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(54) Title: USE OF AN AGROCHEMICAL COMPOSITION WITH HERBICIDAL ACTION IN CORN

(57) Abstract: The present invention relates to the use of an agrochemical composition comprising at least one specific herbicide and at least one specific fungicide for controlling undesired vegetation in corn (maize) cultures. The invention further relates to a method for controlling undesired vegetation in corn cultures.

Use of an agrochemical composition with herbicidal action in corn

Description

- 5 The present invention relates to the use of an agrochemical composition comprising at least one specific herbicide and at least one specific fungicide for controlling weeds and vegetation in corn (maize) cultures. The invention further relates to a method for controlling undesired vegetation in corn cultures.
- 10 In the case of crop protection, such as herbicidal compositions, it is desirable as a principle to increase the specific activity of an active compound and the reliability of its effect. For an herbicidal composition, it is particularly desirable to control harmful plants effectively, but at the same time to be compatible with the useful plants in question. Also desirable is a broad spectrum of activity allowing the simultaneous control of
- 15 harmful plants. Frequently, this cannot be achieved using a single active compound. With many highly effective herbicides, there is the problem that their compatibility with useful plants, in particular dicotyledonous crop plants, such as cotton, oilseed rape, and graminaceous plants, such as barley, millet, corn, rice, wheat and sugar cane, is not always satisfactory, i.e. in addition to the harmful plants, the crop plants, too, are damaged on a scale which cannot be tolerated. By reducing the application rate, the useful plants are spared; however, naturally, the extent of the control of harmful plants decreases, too.
- 25 It is known that special combinations of different specifically active herbicides can enhance the activity of a herbicide component in the sense of a synergistic effect. In this manner, it is possible to reduce the application rates of herbicidal active compounds required for controlling the harmful plants.
- 30 Furthermore, it is known that in some cases joint application of specifically active herbicides with other organic active compounds allows better crop plant compatibility to be achieved. In these cases, the active compounds act as antidotes or antagonists and are also referred to as safeners, since they reduce or even prevent damage to the plants.
- 35 Corn is among the most important crop plants. Improving its growth conditions is an ongoing need.
- It is an object of the present invention to provide agrochemical compositions which are highly active against unwanted harmful plants in corn cultures.
- 40

This and further objects are achieved by the agricultural composition describe Surprisingly, this composition has better herbicidal activity, i.e. a better activity harmful plants, than would have been expected based on the herbicidal activity observed for the individual compounds, or a broader activity spectrum.

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Moreover, the time frame, within which the desired herbicidal action can be achieved may be expanded by said composition. This allows a more flexibly timed application of the compositions according to the present invention in comparison with the individual compounds.

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Said composition also has a better compatibility with useful plants.

Accordingly, the present invention relates to the use of an agrochemical composition comprising

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A) at least one herbicide A selected from

A.a) acetylCoA carboxylase inhibitors (ACC inhibitors) selected from clopyralid (A.1), cycloxydim (A.2), fenoxaprop (A.3), fenoxaprop-P (A.4), fluroxypyr (A.5), fluazifop-P (A.6), haloxyfop (A.7), haloxyfop-P (A.8), quizalofop (A.9), quizalofop-P (A.10), sethoxydim (A.11) and tepraloxydim (A.12);

20

A.b) acetolactate synthase inhibitors (ALS inhibitors) selected from florasulam (A.13), flumetsulam (A.14), foramsulfuron (A.15), halosulfuron (A.16), iodosulfuron (A.17), nicosulfuron (A.18), primisulfuron (A.19), prosulfuron (A.20), rimsulfuron (A.21), thienencarbazone (A.22) and tritosulfuron (A.23);

25

A.c) 4-hydroxyphenylpyruvate-dioxygenase (HPPD inhibitors) selected from cyclopyrone (A.24), isoxaflutole (A.25), mesotrione (A.26), sulcotrione (A.27), tembotrione (A.28) and topramezone (A.29);

30

A.d) protoporphyrinogen oxidase (PPO) inhibitors selected from carfentrazone-ethyl (A.30), flumioxazin (A.31), saflufenacil (A.32) and 1,5-dimethyl-2-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzothiazin-6-yl)-1,3,5-triazinane-2,4-dione (CAS 1258836-72-4) (A.33)

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A.e) photosynthetic electron transport inhibitors at the photosystem II reaction site selected from bentazone (A.34) and bromoxynil (A.35); and

A.f) the auxin transport inhibitor diflufenzopyr (A.36);

35

and their agriculturally acceptable salts, esters and amides;

and

40 B) at least one fungicide B selected from

- 5 B.a) inhibitors of complex III at Q_o site selected from azoxystrobin (B.1), methoxystrobin (B.2), coumoxystrobin (B.3), dimoxystrobin (B.4), burin (B.5), fenaminstrobin (B.6), fenoxystrobin/flufenoxystrobin (E fluoxastrobin (B.8), kresoxim-methyl (B.9), metominostrobin (B.10) picoxystrobin (B.11), pyraclostrobin (B.12), pyrametostrobin (B.13) xystrobin (B.14), trifloxystrobin (B.15), 2-[2-(2,5-dimethylphenyl-oxymethyl)phenyl]-3-methoxy-acrylic acid methyl ester (B.16), 2-(2-dichlorophenyl)-1-methyl-allylideneaminooxymethyl)-phenyl)-2-methyl-imino-N-methyl-acetamide (B.17), pyribencarb (B.18) and triclopyr-ricarb/chlorodincarb (B.19); and
- 10 B.b) inhibitors of complex II selected from bixafen (B.20), boscalid (B.21), boscalid boxin (B.22), fluopyram (B.23), fluxapyroxad (B.24), isopyrazam (B.25), isopyrazam (B.26), penflufen (B.26), penthiopyrad (B.27), sedaxane (B.28) and 3-difluoromethyl-1-methyl-1H-pyrazole-4-carboxylic acid (9-difluoromethylene-1,2,3,4-tetrahydro-1,4-methano-naphthalen-5-yl) (B.29);
- 15

for controlling undesired vegetation in corn cultures.

- 20 In the context of the present invention, the term "corn" denotes both the plant as well as its harvested product, such as corn grains or seeds.

The invention moreover relates to a composition as defined above or below, comprising at least one herbicide A and at least one fungicide B.

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- The composition according to the invention or to be used according to the invention may be a physical mixture of the at least one compound A and the at least one compound B. Accordingly, the invention also provides a mixture comprising at least one compound A and at least one compound B. However, the composition may also be a combination of at least one compound A with at least one compound B, it is not required for compounds A and B to be present together in the same formulation.
- 30

- An example of a composition according to the invention or to be used according to the invention in which the at least one compound A and the at least one compound B are not present together in the same formulation is a combipack. In a combipack, more components of a combipack are packaged separately, i.e., not jointly pre-formulated. As such, combipacks include one or more separate containers such as vials, cans, bottles, pouches, bags or canisters, each container containing a separate component for an agrochemical composition. One example is a two-component
- 35

pack. Accordingly the present invention also relates to a two-component composition comprising a first component which in turn comprises at least one compound or solid carrier and, if appropriate, at least one surfactant and/or at least one auxiliary, and a second component which in turn comprises at least one compound liquid or solid carrier and, if appropriate, at least one surfactant and/or at least one auxiliary. More details, e.g. as to suitable liquid and solid carriers, surfactants and customary auxiliaries are described below.

The invention furthermore relates to a method for controlling undesired vegetation in corn cultures, which method comprises allowing an effective amount of an agrochemical composition as defined above or below to act on the corn plants thereof and/or on the environment where the corn cultures grow or are to grow. Corn plants might be resistant to one or more herbicides or to attack by insect pests through genetic engineering or breeding.

The method of the invention includes treatment of the seeds from which the corn plants are to grow. If the corn plants are not resistant against the herbicide(s) used and/or a herbicide(s) is/are not selective enough and/or no safener is used, it is convenient to avoid their direct contact with the herbicide(s) used as far as possible in order to avoid injury of the corn plants. This can be done, for example, by treating as selectively as possible the undesired vegetation or the locus where this is growing or expected to grow or by treating the locus where the corn plant is to grow, e.g. before or during or before its emergence or before planting, or by treating the seeds of the corn plant with the composition of the invention or, if the composition is not a physical mixture of herbicide and fungicide, with the herbicide of the composition. In all other cases, i.e. if the corn plants are resistant against the herbicide(s) used and/or the herbicide is sufficiently selective and does not harm (or not to an economically dissatisfactory extent) the corn plants and/or a safener is used, any known method for broadcast application of agricultural compositions can be used. For further details, see below.

The herbicides A and the fungicides B as well as their agrochemical action and methods for producing them are generally known. For instance, the commercially available compounds can be found in "The Pesticide Manual, 15th Edition, British Crop Protection Council (2009)" among other publications.

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

Preferably, the at least one herbicide A is selected from clethodim, cycloxydim, tepraloxym, sethoxydim, tepraloxym, foramsulfuron, nicosulfuron, rimsulfuron, bicyclopyrone, isoxaflutole, mesotrione, tembotrione, topramezone, flumioxazin, saflufenacil, dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione (CAS 1258836-72-4), bentazone, and diflufenzopyr; and their agriculturally acceptable salts, esters and amides.

Among the agriculturally acceptable salts, esters and amides of the above herbicide A, preference is given to the following compounds:

10 bentazone: bentazone-sodium (A.37).

The at least one herbicide A is more preferably selected from clethodim, cycloxydim, sethoxydim, tepraloxym, foramsulfuron, nicosulfuron, rimsulfuron, bicyclopyrone, isoxaflutole, mesotrione, tembotrione, topramezone, flumioxazin, saflufenacil, dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione (CAS 1258836-72-4), bentazone-sodium and diflufenzopyr.

20 Even more preferably, the at least one herbicide A is selected from clethodim, cycloxydim, sethoxydim, tepraloxym, nicosulfuron, bicyclopyrone, mesotrione, topramezone, flumioxazin, saflufenacil, 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione (CAS 1258836-72-4), bentazone; and their agriculturally acceptable salts, esters and amides.

Particularly preferably, the at least one herbicide A is selected from clethodim, cycloxydim, sethoxydim, tepraloxym, nicosulfuron, bicyclopyrone, mesotrione, topramezone, flumioxazin, saflufenacil, 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione (CAS 1258836-72-4), bentazone and bentazone-sodium.

In a particular embodiment, the at least one herbicide A is clethodim and the at least one fungicide B has one of the above general or, in particular, one of the below preferred meanings.

In another particular embodiment, the at least one herbicide A is cycloxydim and the at least one fungicide B has one of the above general or, in particular, one of the preferred meanings.

In another particular embodiment, the at least one herbicide A is sethoxydim and the at least one fungicide B has one of the above general or, in particular, one of the preferred meanings.

5 In another particular embodiment, the at least one herbicide A is tepraloxymethylpropanoate and the at least one fungicide B has one of the above general or, in particular, one of the preferred meanings.

In another particular embodiment, the at least one herbicide A is nicosulfuron and the at least one fungicide B has one of the above general or, in particular, one of the preferred meanings.

10 In another particular embodiment, the at least one herbicide A is bicyclopyron and the at least one fungicide B has one of the above general or, in particular, one of the preferred meanings.

In another particular embodiment, the at least one herbicide A is mesotrione and the at least one fungicide B has one of the above general or, in particular, one of the preferred meanings.

15 In another particular embodiment, the at least one herbicide A is tembotrione and the at least one fungicide B has one of the above general or, in particular, one of the preferred meanings.

