodiment of the invention, the composition comprises, in addition to a pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37),

(1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at least one and especially exactly one herbicidally active compound from group b14), in particular selected from the group consisting of diflufenzopyr, diflufenzopyr-sodium, dymron, indanofan and diflufenzopyr-sodium.

According to another preferred embodiment of the invention, the composition comprises, in addition to a pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at least one and especially exactly one herbicidally active compound from group b15), in particular selected from the group consisting of cinmethylin, dymron (= daimuron), indanofan and oxaziclomefone.

According to another preferred embodiment of the invention, the composition comprises, in addition to a pyridine compounds of formula (I), especially an active compound from the group consisting of (1.1.I-25), (1.1.I-31), (1.1.I-37), (1.1.I-49), (1.1.I-55), (1.1.I-61), (1.1.I-73), (1.2.I-25), (1.2.I-31), (1.2.I-37), (1.2.I-49), (1.2.I-55), (1.2.I-61), (1.2.I-73), (1.3.I-25), (1.3.I-31), (1.3.I-37), (1.3.I-49), (1.3.I-55), (1.3.I-61), (1.3.I-73), (1.4.I-25), (1.4.I-31), (1.4.I-37), (1.4.I-49), (1.4.I-55), (1.4.I-61), (1.4.I-73), (1.5.I-25), (1.5.I-31), (1.5.I-37), (1.5.I-49), (1.5.I-55), (1.5.I-61), (1.5.I-73), (1.6.I-25), (1.6.I-31), (1.6.I-37), (1.6.I-49), (1.6.I-55), (1.6.I-61), (1.6.I-73), (1.7.I-25), (1.7.I-31), (1.7.I-37), (1.7.I-49), (1.7.I-55), (1.7.I-61), (1.7.I-73), (1.8.I-25), (1.8.I-31), (1.8.I-37), (1.8.I-49), (1.8.I-55), (1.8.I-61), (1.8.I-73), (1.9.I-25), (1.9.I-31), (1.9.I-37), (1.9.I-49), (1.9.I-55), (1.9.I-61), (1.9.I-73), (1.10.I-25), (1.10.I-31), (1.10.I-37), (1.10.I-49), (1.10.I-55), (1.10.I-61), (1.10.I-73), at least one and especially exactly one safener C, in particular selected from the group consisting of benoxacor, cloquintocet, cyprosulfamide, dichlormid, fenchlorazole, fencloirim, 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, e.g. 1, 2 or 3, active compounds of the formula (I) and either one or more, e.g. 1, 2 or 3, herbicides B or one or more safeners C.

Correspondingly, the term "ternary compositions" includes compositions comprising one or more, e.g. 1, 2 or 3, active compounds of the formula (I), one or more, e.g. 1, 2 or 3, herbicides B and one or more, e.g. 1, 2 or 3, safeners C.

In binary compositions comprising at least one pyridine compound of 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 pyridine compound of 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 pyridine 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 pyridine compounds of formula I as defined and the substance(s) as defined in the respective row of table T;

especially preferred comprising as only herbicidal active compounds the pyridine compounds of formula I as defined and the substance(s) as defined in the respective row of table T;

most preferably comprising as only active compounds the pyridine compounds of formula I as defined and the substance(s) as defined in the respective row of table T.

Particularly preferred are compositions 1.1 to 1.3653, comprising the compound (1.1.I-25) and the substance(s) as defined in the respective row of table T:

Table T (compositions 1.1 to 1.3653):

comp. no.	herbi-cide B	safener C	comp. no.	herbi-cide B	safener C	comp. no.	herbi-cide B	safener C
1.1	B.1	--	1.10	B.10	--	1.19	B.19	--
1.2	B.2	--	1.11	B.11	--	1.20	B.20	--
1.3	B.3	--	1.12	B.12	--	1.21	B.21	--
1.4	B.4	--	1.13	B.13	--	1.22	B.22	--
1.5	B.5	--	1.14	B.14	--	1.23	B.23	--
1.6	B.6	--	1.15	B.15	--	1.24	B.24	--
1.7	B.7	--	1.16	B.16	--	1.25	B.25	--
1.8	B.8	--	1.17	B.17	--	1.26	B.26	--
1.9	B.9	--	1.18	B.18	--	1.27	B.27	--

WO 2018/019721

comp. no.	herbi- cide B	safener C
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	--

80

comp. no.	herbi- cide B	safener C
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	--
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	--

PCT/EP2017/068491

comp. no.	herbi- cide 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.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	--

WO 2018/019721

comp. no.	herbi- cide B	safener C
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	--
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	--

81

comp. no.	herbi- cide B	safener C
1.192	B.192	--
1.193	B.193	--
1.194	B.194	--
1.195	B.195	--
1.196	B.196	--
1.197	B.197	--
1.198	B.198	--
1.199	B.199	--
1.200	B.200	--
1.201	B.201	--
1.202	B.202	--
1.203	B.1	C.1
1.204	B.2	C.1
1.205	B.3	C.1
1.206	B.4	C.1
1.207	B.5	C.1
1.208	B.6	C.1
1.209	B.7	C.1
1.210	B.8	C.1
1.211	B.9	C.1
1.212	B.10	C.1
1.213	B.11	C.1
1.214	B.12	C.1
1.215	B.13	C.1
1.216	B.14	C.1
1.217	B.15	C.1
1.218	B.16	C.1
1.219	B.17	C.1
1.220	B.18	C.1
1.221	B.19	C.1
1.222	B.20	C.1
1.223	B.21	C.1
1.224	B.22	C.1
1.225	B.23	C.1
1.226	B.24	C.1
1.227	B.25	C.1
1.228	B.26	C.1
1.229	B.27	C.1
1.230	B.28	C.1
1.231	B.29	C.1
1.232	B.30	C.1

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.233	B.31	C.1
1.234	B.32	C.1
1.235	B.33	C.1
1.236	B.34	C.1
1.237	B.35	C.1
1.238	B.36	C.1
1.239	B.37	C.1
1.240	B.38	C.1
1.241	B.39	C.1
1.242	B.40	C.1
1.243	B.41	C.1
1.244	B.42	C.1
1.245	B.43	C.1
1.246	B.44	C.1
1.247	B.45	C.1
1.248	B.46	C.1
1.249	B.47	C.1
1.250	B.48	C.1
1.251	B.49	C.1
1.252	B.50	C.1
1.253	B.51	C.1
1.254	B.52	C.1
1.255	B.53	C.1
1.256	B.54	C.1
1.257	B.55	C.1
1.258	B.56	C.1
1.259	B.57	C.1
1.260	B.58	C.1
1.261	B.59	C.1
1.262	B.60	C.1
1.263	B.61	C.1
1.264	B.62	C.1
1.265	B.63	C.1
1.266	B.64	C.1
1.267	B.65	C.1
1.268	B.66	C.1
1.269	B.67	C.1
1.270	B.68	C.1
1.271	B.69	C.1
1.272	B.70	C.1
1.273	B.71	C.1

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.274	B.72	C.1
1.275	B.73	C.1
1.276	B.74	C.1
1.277	B.75	C.1
1.278	B.76	C.1
1.279	B.77	C.1
1.280	B.78	C.1
1.281	B.79	C.1
1.282	B.80	C.1
1.283	B.81	C.1
1.284	B.82	C.1
1.285	B.83	C.1
1.286	B.84	C.1
1.287	B.85	C.1
1.288	B.86	C.1
1.289	B.87	C.1
1.290	B.88	C.1
1.291	B.89	C.1
1.292	B.90	C.1
1.293	B.91	C.1
1.294	B.92	C.1
1.295	B.93	C.1
1.296	B.94	C.1
1.297	B.95	C.1
1.298	B.96	C.1
1.299	B.97	C.1
1.300	B.98	C.1
1.301	B.99	C.1
1.302	B.100	C.1
1.303	B.101	C.1
1.304	B.102	C.1
1.305	B.103	C.1
1.306	B.104	C.1
1.307	B.105	C.1
1.308	B.106	C.1
1.309	B.107	C.1
1.310	B.108	C.1
1.311	B.109	C.1
1.312	B.110	C.1
1.313	B.111	C.1
1.314	B.112	C.1

82

comp. no.	herbi- cide B	safener C
1.315	B.113	C.1
1.316	B.114	C.1
1.317	B.115	C.1
1.318	B.116	C.1
1.319	B.117	C.1
1.320	B.118	C.1
1.321	B.119	C.1
1.322	B.120	C.1
1.323	B.121	C.1
1.324	B.122	C.1
1.325	B.123	C.1
1.326	B.124	C.1
1.327	B.125	C.1
1.328	B.126	C.1
1.329	B.127	C.1
1.330	B.128	C.1
1.331	B.129	C.1
1.332	B.130	C.1
1.333	B.131	C.1
1.334	B.132	C.1
1.335	B.133	C.1
1.336	B.134	C.1
1.337	B.135	C.1
1.338	B.136	C.1
1.339	B.137	C.1
1.340	B.138	C.1
1.341	B.139	C.1
1.342	B.140	C.1
1.343	B.141	C.1
1.344	B.142	C.1
1.345	B.143	C.1
1.346	B.144	C.1
1.347	B.145	C.1
1.348	B.146	C.1
1.349	B.147	C.1
1.350	B.148	C.1
1.351	B.149	C.1
1.352	B.150	C.1
1.353	B.151	C.1
1.354	B.152	C.1
1.355	B.153	C.1

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.356	B.154	C.1
1.357	B.155	C.1
1.358	B.156	C.1
1.359	B.157	C.1
1.360	B.158	C.1
1.361	B.159	C.1
1.362	B.160	C.1
1.363	B.161	C.1
1.364	B.162	C.1
1.365	B.163	C.1
1.366	B.164	C.1
1.367	B.165	C.1
1.368	B.166	C.1
1.369	B.167	C.1
1.370	B.168	C.1
1.371	B.169	C.1
1.372	B.170	C.1
1.373	B.171	C.1
1.374	B.172	C.1
1.375	B.173	C.1
1.376	B.174	C.1
1.377	B.175	C.1
1.378	B.176	C.1
1.379	B.177	C.1
1.380	B.178	C.1
1.381	B.179	C.1
1.382	B.180	C.1
1.383	B.181	C.1
1.384	B.182	C.1
1.385	B.183	C.1
1.386	B.184	C.1
1.387	B.185	C.1
1.388	B.186	C.1
1.389	B.187	C.1
1.390	B.188	C.1
1.391	B.189	C.1
1.392	B.190	C.1
1.393	B.191	C.1
1.394	B.192	C.1
1.395	B.193	C.1
1.396	B.194	C.1

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.397	B.195	C.1
1.398	B.196	C.1
1.399	B.197	C.1
1.400	B.198	C.1
1.401	B.199	C.1
1.402	B.200	C.1
1.403	B.201	C.1
1.404	B.202	C.1
1.405	B.1	C.2
1.406	B.2	C.2
1.407	B.3	C.2
1.408	B.4	C.2
1.409	B.5	C.2
1.410	B.6	C.2
1.411	B.7	C.2
1.412	B.8	C.2
1.413	B.9	C.2
1.414	B.10	C.2
1.415	B.11	C.2
1.416	B.12	C.2
1.417	B.13	C.2
1.418	B.14	C.2
1.419	B.15	C.2
1.420	B.16	C.2
1.421	B.17	C.2
1.422	B.18	C.2
1.423	B.19	C.2
1.424	B.20	C.2
1.425	B.21	C.2
1.426	B.22	C.2
1.427	B.23	C.2
1.428	B.24	C.2
1.429	B.25	C.2
1.430	B.26	C.2
1.431	B.27	C.2
1.432	B.28	C.2
1.433	B.29	C.2
1.434	B.30	C.2
1.435	B.31	C.2
1.436	B.32	C.2
1.437	B.33	C.2

83

comp. no.	herbi- cide B	safener C
1.438	B.34	C.2
1.439	B.35	C.2
1.440	B.36	C.2
1.441	B.37	C.2
1.442	B.38	C.2
1.443	B.39	C.2
1.444	B.40	C.2
1.445	B.41	C.2
1.446	B.42	C.2
1.447	B.43	C.2
1.448	B.44	C.2
1.449	B.45	C.2
1.450	B.46	C.2
1.451	B.47	C.2
1.452	B.48	C.2
1.453	B.49	C.2
1.454	B.50	C.2
1.455	B.51	C.2
1.456	B.52	C.2
1.457	B.53	C.2
1.458	B.54	C.2
1.459	B.55	C.2
1.460	B.56	C.2
1.461	B.57	C.2
1.462	B.58	C.2
1.463	B.59	C.2
1.464	B.60	C.2
1.465	B.61	C.2
1.466	B.62	C.2
1.467	B.63	C.2
1.468	B.64	C.2
1.469	B.65	C.2
1.470	B.66	C.2
1.471	B.67	C.2
1.472	B.68	C.2
1.473	B.69	C.2
1.474	B.70	C.2
1.475	B.71	C.2
1.476	B.72	C.2
1.477	B.73	C.2
1.478	B.74	C.2

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.479	B.75	C.2
1.480	B.76	C.2
1.481	B.77	C.2
1.482	B.78	C.2
1.483	B.79	C.2
1.484	B.80	C.2
1.485	B.81	C.2
1.486	B.82	C.2
1.487	B.83	C.2
1.488	B.84	C.2
1.489	B.85	C.2
1.490	B.86	C.2
1.491	B.87	C.2
1.492	B.88	C.2
1.493	B.89	C.2
1.494	B.90	C.2
1.495	B.91	C.2
1.496	B.92	C.2
1.497	B.93	C.2
1.498	B.94	C.2
1.499	B.95	C.2
1.500	B.96	C.2
1.501	B.97	C.2
1.502	B.98	C.2
1.503	B.99	C.2
1.504	B.100	C.2
1.505	B.101	C.2
1.506	B.102	C.2
1.507	B.103	C.2
1.508	B.104	C.2
1.509	B.105	C.2
1.510	B.106	C.2
1.511	B.107	C.2
1.512	B.108	C.2
1.513	B.109	C.2
1.514	B.110	C.2
1.515	B.111	C.2
1.516	B.112	C.2
1.517	B.113	C.2
1.518	B.114	C.2
1.519	B.115	C.2

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.520	B.116	C.2
1.521	B.117	C.2
1.522	B.118	C.2
1.523	B.119	C.2
1.524	B.120	C.2
1.525	B.121	C.2
1.526	B.122	C.2
1.527	B.123	C.2
1.528	B.124	C.2
1.529	B.125	C.2
1.530	B.126	C.2
1.531	B.127	C.2
1.532	B.128	C.2
1.533	B.129	C.2
1.534	B.130	C.2
1.535	B.131	C.2
1.536	B.132	C.2
1.537	B.133	C.2
1.538	B.134	C.2
1.539	B.135	C.2
1.540	B.136	C.2
1.541	B.137	C.2
1.542	B.138	C.2
1.543	B.139	C.2
1.544	B.140	C.2
1.545	B.141	C.2
1.546	B.142	C.2
1.547	B.143	C.2
1.548	B.144	C.2
1.549	B.145	C.2
1.550	B.146	C.2
1.551	B.147	C.2
1.552	B.148	C.2
1.553	B.149	C.2
1.554	B.150	C.2
1.555	B.151	C.2
1.556	B.152	C.2
1.557	B.153	C.2
1.558	B.154	C.2
1.559	B.155	C.2
1.560	B.156	C.2

84

comp. no.	herbi- cide B	safener C
1.561	B.157	C.2
1.562	B.158	C.2
1.563	B.159	C.2
1.564	B.160	C.2
1.565	B.161	C.2
1.566	B.162	C.2
1.567	B.163	C.2
1.568	B.164	C.2
1.569	B.165	C.2
1.570	B.166	C.2
1.571	B.167	C.2
1.572	B.168	C.2
1.573	B.169	C.2
1.574	B.170	C.2
1.575	B.171	C.2
1.576	B.172	C.2
1.577	B.173	C.2
1.578	B.174	C.2
1.579	B.175	C.2
1.580	B.176	C.2
1.581	B.177	C.2
1.582	B.178	C.2
1.583	B.179	C.2
1.584	B.180	C.2
1.585	B.181	C.2
1.586	B.182	C.2
1.587	B.183	C.2
1.588	B.184	C.2
1.589	B.185	C.2
1.590	B.186	C.2
1.591	B.187	C.2
1.592	B.188	C.2
1.593	B.189	C.2
1.594	B.190	C.2
1.595	B.191	C.2
1.596	B.192	C.2
1.597	B.193	C.2
1.598	B.194	C.2
1.599	B.195	C.2
1.600	B.196	C.2
1.601	B.197	C.2

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.602	B.198	C.2
1.603	B.199	C.2
1.604	B.200	C.2
1.605	B.201	C.2
1.606	B.202	C.2
1.607	B.1	C.3
1.608	B.2	C.3
1.609	B.3	C.3
1.610	B.4	C.3
1.611	B.5	C.3
1.612	B.6	C.3
1.613	B.7	C.3
1.614	B.8	C.3
1.615	B.9	C.3
1.616	B.10	C.3
1.617	B.11	C.3
1.618	B.12	C.3
1.619	B.13	C.3
1.620	B.14	C.3
1.621	B.15	C.3
1.622	B.16	C.3
1.623	B.17	C.3
1.624	B.18	C.3
1.625	B.19	C.3
1.626	B.20	C.3
1.627	B.21	C.3
1.628	B.22	C.3
1.629	B.23	C.3
1.630	B.24	C.3
1.631	B.25	C.3
1.632	B.26	C.3
1.633	B.27	C.3
1.634	B.28	C.3
1.635	B.29	C.3
1.636	B.30	C.3
1.637	B.31	C.3
1.638	B.32	C.3
1.639	B.33	C.3
1.640	B.34	C.3
1.641	B.35	C.3
1.642	B.36	C.3

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.643	B.37	C.3
1.644	B.38	C.3
1.645	B.39	C.3
1.646	B.40	C.3
1.647	B.41	C.3
1.648	B.42	C.3
1.649	B.43	C.3
1.650	B.44	C.3
1.651	B.45	C.3
1.652	B.46	C.3
1.653	B.47	C.3
1.654	B.48	C.3
1.655	B.49	C.3
1.656	B.50	C.3
1.657	B.51	C.3
1.658	B.52	C.3
1.659	B.53	C.3
1.660	B.54	C.3
1.661	B.55	C.3
1.662	B.56	C.3
1.663	B.57	C.3
1.664	B.58	C.3
1.665	B.59	C.3
1.666	B.60	C.3
1.667	B.61	C.3
1.668	B.62	C.3
1.669	B.63	C.3
1.670	B.64	C.3
1.671	B.65	C.3
1.672	B.66	C.3
1.673	B.67	C.3
1.674	B.68	C.3
1.675	B.69	C.3
1.676	B.70	C.3
1.677	B.71	C.3
1.678	B.72	C.3
1.679	B.73	C.3
1.680	B.74	C.3
1.681	B.75	C.3
1.682	B.76	C.3
1.683	B.77	C.3

85

comp. no.	herbi- cide B	safener C
1.684	B.78	C.3
1.685	B.79	C.3
1.686	B.80	C.3
1.687	B.81	C.3
1.688	B.82	C.3
1.689	B.83	C.3
1.690	B.84	C.3
1.691	B.85	C.3
1.692	B.86	C.3
1.693	B.87	C.3
1.694	B.88	C.3
1.695	B.89	C.3
1.696	B.90	C.3
1.697	B.91	C.3
1.698	B.92	C.3
1.699	B.93	C.3
1.700	B.94	C.3
1.701	B.95	C.3
1.702	B.96	C.3
1.703	B.97	C.3
1.704	B.98	C.3
1.705	B.99	C.3
1.706	B.100	C.3
1.707	B.101	C.3
1.708	B.102	C.3
1.709	B.103	C.3
1.710	B.104	C.3
1.711	B.105	C.3
1.712	B.106	C.3
1.713	B.107	C.3
1.714	B.108	C.3
1.715	B.109	C.3
1.716	B.110	C.3
1.717	B.111	C.3
1.718	B.112	C.3
1.719	B.113	C.3
1.720	B.114	C.3
1.721	B.115	C.3
1.722	B.116	C.3
1.723	B.117	C.3
1.724	B.118	C.3

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.725	B.119	C.3
1.726	B.120	C.3
1.727	B.121	C.3
1.728	B.122	C.3
1.729	B.123	C.3
1.730	B.124	C.3
1.731	B.125	C.3
1.732	B.126	C.3
1.733	B.127	C.3
1.734	B.128	C.3
1.735	B.129	C.3
1.736	B.130	C.3
1.737	B.131	C.3
1.738	B.132	C.3
1.739	B.133	C.3
1.740	B.134	C.3
1.741	B.135	C.3
1.742	B.136	C.3
1.743	B.137	C.3
1.744	B.138	C.3
1.745	B.139	C.3
1.746	B.140	C.3
1.747	B.141	C.3
1.748	B.142	C.3
1.749	B.143	C.3
1.750	B.144	C.3
1.751	B.145	C.3
1.752	B.146	C.3
1.753	B.147	C.3
1.754	B.148	C.3
1.755	B.149	C.3
1.756	B.150	C.3
1.757	B.151	C.3
1.758	B.152	C.3
1.759	B.153	C.3
1.760	B.154	C.3
1.761	B.155	C.3
1.762	B.156	C.3
1.763	B.157	C.3
1.764	B.158	C.3
1.765	B.159	C.3

