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Anthranilamides in combination with fungicides

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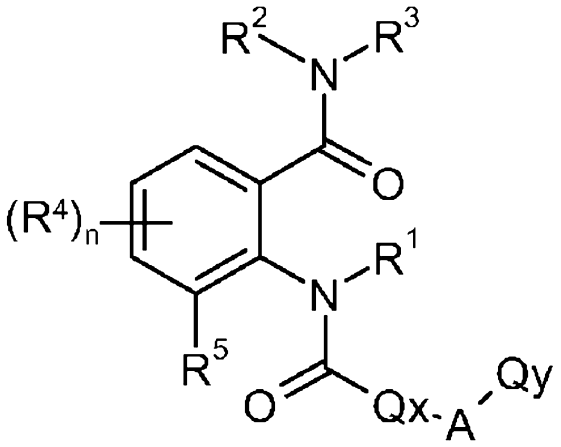
— *vor Ablauf der für Änderungen der Ansprüche geltenden Frist; Veröffentlichung wird wiederholt, falls Änderungen eingehen (Regel 48 Absatz 2 Buchstabe h)*

[Fortsetzung auf der nächsten Seite]

(54) **Title**: ANTHRANILAMIDES IN COMBINATION WITH FUNGICIDES

(54) **Bezeichnung** : ANTHRANILSÄUREAMIDE IN KOMBINATION MIT FUNGIZIDEN



(I)

(57) **Abstract**: The present invention relates to novel active substance combinations which are composed of the insecticidally active compounds of the formula (I) in combination with fungicidal active substances (II) and which are highly suitable for controlling undesirable animal pests such as insects and undesirable phytopathogenic fungi.

(57) **Zusammenfassung**: Die vorliegende Erfindung betrifft neue Wirkstoffkombinationen, die aus den insektizid wirksamen Verbindungen der Formel (I) in Kombination mit fungiziden Wirkstoffen (II) bestehen und sehr gut zur Bekämpfung von unerwünschten tierischen Schädlingen wie Insekten sowie unerwünschten phytopathogenen Pilzen geeignet sind.

WO 2012/004221 A3

WO 2012/004221 A3

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2011275871 20 Aug 2015

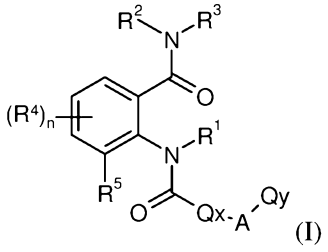
Anthranilamides in combination with fungicides

The present invention relates to novel active compound combinations which consist of the insecticidally active compounds of the formula (I) in combination with fungicidally active compounds (II) and are highly suitable for controlling unwanted animal pests, such as insects, acaricides and/or nematodes, and unwanted phytopathogenic fungi.

Some of the anthranilamides of the formula (I) are already known from WO 2007/144100, and their insecticidal action has been described. The active compounds referred to in this description by their common name are known, for example, from "The Pesticide Manual" 14th Ed., British Crop Protection Council 2006, and the website http://www.alanwood.net/pesticides.

However, the insecticidal and/or fungicidal activity and/or the activity spectrum and/or the plant compatibility of the known compounds, especially with respect to crop plants, is not always adequate.

According to a first aspect of the present invention there is provided an active compound combination comprising a synergistically effective combination of at least one compound of the general formula (I)



(I)

in which

R^1 represents hydrogen, amino, hydroxyl or represents C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl or C_3-C_6-cycloalkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of halogen, cyano, nitro, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, (C_1-C_4-alkoxy)carbonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino and (C_1-C_4-alkyl)-C_3-C_6-cycloalkylamino,

R^2 represents hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, C_1-C_6-alkoxycarbonyl or C_1-C_6-alkylcarbonyl,

R^3 represents hydrogen or represents C_1-C_6-alkyl, C_1-C_6-alkoxy, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_{12}-cycloalkyl, C_3-C_{12}-cycloalkyl-C_1-C_6-alkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of amino, C_3-C_6-cycloalkylamino,

2011275871 20 Aug 2015

halogen, cyano, carboxyl, carbamoyl, nitro, hydroxyl, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_3-C_6-trialkylsilyl and a saturated or partially saturated heterocyclic ring, an aromatic or heteroaromatic ring or a saturated, partially saturated or aromatic heterobicyclic ring, where the ring or the ring system is optionally mono- or polysubstituted by identical or different substituents from the group consisting of SF_5, halogen, cyano, nitro, hydroxyl, amino, carboxyl, carbamoyl, aminosulphonyl, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_6-haloalkyl, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-alkylsulphimino, C_1-C_4-alkylsulphimino-C_1-C_4-alkyl, C_1-C_4-alkylsulphimino-C_2-C_5-alkylcarbonyl, C_1-C_4-alkylsulphoximino, C_1-C_4-alkylsulphoximino-C_1-C_4-alkyl, C_1-C_4-alkylsulphoximino-C_2-C_5-alkylcarbonyl, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_3-C_6-trialkylsilyl, benzyl C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino and a 3- to 6-membered ring, where the ring may optionally be substituted by C_1-C_6-alkyl, halogen, cyano, nitro, halo-(C_1-C_6)-alkyl, C_1-C_6-alkoxy or halo-(C_1-C_6)-alkoxy, or

R^3 represents C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_1-C_6-alkylaminocarbonyl or di-(C_1-C_6)-alkylaminocarbonyl, or

R^3 furthermore represents a 5- or 6-membered aromatic or heteroaromatic ring, a 4-, 5- or 6-membered partially saturated ring or saturated heterocyclic ring, or a saturated, partially saturated or aromatic heterobicyclic ring which may optionally contain one to three heteroatoms from the group consisting of O, S and N, where the ring or ring system is mono- or polysubstituted by identical or different substituents, where the substituents independently of one another are selected from the group consisting of SF_5, halogen, cyano, nitro, hydroxyl, amino, carboxyl, carbamoyl, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_6-haloalkyl, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-alkylsulphimino, C_1-C_4-alkylsulphimino-C_1-C_4-alkyl, C_1-C_4-alkylsulphimino-C_1-C_5-alkylcarbonyl, C_1-C_4-alkylsulphoximino, C_1-C_4-alkylsulphoximino-C_1-C_4-alkyl, C_1-C_4-alkylsulphoximino-C_2-C_5-alkylcarbonyl, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_3-C_6-trialkylsilyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino and C_3-C_6-cycloalkylamino, or a 3- to 6-membered ring, where the ring may optionally be substituted by C_1-C_6-alkyl, halogen, cyano, nitro, halo-(C_1-C_6)-alkyl, C_1-C_6-alkoxy or halo-(C_1-C_6)-alkoxy,

R^2 and R^3 may be linked with each other via two to six carbon atoms and form a ring which optionally

2011275871 20 Aug 2015

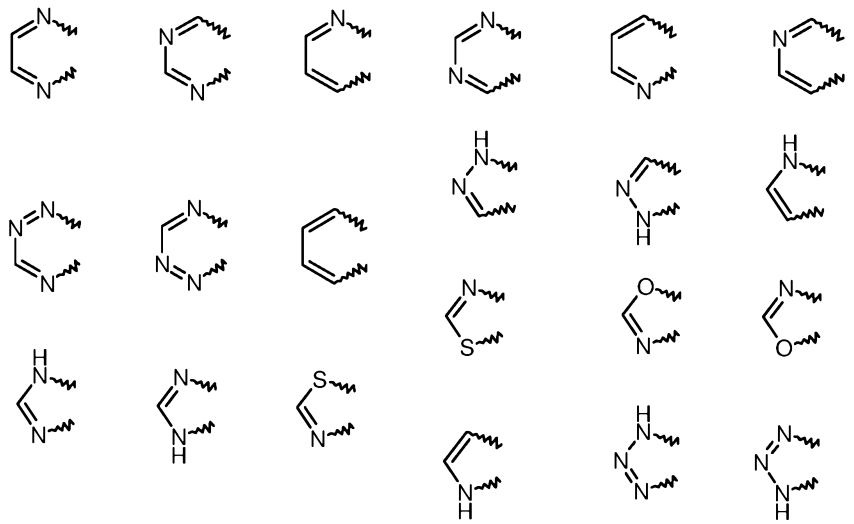
additionally contains a further nitrogen, sulphur or oxygen atom and which may optionally be mono- to tetrasubstituted by C_1-C_2-alkyl, C_1-C_2-haloalkyl, halogen, cyano, amino, C_1-C_2-alkoxy or C_1-C_2-haloalkoxy,

R^2 and R^3 furthermore together represent $=S(C_1\text{-}C_4\text{-alkyl})_2$ or $=S(O)(C_1\text{-}C_4\text{-alkyl})_2$,

R^4 represents hydrogen, halogen, cyano, nitro, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_6-alkenyl, C_2-C_6-haloalkenyl, C_2-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, SF_5, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_4-alkoxy)imino, (C_1-C_4-alkyl)(C_1-C_4-alkoxy)imino, (C_1-C_4-haloalkyl)(C_1-C_4-alkoxy)imino or C_3-C_6-trialkylsilyl, or

two adjacent radicals R^4, via adjacent carbon atoms, form a ring which represents $-(CH_2)_3-$, $-(CH_2)_4-$, $-(CH_2)_5-$, $-(CH{=}CH-)_2-$, $-OCH_2O-$, $-O(CH_2)_2O-$, $-OCF_2O-$, $-(CF_2)_2O-$, $-O(CF_2)_2O-$, -(CH=CH-CH=N)- or -(CH=CH-N=CH)-,

two adjacent radicals R^4 furthermore, via adjacent carbon atoms, form the fused rings below, which are optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_3-C_6-halocycloalkyl, halogen, C_1-C_6-alkoxy, C_1-C_4-alkylthio-(C_1-C_6-alkyl), C_1-C_4-alkylsulphinyl-(C_1-C_6-alkyl), C_1-C_4-alkylsulphonyl-(C_1-C_6-alkyl), C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino and C_3-C_6-cycloalkylamino,



n represents an integer from 0 to 3,

R^5 represents C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_1-C_6-halocycloalkyl, C_2-C_6-alkenyl,

2011275871 20 Aug 2015

C_2-C_6-haloalkenyl, C_2-C_6-alkynyl, C_2-C_6-haloalkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, halogen, cyano, nitro or C_3-C_6-trialkylsilyl,

Q_X represents an aromatic or heteroaromatic 5- or 6-membered ring which is optionally mono- or polysubstituted by identical or different R^7 substituents and which may contain one to three heteroatoms from the group consisting of N, S and O,

A represents optionally mono- or polysubstituted -(C_1-C_6-alkylene)-, -(C_2-C_6-alkenylene)-, -(C_2-C_6-alkynylene)-, -R^8-(C_3-C_6-cycloalkyl)-R^8-, -R^8-O-R^8-, -R^8-S-R^8-, -R^8-S(=O)-R^8-, -R^8-S(=O)$_2$-R^8-, -R^8-N(C_1-C_6-alkyl)-R^8-, -R^8-C=NO(C_1-C_6-alkyl)-R^8, -CH[CO_2(C_1-C_6-alkyl)-, -R^8-C(=O)-R^8, -R^8-C(=O)NH-R^8, R^8-C(=O)N(C_1-C_6-alkyl)-R^8, -R^8-C(=O)NHNH-R^8-, -R^8-C(=O)N(C_1-C_6-alkyl)-NH-R^8-, -R^8-C(=O)NHN(C_1-C_6-alkyl)-R^8, -R^8-O(C=O)-R^8, -R^8-O(C=O)NH-R^8, -R^8-O(C=O)N(C_1-C_6-alkyl)-R^8, -R^8-S(=O)$_2$NH-R^8, -R^8-S(=O)$_2$N(C_1-C_6-alkyl)-R^8, -R^8-S(C=O)-R^8, -R^8-S(C=O)NH-R^8, -R^8-S(C=O)N(C_1-C_6-alkyl)-R^8, -R^8-NHNH-R^8, -R^8-NHN(C_1-C_6-alkyl)-R^8, -R^8-N(C_1-C_6-alkyl)-NH-R^8, -R^8-N(C_1-C_6-alkyl)-N(C_1-C_6-alkyl)-R^8, -R^8-N=CH-O-R^8, -R^8-NH(C=O)O-R^8, -R^8-N(C_1-C_6-alkyl)-(C=O)O-R^8, -R^8-NH(C=O)NH-R^8, -R^8-NH(C=S)NH-R^8, -R^8-NHS(=O)$_2$-R^8, R^8-NH-R^8, R^8-C(=O)-C(=O)-R^8, R^8-C(OH)-R^8, R^8-NH(C=O)-R^8, R^8-Qz-R^8, R^8-C(=N-NR'$_2$)-R^8, R^8-C(=C-R'$_2$)-R^8 or -R^8-N(C_1-C_6-alkyl)S(=O)$_2$-R^8,

where the substituents independently of one another may be selected from the group consisting of halogen, cyano, nitro, hydroxyl, C_1-C_6-alkyl, C_1-C_6-alkyloxy, halo-C_1-C_6-alkyl, amino, (C_1-C_6-alkyl)amino, di-(C_1-C_6-alkyl)amino and C_3-C_6-cycloalkyl

where -(C_3-C_6-cycloalkyl)- in the ring may optionally contain 1 or 2 heteroatoms selected from the group consisting of N, S and O,

R^8 represents straight-chain or branched -(C_1-C_6-alkylene)- or represents a direct bond,

where a plurality of R^8 independently of one another represent straight-chain or branched -(C_1-C_6-alkylene)- or represent a direct bond,

where R' represents alkyl, alkylcarbonyl, alkenyl, alkynyl, which may optionally be mono- or polysubstituted by halogen,

Qz represents a 3- or 4-membered partially saturated or saturated ring or a 5- or 6-membered partially saturated, saturated or aromatic ring or represents a 6- to 10-membered bicyclic ring system,

where the ring or the bicyclic ring system may optionally contain one to three heteroatoms from the group consisting of N, S and O,

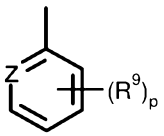
2011275871 20 Aug 2015

where the ring or the bicyclic ring system is optionally mono- or polysubstituted by identical or different substituents and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carbamoyl, nitro, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkyl)aminocarbonyl and di-(C_1-C_4-alkyl)aminocarbonyl,

Q_Y represents a 5- or 6-membered partially saturated or saturated heterocyclic or heteroaromatic ring or an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system, where the ring or the ring system is optionally mono- or polysubstituted by identical or different substituents and the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carboxyl, carbamoyl, nitro, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkyl)aminocarbonyl, di-(C_1-C_4-alkyl)aminocarbonyl, tri-(C_1-C_2)alkylsilyl and (C_1-C_4-alkyl)(C_1-C_4-alkoxy)imino,

or where the substituents independently of one another may be selected from the group consisting of phenyl and a 5- or 6-membered heteroaromatic ring, where phenyl or the ring may optionally be mono- or polysubstituted by identical or different substituents from the group consisting of C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, nitro, hydroxyl, C_1-C_4-alkoxy and C_1-C_4-haloalkoxy,

R^7 represents hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_3-C_6-cycloalkoxy or



20 Aug 2015 2011275871

R^9 independently of one another represent hydrogen, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, halogen, cyano, nitro, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio or C_1-C_4-haloalkylthio,

p represents an integer from 0 to 4,

Z represents N, CH, CF, CCl, CBr or CI,

the compounds of the general formula (I) further comprising the N-oxides and salts thereof,

and one or more fungicides of group (II) selected from:

an ergosterol biosynthesis inhibitor;

a respiration inhibitor (respiratory chain inhibitor);

a respiration inhibitor (respiratory chain inhibitor) acting on complex III of the respiratory chain;

a mitosis and cell division inhibitor;

a compound with multisite activity;

a resistance inductor;

an amino acid and protein biosynthesis inhibitor;

an ATP production inhibitor;

a cell wall synthesis inhibitor;

a lipid and membrane synthesis inhibitor;

a melanin biosynthesis inhibitor;

a nucleic acid synthesis inhibitor;

a signal transduction inhibitor;

a decoupler; or

a further fungicide.

According to a second aspect of the present invention there is provided an agrochemical composition comprising an active compound combination according to the first aspect, and at least one extender and/or surfactant.

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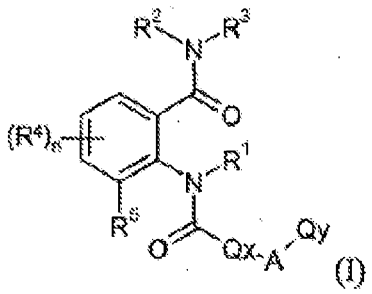
According to a third aspect of the present invention there is provided the use of an active compound combination according to the first aspect or a composition according to the second aspect for controlling animal pests, phytopathogenic fungi, or for treating seed.

According to a fourth aspect of the present invention there is provided a method for controlling animal pests, wherein an active compound combination according to the first aspect or a composition according to the second aspect is allowed to act on animal pests and/or their habitat.

According to a fifth aspect of the present invention there is provided a process for producing an agrochemical composition, wherein an active compound combination according to the first aspect is mixed with at least one extender and/or surfactant.