In another particular embodiment, the at least one herbicide A is topramezone and the at least one fungicide B has one of the above general or, in particular, one of the preferred meanings.

In another particular embodiment, the at least one herbicide A is flumioxazin and the at least one fungicide B has one of the above general or, in particular, one of the preferred meanings.

25 In another particular embodiment, the at least one herbicide A is saflufenacil and the at least one fungicide B has one of the above general or, in particular, one of the preferred meanings.

In another particular embodiment, the at least one herbicide A is 1,5-dimethyl-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,2,4-triazinane-2,4-dione (CAS 1258836-72-4) and the at least one fungicide B has one of the above general or, in particular, one of the below preferred meanings.

30 In another particular embodiment, the at least one herbicide A is bentazone and the at least one fungicide B has one of the above general or, in particular, one of the preferred meanings.

35 Preferably, the at least one fungicide is selected from azoxystrobin, dimoxystrobin, kresoxim-methyl, picoxystrobin, pyraclostrobin, trifloxystrobin, bixafen, boscalid, boscaloxin, fluxapyroxad, isopyrazam, penflufen, penthiopyrad, sedaxane and 3-

difluoromethyl-1-methyl-1H-pyrazole-4-carboxylic acid (9-dichloromethylene-1-tetrahydro-1,4-methano-naphthalen-5-yl)-amide.

More preferably, the at least one fungicide is selected from azoxystrobin,
5 dimoxystrobin, kresoxim-methyl, pyraclostrobin, trifloxystrobin, bixafen, bosca
fluxapyroxad, isopyrazam and 3-difluoromethyl-1-methyl-1H-pyrazole-4-carboxylic
(9-dichloromethylene-1,2,3,4-tetrahydro-1,4-methano-naphthalen-5-yl)-amide

In a particular embodiment, the at least one fungicide B is azoxystrobin and the
10 one herbicide A has one of the above general or, in particular, one of the preferred
meanings.

In another particular embodiment, the at least one fungicide B is dimoxystrobin
at least one herbicide A has one of the above general or, in particular, one of the
preferred meanings.

15 In another particular embodiment, the at least one fungicide B is kresoxim-methyl
the at least one herbicide A has one of the above general or, in particular, one of the
preferred meanings.

In another particular embodiment, the at least one fungicide B is pyraclostrobin
at least one herbicide A has one of the above general or, in particular, one of the
20 preferred meanings.

In another particular embodiment, the at least one fungicide B is trifloxystrobin
at least one herbicide A has one of the above general or, in particular, one of the
preferred meanings.

In another particular embodiment, the at least one fungicide B is bixafen and the
25 at least one herbicide A has one of the above general or, in particular, one of the
preferred meanings.

In another particular embodiment, the at least one fungicide B is boscalid and the
at least one herbicide A has one of the above general or, in particular, one of the
preferred meanings.

30 In another particular embodiment, the at least one fungicide B is fluxapyroxad
at least one herbicide A has one of the above general or, in particular, one of the
preferred meanings.

In another particular embodiment, the at least one fungicide B is isopyrazam and the
at least one herbicide A has one of the above general or, in particular, one of the
35 preferred meanings.

In another particular embodiment, the at least one fungicide B is 3-difluoromethyl-1H-pyrazole-4-carboxylic acid (9-dichloromethylene-1,2,3,4-tetrahydro-1,4-methano-naphthalen-5-yl)-amide and the at least one herbicide A has one of the general or, in particular, one of the preferred meanings.

In particular, the composition to be used in the uses and the methods according to the invention comprises

- 5 A) at least one herbicide A selected from clethodim, cycloxydim, sethoxydim, loxydim, nicosulfuron, bicyclopyrone, mesotrione, tembotrione, toprameflumioxazin, saflufenacil, 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-ynyl)-3,4-dihydro-2H-benzo[b][1,4]oxazin-6-yl)-1,3,5-triazinane-2,4-dione (1258836-72-4), bentazone, bentazone-sodium; and other agriculturally acceptable salts, esters and amides; and
- 10 B) at least one fungicide B selected from azoxystrobin, dimoxystrobin, kresoxim-methyl, pyraclostrobin, trifloxystrobin, bixafen, boscalid, fluxapyroxad, isoxaflupyridin, and 3-difluoromethyl-1-methyl-1H-pyrazole-4-carboxylic acid (9-dichloromethylene-1,2,3,4-tetrahydro-1,4-methano-naphthalen-5-yl)-amide.

15 According to a preferred embodiment of the invention, the composition comprises component A at least one, preferably exactly one, herbicide A.

According to another preferred embodiment of the invention, the composition comprises as component A at least two, preferably exactly two, herbicides A different from each other.

20 According to another preferred embodiment of the invention, the composition comprises as component A at least three, preferably exactly three, herbicides A different from each other.

25 According to another preferred embodiment of the invention, the composition comprises as component B at least one, preferably exactly one, fungicide B.

According to another preferred embodiment of the invention, the composition comprises as component B at least two, preferably exactly two, fungicides B different from each other.

30 According to another preferred embodiment of the invention, the composition comprises as component A at least one, preferably exactly one, herbicide A, and at least one, preferably exactly one, fungicide B.

35 According to another preferred embodiment of the invention, the composition comprises as component A at least two, preferably exactly two, herbicides A different from each other, and at least one, preferably exactly one, fungicide B.

According to another preferred embodiment of the invention, the composition comprises as component A at least three, preferably exactly three, herbicides A different from each other, and at least one, preferably exactly one, fungicide B.

According to another preferred embodiment of the invention, the composition comprises as only active components at least one, preferably exactly one, herbicide A and at least one, preferably exactly one, fungicide B.

- 5 Particularly preferred are the compositions 1.1 to 1.1073, comprising at least one herbicide A and at least one fungicide B, preferably comprising the herbicide A and at least one fungicide B, as defined in the respective row of table 1. The compound numbers (herbicide A; B.x for fungicide B) correspond to the compound numbers given in the list of herbicides A and fungicides B to be used according to the present invention.

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Table 1 (compositions 1.1. to 1.1073)

No	herb. A	fung. B	No	herb. A	fung. B	No	herb. A
1.1	A.1	B.1	1.27	A.1	B.27	1.53	A.2
1.2	A.1	B.2	1.28	A.1	B.28	1.54	A.2
1.3	A.1	B.3	1.29	A.1	B.29	1.55	A.2
1.4	A.1	B.4	1.30	A.2	B.1	1.56	A.2
1.5	A.1	B.5	1.31	A.2	B.2	1.57	A.2
1.6	A.1	B.6	1.32	A.2	B.3	1.58	A.2
1.7	A.1	B.7	1.33	A.2	B.4	1.59	A.3
1.8	A.1	B.8	1.34	A.2	B.5	1.60	A.3
1.9	A.1	B.9	1.35	A.2	B.6	1.61	A.3
1.10	A.1	B.10	1.36	A.2	B.7	1.62	A.3
1.11	A.1	B.11	1.37	A.2	B.8	1.63	A.3
1.12	A.1	B.12	1.38	A.2	B.9	1.64	A.3
1.13	A.1	B.13	1.39	A.2	B.10	1.65	A.3
1.14	A.1	B.14	1.40	A.2	B.11	1.66	A.3
1.15	A.1	B.15	1.41	A.2	B.12	1.67	A.3
1.16	A.1	B.16	1.42	A.2	B.13	1.68	A.3
1.17	A.1	B.17	1.43	A.2	B.14	1.69	A.3
1.18	A.1	B.18	1.44	A.2	B.15	1.70	A.3
1.19	A.1	B.19	1.45	A.2	B.16	1.71	A.3
1.20	A.1	B.20	1.46	A.2	B.17	1.72	A.3
1.21	A.1	B.21	1.47	A.2	B.18	1.73	A.3
1.22	A.1	B.22	1.48	A.2	B.19	1.74	A.3
1.23	A.1	B.23	1.49	A.2	B.20	1.75	A.3
1.24	A.1	B.24	1.50	A.2	B.21	1.76	A.3
1.25	A.1	B.25	1.51	A.2	B.22	1.77	A.3
1.26	A.1	B.26	1.52	A.2	B.23	1.78	A.3

No	herb. A	fung. B
1.79	A.3	B.21
1.80	A.3	B.22
1.81	A.3	B.23
1.82	A.3	B.24
1.83	A.3	B.25
1.84	A.3	B.26
1.85	A.3	B.27
1.86	A.3	B.28
1.87	A.3	B.29
1.88	A.4	B.1
1.89	A.4	B.2
1.90	A.4	B.3
1.91	A.4	B.4
1.92	A.4	B.5
1.93	A.4	B.6
1.94	A.4	B.7
1.95	A.4	B.8
1.96	A.4	B.9
1.97	A.4	B.10
1.98	A.4	B.11
1.99	A.4	B.12
1.100	A.4	B.13
1.101	A.4	B.14
1.102	A.4	B.15
1.103	A.4	B.16
1.104	A.4	B.17
1.105	A.4	B.18
1.106	A.4	B.19
1.107	A.4	B.20
1.108	A.4	B.21
1.109	A.4	B.22
1.110	A.4	B.23
1.111	A.4	B.24
1.112	A.4	B.25
1.113	A.4	B.26
1.114	A.4	B.27
1.115	A.4	B.28
1.116	A.4	B.29

No	herb. A	fung. B
1.117	A.5	B.1
1.118	A.5	B.2
1.119	A.5	B.3
1.120	A.5	B.4
1.121	A.5	B.5
1.122	A.5	B.6
1.123	A.5	B.7
1.124	A.5	B.8
1.125	A.5	B.9
1.126	A.5	B.10
1.127	A.5	B.11
1.128	A.5	B.12
1.129	A.5	B.13
1.130	A.5	B.14
1.131	A.5	B.15
1.132	A.5	B.16
1.133	A.5	B.17
1.134	A.5	B.18
1.135	A.5	B.19
1.136	A.5	B.20
1.137	A.5	B.21
1.138	A.5	B.22
1.139	A.5	B.23
1.140	A.5	B.24
1.141	A.5	B.25
1.142	A.5	B.26
1.143	A.5	B.27
1.144	A.5	B.28
1.145	A.5	B.29
1.146	A.6	B.1
1.147	A.6	B.2
1.148	A.6	B.3
1.149	A.6	B.4
1.150	A.6	B.5
1.151	A.6	B.6
1.152	A.6	B.7
1.153	A.6	B.8
1.154	A.6	B.9

No	herb. A
1.155	A.6
1.156	A.6
1.157	A.6
1.158	A.6
1.159	A.6
1.160	A.6
1.161	A.6
1.162	A.6
1.163	A.6
1.164	A.6
1.165	A.6
1.166	A.6
1.167	A.6
1.168	A.6
1.169	A.6
1.170	A.6
1.171	A.6
1.172	A.6
1.173	A.6
1.174	A.6
1.175	A.7
1.176	A.7
1.177	A.7
1.178	A.7
1.179	A.7
1.180	A.7
1.181	A.7
1.182	A.7
1.183	A.7
1.184	A.7
1.185	A.7
1.186	A.7
1.187	A.7
1.188	A.7
1.189	A.7
1.190	A.7
1.191	A.7
1.192	A.7