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.766	B.160	C.3
1.767	B.161	C.3
1.768	B.162	C.3
1.769	B.163	C.3
1.770	B.164	C.3
1.771	B.165	C.3
1.772	B.166	C.3
1.773	B.167	C.3
1.774	B.168	C.3
1.775	B.169	C.3
1.776	B.170	C.3
1.777	B.171	C.3
1.778	B.172	C.3
1.779	B.173	C.3
1.780	B.174	C.3
1.781	B.175	C.3
1.782	B.176	C.3
1.783	B.177	C.3
1.784	B.178	C.3
1.785	B.179	C.3
1.786	B.180	C.3
1.787	B.181	C.3
1.788	B.182	C.3
1.789	B.183	C.3
1.790	B.184	C.3
1.791	B.185	C.3
1.792	B.186	C.3
1.793	B.187	C.3
1.794	B.188	C.3
1.795	B.189	C.3
1.796	B.190	C.3
1.797	B.191	C.3
1.798	B.192	C.3
1.799	B.193	C.3
1.800	B.194	C.3
1.801	B.195	C.3
1.802	B.196	C.3
1.803	B.197	C.3
1.804	B.198	C.3
1.805	B.199	C.3
1.806	B.200	C.3

86

comp. no.	herbi- cide B	safener C
1.807	B.201	C.3
1.808	B.202	C.3
1.809	B.1	C.4
1.810	B.2	C.4
1.811	B.3	C.4
1.812	B.4	C.4
1.813	B.5	C.4
1.814	B.6	C.4
1.815	B.7	C.4
1.816	B.8	C.4
1.817	B.9	C.4
1.818	B.10	C.4
1.819	B.11	C.4
1.820	B.12	C.4
1.821	B.13	C.4
1.822	B.14	C.4
1.823	B.15	C.4
1.824	B.16	C.4
1.825	B.17	C.4
1.826	B.18	C.4
1.827	B.19	C.4
1.828	B.20	C.4
1.829	B.21	C.4
1.830	B.22	C.4
1.831	B.23	C.4
1.832	B.24	C.4
1.833	B.25	C.4
1.834	B.26	C.4
1.835	B.27	C.4
1.836	B.28	C.4
1.837	B.29	C.4
1.838	B.30	C.4
1.839	B.31	C.4
1.840	B.32	C.4
1.841	B.33	C.4
1.842	B.34	C.4
1.843	B.35	C.4
1.844	B.36	C.4
1.845	B.37	C.4
1.846	B.38	C.4
1.847	B.39	C.4

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.848	B.40	C.4
1.849	B.41	C.4
1.850	B.42	C.4
1.851	B.43	C.4
1.852	B.44	C.4
1.853	B.45	C.4
1.854	B.46	C.4
1.855	B.47	C.4
1.856	B.48	C.4
1.857	B.49	C.4
1.858	B.50	C.4
1.859	B.51	C.4
1.860	B.52	C.4
1.861	B.53	C.4
1.862	B.54	C.4
1.863	B.55	C.4
1.864	B.56	C.4
1.865	B.57	C.4
1.866	B.58	C.4
1.867	B.59	C.4
1.868	B.60	C.4
1.869	B.61	C.4
1.870	B.62	C.4
1.871	B.63	C.4
1.872	B.64	C.4
1.873	B.65	C.4
1.874	B.66	C.4
1.875	B.67	C.4
1.876	B.68	C.4
1.877	B.69	C.4
1.878	B.70	C.4
1.879	B.71	C.4
1.880	B.72	C.4
1.881	B.73	C.4
1.882	B.74	C.4
1.883	B.75	C.4
1.884	B.76	C.4
1.885	B.77	C.4
1.886	B.78	C.4
1.887	B.79	C.4
1.888	B.80	C.4

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.889	B.81	C.4
1.890	B.82	C.4
1.891	B.83	C.4
1.892	B.84	C.4
1.893	B.85	C.4
1.894	B.86	C.4
1.895	B.87	C.4
1.896	B.88	C.4
1.897	B.89	C.4
1.898	B.90	C.4
1.899	B.91	C.4
1.900	B.92	C.4
1.901	B.93	C.4
1.902	B.94	C.4
1.903	B.95	C.4
1.904	B.96	C.4
1.905	B.97	C.4
1.906	B.98	C.4
1.907	B.99	C.4
1.908	B.100	C.4
1.909	B.101	C.4
1.910	B.102	C.4
1.911	B.103	C.4
1.912	B.104	C.4
1.913	B.105	C.4
1.914	B.106	C.4
1.915	B.107	C.4
1.916	B.108	C.4
1.917	B.109	C.4
1.918	B.110	C.4
1.919	B.111	C.4
1.920	B.112	C.4
1.921	B.113	C.4
1.922	B.114	C.4
1.923	B.115	C.4
1.924	B.116	C.4
1.925	B.117	C.4
1.926	B.118	C.4
1.927	B.119	C.4
1.928	B.120	C.4
1.929	B.121	C.4

87

comp. no.	herbi- cide B	safener C
1.930	B.122	C.4
1.931	B.123	C.4
1.932	B.124	C.4
1.933	B.125	C.4
1.934	B.126	C.4
1.935	B.127	C.4
1.936	B.128	C.4
1.937	B.129	C.4
1.938	B.130	C.4
1.939	B.131	C.4
1.940	B.132	C.4
1.941	B.133	C.4
1.942	B.134	C.4
1.943	B.135	C.4
1.944	B.136	C.4
1.945	B.137	C.4
1.946	B.138	C.4
1.947	B.139	C.4
1.948	B.140	C.4
1.949	B.141	C.4
1.950	B.142	C.4
1.951	B.143	C.4
1.952	B.144	C.4
1.953	B.145	C.4
1.954	B.146	C.4
1.955	B.147	C.4
1.956	B.148	C.4
1.957	B.149	C.4
1.958	B.150	C.4
1.959	B.151	C.4
1.960	B.152	C.4
1.961	B.153	C.4
1.962	B.154	C.4
1.963	B.155	C.4
1.964	B.156	C.4
1.965	B.157	C.4
1.966	B.158	C.4
1.967	B.159	C.4
1.968	B.160	C.4
1.969	B.161	C.4
1.970	B.162	C.4

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.971	B.163	C.4
1.972	B.164	C.4
1.973	B.165	C.4
1.974	B.166	C.4
1.975	B.167	C.4
1.976	B.168	C.4
1.977	B.169	C.4
1.978	B.170	C.4
1.979	B.171	C.4
1.980	B.172	C.4
1.981	B.173	C.4
1.982	B.174	C.4
1.983	B.175	C.4
1.984	B.176	C.4
1.985	B.177	C.4
1.986	B.178	C.4
1.987	B.179	C.4
1.988	B.180	C.4
1.989	B.181	C.4
1.990	B.182	C.4
1.991	B.183	C.4
1.992	B.184	C.4
1.993	B.185	C.4
1.994	B.186	C.4
1.995	B.187	C.4
1.996	B.188	C.4
1.997	B.189	C.4
1.998	B.190	C.4
1.999	B.191	C.4
1.1000	B.192	C.4
1.1001	B.193	C.4
1.1002	B.194	C.4
1.1003	B.195	C.4
1.1004	B.196	C.4
1.1005	B.197	C.4
1.1006	B.198	C.4
1.1007	B.199	C.4
1.1008	B.200	C.4
1.1009	B.201	C.4
1.1010	B.202	C.4
1.1011	B.1	C.5

comp. no.	herbi- cide B	safener C
1.1012	B.2	C.5
1.1013	B.3	C.5
1.1014	B.4	C.5
1.1015	B.5	C.5
1.1016	B.6	C.5
1.1017	B.7	C.5
1.1018	B.8	C.5
1.1019	B.9	C.5
1.1020	B.10	C.5
1.1021	B.11	C.5
1.1022	B.12	C.5
1.1023	B.13	C.5
1.1024	B.14	C.5
1.1025	B.15	C.5
1.1026	B.16	C.5
1.1027	B.17	C.5
1.1028	B.18	C.5
1.1029	B.19	C.5
1.1030	B.20	C.5
1.1031	B.21	C.5
1.1032	B.22	C.5
1.1033	B.23	C.5
1.1034	B.24	C.5
1.1035	B.25	C.5
1.1036	B.26	C.5
1.1037	B.27	C.5
1.1038	B.28	C.5
1.1039	B.29	C.5
1.1040	B.30	C.5
1.1041	B.31	C.5
1.1042	B.32	C.5
1.1043	B.33	C.5
1.1044	B.34	C.5
1.1045	B.35	C.5
1.1046	B.36	C.5
1.1047	B.37	C.5
1.1048	B.38	C.5
1.1049	B.39	C.5
1.1050	B.40	C.5
1.1051	B.41	C.5
1.1052	B.42	C.5

comp. no.	herbi- cide B	safener C
1.1053	B.43	C.5
1.1054	B.44	C.5
1.1055	B.45	C.5
1.1056	B.46	C.5
1.1057	B.47	C.5
1.1058	B.48	C.5
1.1059	B.49	C.5
1.1060	B.50	C.5
1.1061	B.51	C.5
1.1062	B.52	C.5
1.1063	B.53	C.5
1.1064	B.54	C.5
1.1065	B.55	C.5
1.1066	B.56	C.5
1.1067	B.57	C.5
1.1068	B.58	C.5
1.1069	B.59	C.5
1.1070	B.60	C.5
1.1071	B.61	C.5
1.1072	B.62	C.5
1.1073	B.63	C.5
1.1074	B.64	C.5
1.1075	B.65	C.5
1.1076	B.66	C.5
1.1077	B.67	C.5
1.1078	B.68	C.5
1.1079	B.69	C.5
1.1080	B.70	C.5
1.1081	B.71	C.5
1.1082	B.72	C.5
1.1083	B.73	C.5
1.1084	B.74	C.5
1.1085	B.75	C.5
1.1086	B.76	C.5
1.1087	B.77	C.5
1.1088	B.78	C.5
1.1089	B.79	C.5
1.1090	B.80	C.5
1.1091	B.81	C.5
1.1092	B.82	C.5
1.1093	B.83	C.5

comp. no.	herbi- cide B	safener C
1.1094	B.84	C.5
1.1095	B.85	C.5
1.1096	B.86	C.5
1.1097	B.87	C.5
1.1098	B.88	C.5
1.1099	B.89	C.5
1.1100	B.90	C.5
1.1101	B.91	C.5
1.1102	B.92	C.5
1.1103	B.93	C.5
1.1104	B.94	C.5
1.1105	B.95	C.5
1.1106	B.96	C.5
1.1107	B.97	C.5
1.1108	B.98	C.5
1.1109	B.99	C.5
1.1110	B.100	C.5
1.1111	B.101	C.5
1.1112	B.102	C.5
1.1113	B.103	C.5
1.1114	B.104	C.5
1.1115	B.105	C.5
1.1116	B.106	C.5
1.1117	B.107	C.5
1.1118	B.108	C.5
1.1119	B.109	C.5
1.1120	B.110	C.5
1.1121	B.111	C.5
1.1122	B.112	C.5
1.1123	B.113	C.5
1.1124	B.114	C.5
1.1125	B.115	C.5
1.1126	B.116	C.5
1.1127	B.117	C.5
1.1128	B.118	C.5
1.1129	B.119	C.5
1.1130	B.120	C.5
1.1131	B.121	C.5
1.1132	B.122	C.5
1.1133	B.123	C.5
1.1134	B.124	C.5

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.1135	B.125	C.5
1.1136	B.126	C.5
1.1137	B.127	C.5
1.1138	B.128	C.5
1.1139	B.129	C.5
1.1140	B.130	C.5
1.1141	B.131	C.5
1.1142	B.132	C.5
1.1143	B.133	C.5
1.1144	B.134	C.5
1.1145	B.135	C.5
1.1146	B.136	C.5
1.1147	B.137	C.5
1.1148	B.138	C.5
1.1149	B.139	C.5
1.1150	B.140	C.5
1.1151	B.141	C.5
1.1152	B.142	C.5
1.1153	B.143	C.5
1.1154	B.144	C.5
1.1155	B.145	C.5
1.1156	B.146	C.5
1.1157	B.147	C.5
1.1158	B.148	C.5
1.1159	B.149	C.5
1.1160	B.150	C.5
1.1161	B.151	C.5
1.1162	B.152	C.5
1.1163	B.153	C.5
1.1164	B.154	C.5
1.1165	B.155	C.5
1.1166	B.156	C.5
1.1167	B.157	C.5
1.1168	B.158	C.5
1.1169	B.159	C.5
1.1170	B.160	C.5
1.1171	B.161	C.5
1.1172	B.162	C.5
1.1173	B.163	C.5
1.1174	B.164	C.5
1.1175	B.165	C.5

89

comp. no.	herbi- cide B	safener C
1.1176	B.166	C.5
1.1177	B.167	C.5
1.1178	B.168	C.5
1.1179	B.169	C.5
1.1180	B.170	C.5
1.1181	B.171	C.5
1.1182	B.172	C.5
1.1183	B.173	C.5
1.1184	B.174	C.5
1.1185	B.175	C.5
1.1186	B.176	C.5
1.1187	B.177	C.5
1.1188	B.178	C.5
1.1189	B.179	C.5
1.1190	B.180	C.5
1.1191	B.181	C.5
1.1192	B.182	C.5
1.1193	B.183	C.5
1.1194	B.184	C.5
1.1195	B.185	C.5
1.1196	B.186	C.5
1.1197	B.187	C.5
1.1198	B.188	C.5
1.1199	B.189	C.5
1.1200	B.190	C.5
1.1201	B.191	C.5
1.1202	B.192	C.5
1.1203	B.193	C.5
1.1204	B.194	C.5
1.1205	B.195	C.5
1.1206	B.196	C.5
1.1207	B.197	C.5
1.1208	B.198	C.5
1.1209	B.199	C.5
1.1210	B.200	C.5
1.1211	B.201	C.5
1.1212	B.202	C.5
1.1213	B.1	C.6
1.1214	B.2	C.6
1.1215	B.3	C.6
1.1216	B.4	C.6

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.1217	B.5	C.6
1.1218	B.6	C.6
1.1219	B.7	C.6
1.1220	B.8	C.6
1.1221	B.9	C.6
1.1222	B.10	C.6
1.1223	B.11	C.6
1.1224	B.12	C.6
1.1225	B.13	C.6
1.1226	B.14	C.6
1.1227	B.15	C.6
1.1228	B.16	C.6
1.1229	B.17	C.6
1.1230	B.18	C.6
1.1231	B.19	C.6
1.1232	B.20	C.6
1.1233	B.21	C.6
1.1234	B.22	C.6
1.1235	B.23	C.6
1.1236	B.24	C.6
1.1237	B.25	C.6
1.1238	B.26	C.6
1.1239	B.27	C.6
1.1240	B.28	C.6
1.1241	B.29	C.6
1.1242	B.30	C.6
1.1243	B.31	C.6
1.1244	B.32	C.6
1.1245	B.33	C.6
1.1246	B.34	C.6
1.1247	B.35	C.6
1.1248	B.36	C.6
1.1249	B.37	C.6
1.1250	B.38	C.6
1.1251	B.39	C.6
1.1252	B.40	C.6
1.1253	B.41	C.6
1.1254	B.42	C.6
1.1255	B.43	C.6
1.1256	B.44	C.6
1.1257	B.45	C.6

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.1258	B.46	C.6
1.1259	B.47	C.6
1.1260	B.48	C.6
1.1261	B.49	C.6
1.1262	B.50	C.6
1.1263	B.51	C.6
1.1264	B.52	C.6
1.1265	B.53	C.6
1.1266	B.54	C.6
1.1267	B.55	C.6
1.1268	B.56	C.6
1.1269	B.57	C.6
1.1270	B.58	C.6
1.1271	B.59	C.6
1.1272	B.60	C.6
1.1273	B.61	C.6
1.1274	B.62	C.6
1.1275	B.63	C.6
1.1276	B.64	C.6
1.1277	B.65	C.6
1.1278	B.66	C.6
1.1279	B.67	C.6
1.1280	B.68	C.6
1.1281	B.69	C.6
1.1282	B.70	C.6
1.1283	B.71	C.6
1.1284	B.72	C.6
1.1285	B.73	C.6
1.1286	B.74	C.6
1.1287	B.75	C.6
1.1288	B.76	C.6
1.1289	B.77	C.6
1.1290	B.78	C.6
1.1291	B.79	C.6
1.1292	B.80	C.6
1.1293	B.81	C.6
1.1294	B.82	C.6
1.1295	B.83	C.6
1.1296	B.84	C.6
1.1297	B.85	C.6
1.1298	B.86	C.6

90

comp. no.	herbi- cide B	safener C
1.1299	B.87	C.6
1.1300	B.88	C.6
1.1301	B.89	C.6
1.1302	B.90	C.6
1.1303	B.91	C.6
1.1304	B.92	C.6
1.1305	B.93	C.6
1.1306	B.94	C.6
1.1307	B.95	C.6
1.1308	B.96	C.6
1.1309	B.97	C.6
1.1310	B.98	C.6
1.1311	B.99	C.6
1.1312	B.100	C.6
1.1313	B.101	C.6
1.1314	B.102	C.6
1.1315	B.103	C.6
1.1316	B.104	C.6
1.1317	B.105	C.6
1.1318	B.106	C.6
1.1319	B.107	C.6
1.1320	B.108	C.6
1.1321	B.109	C.6
1.1322	B.110	C.6
1.1323	B.111	C.6
1.1324	B.112	C.6
1.1325	B.113	C.6
1.1326	B.114	C.6
1.1327	B.115	C.6
1.1328	B.116	C.6
1.1329	B.117	C.6
1.1330	B.118	C.6
1.1331	B.119	C.6
1.1332	B.120	C.6
1.1333	B.121	C.6
1.1334	B.122	C.6
1.1335	B.123	C.6
1.1336	B.124	C.6
1.1337	B.125	C.6
1.1338	B.126	C.6
1.1339	B.127	C.6

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.1340	B.128	C.6
1.1341	B.129	C.6
1.1342	B.130	C.6
1.1343	B.131	C.6
1.1344	B.132	C.6
1.1345	B.133	C.6
1.1346	B.134	C.6
1.1347	B.135	C.6
1.1348	B.136	C.6
1.1349	B.137	C.6
1.1350	B.138	C.6
1.1351	B.139	C.6
1.1352	B.140	C.6
1.1353	B.141	C.6
1.1354	B.142	C.6
1.1355	B.143	C.6
1.1356	B.144	C.6
1.1357	B.145	C.6
1.1358	B.146	C.6
1.1359	B.147	C.6
1.1360	B.148	C.6
1.1361	B.149	C.6
1.1362	B.150	C.6
1.1363	B.151	C.6
1.1364	B.152	C.6
1.1365	B.153	C.6
1.1366	B.154	C.6
1.1367	B.155	C.6
1.1368	B.156	C.6
1.1369	B.157	C.6
1.1370	B.158	C.6
1.1371	B.159	C.6
1.1372	B.160	C.6
1.1373	B.161	C.6
1.1374	B.162	C.6
1.1375	B.163	C.6
1.1376	B.164	C.6
1.1377	B.165	C.6
1.1378	B.166	C.6
1.1379	B.167	C.6
1.1380	B.168	C.6

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.1381	B.169	C.6
1.1382	B.170	C.6
1.1383	B.171	C.6
1.1384	B.172	C.6
1.1385	B.173	C.6
1.1386	B.174	C.6
1.1387	B.175	C.6
1.1388	B.176	C.6
1.1389	B.177	C.6
1.1390	B.178	C.6
1.1391	B.179	C.6
1.1392	B.180	C.6
1.1393	B.181	C.6
1.1394	B.182	C.6
1.1395	B.183	C.6
1.1396	B.184	C.6
1.1397	B.185	C.6
1.1398	B.186	C.6
1.1399	B.187	C.6
1.1400	B.188	C.6
1.1401	B.189	C.6
1.1402	B.190	C.6
1.1403	B.191	C.6
1.1404	B.192	C.6
1.1405	B.193	C.6
1.1406	B.194	C.6
1.1407	B.195	C.6
1.1408	B.196	C.6
1.1409	B.197	C.6
1.1410	B.198	C.6
1.1411	B.199	C.6
1.1412	B.200	C.6
1.1413	B.201	C.6
1.1414	B.202	C.6
1.1415	B.1	C.7
1.1416	B.2	C.7
1.1417	B.3	C.7
1.1418	B.4	C.7
1.1419	B.5	C.7
1.1420	B.6	C.7
1.1421	B.7	C.7

91

comp. no.	herbi- cide B	safener C
1.1422	B.8	C.7
1.1423	B.9	C.7
1.1424	B.10	C.7
1.1425	B.11	C.7
1.1426	B.12	C.7
1.1427	B.13	C.7
1.1428	B.14	C.7
1.1429	B.15	C.7
1.1430	B.16	C.7
1.1431	B.17	C.7
1.1432	B.18	C.7
1.1433	B.19	C.7
1.1434	B.20	C.7
1.1435	B.21	C.7
1.1436	B.22	C.7
1.1437	B.23	C.7
1.1438	B.24	C.7
1.1439	B.25	C.7
1.1440	B.26	C.7
1.1441	B.27	C.7
1.1442	B.28	C.7
1.1443	B.29	C.7
1.1444	B.30	C.7
1.1445	B.31	C.7
1.1446	B.32	C.7
1.1447	B.33	C.7
1.1448	B.34	C.7
1.1449	B.35	C.7
1.1450	B.36	C.7
1.1451	B.37	C.7
1.1452	B.38	C.7
1.1453	B.39	C.7
1.1454	B.40	C.7
1.1455	B.41	C.7
1.1456	B.42	C.7
1.1457	B.43	C.7
1.1458	B.44	C.7
1.1459	B.45	C.7
1.1460	B.46	C.7
1.1461	B.47	C.7
1.1462	B.48	C.7