It has now been found that active compound combinations comprising the compounds of the general formula (I)



(I)

in which

R^1 represents hydrogen, amino, hydroxyl or represents C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl or C_3-C_6-cycloalkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of halogen, cyano, nitro, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, (C_1-C_4-alkoxy)carbonyl, C_1-C_4-alkylamino, di-(C_1-C_4alkyl)amino, C_3-C_6-cycloalkylamino and (C_1-C_4-alkyl)-C_3-C_6-cycloalkylamino,

R^2 represents hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, C_1-C_6-alkoxycarbonyl or C_1-C_6-alkylcarbonyl,

R^3 represents hydrogen or represents C_1-C_6-alkyl, C_1-C_6-alkoxy, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_{12}-cycloalkyl, C_3-C_{12}-cycloalkyl-C_1-C_6-alkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one

another may be selected from the group consisting of amino, C_3-C_6-cycloalkylamino, halogen, cyano, carboxyl, carbamoyl, nitro, hydroxyl, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_3-C_6-trialkylsilyl and a saturated or partially saturated heterocyclic ring, an aromatic or heteroaromatic ring or a saturated, partially saturated or aromatic heterobicyclic ring, where the ring or the ring system is optionally mono- or polysubstituted by identical or different substituents from the group consisting of SF_5, halogen, cyano, nitro, hydroxyl, amino, carboxyl, carbamoyl, aminosulphonyl, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_6-haloalkyl, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-alkylsulphimino, C_1-C_4-alkylsulphimino-C_1-C_4-alkyl, C_1-C_4-alkylsulphimino-C_2-C_5-alkylcarbonyl, C_1-C_4-alkylsulphoximino, C_1-C_4-alkylsulphoximino-C_1-C_4-alkyl, C_1-C_4-alkylsulphoximino-C_2-C_5-alkylcarbonyl, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_3-C_6-trialkylsilyl, benzyl C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino and a 3- to 6-membered ring, where the ring may optionally be substituted by C_1-C_6-alkyl, halogen, cyano, nitro, halo-(C_1-C_6)-alkyl, C_1-C_6-alkoxy or halo-(C_1-C_6)-alkoxy, or

R^3 represents C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_1-C_6-alkylaminocarbonyl or di-(C_1-C_6)-alkylaminocarbonyl, or

R^3 furthermore represents a 5- or 6-membered aromatic or heteroaromatic ring, a 4-, 5- or 6-membered partially saturated ring or saturated heterocyclic ring, or a saturated, partially saturated or aromatic heterobicyclic ring which may optionally contain one to three heteroatoms from the group consisting of O, S and N, which rings are mono- or polysubstituted by identical or different substituents, where the substituents independently of one another are selected from the group consisting of SF_5, halogen, cyano, nitro, hydroxyl, amino, carboxyl, carbamoyl, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_6-haloalkyl, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-alkylsulphimino, C_1-C_4-alkylsulphimino-C_1-C_4-alkyl, C_1-C_4-alkylsulphimino-C_1-C_5-alkylcarbonyl, C_1-C_4-alkylsulphoximino, C_1-C_4-alkylsulphoximino-C_1-C_4-alkyl, C_1-C_4-alkylsulphoximino-C_2-C_5-alkylcarbonyl, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_3-C_6-trialkylsilyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino and C_3-C_6-cycloalkylamino, or a 3- to 6-membered ring, where the ring may optionally be substituted by C_1-C_6-alkyl, halogen, cyano, nitro, halo-(C_1-C_6)-alkyl, C_1-C_6-alkoxy or halo-(C_1-C_6)-alkoxy,

R^2 and R^3 may be linked with each other via two to six carbon atoms and form a ring which optionally

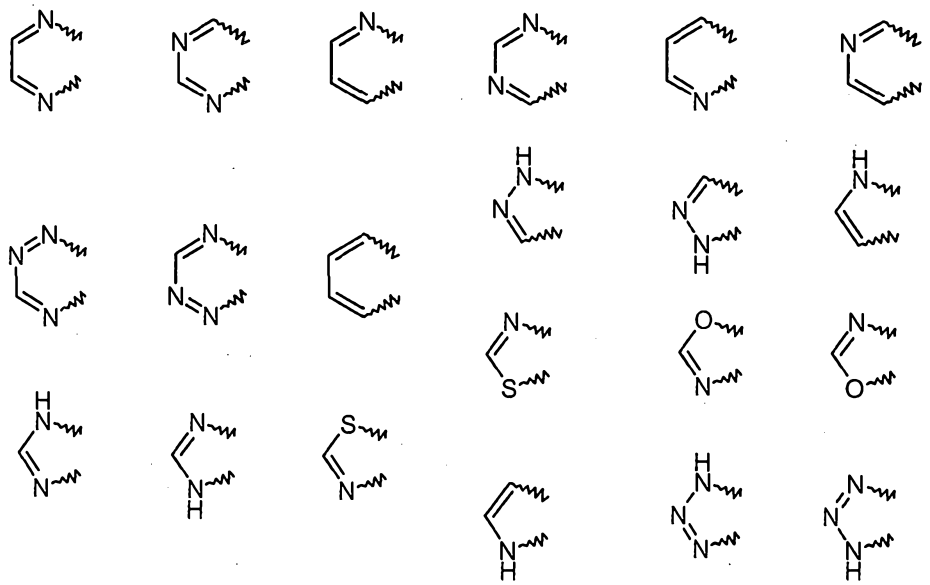
additionally contains a further nitrogen, sulphur or oxygen atom and which may optionally be mono- to tetrasubstituted by C_1-C_2-alkyl, C_1-C_2-haloalkyl, halogen, cyano, amino, C_1-C_2-alkoxy or C_1-C_2-haloalkoxy,

R^2, R^3 furthermore together represent $=S(C_1\text{-}C_4\text{-alkyl})_2$ or $=S(O)(C_1\text{-}C_4\text{-alkyl})_2$,

R^4 represents hydrogen, halogen, cyano, nitro C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_6-alkenyl, C_2-C_6-haloalkenyl, C_2-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, SF_5, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_4-alkoxy)imino, (C_1-C_4-alkyl)(C_1-C_4-alkoxy)imino, (C_1-C_4-haloalkyl)(C_1-C_4-alkoxy)imino or C_3-C_6-trialkylsilyl, or

two R^4, via adjacent carbon atoms, form a ring which represents $-(CH_2)_3-$, $-(CH_2)_4-$, $-(CH_2)_5-$, $-(CH{=}CH-)_2-$, $-OCH_2O-$, $-O(CH_2)_2O-$, $-OCF_2O-$, $-(CF_2)_2O-$, $-O(CF_2)_2O-$, $-(CH{=}CH-CH{=}N)-$ or $-(CH{=}CH-N{=}CH)-$,

two R^4 furthermore, via adjacent carbon atoms, form the fused rings below, which are optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_3-C_6-halocycloalkyl, halogen, C_1-C_6-alkoxy, C_1-C_4-alkylthio-(C_1-C_6-alkyl), C_1-C_4-alkylsulphinyl-(C_1-C_6-alkyl), C_1-C_4-alkylsulphonyl-(C_1-C_6-alkyl), C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino and C_3-C_6-cycloalkylamino,



n represents 0 to 3,

R^5 represents C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_1-C_6-halocycloalkyl, C_2-C_6-alkenyl, C_2-C_6-haloalkenyl, C_2-C_6-alkynyl, C_2-C_6-haloalkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-

alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, halogen, cyano, nitro or C_3-C_6-trialkylsilyl,

Q_X represents an aromatic or heteroaromatic 5- or 6-membered ring which is optionally mono- or polysubstituted by identical or different R^7 substituents and which may contain 1-3 heteroatoms from the group consisting of N, S and O,

A represents optionally mono- or polysubstituted -(C_1-C_6-alkylene)-, -(C_2-C_6-alkenylene)-, -(C_2-C_6-alkynylene)-, -R^8-(C_3-C_6-cycloalkyl)-R^8-, -R^8-O-R^8-, -R^8-S-R^8-, -R^8-S(=O)-R^8-, -R^8-S(=O)$_2$-R^8-, -R^8-N(C_1-C_6-alkyl)-R^8-, -R^8-C=NO(C_1-C_6-alkyl)-R^8, -CH[CO_2(C_1-C_6-alkyl)-, -R^8-C(=O)-R^8, -R^8-C(=O)NH-R^8, R^8-C(=O)N(C_1-C_6-alkyl)-R^8, -R^8-C(=O)NHNH-R^8-, -R^8-C(=O)N(C_1-C_6-alkyl)-NH-R^8-, -R^8-C(=O)NHN(C_1-C_6-alkyl)-R^8, -R^8-O(C=O)-R^8, -R^8-O(C=O)NH-R^8, -R^8-O(C=O)N(C_1-C_6-alkyl)-R^8, -R^8-S(=O)$_2$NH-R^8, -R^8-S(=O)$_2$N(C_1-C_6-alkyl)-R^8, -R^8-S(C=O)-R^8, -R^8-S(C=O)NH-R^8, -R^8-S(C=O)N(C_1-C_6-alkyl)-R^8, -R^8-NHNH-R^8, -R^8-NHN(C_1-C_6-alkyl)-R^8, -R^8-N(C_1-C_6-alkyl)-NH-R^8, -R^8-N(C_1-C_6-alkyl)-N(C_1-C_6-alkyl)-R^8, -R^8-N=CH-O-R^8, -R^8-NH(C=O)O-R^8, -R^8-N(C_1-C_6-alkyl)-(C=O)O-R^8, -R^8-NH(C=O)NH-R^8, -R^8-NH(C=S)NH-R^8, -R^8-NHS(=O)$_2$-R^8, R^8-NH-R^8, R^8-C(=O)-C(=O)-R^8, R^8-C(OH)-R^8, R^8-NH(C=O)-R^8, R^8-Qz-R^8 , R^8-C(=N-NR'$_2$)-R^8 , R^8-C(=C-R'$_2$)-R^8 or -R^8-N(C_1-C_6-alkyl)S(=O)$_2$-R^8,

where the substituents independently of one another may be selected from the group consisting of halogen, cyano, nitro, hydroxyl, C_1-C_6-alkyl, C_1-C_6-alkyloxy, halo-C_1-C_6-alkyl, amino, (C_1-C_6-alkyl)amino, di-(C_1-C_6-alkyl)amino and C_3-C_6-cycloalkyl

where -(C_3-C_6-cycloalkyl)- in the ring may optionally contain 1 or 2 heteroatoms selected from the group consisting of N, S and O,

R^8 represents straight-chain or branched -(C_1-C_6-alkylene)- or represents a direct bond,

where a plurality of R^8 independently of one another represent straight-chain or branched -(C_1-C_6-alkylene)- or represent a direct bond,

for example, R^8-O-R^8- represents -(C_1-C_6-alkylene)-O-(C_1-C_6-alkylene)-, -(C_1-C_6-alkylene)-O-, -O-(C_1-C_6-alkylene)-, or -O-,

where R' represents alkyl, alkylcarbonyl, alkenyl, alkynyl, which may optionally be mono- or polysubstituted by halogen,

Qz represents a 3- or 4-membered partially saturated or saturated or a 5- or 6-membered partially saturated, saturated or aromatic ring or represents a 6- to 10-membered bicyclic ring system,

where the ring or the bicyclic ring system may optionally contain 1-3 heteroatoms from the group

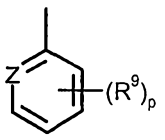
consisting of N, S and O,

where the ring or the bicyclic ring system is optionally mono- or polysubstituted by identical or different substituents and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carbamoyl, nitro, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkyl)aminocarbonyl and di-(C_1-C_4-alkyl)aminocarbonyl,

Q_Y represents a 5- or 6-membered partially saturated or saturated heterocyclic or heteroaromatic ring or an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system, where the ring or the ring system is optionally mono- or polysubstituted by identical or different substituents and the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carboxyl, carbamoyl, nitro, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkyl)aminocarbonyl, di-(C_1-C_4-alkyl)aminocarbonyl, tri-(C_1-C_2)alkylsilyl and (C_1-C_4-alkyl)(C_1-C_4-alkoxy)imino,

or where the substituents independently of one another may be selected from the group consisting of phenyl and a 5- or 6-membered heteroaromatic ring, where phenyl or the ring may optionally be mono- or polysubstituted by identical or different substituents from the group consisting of C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, nitro, hydroxyl, C_1-C_4-alkoxy and C_1-C_4-haloalkoxy,

R^7 represents hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_3-C_6-cycloalkoxy or



R^9 independently of one another represent hydrogen, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, halogen, cyano, nitro, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio or C_1-C_4-haloalkylthio,

p represents 0 to 4,

Z represents N, CH, CF, CCl, CBr or CI,

the compounds of the general formula (I) further comprise N-oxides and salts,

and one or more fungicides from group (II):

Fungicides:

(1) Ergosterol biosynthesis inhibitors, for example aldimorph, azaconazole, bitertanol, bromuconazole, cyproconazole, diclobutrazole, difenoconazole, diniconazole, diniconazole-M, dodemorph, dodemorph acetate, epoxiconazole, etaconazole, fenarimol, fenbuconazole, fenhexamid, fenpropidin, fenpropimorph, fluquinconazole, flurprimidol, flusilazole, flutriafol, furconazole, furconazole-cis, hexaconazole, imazalil, imazalil sulphate, imibenconazole, ipconazole, metconazole, myclobutanil, naftifin, nuarimol, oxpoconazole, paclobutrazole, pefurazoate, penconazole, piperalin, prochloraz, propiconazole, prothioconazole, pyributicarb, pyrifenox, quinconazole, simeconazole, spiroxamine, tebuconazole, terbinafine, tetraconazole, triadimefon, triadimenol, tridemorph, triflumizole, triforine, triticonazole, uniconazole, uniconazole-p, viniconazole, voriconazole, 1-(4-chlorophenyl)-2-(1H-1,2,4-triazol-1-yl)cycloheptanol, methyl 1-(2,2-dimethyl-2,3-dihydro-1H-inden-1-yl)-1H-imidazole-5-carboxylate, N'-{5-(difluoromethyl)-2-methyl-4-[3-(trimethylsilyl)propoxy]phenyl}-N-ethyl-N-methylimidoformamide, N-ethyl-N-methyl-N'-{2-methyl-5-(trifluoromethyl)-4-[3-(trimethylsilyl)propoxy]phenyl}imidoformamide and O-[1-(4-methoxyphenoxy)-3,3-dimethylbutan-2-yl] 1H-imidazole-1-carbothioate.

(2) Respiration inhibitors (respiratory chain inhibitors), such as, for example, bixafen, boscalid, carboxin, diflumetorim, fenfuram, fluopyram, flutolanil, fluxapyroxad, furametpyr, furmecyclox, isopyrazam mixture of the syn-epimeric racemate 1RS,4SR,9RS and of the anti-epimeric racemate 1RS,4SR,9SR, isopyrazam (anti-epimeric racemate), isopyrazam (anti-epimeric enantiomer 1R,4S,9S), isopyrazam (anti-epimeric enantiomer 1S,4R,9R), isopyrazam (syn-epimeric racemate 1RS,4SR,9RS), isopyrazam (syn-epimeric enantiomer 1R,4S,9R), isopyrazam (syn-epimeric enantiomer 1S,4R,9S), mepronil, oxycarboxin, penflufen, penthiopyrad, sedaxane, thifluzamid, 1-methyl-N-[2-(1,1,2,2-tetrafluoroethoxy)phenyl]-3-(trifluoromethyl)-1H-pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-[2-(1,1,2,2-tetrafluoroethoxy)phenyl]-1H-pyrazole-4-carboxamide, 3-(difluoromethyl)-N-[4-fluoro-2-(1,1,2,3,3,3-hexafluoropropoxy)phenyl]-1-methyl-1H-pyrazole-4-carboxamide, N-[1-(2,4-dichlorophenyl)-1-methoxypropan-2-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, 5,8-difluoro-N-[2-(2-fluoro-4-{[4-(trifluoromethyl)pyridin-2-yl]oxy}phenyl)ethyl]quinazoline-4-amine, N-

[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, N-[(1S,4R)-9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide and N-[(1R,4S)-9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide.

(3) Respiration inhibitors (respiratory chain inhibitors) acting on complex III of the respiratory chain, for example ametoctradin, amisulbrom, azoxystrobin, cyazofamid, coumethoxystrobin, coumoxystrobin, dimoxystrobin, enestroburin, famoxadone, fenamidone, fenoxystrobin, fluoxastrobin, kresoxim-methyl, metominostrobin, orysastrobin, picoxystrobin, pyraclostrobin, pyrametostrobin, pyraoxystrobin, pyribencarb, triclopyricarb, trifloxystrobin, (2E)-2-(2-{[6-(3-chloro-2-methylphenoxy)-5-fluoropyrimidin-4-yl]oxy}phenyl)-2-(methoxyimino)-N-methylethanamide, (2E)-2-(methoxyimino)-N-methyl-2-(2-{[({(1E)-1-[3-(trifluoromethyl)phenyl]ethylidene}amino)oxy]methyl}phenyl)ethanamide, (2E)-2-(methoxyimino)-N-methyl-2-{2-[(E)-({1-[3-(trifluoromethyl)phenyl]ethoxy}imino)methyl]phenyl}ethanamide, (2E)-2-{2-[({[(1E)-1-(3-{[(E)-1-fluoro-2-phenylethenyl]oxy}phenyl)ethylidene]amino}oxy)methyl]phenyl}-2-(methoxyimino)-N-methylethanamide, (2E)-2-{2-[({[(2E,3E)-4-(2,6-dichlorophenyl)but-3-en-2-ylidene]amino}oxy)methyl]phenyl}-2-(methoxyimino)-N-methylethanamide, 2-chloro-N-(1,1,3-trimethyl-2,3-dihydro-1H-inden-4-yl)pyridine-3-carboxamide, 5-methoxy-2-methyl-4-(2-{[({(1E)-1-[3-(trifluoromethyl)phenyl]ethylidene}amino)oxy]methyl}phenyl)-2,4-dihydro-3H-1,2,4-triazol-3-one, methyl (2E)-2-{2-[({cyclopropyl[(4-methoxyphenyl)imino]methyl}sulphanyl)methyl]phenyl}-3-methoxyprop-2-enoate, N-(3-ethyl-3,5,5-trimethylcyclohexyl)-3-(formylamino)-2-hydroxybenzamide, 2-{2-[(2,5-dimethylphenoxy)methyl]phenyl}-2-methoxy-N-methylacetamide and (2R)-2-{2-[(2,5-dimethylphenoxy)methyl]phenyl}-2-methoxy-N-methylacetamide.