No	herb. A	fung. B
1.193	A.7	B.19
1.194	A.7	B.20
1.195	A.7	B.21
1.196	A.7	B.22
1.197	A.7	B.23
1.198	A.7	B.24
1.199	A.7	B.25
1.200	A.7	B.26
1.201	A.7	B.27
1.202	A.7	B.28
1.203	A.7	B.29
1.204	A.8	B.1
1.205	A.8	B.2
1.206	A.8	B.3
1.207	A.8	B.4
1.208	A.8	B.5
1.209	A.8	B.6
1.210	A.8	B.7
1.211	A.8	B.8
1.212	A.8	B.9
1.213	A.8	B.10
1.214	A.8	B.11
1.215	A.8	B.12
1.216	A.8	B.13
1.217	A.8	B.14
1.218	A.8	B.15
1.219	A.8	B.16
1.220	A.8	B.17
1.221	A.8	B.18
1.222	A.8	B.19
1.223	A.8	B.20
1.224	A.8	B.21
1.225	A.8	B.22
1.226	A.8	B.23
1.227	A.8	B.24
1.228	A.8	B.25
1.229	A.8	B.26
1.230	A.8	B.27

No	herb. A	fung. B
1.231	A.8	B.28
1.232	A.8	B.29
1.233	A.9	B.1
1.234	A.9	B.2
1.235	A.9	B.3
1.236	A.9	B.4
1.237	A.9	B.5
1.238	A.9	B.6
1.239	A.9	B.7
1.240	A.9	B.8
1.241	A.9	B.9
1.242	A.9	B.10
1.243	A.9	B.11
1.244	A.9	B.12
1.245	A.9	B.13
1.246	A.9	B.14
1.247	A.9	B.15
1.248	A.9	B.16
1.249	A.9	B.17
1.250	A.9	B.18
1.251	A.9	B.19
1.252	A.9	B.20
1.253	A.9	B.21
1.254	A.9	B.22
1.255	A.9	B.23
1.256	A.9	B.24
1.257	A.9	B.25
1.258	A.9	B.26
1.259	A.9	B.27
1.260	A.9	B.28
1.261	A.9	B.29
1.262	A.10	B.1
1.263	A.10	B.2
1.264	A.10	B.3
1.265	A.10	B.4
1.266	A.10	B.5
1.267	A.10	B.6
1.268	A.10	B.7

No	herb. A
1.269	A.10
1.270	A.10
1.271	A.10
1.272	A.10
1.273	A.10
1.274	A.10
1.275	A.10
1.276	A.10
1.277	A.10
1.278	A.10
1.279	A.10
1.280	A.10
1.281	A.10
1.282	A.10
1.283	A.10
1.284	A.10
1.285	A.10
1.286	A.10
1.287	A.10
1.288	A.10
1.289	A.10
1.290	A.10
1.291	A.11
1.292	A.11
1.293	A.11
1.294	A.11
1.295	A.11
1.296	A.11
1.297	A.11
1.298	A.11
1.299	A.11
1.300	A.11
1.301	A.11
1.302	A.11
1.303	A.11
1.304	A.11
1.305	A.11
1.306	A.11

No	herb. A	fung. B
1.307	A.11	B.17
1.308	A.11	B.18
1.309	A.11	B.19
1.310	A.11	B.20
1.311	A.11	B.21
1.312	A.11	B.22
1.313	A.11	B.23
1.314	A.11	B.24
1.315	A.11	B.25
1.316	A.11	B.26
1.317	A.11	B.27
1.318	A.11	B.28
1.319	A.11	B.29
1.320	A.12	B.1
1.321	A.12	B.2
1.322	A.12	B.3
1.323	A.12	B.4
1.324	A.12	B.5
1.325	A.12	B.6
1.326	A.12	B.7
1.327	A.12	B.8
1.328	A.12	B.9
1.329	A.12	B.10
1.330	A.12	B.11
1.331	A.12	B.12
1.332	A.12	B.13
1.333	A.12	B.14
1.334	A.12	B.15
1.335	A.12	B.16
1.336	A.12	B.17
1.337	A.12	B.18
1.338	A.12	B.19
1.339	A.12	B.20
1.340	A.12	B.21
1.341	A.12	B.22
1.342	A.12	B.23
1.343	A.12	B.24
1.344	A.12	B.25

No	herb. A	fung. B
1.345	A.12	B.26
1.346	A.12	B.27
1.347	A.12	B.28
1.348	A.12	B.29
1.349	A.13	B.1
1.350	A.13	B.2
1.351	A.13	B.3
1.352	A.13	B.4
1.353	A.13	B.5
1.354	A.13	B.6
1.355	A.13	B.7
1.356	A.13	B.8
1.357	A.13	B.9
1.358	A.13	B.10
1.359	A.13	B.11
1.360	A.13	B.12
1.361	A.13	B.13
1.362	A.13	B.14
1.363	A.13	B.15
1.364	A.13	B.16
1.365	A.13	B.17
1.366	A.13	B.18
1.367	A.13	B.19
1.368	A.13	B.20
1.369	A.13	B.21
1.370	A.13	B.22
1.371	A.13	B.23
1.372	A.13	B.24
1.373	A.13	B.25
1.374	A.13	B.26
1.375	A.13	B.27
1.376	A.13	B.28
1.377	A.13	B.29
1.378	A.14	B.1
1.379	A.14	B.2
1.380	A.14	B.3
1.381	A.14	B.4
1.382	A.14	B.5

No	herb. A
1.383	A.14
1.384	A.14
1.385	A.14
1.386	A.14
1.387	A.14
1.388	A.14
1.389	A.14
1.390	A.14
1.391	A.14
1.392	A.14
1.393	A.14
1.394	A.14
1.395	A.14
1.396	A.14
1.397	A.14
1.398	A.14
1.399	A.14
1.400	A.14
1.401	A.14
1.402	A.14
1.403	A.14
1.404	A.14
1.405	A.14
1.406	A.14
1.407	A.15
1.408	A.15
1.409	A.15
1.410	A.15
1.411	A.15
1.412	A.15
1.413	A.15
1.414	A.15
1.415	A.15
1.416	A.15
1.417	A.15
1.418	A.15
1.419	A.15
1.420	A.15

No	herb. A	fung. B
1.421	A.15	B.15
1.422	A.15	B.16
1.423	A.15	B.17
1.424	A.15	B.18
1.425	A.15	B.19
1.426	A.15	B.20
1.427	A.15	B.21
1.428	A.15	B.22
1.429	A.15	B.23
1.430	A.15	B.24
1.431	A.15	B.25
1.432	A.15	B.26
1.433	A.15	B.27
1.434	A.15	B.28
1.435	A.15	B.29
1.436	A.16	B.1
1.437	A.16	B.2
1.438	A.16	B.3
1.439	A.16	B.4
1.440	A.16	B.5
1.441	A.16	B.6
1.442	A.16	B.7
1.443	A.16	B.8
1.444	A.16	B.9
1.445	A.16	B.10
1.446	A.16	B.11
1.447	A.16	B.12
1.448	A.16	B.13
1.449	A.16	B.14
1.450	A.16	B.15
1.451	A.16	B.16
1.452	A.16	B.17
1.453	A.16	B.18
1.454	A.16	B.19
1.455	A.16	B.20
1.456	A.16	B.21
1.457	A.16	B.22
1.458	A.16	B.23

No	herb. A	fung. B
1.459	A.16	B.24
1.460	A.16	B.25
1.461	A.16	B.26
1.462	A.16	B.27
1.463	A.16	B.28
1.464	A.16	B.29
1.465	A.17	B.1
1.466	A.17	B.2
1.467	A.17	B.3
1.468	A.17	B.4
1.469	A.17	B.5
1.470	A.17	B.6
1.471	A.17	B.7
1.472	A.17	B.8
1.473	A.17	B.9
1.474	A.17	B.10
1.475	A.17	B.11
1.476	A.17	B.12
1.477	A.17	B.13
1.478	A.17	B.14
1.479	A.17	B.15
1.480	A.17	B.16
1.481	A.17	B.17
1.482	A.17	B.18
1.483	A.17	B.19
1.484	A.17	B.20
1.485	A.17	B.21
1.486	A.17	B.22
1.487	A.17	B.23
1.488	A.17	B.24
1.489	A.17	B.25
1.490	A.17	B.26
1.491	A.17	B.27
1.492	A.17	B.28
1.493	A.17	B.29
1.494	A.18	B.1
1.495	A.18	B.2
1.496	A.18	B.3

No	herb. A
1.497	A.18
1.498	A.18
1.499	A.18
1.500	A.18
1.501	A.18
1.502	A.18
1.503	A.18
1.504	A.18
1.505	A.18
1.506	A.18
1.507	A.18
1.508	A.18
1.509	A.18
1.510	A.18
1.511	A.18
1.512	A.18
1.513	A.18
1.514	A.18
1.515	A.18
1.516	A.18
1.517	A.18
1.518	A.18
1.519	A.18
1.520	A.18
1.521	A.18
1.522	A.18
1.523	A.19
1.524	A.19
1.525	A.19
1.526	A.19
1.527	A.19
1.528	A.19
1.529	A.19
1.530	A.19
1.531	A.19
1.532	A.19
1.533	A.19
1.534	A.19

No	herb. A	fung. B
1.535	A.19	B.13
1.536	A.19	B.14
1.537	A.19	B.15
1.538	A.19	B.16
1.539	A.19	B.17
1.540	A.19	B.18
1.541	A.19	B.19
1.542	A.19	B.20
1.543	A.19	B.21
1.544	A.19	B.22
1.545	A.19	B.23
1.546	A.19	B.24
1.547	A.19	B.25
1.548	A.19	B.26
1.549	A.19	B.27
1.550	A.19	B.28
1.551	A.19	B.29
1.552	A.20	B.1
1.553	A.20	B.2
1.554	A.20	B.3
1.555	A.20	B.4
1.556	A.20	B.5
1.557	A.20	B.6
1.558	A.20	B.7
1.559	A.20	B.8
1.560	A.20	B.9
1.561	A.20	B.10
1.562	A.20	B.11
1.563	A.20	B.12
1.564	A.20	B.13
1.565	A.20	B.14
1.566	A.20	B.15
1.567	A.20	B.16
1.568	A.20	B.17
1.569	A.20	B.18
1.570	A.20	B.19
1.571	A.20	B.20
1.572	A.20	B.21

No	herb. A	fung. B
1.573	A.20	B.22
1.574	A.20	B.23
1.575	A.20	B.24
1.576	A.20	B.25
1.577	A.20	B.26
1.578	A.20	B.27
1.579	A.20	B.28
1.580	A.20	B.29
1.581	A.21	B.1
1.582	A.21	B.2
1.583	A.21	B.3
1.584	A.21	B.4
1.585	A.21	B.5
1.586	A.21	B.6
1.587	A.21	B.7
1.588	A.21	B.8
1.589	A.21	B.9
1.590	A.21	B.10
1.591	A.21	B.11
1.592	A.21	B.12
1.593	A.21	B.13
1.594	A.21	B.14
1.595	A.21	B.15
1.596	A.21	B.16
1.597	A.21	B.17
1.598	A.21	B.18
1.599	A.21	B.19
1.600	A.21	B.20
1.601	A.21	B.21
1.602	A.21	B.22
1.603	A.21	B.23
1.604	A.21	B.24
1.605	A.21	B.25
1.606	A.21	B.26
1.607	A.21	B.27
1.608	A.21	B.28
1.609	A.21	B.29
1.610	A.22	B.1