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.1463	B.49	C.7
1.1464	B.50	C.7
1.1465	B.51	C.7
1.1466	B.52	C.7
1.1467	B.53	C.7
1.1468	B.54	C.7
1.1469	B.55	C.7
1.1470	B.56	C.7
1.1471	B.57	C.7
1.1472	B.58	C.7
1.1473	B.59	C.7
1.1474	B.60	C.7
1.1475	B.61	C.7
1.1476	B.62	C.7
1.1477	B.63	C.7
1.1478	B.64	C.7
1.1479	B.65	C.7
1.1480	B.66	C.7
1.1481	B.67	C.7
1.1482	B.68	C.7
1.1483	B.69	C.7
1.1484	B.70	C.7
1.1485	B.71	C.7
1.1486	B.72	C.7
1.1487	B.73	C.7
1.1488	B.74	C.7
1.1489	B.75	C.7
1.1490	B.76	C.7
1.1491	B.77	C.7
1.1492	B.78	C.7
1.1493	B.79	C.7
1.1494	B.80	C.7
1.1495	B.81	C.7
1.1496	B.82	C.7
1.1497	B.83	C.7
1.1498	B.84	C.7
1.1499	B.85	C.7
1.1500	B.86	C.7
1.1501	B.87	C.7
1.1502	B.88	C.7
1.1503	B.89	C.7

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.1504	B.90	C.7
1.1505	B.91	C.7
1.1506	B.92	C.7
1.1507	B.93	C.7
1.1508	B.94	C.7
1.1509	B.95	C.7
1.1510	B.96	C.7
1.1511	B.97	C.7
1.1512	B.98	C.7
1.1513	B.99	C.7
1.1514	B.100	C.7
1.1515	B.101	C.7
1.1516	B.102	C.7
1.1517	B.103	C.7
1.1518	B.104	C.7
1.1519	B.105	C.7
1.1520	B.106	C.7
1.1521	B.107	C.7
1.1522	B.108	C.7
1.1523	B.109	C.7
1.1524	B.110	C.7
1.1525	B.111	C.7
1.1526	B.112	C.7
1.1527	B.113	C.7
1.1528	B.114	C.7
1.1529	B.115	C.7
1.1530	B.116	C.7
1.1531	B.117	C.7
1.1532	B.118	C.7
1.1533	B.119	C.7
1.1534	B.120	C.7
1.1535	B.121	C.7
1.1536	B.122	C.7
1.1537	B.123	C.7
1.1538	B.124	C.7
1.1539	B.125	C.7
1.1540	B.126	C.7
1.1541	B.127	C.7
1.1542	B.128	C.7
1.1543	B.129	C.7
1.1544	B.130	C.7

92

comp. no.	herbi- cide B	safener C
1.1545	B.131	C.7
1.1546	B.132	C.7
1.1547	B.133	C.7
1.1548	B.134	C.7
1.1549	B.135	C.7
1.1550	B.136	C.7
1.1551	B.137	C.7
1.1552	B.138	C.7
1.1553	B.139	C.7
1.1554	B.140	C.7
1.1555	B.141	C.7
1.1556	B.142	C.7
1.1557	B.143	C.7
1.1558	B.144	C.7
1.1559	B.145	C.7
1.1560	B.146	C.7
1.1561	B.147	C.7
1.1562	B.148	C.7
1.1563	B.149	C.7
1.1564	B.150	C.7
1.1565	B.151	C.7
1.1566	B.152	C.7
1.1567	B.153	C.7
1.1568	B.154	C.7
1.1569	B.155	C.7
1.1570	B.156	C.7
1.1571	B.157	C.7
1.1572	B.158	C.7
1.1573	B.159	C.7
1.1574	B.160	C.7
1.1575	B.161	C.7
1.1576	B.162	C.7
1.1577	B.163	C.7
1.1578	B.164	C.7
1.1579	B.165	C.7
1.1580	B.166	C.7
1.1581	B.167	C.7
1.1582	B.168	C.7
1.1583	B.169	C.7
1.1584	B.170	C.7
1.1585	B.171	C.7

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.1586	B.172	C.7
1.1587	B.173	C.7
1.1588	B.174	C.7
1.1589	B.175	C.7
1.1590	B.176	C.7
1.1591	B.177	C.7
1.1592	B.178	C.7
1.1593	B.179	C.7
1.1594	B.180	C.7
1.1595	B.181	C.7
1.1596	B.182	C.7
1.1597	B.183	C.7
1.1598	B.184	C.7
1.1599	B.185	C.7
1.1600	B.186	C.7
1.1601	B.187	C.7
1.1602	B.188	C.7
1.1603	B.189	C.7
1.1604	B.190	C.7
1.1605	B.191	C.7
1.1606	B.192	C.7
1.1607	B.193	C.7
1.1608	B.194	C.7
1.1609	B.195	C.7
1.1610	B.196	C.7
1.1611	B.197	C.7
1.1612	B.198	C.7
1.1613	B.199	C.7
1.1614	B.200	C.7
1.1615	B.201	C.7
1.1616	B.202	C.7
1.1617	B.1	C.8
1.1618	B.2	C.8
1.1619	B.3	C.8
1.1620	B.4	C.8
1.1621	B.5	C.8
1.1622	B.6	C.8
1.1623	B.7	C.8
1.1624	B.8	C.8
1.1625	B.9	C.8
1.1626	B.10	C.8

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.1627	B.11	C.8
1.1628	B.12	C.8
1.1629	B.13	C.8
1.1630	B.14	C.8
1.1631	B.15	C.8
1.1632	B.16	C.8
1.1633	B.17	C.8
1.1634	B.18	C.8
1.1635	B.19	C.8
1.1636	B.20	C.8
1.1637	B.21	C.8
1.1638	B.22	C.8
1.1639	B.23	C.8
1.1640	B.24	C.8
1.1641	B.25	C.8
1.1642	B.26	C.8
1.1643	B.27	C.8
1.1644	B.28	C.8
1.1645	B.29	C.8
1.1646	B.30	C.8
1.1647	B.31	C.8
1.1648	B.32	C.8
1.1649	B.33	C.8
1.1650	B.34	C.8
1.1651	B.35	C.8
1.1652	B.36	C.8
1.1653	B.37	C.8
1.1654	B.38	C.8
1.1655	B.39	C.8
1.1656	B.40	C.8
1.1657	B.41	C.8
1.1658	B.42	C.8
1.1659	B.43	C.8
1.1660	B.44	C.8
1.1661	B.45	C.8
1.1662	B.46	C.8
1.1663	B.47	C.8
1.1664	B.48	C.8
1.1665	B.49	C.8
1.1666	B.50	C.8
1.1667	B.51	C.8

93

comp. no.	herbi- cide B	safener C
1.1668	B.52	C.8
1.1669	B.53	C.8
1.1670	B.54	C.8
1.1671	B.55	C.8
1.1672	B.56	C.8
1.1673	B.57	C.8
1.1674	B.58	C.8
1.1675	B.59	C.8
1.1676	B.60	C.8
1.1677	B.61	C.8
1.1678	B.62	C.8
1.1679	B.63	C.8
1.1680	B.64	C.8
1.1681	B.65	C.8
1.1682	B.66	C.8
1.1683	B.67	C.8
1.1684	B.68	C.8
1.1685	B.69	C.8
1.1686	B.70	C.8
1.1687	B.71	C.8
1.1688	B.72	C.8
1.1689	B.73	C.8
1.1690	B.74	C.8
1.1691	B.75	C.8
1.1692	B.76	C.8
1.1693	B.77	C.8
1.1694	B.78	C.8
1.1695	B.79	C.8
1.1696	B.80	C.8
1.1697	B.81	C.8
1.1698	B.82	C.8
1.1699	B.83	C.8
1.1700	B.84	C.8
1.1701	B.85	C.8
1.1702	B.86	C.8
1.1703	B.87	C.8
1.1704	B.88	C.8
1.1705	B.89	C.8
1.1706	B.90	C.8
1.1707	B.91	C.8
1.1708	B.92	C.8

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.1709	B.93	C.8
1.1710	B.94	C.8
1.1711	B.95	C.8
1.1712	B.96	C.8
1.1713	B.97	C.8
1.1714	B.98	C.8
1.1715	B.99	C.8
1.1716	B.100	C.8
1.1717	B.101	C.8
1.1718	B.102	C.8
1.1719	B.103	C.8
1.1720	B.104	C.8
1.1721	B.105	C.8
1.1722	B.106	C.8
1.1723	B.107	C.8
1.1724	B.108	C.8
1.1725	B.109	C.8
1.1726	B.110	C.8
1.1727	B.111	C.8
1.1728	B.112	C.8
1.1729	B.113	C.8
1.1730	B.114	C.8
1.1731	B.115	C.8
1.1732	B.116	C.8
1.1733	B.117	C.8
1.1734	B.118	C.8
1.1735	B.119	C.8
1.1736	B.120	C.8
1.1737	B.121	C.8
1.1738	B.122	C.8
1.1739	B.123	C.8
1.1740	B.124	C.8
1.1741	B.125	C.8
1.1742	B.126	C.8
1.1743	B.127	C.8
1.1744	B.128	C.8
1.1745	B.129	C.8
1.1746	B.130	C.8
1.1747	B.131	C.8
1.1748	B.132	C.8
1.1749	B.133	C.8

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.1750	B.134	C.8
1.1751	B.135	C.8
1.1752	B.136	C.8
1.1753	B.137	C.8
1.1754	B.138	C.8
1.1755	B.139	C.8
1.1756	B.140	C.8
1.1757	B.141	C.8
1.1758	B.142	C.8
1.1759	B.143	C.8
1.1760	B.144	C.8
1.1761	B.145	C.8
1.1762	B.146	C.8
1.1763	B.147	C.8
1.1764	B.148	C.8
1.1765	B.149	C.8
1.1766	B.150	C.8
1.1767	B.151	C.8
1.1768	B.152	C.8
1.1769	B.153	C.8
1.1770	B.154	C.8
1.1771	B.155	C.8
1.1772	B.156	C.8
1.1773	B.157	C.8
1.1774	B.158	C.8
1.1775	B.159	C.8
1.1776	B.160	C.8
1.1777	B.161	C.8
1.1778	B.162	C.8
1.1779	B.163	C.8
1.1780	B.164	C.8
1.1781	B.165	C.8
1.1782	B.166	C.8
1.1783	B.167	C.8
1.1784	B.168	C.8
1.1785	B.169	C.8
1.1786	B.170	C.8
1.1787	B.171	C.8
1.1788	B.172	C.8
1.1789	B.173	C.8
1.1790	B.174	C.8

94

comp. no.	herbi- cide B	safener C
1.1791	B.175	C.8
1.1792	B.176	C.8
1.1793	B.177	C.8
1.1794	B.178	C.8
1.1795	B.179	C.8
1.1796	B.180	C.8
1.1797	B.181	C.8
1.1798	B.182	C.8
1.1799	B.183	C.8
1.1800	B.184	C.8
1.1801	B.185	C.8
1.1802	B.186	C.8
1.1803	B.187	C.8
1.1804	B.188	C.8
1.1805	B.189	C.8
1.1806	B.190	C.8
1.1807	B.191	C.8
1.1808	B.192	C.8
1.1809	B.193	C.8
1.1810	B.194	C.8
1.1811	B.195	C.8
1.1812	B.196	C.8
1.1813	B.197	C.8
1.1814	B.198	C.8
1.1815	B.199	C.8
1.1816	B.200	C.8
1.1817	B.201	C.8
1.1818	B.202	C.8
1.1819	B.1	C.9
1.1820	B.2	C.9
1.1821	B.3	C.9
1.1822	B.4	C.9
1.1823	B.5	C.9
1.1824	B.6	C.9
1.1825	B.7	C.9
1.1826	B.8	C.9
1.1827	B.9	C.9
1.1828	B.10	C.9
1.1829	B.11	C.9
1.1830	B.12	C.9
1.1831	B.13	C.9

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.1832	B.14	C.9
1.1833	B.15	C.9
1.1834	B.16	C.9
1.1835	B.17	C.9
1.1836	B.18	C.9
1.1837	B.19	C.9
1.1838	B.20	C.9
1.1839	B.21	C.9
1.1840	B.22	C.9
1.1841	B.23	C.9
1.1842	B.24	C.9
1.1843	B.25	C.9
1.1844	B.26	C.9
1.1845	B.27	C.9
1.1846	B.28	C.9
1.1847	B.29	C.9
1.1848	B.30	C.9
1.1849	B.31	C.9
1.1850	B.32	C.9
1.1851	B.33	C.9
1.1852	B.34	C.9
1.1853	B.35	C.9
1.1854	B.36	C.9
1.1855	B.37	C.9
1.1856	B.38	C.9
1.1857	B.39	C.9
1.1858	B.40	C.9
1.1859	B.41	C.9
1.1860	B.42	C.9
1.1861	B.43	C.9
1.1862	B.44	C.9
1.1863	B.45	C.9
1.1864	B.46	C.9
1.1865	B.47	C.9
1.1866	B.48	C.9
1.1867	B.49	C.9
1.1868	B.50	C.9
1.1869	B.51	C.9
1.1870	B.52	C.9
1.1871	B.53	C.9
1.1872	B.54	C.9

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.1873	B.55	C.9
1.1874	B.56	C.9
1.1875	B.57	C.9
1.1876	B.58	C.9
1.1877	B.59	C.9
1.1878	B.60	C.9
1.1879	B.61	C.9
1.1880	B.62	C.9
1.1881	B.63	C.9
1.1882	B.64	C.9
1.1883	B.65	C.9
1.1884	B.66	C.9
1.1885	B.67	C.9
1.1886	B.68	C.9
1.1887	B.69	C.9
1.1888	B.70	C.9
1.1889	B.71	C.9
1.1890	B.72	C.9
1.1891	B.73	C.9
1.1892	B.74	C.9
1.1893	B.75	C.9
1.1894	B.76	C.9
1.1895	B.77	C.9
1.1896	B.78	C.9
1.1897	B.79	C.9
1.1898	B.80	C.9
1.1899	B.81	C.9
1.1900	B.82	C.9
1.1901	B.83	C.9
1.1902	B.84	C.9
1.1903	B.85	C.9
1.1904	B.86	C.9
1.1905	B.87	C.9
1.1906	B.88	C.9
1.1907	B.89	C.9
1.1908	B.90	C.9
1.1909	B.91	C.9
1.1910	B.92	C.9
1.1911	B.93	C.9
1.1912	B.94	C.9
1.1913	B.95	C.9

95

comp. no.	herbi- cide B	safener C
1.1914	B.96	C.9
1.1915	B.97	C.9
1.1916	B.98	C.9
1.1917	B.99	C.9
1.1918	B.100	C.9
1.1919	B.101	C.9
1.1920	B.102	C.9
1.1921	B.103	C.9
1.1922	B.104	C.9
1.1923	B.105	C.9
1.1924	B.106	C.9
1.1925	B.107	C.9
1.1926	B.108	C.9
1.1927	B.109	C.9
1.1928	B.110	C.9
1.1929	B.111	C.9
1.1930	B.112	C.9
1.1931	B.113	C.9
1.1932	B.114	C.9
1.1933	B.115	C.9
1.1934	B.116	C.9
1.1935	B.117	C.9
1.1936	B.118	C.9
1.1937	B.119	C.9
1.1938	B.120	C.9
1.1939	B.121	C.9
1.1940	B.122	C.9
1.1941	B.123	C.9
1.1942	B.124	C.9
1.1943	B.125	C.9
1.1944	B.126	C.9
1.1945	B.127	C.9
1.1946	B.128	C.9
1.1947	B.129	C.9
1.1948	B.130	C.9
1.1949	B.131	C.9
1.1950	B.132	C.9
1.1951	B.133	C.9
1.1952	B.134	C.9
1.1953	B.135	C.9
1.1954	B.136	C.9

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.1955	B.137	C.9
1.1956	B.138	C.9
1.1957	B.139	C.9
1.1958	B.140	C.9
1.1959	B.141	C.9
1.1960	B.142	C.9
1.1961	B.143	C.9
1.1962	B.144	C.9
1.1963	B.145	C.9
1.1964	B.146	C.9
1.1965	B.147	C.9
1.1966	B.148	C.9
1.1967	B.149	C.9
1.1968	B.150	C.9
1.1969	B.151	C.9
1.1970	B.152	C.9
1.1971	B.153	C.9
1.1972	B.154	C.9
1.1973	B.155	C.9
1.1974	B.156	C.9
1.1975	B.157	C.9
1.1976	B.158	C.9
1.1977	B.159	C.9
1.1978	B.160	C.9
1.1979	B.161	C.9
1.1980	B.162	C.9
1.1981	B.163	C.9
1.1982	B.164	C.9
1.1983	B.165	C.9
1.1984	B.166	C.9
1.1985	B.167	C.9
1.1986	B.168	C.9
1.1987	B.169	C.9
1.1988	B.170	C.9
1.1989	B.171	C.9
1.1990	B.172	C.9
1.1991	B.173	C.9
1.1992	B.174	C.9
1.1993	B.175	C.9
1.1994	B.176	C.9
1.1995	B.177	C.9

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.1996	B.178	C.9
1.1997	B.179	C.9
1.1998	B.180	C.9
1.1999	B.181	C.9
1.2000	B.182	C.9
1.2001	B.183	C.9
1.2002	B.184	C.9
1.2003	B.185	C.9
1.2004	B.186	C.9
1.2005	B.187	C.9
1.2006	B.188	C.9
1.2007	B.189	C.9
1.2008	B.190	C.9
1.2009	B.191	C.9
1.2010	B.192	C.9
1.2011	B.193	C.9
1.2012	B.194	C.9
1.2013	B.195	C.9
1.2014	B.196	C.9
1.2015	B.197	C.9
1.2016	B.198	C.9
1.2017	B.199	C.9
1.2018	B.200	C.9
1.2019	B.201	C.9
1.2020	B.202	C.9
1.2021	B.1	C.10
1.2022	B.2	C.10
1.2023	B.3	C.10
1.2024	B.4	C.10
1.2025	B.5	C.10
1.2026	B.6	C.10
1.2027	B.7	C.10
1.2028	B.8	C.10
1.2029	B.9	C.10
1.2030	B.10	C.10
1.2031	B.11	C.10
1.2032	B.12	C.10
1.2033	B.13	C.10
1.2034	B.14	C.10
1.2035	B.15	C.10
1.2036	B.16	C.10

96

comp. no.	herbi- cide B	safener C
1.2037	B.17	C.10
1.2038	B.18	C.10
1.2039	B.19	C.10
1.2040	B.20	C.10
1.2041	B.21	C.10
1.2042	B.22	C.10
1.2043	B.23	C.10
1.2044	B.24	C.10
1.2045	B.25	C.10
1.2046	B.26	C.10
1.2047	B.27	C.10
1.2048	B.28	C.10
1.2049	B.29	C.10
1.2050	B.30	C.10
1.2051	B.31	C.10
1.2052	B.32	C.10
1.2053	B.33	C.10
1.2054	B.34	C.10
1.2055	B.35	C.10
1.2056	B.36	C.10
1.2057	B.37	C.10
1.2058	B.38	C.10
1.2059	B.39	C.10
1.2060	B.40	C.10
1.2061	B.41	C.10
1.2062	B.42	C.10
1.2063	B.43	C.10
1.2064	B.44	C.10
1.2065	B.45	C.10
1.2066	B.46	C.10
1.2067	B.47	C.10
1.2068	B.48	C.10
1.2069	B.49	C.10
1.2070	B.50	C.10
1.2071	B.51	C.10
1.2072	B.52	C.10
1.2073	B.53	C.10
1.2074	B.54	C.10
1.2075	B.55	C.10
1.2076	B.56	C.10
1.2077	B.57	C.10

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.2078	B.58	C.10
1.2079	B.59	C.10
1.2080	B.60	C.10
1.2081	B.61	C.10
1.2082	B.62	C.10
1.2083	B.63	C.10
1.2084	B.64	C.10
1.2085	B.65	C.10
1.2086	B.66	C.10
1.2087	B.67	C.10
1.2088	B.68	C.10
1.2089	B.69	C.10
1.2090	B.70	C.10
1.2091	B.71	C.10
1.2092	B.72	C.10
1.2093	B.73	C.10
1.2094	B.74	C.10
1.2095	B.75	C.10
1.2096	B.76	C.10
1.2097	B.77	C.10
1.2098	B.78	C.10
1.2099	B.79	C.10
1.2100	B.80	C.10
1.2101	B.81	C.10
1.2102	B.82	C.10
1.2103	B.83	C.10
1.2104	B.84	C.10
1.2105	B.85	C.10
1.2106	B.86	C.10
1.2107	B.87	C.10
1.2108	B.88	C.10
1.2109	B.89	C.10
1.2110	B.90	C.10
1.2111	B.91	C.10
1.2112	B.92	C.10
1.2113	B.93	C.10
1.2114	B.94	C.10
1.2115	B.95	C.10
1.2116	B.96	C.10
1.2117	B.97	C.10
1.2118	B.98	C.10

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.2119	B.99	C.10
1.2120	B.100	C.10
1.2121	B.101	C.10
1.2122	B.102	C.10
1.2123	B.103	C.10
1.2124	B.104	C.10
1.2125	B.105	C.10
1.2126	B.106	C.10
1.2127	B.107	C.10
1.2128	B.108	C.10
1.2129	B.109	C.10
1.2130	B.110	C.10
1.2131	B.111	C.10
1.2132	B.112	C.10
1.2133	B.113	C.10
1.2134	B.114	C.10
1.2135	B.115	C.10
1.2136	B.116	C.10
1.2137	B.117	C.10
1.2138	B.118	C.10
1.2139	B.119	C.10
1.2140	B.120	C.10
1.2141	B.121	C.10
1.2142	B.122	C.10
1.2143	B.123	C.10
1.2144	B.124	C.10
1.2145	B.125	C.10
1.2146	B.126	C.10
1.2147	B.127	C.10
1.2148	B.128	C.10
1.2149	B.129	C.10
1.2150	B.130	C.10
1.2151	B.131	C.10
1.2152	B.132	C.10
1.2153	B.133	C.10
1.2154	B.134	C.10
1.2155	B.135	C.10
1.2156	B.136	C.10
1.2157	B.137	C.10
1.2158	B.138	C.10
1.2159	B.139	C.10