(4) Mitosis and cell division inhibitors, for example benomyl, carbendazim, chlorfenazole, diethofencarb, ethaboxam, fluopicolide, fuberidazole, pencycuron, thiabendazole, thiophanate-methyl, thiophanate, zoxamide, 5-chloro-7-(4-methylpiperidin-1-yl)-6-(2,4,6-trifluorophenyl)[1,2,4]triazolo[1,5-a]pyrimidine and 3-chloro-5-(6-chloropyridin-3-yl)-6-methyl-4-(2,4,6-trifluorophenyl)pyridazine.

(5) Compounds with multisite activity, for example Bordeaux mixture, captafol, captan, chlorothalonil, copper preparations such as copper hydroxide, copper naphthenate, copper oxide, copper oxychloride, copper sulphate, dichlofluanid, dithianon, dodine, dodine free base, ferbam, fluorofolpet, folpet, guazatine, guazatine acetate, iminoctadine, iminoctadine albesilate, iminoctadine triacetate, mancopper, mancozeb, maneb, metiram, metiram zinc, oxine-copper, propamidine, propineb, sulphur and sulphur preparations, for example calcium polysulphide, thiram, tolylfluanid, zineb and ziram.

(6) Resistance inductors, for example acibenzolar-S-methyl, isotianil, probenazole and tiadinil.

(7) Amino acid and protein biosynthesis inhibitors, for example andoprim, blasticidin-S, cyprodinil, kasugamycin, kasugamycin hydrochloride hydrate, mepanipyrim, pyrimethanil and 3-(5-fluoro-3,3,4,4-tetramethyl-3,4-dihydroisoquinolin-1-yl)quinoline.

(8) ATP production inhibitors, for example fentin acetate, fentin chloride, fentin hydroxide and silthiofam.

(9) Cell wall synthesis inhibitors, for example benthiavalicarb, dimethomorph, flumorph, iprovalicarb, mandipropamid, polyoxins, polyoxorim, validamycin A and valifenalate.

(10) Lipid and membrane synthesis inhibitors, for example biphenyl, chloroneb, dicloran, edifenphos, etridiazole, iodocarb, iprobenfos, isoprothiolane, propamocarb, propamocarb hydrochloride, prothiocarb, pyrazophos, quintozene, tecnazene and tolclofos-methyl.

(11) Melanin biosynthesis inhibitors, such as, for example, carpropamid, diclocymet, fenoxanil, phthalide, pyroquilon, tricyclazole and 2,2,2-trifluoroethyl {3-methyl-1-[(4-methylbenzoyl)amino]butan-2-yl}carbamate.

(12) Nucleic acid synthesis inhibitors, for example benalaxyl, benalaxyl-M (kiralaxyl), bupirimate, clozylacon, dimethirimol, ethirimol, furalaxyl, hymexazol, metalaxyl, metalaxyl-M (mefenoxam), ofurace, oxadixyl and oxolinic acid.

(13) Signal transduction inhibitors, for example chlozolinate, fenpiclonil, fludioxonil, iprodione, procymidone, quinoxyfen and vinclozolin.

(14) Decouplers, for example binapacryl, dinocap, ferimzone, fluazinam and meptyldinocap.

(15) Further compounds, for example benthiazole, bethoxazin, capsimycin, carvone, chinomethionat, pyriofenone (chlazafenone), cufraneb, cyflufenamid, cymoxanil, cyprosulfamide, dazomet, debacarb, dichlorophen, diclomezine, difenzoquat, difenzoquat methylsulphate, diphenylamine, ecomat, fenpyrazamine, flumetover, fluoromide, flusulfamide, flutianil, fosetyl-aluminium, fosetyl-calcium, fosetyl-sodium, hexachlorobenzene, irumamycin, methasulfocarb, methyl isothiocyanate, metrafenon,

mildiomycin, natamycin, nickel dimethyldithiocarbamate, nitrothal-isopropyl, octhilinone, oxamocarb, oxyfenthiin, pentachlorophenol and salts thereof, phenothrin, phosphoric acid and salts thereof, propamocarb-fosetylate, propanosine-sodium, proquinazid, pyrimorph, pyrrolnitrin, tebufloquin, tecloftalam, tolnifanid, triazoxide, trichlamide, zarilamide, (3S,6S,7R,8R)-8-benzyl-3-[({3-[(isobutyryloxy)methoxy]-4-methoxypyridin-2-yl}carbonyl)amino]-6-methyl-4,9-dioxo-1,5-dioxonan-7-yl 2-methylpropanoate, 1-(4-{4-[(5R)-5-(2,6-difluorophenyl)-4,5-dihydro-1,2-oxazol-3-yl]-1,3-thiazol-2-yl}piperidin-1-yl)-2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]ethanone, 1-(4-{4-[(5S)-5-(2,6-difluorophenyl)-4,5-dihydro-1,2-oxazol-3-yl]-1,3-thiazol-2-yl}piperidin-1-yl)-2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]ethanone, 1-(4-{4-[5-(2,6-difluorophenyl)-4,5-dihydro-1,2-oxazol-3-yl]-1,3-thiazol-2-yl}piperidin-1-yl)-2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]ethanone, 1-(4-methoxyphenoxy)-3,3-dimethylbutan-2-yl 1H-imidazole-1-carboxylate, 2,3,5,6-tetrachloro-4-(methylsulphonyl)pyridine, 2,3-dibutyl-6-chlorothieno[2,3-d]pyrimidin-4(3H)-one, 2,6-dimethyl-1H,5H-[1,4]dithiino[2,3-c:5,6-c']dipyrrole-1,3,5,7(2H,6H)-tetrone, 2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]-1-(4-{4-[(5R)-5-phenyl-4,5-dihydro-1,2-oxazol-3-yl]-1,3-thiazol-2-yl}piperidin-1-yl)ethanone, 2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]-1-(4-{4-[(5S)-5-phenyl-4,5-dihydro-1,2-oxazol-3-yl]-1,3-thiazol-2-yl}piperidin-1-yl)ethanone, 2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]-1-{4-[4-(5-phenyl-4,5-dihydro-1,2-oxazol-3-yl)-1,3-thiazol-2-yl]piperidin-1-yl}ethanone, 2-butoxy-6-iodo-3-propyl-4H-chromen-4-one, 2-chloro-5-[2-chloro-1-(2,6-difluoro-4-methoxyphenyl)-4-methyl-1H-imidazol-5-yl]pyridine, 2-phenylphenol and salts thereof, 3-(4,4,5-trifluoro-3,3-dimethyl-3,4-dihydroisoquinolin-1-yl)quinoline, 3,4,5-trichloropyridine-2,6-dicarbonitrile, 3-[5-(4-chlorophenyl)-2,3-dimethyl-1,2-oxazolidin-3-yl]pyridine, 3-chloro-5-(4-chlorophenyl)-4-(2,6-difluorophenyl)-6-methylpyridazine, 4-(4-chlorophenyl)-5-(2,6-difluorophenyl)-3,6-dimethylpyridazine, 5-amino-1,3,4-thiadiazole-2-thiol, 5-chloro-N'-phenyl-N'-(prop-2-yn-1-yl)thiophene-2-sulphonohydrazide, 5-fluoro-2-[(4-fluorobenzyl)oxy]pyrimidine-4-amine, 5-fluoro-2-[(4-methylbenzyl)oxy]pyrimidine-4-amine, 5-methyl-6-octyl[1,2,4]triazolo[1,5-a]pyrimidine-7-amine, ethyl (2Z)-3-amino-2-cyano-3-phenylprop-2-enoate, N'-(4-{[3-(4-chlorobenzyl)-1,2,4-thiadiazol-5-yl]oxy}-2,5-dimethylphenyl)-N-ethyl-N-methylimidoformamide, N-(4-chlorobenzyl)-3-[3-methoxy-4-(prop-2-yn-1-yloxy)phenyl]propanamide, N-[(4-chlorophenyl)(cyano)methyl]-3-[3-methoxy-4-(prop-2-yn-1-yloxy)phenyl]propanamide, N-[(5-bromo-3-chloropyridin-2-yl)methyl]-2,4-dichloropyridine-3-carboxamide, N-[1-(5-bromo-3-chloropyridin-2-yl)ethyl]-2,4-dichloropyridine-3-carboxamide, N-[1-(5-bromo-3-chloropyridin-2-yl)ethyl]-2-fluoro-4-iodopyridine-3-carboxamide, N-{(E)-[(cyclopropylmethoxy)imino][6-(difluoromethoxy)-2,3-difluorophenyl]methyl}-2-phenylacetamide, N-{(Z)-[(cyclopropylmethoxy)imino][6-(difluoromethoxy)-2,3-difluorophenyl]methyl}-2-phenylacetamide, N'-{4-[(3-tert-butyl-4-cyano-1,2-thiazol-5-yl)oxy]-2-chloro-5-methylphenyl}-N-ethyl-N-methylimidoformamide, N-methyl-2-(1-{[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl}piperidin-4-yl)-N-(1,2,3,4-tetrahydronaphthalen-1-yl)-1,3-thiazole-4-carboxamide, N-methyl-2-(1-{[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl}piperidin-4-yl)-N-[(1R)-1,2,3,4-

tetrahydronaphthalen-1-yl]-1,3-thiazole-4-carboxamide, N-methyl-2-(1-{[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl}piperidin-4-yl)-N-[(1S)-1,2,3,4-tetrahydronaphthalen-1-yl]-1,3-thiazole-4-carboxamide, pentyl {6-[({[(1-methyl-1H-tetrazol-5-yl)(phenyl)methylidene]amino}oxy)methyl]pyridin-2-yl}carbamate, phenazine-1-carboxylic acid, quinolin-8-ol, quinolin-8-ol sulphate (2:1) and tert-butyl {6-[({[(1-methyl-1H-tetrazol-5-yl)(phenyl)methylene]amino}oxy)methyl]pyridin-2-yl}carbamate.

(16) further compounds, for example 1-methyl-3-(trifluoromethyl)-N-[2'-(trifluoromethyl)biphenyl-2-yl]-1H-pyrazole-4-carboxamide, N-(4'-chlorobiphenyl-2-yl)-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, N-(2',4'-dichlorobiphenyl-2-yl)-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-[4'-(trifluoromethyl)biphenyl-2-yl]-1H-pyrazole-4-carboxamide, N-(2',5'-difluorobiphenyl-2-yl)-1-methyl-3-(trifluoromethyl)-1H-pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-[4'-(prop-1-yn-1-yl)biphenyl-2-yl]-1H-pyrazole-4-carboxamide, 5-fluoro-1,3-dimethyl-N-[4'-(prop-1-yn-1-yl)biphenyl-2-yl]-1H-pyrazole-4-carboxamide, 2-chloro-N-[4'-(prop-1-yn-1-yl)biphenyl-2-yl]pyridine-3-carboxamide, 3-(difluoromethyl)-N-[4'-(3,3-dimethylbut-1-yn-1-yl)biphenyl-2-yl]-1-methyl-1H-pyrazole-4-carboxamide, N-[4'-(3,3-dimethylbut-1-yn-1-yl)biphenyl-2-yl]-5-fluoro-1,3-dimethyl-1H-pyrazole-4-carboxamide, 3-(difluoromethyl)-N-(4'-ethynylbiphenyl-2-yl)-1-methyl-1H-pyrazole-4-carboxamide, N-(4'-ethynylbiphenyl-2-yl)-5-fluoro-1,3-dimethyl-1H-pyrazole-4-carboxamide, 2-chloro-N-(4'-ethynylbiphenyl-2-yl)pyridine-3-carboxamide, 2-chloro-N-[4'-(3,3-dimethylbut-1-yn-1-yl)biphenyl-2-yl]pyridine-3-carboxamide, 4-(difluoromethyl)-2-methyl-N-[4'-(trifluoromethyl)biphenyl-2-yl]-1,3-thiazole-5-carboxamide, 5-fluoro-N-[4'-(3-hydroxy-3-methylbut-1-yn-1-yl)biphenyl-2-yl]-1,3-dimethyl-1H-pyrazole-4-carboxamide, 2-chloro-N-[4'-(3-hydroxy-3-methylbut-1-yn-1-yl)biphenyl-2-yl]pyridine-3-carboxamide, 3-(difluoromethyl)-N-[4'-(3-methoxy-3-methylbut-1-yn-1-yl)biphenyl-2-yl]-1-methyl-1H-pyrazole-4-carboxamide, 5-fluoro-N-[4'-(3-methoxy-3-methylbut-1-yn-1-yl)biphenyl-2-yl]-1,3-dimethyl-1H-pyrazole-4-carboxamide, 2-chloro-N-[4'-(3-methoxy-3-methylbut-1-yn-1-yl)biphenyl-2-yl]pyridine-3-carboxamide, (5-bromo-2-methoxy-4-methylpyridin-3-yl)(2,3,4-trimethoxy-6-methylphenyl)methanone and N-[2-(4-{[3-(4-chlorophenyl)prop-2-yn-1-yl]oxy}-3-methoxyphenyl)ethyl]-N2-(methylsulphonyl)valinamide, 4-oxo-4-[(2-phenylethyl)amino]butanoic acid and but-3-yn-1-yl {6-[({[(Z)-(1-methyl-1H-tetrazol-5-yl)(phenyl)methylene]amino}oxy)methyl]pyridin-2-yl}carbamate

are highly suitable for controlling anwanted animal pests such as insects, acaricides and/or nematodes and also unwanted phytopathogenic fungi.

If, within this description, the short form of the common name of an active compound is used, this in each case encompasses all common derivatives, such as the esters and salts, and isomers, especially optical isomers, especially the commercial form or forms. If an ester or salt is referred to by the common name, this also refers in each case to all other common derivatives, such as other esters and salts, the free acids and neutral compounds, and isomers, especially optical isomers, especially the

commercial form or forms. The chemical compound names mentioned refer to at least one of the compounds encompassed by the common name, frequently a preferred compound.

Surprisingly, the insecticidal, acaricidal, nematicidal and fungicidal action of the active compound combinations according to the invention is considerably higher than the total of the actions of the individual active compounds. A true synergistic effect which could not have been predicted exists, not just a complementation of action.

Preference is given to combinations comprising at least one of the active compounds of the formula (I) mentioned as being preferred, particularly preferred, very particularly preferred or especially preferred and one or more active compounds selected from group (II).

Preferred, particularly preferred, very particularly preferred or especially preferred are active compounds of the formula (I) where

R^1 preferably represents hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, cyano-(C_1-C_6-alkyl), C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_1-C_4-alkoxy-C_1-C_4-alkyl, C_1-C_4-alkylthio-C_1-C_4-alkyl, C_1-C_4-alkylsulphinyl-C_1-C_4-alkyl or C_1-C_4-alkylsulphonyl-C_1-C_4-alkyl,

R^1 particularly preferably represents hydrogen, methyl, ethyl, cyclopropyl, cyanomethyl, methoxymethyl, methylthiomethyl, methylsulphinylmethyl or methylsulphonylmethyl,

R^1 very particularly preferably represents hydrogen,

R^2 preferably represents hydrogen or C_1-C_6-alkyl,

R^2 particularly preferably represents hydrogen or methyl,

R^2 very particularly preferably represents hydrogen,

R^3 preferably represents hydrogen or represents C_1-C_4-alkyl, C_1-C_4-alkoxy, C_2-C_4-alkenyl, C_2-C_4-alkynyl, C_3-C_6-cycloalkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of halogen, cyano, carboxyl, carbamoyl, nitro, hydroxyl, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-alkoxycarbonyl, C_1-C_4-alkylcarbonyl or a phenyl ring or a 4-, 5- or 6-membered aromatic, partially saturated or saturated heterocyclic ring, where the phenyl ring or heterocyclic ring is optionally mono- or polysubstituted by identical or different substituents and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-

haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carboxyl, carbamoyl, NO_2, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl or

R^3 preferably represents C_2-C_4-alkoxycarbonyl, C_2-C_4-alkylcarbonyl, C_2-C_4-alkylaminocarbonyl or C_2-C_4-dialkylaminocarbonyl, or

R^3 preferably represents a phenyl ring, a 5- or 6-membered aromatic heterocyclic ring or a 4-, 5- or 6-membered partially saturated or saturated heterocyclic ring which may contain 1-3 heteroatoms from the group consisting of N, S and O, where the phenyl ring or heterocyclic ring is optionally mono- or polysubstituted by identical or different substituents, and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_4-alkyl, C_2-C_4-alkenyl, C_2-C_4-alkynyl, C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl, C_2-C_4-haloalkenyl, C_2-C_4-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carboxyl, carbamoyl, NO_2, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_4-alkyl)carbonyl and (C_1-C_4-alkoxy)carbonyl,

R^3 particularly preferably represents hydrogen or represents C_1-C_4-alkyl or C_3-C_6-cycloalkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of halogen, cyano, carboxyl, hydroxyl, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_2-C_4-alkoxycarbonyl, C_2-C_6-alkylcarbonyl and a phenyl ring and a 4-, 5- or 6-membered aromatic, partially saturated or saturated heterocyclic ring, where the phenyl ring or heterocyclic ring is optionally mono- or polysubstituted by identical or different substituents, and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl, C_2-C_4-haloalkenyl, C_2-C_4-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, hydroxyl, C_1-C_4-alkoxy and C_1-C_4-haloalkoxy, or

R^3 particularly preferably represents C_2-C_4-alkoxycarbonyl, C_2-C_4-alkylcarbonyl or C_2-C_4-alkylaminocarbonyl, or

R^3 particularly preferably represents a phenyl ring, a 5- or 6-membered aromatic heterocyclic ring or a 4-, 5- or 6-membered partially saturated or saturated heterocyclic ring which may contain 1-3 heteroatoms from the group consisting of N, S and O, where the phenyl ring or heterocyclic ring is optionally mono- or polysubstituted by identical or different substituents, and where the

substituents indepenedently of one another may be selected from the group consisting of hydrogen, C_1-C_4-alkyl, C_2-C_4-alkenyl, C_2-C_4-alkynyl, C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl, C_2-C_4-haloalkenyl, C_2-C_4-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carbamoyl, NO_2, hydroxyl, C_1-C_4-alkoxy and C_1-C_4-haloalkoxy, or

R^3 very particularly preferably represents hydrogen, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, cyclopropyl, cyclobutyl, azetidine, oxetane, thietane, pyrrolidine, pyrazolidine, imidazolidine, imidazolidinone, tetrahydrofuran, tetrahydrothiophene, tetrahydrothiophene dioxide, thiazoline, thiazolidine, piperidine, piperazine, tetrahydropyran, dihydrofuranone, dioxane, morpholine, thiomorpholine, thiomorpholine dioxide, phenyl or pyridyl, or

R^3 especially preferably represents hydrogen, methyl, isopropyl, cyclopropyl or tert-butyl.