No	herb. A
1.611	A.22
1.612	A.22
1.613	A.22
1.614	A.22
1.615	A.22
1.616	A.22
1.617	A.22
1.618	A.22
1.619	A.22
1.620	A.22
1.621	A.22
1.622	A.22
1.623	A.22
1.624	A.22
1.625	A.22
1.626	A.22
1.627	A.22
1.628	A.22
1.629	A.22
1.630	A.22
1.631	A.22
1.632	A.22
1.633	A.22
1.634	A.22
1.635	A.22
1.636	A.22
1.637	A.22
1.638	A.22
1.639	A.23
1.640	A.23
1.641	A.23
1.642	A.23
1.643	A.23
1.644	A.23
1.645	A.23
1.646	A.23
1.647	A.23
1.648	A.23

No	herb. A	fung. B
1.649	A.23	B.11
1.650	A.23	B.12
1.651	A.23	B.13
1.652	A.23	B.14
1.653	A.23	B.15
1.654	A.23	B.16
1.655	A.23	B.17
1.656	A.23	B.18
1.657	A.23	B.19
1.658	A.23	B.20
1.659	A.23	B.21
1.660	A.23	B.22
1.661	A.23	B.23
1.662	A.23	B.24
1.663	A.23	B.25
1.664	A.23	B.26
1.665	A.23	B.27
1.666	A.23	B.28
1.667	A.23	B.29
1.668	A.24	B.1
1.669	A.24	B.2
1.670	A.24	B.3
1.671	A.24	B.4
1.672	A.24	B.5
1.673	A.24	B.6
1.674	A.24	B.7
1.675	A.24	B.8
1.676	A.24	B.9
1.677	A.24	B.10
1.678	A.24	B.11
1.679	A.24	B.12
1.680	A.24	B.13
1.681	A.24	B.14
1.682	A.24	B.15
1.683	A.24	B.16
1.684	A.24	B.17
1.685	A.24	B.18
1.686	A.24	B.19

No	herb. A	fung. B
1.687	A.24	B.20
1.688	A.24	B.21
1.689	A.24	B.22
1.690	A.24	B.23
1.691	A.24	B.24
1.692	A.24	B.25
1.693	A.24	B.26
1.694	A.24	B.27
1.695	A.24	B.28
1.696	A.24	B.29
1.697	A.25	B.1
1.698	A.25	B.2
1.699	A.25	B.3
1.700	A.25	B.4
1.701	A.25	B.5
1.702	A.25	B.6
1.703	A.25	B.7
1.704	A.25	B.8
1.705	A.25	B.9
1.706	A.25	B.10
1.707	A.25	B.11
1.708	A.25	B.12
1.709	A.25	B.13
1.710	A.25	B.14
1.711	A.25	B.15
1.712	A.25	B.16
1.713	A.25	B.17
1.714	A.25	B.18
1.715	A.25	B.19
1.716	A.25	B.20
1.717	A.25	B.21
1.718	A.25	B.22
1.719	A.25	B.23
1.720	A.25	B.24
1.721	A.25	B.25
1.722	A.25	B.26
1.723	A.25	B.27
1.724	A.25	B.28

No	herb. A
1.725	A.25
1.726	A.26
1.727	A.26
1.728	A.26
1.729	A.26
1.730	A.26
1.731	A.26
1.732	A.26
1.733	A.26
1.734	A.26
1.735	A.26
1.736	A.26
1.737	A.26
1.738	A.26
1.739	A.26
1.740	A.26
1.741	A.26
1.742	A.26
1.743	A.26
1.744	A.26
1.745	A.26
1.746	A.26
1.747	A.26
1.748	A.26
1.749	A.26
1.750	A.26
1.751	A.26
1.752	A.26
1.753	A.26
1.754	A.26
1.755	A.27
1.756	A.27
1.757	A.27
1.758	A.27
1.759	A.27
1.760	A.27
1.761	A.27
1.762	A.27

No	herb. A	fung. B
1.763	A.27	B.9
1.764	A.27	B.10
1.765	A.27	B.11
1.766	A.27	B.12
1.767	A.27	B.13
1.768	A.27	B.14
1.769	A.27	B.15
1.770	A.27	B.16
1.771	A.27	B.17
1.772	A.27	B.18
1.773	A.27	B.19
1.774	A.27	B.20
1.775	A.27	B.21
1.776	A.27	B.22
1.777	A.27	B.23
1.778	A.27	B.24
1.779	A.27	B.25
1.780	A.27	B.26
1.781	A.27	B.27
1.782	A.27	B.28
1.783	A.27	B.29
1.784	A.28	B.1
1.785	A.28	B.2
1.786	A.28	B.3
1.787	A.28	B.4
1.788	A.28	B.5
1.789	A.28	B.6
1.790	A.28	B.7
1.791	A.28	B.8
1.792	A.28	B.9
1.793	A.28	B.10
1.794	A.28	B.11
1.795	A.28	B.12
1.796	A.28	B.13
1.797	A.28	B.14
1.798	A.28	B.15
1.799	A.28	B.16
1.800	A.28	B.17

No	herb. A	fung. B
1.801	A.28	B.18
1.802	A.28	B.19
1.803	A.28	B.20
1.804	A.28	B.21
1.805	A.28	B.22
1.806	A.28	B.23
1.807	A.28	B.24
1.808	A.28	B.25
1.809	A.28	B.26
1.810	A.28	B.27
1.811	A.28	B.28
1.812	A.28	B.29
1.813	A.29	B.1
1.814	A.29	B.2
1.815	A.29	B.3
1.816	A.29	B.4
1.817	A.29	B.5
1.818	A.29	B.6
1.819	A.29	B.7
1.820	A.29	B.8
1.821	A.29	B.9
1.822	A.29	B.10
1.823	A.29	B.11
1.824	A.29	B.12
1.825	A.29	B.13
1.826	A.29	B.14
1.827	A.29	B.15
1.828	A.29	B.16
1.829	A.29	B.17
1.830	A.29	B.18
1.831	A.29	B.19
1.832	A.29	B.20
1.833	A.29	B.21
1.834	A.29	B.22
1.835	A.29	B.23
1.836	A.29	B.24
1.837	A.29	B.25
1.838	A.29	B.26

No	herb. A
1.839	A.29
1.840	A.29
1.841	A.29
1.842	A.30
1.843	A.30
1.844	A.30
1.845	A.30
1.846	A.30
1.847	A.30
1.848	A.30
1.849	A.30
1.850	A.30
1.851	A.30
1.852	A.30
1.853	A.30
1.854	A.30
1.855	A.30
1.856	A.30
1.857	A.30
1.858	A.30
1.859	A.30
1.860	A.30
1.861	A.30
1.862	A.30
1.863	A.30
1.864	A.30
1.865	A.30
1.866	A.30
1.867	A.30
1.868	A.30
1.869	A.30
1.870	A.30
1.871	A.31
1.872	A.31
1.873	A.31
1.874	A.31
1.875	A.31
1.876	A.31

No	herb. A	fung. B
1.877	A.31	B.7
1.878	A.31	B.8
1.879	A.31	B.9
1.880	A.31	B.10
1.881	A.31	B.11
1.882	A.31	B.12
1.883	A.31	B.13
1.884	A.31	B.14
1.885	A.31	B.15
1.886	A.31	B.16
1.887	A.31	B.17
1.888	A.31	B.18
1.889	A.31	B.19
1.890	A.31	B.20
1.891	A.31	B.21
1.892	A.31	B.22
1.893	A.31	B.23
1.894	A.31	B.24
1.895	A.31	B.25
1.896	A.31	B.26
1.897	A.31	B.27
1.898	A.31	B.28
1.899	A.31	B.29
1.900	A.32	B.1
1.901	A.32	B.2
1.902	A.32	B.3
1.903	A.32	B.4
1.904	A.32	B.5
1.905	A.32	B.6
1.906	A.32	B.7
1.907	A.32	B.8
1.908	A.32	B.9
1.909	A.32	B.10
1.910	A.32	B.11
1.911	A.32	B.12
1.912	A.32	B.13
1.913	A.32	B.14
1.914	A.32	B.15

No	herb. A	fung. B
1.915	A.32	B.16
1.916	A.32	B.17
1.917	A.32	B.18
1.918	A.32	B.19
1.919	A.32	B.20
1.920	A.32	B.21
1.921	A.32	B.22
1.922	A.32	B.23
1.923	A.32	B.24
1.924	A.32	B.25
1.925	A.32	B.26
1.926	A.32	B.27
1.927	A.32	B.28
1.928	A.32	B.29
1.929	A.33	B.1
1.930	A.33	B.2
1.931	A.33	B.3
1.932	A.33	B.4
1.933	A.33	B.5
1.934	A.33	B.6
1.935	A.33	B.7
1.936	A.33	B.8
1.937	A.33	B.9
1.938	A.33	B.10
1.939	A.33	B.11
1.940	A.33	B.12
1.941	A.33	B.13
1.942	A.33	B.14
1.943	A.33	B.15
1.944	A.33	B.16
1.945	A.33	B.17
1.946	A.33	B.18
1.947	A.33	B.19
1.948	A.33	B.20
1.949	A.33	B.21
1.950	A.33	B.22
1.951	A.33	B.23
1.952	A.33	B.24

No	herb. A
1.953	A.33
1.954	A.33
1.955	A.33
1.956	A.33
1.957	A.33
1.958	A.34
1.959	A.34
1.960	A.34
1.961	A.34
1.962	A.34
1.963	A.34
1.964	A.34
1.965	A.34
1.966	A.34
1.967	A.34
1.968	A.34
1.969	A.34
1.970	A.34
1.971	A.34
1.972	A.34
1.973	A.34
1.974	A.34
1.975	A.34
1.976	A.34
1.977	A.34
1.978	A.34
1.979	A.34
1.980	A.34
1.981	A.34
1.982	A.34
1.983	A.34
1.984	A.34
1.985	A.34
1.986	A.34
1.987	A.35
1.988	A.35
1.989	A.35
1.990	A.35

No	herb. A	fung. B
1.991	A.35	B.5
1.992	A.35	B.6
1.993	A.35	B.7
1.994	A.35	B.8
1.995	A.35	B.9
1.996	A.35	B.10
1.997	A.35	B.11
1.998	A.35	B.12
1.999	A.35	B.13
1.1000	A.35	B.14
1.1001	A.35	B.15
1.1002	A.35	B.16
1.1003	A.35	B.17
1.1004	A.35	B.18
1.1005	A.35	B.19
1.1006	A.35	B.20
1.1007	A.35	B.21
1.1008	A.35	B.22
1.1009	A.35	B.23
1.1010	A.35	B.24
1.1011	A.35	B.25
1.1012	A.35	B.26
1.1013	A.35	B.27
1.1014	A.35	B.28
1.1015	A.35	B.29
1.1016	A.36	B.1
1.1017	A.36	B.2
1.1018	A.36	B.3

No	herb. A	fung. B
1.1019	A.36	B.4
1.1020	A.36	B.5
1.1021	A.36	B.6
1.1022	A.36	B.7
1.1023	A.36	B.8
1.1024	A.36	B.9
1.1025	A.36	B.10
1.1026	A.36	B.11
1.1027	A.36	B.12
1.1028	A.36	B.13
1.1029	A.36	B.14
1.1030	A.36	B.15
1.1031	A.36	B.16
1.1032	A.36	B.17
1.1033	A.36	B.18
1.1034	A.36	B.19
1.1035	A.36	B.20
1.1036	A.36	B.21
1.1037	A.36	B.22
1.1038	A.36	B.23
1.1039	A.36	B.24
1.1040	A.36	B.25
1.1041	A.36	B.26
1.1042	A.36	B.27
1.1043	A.36	B.28
1.1044	A.36	B.29
1.1045	A.37	B.1
1.1046	A.37	B.2