97

comp. no.	herbi- cide B	safener C
1.2160	B.140	C.10
1.2161	B.141	C.10
1.2162	B.142	C.10
1.2163	B.143	C.10
1.2164	B.144	C.10
1.2165	B.145	C.10
1.2166	B.146	C.10
1.2167	B.147	C.10
1.2168	B.148	C.10
1.2169	B.149	C.10
1.2170	B.150	C.10
1.2171	B.151	C.10
1.2172	B.152	C.10
1.2173	B.153	C.10
1.2174	B.154	C.10
1.2175	B.155	C.10
1.2176	B.156	C.10
1.2177	B.157	C.10
1.2178	B.158	C.10
1.2179	B.159	C.10
1.2180	B.160	C.10
1.2181	B.161	C.10
1.2182	B.162	C.10
1.2183	B.163	C.10
1.2184	B.164	C.10
1.2185	B.165	C.10
1.2186	B.166	C.10
1.2187	B.167	C.10
1.2188	B.168	C.10
1.2189	B.169	C.10
1.2190	B.170	C.10
1.2191	B.171	C.10
1.2192	B.172	C.10
1.2193	B.173	C.10
1.2194	B.174	C.10
1.2195	B.175	C.10
1.2196	B.176	C.10
1.2197	B.177	C.10
1.2198	B.178	C.10
1.2199	B.179	C.10
1.2200	B.180	C.10

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.2201	B.181	C.10
1.2202	B.182	C.10
1.2203	B.183	C.10
1.2204	B.184	C.10
1.2205	B.185	C.10
1.2206	B.186	C.10
1.2207	B.187	C.10
1.2208	B.188	C.10
1.2209	B.189	C.10
1.2210	B.190	C.10
1.2211	B.191	C.10
1.2212	B.192	C.10
1.2213	B.193	C.10
1.2214	B.194	C.10
1.2215	B.195	C.10
1.2216	B.196	C.10
1.2217	B.197	C.10
1.2218	B.198	C.10
1.2219	B.199	C.10
1.2220	B.200	C.10
1.2221	B.201	C.10
1.2222	B.202	C.10
1.2223	B.1	C.11
1.2224	B.2	C.11
1.2225	B.3	C.11
1.2226	B.4	C.11
1.2227	B.5	C.11
1.2228	B.6	C.11
1.2229	B.7	C.11
1.2230	B.8	C.11
1.2231	B.9	C.11
1.2232	B.10	C.11
1.2233	B.11	C.11
1.2234	B.12	C.11
1.2235	B.13	C.11
1.2236	B.14	C.11
1.2237	B.15	C.11
1.2238	B.16	C.11
1.2239	B.17	C.11
1.2240	B.18	C.11
1.2241	B.19	C.11

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.2242	B.20	C.11
1.2243	B.21	C.11
1.2244	B.22	C.11
1.2245	B.23	C.11
1.2246	B.24	C.11
1.2247	B.25	C.11
1.2248	B.26	C.11
1.2249	B.27	C.11
1.2250	B.28	C.11
1.2251	B.29	C.11
1.2252	B.30	C.11
1.2253	B.31	C.11
1.2254	B.32	C.11
1.2255	B.33	C.11
1.2256	B.34	C.11
1.2257	B.35	C.11
1.2258	B.36	C.11
1.2259	B.37	C.11
1.2260	B.38	C.11
1.2261	B.39	C.11
1.2262	B.40	C.11
1.2263	B.41	C.11
1.2264	B.42	C.11
1.2265	B.43	C.11
1.2266	B.44	C.11
1.2267	B.45	C.11
1.2268	B.46	C.11
1.2269	B.47	C.11
1.2270	B.48	C.11
1.2271	B.49	C.11
1.2272	B.50	C.11
1.2273	B.51	C.11
1.2274	B.52	C.11
1.2275	B.53	C.11
1.2276	B.54	C.11
1.2277	B.55	C.11
1.2278	B.56	C.11
1.2279	B.57	C.11
1.2280	B.58	C.11
1.2281	B.59	C.11
1.2282	B.60	C.11

98

comp. no.	herbi- cide B	safener C
1.2283	B.61	C.11
1.2284	B.62	C.11
1.2285	B.63	C.11
1.2286	B.64	C.11
1.2287	B.65	C.11
1.2288	B.66	C.11
1.2289	B.67	C.11
1.2290	B.68	C.11
1.2291	B.69	C.11
1.2292	B.70	C.11
1.2293	B.71	C.11
1.2294	B.72	C.11
1.2295	B.73	C.11
1.2296	B.74	C.11
1.2297	B.75	C.11
1.2298	B.76	C.11
1.2299	B.77	C.11
1.2300	B.78	C.11
1.2301	B.79	C.11
1.2302	B.80	C.11
1.2303	B.81	C.11
1.2304	B.82	C.11
1.2305	B.83	C.11
1.2306	B.84	C.11
1.2307	B.85	C.11
1.2308	B.86	C.11
1.2309	B.87	C.11
1.2310	B.88	C.11
1.2311	B.89	C.11
1.2312	B.90	C.11
1.2313	B.91	C.11
1.2314	B.92	C.11
1.2315	B.93	C.11
1.2316	B.94	C.11
1.2317	B.95	C.11
1.2318	B.96	C.11
1.2319	B.97	C.11
1.2320	B.98	C.11
1.2321	B.99	C.11
1.2322	B.100	C.11
1.2323	B.101	C.11

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.2324	B.102	C.11
1.2325	B.103	C.11
1.2326	B.104	C.11
1.2327	B.105	C.11
1.2328	B.106	C.11
1.2329	B.107	C.11
1.2330	B.108	C.11
1.2331	B.109	C.11
1.2332	B.110	C.11
1.2333	B.111	C.11
1.2334	B.112	C.11
1.2335	B.113	C.11
1.2336	B.114	C.11
1.2337	B.115	C.11
1.2338	B.116	C.11
1.2339	B.117	C.11
1.2340	B.118	C.11
1.2341	B.119	C.11
1.2342	B.120	C.11
1.2343	B.121	C.11
1.2344	B.122	C.11
1.2345	B.123	C.11
1.2346	B.124	C.11
1.2347	B.125	C.11
1.2348	B.126	C.11
1.2349	B.127	C.11
1.2350	B.128	C.11
1.2351	B.129	C.11
1.2352	B.130	C.11
1.2353	B.131	C.11
1.2354	B.132	C.11
1.2355	B.133	C.11
1.2356	B.134	C.11
1.2357	B.135	C.11
1.2358	B.136	C.11
1.2359	B.137	C.11
1.2360	B.138	C.11
1.2361	B.139	C.11
1.2362	B.140	C.11
1.2363	B.141	C.11
1.2364	B.142	C.11

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.2365	B.143	C.11
1.2366	B.144	C.11
1.2367	B.145	C.11
1.2368	B.146	C.11
1.2369	B.147	C.11
1.2370	B.148	C.11
1.2371	B.149	C.11
1.2372	B.150	C.11
1.2373	B.151	C.11
1.2374	B.152	C.11
1.2375	B.153	C.11
1.2376	B.154	C.11
1.2377	B.155	C.11
1.2378	B.156	C.11
1.2379	B.157	C.11
1.2380	B.158	C.11
1.2381	B.159	C.11
1.2382	B.160	C.11
1.2383	B.161	C.11
1.2384	B.162	C.11
1.2385	B.163	C.11
1.2386	B.164	C.11
1.2387	B.165	C.11
1.2388	B.166	C.11
1.2389	B.167	C.11
1.2390	B.168	C.11
1.2391	B.169	C.11
1.2392	B.170	C.11
1.2393	B.171	C.11
1.2394	B.172	C.11
1.2395	B.173	C.11
1.2396	B.174	C.11
1.2397	B.175	C.11
1.2398	B.176	C.11
1.2399	B.177	C.11
1.2400	B.178	C.11
1.2401	B.179	C.11
1.2402	B.180	C.11
1.2403	B.181	C.11
1.2404	B.182	C.11
1.2405	B.183	C.11

99

comp. no.	herbi- cide B	safener C
1.2406	B.184	C.11
1.2407	B.185	C.11
1.2408	B.186	C.11
1.2409	B.187	C.11
1.2410	B.188	C.11
1.2411	B.189	C.11
1.2412	B.190	C.11
1.2413	B.191	C.11
1.2414	B.192	C.11
1.2415	B.193	C.11
1.2416	B.194	C.11
1.2417	B.195	C.11
1.2418	B.196	C.11
1.2419	B.197	C.11
1.2420	B.198	C.11
1.2421	B.199	C.11
1.2422	B.200	C.11
1.2423	B.201	C.11
1.2424	B.202	C.11
1.2425	B.1	C.12
1.2426	B.2	C.12
1.2427	B.3	C.12
1.2428	B.4	C.12
1.2429	B.5	C.12
1.2430	B.6	C.12
1.2431	B.7	C.12
1.2432	B.8	C.12
1.2433	B.9	C.12
1.2434	B.10	C.12
1.2435	B.11	C.12
1.2436	B.12	C.12
1.2437	B.13	C.12
1.2438	B.14	C.12
1.2439	B.15	C.12
1.2440	B.16	C.12
1.2441	B.17	C.12
1.2442	B.18	C.12
1.2443	B.19	C.12
1.2444	B.20	C.12
1.2445	B.21	C.12
1.2446	B.22	C.12

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.2447	B.23	C.12
1.2448	B.24	C.12
1.2449	B.25	C.12
1.2450	B.26	C.12
1.2451	B.27	C.12
1.2452	B.28	C.12
1.2453	B.29	C.12
1.2454	B.30	C.12
1.2455	B.31	C.12
1.2456	B.32	C.12
1.2457	B.33	C.12
1.2458	B.34	C.12
1.2459	B.35	C.12
1.2460	B.36	C.12
1.2461	B.37	C.12
1.2462	B.38	C.12
1.2463	B.39	C.12
1.2464	B.40	C.12
1.2465	B.41	C.12
1.2466	B.42	C.12
1.2467	B.43	C.12
1.2468	B.44	C.12
1.2469	B.45	C.12
1.2470	B.46	C.12
1.2471	B.47	C.12
1.2472	B.48	C.12
1.2473	B.49	C.12
1.2474	B.50	C.12
1.2475	B.51	C.12
1.2476	B.52	C.12
1.2477	B.53	C.12
1.2478	B.54	C.12
1.2479	B.55	C.12
1.2480	B.56	C.12
1.2481	B.57	C.12
1.2482	B.58	C.12
1.2483	B.59	C.12
1.2484	B.60	C.12
1.2485	B.61	C.12
1.2486	B.62	C.12
1.2487	B.63	C.12

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.2488	B.64	C.12
1.2489	B.65	C.12
1.2490	B.66	C.12
1.2491	B.67	C.12
1.2492	B.68	C.12
1.2493	B.69	C.12
1.2494	B.70	C.12
1.2495	B.71	C.12
1.2496	B.72	C.12
1.2497	B.73	C.12
1.2498	B.74	C.12
1.2499	B.75	C.12
1.2500	B.76	C.12
1.2501	B.77	C.12
1.2502	B.78	C.12
1.2503	B.79	C.12
1.2504	B.80	C.12
1.2505	B.81	C.12
1.2506	B.82	C.12
1.2507	B.83	C.12
1.2508	B.84	C.12
1.2509	B.85	C.12
1.2510	B.86	C.12
1.2511	B.87	C.12
1.2512	B.88	C.12
1.2513	B.89	C.12
1.2514	B.90	C.12
1.2515	B.91	C.12
1.2516	B.92	C.12
1.2517	B.93	C.12
1.2518	B.94	C.12
1.2519	B.95	C.12
1.2520	B.96	C.12
1.2521	B.97	C.12
1.2522	B.98	C.12
1.2523	B.99	C.12
1.2524	B.100	C.12
1.2525	B.101	C.12
1.2526	B.102	C.12
1.2527	B.103	C.12
1.2528	B.104	C.12

100

comp. no.	herbi- cide B	safener C
1.2529	B.105	C.12
1.2530	B.106	C.12
1.2531	B.107	C.12
1.2532	B.108	C.12
1.2533	B.109	C.12
1.2534	B.110	C.12
1.2535	B.111	C.12
1.2536	B.112	C.12
1.2537	B.113	C.12
1.2538	B.114	C.12
1.2539	B.115	C.12
1.2540	B.116	C.12
1.2541	B.117	C.12
1.2542	B.118	C.12
1.2543	B.119	C.12
1.2544	B.120	C.12
1.2545	B.121	C.12
1.2546	B.122	C.12
1.2547	B.123	C.12
1.2548	B.124	C.12
1.2549	B.125	C.12
1.2550	B.126	C.12
1.2551	B.127	C.12
1.2552	B.128	C.12
1.2553	B.129	C.12
1.2554	B.130	C.12
1.2555	B.131	C.12
1.2556	B.132	C.12
1.2557	B.133	C.12
1.2558	B.134	C.12
1.2559	B.135	C.12
1.2560	B.136	C.12
1.2561	B.137	C.12
1.2562	B.138	C.12
1.2563	B.139	C.12
1.2564	B.140	C.12
1.2565	B.141	C.12
1.2566	B.142	C.12
1.2567	B.143	C.12
1.2568	B.144	C.12
1.2569	B.145	C.12

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.2570	B.146	C.12
1.2571	B.147	C.12
1.2572	B.148	C.12
1.2573	B.149	C.12
1.2574	B.150	C.12
1.2575	B.151	C.12
1.2576	B.152	C.12
1.2577	B.153	C.12
1.2578	B.154	C.12
1.2579	B.155	C.12
1.2580	B.156	C.12
1.2581	B.157	C.12
1.2582	B.158	C.12
1.2583	B.159	C.12
1.2584	B.160	C.12
1.2585	B.161	C.12
1.2586	B.162	C.12
1.2587	B.163	C.12
1.2588	B.164	C.12
1.2589	B.165	C.12
1.2590	B.166	C.12
1.2591	B.167	C.12
1.2592	B.168	C.12
1.2593	B.169	C.12
1.2594	B.170	C.12
1.2595	B.171	C.12
1.2596	B.172	C.12
1.2597	B.173	C.12
1.2598	B.174	C.12
1.2599	B.175	C.12
1.2600	B.176	C.12
1.2601	B.177	C.12
1.2602	B.178	C.12
1.2603	B.179	C.12
1.2604	B.180	C.12
1.2605	B.181	C.12
1.2606	B.182	C.12
1.2607	B.183	C.12
1.2608	B.184	C.12
1.2609	B.185	C.12
1.2610	B.186	C.12

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.2611	B.187	C.12
1.2612	B.188	C.12
1.2613	B.189	C.12
1.2614	B.190	C.12
1.2615	B.191	C.12
1.2616	B.192	C.12
1.2617	B.193	C.12
1.2618	B.194	C.12
1.2619	B.195	C.12
1.2620	B.196	C.12
1.2621	B.197	C.12
1.2622	B.198	C.12
1.2623	B.199	C.12
1.2624	B.200	C.12
1.2625	B.201	C.12
1.2626	B.202	C.12
1.2627	B.1	C.13
1.2628	B.2	C.13
1.2629	B.3	C.13
1.2630	B.4	C.13
1.2631	B.5	C.13
1.2632	B.6	C.13
1.2633	B.7	C.13
1.2634	B.8	C.13
1.2635	B.9	C.13
1.2636	B.10	C.13
1.2637	B.11	C.13
1.2638	B.12	C.13
1.2639	B.13	C.13
1.2640	B.14	C.13
1.2641	B.15	C.13
1.2642	B.16	C.13
1.2643	B.17	C.13
1.2644	B.18	C.13
1.2645	B.19	C.13
1.2646	B.20	C.13
1.2647	B.21	C.13
1.2648	B.22	C.13
1.2649	B.23	C.13
1.2650	B.24	C.13
1.2651	B.25	C.13

101

comp. no.	herbi- cide B	safener C
1.2652	B.26	C.13
1.2653	B.27	C.13
1.2654	B.28	C.13
1.2655	B.29	C.13
1.2656	B.30	C.13
1.2657	B.31	C.13
1.2658	B.32	C.13
1.2659	B.33	C.13
1.2660	B.34	C.13
1.2661	B.35	C.13
1.2662	B.36	C.13
1.2663	B.37	C.13
1.2664	B.38	C.13
1.2665	B.39	C.13
1.2666	B.40	C.13
1.2667	B.41	C.13
1.2668	B.42	C.13
1.2669	B.43	C.13
1.2670	B.44	C.13
1.2671	B.45	C.13
1.2672	B.46	C.13
1.2673	B.47	C.13
1.2674	B.48	C.13
1.2675	B.49	C.13
1.2676	B.50	C.13
1.2677	B.51	C.13
1.2678	B.52	C.13
1.2679	B.53	C.13
1.2680	B.54	C.13
1.2681	B.55	C.13
1.2682	B.56	C.13
1.2683	B.57	C.13
1.2684	B.58	C.13
1.2685	B.59	C.13
1.2686	B.60	C.13
1.2687	B.61	C.13
1.2688	B.62	C.13
1.2689	B.63	C.13
1.2690	B.64	C.13
1.2691	B.65	C.13
1.2692	B.66	C.13

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.2693	B.67	C.13
1.2694	B.68	C.13
1.2695	B.69	C.13
1.2696	B.70	C.13
1.2697	B.71	C.13
1.2698	B.72	C.13
1.2699	B.73	C.13
1.2700	B.74	C.13
1.2701	B.75	C.13
1.2702	B.76	C.13
1.2703	B.77	C.13
1.2704	B.78	C.13
1.2705	B.79	C.13
1.2706	B.80	C.13
1.2707	B.81	C.13
1.2708	B.82	C.13
1.2709	B.83	C.13
1.2710	B.84	C.13
1.2711	B.85	C.13
1.2712	B.86	C.13
1.2713	B.87	C.13
1.2714	B.88	C.13
1.2715	B.89	C.13
1.2716	B.90	C.13
1.2717	B.91	C.13
1.2718	B.92	C.13
1.2719	B.93	C.13
1.2720	B.94	C.13
1.2721	B.95	C.13
1.2722	B.96	C.13
1.2723	B.97	C.13
1.2724	B.98	C.13
1.2725	B.99	C.13
1.2726	B.100	C.13
1.2727	B.101	C.13
1.2728	B.102	C.13
1.2729	B.103	C.13
1.2730	B.104	C.13
1.2731	B.105	C.13
1.2732	B.106	C.13
1.2733	B.107	C.13

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.2734	B.108	C.13
1.2735	B.109	C.13
1.2736	B.110	C.13
1.2737	B.111	C.13
1.2738	B.112	C.13
1.2739	B.113	C.13
1.2740	B.114	C.13
1.2741	B.115	C.13
1.2742	B.116	C.13
1.2743	B.117	C.13
1.2744	B.118	C.13
1.2745	B.119	C.13
1.2746	B.120	C.13
1.2747	B.121	C.13
1.2748	B.122	C.13
1.2749	B.123	C.13
1.2750	B.124	C.13
1.2751	B.125	C.13
1.2752	B.126	C.13
1.2753	B.127	C.13
1.2754	B.128	C.13
1.2755	B.129	C.13
1.2756	B.130	C.13
1.2757	B.131	C.13
1.2758	B.132	C.13
1.2759	B.133	C.13
1.2760	B.134	C.13
1.2761	B.135	C.13
1.2762	B.136	C.13
1.2763	B.137	C.13
1.2764	B.138	C.13
1.2765	B.139	C.13
1.2766	B.140	C.13
1.2767	B.141	C.13
1.2768	B.142	C.13
1.2769	B.143	C.13
1.2770	B.144	C.13
1.2771	B.145	C.13
1.2772	B.146	C.13
1.2773	B.147	C.13
1.2774	B.148	C.13

102

comp. no.	herbi- cide B	safener C
1.2775	B.149	C.13
1.2776	B.150	C.13
1.2777	B.151	C.13
1.2778	B.152	C.13
1.2779	B.153	C.13
1.2780	B.154	C.13
1.2781	B.155	C.13
1.2782	B.156	C.13
1.2783	B.157	C.13
1.2784	B.158	C.13
1.2785	B.159	C.13
1.2786	B.160	C.13
1.2787	B.161	C.13
1.2788	B.162	C.13
1.2789	B.163	C.13
1.2790	B.164	C.13
1.2791	B.165	C.13
1.2792	B.166	C.13
1.2793	B.167	C.13
1.2794	B.168	C.13
1.2795	B.169	C.13
1.2796	B.170	C.13
1.2797	B.171	C.13
1.2798	B.172	C.13
1.2799	B.173	C.13
1.2800	B.174	C.13
1.2801	B.175	C.13
1.2802	B.176	C.13
1.2803	B.177	C.13
1.2804	B.178	C.13
1.2805	B.179	C.13
1.2806	B.180	C.13
1.2807	B.181	C.13
1.2808	B.182	C.13
1.2809	B.183	C.13
1.2810	B.184	C.13
1.2811	B.185	C.13
1.2812	B.186	C.13
1.2813	B.187	C.13
1.2814	B.188	C.13
1.2815	B.189	C.13

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.2816	B.190	C.13
1.2817	B.191	C.13
1.2818	B.192	C.13
1.2819	B.193	C.13
1.2820	B.194	C.13
1.2821	B.195	C.13
1.2822	B.196	C.13
1.2823	B.197	C.13
1.2824	B.198	C.13
1.2825	B.199	C.13
1.2826	B.200	C.13
1.2827	B.201	C.13
1.2828	B.202	C.13
1.2829	B.1	C.14
1.2830	B.2	C.14
1.2831	B.3	C.14
1.2832	B.4	C.14
1.2833	B.5	C.14
1.2834	B.6	C.14
1.2835	B.7	C.14
1.2836	B.8	C.14
1.2837	B.9	C.14
1.2838	B.10	C.14
1.2839	B.11	C.14
1.2840	B.12	C.14
1.2841	B.13	C.14
1.2842	B.14	C.14
1.2843	B.15	C.14
1.2844	B.16	C.14
1.2845	B.17	C.14
1.2846	B.18	C.14
1.2847	B.19	C.14
1.2848	B.20	C.14
1.2849	B.21	C.14
1.2850	B.22	C.14
1.2851	B.23	C.14
1.2852	B.24	C.14
1.2853	B.25	C.14
1.2854	B.26	C.14
1.2855	B.27	C.14
1.2856	B.28	C.14