R^4 preferably represents hydrogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, halogen, cyano, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio or C_1-C_4-haloalkylthio,

two adjacent radicals R^4 likewise preferably represent $-(CH_2)_3-$, $-(CH_2)_4-$, $-(CH_2)_5-$, $-(CH=CH-)_2-$, $-OCH_2O-$, $-O(CH_2)_2O-$, $-OCF_2O-$, $-(CF_2)_2O-$, $-O(CF_2)_2O-$, $-(CH=CH-CH=N)-$ or $-(CH=CH-N=CH)-$,

R^4 particularly preferably represents hydrogen, C_1-C_4-alkyl, C_1-C_2-haloalkyl, halogen, cyano or C_1-C_2-haloalkoxy,

two adjacent radicals R^4 particularly preferably represent $-(CH_2)_4-$, $-(CH=CH-)_2-$, $-O(CH_2)_2O-$, $-O(CF_2)_2O-$, $-(CH=CH-CH=N)-$ or $-(CH=CH-N=CH)-$,

R^4 very particularly preferably represents hydrogen, methyl, trifluoromethyl, cyano, fluorine, chlorine, bromine, iodine or trifluoromethoxy. Moreover, two adjacent radicals R^4 very particularly preferably represent $-(CH_2)_4-$ or $-(CH=CH-)_2-$.

R^4 especially preferably represents chlorine, fluorine or bromine,

R^4 furthermore especially preferably represents iodine or cyano,

two adjacent radicals R^4 especially preferably represent $-(CH=CH-)_2$

n preferably represents 0, 1 or 2,

n particularly preferably represents 1 or 2,

n very particularly preferably represents 1,

R^5 preferably represents C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl, C_1-C_6-halocycloalkyl, C_2-C_6-alkenyl, C_2-C_4-haloalkenyl, C_2-C_4-alkynyl, C_2-C_4-haloalkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, halogen, cyano, nitro or C_3-C_6-trialkylsilyl,

R^5 particularly preferably represents C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl, C_1-C_6-halocycloalkyl, C_2-C_6-alkenyl, C_2-C_4-haloalkenyl, C_2-C_4-alkynyl, C_2-C_4-haloalkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, fluorine, chlorine, bromine, iodine, cyano, nitro or C_3-C_6-trialkylsilyl,

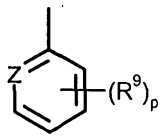
R^5 very particularly preferably represents methyl, fluorine, chlorine, bromine or iodine,

R^5 especially preferably represents methyl or chlorine,

Q_X preferably represents a 5- or 6-membered heteroaromatic ring which is optionally mono- or polysubstituted by identical or different R^7 and which may contain 1-3 heteroatoms from the group consisting of N, O and S, or represents phenyl,

Q_X particularly preferably represents a 5- or 6-membered ring selected from the group consisting of furan, thiophene, triazole, imidazole, thiazole, oxazole, isoxazole, isothiazole, thiadiazole, oxadiazole, pyrrole, pyridine, pyrimidine, pyridazine, pyrazine, phenyl or pyrazole, which ring is optionally mono- or polysubstituted by identical or different R^7,

Q_X very particularly preferably represents thiazole, oxazole, pyrrole, imidazole, triazole, pyrimidine, phenyl or represents pyrazole which is monosubstituted by the group R^7,



where Z, R and p may have the general definitions given above or the preferred or particularly preferred definitions given below,

A preferably represents optionally mono- or polysubstituted -(C_1-C_4-alkylene)-, -(C_2-C_4-alkenylene)-, -(C_2-C_4-alkynylene)-, -R^8-(C_3-C_6-cycloalkyl)-R^8-, -R^8-O-R^8-, -R^8-S-R^8-, -R^8-S(=O)-R^8-, -R^8-S(=O)$_2$-R^8-, -R^8-NH-(C_1-C_4-alkyl)-, -R^8-N(C_1-C_4-alkyl)-R^8, -R^8-C=NO(C_1-C_4-alkyl), -R^8-C(=O)-R^8, -R^8-C(=S)-R^8, -R^8-C(=O)NH-R^8, R^8-C(=O)N(C_1-C_4-alkyl)-R^8, -R^8-S(=O)$_2$NH-R^8, -R^8-S(=O)$_2$N(C_1-C_4-alkyl)-R^8, -R^8-NH(C=O)O-R^8, -R^8-N(C_1-C_4-alkyl)-(C=O)O-R^8, -R^8-NH(C=O)NH-R^8, -R^8-NHS(=O)$_2$-R^8, -R^8-N(C_1-C_4-alkyl)S(=O)$_2$-R^8, R^8-NH-R^8, R^8-C(=O)-C(=O)-R^8, R^8-C(OH)-R^8 or R^8-Qz-R^8,

where the substituents independently of one another may be selected from the group consisting of halogen, cyano, nitro, hydroxyl, C_1-C_6-alkyl, C_1-C_6-alkoxy and halo-C_1-C_6-alkyl,

where Qz may have the general definitions given above or the preferred or particularly preferred definitions given below,

A particularly preferably represents $-CH_2-$, $-CH_2O-$, $-CH_2OCH_2-$, $-CH_2S-$, $-CH_2SCH_2-$, $-CH_2N(C_1-C_4$-alkyl)-, $-CH_2N(C_1-C_4$-alkyl)CH_2-, -CH(Hal)-, $-C(Hal)_2-$, -CH(CN)-, $CH_2(CO)-$, $CH_2(CS)-$, $CH_2CH(OH)-$, -cyclopropyl-, $CH_2(CO)CH_2-$, $-CH(C_1-C_4$-Alkyl)-, $-C($di-C_1-C_6-alkyl)-, $-CH_2CH_2-$, -CH=CH-, -C≡C-, $-C=NO(C_1-C_6$-alkyl) or $-C(=O)(C_1-C_4$-alkyl)-,

A very particularly preferably represents $-CH_2-$, $-CH(CH_3)$, $C(CH_3)_2$, $-CH_2CH_2-$, -CH(CN)-, $-CH_2O-$ or $-C(=O)-CH_2-$,

A especially preferably represents CH_2, $CH(CH_3)$, $-CH_2O-$ or $-C(=O)-CH_2-$,

Qz preferably represents a 3- or 4-membered partially saturated or saturated or a 5- or 6-membered partially saturated, saturated or aromatic ring, where the ring may optionally contain 1-3 heteroatoms from the group consisting of N, S and O,

where the ring is optionally mono- or polysubstituted by identical or different substituents, and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl and C_1-C_4-haloalkylsulphonyl,

Qz particularly preferably represents a 3- or 4-membered partially saturated or saturated or a 5-membered partially saturated, saturated or aromatic ring, where the ring may optionally contain 1-2 heteroatoms from the group consisting of N, S and O,

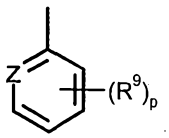
where the ring is optionally mono- or polysubstituted by identical or different substituents, and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl and C_1-C_4-haloalkylsulphonyl,

Qz very particularly preferably represents azetidine, oxetane or thietane, pyrrolidine, pyrroline, pyrazolidine, pyrazoline, imidazolidine, imidazolidone, imidazoline, tetrahydrofuran,

tetrahydrothiophene, thiazolidine, isothiazolidine or isoxazoline,

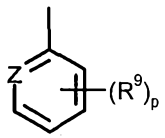
which is optionally mono- or polysubstituted by identical or different substituents, and where the substituents independently of one another may be selected from the group consisting of hydrogen, methyl, ethyl, isopropyl, hydroxyl, methoxy, trifluoromethoxy, fluorine, chlorine, bromine, cyano, difluoromethyl, trifluoromethyl,

R^7 preferably represents C_1-C_6-alkyl or represents the radical



R^7 furthermore preferably represents C_3-C_6-cycloalkoxy,

R^7 particularly preferably represents methyl or represents the radical



R^9 independently of one another preferably represent hydrogen, halogen, cyano, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkyl, C_1-C_4-haloalkoxy, C_1-C_4-haloalkylsulphonyl or (C_1-C_4-alkyl)-C_1-C_4-alkoxyimino,

R^9 independently of one another particularly preferably represent hydrogen, halogen, cyano or C_1-C_4-haloalkyl,

R^9 independently of one another very particularly preferably represent fluorine, chlorine or bromine,

R^9 especially preferably represents chlorine,

p preferably represents 1, 2 or 3,

p particularly preferably represents 1 or 2,

p very particularly preferably represents 1,

Z preferably represents N, CH, CF, CCl, CBr or CI,

Z particularly preferably represents N, CH, CF, CCl or CBr,

Z very particularly preferably represents N, CCl or CH,

R^8 preferably represents straight-chain or branched -(C_1-C_4-alkylene)- or represents a direct bond,

R^8 particularly preferably represents methyl, ethyl, propyl, isopropyl, n-butyl, sec-butyl or isobutyl or a direct bond,

R^8 very particularly preferably represents methyl or ethyl or a direct bond,

Q_Y preferably represents a 5- or 6-membered partially saturated or saturated heterocyclic or heteroaromatic ring or an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system, where the heteroatoms may be selected from the group consisting of N, S and O, where the ring or the ring system is optionally mono- or polysubstituted by identical or different substituents, and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carboxyl, carbamoyl, nitro, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl,

or where the substituents independently of one another may be selected from the group consisting of phenyl and a 5- or 6-membered heteroaromatic ring, where phenyl or the ring may optionally be mono- or polysubstituted by identical or different substituents from the group consisting of C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, nitro, hydroxyl, C_1-C_4-alkoxy and C_1-C_4-haloalkoxy,

Q_Y particularly preferably represents an optionally mono- or polysubstituted 5- or 6-membered heteroaromatic ring from the group consisting of Q-1 to Q-53 and Q-58 to Q-59, Q62 to Q63, an aromatic 9-membered fused heterobicyclic ring system Q-54 to Q-56 or a 5-membered heterocyclic ring Q-60 to Q-61, where the substituents independently of one another may be selected from the group consisting of C_1-C_3-alkyl, C_1-C_3-haloalkyl, C_1-C_2-alkoxy, halogen, cyano, hydroxyl, nitro or C_1-C_2-haloalkoxy,

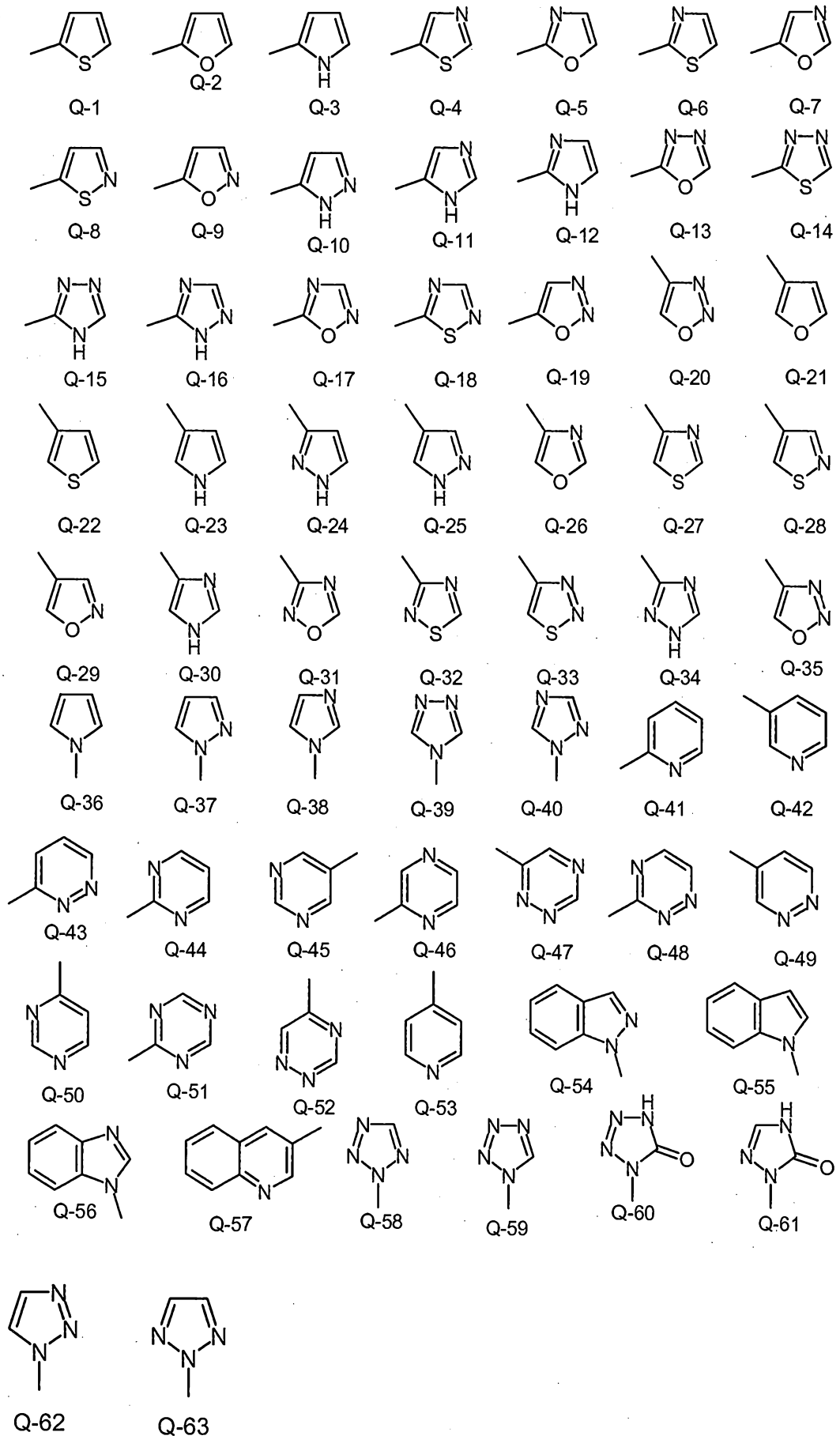
or where the substituents independently of one another may be selected from the group consisting of phenyl and a 5- or 6-membered heteroaromatic ring, where phenyl or the ring may optionally be mono- or polysubstituted by identical or different substituents from the group consisting of C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, NO_2, hydroxyl, C_1-C_4-alkoxy and C_1-C_4-haloalkoxy,

Q_Y very particularly preferably represents an optionally mono- or polysubstituted 5- or 6-membered heteroaromatic ring from the group consisting of Q-36 to Q-40, Q43, Q-58 to Q-59, Q62, Q63, an aromatic 9-membered fused heterobicyclic ring system Q-54 to Q-56 or a 5-membered heterocyclic ring Q-60 to Q-61, where the substituents independently of one another may be selected from the group consisting of C_1-C_3-alkyl, C_1-C_3-haloalkyl, C_1-C_2-alkoxy, halogen, cyano, hydroxyl, nitro or C_1-C_2-haloalkoxy,

or where the substituents independently of one another may be selected from the group consisting of phenyl and a 5- or 6-membered heteroaromatic ring, where phenyl or the ring may optionally be mono- or polysubstituted by identical or different substituents from the group consisting of C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, nitro, C_1-C_4-alkoxy and C_1-C_4-haloalkoxy,

Q_Y especially preferably represents a heteroaromatic ring from the group consisting of Q-37, Q-38, Q-39, Q-40, Q43, Q-58, Q-59, Q62 and Q63 which is optionally mono- or polysubstituted by identical or different substituents, or represents a 5-membered heterocyclic ring Q-60, where the substituents independently of one another may be selected from the group consisting of methyl, ethyl, cyclopropyl, tert-butyl, chlorine, fluorine, iodine, bromo, cyano, nitro, difluoromethyl, trifluoromethyl, pentafluoroethyl, n-heptafluoropropyl and isoheptafluoropropyl

or where the substituents independently of one another may be selected from the group consisting of phenyl and a 5- or 6-membered heteroaromatic ring, where the substituents independently of one another may be selected from the group consisting of methyl, ethyl, cyclopropyl, tert-butyl, chlorine, fluorine, iodine, bromine, cyano, nitro, difluoromethyl, trifluoromethyl, pentafluorethyl, n-heptafluoropropyl and isoheptafluoropropyl.



Independently of one another, the rings or ring systems listed above may additionally be substituted by

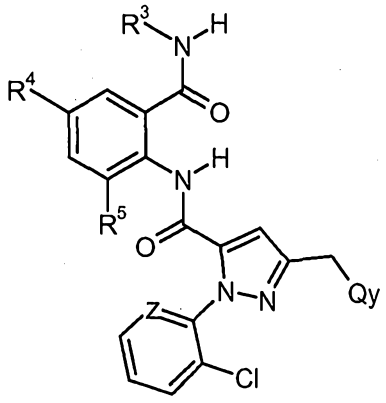
oxo, thioxo, (=O)=NH, (=O)=N-CN, $(=O)_2$. Tetrahydrothiophene dioxide and imidazolidone may be mentioned by way of example.

In this case, the oxo group as substituent at a ring carbon atom, for example, is a carbonyl group in the heterocyclic ring. As a result, lactones and lactams are preferably also included. The oxo group may also be present at the hetero ring atoms which can occur in various oxidation states, for example at N and S, in which case they form, for example, the divalent groups -N(O)-, -S(O)- (also abbreviated as SO) and $-S(O)_2-$ (also abbreviated as SO_2) in the heterocyclic ring. In the case of –N(O)- and –S(O)- groups, in each case both enantiomers are included.