No	herb. A
1.1047	A.37
1.1048	A.37
1.1049	A.37
1.1050	A.37
1.1051	A.37
1.1052	A.37
1.1053	A.37
1.1054	A.37
1.1055	A.37
1.1056	A.37
1.1057	A.37
1.1058	A.37
1.1059	A.37
1.1060	A.37
1.1061	A.37
1.1062	A.37
1.1063	A.37
1.1064	A.37
1.1065	A.37
1.1066	A.37
1.1067	A.37
1.1068	A.37
1.1069	A.37
1.1070	A.37
1.1071	A.37
1.1072	A.37
1.1073	A.37

Among the above compositions, preference is given to the following:

- 1.1, 1.4, 1.9, 1.11, 1.12, 1.15, 1.20, 1.21, 1.22, 1.24, 1.25, 1.26, 1.27, 1.28, 1.33, 1.38, 1.40, 1.41, 1.44, 1.49, 1.50, 1.51, 1.53, 1.54, 1.55, 1.56, 1.57, 1.58, 1.294, 1.299, 1.301, 1.302, 1.305, 1.310, 1.311, 1.312, 1.314, 1.315, 1.316, 1.318, 1.319, 1.320, 1.323, 1.328, 1.330, 1.331, 1.334, 1.339, 1.340, 1.341, 1.344, 1.345, 1.346, 1.347, 1.348, 1.407, 1.410, 1.415, 1.417, 1.418, 1.421, 1.427, 1.428, 1.430, 1.431, 1.432, 1.433, 1.434, 1.435, 1.494, 1.497, 1.502, 1.505, 1.508, 1.513, 1.514, 1.515, 1.517, 1.518, 1.519, 1.520, 1.521, 1.522, 1.584, 1.589, 1.591, 1.592, 1.595, 1.600, 1.601, 1.602, 1.604, 1.605, 1.606, 1

1.608, 1.609, 1.668, 1.671, 1.676, 1.678, 1.679, 1.682, 1.687, 1.688, 1.689, 1.692, 1.693, 1.694, 1.695, 1.696, 1.697, 1.700, 1.705, 1.707, 1.708, 1.711, 1.717, 1.718, 1.720, 1.721, 1.722, 1.723, 1.724, 1.725, 1.726, 1.729, 1.734, 1.737, 1.740, 1.745, 1.746, 1.747, 1.749, 1.750, 1.751, 1.752, 1.753, 1.754, 1.787, 1.792, 1.794, 1.795, 1.798, 1.803, 1.804, 1.805, 1.807, 1.808, 1.809, 1.811, 1.812, 1.813, 1.816, 1.821, 1.823, 1.824, 1.827, 1.832, 1.833, 1.834, 1.837, 1.838, 1.839, 1.840, 1.841, 1.871, 1.874, 1.879, 1.881, 1.882, 1.885, 1.891, 1.892, 1.894, 1.895, 1.896, 1.897, 1.898, 1.899, 1.900, 1.903, 1.908, 1.911, 1.914, 1.919, 1.920, 1.921, 1.923, 1.924, 1.925, 1.926, 1.927, 1.928, 1.932, 1.937, 1.939, 1.940, 1.943, 1.948, 1.949, 1.950, 1.952, 1.953, 1.954, 1.956, 1.957, 1.958, 1.961, 1.966, 1.968, 1.969, 1.972, 1.977, 1.978, 1.979, 1.982, 1.983, 1.984, 1.985, 1.986, 1.1016, 1.1019, 1.1024, 1.1026, 1.1027, 1.1035, 1.1036, 1.1037, 1.1039, 1.1040, 1.1041, 1.1042, 1.1043, 1.1044, 1.1048, 1.1053, 1.1055, 1.1056, 1.1059, 1.1064, 1.1065, 1.1066, 1.1068, 1.1070, 1.1071, 1.1072, 1.1073.

More preference is given to following compositions:

1.1, 1.4, 1.9, 1.12, 1.15, 1.20, 1.21, 1.24, 1.25, 1.29, 1.30, 1.33, 1.38, 1.41, 1.50, 1.53, 1.54, 1.58, 1.291, 1.294, 1.299, 1.302, 1.305, 1.310, 1.311, 1.314, 1.319, 1.320, 1.323, 1.328, 1.331, 1.334, 1.339, 1.340, 1.343, 1.344, 1.348, 1.497, 1.502, 1.505, 1.508, 1.513, 1.514, 1.517, 1.518, 1.522, 1.668, 1.671, 1.679, 1.682, 1.687, 1.688, 1.691, 1.692, 1.696, 1.726, 1.729, 1.734, 1.737, 1.745, 1.746, 1.749, 1.750, 1.754, 1.784, 1.787, 1.792, 1.795, 1.798, 1.803, 1.807, 1.808, 1.812, 1.813, 1.816, 1.821, 1.824, 1.827, 1.832, 1.833, 1.836, 1.841, 1.871, 1.874, 1.879, 1.882, 1.885, 1.890, 1.891, 1.894, 1.895, 1.899, 1.903, 1.908, 1.911, 1.914, 1.919, 1.920, 1.923, 1.924, 1.928, 1.929, 1.932, 1.940, 1.943, 1.948, 1.949, 1.952, 1.953, 1.957, 1.958, 1.961, 1.966, 1.969, 1.977, 1.978, 1.981, 1.982, 1.986, 1.1045, 1.1048, 1.1053, 1.1056, 1.1059, 1.1065, 1.1068, 1.1069, 1.1073.

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It may be useful to apply the compositions according to the present invention including at least one the herbicide A and the at least one fungicide B in combination with safeners. Accordingly in another embodiment of the present invention the compositions according to the present invention comprise as additional component at least one safener C.

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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 ingredients of the present compositions towards unwanted plants. They can be applied

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 at least one C and at least one the herbicide A and at least one fungicide B can be applied separately or in succession.

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Suitable safeners C are e.g. (quinolin-8-oxy)acetic acids, 1-phenyl-5-haloalkyl 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, dichloro-
ides, alpha-oximinophenylacetone nitriles, acetophenone oximes, 4,6-dihalo-2-
phenylpyrimidines, N-[[4-(aminocarbonyl)phenyl]sulfonyl]-2-benzoic amides, 1-
naphthalic anhydride, 2-halo-4-(haloalkyl)-5-thiazol carboxylic acids, phospho-
and N-alkyl-O-phenylcarbamates and their agriculturally acceptable salts and
agriculturally acceptable derivatives such as amides, esters, and thioesters, provided
they have an acid group.

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Examples of preferred safeners C are benoxacor, cloquintocet, cyometrinil, cy-
prosulfamid, dichlorimid, dicyclonon, dietholate, fenchlorazole, fenclorim, flurazole,
im, furilazole, isoxadifen, mefenpyr, mephenate, naphthalic anhydride, oxabetri-
nil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3)
2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4) and N-(2-
Methoxybenzoyl)-4-[(methylaminocarbonyl)amino]benzenesulfonamide (CAS
129531-12-0).

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Especially preferred safeners C are benoxacor, cloquintocet, cyprosulfamid,
mid, fenchlorazole, fenclorim, flurazole, fluxofenim, furilazole, isoxadifen, mefen-
pyr, naphthalic anhydride, oxabetrinil, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]deca-
none (MON4660, CAS 71526-07-3), 2,2,5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidi-
ne (R-29148, CAS 52836-31-4) and N-(2-Methoxybenzoyl)-4-[(methylaminocarbonyl)
amino]benzenesulfonamide (CAS 129531-12-0).

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Particularly preferred safeners C are benoxacor, cloquintocet, cyprosulfamid,
mid, fenchlorazole, fenclorim, furilazole, isoxadifen, mefenpyr, naphthalic anhy-
dride, 4-(dichloroacetyl)-1-oxa-4-azaspiro[4.5]decane (MON4660, CAS 71526-07-3), 2,
5-trimethyl-3-(dichloroacetyl)-1,3-oxazolidine (R-29148, CAS 52836-31-4) and N-(2-
Methoxybenzoyl)-4-[(methylaminocarbonyl)amino]benzenesulfonamide (CAS
129531-12-0).

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The safeners C are known safeners, see, for example, The Compendium of F
arm Chemicals Common Names (<http://www.alanwood.net/pesticides/>); Farm Chemicals Har-

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. Science Society of America, 1998.

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 compound, this substance was only assigned to one mechanism of action.

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

The herbicide A, the fungicide B and/or the safener C can be present in different modifications whose biological activity may differ. They are likewise subject matter of the present invention.

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

Preferred cations are the ions of the alkali metals, preferably of lithium, sodium and potassium, of the alkaline earth metals, preferably of calcium and magnesium, of the transition metals, preferably of manganese, copper, zinc and iron, furthermore ammonium and substituted ammonium in which one to four hydrogen 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, methylammonium, isopropylammonium, dimethylammonium, diisopropylammonium, trimethylammonium, tetramethylammonium, tetraethylammonium, tetrabutylammonium, 2-hydroxyethylammonium, 2-hydroxyethyl(1-oxy)ethylammonium, di(2-hydroxyethyl)ammonium, benzylammonium, benzyltriethylammonium, furthermore phosphonium ions, sulfonium ions, preferably tri(C₁-C₄-alkyl)sulfonium, such as trimethylsulfonium, and sulfoxonium ions, preferably tri(C₁-C₄-alkyl)sulfoxonium.

Anions of useful acid addition salts are primarily chloride, bromide, fluoride, iodate, sulfite, methanesulfonate, methylsulfate, sulfate, dihydrogenphosphate, hydrogenphosphate, bicarbonate, carbonate, hexafluorosilicate, hexafluorophosphate, benzoate, and also the anions of C₁-C₄-alkanoic acids, preferably formate, acetate, propionate, and butyrate.

The herbicide A, the fungicide B and/or the safener C having a carboxyl group employed in the form of the acid, in the form of an agriculturally suitable salt or in the form of an agriculturally acceptable derivative in the compositions according to the present invention, for example as amides, such as mono- and di-C₁-C₆-alkylamides or ureides, as esters, for example as allyl esters, propargyl esters, C₁-C₁₀-alkyl and alkoxyalkyl esters and also as thioesters, for example as C₁-C₁₀-alkylthio esters. Preferred mono- and di-C₁-C₆-alkylamides are the methyl and the dimethylamides. Preferred arylamides are, for example, the anilides and the 2-chloroanilides. Preferred alkyl esters are, for example, the methyl, ethyl, propyl, isopropyl, butyl, isobutyl, hexyl (1-methylhexyl) or isooctyl (2-ethylhexyl) esters. Preferred C₁-C₄-alkoxyalkyl esters are the straight-chain or branched C₁-C₄-alkoxy ethyl esters, for example the methoxyethyl, ethoxyethyl or butoxyethyl ester. An example of a straight-chain or branched C₁-C₁₀-alkylthio ester is the ethylthio ester.

Suitable and preferred salts and esters of specific herbicides A are listed above.

The compositions according to the present invention are useful in plant protection of corn. The term "plant" as used herein includes all parts of a plant such as germinating seeds, emerging seedlings and herbaceous vegetation including all belowground parts (such as the roots) and aboveground portions.

In the context of the present invention, the term "corn" is restricted to the cereals (*Zea mays*) (in some countries also denominated as mielie/mealie).