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.2857	B.29	C.14
1.2858	B.30	C.14
1.2859	B.31	C.14
1.2860	B.32	C.14
1.2861	B.33	C.14
1.2862	B.34	C.14
1.2863	B.35	C.14
1.2864	B.36	C.14
1.2865	B.37	C.14
1.2866	B.38	C.14
1.2867	B.39	C.14
1.2868	B.40	C.14
1.2869	B.41	C.14
1.2870	B.42	C.14
1.2871	B.43	C.14
1.2872	B.44	C.14
1.2873	B.45	C.14
1.2874	B.46	C.14
1.2875	B.47	C.14
1.2876	B.48	C.14
1.2877	B.49	C.14
1.2878	B.50	C.14
1.2879	B.51	C.14
1.2880	B.52	C.14
1.2881	B.53	C.14
1.2882	B.54	C.14
1.2883	B.55	C.14
1.2884	B.56	C.14
1.2885	B.57	C.14
1.2886	B.58	C.14
1.2887	B.59	C.14
1.2888	B.60	C.14
1.2889	B.61	C.14
1.2890	B.62	C.14
1.2891	B.63	C.14
1.2892	B.64	C.14
1.2893	B.65	C.14
1.2894	B.66	C.14
1.2895	B.67	C.14
1.2896	B.68	C.14
1.2897	B.69	C.14

103

comp. no.	herbi- cide B	safener C
1.2898	B.70	C.14
1.2899	B.71	C.14
1.2900	B.72	C.14
1.2901	B.73	C.14
1.2902	B.74	C.14
1.2903	B.75	C.14
1.2904	B.76	C.14
1.2905	B.77	C.14
1.2906	B.78	C.14
1.2907	B.79	C.14
1.2908	B.80	C.14
1.2909	B.81	C.14
1.2910	B.82	C.14
1.2911	B.83	C.14
1.2912	B.84	C.14
1.2913	B.85	C.14
1.2914	B.86	C.14
1.2915	B.87	C.14
1.2916	B.88	C.14
1.2917	B.89	C.14
1.2918	B.90	C.14
1.2919	B.91	C.14
1.2920	B.92	C.14
1.2921	B.93	C.14
1.2922	B.94	C.14
1.2923	B.95	C.14
1.2924	B.96	C.14
1.2925	B.97	C.14
1.2926	B.98	C.14
1.2927	B.99	C.14
1.2928	B.100	C.14
1.2929	B.101	C.14
1.2930	B.102	C.14
1.2931	B.103	C.14
1.2932	B.104	C.14
1.2933	B.105	C.14
1.2934	B.106	C.14
1.2935	B.107	C.14
1.2936	B.108	C.14
1.2937	B.109	C.14
1.2938	B.110	C.14

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.2939	B.111	C.14
1.2940	B.112	C.14
1.2941	B.113	C.14
1.2942	B.114	C.14
1.2943	B.115	C.14
1.2944	B.116	C.14
1.2945	B.117	C.14
1.2946	B.118	C.14
1.2947	B.119	C.14
1.2948	B.120	C.14
1.2949	B.121	C.14
1.2950	B.122	C.14
1.2951	B.123	C.14
1.2952	B.124	C.14
1.2953	B.125	C.14
1.2954	B.126	C.14
1.2955	B.127	C.14
1.2956	B.128	C.14
1.2957	B.129	C.14
1.2958	B.130	C.14
1.2959	B.131	C.14
1.2960	B.132	C.14
1.2961	B.133	C.14
1.2962	B.134	C.14
1.2963	B.135	C.14
1.2964	B.136	C.14
1.2965	B.137	C.14
1.2966	B.138	C.14
1.2967	B.139	C.14
1.2968	B.140	C.14
1.2969	B.141	C.14
1.2970	B.142	C.14
1.2971	B.143	C.14
1.2972	B.144	C.14
1.2973	B.145	C.14
1.2974	B.146	C.14
1.2975	B.147	C.14
1.2976	B.148	C.14
1.2977	B.149	C.14
1.2978	B.150	C.14
1.2979	B.151	C.14

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.2980	B.152	C.14
1.2981	B.153	C.14
1.2982	B.154	C.14
1.2983	B.155	C.14
1.2984	B.156	C.14
1.2985	B.157	C.14
1.2986	B.158	C.14
1.2987	B.159	C.14
1.2988	B.160	C.14
1.2989	B.161	C.14
1.2990	B.162	C.14
1.2991	B.163	C.14
1.2992	B.164	C.14
1.2993	B.165	C.14
1.2994	B.166	C.14
1.2995	B.167	C.14
1.2996	B.168	C.14
1.2997	B.169	C.14
1.2998	B.170	C.14
1.2999	B.171	C.14
1.3000	B.172	C.14
1.3001	B.173	C.14
1.3002	B.174	C.14
1.3003	B.175	C.14
1.3004	B.176	C.14
1.3005	B.177	C.14
1.3006	B.178	C.14
1.3007	B.179	C.14
1.3008	B.180	C.14
1.3009	B.181	C.14
1.3010	B.182	C.14
1.3011	B.183	C.14
1.3012	B.184	C.14
1.3013	B.185	C.14
1.3014	B.186	C.14
1.3015	B.187	C.14
1.3016	B.188	C.14
1.3017	B.189	C.14
1.3018	B.190	C.14
1.3019	B.191	C.14
1.3020	B.192	C.14

104

comp. no.	herbi- cide B	safener C
1.3021	B.193	C.14
1.3022	B.194	C.14
1.3023	B.195	C.14
1.3024	B.196	C.14
1.3025	B.197	C.14
1.3026	B.198	C.14
1.3027	B.199	C.14
1.3028	B.200	C.14
1.3029	B.201	C.14
1.3030	B.202	C.14
1.3031	B.1	C.15
1.3032	B.2	C.15
1.3033	B.3	C.15
1.3034	B.4	C.15
1.3035	B.5	C.15
1.3036	B.6	C.15
1.3037	B.7	C.15
1.3038	B.8	C.15
1.3039	B.9	C.15
1.3040	B.10	C.15
1.3041	B.11	C.15
1.3042	B.12	C.15
1.3043	B.13	C.15
1.3044	B.14	C.15
1.3045	B.15	C.15
1.3046	B.16	C.15
1.3047	B.17	C.15
1.3048	B.18	C.15
1.3049	B.19	C.15
1.3050	B.20	C.15
1.3051	B.21	C.15
1.3052	B.22	C.15
1.3053	B.23	C.15
1.3054	B.24	C.15
1.3055	B.25	C.15
1.3056	B.26	C.15
1.3057	B.27	C.15
1.3058	B.28	C.15
1.3059	B.29	C.15
1.3060	B.30	C.15
1.3061	B.31	C.15

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.3062	B.32	C.15
1.3063	B.33	C.15
1.3064	B.34	C.15
1.3065	B.35	C.15
1.3066	B.36	C.15
1.3067	B.37	C.15
1.3068	B.38	C.15
1.3069	B.39	C.15
1.3070	B.40	C.15
1.3071	B.41	C.15
1.3072	B.42	C.15
1.3073	B.43	C.15
1.3074	B.44	C.15
1.3075	B.45	C.15
1.3076	B.46	C.15
1.3077	B.47	C.15
1.3078	B.48	C.15
1.3079	B.49	C.15
1.3080	B.50	C.15
1.3081	B.51	C.15
1.3082	B.52	C.15
1.3083	B.53	C.15
1.3084	B.54	C.15
1.3085	B.55	C.15
1.3086	B.56	C.15
1.3087	B.57	C.15
1.3088	B.58	C.15
1.3089	B.59	C.15
1.3090	B.60	C.15
1.3091	B.61	C.15
1.3092	B.62	C.15
1.3093	B.63	C.15
1.3094	B.64	C.15
1.3095	B.65	C.15
1.3096	B.66	C.15
1.3097	B.67	C.15
1.3098	B.68	C.15
1.3099	B.69	C.15
1.3100	B.70	C.15
1.3101	B.71	C.15
1.3102	B.72	C.15

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.3103	B.73	C.15
1.3104	B.74	C.15
1.3105	B.75	C.15
1.3106	B.76	C.15
1.3107	B.77	C.15
1.3108	B.78	C.15
1.3109	B.79	C.15
1.3110	B.80	C.15
1.3111	B.81	C.15
1.3112	B.82	C.15
1.3113	B.83	C.15
1.3114	B.84	C.15
1.3115	B.85	C.15
1.3116	B.86	C.15
1.3117	B.87	C.15
1.3118	B.88	C.15
1.3119	B.89	C.15
1.3120	B.90	C.15
1.3121	B.91	C.15
1.3122	B.92	C.15
1.3123	B.93	C.15
1.3124	B.94	C.15
1.3125	B.95	C.15
1.3126	B.96	C.15
1.3127	B.97	C.15
1.3128	B.98	C.15
1.3129	B.99	C.15
1.3130	B.100	C.15
1.3131	B.101	C.15
1.3132	B.102	C.15
1.3133	B.103	C.15
1.3134	B.104	C.15
1.3135	B.105	C.15
1.3136	B.106	C.15
1.3137	B.107	C.15
1.3138	B.108	C.15
1.3139	B.109	C.15
1.3140	B.110	C.15
1.3141	B.111	C.15
1.3142	B.112	C.15
1.3143	B.113	C.15

105

comp. no.	herbi- cide B	safener C
1.3144	B.114	C.15
1.3145	B.115	C.15
1.3146	B.116	C.15
1.3147	B.117	C.15
1.3148	B.118	C.15
1.3149	B.119	C.15
1.3150	B.120	C.15
1.3151	B.121	C.15
1.3152	B.122	C.15
1.3153	B.123	C.15
1.3154	B.124	C.15
1.3155	B.125	C.15
1.3156	B.126	C.15
1.3157	B.127	C.15
1.3158	B.128	C.15
1.3159	B.129	C.15
1.3160	B.130	C.15
1.3161	B.131	C.15
1.3162	B.132	C.15
1.3163	B.133	C.15
1.3164	B.134	C.15
1.3165	B.135	C.15
1.3166	B.136	C.15
1.3167	B.137	C.15
1.3168	B.138	C.15
1.3169	B.139	C.15
1.3170	B.140	C.15
1.3171	B.141	C.15
1.3172	B.142	C.15
1.3173	B.143	C.15
1.3174	B.144	C.15
1.3175	B.145	C.15
1.3176	B.146	C.15
1.3177	B.147	C.15
1.3178	B.148	C.15
1.3179	B.149	C.15
1.3180	B.150	C.15
1.3181	B.151	C.15
1.3182	B.152	C.15
1.3183	B.153	C.15
1.3184	B.154	C.15

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.3185	B.155	C.15
1.3186	B.156	C.15
1.3187	B.157	C.15
1.3188	B.158	C.15
1.3189	B.159	C.15
1.3190	B.160	C.15
1.3191	B.161	C.15
1.3192	B.162	C.15
1.3193	B.163	C.15
1.3194	B.164	C.15
1.3195	B.165	C.15
1.3196	B.166	C.15
1.3197	B.167	C.15
1.3198	B.168	C.15
1.3199	B.169	C.15
1.3200	B.170	C.15
1.3201	B.171	C.15
1.3202	B.172	C.15
1.3203	B.173	C.15
1.3204	B.174	C.15
1.3205	B.175	C.15
1.3206	B.176	C.15
1.3207	B.177	C.15
1.3208	B.178	C.15
1.3209	B.179	C.15
1.3210	B.180	C.15
1.3211	B.181	C.15
1.3212	B.182	C.15
1.3213	B.183	C.15
1.3214	B.184	C.15
1.3215	B.185	C.15
1.3216	B.186	C.15
1.3217	B.187	C.15
1.3218	B.188	C.15
1.3219	B.189	C.15
1.3220	B.190	C.15
1.3221	B.191	C.15
1.3222	B.192	C.15
1.3223	B.193	C.15
1.3224	B.194	C.15
1.3225	B.195	C.15

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.3226	B.196	C.15
1.3227	B.197	C.15
1.3228	B.198	C.15
1.3229	B.199	C.15
1.3230	B.200	C.15
1.3231	B.201	C.15
1.3232	B.202	C.15
1.3233	B.1	C.16
1.3234	B.2	C.16
1.3235	B.3	C.16
1.3236	B.4	C.16
1.3237	B.5	C.16
1.3238	B.6	C.16
1.3239	B.7	C.16
1.3240	B.8	C.16
1.3241	B.9	C.16
1.3242	B.10	C.16
1.3243	B.11	C.16
1.3244	B.12	C.16
1.3245	B.13	C.16
1.3246	B.14	C.16
1.3247	B.15	C.16
1.3248	B.16	C.16
1.3249	B.17	C.16
1.3250	B.18	C.16
1.3251	B.19	C.16
1.3252	B.20	C.16
1.3253	B.21	C.16
1.3254	B.22	C.16
1.3255	B.23	C.16
1.3256	B.24	C.16
1.3257	B.25	C.16
1.3258	B.26	C.16
1.3259	B.27	C.16
1.3260	B.28	C.16
1.3261	B.29	C.16
1.3262	B.30	C.16
1.3263	B.31	C.16
1.3264	B.32	C.16
1.3265	B.33	C.16
1.3266	B.34	C.16

106

comp. no.	herbi- cide B	safener C
1.3267	B.35	C.16
1.3268	B.36	C.16
1.3269	B.37	C.16
1.3270	B.38	C.16
1.3271	B.39	C.16
1.3272	B.40	C.16
1.3273	B.41	C.16
1.3274	B.42	C.16
1.3275	B.43	C.16
1.3276	B.44	C.16
1.3277	B.45	C.16
1.3278	B.46	C.16
1.3279	B.47	C.16
1.3280	B.48	C.16
1.3281	B.49	C.16
1.3282	B.50	C.16
1.3283	B.51	C.16
1.3284	B.52	C.16
1.3285	B.53	C.16
1.3286	B.54	C.16
1.3287	B.55	C.16
1.3288	B.56	C.16
1.3289	B.57	C.16
1.3290	B.58	C.16
1.3291	B.59	C.16
1.3292	B.60	C.16
1.3293	B.61	C.16
1.3294	B.62	C.16
1.3295	B.63	C.16
1.3296	B.64	C.16
1.3297	B.65	C.16
1.3298	B.66	C.16
1.3299	B.67	C.16
1.3300	B.68	C.16
1.3301	B.69	C.16
1.3302	B.70	C.16
1.3303	B.71	C.16
1.3304	B.72	C.16
1.3305	B.73	C.16
1.3306	B.74	C.16
1.3307	B.75	C.16

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.3308	B.76	C.16
1.3309	B.77	C.16
1.3310	B.78	C.16
1.3311	B.79	C.16
1.3312	B.80	C.16
1.3313	B.81	C.16
1.3314	B.82	C.16
1.3315	B.83	C.16
1.3316	B.84	C.16
1.3317	B.85	C.16
1.3318	B.86	C.16
1.3319	B.87	C.16
1.3320	B.88	C.16
1.3321	B.89	C.16
1.3322	B.90	C.16
1.3323	B.91	C.16
1.3324	B.92	C.16
1.3325	B.93	C.16
1.3326	B.94	C.16
1.3327	B.95	C.16
1.3328	B.96	C.16
1.3329	B.97	C.16
1.3330	B.98	C.16
1.3331	B.99	C.16
1.3332	B.100	C.16
1.3333	B.101	C.16
1.3334	B.102	C.16
1.3335	B.103	C.16
1.3336	B.104	C.16
1.3337	B.105	C.16
1.3338	B.106	C.16
1.3339	B.107	C.16
1.3340	B.108	C.16
1.3341	B.109	C.16
1.3342	B.110	C.16
1.3343	B.111	C.16
1.3344	B.112	C.16
1.3345	B.113	C.16
1.3346	B.114	C.16
1.3347	B.115	C.16
1.3348	B.116	C.16

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.3349	B.117	C.16
1.3350	B.118	C.16
1.3351	B.119	C.16
1.3352	B.120	C.16
1.3353	B.121	C.16
1.3354	B.122	C.16
1.3355	B.123	C.16
1.3356	B.124	C.16
1.3357	B.125	C.16
1.3358	B.126	C.16
1.3359	B.127	C.16
1.3360	B.128	C.16
1.3361	B.129	C.16
1.3362	B.130	C.16
1.3363	B.131	C.16
1.3364	B.132	C.16
1.3365	B.133	C.16
1.3366	B.134	C.16
1.3367	B.135	C.16
1.3368	B.136	C.16
1.3369	B.137	C.16
1.3370	B.138	C.16
1.3371	B.139	C.16
1.3372	B.140	C.16
1.3373	B.141	C.16
1.3374	B.142	C.16
1.3375	B.143	C.16
1.3376	B.144	C.16
1.3377	B.145	C.16
1.3378	B.146	C.16
1.3379	B.147	C.16
1.3380	B.148	C.16
1.3381	B.149	C.16
1.3382	B.150	C.16
1.3383	B.151	C.16
1.3384	B.152	C.16
1.3385	B.153	C.16
1.3386	B.154	C.16
1.3387	B.155	C.16
1.3388	B.156	C.16
1.3389	B.157	C.16

107

comp. no.	herbi- cide B	safener C
1.3390	B.158	C.16
1.3391	B.159	C.16
1.3392	B.160	C.16
1.3393	B.161	C.16
1.3394	B.162	C.16
1.3395	B.163	C.16
1.3396	B.164	C.16
1.3397	B.165	C.16
1.3398	B.166	C.16
1.3399	B.167	C.16
1.3400	B.168	C.16
1.3401	B.169	C.16
1.3402	B.170	C.16
1.3403	B.171	C.16
1.3404	B.172	C.16
1.3405	B.173	C.16
1.3406	B.174	C.16
1.3407	B.175	C.16
1.3408	B.176	C.16
1.3409	B.177	C.16
1.3410	B.178	C.16
1.3411	B.179	C.16
1.3412	B.180	C.16
1.3413	B.181	C.16
1.3414	B.182	C.16
1.3415	B.183	C.16
1.3416	B.184	C.16
1.3417	B.185	C.16
1.3418	B.186	C.16
1.3419	B.187	C.16
1.3420	B.188	C.16
1.3421	B.189	C.16
1.3422	B.190	C.16
1.3423	B.191	C.16
1.3424	B.192	C.16
1.3425	B.193	C.16
1.3426	B.194	C.16
1.3427	B.195	C.16
1.3428	B.196	C.16
1.3429	B.197	C.16
1.3430	B.198	C.16

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.3431	B.199	C.16
1.3432	B.200	C.16
1.3433	B.201	C.16
1.3434	B.202	C.16
1.3435	B.1	C.17
1.3436	B.2	C.17
1.3437	B.3	C.17
1.3438	B.4	C.17
1.3439	B.5	C.17
1.3440	B.6	C.17
1.3441	B.7	C.17
1.3442	B.8	C.17
1.3443	B.9	C.17
1.3444	B.10	C.17
1.3445	B.11	C.17
1.3446	B.12	C.17
1.3447	B.13	C.17
1.3448	B.14	C.17
1.3449	B.15	C.17
1.3450	B.16	C.17
1.3451	B.17	C.17
1.3452	B.18	C.17
1.3453	B.19	C.17
1.3454	B.20	C.17
1.3455	B.21	C.17
1.3456	B.22	C.17
1.3457	B.23	C.17
1.3458	B.24	C.17
1.3459	B.25	C.17
1.3460	B.26	C.17
1.3461	B.27	C.17
1.3462	B.28	C.17
1.3463	B.29	C.17
1.3464	B.30	C.17
1.3465	B.31	C.17
1.3466	B.32	C.17
1.3467	B.33	C.17
1.3468	B.34	C.17
1.3469	B.35	C.17
1.3470	B.36	C.17
1.3471	B.37	C.17

WO 2018/019721

comp. no.	herbi- cide B	safener C
1.3472	B.38	C.17
1.3473	B.39	C.17
1.3474	B.40	C.17
1.3475	B.41	C.17
1.3476	B.42	C.17
1.3477	B.43	C.17
1.3478	B.44	C.17
1.3479	B.45	C.17
1.3480	B.46	C.17
1.3481	B.47	C.17
1.3482	B.48	C.17
1.3483	B.49	C.17
1.3484	B.50	C.17
1.3485	B.51	C.17
1.3486	B.52	C.17
1.3487	B.53	C.17
1.3488	B.54	C.17
1.3489	B.55	C.17
1.3490	B.56	C.17
1.3491	B.57	C.17
1.3492	B.58	C.17
1.3493	B.59	C.17
1.3494	B.60	C.17
1.3495	B.61	C.17
1.3496	B.62	C.17
1.3497	B.63	C.17
1.3498	B.64	C.17
1.3499	B.65	C.17
1.3500	B.66	C.17
1.3501	B.67	C.17
1.3502	B.68	C.17
1.3503	B.69	C.17
1.3504	B.70	C.17
1.3505	B.71	C.17
1.3506	B.72	C.17
1.3507	B.73	C.17
1.3508	B.74	C.17
1.3509	B.75	C.17
1.3510	B.76	C.17
1.3511	B.77	C.17
1.3512	B.78	C.17