At a heterocyclic ring, substituents other than the oxo group may also be attached to a heteroatom, for example at a nitrogen atom, if during the process a hydrogen atom at the nitrogen atom of the parent structure is replaced. In the case of the nitrogen atom and also other heteroatoms such as, for example, the sulphur atom, further substitution with formation of quaternary ammonium compounds or sulphonium compounds is also possible.

In particular, the compounds of the formula (I) can be present in the form of various regioisomers. For example in the form of mixtures of compounds having the definition Q62 or Q63 or in the form of mixtures of Q58 and Q59. Accordingly, the invention also embraces active compound combinations comprising mixtures of compounds of the formula (I) where Q_Y has the meanings Q62 and Q63, and also Q58 and Q59, and the compounds may be present in various mixing ratios, and one or more active compounds from group (II). Preference is given here to mixing ratios of compounds of the formula (I) in which the radical Q_Y represents Q62 or Q58 to compounds of the formula (I) in which the radical Qy represents Q63 or Q59 of from 60:40 to 99:1, particularly preferably from 70:30 to 97:3, very particularly preferably from 80:20 to 95:5. Special preference is given to the following mixing ratios of a compound of the formula (I) where Q_Y has the meaning Q62 or Q58 to a compound of the formula (I) where Q_Y has the meaning Q63 or Q59: 80:20; 81:19; 82:18; 83:17; 84:16; 85:15, 86:14; 87:13; 88:12; 89:11; 90:10, 91:9; 92:8; 93:7; 96:6; 95:5.

Preference is furthermore given to active compound combinations comprising at least one active compound of the formula (I-1)



(I-1)

in which

R^3 represents hydrogen or represents C_1-C_6-alkyl, C_1-C_6-alkoxy, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_{12}-cycloalkyl, C_3-C_{12}-cycloalkyl-C_1-C_6-alkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of halogen, amino, cyano, nitro, hydroxyl, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_2-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_3-C_6-cycloalkylamino and a 5- or 6-membered heteroaromatic ring,

R^4 represents halogen, cyano or methyl,

R^5 represents methyl or chlorine,

Z represents N, CCl or CH,

Qy represents an optionally mono- or polysubstituted 5- or 6-membered heteroaromatic ring from the group consisting of Q-36 to Q-40, Q43, Q-58 to Q-59, Q62, Q63, an aromatic 9-membered fused heterobicyclic ring system Q-54 to Q-56 or a 5-membered heterocyclic ring Q-60 to Q-61, where the substituents independently of one another may be selected from the group consisting of C_1-C_3-alkyl, C_1-C_3-haloalkyl, C_1-C_2-alkoxy , halogen, cyano, hydroxyl, nitro or C_1-C_2-haloalkoxy,

where the compounds of the formula (I-1) may be present in the form of salts,

and one or more active compounds selected from group (II).

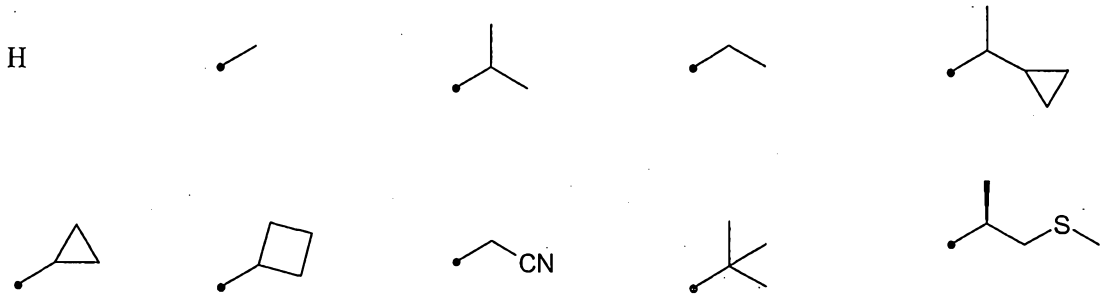
Particular preference is given to combinations comprising at least one of the active compounds of the formula (I-1) mentioned as being preferred, particularly preferred, very particularly preferred or especially preferred and one or more active compounds selected from group (II).

Preferred, particularly preferred, very particularly preferred or especially preferred are active

compounds of the formula (I-1) where

R^3 preferably represents hydrogen or represents C_1-C_6-alkyl, C_1-C_6-alkoxy, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkyl-C_1-C_6-alkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of halogen, cyano, amino, hydroxyl, C_1-C_6-alkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_3-C_6-cycloalkyl and a 5- or 6-membered heteroaromatic ring which contains 1-2 heteroatoms from the group consisting of N, O and S, where two oxygen atoms in the ring are not adjacent,

R^3 particularly preferably represents one of the radicals below



R^4 preferably represents halogen, cyano or methyl,

R^4 particularly preferably represents chlorine or cyano,

R^4 also particularly preferably represents bromine, fluorine, iodine or methyl,

R^5 preferably and particularly preferably represents methyl,

Z preferably represents N or CH,

Q_Y preferably represents a heteroaromatic ring from the group consisting of Q-37, Q-38, Q-39, Q-40, Q43, Q-58, Q-59, Q62 and Q63 which is optionally mono- or polysubstituted by identical or different substituents, or represents a 5-membered heterocyclic ring Q-60, where the substituents independently of one another may be selected from the group consisting of methyl, ethyl, cyclopropyl, tert-butyl, chlorine, fluorine, iodine, bromo, cyano, nitro, difluoromethyl, trifluoromethyl, pentafluoroethyl, n-heptafluoropropyl and isoheptafluoropropyl,

Q_Y particularly preferably represents a heteroaromatic ring from the group consisting of Q-58 and Q-59 which is optionally mono- or polysubstituted by identical or different substituents, where the

substituents independently of one another may be selected from the group consisting of methyl, ethyl, cyclopropyl, tert-butyl, difluoromethyl, trifluoromethyl, pentafluoroethyl, n-heptafluoropropyl and isoheptafluoropropyl.

In particular, the compounds of the formula (I-1) can be present in the form of various regioisomers. For example in the form of mixtures of compounds having the definition Q62 or Q63 or in the form of mixtures of Q58 and Q59. Accordingly, the invention also embraces active compound combinations comprising mixtures of compounds of the formula (I-1) where Q_Y has the meanings Q62 and Q63, and also Q58 and Q59, and the compounds may be present in various mixing ratios, and one or more active compounds from group (II). Preference is given here to mixing ratios of compounds of the formula (I) in which the radical Q_Y represents Q62 or Q58 to compounds of the formula (I) in which the radical Qy represents Q63 or Q59 of from 60:40 to 99:1, particularly preferably from 70:30 to 97:3, very particularly preferably from 80:20 to 95:5. Special preference is given to the following mixing ratios of a compound of the formula (I) where Q_Y has the meaning Q62 or Q58 to a compound of the formula (I) where Q_Y has the meaning Q63 or Q59: 80:20; 81:19; 82:18; 83:17; 84:16; 85:15, 86:14; 87:13; 88:12; 89:11; 90:10, 91:9; 92:8; 93:7; 96:6; 95:5.

Preference is furthermore given to active compound combinations comprising at least one active compound of the general formula (I) or (I-1) and an active compound of group (II) selected from the group consisting of

bitertanol
bixafen
carpropamid
fenamidone
fluopicolide
fluopyram
fluoxastrobin
fluquinconazole
isotianil
metominostrobin
pencycuron
penflufen
prochloraz
propamocarb
propineb
prothioconazole
spiroxamine
tebuconazole
triadimenol
triazoxide
trifloxystrobin
ametoctradin

azoxystrobin
benthiavalicarb
boscalid
carbendazim
carboxin
chlorothalonil
cymoxanil
cyproconazole
cyprodinil
cyazofamid
difenoconazole
dimoxystrobin
epoxiconazole
fenpropidin
ferimzone
fluazinam
fludioxonil
flutolanil
flutriafol
fluxapyroxad
gentamycin
hymexazol
imazalil
ipconazole
isoprothiolane
isopyrazam
kasugamycin
mancozeb
mandipropamid
maneb
mefenoxam
metalaxyl
metconazole
metrafenone
orysastrobin
penthiopyrad
picoxystrobin
probenazole
propiconazole
proquinazid
pyraclostrobin
pyrimethanil
pyroquilon
quinoxyfen
sedaxane
tetraconazole
thiophanate-methyl
thiram

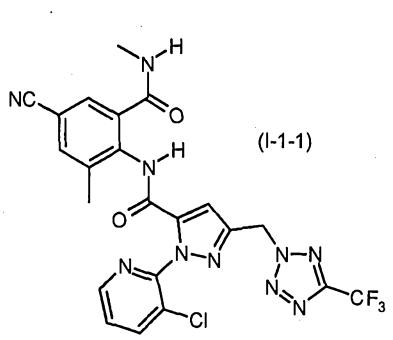
tolclofos-methyl
tricyclazole
triticonazole
validamycin
fosetyl-aluminium.

Particular preference is furthermore given to active compound combinations comprising at least one active compound of the general formula (I) or (I-1) and an active compound of group (II) selected from the group consisting of

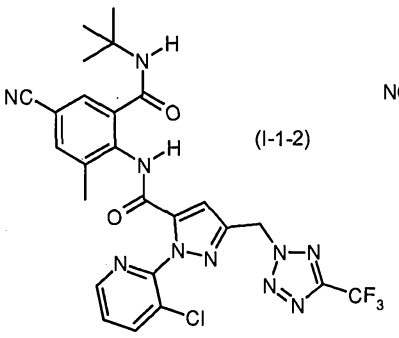
bitertanol
bixafen
carpropamid
fenamidone
fluopicolide
fluopyram
fluoxastrobin
fluquinconazole
isotianil
metominostrobin
pencycuron
penflufen
prochloraz
propamocarb
propineb
prothioconazole
spiroxamine
tebuconazole
triadimenol
triazoxide
trifloxystrobin
fludioxonil
ipconazole
imazalil
mancozeb
metalaxyl
mefenoxam
sedaxane
azoxystrobin
orysastrobin
carbendazim
boscalid
flutolanil
fluxapyroxad
fosetyl-aluminium

5

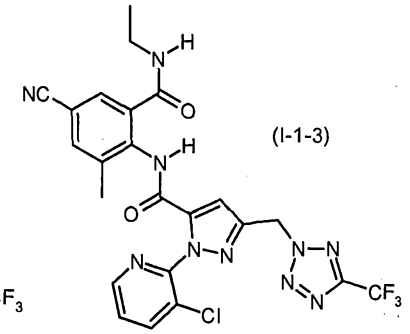
Very particular preference is given to active compound combinations comprising exactly one active compound of the formulae (I-1-1) to (I-1-60) and one or more active compounds of group (II).



(I-1-1)



(I-1-2)



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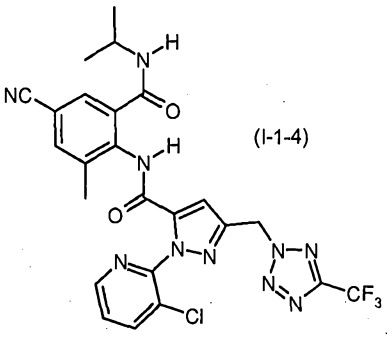

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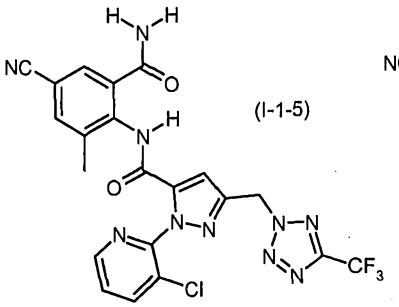

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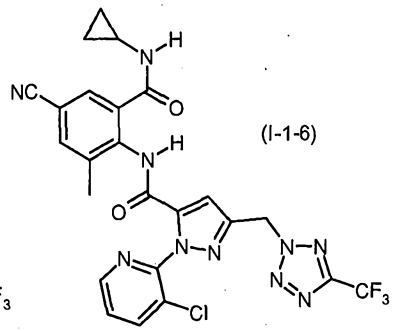

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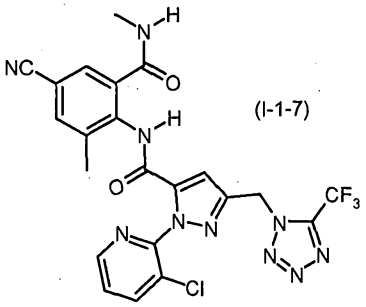

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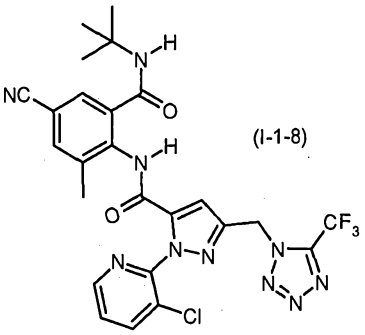

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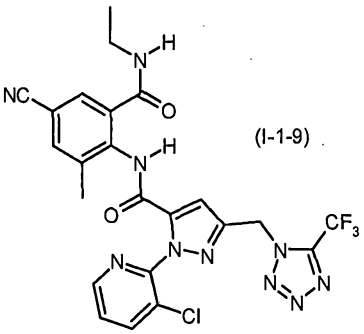

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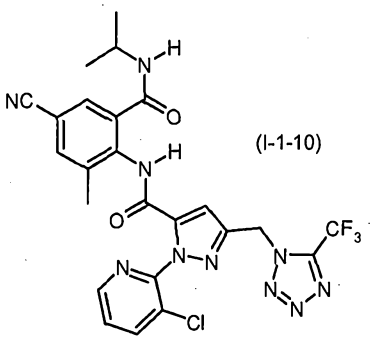

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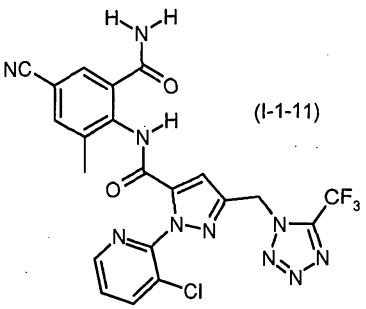

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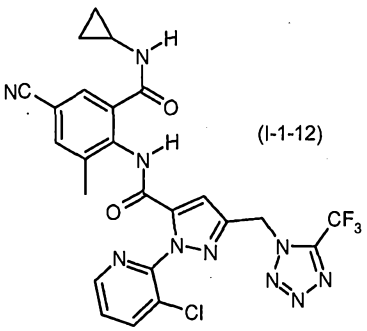

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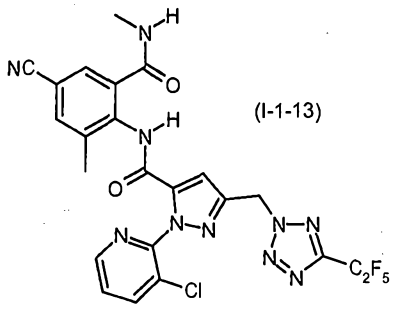

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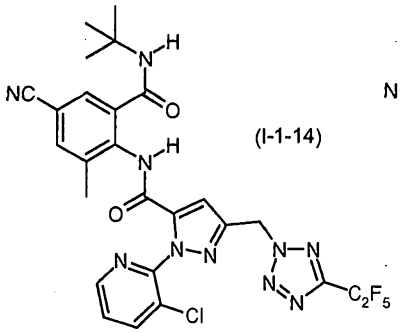

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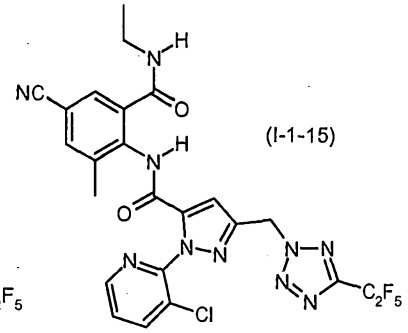

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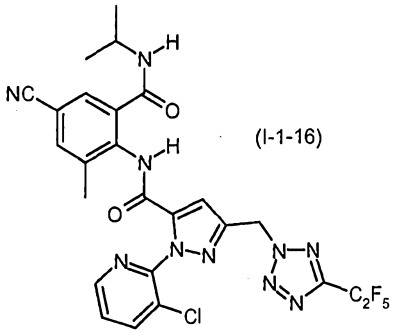

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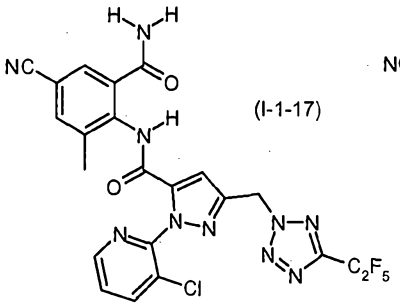

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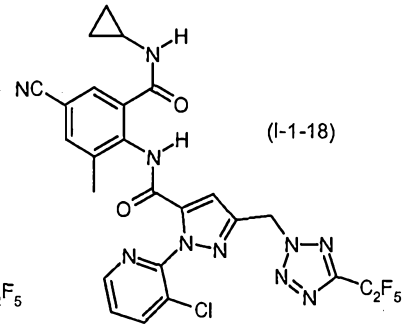

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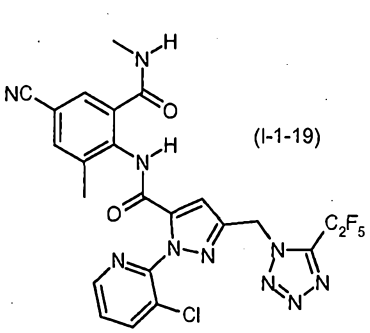

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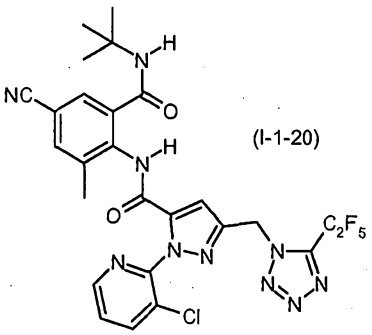