The compositions according to the invention can also be used in genetically modified corn plants. The term "genetically modified plants" is to be understood as plants in which genetic material has been modified by the use of recombinant DNA techniques. This includes an inserted sequence of DNA that is not native to that plant species' genome, or 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 selection alone. Often, a particular genetically modified plant will be one that has obtained its genetic modification(s) by inheritance through a natural breeding

gation process from an ancestral plant whose genome was the one directly transferred into the genetic material of a genetically modified plant in order to impart 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. Such modifications include but are not limited to the inclusion therein of amino acid mutation(s) that permit, decrease, or promote the formation or polymer additions such as prenylation, acetylation farnesylation, or PE attachment.

10 Corn plants as well as the propagation material of said plants, which can be treated with the inventive mixtures include all modified non-transgenic plants or transgenic plants, e.g. crops which tolerate the action of herbicides or fungicides or insecticides, resulting from breeding, including genetic engineering methods, or plants which have modified characteristics in comparison with existing plants, which can be generated or obtained in whole or in part by traditional breeding methods and/or the generation of mutants, or by recombinant procedures.

For example, mixtures according to the present invention can be applied (as seed treatment, foliar spray treatment, in-furrow application or by any other means) to plants which have been modified by breeding, mutagenesis or genetic engineering, including but not limiting to agricultural biotech products on the market or in development (cf. http://www.bio.org/speeches/pubs/er/agri_products.asp).

Corn 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 auxinic herbicides such as dicamba or 2,4-D; bleacher herbicides such as hydroxyphenylpyruvate dioxygenase (HPPD) inhibitors or phytoene desaturase inhibitors; acetolactate synthase (ALS) inhibitors such as sulfonylureas or imidazolinones, e.g. imazamox; enolpyruvyl shikimate 3-phosphate synthase (EPSP) inhibitors such as glyphosate or sulfosate; glutamine synthetase (GS) inhibitors such as glufosinate or bialafos; protoporphyrinogen-IX oxidase (PPO) inhibitors; lipid biosynthesis inhibitors such as acetylCoA carboxylase (ACCase) inhibitors; or oxynil herbicides such as bromoxynil or ioxynil herbicides as a result of conventional methods of breeding or genetic engineering; furthermore, plants have been made resistant to multiple 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, auxinic herbicides, or ACCase inhibitors. The herbicide resistance technologies are, for example, described in Pest Management Science, 61, 2005, 246; 61, 2005, 258; 61, 2005, 277; 61, 2005, 269; 61, 2005, 286; 61, 2005, 294.

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. Genetic engineering methods have been used to render corn tolerant to herbicides such as glyphosate, imidazolinones and glufosinate, some of which are under development or commercially available under the brands or trade names Roundup (glyphosate tolerant, Monsanto, USA) and LibertyLink® (glufosinate tolerant, CropScience, Germany). Preferably, the corn plants are tolerant against herbicides selected from the group of acetylCoA carboxylase inhibitors, e.g. sethoxydim; EPSP synthase inhibitors (ALS inhibitors), e.g. imazapic, imazapyr, imazethapyr; agriculturally acceptable salts; auxinic herbicides, e.g. 2,4-D, dicamba and their agriculturally acceptable salts, esters and amides; EPSP synthase inhibitors, e.g. glyphosate and their agriculturally acceptable salts; and glutamine synthase inhibitors, e.g. glufosinate, bialafos and their agriculturally acceptable salts.

15 Furthermore, corn plants are also covered that are by the use of recombinant techniques capable to synthesize one or more insecticidal proteins, especially known from the bacterial genus *Bacillus*, particularly from *Bacillus thuringiensis* as delta-endotoxins, e. g., CryIA(b), CryIA(c), CryIF, CryIF(a2), CryIIA(b), CryIIIB(b1) or Cry9c; vegetative insecticidal proteins (VIP), e. g., VIP1, VIP2, VIP3, VIP3A; insecticidal proteins of bacteria colonizing nematodes, e. g., *Photorhabdus* or *Xenorhabdus* spp.; toxins produced by animals, such as scorpion toxins, arthropod toxins, wasp toxins, or other insect-specific neurotoxins; toxins produced by fungi as *Streptomyces* toxins, plant lectins, such as pea or barley lectins; agglutinin, trypsinase inhibitors, such as trypsin inhibitors, serine protease inhibitors, papain or papain inhibitors; ribosome-inactivating proteins (RIP), such as ricin, maize abrin, luffin, saporin or bryodin; steroid metabolism enzymes, such as 3-hydroxy-steroid oxidase, ecdysteroid-IDP-glycosyl-transferase, cholesterol oxidase, 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 glucanase. In the context of the present invention these insecticidal proteins or toxins are 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., WO 93/374 753, WO 93/007278, WO 95/34656, EP-A 427 529, EP-A 451 878, WO 96/000 374 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 references mentioned above. These insecticidal proteins contained in the genetically

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fied plants impart to the plants producing these proteins tolerance to harmful p all taxonomic groups of arthropods, especially to beetles (Coleoptera), two-wi sects (Diptera), and moths (Lepidoptera) and to nematodes (Nematoda). Gen modified plants capable to synthesize one or more insecticidal proteins are, e scribed in the publications mentioned above, and some of which are commerc available such as YieldGard® (corn cultivars producing the Cry1Ab toxin), Yie Plus (corn cultivars producing Cry1Ab and Cry3Bb1 toxins), Starlink® (corn c producing the Cry9c toxin), Herculex® RW (corn cultivars producing Cry34Ab Cry35Ab1 and the enzyme Phosphinothricin-N-Acetyltransferase [PAT]); Bt-X tureGard®, KnockOut®, BiteGard®, Protecta®, Bt11 (e. g., Agrisure® CB) an from Syngenta Seeds SAS, France, (corn cultivars producing the Cry1Ab toxi PAT enzyme), MIR604 from Syngenta Seeds SAS, France (corn cultivars pro modified version of the Cry3A toxin, c.f. WO 03/018810), MON 863 from Mon Europe S.A., Belgium (corn cultivars producing the Cry3Bb1 toxin) and 1507 t neer Overseas Corporation, Belgium (corn cultivars producing the Cry1F toxi enzyme).

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Furthermore, corn plants are also covered that are by the use of recombinant techniques capable to synthesize one or more proteins to increase the resista tolerance of those plants to bacterial, viral or fungal pathogens. Examples of s teins are the so-called "pathogenesis-related proteins" (PR proteins, see, e.g. 392 225), plant disease resistance genes or T4-lyso-zym. The methods for pr such genetically modified plants are generally known to the person skilled in t are described, e.g., in the publications mentioned above.

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Furthermore, corn plants are also covered that are by the use of recombinant techniques capable to synthesize one or more proteins to increase the produc (e.g., bio-mass production, grain yield, starch content, oil content or protein co tolerance to drought, salinity or other growth-limiting environmental factors or 30 to pests and fungal, bacterial or viral pathogens of those plants.

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Furthermore, plants are also covered that contain by the use of recombinant l techniques a modified amount of ingredients or new ingredients, specifically to human or animal nutrition.

Furthermore, plants are also covered that contain by the use of recombinant l techniques a modified amount of ingredients or new ingredients, specifically to raw material production.

- The compositions to be used according to the invention or the crop protection compositions comprising them or formulated therefrom can be used, for example, in the ready-to-spray aqueous solutions, powders, suspensions, also highly concentrated aqueous, oily or other suspensions or dispersions, emulsions, oil dispersions, dusts, materials for broadcasting, or granules, by means of spraying, atomizing, broadcasting or watering or treatment of the seed or mixing with the seed forms depend on the intended purpose; in any case, they should ensure the feasible distribution of the active compounds according to the invention.
- 10 The crop protection compositions comprise an effective amount of the composition according to the invention, i.e. at least one herbicide A or an agriculturally use thereof and at least one fungicide B, and also auxiliaries customary for formulation protection agents.
- 15 Examples for composition types are suspensions (SC, OD, FS), emulsifiable concentrates (EC), emulsions (EW, EO, ES), pastes, pastilles, wettable powders or concentrates (WP, SP, SS, WS, DP, DS) or granules (GR, FG, GG, MG), which can be water soluble or wettable, as well as gel formulations for the treatment of plant propagation materials such as seeds (GF).
- 20 Usually the composition types (e. g. SC, OD, FS, EC, WG, SG, WP, SP, SS, EC) are employed diluted. Composition types such as DP, DS, GR, FG, GG and MG are usually used undiluted.
- The compositions are prepared in a known manner (cf. US 3,060,084, EP-A 7 (for liquid concentrates), Browning: "Agglomeration", Chemical Engineering, [1967, 147-48, Perry's Chemical Engineer's Handbook, 4th Ed., McGraw-Hill, York, 1963, S. 8-57 und ff. WO 91/13546, US 4,172,714, US 4,144,050, US 3 US 5,180,587, US 5,232,701, US 5,208,030, GB 2,095,558, US 3,299,566, K Weed Control as a Science (J. Wiley & Sons, New York, 1961), Hance et al.: Control Handbook (8th Ed., Blackwell Scientific, Oxford, 1989) and Mollet, H. 30 Grubemann, A.: Formulation technology (Wiley VCH Verlag, Weinheim, 2001
- The crop protection compositions may also comprise auxiliaries which are customary for agrochemical compositions. The auxiliaries used depend on the particular application form and active substance, respectively.
- 35 Examples of auxiliaries customary for the formulation of crop protection agent are inert auxiliaries, solid or liquid carriers, surfactants (such as dispersants, proteolipids, emulsifiers, wetting agents and tackifiers), organic and inorganic thickeners, fungicides, antifreeze agents, antifoams, optionally colorants and, for seed form adhesives.

- Examples of thickeners (i.e. compounds which impart to the formulation modified properties, i.e. high viscosity in the state of rest and low viscosity in motion) are saccharides, such as xanthan gum (Kelzan® from Kelco), Rhodopol® 23 (Rhodenc) or Veegum® (from R.T. Vanderbilt), and also organic and inorganic sh
- 5 als, such as Attaclay® (from Engelhardt).
- Examples of antifoams are silicone emulsions (such as, for example, Silikon® Wacker or Rhodorsil® from Rhodia), long-chain alcohols, fatty acids, salts of acids, organofluorine compounds and mixtures thereof.
- Bactericides can be added for stabilizing the aqueous herbicidal formulations.
- 10 ples of bactericides are bactericides based on diclorophen and benzyl alcohol formal (Proxel® from ICI or Acticide® RS from Thor Chemie and Kathon® MK Rohm & Haas), and also isothiazolinone derivatives, such as alkylisothiazolinone benzisothiazolinones (Acticide® MBS from Thor Chemie).
- Examples of antifreeze agents are ethylene glycol, propylene glycol, urea or glycerol.
- 15 Examples of colorants are both sparingly water-soluble pigments and water-soluble dyes. Examples which may be mentioned are the dyes known under the name of Indamin B, C.I. Pigment Red 112 and C.I. Solvent Red 1, and also pigment blue 15:3, pigment blue 15:2, pigment blue 15:1, pigment blue 80, pigment yellow 1, pigment yellow 13, pigment red 112, pigment red 48:2, pigment red 20 pigment red 57:1, pigment red 53:1, pigment orange 43, pigment orange 34, pigment orange 5, pigment green 36, pigment green 7, pigment white 6, pigment brown basic violet 10, basic violet 49, acid red 51, acid red 52, acid red 14, acid blue yellow 23, basic red 10, basic red 108.
- Examples of adhesives (tackifiers or binders) are polyvinylpyrrolidone, polyvinyl acetate, polyvinyl alcohol and cellulose ethers (Tylose®, shin-Etsu, Japan).
- 25 Suitable inert auxiliaries are, for example, the following:
- mineral oil fractions of medium to high boiling point, such as kerosene and diesel oil, furthermore coal tar oils and oils of vegetable or animal origin, aliphatic, cyclic and aromatic hydrocarbons, for example paraffin, tetrahydronaphthalene, alkylated naphthalenes and their derivatives, alkylated benzenes and their derivatives, alcohols such as methanol, ethanol, propanol, butanol and cyclohexanol, ketones such as cyclohexanone or strongly polar solvents, for example amines such as N-methylpyrrolidone and water.
- 30 Suitable carriers include liquid and solid carriers.
- Liquid carriers include e.g. non-aqueous solvents such as cyclic and aromatic hydrocarbons, e.g. paraffins, tetrahydronaphthalene, alkylated naphthalenes and their derivatives, alkylated benzenes and their derivatives, alcohols such as methanol, ethanol, propanol, butanol and cyclohexanol, ketones such as cyclohexanone, strongly

solvents, e.g. amines such as N-methylpyrrolidone, and water as well as mixtures thereof.