108

comp. no.	herbi- cide B	safener C
1.3513	B.79	C.17
1.3514	B.80	C.17
1.3515	B.81	C.17
1.3516	B.82	C.17
1.3517	B.83	C.17
1.3518	B.84	C.17
1.3519	B.85	C.17
1.3520	B.86	C.17
1.3521	B.87	C.17
1.3522	B.88	C.17
1.3523	B.89	C.17
1.3524	B.90	C.17
1.3525	B.91	C.17
1.3526	B.92	C.17
1.3527	B.93	C.17
1.3528	B.94	C.17
1.3529	B.95	C.17
1.3530	B.96	C.17
1.3531	B.97	C.17
1.3532	B.98	C.17
1.3533	B.99	C.17
1.3534	B.100	C.17
1.3535	B.101	C.17
1.3536	B.102	C.17
1.3537	B.103	C.17
1.3538	B.104	C.17
1.3539	B.105	C.17
1.3540	B.106	C.17
1.3541	B.107	C.17
1.3542	B.108	C.17
1.3543	B.109	C.17
1.3544	B.110	C.17
1.3545	B.111	C.17
1.3546	B.112	C.17
1.3547	B.113	C.17
1.3548	B.114	C.17
1.3549	B.115	C.17
1.3550	B.116	C.17
1.3551	B.117	C.17
1.3552	B.118	C.17
1.3553	B.119	C.17

PCT/EP2017/068491

comp. no.	herbi- cide B	safener C
1.3554	B.120	C.17
1.3555	B.121	C.17
1.3556	B.122	C.17
1.3557	B.123	C.17
1.3558	B.124	C.17
1.3559	B.125	C.17
1.3560	B.126	C.17
1.3561	B.127	C.17
1.3562	B.128	C.17
1.3563	B.129	C.17
1.3564	B.130	C.17
1.3565	B.131	C.17
1.3566	B.132	C.17
1.3567	B.133	C.17
1.3568	B.134	C.17
1.3569	B.135	C.17
1.3570	B.136	C.17
1.3571	B.137	C.17
1.3572	B.138	C.17
1.3573	B.139	C.17
1.3574	B.140	C.17
1.3575	B.141	C.17
1.3576	B.142	C.17
1.3577	B.143	C.17
1.3578	B.144	C.17
1.3579	B.145	C.17
1.3580	B.146	C.17
1.3581	B.147	C.17
1.3582	B.148	C.17
1.3583	B.149	C.17
1.3584	B.150	C.17
1.3585	B.151	C.17
1.3586	B.152	C.17
1.3587	B.153	C.17
1.3588	B.154	C.17
1.3589	B.155	C.17
1.3590	B.156	C.17
1.3591	B.157	C.17
1.3592	B.158	C.17
1.3593	B.159	C.17
1.3594	B.160	C.17

comp. no.	herbi- cide B	safener C
1.3595	B.161	C.17
1.3596	B.162	C.17
1.3597	B.163	C.17
1.3598	B.164	C.17
1.3599	B.165	C.17
1.3600	B.166	C.17
1.3601	B.167	C.17
1.3602	B.168	C.17
1.3603	B.169	C.17
1.3604	B.170	C.17
1.3605	B.171	C.17
1.3606	B.172	C.17
1.3607	B.173	C.17
1.3608	B.174	C.17
1.3609	B.175	C.17
1.3610	B.176	C.17
1.3611	B.177	C.17
1.3612	B.178	C.17
1.3613	B.179	C.17
1.3614	B.180	C.17
1.3615	B.181	C.17
1.3616	B.182	C.17
1.3617	B.183	C.17
1.3618	B.184	C.17
1.3619	B.185	C.17
1.3620	B.186	C.17
1.3621	B.187	C.17
1.3622	B.188	C.17
1.3623	B.189	C.17
1.3624	B.190	C.17
1.3625	B.191	C.17
1.3626	B.192	C.17
1.3627	B.193	C.17
1.3628	B.194	C.17
1.3629	B.195	C.17
1.3630	B.196	C.17
1.3631	B.197	C.17
1.3632	B.198	C.17
1.3633	B.199	C.17
1.3634	B.200	C.17
1.3635	B.201	C.17

comp. no.	herbi- cide B	safener C
1.3636	B.202	C.17
1.3637	--	C.1
1.3638	--	C.2
1.3639	--	C.3
1.3640	--	C.4
1.3641	--	C.5
1.3642	--	C.6
1.3643	--	C.7
1.3644	--	C.8
1.3645	--	C.9
1.3646	--	C.10
1.3647	--	C.11
1.3648	--	C.12
1.3649	--	C.13
1.3650	--	C.14
1.3651	--	C.15
1.3652	--	C.16
1.3653	--	C.17

110

The specific number for each single composition is deductible as follows:

Composition 1.203 e.g. comprises the compound (1.1.I-25), clethodim (B.1) and benoxacor (C.1) (see table B, entry B.1 and table C, entry C.1).

Also especially preferred are compositions 2.1 to 2.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.1.I-31) in place of the compound (1.1.I-25).

Also especially preferred are compositions 3.1 to 3.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.2 as further herbicide B.

Also especially preferred are compositions 4.1 to 4.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.8 as further herbicide B.

Also especially preferred are compositions 5.1 to 5.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.30 as further herbicide B.

Also especially preferred are compositions 6.1 to 6.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.32 as further herbicide B.

Also especially preferred are compositions 7.1 to 7.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.35 as further herbicide B.

Also especially preferred are compositions 8.1 to 8.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.38 as further herbicide B.

Also especially preferred are compositions 9.1 to 9.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.40 as further herbicide B.

Also especially preferred are compositions 10.1 to 10.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.51 as further herbicide B.

Also especially preferred are compositions 11.1 to 11.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.55 as further herbicide B.

Also especially preferred are compositions 12.1 to 12.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.56 as further herbicide B.

Also especially preferred are compositions 13.1 to 13.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.64 as further herbicide B.

Also especially preferred are compositions 14.1 to 14.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.66 as further herbicide B.

Also especially preferred are compositions 15.1 to 15.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.67 as further herbicide B.

Also especially preferred are compositions 16.1 to 16.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.68 as further herbicide B.

Also especially preferred are compositions 17.1 to 17.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.69 as further herbicide B.

Also especially preferred are compositions 18.1 to 18.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.73 as further herbicide B.

111

Also especially preferred are compositions 19.1 to 19.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.76 as further herbicide B.

Also especially preferred are compositions 20.1 to 20.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.81 as further herbicide B.

Also especially preferred are compositions 21.1 to 21.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.82 as further herbicide B.

Also especially preferred are compositions 22.1 to 22.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.85 as further herbicide B.

Also especially preferred are compositions 23.1 to 23.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.88 as further herbicide B.

Also especially preferred are compositions 24.1 to 24.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.89 as further herbicide B.

Also especially preferred are compositions 25.1 to 25.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.94 as further herbicide B.

Also especially preferred are compositions 26.1 to 26.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.95 as further herbicide B.

Also especially preferred are compositions 27.1 to 27.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.98 as further herbicide B.

Also especially preferred are compositions 28.1 to 28.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.100 as further herbicide B.

Also especially preferred are compositions 29.1 to 29.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.103 as further herbicide B.

Also especially preferred are compositions 30.1 to 30.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.103 and B.67 as further herbicides B.

Also especially preferred are compositions 31.1 to 31.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.103 and B.76 as further herbicides B.

Also especially preferred are compositions 32.1 to 32.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.103 and B.82 as further herbicides B.

Also especially preferred are compositions 33.1 to 33.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.104 as further herbicide B.

Also especially preferred are compositions 34.1 to 34.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.104 and B.67 as further herbicides B.

Also especially preferred are compositions 35.1 to 35.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.104 and B.76 as further herbicides B.

112

Also especially preferred are compositions 36.1 to 36.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.104 and B.82 as further herbicides B.

Also especially preferred are compositions 37.1 to 37.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.106 as further herbicide B.

Also especially preferred are compositions 38.1 to 38.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.107 as further herbicide B.

Also especially preferred are compositions 39.1 to 39.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B. 107 and B.67 as further herbicides B.

Also especially preferred are compositions 40.1 to 40.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B. 107 and B.76 as further herbicides B.

Also especially preferred are compositions 41.1 to 41.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B. 107 and B.82 as further herbicides B.

Also especially preferred are compositions 42.1 to 42.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.109 as further herbicide B.

Also especially preferred are compositions 43.1 to 43.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.111 as further herbicide B.

Also especially preferred are compositions 44.1 to 44.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.111 and B.67 as further herbicides B.

Also especially preferred are compositions 45.1 to 45.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.111 and B.76 as further herbicides B.

Also especially preferred are compositions 46.1 to 46.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.111 and B.82 as further herbicides B.

Also especially preferred are compositions 47.1 to 47.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B. 116 as further herbicide B.

Also especially preferred are compositions 48.1 to 48.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.116 and B.67 as further herbicides B.

Also especially preferred are compositions 49.1 to 49.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.116 and B.94 as further herbicides B.

Also especially preferred are compositions 50.1 to 50.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.116 and B.103 as further

herbicides B.

Also especially preferred are compositions 51.1 to 51.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.116 and B.128 as further herbicides B.

Also especially preferred are compositions 52.1 to 52.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.116 and B.104 as further herbicides B.

Also especially preferred are compositions 53.1 to 53.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.116 and B.107 as further herbicides B.

Also especially preferred are compositions 54.1 to 54.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.116 and B.111 as further herbicides B.

Also especially preferred are compositions 55.1 to 55.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.122 as further herbicide B.

Also especially preferred are compositions 56.1 to 56.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.126 as further herbicide B.

Also especially preferred are compositions 57.1 to 57.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.128 as further herbicide B.

Also especially preferred are compositions 58.1 to 58.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.131 as further herbicide B.

Also especially preferred are compositions 59.1 to 59.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.132 as further herbicide B.

Also especially preferred are compositions 60.1 to 60.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.133 as further herbicide B.

Also especially preferred are compositions 61.1 to 61.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.135 as further herbicide B.

Also especially preferred are compositions 62.1 to 62.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.137 as further herbicide B.

Also especially preferred are compositions 63.1 to 63.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.138 as further herbicide B.

Also especially preferred are compositions 64.1 to 64.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.140 as further herbicide B.

Also especially preferred are compositions 65.1 to 65.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.145 as further herbicide B.

Also especially preferred are compositions 66.1 to 66.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.153 as further herbicide B.

Also especially preferred are compositions 67.1 to 67.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.156 as further herbicide B.

114

Also especially preferred are compositions 68.1 to 68.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.171 as further herbicide B.

Also especially preferred are compositions 69.1 to 69.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they additionally comprise B.174 as further herbicide B.

Also especially preferred are compositions 70.1 to 70.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.1.I-37) in place of the compound (1.1.I-25).

Also especially preferred are compositions 71.1 to 71.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.1.I-49) in place of the compound (1.1.I-25).

Also especially preferred are compositions 72.1 to 72.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.1.I-55) in place of the compound (1.1.I-25).

Also especially preferred are compositions 73.1 to 73.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.1.I-61) in place of the compound (1.1.I-25).

Also especially preferred are compositions 74.1 to 75.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.1.I-73) in place of the compound (1.1.I-25).

Also especially preferred are compositions 76.1 to 76.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.2.I-25) in place of the compound (1.1.I-25).

Also especially preferred are compositions 77.1 to 77.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.2.I-31) in place of the compound (1.1.I-25).

Also especially preferred are compositions 78.1 to 78.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.2.I-37) in place of the compound (1.1.I-25).

Also especially preferred are compositions 79.1 to 79.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.2.I-49) in place of the compound (1.1.I-25).

Also especially preferred are compositions 80.1 to 80.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.2.I-55) in place of the compound (1.1.I-25).

Also especially preferred are compositions 81.1 to 81.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.2.I-61) in place of the compound (1.1.I-25).

Also especially preferred are compositions 82.1 to 82.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.2.I-73) in place of the

compound (1.1.I-25).

Also especially preferred are compositions 83.1 to 83.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.3.I-25) in place of the compound (1.1.I-25).

Also especially preferred are compositions 84.1 to 84.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.3.I-31) in place of the compound (1.1.I-25).

Also especially preferred are compositions 85.1 to 85.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.3.I-37) in place of the compound (1.1.I-25).

Also especially preferred are compositions 86.1 to 86.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.3.I-49) in place of the compound (1.1.I-25).

Also especially preferred are compositions 87.1 to 87.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.3.I-55) in place of the compound (1.1.I-25).

Also especially preferred are compositions 88.1 to 88.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.3.I-61) in place of the compound (1.1.I-25).

Also especially preferred are compositions 89.1 to 89.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.3.I-73) in place of the compound (1.1.I-25).

Also especially preferred are compositions 90.1 to 90.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.4.I-25) in place of the compound (1.1.I-25).

Also especially preferred are compositions 91.1 to 91.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.4.I-31) in place of the compound (1.1.I-25).

Also especially preferred are compositions 92.1 to 92.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.4.I-37) in place of the compound (1.1.I-25).

Also especially preferred are compositions 93.1 to 93.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.4.I-49) in place of the compound (1.1.I-25).

Also especially preferred are compositions 94.1 to 94.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.4.I-55) in place of the compound (1.1.I-25).

Also especially preferred are compositions 95.1 to 95.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.4.I-61) in place of the

compound (1.1.I-25).

Also especially preferred are compositions 96.1 to 96.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.4.I-73) in place of the compound (1.1.I-25).

Also especially preferred are compositions 97.1 to 97.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.5.I-25) in place of the compound (1.1.I-25).

Also especially preferred are compositions 98.1 to 98.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.5.I-31) in place of the compound (1.1.I-25).

Also especially preferred are compositions 99.1 to 99.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.5.I-37) in place of the compound (1.1.I-25).

Also especially preferred are compositions 100.1 to 100.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.5.I-49) in place of the compound (1.1.I-25).

Also especially preferred are compositions 101.1 to 101.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.5.I-55) in place of the compound (1.1.I-25).

Also especially preferred are compositions 102.1 to 102.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.5.I-61) in place of the compound (1.1.I-25).

Also especially preferred are compositions 103.1 to 103.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.5.I-73) in place of the compound (1.1.I-25).

Also especially preferred are compositions 104.1 to 104.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.6.I-25) in place of the compound (1.1.I-25).

Also especially preferred are compositions 105.1 to 105.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.6.I-31) in place of the compound (1.1.I-25).

Also especially preferred are compositions 106.1 to 106.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.6.I-37) in place of the compound (1.1.I-25).

Also especially preferred are compositions 107.1 to 107.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.6.I-49) in place of the compound (1.1.I-25).

Also especially preferred are compositions 108.1 to 108.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.6.I-55) in place of the

compound (1.1.I-25).

Also especially preferred are compositions 109.1 to 109.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.6.I-61) in place of the compound (1.1.I-25).

Also especially preferred are compositions 110.1 to 110.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.6.I-73) in place of the compound (1.1.I-25).

Also especially preferred are compositions 111.1 to 111.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.7.I-25) in place of the compound (1.1.I-25).

Also especially preferred are compositions 112.1 to 112.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.7.I-31) in place of the compound (1.1.I-25).

Also especially preferred are compositions 113.1 to 113.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.7.I-37) in place of the compound (1.1.I-25).

Also especially preferred are compositions 114.1 to 114.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.7.I-49) in place of the compound (1.1.I-25).

Also especially preferred are compositions 115.1 to 115.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.7.I-55) in place of the compound (1.1.I-25).

Also especially preferred are compositions 116.1 to 116.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.7.I-61) in place of the compound (1.1.I-25).

Also especially preferred are compositions 117.1 to 117.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.7.I-73) in place of the compound (1.1.I-25).

Also especially preferred are compositions 118.1 to 118.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.8.I-25) in place of the compound (1.1.I-25).

Also especially preferred are compositions 119.1 to 119.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.8.I-31) in place of the compound (1.1.I-25).

Also especially preferred are compositions 120.1 to 120.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.8.I-37) in place of the compound (1.1.I-25).

Also especially preferred are compositions 121.1 to 121.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.8.I-49) in place of the

compound (1.1.I-25).

Also especially preferred are compositions 122.1 to 122.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.8.I-55) in place of the compound (1.1.I-25).

Also especially preferred are compositions 123.1 to 123.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.8.I-61) in place of the compound (1.1.I-25).

Also especially preferred are compositions 124.1 to 124.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.8.I-73) in place of the compound (1.1.I-25).

Also especially preferred are compositions 125.1 to 125.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.9.I-25) in place of the compound (1.1.I-25).

Also especially preferred are compositions 126.1 to 126.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.9.I-31) in place of the compound (1.1.I-25).

Also especially preferred are compositions 127.1 to 127.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.9.I-37) in place of the compound (1.1.I-25).

Also especially preferred are compositions 128.1 to 128.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.9.I-49) in place of the compound (1.1.I-25).

Also especially preferred are compositions 129.1 to 129.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.9.I-55) in place of the compound (1.1.I-25).

Also especially preferred are compositions 130.1 to 130.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.9.I-61) in place of the compound (1.1.I-25).

Also especially preferred are compositions 131.1 to 131.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.9.I-73) in place of the compound (1.1.I-25).

Also especially preferred are compositions 132.1 to 132.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.10.I-25) in place of the compound (1.1.I-25).

Also especially preferred are compositions 133.1 to 133.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.10.I-31) in place of the compound (1.1.I-25).

Also especially preferred are compositions 134.1 to 134.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.10.I-37) in place of the

compound (1.1.I-25).

Also especially preferred are compositions 135.1 to 135.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.10.I-49) in place of the compound (1.1.I-25).

Also especially preferred are compositions 136.1 to 136.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.10.I-55) in place of the compound (1.1.I-25).

Also especially preferred are compositions 137.1 to 137.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.10.I-61) in place of the compound (1.1.I-25).

Also especially preferred are compositions 138.1 to 138.3653 which differ from the corresponding compositions 1.1 to 1.3653 only in that they comprise the compound (1.10.I-73) in place of the compound (1.1.I-25).

The invention also relates to agrochemical compositions comprising at least an auxiliary and at least one pyridine compound of formula (I) according to the invention.

An agrochemical composition comprises a pesticidal effective amount of a pyridine 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 pyridine compound of formula (I) used.

The pyridine compounds of formula (I), their N-oxides, salts or derivatives 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, non-ionic, 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 alkoxyated 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. Examples of carboxylates are alkyl carboxylates, and carboxylated alcohol or alkylphenol ethoxylates.

Suitable nonionic surfactants are alkoxyates, N-substituted fatty acid amides, amine oxides, esters, sugar-based surfactants, polymeric surfactants, and mixtures thereof. Examples of alkoxyates are compounds such as alcohols, alkylphenols, amines, amides, arylphenols, fatty acids, or fatty acid esters which have been alkoxyated 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, e.g. quaternary ammonium compounds with one or two hydrophobic groups, or salts of long-chain primary amines. Suitable amphoteric

121

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 pesticidal activity themselves, and which improve the biological performance of the pyridine compounds of formula (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 a pyridine compound of formula (I) 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 a pyridine compound of formula (I) 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 a pyridine compound of formula (I) 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 a pyridine compound of formula (I) 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

122

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 a pyridine compound of formula (I) 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 a pyridine compound of formula (I) 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 a pyridine compound of formula (I) 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 a pyridine compound of formula (I) 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 a pyridine compound of formula (I) 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 a pyridine compound of formula (I) 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 a pyridine compound of formula (I) 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

123

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 a pyridine compound of formula (I) 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 a pyridine compound of formula (I) 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 a pyridine compound of formula (I) 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 comprising 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 pyridine compound of formula (I). The pyridine compounds of formula (I) are employed in a purity 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 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 pyridine compounds of formula (I) and 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, pyridine compounds of formula (I) and agrochemical compositions thereof, 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 pyridine compounds of formula (I) and 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 pyridine compound of formula (I) according to the invention and 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 pyridine compounds 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 pyridine compounds of formula (I) can be applied jointly (e.g. after tank mix) or consecutively.

The pyridine compounds of formula (I), are suitable as herbicides. They are suitable as such or as an appropriately formulated composition (agrochemical composition).

The pyridine compounds of formula (I), or the agrochemical compositions comprising the pyridine compounds 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 pyridine compounds of formula (I), or the agrochemical compositions comprising them, are applied to the plants mainly by spraying the leaves. Here, the application can be carried out using, e.g., water as carrier by customary spraying techniques using spray liquor amounts from about 100 to 1000 l/ha (e.g. from 300 to 400 l/ha). The pyridine 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 micro granules.

Application of the pyridine compounds of formula (I), or the agrochemical compositions comprising them, can be done before, during, and/or after, preferably during and/or after, the emergence of the undesirable plants.

The pyridine 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 pyridine compounds of formula (I), or the agrochemical compositions comprising them, by applying seed, pretreated with the pyridine 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

125

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 pyridine 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 pyridine 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, e.g., 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 pyridine 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 0.05 to 0.9 kg per ha and in particular from 0.1 to 0.75 kg per ha.

In another embodiment of the invention, the application rate of the pyridine compounds of formula (I) 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.).

In another preferred embodiment of the invention, the rates of application of the pyridine compounds of formula (I) according to the present invention (total amount of pyridine 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 pyridine 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 pyridine compounds of formula (I) is 0.1 to 1000 g/ha, preferably 1 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 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 pyridine compounds of formula (I) are generally employed in amounts 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 pyridine 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 illinoensis*, *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 pyridine 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, e.g., 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., 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 as *Streptomyces* 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-

128

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, and 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 (Coleoptera), 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 cultivars, 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*

amylovora). 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.

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).

The preparation of the pyridine compounds of formula (I) is illustrated by the following examples.

Example 1: [5-(2-Chlorophenyl)-2-cyclopropyl-4-pyridyl]methanol:

Methyl 5-(2-chlorophenyl)-2-cyclopropyl-pyridine-4-carboxylate (5.6 g) is dissolved in THF (200 mL) and DIBALH (1 mol/L in THF, 38.9 mL) is added dropwise at 0 °C. The solution is warmed to room temperature and stirred for 14h. The mixture is cooled to -70 °C and water (1.56 mL), 15% NaOH (1.56 mL) and again water (3.9 mL) are added dropwise. After warming to room temperature the suspension is filtered through silica, the filtrate is concentrated under reduced pressure and the crude product is purified by column chromatography on silica with cyclohexane/ethyl acetate, resulting in 3.7g [5-(2-chlorophenyl)-2-cyclopropyl-4-pyridyl]methanol as a colorless solid.