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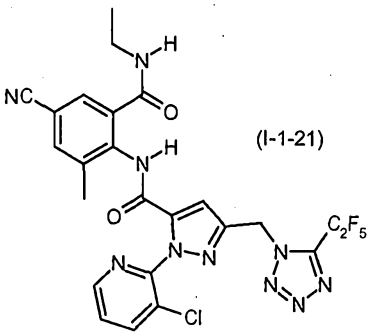

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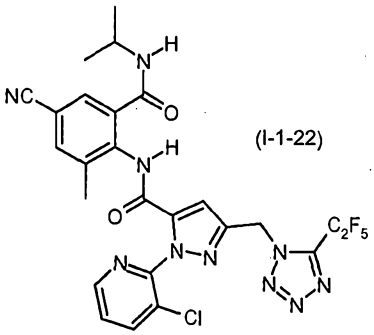

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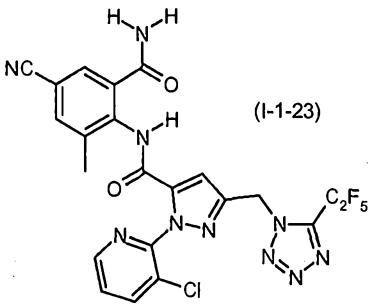

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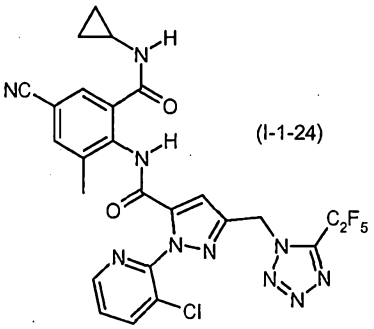

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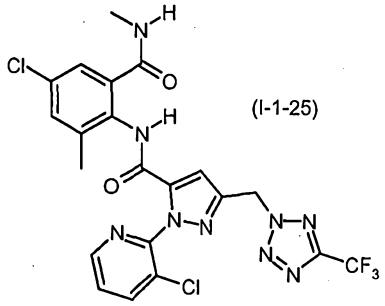

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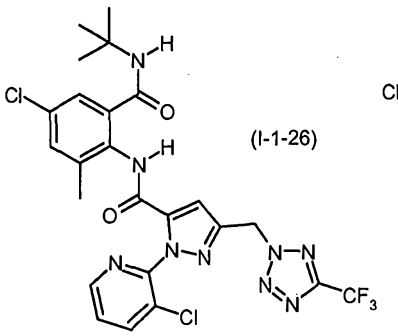

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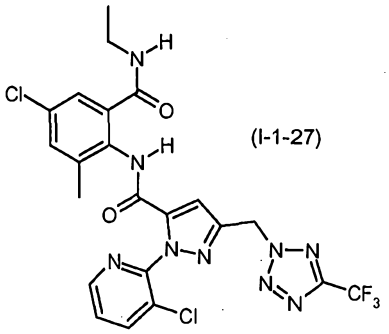

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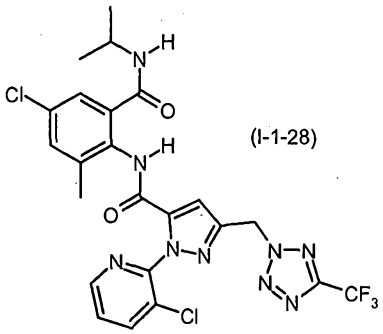

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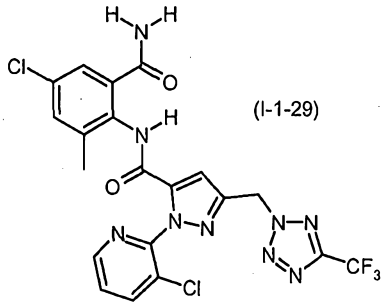

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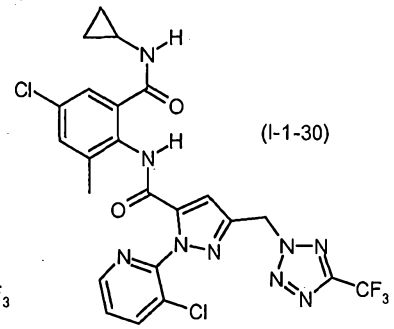

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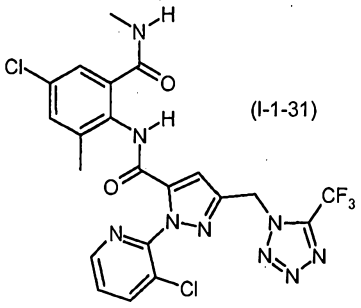

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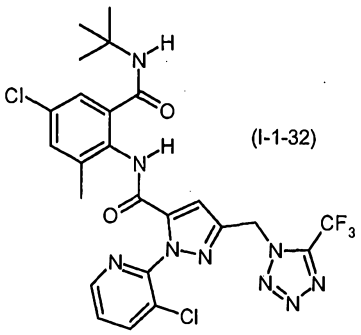

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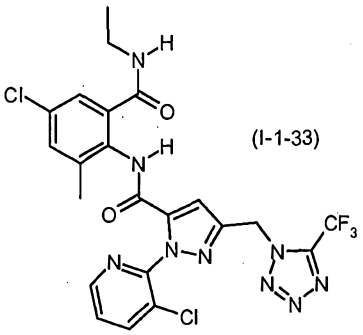

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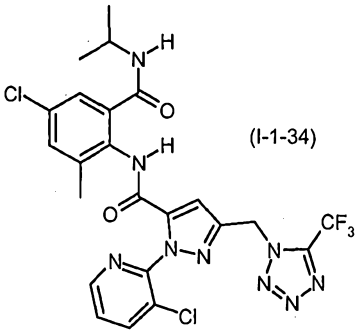

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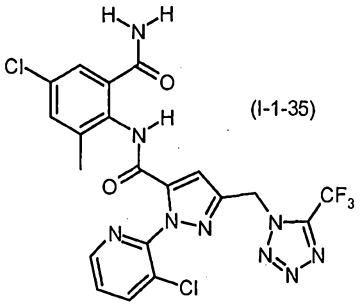

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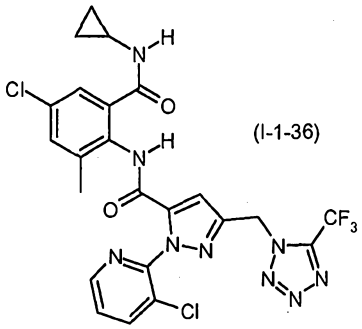

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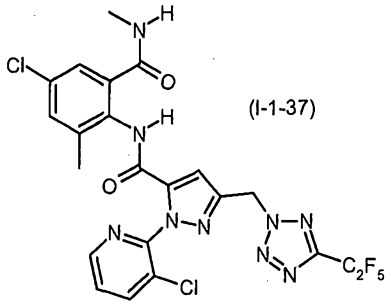

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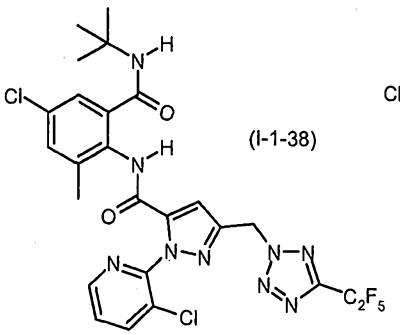

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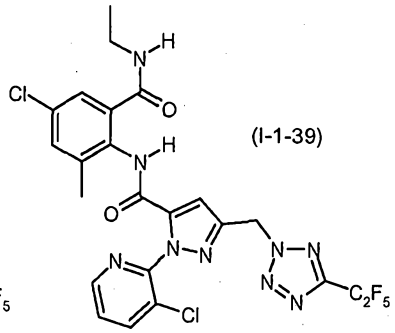

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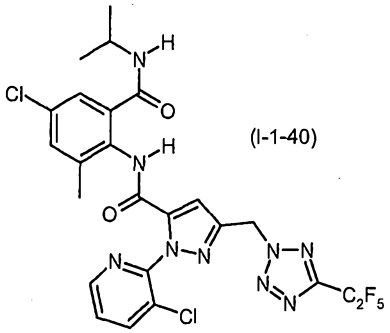

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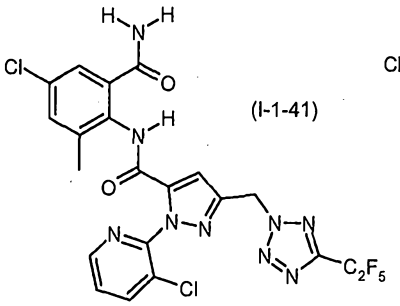

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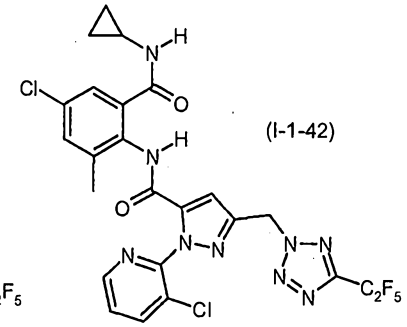

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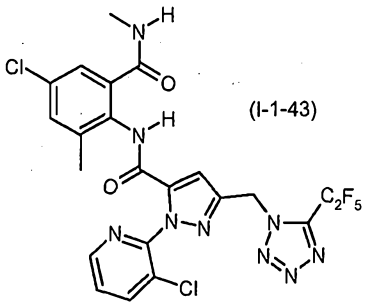

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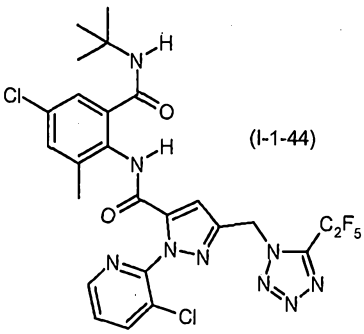

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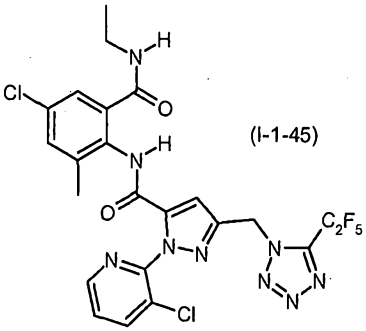

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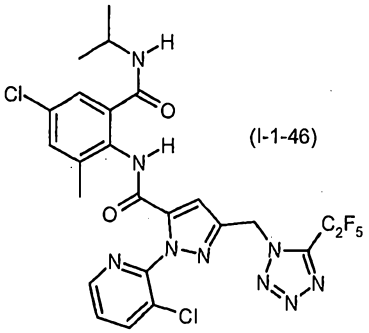

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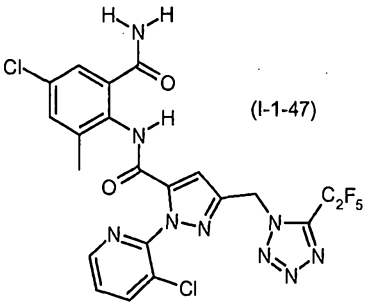

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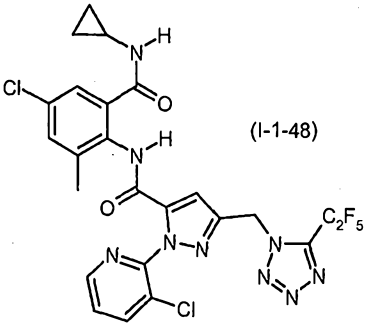

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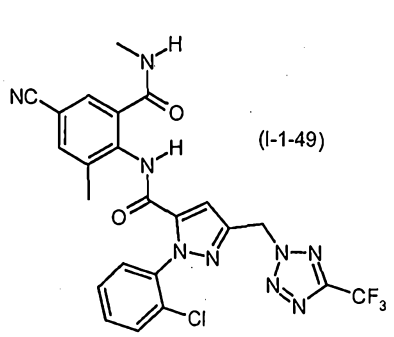
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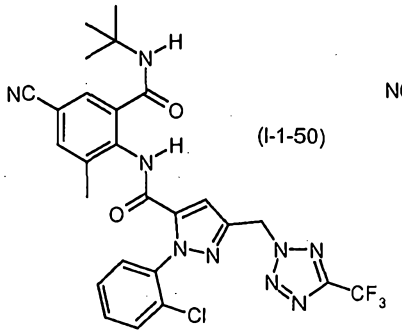
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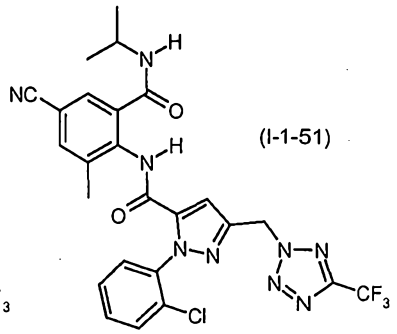
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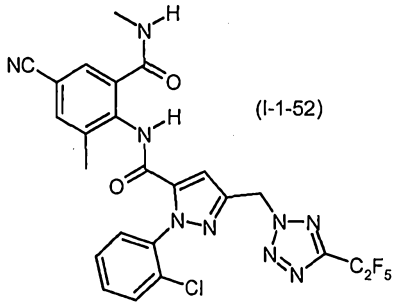
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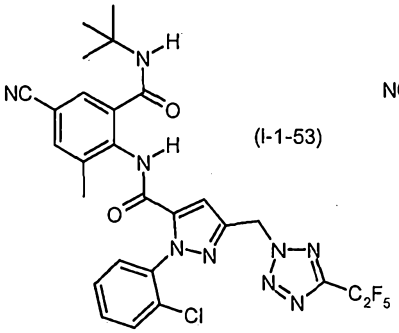
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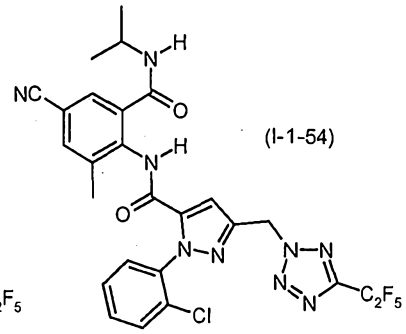
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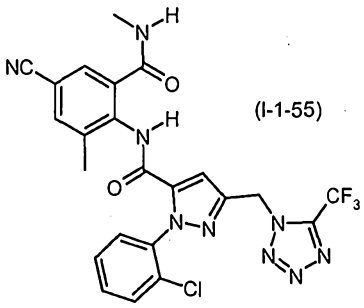
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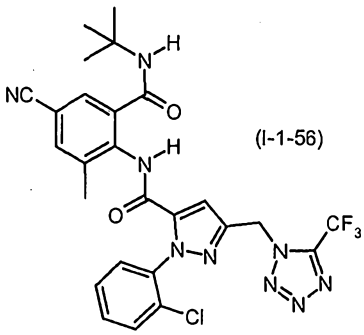
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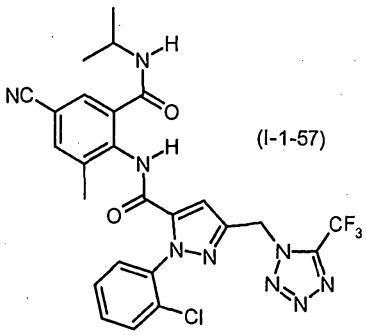
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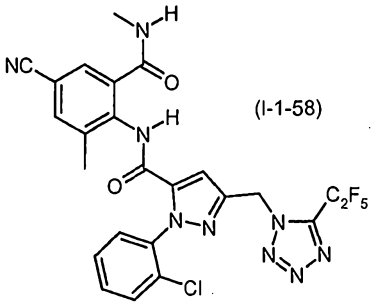
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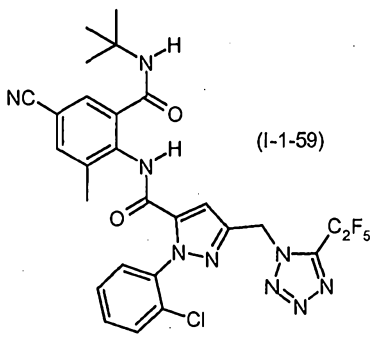
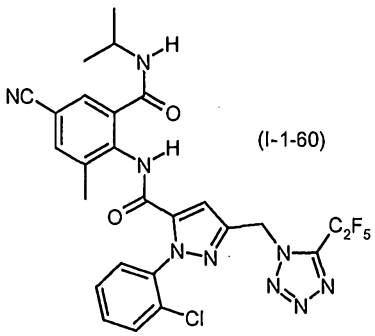

(I-1-59)


(I-1-60)

Very particular preference is furthermore given to active compound combinations comprising the mixtures given below of active compounds of the formulae (I-1-1) to (I-1-60) and one or more active compounds of group (II).

These mixtures are preferably present in a mixing ratio of from 80:20 to 99:1. In an exemplary manner, mention may be made of the mixture I-1-1/I-1-7, where the compound of the formula I-1-1 and the compound of the formula I-1-7 are present in a mixing ratio from 80:20 to 99:1. In an exemplary manner, mention may also be made of the mixture I-1-2/I-1-8, where the compound of the formula I-1-2

and the compound of the formula I-1-8 are present in a mixing ratio from 80:20 to 99:1.

I-1-1-/1-1-7,

1-1-2/ 1-1-8,

1-1-3/1-1-9,

I-1-4/1-1-10,

I-1-5/1-1-11,

I-1-6/1-1-12,

I-1-13/I-1-1-19,

1-1-14/1-1-20,

I-1-15/I-1-21,

I-1-16/I-1-22,

I-1-17/I-1-23,

I-1-18/I-1-24,

1-1-25/1-1-31,

1-1-26/1-1-32,

I-1-27/ I-1-33,

1-1-28/1-1-34,

I-1-29/I-1-35,

I-1-30/I-1-36,

1-1-37/1-1-43,

1-1-38/1-1-44,

I-1-39/I-1-45,

I-1-40/I-1-46,

I-1-41/I-1-47,

I-1-42/I-1-48,

I-1-49/I-1-55,

I-1-50/I-1-56,

I-1-51/I-1-57,

I-1-52/I-1-58,

I-1-53/I-1-59,

I-1-54/I-1-60.