Solid carriers include e.g. mineral earths such as silicas, silica gels, silicates, kaolin, limestone, lime, chalk, bole, loess, clay, dolomite, diatomaceous earth, calcium sulfate, magnesium sulfate and magnesium oxide, ground synthetic materials, fertilizers such as ammonium sulfate, ammonium phosphate, ammonium nitrate and urea, and products of vegetable origin, such as cereal meal, tree bark meal, wood meal, bone meal, shell meal, cellulose powders, or other solid carriers.

Suitable surfactants (adjuvants, wetting agents, tackifiers, dispersants and emulsifiers) are the alkali metal salts, alkaline earth metal salts and ammonium salts of aromatic sulfonic acids, for example lignosulfonic acids (e.g. Borrespers-types, Bergmann), phenolsulfonic acids, naphthalenesulfonic acids (Morwet types, Akzo Chemie) and dibutylnaphthalenesulfonic acid (Nekal types, BASF AG), and of fatty acids and alkylarylsulfonates, alkyl sulfates, lauryl ether sulfates and fatty alcohol sulfates and salts of sulfated hexa-, hepta- and octadecanols, and also of fatty alcohol polyether ethers, condensates of sulfonated naphthalene and its derivatives with formaldehyde, condensates of naphthalene or of the naphthalenesulfonic acids with phenol or formaldehyde, polyoxyethylene octylphenol ether, ethoxylated isooctyl-, octyl- or nonylphenol, alkylphenyl or tributylphenyl polyglycol ether, alkylaryl polyether polyisotridecyl alcohol, fatty alcohol/ethylene oxide condensates, ethoxylated castor oil polyoxyethylene alkyl ethers or polyoxypropylene alkyl ethers, lauryl alcohol polyether acetate, sorbitol esters, lignosulfite waste liquors and proteins, denatured proteins, polysaccharides (e.g. methylcellulose), hydrophobically modified starch, vinyl alcohol (Mowiol types Clariant), polycarboxylates (BASF AG, Sokalan types), polyalkoxylates, polyvinylamine (BASF AG, Lupamine types), polyethyleneimine (BASF AG, Lupasol types), polyvinylpyrrolidone and copolymers thereof.

Powders, materials for broadcasting and dusts can be prepared by mixing or blending the active ingredients together with a solid carrier.

Granules, for example coated granules, impregnated granules and homogeneous granules, can be prepared by binding the active ingredients to solid carriers.

Aqueous use forms can be prepared from emulsion concentrates, suspension concentrates, wettable powders or water-dispersible granules by adding water. To prepare emulsions, pastes or oil dispersions, the components of the compositions according to the invention either as such or dissolved in an oil or solvent, can be homogenized by means of a wetting agent, tackifier, dispersant or emulsifier. Alternatively, it is possible to prepare concentrates comprising active compound, wetting agent, dispersant or emulsifier and, if desired, solvent or oil, which are suitable for dilution with water.

In the formulation of the compositions according to the present invention the active ingredients are present in suspended, emulsified or dissolved form. The formulations according to the invention can be in the form of aqueous solutions, powders, suspensions, also highly-concentrated aqueous, oily or other suspensions or dispersions, aqueous emulsions, aqueous microemulsions, aqueous suspo-emulsions, oil emulsions, pastes, dusts, materials for spreading or granules.

The compositions of the invention can for example be formulated as follows:

10 1. Products for dilution with water

A Water-soluble concentrates (SL, LS)

10 parts by weight of active compound are dissolved in 90 parts by weight of water-soluble solvent. As an alternative, wetters or other adjuvants are added to the active compound which dissolves upon dilution with water. This gives a formulation with an active compound content of 10% by weight.

15 B Dispersible concentrates (DC)

20 parts by weight of active compound are dissolved in 70 parts by weight of an organic solvent with addition of 10 parts by weight of a dispersant, for example polyvinylpyrrolidone. Dilution with water gives a dispersion. The active compound content is 20% by weight.

C Emulsifiable concentrates (EC)

15 parts by weight of active compound are dissolved in 75 parts by weight of an organic solvent (eg. alkylaromatics) with addition of calcium dodecylbenzenesulfonate and castor oil ethoxylate (in each case 5 parts by weight). Dilution with water gives an emulsion. The formulation has an active compound content of 15% by weight.

D Emulsions (EW, EO, ES)

25 parts by weight of active compound are dissolved in 35 parts by weight of an organic solvent (eg. alkylaromatics) with addition of calcium dodecylbenzenesulfonate and castor oil ethoxylate (in each case 5 parts by weight). This mixture is introduced into 20 parts by weight of water by means of an emulsifier (e.g. Ultraturrax) and made into a homogeneous emulsion. Dilution with water gives an emulsion. The formulation has an active compound content of 25% by weight.

E Suspensions(SC, OD, FS)

In an agitated ball mill, 20 parts by weight of active compound are comminuted with the addition of 10 parts by weight of dispersants and wetters and 70 parts by weight of water or an organic solvent to give a fine active compound suspension. Dilution with water gives a stable suspension of the active compound. The active compound content of the formulation is 20% by weight.

F Water-dispersible granules and water-soluble granules (WG, SG)

50 parts by weight of active compound are ground finely with addition of 50 parts by weight of dispersants and wetters and made into water-dispersible or water-soluble granules by means of technical appliances (for example extrusion, spray tower or fluidized bed). Dilution with water gives a stable dispersion or solution of the active compound. The formulation has an active compound content of 50% by weight.

G Water-dispersible powders and water-soluble powders (WP, SP, SS, WS)

75 parts by weight of active compound are ground in a rotor-stator mill with addition of 25 parts by weight of dispersants, wetters and silica gel. Dilution with water gives a stable dispersion or solution of the active compound. The active compound content of the formulation is 75% by weight.

H Gel formulations (GF)

In a ball mill, 20 parts by weight of active compound, 10 parts by weight of dispersants, 1 part by weight of gelling agent and 70 parts by weight of water or of an organic solvent are mixed to give a fine suspension. Dilution with water gives a stable suspension with active compound content of 20% by weight.

2. Products to be applied undiluted

I Dusts (DP, DS)

5 parts by weight of active compound are ground finely and mixed intimately with 95 parts by weight of finely divided kaolin. This gives a dusting powder with an active compound content of 5% by weight.

J Granules (GR, FG, GG, MG)

0.5 parts by weight of active compound are ground finely and associated with 99.5 parts by weight of carriers. Current methods here are extrusion, spray-drying or fluidized bed. This gives granules to be applied undiluted with an active compound content of 0.5% by weight.

K ULV solutions (UL)

10 parts by weight of active compound are dissolved in 90 parts by weight of an organic solvent, for example xylene. This gives a product to be applied undiluted with an active compound content of 10% by weight.

The concentrations of the active compounds in the ready-to-use preparations varied within wide ranges. In general, the formulations comprise from 0.001 to 95% by weight, preferably 0.01 to 95% by weight of at least one active compound. The active compounds are employed in a purity of from 90% to 100%, preferably 95% to 100% (according to NMR spectrum).

In the ready-to-use preparations, i.e. in the compositions to be used according to the invention in the form of crop protection compositions, the components A and B are present formulated jointly or separately in suspended, emulsified or dissolved form. The use forms depend entirely on the intended applications.

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The components A and B can be formulated and applied jointly or separately, simultaneously or in succession, before, during or after the emergence of the plants. In the case of a separate application, the order of the application of the components A and B is of no importance. The only thing that is important is that the at least one active component A and B are present simultaneously at the site of action, i.e. are at the same time in contact with or taken up by the plant to be controlled and/or safened.

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A first embodiment of the invention relates to the use compositions in the form of crop protection composition formulated as a 1-component composition comprising at least one active component A, at least one further active component B and optionally at least one safener C, and also a solid or liquid carrier and/or one or more further auxiliaries customary for crop protection compositions.

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A second embodiment of the invention relates to compositions in the form of crop protection composition formulated as a 2-component composition comprising a first formulation (component) comprising the at least one active component A, a solid or liquid carrier and, if appropriate, one or more surfactants, and a second component comprising at least one further active component B, and optionally at least one safener C, and a solid or liquid carrier and, if appropriate, and/or one or more surfactants where additionally both components may also comprise further auxiliaries customary for crop protection compositions.

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The compositions to be used according to the invention are suitable as herbicides. They are suitable as such or as an appropriately formulated composition. The compositions according to the invention control vegetation on non-crop areas very efficiently, especially at high rates of application. They act against broad-leaved weeds and grass weeds in corn crops without causing any significant damage to the crop plant. The effect is mainly observed at low rates of application.

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In the methods and uses according to the invention, it is principally of no importance whether the active compounds of components A and B are formulated and applied jointly or separately and in which order application is carried out in the case of simultaneous application.

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

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It is therefore a further object of the present invention to provide herbicidal compositions, which are highly active against unwanted harmful plants, and, at the same time, the compositions should have good compatibility with useful plants. In addition, the compositions according to the invention should have a broad spectrum of activity.

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This object is also achieved by the herbicidal active compositions comprising one herbicide A as defined herein and at least one fungicide B as defined herein.

The crop protection compositions comprise an herbicidally effective amount of a composition according to the invention, i.e. at least one herbicide A or an agricultural salt thereof and at least one further active compound B, and also auxiliaries for formulating crop protection agents as defined herein.

The required application rate of pure active compound composition, i.e. A and C, appropriate, C without formulation auxiliaries depends on the composition of the crop stand, on the development stage of the plants, on the climatic conditions at the time of use and on the application technique. In general, the application rate of A and C is 0.001 to 3 kg/ha, preferably from 0.005 to 2.5 kg/ha and in particular from 0.01 to 1.5 kg/ha of active substance (a.s.).

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The required application rates of the herbicide A are generally in the range of 0.0005 kg/ha to 2.5 kg/ha and preferably in the range of from 0.005 kg/ha to 2.5 kg/ha to 1.5 kg/h of a.s.

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

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

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

10 Application of the herbicidal compositions according to the present invention can be done before, during and/or after, preferably during and/or after, the emergence of the crop and/or of undesirable plants.

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

25 In a further embodiment, the composition to be used according to the invention can be applied by treating seed. The treatment of seed comprises essentially all procedures known to the person skilled in the art (seed dressing, seed coating, seed dusting, seed soaking, seed film coating, seed multilayer coating, seed encrusting, seed drying, seed pelleting) based on the compounds of the formula I according to the invention and the compositions prepared therefrom. Here, the herbicidal compositions can be applied diluted or undiluted.