¹H NMR (400 MHz, *d*₈-THF) 8.05 (s, 1H), 7.52 (s, 1H), 7.49 – 7.47 (m, 1H), 7.38 – 7.31 (m, 2H), 7.25 – 7.22 (m, 1H), 4.41 – 4.35 (m, 2H), 4.30 – 4.23 (m, 1H), 2.12 – 2.05 (m, 1H), 1.10 – 1.01 (m, 2H), 0.94 – 0.89 (m, 2H) ppm; MS (ESI) *m/z* 260.0 [M + H⁺].

Example 2: 1-[5-(2-Chlorophenyl)-2-cyclopropyl-4-pyridyl]ethanol:

1. 5-(2-Chlorophenyl)-2-cyclopropyl-pyridine-4-carbaldehyde:

[5-(2-Chlorophenyl)-2-cyclopropyl-4-pyridyl]methanol (350 mg) is dissolved in chloroform (20 mL) and manganese(IV) oxide (1.4 g) is added. After 14h heating to reflux the suspension is cooled to room temperature and filtered through silica. Volatiles are removed under reduced pressure resulting in 270 mg 5-(2-chlorophenyl)-2-cyclopropyl-pyridine-4-carbaldehyde as a colorless solid.

¹H NMR (400 MHz, CDCl₃) 9.84 (s, 1H), 8.50 (s, 1H), 7.63 (s, 1H), 7.53 – 7.51 (m, 1H), 7.45 – 7.38 (m, 2H), 7.35 – 7.33 (m, 1H), 2.24 – 2.17 (m, 1H), 1.16 – 1.07 (m, 4H) ppm; MS (ESI) *m/z* 258.0 [M + H⁺].

130

2. 1-[5-(2-Chlorophenyl)-2-cyclopropyl-4-pyridyl]ethanol:

5-(2-Chlorophenyl)-2-cyclopropyl-pyridine-4-carbaldehyde (1.0 g) is dissolved in THF (20 mL) and cooled to -20 °C. Methyl magnesium bromide (2.8 mL, 3 mol/L in THF) is added dropwise and the solution is warmed to room temperature over 2h. Aqueous saturated ammonium chloride solution is added, the mixture is extracted with ethyl acetate and the organic phase dried over Na₂SO₄. Solid parts are removed by filtration and the filtrate is concentrated under reduced pressure. The crude product is purified by column chromatography on silica with cyclohexane/ethyl acetate, resulting in 1.0 g 1-[5-(2-chlorophenyl)-2-cyclopropyl-4-pyridyl]ethanol as a colorless viscous oil.

¹H NMR (400 MHz, CDCl₃, rotamers) 8.16 – 8.11 (2x s, 1H), 7.50 – 7.44 (m, 2H), 7.38 – 7.27 (m, 2H), 7.23 – 7.19 (m, 1H), 4.75 – 4.68 (m, 1H), 2.15 – 2.08 (m, 1H), 1.35 – 1.33 (m, 1H), 1.28 – 1.21 (m, 3H), 1.13 – 0.99 (m, 4H) ppm; MS (ESI) m/z 274.0 [M + H⁺].

Example 3: 5-(2-chlorophenyl)-2-cyclopropyl-4-(1-methoxyethyl)pyridine:

1-[5-(2-Chlorophenyl)-2-cyclopropyl-4-pyridyl]ethanol (400 mg) is dissolved in DMF (20 mL) and sodium hydride (60% in mineral oil, 76 mg) is added. After 15 min at room temperature methyl iodide (373 mg) is added and the suspension is stirred overnight. Volatiles are removed under reduced pressure and the residue is purified by column chromatography on silica with cyclohexane/ethyl acetate resulting in 370 mg 5-(2-chlorophenyl)-2-cyclopropyl-4-(1-methoxyethyl)pyridine as a colorless viscous oil.

¹H NMR (400 MHz, CDCl₃, rotamers) 8.20 – 8.16 (2x s, 1H), 7.51 – 7.49 (m, 1H), 7.38 – 7.31 (m, 3H), 7.23 – 7.16 (m, 1H), 4.14 – 4.06 (m, 1H), 3.26 – 3.14 (2x s, 3H), 2.15 – 2.08 (m, 1H), 1.32 – 1.18 (2x d, J = 6.4 & 6.6 Hz, 3H), 1.28 – 1.21 (m, 3H), 1.14 – 1.01 (m, 4H) ppm; MS (ESI) m/z 288.0 [M + H⁺].

Example 4: 5-(2-chlorophenyl)-2-cyclopropyl-4-(3-furyl)pyridine:

1. *tert*-Butyl N-[5-(2-chlorophenyl)-2-cyclopropyl-4-pyridyl]carbamate:

5-(2-Chlorophenyl)-2-cyclopropyl-pyridine-4-carboxylic acid (5.8 g), triethylamine (3.8 mL) and diphenylphosphoryl azide (5.8 g) in *t*BuOH (40 mL) are stirred at 85 °C for 2 h. Volatiles are removed under reduced pressure and the residue is purified by column chromatography on silica with cyclohexane/ethyl acetate, resulting in 5.5 g *tert*-butyl N-[5-(2-chlorophenyl)-2-cyclopropyl-4-pyridyl]carbamate as a colorless viscous oil.

¹H NMR (500 MHz, CDCl₃) 8.10 (s, 1H), 8.04 (s, 1H), 7.56 – 7.54 (m, 1H), 7.43 – 7.38 (m, 2H), 7.29 – 7.27 (m, 1H), 2.11 – 2.06 (m, 1H), 1.47 (s, 9H), 1.10 – 0.98 (m, 4H) ppm; MS (ESI) m/z 345.0 [M + H⁺].

2. 5-(2-Chlorophenyl)-2-cyclopropyl-pyridin-4-amine:

tert-Butyl N-[5-(2-chlorophenyl)-2-cyclopropyl-4-pyridyl]carbamate (5.5 g) is suspended in 1M aqueous HCl (20 mL) and heated to reflux for 2h. To the solution 50% NaOH is added until the mixture is basic. The aqueous phase is extracted with ethyl acetate, the organic phase is dried over

131

Na₂SO₄ and solid parts are removed by filtration. Concentration under reduced pressure results in 3.6 g 5-(2-chlorophenyl)-2-cyclopropyl-pyridin-4-amine as a colorless viscous oil.

¹H NMR (400 MHz, CDCl₃) 7.97 (s, 1H), 7.52 – 7.48 (m, 1H), 7.36 – 7.28 (m, 3H), 6.48 (s, 1H), 4.00 (brs, 2H), 1.97 – 1.91 (m, 1H), 1.47 (s, 9H), 1.05 – 0.99 (m, 2H), 0.98 – 0.92 (m, 2H) ppm; MS (ESI) m/z 245.0 [M + H⁺].

3. 4-Bromo-5-(2-chlorophenyl)-2-cyclopropyl-pyridine:

CuBr₂ (2.0 g) is suspended in MeCN (50 mL) and *tert*-butylnitrite (1.3 g) is added dropwise. The mixture is warmed to 65 °C and 5-(2-chlorophenyl)-2-cyclopropyl-pyridin-4-amine (1.9 g) in MeCN (10 mL) is added dropwise. After 30 min the suspension is cooled to room temperature, water is added and the mixture is extracted with ethyl acetate. The organic phase is dried over Na₂SO₄, solid parts are removed by filtration and the filtrate is concentrated under reduced pressure. The crude product is purified by column chromatography on silica with cyclohexane/ethyl acetate, resulting in 1.1 g 4-bromo-5-(2-chlorophenyl)-2-cyclopropyl-pyridine as a colorless oil.

MS (ESI) m/z 309.9 [M + H⁺].

4. 5-(2-Chlorophenyl)-2-cyclopropyl-4-(3-furyl)pyridine:

4-Bromo-5-(2-chlorophenyl)-2-cyclopropyl-pyridine (400 mg), 3-furylboronic acid (334 mg), Pd(dppf)Cl₂ (95 mg) and Cs₂CO₃ (1.1 g) are suspended in dioxane (5 mL) under argon and heated to reflux for 3h. After cooling to room temperature the suspension is filtered through silica, the silica is washed with ethyl acetate and the combined filtrate is concentrated under reduced pressure. The crude product is purified by column chromatography on silica with cyclohexane/ethyl acetate, resulting in 270 mg 5-(2-chlorophenyl)-2-cyclopropyl-4-(3-furyl)pyridine.

¹H NMR (400 MHz, CDCl₃) 8.28 (s, 1H), 7.46 – 7.43 (m, 1H), 7.36 – 7.22 (m, 5H), 7.01 (s, 1H), 6.28 (s, 1H), 2.15 – 2.08 (m, 1H), 1.16 – 1.03 (m, 4H) ppm; MS (ESI) m/z 296.0 [M + H⁺].

With appropriate modification of the starting materials, the procedures given in the synthesis examples below were used to obtain further compounds of formula I. The compounds obtained in this manner are listed in the Table C that follows, together with physical data.

The products shown below were characterized by melting point determination, by the masses ([m/z]) or retention time (RT; [min.]) determined by HPLC-MS or HPLC spectrometry.

HPLC-MS = high performance liquid chromatography-coupled mass spectrometry; HPLC methods:

Method: Column: Phenomenex Kinetex 1.7 μm XB-C18 100A; 50 x 2.1 mm; mobile phase: A: water + 0.1% trifluoroacetic acid (TFA); B: acetonitrile + 0.1% TFA; gradient: 5-100% B in 1.50 minutes; 100% B 0.25 min; flow: 0.8-1.0ml/min in 1.51 minutes at 60 °C. MS: quadrupole electrospray ionization, 80 V (positive mode).

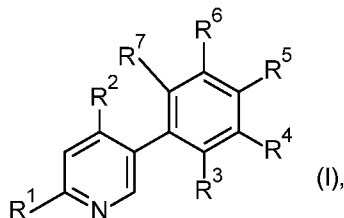
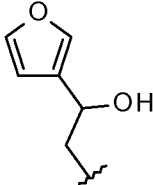
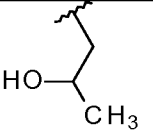
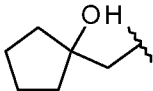
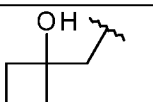
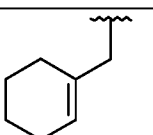
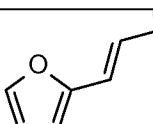
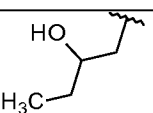
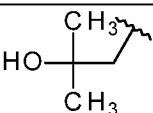
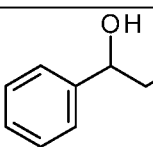
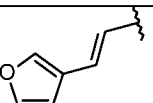


Table C:

Ex.	R ¹	R ²	R ³	R ⁴	R ⁵	R ⁶	R ⁷	HPLC /MS, R _t [min]	HPLC /MS, m/z
Ex.1	c-C ₃ H ₅		Cl	H	H	H	H	0.698	260.0
Ex.2	c-C ₃ H ₅		Cl	H	H	H	H	0.787	288.1
Ex.3	c-C ₃ H ₅		Cl	H	H	H	H	0.757	274.0
Ex.4	n-C ₃ H ₇	CH ₃	NH ₂	H	H	H	H	0.720	227.1
Ex.5	c-C ₃ H ₅		Cl	H	H	H	H	0.816	288.1
Ex.6	c-C ₃ H ₅		Cl	H	H	H	H	0.999	302.3
Ex.7	c-C ₃ H ₅		Cl	H	H	H	H	0.867	302.1
Ex.8	c-C ₃ H ₅		Cl	H	H	H	H	0.916	288.1
Ex.9	c-C ₃ H ₅		Cl	H	H	H	H	1.067	316.1
Ex.10	c-C ₃ H ₅		Cl	H	H	H	H	0.912	296.0
Ex.11	c-C ₃ H ₅		Cl	H	H	H	H	0.950	342.1
Ex.12	c-C ₃ H ₅		Cl	H	H	H	H	0.983	309.9
Ex.13	c-C ₃ H ₅		Cl	H	H	H	H	0.957	295.9
Ex.14	c-C ₃ H ₅		Cl	H	H	H	H	0.836	339.9

133

Ex.	R ¹	R ²	R ³	R ⁴	R ⁵	R ⁶	R ⁷	HPLC /MS, R _t [min]	HPLC /MS, m/z
Ex.15	c-C ₃ H ₅		Cl	H	H	H	H	0.832	340.1
Ex.16	c-C ₃ H ₅		Cl	H	H	H	H	0.789	288.0
Ex.17	c-C ₃ H ₅		Cl	H	H	H	H	0.925	328.1
Ex.18	c-C ₃ H ₅		Cl	H	H	H	H	0.841	313.9
Ex.19	c-C ₃ H ₅		Cl	H	H	H	H	1.082	324.0
Ex.20	c-C ₃ H ₅		Cl	H	H	H	H	0.970	322.0
Ex.21	c-C ₃ H ₅		Cl	H	H	H	H	0.826	301.9
Ex.22	c-C ₃ H ₅		Cl	H	H	H	H	0.812	302.0
Ex.23	c-C ₃ H ₅		Cl	H	H	H	H	0.933	350.0
Ex.24	c-C ₃ H ₅		Cl	H	H	H	H	0.944	322.0

B Use examples

The herbicidal activity of the pyridine compounds of formula (I) was demonstrated by the following greenhouse experiments:

The culture containers used were plastic flowerpots containing loamy sand with approximately

134

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 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
AMARE	Amaranthus retroflexus
APESV	Apera spica-venti
ECHCG	Echinocloa crus-galli
SETVI	Setaria viridis
SETFA	Setaria faberi

At an application rate of 2000 g/ha, Ex.1 applied by the pre-emergence method showed very good herbicidal activity against APESV and ECHCG.

At an application rate of 2000 g/ha, Ex.4 applied by the post-emergence method showed good herbicidal activity against ABUTH and ECHCG.

At an application rate of 2000 g/ha, Ex.5 applied by the post-emergence method showed good herbicidal activity against SETVI.

At an application rate of 1000 g/ha, Ex.6 applied by the post-emergence method showed good herbicidal activity against AMARE.

At an application rate of 2000 g/ha, Ex.8 applied by the post-emergence method showed very good herbicidal activity against ABUTH and AMARE, and applied by the pre-emergence method showed very good herbicidal activity against SETFA, ECHCG and APESV.

135

At an application rate of 500 g/ha, Ex.11 applied by the post-emergence method showed very good herbicidal activity against AMARE.

At an application rate of 2000 g/ha, Ex.12 applied by the post-emergence method showed very good herbicidal activity against ALOMY, ABUTH and AMARE, and applied by the pre-emergence method showed very good herbicidal activity against ECHCG.

At an application rate of 1000 g/ha, Ex.13 applied by the post-emergence method showed very good herbicidal activity against AMARE.

At an application rate of 2000 g/ha, Ex.14 applied by the post-emergence method showed very good herbicidal activity against ABUTH, ECHCG and AMARE.

At an application rate of 2000 g/ha, Ex.16 applied by the pre-emergence method showed good herbicidal activity against APESV.

At an application rate of 2000 g/ha, Ex.17 applied by the post-emergence method showed very good herbicidal activity against AMARE.

At an application rate of 2000 g/ha, Ex.19 applied by the post-emergence method showed very good herbicidal activity against AMARE.

At an application rate of 2000 g/ha, Ex.20 applied by the pre-emergence method showed very good herbicidal activity against ECHCG.

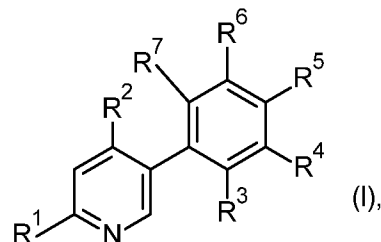
At an application rate of 2000 g/ha, Ex.21 applied by the pre-emergence method showed very good herbicidal activity against ECHCG.

At an application rate of 1000 g/ha, Ex.23 applied by the post-emergence method showed very good herbicidal activity against ECHCG, and applied by the pre-emergence method showed very good herbicidal activity against AMARE.

At an application rate of 1000 g/ha, Ex.24 applied by the pre-emergence method showed very good herbicidal activity against ECHCG, and good herbicidal activity against APESV.

Claims

1. Pyridine compounds of formula (I)



wherein

R^1 C₁-C₆-alkyl, C₁-C₆-haloalkyl, hydroxy-C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₂-C₆-alkynyl, C₃-C₆-haloalkynyl, C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆-alkoxy, C₃-C₆-alkenyloxy, C₃-C₆-haloalkenyloxy, C₃-C₆-alkynyloxy, C₃-C₆-haloalkynyloxy, C₁-C₆-haloalkoxy, C₃-C₆-cycloalkoxy, C₃-C₆-halocycloalkoxy, C₃-C₆-cycloalkenyloxy, C₃-C₆-halocycloalkenyloxy, C₁-C₆-alkylthio, C₁-C₆-haloalkylthio, (C₁-C₆-alkyl)amino, di(C₁-C₆-alkyl)amino, C₁-C₆-alkylsulfinyl, C₁-C₆-alkylsulfonyl, C₃-C₆-cycloalkyl, C₃-C₆-cycloalkenyl, C₃-C₆-halocycloalkyl, C₃-C₆-halocycloalkenyl, [1-(C₁-C₆-alkyl)]-C₃-C₆-cycloalkyl, [1-(C₂-C₆-alkenyl)]-C₃-C₆-cycloalkyl, [1-(C₂-C₆-alkynyl)]-C₃-C₆-cycloalkyl, [1-(C₁-C₆-haloalkyl)]-C₃-C₆-cycloalkyl, [1-(C₂-C₆-haloalkenyl)]-C₃-C₆-cycloalkyl, [1-(C₃-C₆-haloalkynyl)]-C₃-C₆-cycloalkyl, C₃-C₆-cycloalkyl-C₁-C₆-alkyl, C₃-C₆-cycloalkyl-C₁-C₆-haloalkyl, C₃-C₆-cycloalkyl-C₁-C₆-alkoxy, C₃-C₆-cycloalkyl-C₁-C₆-haloalkoxy, phenyl, 5- or 6-membered heteroaryl, or 3- to 6-membered heterocyclyl;

wherein the cyclic groups of R^1 are unsubstituted or substituted by R^a ;

R^2 is C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₁-C₆-alkoxy-C₂-C₆-alkenyl, C₁-C₆-alkoxy-C₂-C₆-haloalkenyl, C₁-C₆-haloalkoxy-C₂-C₆-alkenyl, C₁-C₆-haloalkoxy-C₂-C₆-haloalkenyl, C₂-C₆-alkynyl, C₂-C₆-haloalkynyl, C₁-C₆-alkoxy-C₂-C₆-alkynyl, C₁-C₆-alkoxy-C₃-C₆-haloalkynyl, C₁-C₆-haloalkoxy-C₂-C₆-alkynyl, C₁-C₆-haloalkoxy-C₃-C₆-haloalkynyl, C₃-C₆-cycloalkyl, C₃-C₆-halocycloalkyl, C₃-C₆-cycloalkenyl, C₃-C₆-halocycloalkenyl, C₃-C₆-cycloalkyl-C₁-C₆-alkyl, C₃-C₆-cycloalkyl-C₁-C₆-haloalkyl, C₃-C₆-halocycloalkyl-C₁-C₆-alkyl, C₃-C₆-halocycloalkyl-C₁-C₆-haloalkyl, C₃-C₆-cycloalkenyl-C₁-C₆-alkyl, C₃-C₆-cycloalkenyl-C₁-C₆-haloalkyl, C₃-C₆-halocycloalkenyl-C₁-C₆-alkyl, C₃-C₆-halocycloalkenyl-C₁-C₆-haloalkyl, C₃-C₆-cycloalkyl-C₂-C₆-alkenyl, C₃-C₆-cycloalkyl-C₂-C₆-haloalkenyl, C₃-C₆-halocycloalkyl-C₂-C₆-alkenyl, C₃-C₆-halocycloalkyl-C₂-C₆-haloalkenyl, C₃-C₆-cycloalkenyl-C₂-C₆-alkenyl, C₃-C₆-cycloalkenyl-C₂-C₆-haloalkenyl, C₃-C₆-halocycloalkenyl-C₂-C₆-alkenyl, C₃-C₆-halocycloalkenyl-C₂-C₆-haloalkenyl, C₃-C₆-cycloalkyl-C₂-C₆-alkynyl, C₃-C₆-cycloalkyl-C₃-C₆-haloalkynyl, C₃-C₆-halocycloalkyl-C₂-C₆-alkynyl, C₃-C₆-halocycloalkyl-C₃-C₆-haloalkynyl, C₃-C₆-cycloalkenyl-C₂-C₆-alkynyl, C₃-C₆-cycloalkenyl-C₃-C₆-haloalkynyl, C₃-C₆-halocycloalkenyl-C₂-C₆-alkynyl, C₃-C₆-halocycloalkenyl-C₃-C₆-haloalkynyl, C₃-C₆-