Especially preferred are combinations comprising the active compound (I-1-1) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-2) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-3) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-4) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-5) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-6) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-7) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-8) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-9) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-10) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-11) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-12) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-13) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-14) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-15) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-16) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-17) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-18) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-19) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-20) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-21) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-22) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-23) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-24) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-25) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-26) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-27) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-28) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-29) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-30) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-31) and exactly one active

compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-32) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-32) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-34) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-35) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-36) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-37) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-38) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-39) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-40) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-41) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-42) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-43) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-44) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-45) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-46) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-47) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-48) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-49) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-50) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-51) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-52) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-53) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-54) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-55) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-56) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-57) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-58) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-59) and exactly one active compound of group II in the mixing ratios given in Table 1.

Especially preferred are combinations comprising the active compound (I-1-60) and exactly one active compound of group II in the mixing ratios given in Table 1.

In addition, the active compound combinations may also comprise other fungicidally, acaricidally or insecticidally active components for admixture.

If the active compounds are present in the active compound combinations according to the invention in certain weight ratios, the enhanced activity becomes evident. However, the weight ratios of the active compounds in the active compound combinations can be varied within a relatively wide range. In general, the combinations according to the invention comprise active compounds of the formula (I) to mixing partner of group (II) in a ratio from 625:1 to 1: 625; preferably in the preferred and particularly preferred mixing ratios listed in Table 1 below:

- the mixing ratios are based on weight ratios. The ratio is to be understood as active compound of the formula (I):mixing partner to formula (I):mixing partner

Table 1:

Mixing partner	preferred mixing ratio	particularly preferred mixing ratio	very particularly preferred mixing ratio
bitertanol	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
bixafen	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
carpropamid	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
fenamidone	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
fosetyl-aluminium	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
fluopicolide	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
fluopyram	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
fluoxastrobin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
fluquinconazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
isotianil	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
metominostrobin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
pencycuron	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
penflufen	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
prochloraz	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
propamocarb	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
propineb	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
prothioconazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
spiroxamine	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
tebuconazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
triadimenol	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
triazoxide	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
trifloxystrobin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
ametoctradin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
azoxystrobin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
benthiavalicarb	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
boscalid	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
carbendazim	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
carboxin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
chlorothalonil	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
cymoxanil	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25

Mixing partner	preferred mixing ratio	particularly preferred mixing ratio	very particularly preferred mixing ratio
cyproconazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
cyprodinil	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
cyazofamid	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
difenoconazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
dimoxystrobin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
epoxiconazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
fenpropidin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
ferimzone	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
fluazinam	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
fludioxonil	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
flutolanil	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
Flutriafol	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
fluxapyroxad	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
gentamycin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
hymexazol	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
imazalil	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
ipconazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
isoprothiolane	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
isopyrazam	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
kasugamycin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
mancozeb	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
mandipropamid	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
maneb	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
mefenoxam	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
metalaxyl	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
metconazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
metrafenone	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
orysastrobin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
penthiopyrad	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
picoxystrobin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
probenazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
propiconazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
proquinazid	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
pyraclostrobin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25

Mixing partner	preferred mixing ratio	particularly preferred mixing ratio	very particularly preferred mixing ratio
pyrimethanil	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
pyroquilon	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
quinoxyfen	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
sedaxane	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
tetraconazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
thiophanate-methyl	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
thiram	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
tolclofos-methyl	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
tricyclazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
triticonazole	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25
validamycin	625 : 1 to 1 : 625	125 : 1 to 1 : 125	25 : 1 to 1 : 25

When using the active compound combinations according to the invention as fungicides, insecticides or acaricides, the application rates can be varied within a relatively wide range, depending on the kind of application. The application rate of the active compound combinations according to the invention is when treating plant parts, e.g. leaves: from 0.1 to 1000 g/ha, preferably from 10 to 500 g/ha, particularly preferably from 50 to 300 g/ha (when the application is carried out by watering or dripping, it may even be possible to reduce the application rate, in particular when inert substrates such as rock wool or perlite are used); when treating seed: from 1 to 2000 g per 100 kg of seed, preferably from 2 to 1000 g per 100 kg of seed, particularly preferably from 3 to 750 g per 100 kg of seed, very particularly preferably from 5 to 500 g per 100 kg of seed; when treating the soil: from 0.1 to 5000 g/ha, preferably from 1 to 1000 g/ha.

These application rates are mentioned only by way of example and are not limiting in the sense of the invention.

The active compound combinations according to the invention can be employed for protecting plants for a certain period of time after treatment against attack by phytopathogenic fungi and/or animal pests. The period for which protection is provided extends generally for 1 to 28 days, preferably for 1 to 14 days, particularly preferably for 1 to 10 days, very particularly preferably for 1 to 7 days after the treatment of the plants with the active compounds, or for up to 200 days after a seed treatment.

The active compound combinations according to the invention, in combination with good plant tolerance and favourable toxicity to warm-blooded animals and being tolerated well by the environment, are suitable for protecting plants and plant organs, for increasing the harvest yields, for improving the

quality of the harvested material and for controlling phytopathogenic fungi such as Plasmodiophoromycetes, Oomycetes, Chytridiomycetes, Zygomycetes, Ascomycetes, Basidiomycetes, Deuteromycetes etc. and animal pests, in particular insects, arachnids, helminths, nematodes and molluscs, which are encountered in agriculture, in horticulture, in animal husbandry, in forests, in gardens and leisure facilities, in the protection of stored products and of materials, and in the hygiene sector. They can preferably be used as crop protection compositions. They are active against normally sensitive and resistant species and against all or some stages of development.

The active compound combinations according to the invention have a very good fungicidal activity and can be employed for controlling phytopathogenic fungi such as Plasmodiophoromycetes, Oomycetes, Chytridiomycetes, Zygomycetes, Ascomycetes, Basidiomycetes, Deuteromycetes and the like.

The active compound combinations according to the invention are particularly suitable for controlling Phytophthora infestans, Plasmopara viticola and Botrytis cinerea.

Some pathogens causing fungal and bacterial diseases which come under the generic names listed above may be mentioned as examples, but not by way of limitation:

Fungicides can be employed in crop protection for controlling Plasmodiophoromycetes, Oomycetes, Chytridiomycetes, Zygomycetes, Ascomycetes, Basidiomycetes and Deuteromycetes.

Bactericides can be employed in crop protection for controlling Pseudomonadaceae, Rhizobiaceae, Enterobacteriaceae, Corynebacteriaceae and Streptomycetaceae.

Some pathogens causing fungal and bacterial diseases which come under the generic names listed above may be mentioned as examples, but not by way of limitation:

diseases caused by powdery mildew pathogens, such as, for example,

Blumeria species, such as, for example, Blumeria graminis;
Podosphaera species, for example Podosphaera leucotricha;
Sphaerotheca species, for example Sphaerotheca fuliginea;
Uncinula species, such as, for example, Uncinula necator;
diseases caused by rust disease pathogens, such as, for example,
Gymnosporangium species, such as, for example, Gymnosporangium sabinae
Hemileia species, such as, for example, Hemileia vastatrix;
Phakopsora species, such as, for example, Phakopsora pachyrhizi and Phakopsora meibomiae;
Puccinia species, for example Puccinia recondita;
Uromyces species, for example Uromyces appendiculatus;
diseases caused by pathogens from the group of the Oomycetes, such as, for example,

Bremia species, for example Bremia lactucae;
Peronospora species, for example Peronospora pisi or P. brassicae;
Phytophthora species, for example Phytophthora infestans;
Plasmopara species, for example Plasmopara viticola;
Pseudoperonospora species, for example Pseudoperonospora humuli or Pseudoperonospora cubensis;
Pythium species, for example Pythium ultimum;
leaf blotch diseases and leaf wilt diseases caused, for example, by
Alternaria species, such as, for example, Alternaria solani;
Cercospora species, such as, for example, Cercospora beticola;
Cladiosporum species, such as, for example, Cladiosporium cucumerinum;
Cochliobolus species, such as, for example, Cochliobolus sativus;
(conidia form: Drechslera, syn: Helminthosporium);
Colletotrichum species, such as, for example, Colletotrichum lindemuthanium;
Cycloconium species, such as, for example, Cycloconium oleaginum;
Diaporthe species, such as, for example, Diaporthe citri;
Elsinoe species, such as, for example, Elsinoe fawcettii;
Gloeosporium species, such as, for example, Gloeosporium laeticolor;
Glomerella species, such as, for example, Glomerella cingulata;
Guignardia species, such as, for example, Guignardia bidwelli;
Leptosphaeria species, such as, for example, Leptosphaeria maculans;
Magnaporthe species, such as, for example, Magnaporthe grisea;
Mycosphaerella species, such as, for example, Mycosphaerelle graminicola;
Phaeosphaeria species, such as, for example, Phaeosphaeria nodorum;
Pyrenophora species, such as, for example, Pyrenophora teres;
Ramularia species, such as, for example, Ramularia collo-cygni;
Rhynchosporium species, such as, for example, Rhynchosporium secalis;
Septoria species, such as, for example, Septoria apii;
Typhula species, such as, for example, Typhula incarnata;
Venturia species, for example Venturia inaequalis;
root and stem diseases caused, for example, by
Corticium species, such as, for example, Corticium graminearum;
Fusarium species, such as, for example, Fusarium oxysporum;
Gaeumannomyces species, such as, for example, Gaeumannomyces graminis;
Rhizoctonia species, such as, for example, Rhizoctonia solani;
Tapesia species, such as, for example, Tapesia acuformis;
Thielaviopsis species, such as, for example, Thielaviopsis basicola;

ear and panicle diseases (including maize cobs) caused, for example, by
Alternaria species, such as, for example, Alternaria spp.;
Aspergillus species, such as, for example, Aspergillus flavus;
Cladosporium species, such as, for example, Cladosporium spp.;
Claviceps species, such as, for example, Claviceps purpurea;
Fusarium species, for example Fusarium culmorum;
Gibberella species, such as, for example, Gibberella zeae;
Monographella species, such as, for example, Monographella nivalis;
diseases caused by smut fungi, such as, for example,
Sphacelotheca species, such as, for example, Sphacelotheca reiliana;
Tilletia species, for example Tilletia caries;
Urocystis species, such as, for example, Urocystis occulta;
Ustilago species, such as, for example, Ustilago nuda;
fruit rot caused, for example, by
Aspergillus species, such as, for example, Aspergillus flavus;
Botrytis species, for example Botrytis cinerea;
Penicillium species, such as, for example, Penicillium expansum;
Sclerotinia species, for example Sclerotinia sclerotiorum;
Verticilium species, such as, for example, Verticilium alboatrum;
seed- and soil-borne rot and wilt diseases, and also diseases of seedlings, caused, for example, by
Fusarium species, for example Fusarium culmorum;
Phytophthora species, such as, for example, Phytophthora cactorum;
Pythium species, for example Pythium ultimum;
Rhizoctonia species, such as, for example, Rhizoctonia solani;
Sclerotium species, such as, for example, Sclerotium rolfsii;
cancerous diseases, galls and witches' broom caused, for example, by
Nectria species, such as, for example, Nectria galligena;
wilt diseases caused, for example, by
Monilinia species, such as, for example, Monilinia laxa;
deformations of leaves, flowers and fruits caused, for example, by
Taphrina species, such as, for example, Taphrina deformans;
degenerative diseases of woody plants caused, for example, by
Esca species, such as, for example, Phaemoniella clamydospora;
diseases of flowers and seeds caused, for example, by
Botrytis species, for example Botrytis cinerea;
diseases of plant tubers caused, for example, by
Rhizoctonia species, such as, for example, Rhizoctonia solani;

diseases caused by bacterial pathogens, such as, for example,
Xanthomonas species, for example Xanthomonas campestris pv. oryzae;
Pseudomonas species, for example Pseudomonas syringae pv. lachrymans;
Erwinia species, such as, for example, Erwinia amylovora.

Preference is given to controlling the following diseases of soya beans:

fungal diseases on leaves, stems, pods and seeds caused, for example, by

alternaria leaf spot (Alternaria spec. atrans tenuissima), anthracnose (Colletotrichum gloeosporoides dematium var. truncatum), brown spot (Septoria glycines), cercospora leaf spot and blight (Cercospora kikuchii), choanephora leaf blight (Choanephora infundibulifera trispora (Syn.)), dactuliophora leaf spot (Dactuliophora glycines), downy mildew (Peronospora manshurica), drechslera blight (Drechslera glycini), frogeye leaf spot (Cercospora sojina), leptosphaerulina leaf spot (Leptosphaerulina trifolii), phyllostica leaf spot (Phyllosticta sojaecola), powdery mildew (Microsphaera diffusa), pyrenochaeta leaf spot (Pyrenochaeta glycines), rhizoctonia aerial, foliage, and web blight (Rhizoctonia solani), rust (Phakopsora pachyrhizi), scab (Sphaceloma glycines), stemphylium leaf blight (Stemphylium botryosum), target spot (Corynespora cassiicola).

Fungal diseases on roots and the stem base caused, for example, by

black root rot (Calonectria crotalariae), charcoal rot (Macrophomina phaseolina), fusarium blight or wilt, root rot, and pod and collar rot (Fusarium oxysporum, Fusarium orthoceras, Fusarium semitectum, Fusarium equiseti), mycoleptodiscus root rot (Mycoleptodiscus terrestris), neocosmospora (Neocosmospora vasinfecta), pod and stem blight (Diaporthe phaseolorum), stem canker (Diaporthe phaseolorum var. caulivora), phytophthora rot (Phytophthora megasperma), brown stem rot (Phialophora gregata), pythium rot (Pythium aphanidermatum, Pythium irregulare, Pythium debaryanum, Pythium myriotylum, Pythium ultimum), rhizoctonia root rot, stem decay, and damping-off (Rhizoctonia solani), sclerotinia stem decay (Sclerotinia sclerotiorum), sclerotinia southern blight (Sclerotinia rolfsii), thielaviopsis root rot (Thielaviopsis basicola).

The active compound combinations according to the invention can be employed particularly successfully for controlling cereal diseases such as, for example, against Puccinia species and diseases in viticulture and fruit and vegetable growing such as, for example, against Botrytis, Venturia or Alternaria species.

In addition, the active compound combinations according to the invention also have very good antimycotic activity. They have a very broad antimycotic activity spectrum, in particular against dermatophytes and yeasts, moulds and diphasic fungi, (for example against Candida species, such as Candida albicans, Candida glabrata), and Epidermophyton floccosum, Aspergillus species, such as Aspergillus niger and Aspergillus

fumigatus, Trichophyton species, such as Trichophyton mentagrophytes, Microsporon species such as Microsporon canis and audouinii. The list of these fungi by no means constitutes a restriction of the mycotic spectrum covered, and is merely of illustrative character.

In addition, the active compound combinations according to the invention also have very good insecticidal activity. They have a very broad spectrum of insecticidal activity, in particular against the following animal pests:

From the order of the Anoplura (Phthiraptera), for example, Damalinia spp., Haematopinus spp., Linognathus spp., Pediculus spp., Trichodectes spp..

From the class of the Arachnida, for example, Acarus spp., Aceria sheldoni, Aculops spp., Aculus spp., Amblyomma spp., Amphitetranychus viennensis, Argas spp., Boophilus spp., Brevipalpus spp., Bryobia praetiosa, Chorioptes spp., Dermanyssus gallinae, Eotetranychus spp., Epitrimerus pyri, Eutetranychus spp., Eriophyes spp., Halotydeus destructor, Hemitarsonemus spp., Hyalomma spp., Ixodes spp., Latrodectus mactans, Metatetranychus spp., Nuphersa spp., Oligonychus spp., Ornithodoros spp., Panonychus spp., Phyllocoptruta oleivora, Polyphagotarsonemus latus, Psoroptes spp., Rhipicephalus spp., Rhizoglyphus spp., Sarcoptes spp., Scorpio maurus, Stenotarsonemus spp., Tarsonemus spp., Tetranychus spp., Vasates lycopersici.

From the class of the Bivalva, for example, Dreissena spp..

From the order of the Chilopoda, for example, Geophilus spp., Scutigera spp.

From the order of the Coleoptera, for example, Acalymma vittatum, Acanthoscelides obtectus, Adoretus spp., Agelastica alni, Agriotes spp., Amphimallon solstitialis, Anobium punctatum, Anoplophora spp., Anthonomus spp., Anthrenus spp., Apion spp., Apogonia spp., Atomaria spp., Attagenus spp., Bruchidius obtectus, Bruchus spp., Cassida spp., Cerotoma trifurcata, Ceutorrhynchus spp., Chaetocnema spp., Cleonus mendicus, Conoderus spp., Cosmopolites spp., Costelytra zealandica, Ctenicera spp., Curculio spp., Cryptorhynchus lapathi, Cylindrocopturus spp., Dermestes spp., Diabrotica spp., Dichocrocis spp., Diloboderus spp., Epilachna spp., Epitrix spp., Faustinus spp., Gibbium psylloides, Hellula undalis, Heteronychus arator, Heteronyx spp., Hylamorpha elegans, Hylotrupes bajulus, Hypera postica, Hypothenemus spp., Lachnosterna consanguinea, Lema spp., Leptinotarsa decemlineata, Leucoptera spp., Lissorhoptrus oryzophilus, Lixus spp., Luperodes spp., Lyctus spp., Megascelis spp., Melanotus spp., Meligethes aeneus, Melolontha spp., Migdolus spp., Monochamus spp., Naupactus xanthographus, Niptus hololeucus, Oryctes rhinoceros, Oryzaephilus surinamensis, Oryzaphagus oryzae, Otiorrhynchus spp., Oxycetonia jucunda, Phaedon cochleariae, Phyllophaga spp., Phyllotreta spp., Popillia japonica, Premnotrypes spp., Psylliodes spp., Ptinus spp., Rhizobius ventralis, Rhizopertha dominica, Sitophilus spp., Sphenophorus spp., Sternechus spp.,

Symphyletes spp., Tanymecus spp., Tenebrio molitor, Tribolium spp., Trogoderma spp., Tychius spp., Xylotrechus spp., Zabrus spp.