30 The term seed comprises seed of all types, such as, for example, corns, seed tubers, seedlings and similar forms. Here, preferably, the term seed describes the seed and seeds.

35 The seed used can be seed of the corn plants mentioned above, but also the transgenic plants or plants obtained by customary breeding methods.

The rates of application of the active compound are from 0.0001 to 3.0, preferably 1.0 kg/ha of active substance (a.s.), depending on the control target, the selected target plants and the growth stage. To treat the seed, the compounds I are generally employed in amounts of from 0.001 to 10 kg per 100 kg of seed.

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Moreover, it may be advantageous to apply the compositions of the present invention on their own or jointly in combination with other crop protection agents, for example with agents for controlling pests or phytopathogenic fungi or bacteria or with other active compounds which regulate growth. Also of interest is the miscibility with salt solutions which are employed for treating nutritional and trace element deficiencies. Non-phytotoxic oils and oil concentrates can also be added.

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The herbicidal effect of the compositions to be used according to the present invention comprising at least an herbicide A and a fungicide B, and optionally one or more elements C, on the growth of undesirable plants and the safening action on crop plants is demonstrated by the following greenhouse experiments:

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The culture containers used were plastic pots containing loamy sand with approximately 3.0% of humus as substrate. The seeds of the test plants were sown separately for each species.

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For the pre-emergence treatment, the active compounds, suspended or emulsified in water, were applied directly after sowing by means of finely distributing nozzle containers. The containers were irrigated gently to promote germination and growth and subsequently covered with transparent plastic hoods until the plants had rooted. This cover ensured uniform germination of the test plants unless this was adversely affected by the active compounds.

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For the post-emergence treatment, the test plants were grown to a plant height of 3 to 15 cm, depending on the plant habit, and only then treated with the active compounds which had been suspended or emulsified in water. To this end, 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.

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Depending on the species, the plants were kept at 10 - 25°C and 20 - 35°C, respectively. The test period extended over 2 to 4 weeks. During this time, the plants were observed and their response to the individual treatments was evaluated.

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Evaluation was carried out using a scale from 0 to 100. 100 means no emergence of the plants, or complete destruction of at least the above-ground parts, and 0 means no damage or normal course of growth. Good herbicidal activity is given at values of at least 70, and very good herbicidal activity is given at values of at least 85.

The respective stated components A and B, and if appropriate, C were formulated 10% by weight strength emulsion concentrate and, with addition of the amount of the solvent system, introduced into the spray liquor used for applying the active compound. In the examples, the solvent used was water.

The test period extended over 20 and 21 days, respectively. During this time, the plants were tended, and their reaction to the treatment with active compound was monitored. In the examples below, using the method of S. R. Colby (1967) "Calculating synergistic and antagonistic responses of herbicide combinations", Weeds 15, p. 22ff., the expected activity E, which is expected if the activity of the individual active compounds is only additive, was calculated.

$$E = X + Y - (X \cdot Y / 100)$$

where

X = percent activity using active compound A at an application rate a;

Y = percent activity using active compound B at an application rate b;

E = expected activity (in %) by A + B at application rates a + b.

If the value found experimentally is higher than the value E calculated according to Colby, a synergistic effect is present.

In all uses and methods of the present invention the compositions preferably comprise the at least one compound A and the at least one compound B in synergistic and additive amounts, i.e. in a weight ratio of A and B such that a synergistic effect takes place. This means that the relative amount, i.e. the weight ratio of the at least one compound A and the at least one compound B in the composition provides for an increased herbicidal efficacy on at least one weed which exceeds the additive herbicidal efficacy of the individual compounds of the composition as calculated from the herbicidal efficacy of the individual compounds at a given application rate. The calculation of the additive efficacy can be performed e.g. by Colby's formula (Colby, S.R. "Calculating synergistic and antagonistic responses of herbicide Combinations", Weeds, 15, 20-22, 1967). Synergism is present if the observed efficacy is greater than the calculated efficacy.

To ensure synergism, the at least one compound of the formula A and the at least one compound B are preferably present in the compositions of the present invention in a total weight ratio of from 100:1 to 1:100, more preferably from 50:1 to 1:50, even

preferably from 20:1 to 1:20, and in particular from 10:1 to 1:10, e.g. from 5:1 from 3:1 to 1:3 or from 2:1 to 1:2.

Claims

1. The use of an agrochemical composition comprising
- 5 A) at least one herbicide A selected from
- A.a) acetylCoA carboxylase inhibitors (ACC inhibitors) selected from
clethodim, cycloxydim, fenoxaprop, fenoxaprop-P, fluazifop,
10 P, haloxyfop, haloxyfop-P, quizalofop, quizalofop-P, sethoxy
tepraloxym; and
- A.b) acetolactate synthase inhibitors (ALS inhibitors) selected from
15 rasulam, flumetsulam, foramsulfuron, halosulfuron, iodosulfu
rosulfuron, primisulfuron, prosulfuron, rimsulfuron, thiencarb
tritosulfuron; and
- A.c) 4-hydroxyphenylpyruvate-dioxygenase (HPPD inhibitors) se
lected from bicyclopyrone, isoxaflutole, mesotrione, sulcotrione, ter
20 and topramezone; and
- A.d) protoporphyrinogen oxidase (PPO) inhibitors selected from
zone-ethyl, flumioxazin, saflufenacil and 1,5-dimethyl-6-thio
(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[
oxazin-6-yl)-1,3,5-triazinane-2,4-dione (CAS 1258836-72-4)
- A.e) photosynthetic electron transport inhibitors at the photosyste
ceptor site selected from bentazone and bromoxynil; and
- A.f) the auxin transport inhibitor diflufenzopyr;
- 25 and their agriculturally acceptable salts esters and amides;
- and
- B) at least one fungicide B selected from
- B.a) inhibitors of complex III at Q_o site selected from azoxystrobin
30 methoxystrobin, coumoxystrobin, dimoxystrobin, enestrobur
fenaminstrobin, fenoxystrobin/flufoxystrobin, fluoxastrobin
im-methyl, metominostrobin, picoxystrobin, pyraclostrobin, p
strobin, pyraoxystrobin, trifloxystrobin, 2-[2-(2,5-dimethylphe
oxymethyl)phenyl]-3-methoxy-acrylic acid methyl ester, 2-(2
35 dichlorophenyl)-1-methyl-allylideneaminooxymethyl)-phenyl,
methoxyimino-N-methyl-acetamide, pyribencarb and triclopy
ricarb/chlorodincarb; and
- B.b) inhibitors of complex II selected from bixafen, boscalid, carb
fluopyram, fluxapyroxad, isopyrazam, penflufen, penthiopyr;

7. A method for controlling undesired vegetation in corn cultures, which method comprises allowing an effective amount of an agrochemical composition defined in any of claims 1 to 6 to act on the corn plants or parts thereof in an environment where the corn cultures grow or are to grow.
- 5
8. The use as claimed in any of claims 1 to 6 or the method as claimed in claim 7, where the corn plant is an herbicide tolerant plant.
9. The use or method as claimed in claim 8, where the corn plant is tolerant to herbicides selected from the group of acetylCoA carboxylase inhibitors, acetolactate synthase inhibitors (ALS inhibitors), auxinic herbicides, EPSP synthase inhibitors and glutamine synthase inhibitors.
- 10
10. The use or method as claimed in claim 9, where the acetylCoA carboxylase inhibitor is sethoxydim.
- 15
11. The use or method as claimed in claim 9, where the acetolactate synthase inhibitor is selected from imazapic, imazapyr, imazethapyr and their agriculturally acceptable salts.
- 20
12. The use or method as claimed in claim 9, where the auxinic herbicide is from 2,4-D, dicamba and their agriculturally acceptable salts, esters and amides.
13. The use or method as claimed in claim 9, where the EPSP synthase inhibitor is selected from glyphosate, sulfosate and their agriculturally acceptable salts.
- 25
14. The use or method as claimed in claim 9, where the glutamine synthase inhibitor is selected from glufosinate, bialafos and their agriculturally acceptable salts.
- 30

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2013/053944

A. CLASSIFICATION OF SUBJECT MATTER
 INV. A01N61/00 A01P3/00 A01P13/00 A01P21/00
 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)
 A01N

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, BIOSIS, 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	US 2010/317520 A1 (IKEDA HAJIME [JP] ET AL) 16 December 2010 (2010-12-16) claims 1,2,7-19,21 examples 16,59,76; tables 13-18,22-25,28-31	1-14
A	----- DE 199 15 013 A1 (NOVARTIS AG [CH]) 26 August 1999 (1999-08-26) page 2, lines 3-6,18-30 page 30, line 30 claims 1,7,25,26	1-14
A	----- EP 0 614 607 A1 (ZENECA LTD [GB]) 14 September 1994 (1994-09-14) page 2, lines 12-15,19-23 claims 1-5 example 1 -----	1-14

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search 30 April 2013	Date of mailing of the international search report 25/07/2013
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Marie, Gérald
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2013/053944

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-14(partially)

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-14(partially)

The claimed subject-matter wherein the at least one herbicide A is selected from acetylCoA carboxylase inhibitors (ACC inhibitors) selected from clethodim, cycloxydim, fenoxaprop, fenoxaprop-P, fluazifop, fluazifop-P, haloxyfop, haloxyfop-P, quizalofop, quizalofop-P, sethoxydim and tepraloxydim and their agriculturally acceptable salts, esters and amides.

2. claims: 1-14(partially)

The claimed subject-matter wherein the at least one herbicide A is selected from acetolactate synthase inhibitors (ALS inhibitors) selected from florasulam, flumetsulam, foramsulfuron, halosulfuron, iodosulfuron, nicosulfuron, primisulfuron, prosulfuron, rimsulfuron, thien carbazole and tritosulfuron and their agriculturally acceptable salts, esters and amides.

3. claims: 1-14(partially)

The claimed subject-matter wherein the at least one herbicide A is selected from 4-hydroxyphenylpyruvate-dioxygenase (HPPD inhibitors) selected from bicyclopiron, isoxaflutole, mesotrione, sulcotrione, tembotrione and topramezone and their agriculturally acceptable salts, esters and amides.

4. claims: 1-14(partially)

The claimed subject-matter wherein the at least one herbicide A is selected from protoporphyrinogen oxidase (PPO) inhibitors selected from carfentrazone-ethyl, flumioxazin, saflufenacil and 1,5-dimethyl-6-thioxo-3-(2,2,7-trifluoro-3-oxo-4-(prop-2-ynyl)-3,4-dihydro-2H-benzo[b][1,4]-oxazin-6-yl)-1,3,5-triazinane-2,4-dione (CAS 1258836-72-4) and their agriculturally acceptable salts, esters and amides.

5. claims: 1-14(partially)

The claimed subject-matter wherein the at least one herbicide A is selected from photosynthetic electron transport inhibitors at the photosystem II receptor site selected from bentazone and bromoxynil and their agriculturally acceptable salts, esters and amides.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

6. claims: 1, 2, 4-14(all partially)

The claimed subject-matter wherein the at least one herbicide A is the auxin transport inhibitor diflufenzopyr and its agriculturally acceptable salts, esters and amides.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2013/053944

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2010317520	A1	16-12-2010	NONE

DE 19915013	A1	26-08-1999	NONE

EP 0614607	A1	14-09-1994	DE 69411297 D1 06-08-1998
			DE 69411297 T2 05-11-1998
			DK 0614607 T3 12-04-1999
			EP 0614607 A1 14-09-1994