137

cycloalkyl-C₁-C₆-alkylidenyl, C₃-C₆-cycloalkyl-C₂-C₆-haloalkylidenyl, C₃-C₆-halocycloalkyl-C₁-C₆-alkylidenyl, C₃-C₆-halocycloalkyl-C₂-C₆-haloalkylidenyl, C₃-C₆-cycloalkenyl-C₁-C₆-alkylidenyl, C₃-C₆-cycloalkenyl-C₂-C₆-haloalkylidenyl, C₃-C₆-halocycloalkenyl-C₁-C₆-alkylidenyl, C₃-C₆-halocycloalkenyl-C₂-C₆-haloalkylidenyl, heterocyclyl-C₁-C₆-alkylidenyl, heterocyclyl-C₁-C₆-haloalkylidenyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-haloalkyl, C₃-C₆-hydroxycycloalkenyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkenyl-C₁-C₆-haloalkyl, C₁-C₆-hydroxyalkyl, C₂-C₆-hydroxyhaloalkyl, C₃-C₆-hydroxyalkenyl, C₃-C₆-hydroxyhaloalkenyl, C₃-C₆-hydroxyalkynyl, C₄-C₆-hydroxyhaloalkynyl, C₃-C₆-hydroxycycloalkyl, C₃-C₆-hydroxyhalocycloalkyl, C₃-C₆-hydroxycycloalkenyl, C₃-C₆-hydroxyhalocycloalkenyl, C₃-C₆-cycloalkyl-C₁-C₆-hydroxyalkyl, C₃-C₆-cycloalkyl-C₂-C₆-hydroxyhaloalkyl, C₃-C₆-halocycloalkyl-C₁-C₆-hydroxyalkyl, C₃-C₆-halocycloalkyl-C₂-C₆-hydroxyhaloalkyl, C₃-C₆-cycloalkenyl-C₁-C₆-hydroxyalkyl, C₃-C₆-cycloalkenyl-C₂-C₆-hydroxyhaloalkyl, C₃-C₆-halocycloalkenyl-C₁-C₆-hydroxyalkyl, C₃-C₆-halocycloalkenyl-C₂-C₆-hydroxyhaloalkyl, C₃-C₆-cycloalkyl-C₃-C₆-hydroxyalkenyl, C₃-C₆-cycloalkyl-C₃-C₆-hydroxyhaloalkenyl, C₃-C₆-halocycloalkyl-C₃-C₆-hydroxyalkenyl, C₃-C₆-halocycloalkyl-C₃-C₆-hydroxyhaloalkenyl, C₃-C₆-cycloalkenyl-C₃-C₆-hydroxyalkenyl, C₃-C₆-cycloalkenyl-C₃-C₆-hydroxyhaloalkenyl, C₃-C₆-halocycloalkenyl-C₃-C₆-hydroxyalkenyl, C₃-C₆-halocycloalkenyl-C₃-C₆-hydroxyhaloalkenyl, C₃-C₆-cycloalkyl-C₃-C₆-hydroxyalkynyl, C₃-C₆-halocycloalkyl-C₃-C₆-hydroxyalkynyl, C₃-C₆-cycloalkenyl-C₃-C₆-hydroxyalkynyl, C₃-C₆-halocycloalkenyl-C₃-C₆-hydroxyalkynyl, C₃-C₆-cycloalkyl-C₂-C₆-hydroxyalkylidenyl, C₃-C₆-halocycloalkyl-C₂-C₆-hydroxyalkylidenyl, C₃-C₆-cycloalkenyl-C₂-C₆-hydroxyalkylidenyl, C₃-C₆-halocycloalkyl-C₂-C₆-hydroxyalkylidenyl, heterocyclyl-C₂-C₆-hydroxyalkylidenyl, hydroxycarbonyl-C₁-C₆-hydroxyalkyl, hydroxycarbonyl-C₁-C₆-alkyl, hydroxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-hydroxyalkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-hydroxyalkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-alkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-hydroxyalkyl, C₃-C₆-hydroxycycloalkenyl-C₁-C₆-hydroxyalkyl, C₃-C₆-hydroxycycloalkyl-C₃-C₆-hydroxyalkenyl, C₃-C₆-hydroxycycloalkenyl-C₃-C₆-hydroxyalkenyl, C₃-C₆-hydroxycycloalkyl-C₃-C₆-hydroxyalkynyl, C₃-C₆-hydroxycycloalkenyl-C₃-C₆-hydroxyalkenyl, C₂-C₆-dihydroxyalkyl, C₃-C₆-dihydroxyhaloalkyl, C₄-C₆-dihydroxyalkenyl, C₄-C₆-dihydroxyhaloalkenyl, C₄-C₆-dihydroxyalkynyl, C₅-C₆-dihydroxyhaloalkynyl, C₄-C₆-dihydroxycycloalkyl, C₄-C₆-dihydroxyhalocycloalkyl, C₄-C₆-dihydroxycycloalkenyl, C₄-C₆-dihydroxyhalocycloalkenyl, C₃-C₆-cycloalkyl-C₂-C₆-dihydroxyalkyl, C₃-C₆-halocycloalkyl-C₂-C₆-dihydroxyalkyl, C₃-C₆-cycloalkenyl-C₂-C₆-dihydroxyalkyl, C₃-C₆-halocycloalkenyl-C₂-C₆-dihydroxyalkyl, C₃-C₆-cycloalkyl-C₃-C₆-dihydroxyalkenyl, C₃-C₆-halocycloalkyl-C₃-C₆-dihydroxyalkenyl, C₃-C₆-cycloalkenyl-C₃-C₆-dihydroxyalkenyl, C₃-C₆-halocycloalkenyl-C₃-C₆-dihydroxyalkenyl, C₃-C₆-cycloalkyl-C₄-C₆-dihydroxyalkynyl, C₃-C₆-halocycloalkyl-C₄-C₆-dihydroxyalkynyl,

138

C₃-C₆-cycloalkenyl-C₄-C₆-dihydroxyalkynyl, C₃-C₆-halocycloalkyl-C₄-C₆-dihydroxyalkynyl, C₃-C₆-cycloalkyl-C₃-C₆-dihydroxyalkylidenyl, C₃-C₆-halocycloalkyl-C₃-C₆-dihydroxyalkylidenyl, heterocyclyl-C₃-C₆-dihydroxyalkylidenyl, hydroxycarbonyl-C₂-C₆-dihydroxyalkyl, hydroxycarbonyl-C₃-C₆-dihydroxyhaloalkyl, C₁-C₆-alkoxycarbonyl-C₂-C₆-dihydroxyalkyl, C₁-C₆-haloalkoxycarbonyl-C₂-C₆-dihydroxyalkyl, C₁-C₆-haloalkoxycarbonyl-C₃-C₆-dihydroxyhaloalkyl, C₃-C₆-dihydroxycycloalkyl-C₁-C₆-alkyl, C₃-C₆-dihydroxycycloalkyl-C₁-C₆-haloalkyl, C₃-C₆-dihydroxycycloalkyl-C₂-C₆-alkenyl, C₃-C₆-dihydroxycycloalkyl-C₂-C₆-haloalkenyl, C₃-C₆-dihydroxycycloalkyl-C₂-C₆-alkynyl, C₃-C₆-dihydroxycycloalkyl-C₃-C₆-haloalkynyl, C₁-C₆-alkylcarbonyl-C₁-C₆-alkyl, C₁-C₆-haloalkylcarbonyl-C₁-C₆-alkyl, C₁-C₆-alkylcarbonyl-C₁-C₆-haloalkyl, C₁-C₆-haloalkylcarbonyl-C₁-C₆-haloalkyl, hydroxycarbonyl-C₂-C₆-alkenyl, hydroxycarbonyl-C₂-C₆-haloalkenyl, C₁-C₆-alkoxycarbonyl-C₂-C₆-alkenyl, C₁-C₆-haloalkoxycarbonyl-C₂-C₆-alkenyl, C₁-C₆-alkoxycarbonyl-C₂-C₆-haloalkenyl, C₁-C₆-haloalkoxycarbonyl-C₂-C₆-haloalkenyl, hydroxycarbonyl-C₂-C₆-alkynyl, hydroxycarbonyl-C₃-C₆-haloalkynyl, C₁-C₆-alkoxycarbonyl-C₂-C₆-alkynyl, C₁-C₆-haloalkoxycarbonyl-C₂-C₆-alkynyl, C₁-C₆-alkoxycarbonyl-C₃-C₆-haloalkynyl, C₁-C₆-haloalkoxycarbonyl-C₃-C₆-haloalkynyl, C₁-C₆-cyanoalkyl, C₂-C₆-cyanohaloalkyl, C₁-C₆-dicyanoalkyl, C₂-C₆-dicyanohaloalkyl, di(hydroxycarbonyl)-C₁-C₆-alkyl, di(hydroxycarbonyl)-C₁-C₆-haloalkyl, di(C₁-C₆-alkoxycarbonyl)-C₁-C₆-alkyl, di(C₁-C₆-haloalkoxycarbonyl)-C₁-C₆-alkyl, di(C₁-C₆-alkoxycarbonyl)-C₁-C₆-haloalkyl, di(C₁-C₆-haloalkoxycarbonyl)-C₁-C₆-haloalkyl, di(C₁-C₆-alkoxyl)phosphoryl-C₁-C₆-alkyl, di(C₁-C₆-haloalkoxyl)phosphoryl-C₁-C₆-alkyl, di(C₁-C₆-alkoxyl)phosphoryl-C₁-C₆-haloalkyl, di(C₁-C₆-haloalkoxyl)phosphoryl-C₁-C₆-haloalkyl, phosphoryl-C₁-C₆-alkyl, phosphoryl-C₁-C₆-haloalkyl, di(di(C₁-C₆-alkoxyl)phosphoryl)-C₁-C₆-alkyl, di(di(C₁-C₆-haloalkoxyl)phosphoryl)-C₁-C₆-alkyl, di(di(C₁-C₆-alkoxyl)phosphoryl)-C₁-C₆-haloalkyl, di(di(C₁-C₆-haloalkoxyl)phosphoryl)-C₁-C₆-haloalkyl, diphosphoryl-C₁-C₆-alkyl, diphosphoryl-C₁-C₆-haloalkyl, C₁-C₆-alkylthio-C₁-C₆-alkyl, C₁-C₆-haloalkylthio-C₁-C₆-alkyl, C₁-C₆-alkylthio-C₁-C₆-haloalkyl, C₁-C₆-haloalkylthio-C₁-C₆-haloalkyl, C₁-C₆-alkylsulfinyl-C₁-C₆-alkyl, C₁-C₆-haloalkylsulfinyl-C₁-C₆-alkyl, C₁-C₆-alkylsulfinyl-C₁-C₆-haloalkyl, C₁-C₆-haloalkylsulfinyl-C₁-C₆-haloalkyl, C₁-C₆-alkylsulfonyl-C₁-C₆-alkyl, C₁-C₆-haloalkylsulfonyl-C₁-C₆-alkyl, C₁-C₆-haloalkylsulfonyl-C₁-C₆-haloalkyl, phenyl, 5- or 6-membered heteroaryl, or 3- to 6-membered heterocyclyl;

wherein hydroxy groups of R² are unsubstituted or substituted by R^b;

cyclic groups of R² are unsubstituted or substituted by R^c;

acyclic aliphatic groups of R² are unsubstituted or substituted by R^d;

R^b is C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₃-C₆-alkenyl, C₃-C₆-haloalkenyl, C₃-C₆-alkynyl, C₃-C₆-haloalkynyl, C₃-C₆-cycloalkyl, C₃-C₆-halocycloalkyl, C₄-C₆-cycloalkenyl, C₃-C₆-halocycloalkenyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-alkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-alkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-alkylcarbonyl, C₁-C₆-haloalkylcarbonyl, hydroxycarbonyl-C₁-C₆-alkyl,

139

- hydroxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-alkyloxycarbonyl, C₁-C₆-haloalkyloxycarbonyl, C₁-C₆-alkylthiocarbonyl, C₁-C₆-haloalkylthiocarbonyl, C₁-C₆-alkylaminocarbonyl, C₁-C₆-haloalkylaminocarbonyl, C₁-C₆-dialkylaminocarbonyl, C₁-C₆-dihaloalkylaminocarbonyl, C₁-C₆-alkylsulfonyl, C₁-C₆-haloalkylsulfonyl, C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆-haloalkoxy-C₁-C₆-alkyl, C₁-C₆-alkoxy-C₁-C₆-haloalkyl, C₁-C₆-haloalkoxy-C₁-C₆-haloalkyl, phenyl-C₁-C₆-alkyl, or phenyl-C₁-C₆-haloalkyl;
- R^c is halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, hydroxy, C₁-C₆-alkoxy or C₁-C₆-haloalkoxy, C₁-C₆-alkylthio, C₁-C₆-alkylsulfinyl, or C₁-C₆-alkylsulfonyl;
- R^d is phenyl, 5- or 6-membered heteroaryl, or 3- to 6-membered heterocyclyl;
- wherein the substituent R^d is unsubstituted or substituted by R^e;
- R^e is halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, hydroxy, C₁-C₆-alkoxy or C₁-C₆-haloalkoxy, C₁-C₆-alkylsulfonyl;
- R³ halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkylcarbonyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₂-C₆-alkynyl, C₂-C₆-haloalkynyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₃-C₆-alkenyloxy, C₃-C₆-haloalkenyloxy, C₃-C₆-alkynyloxy, C₃-C₆-haloalkynyloxy, C₁-C₆-alkoxy-C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, C₁-C₆-alkylthio, C₁-C₆-haloalkylthio, NH₂, (C₁-C₆-alkyl)amino, di(C₁-C₆-alkyl)amino, (C₁-C₆-alkyl)sulfinyl, (C₁-C₆-alkyl)sulfonyl, C₃-C₆-cycloalkyl, (C₃-C₆-cycloalkyl)oxy or phenyl;
- wherein the cyclic groups of R³ are unsubstituted or substituted by substituents R^a;
- R⁴, R⁵, R⁶ and R⁷ independently of one another are H, halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkylcarbonyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₂-C₆-alkynyl, C₂-C₆-haloalkynyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₃-C₆-alkenyloxy, C₃-C₆-haloalkenyloxy, C₃-C₆-alkynyloxy, C₃-C₆-haloalkynyloxy, C₁-C₆-alkoxy-C₁-C₆-alkoxy, hydroxycarbonyl, C₁-C₆-alkoxycarbonyl, C₁-C₆-alkylthio, C₁-C₆-haloalkylthio, NH₂, (C₁-C₆-alkyl)amino, di(C₁-C₆-alkyl)amino, (C₁-C₆-alkyl)sulfinyl, (C₁-C₆-alkyl)sulfonyl, C₃-C₆-cycloalkyl, (C₃-C₆-cycloalkyl)oxy or phenyl;
- wherein the cyclic groups of R⁴, R⁵, R⁶ and R⁷ are unsubstituted or substituted by R^a;
- R^a is halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkoxy, or C₁-C₆-haloalkoxy; including agriculturally acceptable salts or derivatives of the pyridine compounds of formula (I) having an acidic functionality.

2. The pyridine compounds of formula (I) according to claim 1, wherein
 R¹ is C₁-C₆-alkyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₃-C₆-alkenyloxy, C₃-C₆-haloalkenyloxy, C₃-C₆-alkynyloxy, C₄-C₆-haloalkynyloxy, C₁-C₆-alkylthio, or C₃-C₆-cycloalkyl, wherein the cycloalkyl substituent is unsubstituted.
3. The pyridine compounds of formula (I) according to claim 1 or 2, wherein
 R² is C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₁-C₆-alkoxy-C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₃-C₆-cycloalkenyl, C₃-C₆-cycloalkenyl-C₁-C₆-alkyl, C₃-C₆-cycloalkyl-C₁-C₆-alkylidenyl, C₃-C₆-

140

halocycloalkyl-C₁-C₆-alkylidenyl, C₃-C₆-cycloalkenyl-C₁-C₆-alkylidenyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkenyl-C₁-C₆-alkyl, C₁-C₆-hydroxyalkyl, C₃-C₆-cycloalkyl-C₂-C₆-hydroxyalkylidenyl, hydroxycarbonyl-C₁-C₆-alkyl, hydroxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-hydroxyalkyl, C₂-C₆-dihydroxyalkyl, C₃-C₆-cycloalkyl-C₃-C₆-dihydroxyalkylidenyl, hydroxycarbonyl-C₂-C₆-dihydroxyalkyl, C₁-C₆-alkoxycarbonyl-C₂-C₆-dihydroxyalkyl, C₁-C₆-dicyanoalkyl, or 5- or 6-membered heteroaryl;

wherein hydroxy groups of R² are unsubstituted or substituted by R^b;

cyclic groups of R² are unsubstituted or substituted by R^c;

acyclic aliphatic groups of R² are unsubstituted or substituted by R^d;

R^b is C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₃-C₆-alkenyl, C₃-C₆-haloalkenyl, C₃-C₆-alkynyl, C₃-C₆-haloalkynyl, C₃-C₆-cycloalkyl, C₃-C₆-halocycloalkyl, C₄-C₆-cycloalkenyl, C₃-C₆-halocycloalkenyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-alkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-alkyl, C₁-C₆-alkoxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-haloalkoxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-alkylcarbonyl, C₁-C₆-haloalkylcarbonyl, hydroxycarbonyl-C₁-C₆-alkyl, hydroxycarbonyl-C₁-C₆-haloalkyl, C₁-C₆-alkyloxycarbonyl, C₁-C₆-haloalkyloxycarbonyl, C₁-C₆-alkylthiocarbonyl, C₁-C₆-haloalkylthiocarbonyl, C₁-C₆-alkylaminocarbonyl, C₁-C₆-haloalkylaminocarbonyl, C₁-C₆-dialkylaminocarbonyl, C₁-C₆-dihaloalkylaminocarbonyl, C₁-C₆-alkylsulfonyl, C₁-C₆-haloalkylsulfonyl, C₁-C₆-alkoxy-C₁-C₆-alkyl, C₁-C₆-haloalkoxy-C₁-C₆-alkyl, C₁-C₆-alkoxy-C₁-C₆-haloalkyl, C₁-C₆-haloalkoxy-C₁-C₆-haloalkyl, phenyl-C₁-C₆-alkyl, or phenyl-C₁-C₆-haloalkyl;

R^c is halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, hydroxy, C₁-C₆-alkoxy or C₁-C₆-haloalkoxy, C₁-C₆-alkylthio, C₁-C₆-alkylsulfinyl, or C₁-C₆-alkylsulfonyl;

R^d is phenyl, 5- or 6-membered heteroaryl, or 3- to 6-membered heterocyclyl;

wherein the substituent R^d is unsubstituted or substituted by R^e;

R^e is halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, hydroxy, C₁-C₆-alkoxy or C₁-C₆-haloalkoxy, C₁-C₆-alkylsulfonyl.

4. The pyridine compounds of formula (I) according to any of claims 1 to 3, wherein

R³ is halogen, CN, NO₂, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkoxy, or C₃-C₆-cycloalkyl;

R⁴ is H, halogen, CN, C₁-C₆-alkyl, C₁-C₆-haloalkyl, or C₁-C₆-alkoxy;

R⁵ is H, halogen, CN, C₁-C₆-alkyl, C₁-C₆-haloalkyl, or C₁-C₆-alkoxy;

R⁶ is H, halogen, C₁-C₆-alkyl, or C₁-C₆-haloalkyl;

R⁷ is H, halogen, CN, C₁-C₆-alkyl, or C₁-C₆-alkoxy.

5. The pyridine compounds of formula (I) according to claim 1, wherein

R¹ is *c*-C₃H₅ or *n*-C₃H₇;

141

R² is C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₃-C₆-cycloalkenyl- C₁-C₆-alkyl, C₁-C₆-hydroxyalkyl, C₃-C₆-hydroxyalkenyl, C₃-C₆-hydroxycycloalkyl-C₁-C₆-alkyl, C₃-C₆-hydroxycycloalkenyl-C₁-C₆-alkyl, 5- or 6-membered heteroaryl, or 3- to 6-membered heterocyclyl;

wherein hydroxy groups of R² are unsubstituted or substituted by R^b;

cyclic groups of R² are unsubstituted or substituted by R^c;

acyclic aliphatic groups of R² are unsubstituted or substituted by R^d;

R^b is C₁-C₆-alkyl,

R^c is C₁-C₆-alkyl;

R^d is phenyl, or 5- or 6-membered heteroaryl;

wherein the substituent R^d is unsubstituted or substituted by R^e;

R³ is Cl or NH₂;

R⁴ is H;

R⁵ is H;

R⁶ is H;

R⁷ is H.

6. A use of pyridine compounds of formula (I) according to any of claims 1 to 5, including agriculturally acceptable salts or derivatives of the pyridine compounds of formula (I) having an acidic functionality, as herbicide.
7. A herbicidal compositions comprising:
 - A) at least one pyridine compound of formula I according to any of claims 1 to 5, including agriculturally acceptable salts or derivatives of the pyridine compounds of formula (I) having an acidic functionality;
 - and
 - 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) mitosis inhibitors;
 - b10) inhibitors of the synthesis of very long chain fatty acids (VLCFA inhibitors);
 - b11) cellulose biosynthesis inhibitors;
 - b12) decoupler herbicides;

142

- 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, and its salts and esters;

including their agriculturally acceptable salts or derivatives.

8. A herbicidal composition comprising the herbicidal composition according to claim 7, and safeners.
9. The herbicidal composition according to claim 7 or 8, wherein the composition comprises at least one herbicide B selected from herbicides of class b1, b2, b3, b4, b5, b6, b9, b10, b13 and b14.
10. The herbicidal composition according to any of claim 7 to 9, wherein the weight ratio of component A to component B is in the range of from 1:500 to 500:1.
11. A herbicidal composition comprising a herbicidal active amount of at least one pyridine compound of formula (I) according to any of claims 1 to 5, and at least one inert liquid and/or solid carrier and, if appropriate, at least one surface-active substance.
12. A herbicidal composition comprising a herbicidal composition according to any of claims 7 to 11, and at least one inert liquid and/or solid carrier and, if appropriate, at least one surface-active substance.
13. A method of controlling undesired vegetation, which comprises allowing a herbicidal active amount of at least one pyridine compound of formula (I) according to any of claims 1 to 5 or a herbicidal composition according to any of claims claim 7 to 12 to act on plants, their environment or on seed.
14. A use of the herbicidal compositions according to any of claims 7 to 12 as herbicides.

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2017/068491

A. CLASSIFICATION OF SUBJECT MATTER
INV. C07D213/30 C07D213/38 A01N43/40 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 A01N A01P

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.
A	WO 98/54137 A1 (BASF AG [DE]; HAMPRECHT GERHARD [DE]; SCHAEFER PETER [DE]; MENGES MARK) 3 December 1998 (1998-12-03) the whole document -----	1-14
A	US 2001/011064 A1 (MAIER THOMAS [DE] ET AL) 2 August 2001 (2001-08-02) the whole document -----	1-14



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

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"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

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"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

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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