From the order of the Collembola, for example, Onychiurus armatus.

From the order of the Diplopoda, for example, Blaniulus guttulatus.

From the order of the Diptera, for example, Aedes spp., Agromyza spp., Anastrepha spp., Anopheles spp., Asphondylia spp., Bactrocera spp., Bibio hortulanus, Calliphora erythrocephala, Ceratitis capitata, Chironomus spp., Chrysomyia spp., Cochliomyia spp., Contarinia spp., Cordylobia anthropophaga, Culex spp., Cuterebra spp., Dacus oleae, Dasyneura spp., Delia spp., Dermatobia hominis, Drosophila spp., Echinocnemus spp., Fannia spp., Gastrophilus spp., Hydrellia spp., Hylemyia spp., Hyppobosca spp., Hypoderma spp., Liriomyza spp.. Lucilia spp., Musca spp., Nezara spp., Oestrus spp., Oscinella frit, Pegomyia spp., Phorbia spp., Prodiplosis spp., Psila rosae, Rhagoletis spp., Stomoxys spp., Tabanus spp., Tannia spp., Tetanops spp., Tipula spp..

From the class of the Gastropoda, for example, Arion spp., Biomphalaria spp., Bulinus spp., Deroceras spp., Galba spp., Lymnaea spp., Oncomelania spp., Pomacea spp., Succinea spp.

From the class of the helminths, for example, Ancylostoma duodenale, Ancylostoma ceylanicum, Acylostoma braziliensis, Ancylostoma spp., Ascaris lubricoides, Ascaris spp., Brugia malayi, Brugia timori, Bunostomum spp., Chabertia spp., Clonorchis spp., Cooperia spp., Dicrocoelium spp, Dictyocaulus filaria, Diphyllobothrium latum, Dracunculus medinensis, Echinococcus granulosus, Echinococcus multilocularis, Enterobius vermicularis, Faciola spp., Haemonchus spp., Heterakis spp., Hymenolepis nana, Hyostrongulus spp., Loa Loa, Nematodirus spp., Oesophagostomum spp., Opisthorchis spp., Onchocerca volvulus, Ostertagia spp., Paragonimus spp., Schistosomen spp., Strongyloides fuelleborni, Strongyloides stercoralis, Stronyloides spp., Taenia saginata, Taenia solium, Trichinella spiralis, Trichinella nativa, Trichinella britovi, Trichinella nelsoni, Trichinella pseudopsiralis, Trichostrongulus spp., Trichuris trichuria, Wuchereria bancrofti.

It is furthermore possible to control protozoa, such as Eimeria.

From the order of the Heteroptera, for example, Anasa tristis, Antestiopsis spp., Blissus spp., Calocoris spp., Campylomma livida, Cavelerius spp., Cimex spp., Collaria spp., Creontiades dilutus, Dasynus piperis, Dichelops furcatus, Diconocoris hewetti, Dysdercus spp., Euschistus spp., Eurygaster spp., Heliopeltis spp., Horcias nobilellus, Leptocorisa spp., Leptoglossus phyllopus, Lygus spp., Macropes excavatus, Miridae, Monalonion atratum, Nezara spp., Oebalus spp., Pentomidae, Piesma quadrata, Piezodorus spp., Psallus spp., Pseudacysta persea, Rhodnius spp., Sahlbergella singularis, Scaptocoris castanea, Scotinophora spp., Stephanitis nashi, Tibraca spp., Triatoma spp.

From the order of the Homoptera, for example, Acyrthosipon spp., Acrogonia spp., Aeneolamia spp., Agonoscena spp., Aleurodes spp., Aleurolobus barodensis, Aleurothrixus spp., Amrasca spp., Anuraphis cardui, Aonidiella spp., Aphanostigma piri, Aphis spp., Arboridia apicalis, Aspidiella spp., Aspidiotus spp., Atanus spp., Aulacorthum solani, Bemisia spp., Brachycaudus helichrysii, Brachycolus spp., Brevicoryne brassicae, Calligypona marginata, Carneocephala fulgida, Ceratovacuna lanigera, Cercopidae, Ceroplastes spp., Chaetosiphon fragaefolii, Chionaspis tegalensis, Chlorita onukii, Chromaphis juglandicola, Chrysomphalus ficus, Cicadulina mbila, Coccomytilus halli, Coccus spp., Cryptomyzus ribis, Dalbulus spp., Dialeurodes spp., Diaphorina spp., Diaspis spp., Drosicha spp., Dysaphis spp., Dysmicoccus spp., Empoasca spp., Eriosoma spp., Erythroneura spp., Euscelis bilobatus, Ferrisia spp., Geococcus coffeae, Hieroglyphus spp., Homalodisca coagulata, Hyalopterus arundinis, Icerya spp., Idiocerus spp., Idioscopus spp., Laodelphax striatellus, Lecanium spp., Lepidosaphes spp., Lipaphis erysimi, Macrosiphum spp., Mahanarva spp., Melanaphis sacchari, Metcalfiella spp., Metopolophium dirhodum, Monellia costalis, Monelliopsis pecanis, Myzus spp., Nasonovia ribisnigri, Nephotettix spp., Nilaparvata lugens, Oncometopia spp., Orthezia praelonga, Parabemisia myricae, Paratrioza spp., Parlatoria spp., Pemphigus spp., Peregrinus maidis, Phenacoccus spp., Phloeomyzus passerinii, Phorodon humuli, Phylloxera spp., Pinnaspis aspidistrae, Planococcus spp., Protopulvinaria pyriformis, Pseudaulacaspis pentagona, Pseudococcus spp., Psylla spp., Pteromalus spp., Pyrilla spp., Quadraspidiotus spp., Quesada gigas, Rastrococcus spp., Rhopalosiphum spp., Saissetia spp., Scaphoides titanus, Schizaphis graminum, Selenaspidus articulatus, Sogata spp., Sogatella furcifera, Sogatodes spp., Stictocephala festina, Tenalaphara malayensis, Tinocallis caryaefoliae, Tomaspis spp., Toxoptera spp., Trialeurodes spp., Trioza spp., Typhlocyba spp., Unaspis spp., Viteus vitifolii, Zygina spp..

From the order of the Hymenoptera, for example, Athalia spp., Diprion spp., Hoplocampa spp., Lasius spp., Monomorium pharaonis, Vespa spp..

From the order of the Isopoda, for example, Armadillidium vulgare, Oniscus asellus and Porcellio scaber.

From the order of the Isoptera, for example, Acromyrmex spp., Atta spp., Cornitermes cumulans, Microtermes obesi, Odontotermes spp., Reticulitermes spp,

From the order of the Lepidoptera, for example, Acronicta major, Adoxophyes spp., Aedia leucomelas, Agrotis spp., Alabama spp., Amyelois transitella, Anarsia spp., Anticarsia spp., Argyroploce spp., Barathra brassicae, Borbo cinnara, Bucculatrix thurberiella, Bupalus piniarius, Busseola spp., Cacoecia spp., Caloptilia theivora, Capua reticulana, Carpocapsa pomonella, Carposina niponensis, Cheimatobia brumata, Chilo spp., Choristoneura spp., Clysia ambiguella, Cnaphalocerus spp., Cnephasia spp., Conopomorpha spp., Conotrachelus spp., Copitarsia spp., Cydia spp., Dalaca noctuides, Diaphania spp.,

Diatraea saccharalis, Earias spp., Ecdytolopha aurantium, Elasmopalpus lignosellus, Eldana saccharina, Ephestia kuehniella, Epinotia spp., Epiphyas postvittana, Etiella spp., Eulia spp., Eupoecilia ambiguella, Euproctis spp., Euxoa spp., Feltia spp., Galleria mellonella, Gracillaria spp., Grapholitha spp., Hedylepta spp., Helicoverpa spp., Heliothis spp., Hofmannophila pseudospretella, Homoeosoma spp., Homona spp., Hyponomeuta padella, Kakivoria flavofasciata, Laphygma spp., Laspeyresia molesta, Leucinodes orbonalis, Leucoptera spp., Lithocolletis spp., Lithophane antennata, Lobesia spp., Loxagrotis albicosta, Lymantria spp., Lyonetia spp., Malacosoma neustria, Maruca testulalis, Mamestra brassicae, Mocis spp., Mythimna separata, Nymphula spp., Oiketicus spp., Oria spp., Orthaga spp., Ostrinia spp., Oulema oryzae, Panolis flammea, Parnara spp., Pectinophora spp., Perileucoptera spp., Phthorimaea spp., Phyllocnistis citrella, Phyllonorycter spp., Pieris spp., Platynota stultana, Plusia spp., Plutella xylostella, Prays spp., Prodenia spp., Protoparce spp., Pseudaletia spp., Pseudoplusia includens, Pyrausta nubilalis, Rachiplusia nu, Schoenobius spp., Scirpophaga spp., Scotia segetum, Sesamia spp., Sparganothis spp., Spodoptera spp., Stathmopoda spp., Stomopteryx subsecivella, Synanthedon spp., Tecia solanivora, Thermesia gemmatalis, Tinea pellionella, Tineola bisselliella, Tortrix spp., Trichoplusia spp., Tuta absoluta, Virachola spp..

From the order of the Orthoptera, for example, Acheta domesticus, Blatta orientalis, Blattella germanica, Dichroplus spp., Gryllotalpa spp., Leucophaea maderae, Locusta spp., Melanoplus spp., Periplaneta americana, Schistocerca gregaria.

From the order of the Siphonaptera, for example, Ceratophyllus spp. and Xenopsylla cheopis.

From the order of the Symphyla, for example, Scutigerella spp..

From the order of the Thysanoptera, for example, Anaphothrips obscurus, Baliothrips biformis, Drepanothris reuteri, Enneothrips flavens, Frankliniella spp., Heliothrips spp., Hercinothrips femoralis, Rhipiphorothrips cruentatus, Scirtothrips spp., Taeniothrips cardamoni, Thrips spp..

From the order of the Thysanura, for example, Lepisma saccharina.

The phytoparasitic nematodes include, for example, Aphelenchoides spp., Bursaphelenchus spp., Ditylenchus spp., Globodera spp., Heterodera spp., Longidorus spp., Meloidogyne spp., Pratylenchus spp., Radopholus similis, Trichodorus spp., Tylenchulus semipenetrans, Xiphinema spp..

In the protection of materials, the active compound combinations according to the invention can be employed for protecting industrial materials against infection with, and destruction by, undesired microorganisms.

Industrial materials in the present context are understood to mean inanimate materials which have been prepared for use in industry. For example, industrial materials which are to be protected by inventive active

compounds from microbial alteration or destruction may be adhesives, sizes, paper and cardboard, textiles, leather, wood, paints and plastic articles, cooling lubricants and other materials which can be infected with or destroyed by microorganisms. The range of materials to be protected also includes parts of production plants, for example cooling water circuits, which may be impaired by the proliferation of microorganisms. Industrial materials within the scope of the present invention preferably include adhesives, sizes, papers and cardboard, leather, wood, paints, cooling lubricants and heat transfer fluids, more preferably wood.

Microorganisms capable of degrading or altering the industrial materials include, for example, bacteria, fungi, yeasts, algae and slime organisms. The active compound combinations according to the invention preferably act against fungi, in particular moulds, wood-discolouring and wood-destroying fungi (Basidiomycetes), and against slime organisms and algae.

Examples include microorganisms of the following genera:

Alternaria such as Alternaria tenuis,
Aspergillus such as Aspergillus niger,
Chaetomium such as Chaetomium globosum,
Coniophora such as Coniophora puetana,
Lentinus such as Lentinus tigrinus,
Penicillium such as Penicillium glaucum,
Polyporus such as Polyporus versicolor,
Aureobasidium such as Aureobasidium pullulans,
Sclerophoma such as Sclerophoma pityophila,
Trichoderma such as Trichoderma viride,
Escherichia such as Escherichia coli,
Pseudomonas such as Pseudomonas aeruginosa, and
Staphylococcus such as Staphylococcus aureus.

Moreover, it has been found that the active compound combinations according to the invention show a potent insecticidal action against insects which destroy industrial materials.

Preferred but nonlimiting examples include the following insects:

beetles, such as Hylotrupes bajulus, Chlorophorus pilosis, Anobium punctatum, Xestobium rufovillosum, Ptilinus pecticornis, Dendrobium pertinex, Ernobius mollis, Priobium carpini, Lyctus brunneus, Lyctus africanus, Lyctus planicollis, Lyctus linearis, Lyctus pubescens, Trogoxylon aequale, Minthes rugicollis, Xyleborus spec. Tryptodendron spec. Apate monachus, Bostrychus capucins, Heterobostrychus brunneus, Sinoxylon spec. Dinoderus minutus.

Dermapterans, such as Sirex juvencus, Urocerus gigas, Urocerus gigas taignus, Urocerus augur.

Termites, such as Kalotermes flavicollis, Cryptotermes brevis, Heterotermes indicola, Reticulitermes flavipes, Reticulitermes santonensis, Reticulitermes lucifugus, Mastotermes darwiniensis, Zootermopsis nevadensis, Coptotermes formosanus.

bristletails, such as Lepisma saccarina.

Industrial materials in the present connection are understood to mean inanimate materials, such as preferably plastics, adhesives, sizes, papers and cards, leather, wood, processed wood products and coating compositions.

Most preferably, the material to be protected from insect infestation comprises wood and processed wood products.

Wood and processed wood products which can be protected by the active compound combinations according to the invention are to be understood as meaning, for example: building timber, wooden beams, railway sleepers, bridge components, boat jetties, wooden vehicles, boxes, pallets, containers, telegraph poles, wood panelling, wooden windows and doors, plywood, chipboard, joinery or wooden products which are used quite generally in house-building or in building joinery.

The active compound combinations can be used as such, in the form of concentrates or generally customary formulations such as powders, granules, solutions, suspensions, emulsions or pastes.

The formulations mentioned can be prepared in a manner known per se, for example by mixing the active compounds with at least one solvent or diluent, emulsifier, dispersing agent and/or binder or fixing agent, a water repellent, if appropriate siccatives and UV stabilizers and if appropriate dyestuffs and pigments, and also other processing auxiliaries.

The insecticidal active compound combinations or concentrates used for the preservation of wood and wood-derived timber products comprise the active compound according to the invention in a concentration of 0.0001 to 95% by weight, in particular 0.001 to 60% by weight.

The amount of the active compound combinations or concentrates employed depends on the nature and occurrence of the insects and on the medium. The optimum amount employed can be determined for the use in each case by a series of tests. In general, however, it is sufficient to employ 0.0001 to 20% by weight, preferably 0.001 to 10% by weight, of the active compound, based on the material to be preserved.

The active compound combinations are also suitable for controlling animal pests, especially insects, arachnids and mites, which are encountered in enclosed spaces, for example dwellings, factory halls, offices, vehicle cabins and the like. They can be used in domestic insecticide products for controlling these pests. They are effective against sensitive and resistant species, and against all developmental stages. These pests include:

From the order of the Scorpionidea, for example, Buthus occitanus.

From the order of the Acarina, for example, Argas persicus, Argas reflexus, Bryobia spp., Dermanyssus gallinae, Glyciphagus domesticus, Ornithodorus moubat, Rhipicephalus sanguineus, Trombicula alfreddugesi, Neutrombicula autumnalis, Dermatophagoides pteronissimus, Dermatophagoides forinae.

From the order of the Araneae, for example, Avicula riidae, Araneidae.

From the order of the Opiliones, for example, Pseudoscorpiones chelifer, Pseudoscorpiones cheiridium, Opiliones phalangium.

From the order of the Isopoda, for example, Oniscus asellus, Porcellio scaber.

From the order of the Diplopoda, for example, Blaniulus guttulatus, Polydesmus spp.

From the order of the Chilopoda, for example, Geophilus spp.

From the order of the Zygentoma, for example, Ctenolepisma spp., Lepisma saccharina, Lepismodes inquilinus.

From the order of the Blattaria, for example, Blatta orientalies, Blattella germanica, Blattella asahinai, Leucophaea maderae, Panchlora spp., Parcoblatta spp., Periplaneta australasiae, Periplaneta americana, Periplaneta brunnea, Periplaneta fuliginosa, Supella longipalpa.

From the order of the Saltatoria, for example, Acheta domesticus.

From the order of the Isoptera, for example, Kalotermes spp., Reticulitermes spp.

From the order of the Psocoptera, for example, Lepinatus spp., Liposcelis spp.

From the order of the Coleoptera, for example, Anthrenus spp., Attagenus spp., Dermestes spp., Latheticus oryzae, Necrobia spp., Ptinus spp., Rhizopertha dominica, Sitophilus granarius, Sitophilus oryzae, Sitophilus zeamais, Stegobium paniceum.

From the order of the Diptera, for example, Aedes aegypti, Aedes albopictus, Aedes taeniorhynchus, Anopheles spp., Calliphora erythrocephala, Chrysozona pluvialis, Culex quinquefasciatus, Culex pipiens, Culex tarsalis, Drosophila spp., Fannia canicularis, Musca domestica, Phlebotomus spp., Sarcophaga carnaria, Simulium spp., Stomoxys calcitrans, Tipula paludosa.

From the order of the Lepidoptera, for example, Achroia grisella, Galleria mellonella, Plodia interpunctella, Tinea cloacella, Tinea pellionella, Tineola bisselliella.

From the order of the Siphonaptera, for example, Ctenocephalides canis, Ctenocephalides felis, Pulex irritans, Tunga penetrans, Xenopsylla cheopis.

From the order of the Hymenoptera, for example, Camponotus herculeanus, Lasius fuliginosus, Lasius niger, Lasius umbratus, Monomorium pharaonis, Paravespula spp., Tetramorium caespitum.

From the order of the Anoplura, for example, Pediculus humanus capitis, Pediculus humanus corporis, Phthirus pubis.

From the order of the Heteroptera, for example, Cimex hemipterus, Cimex lectularius, Rhodinus prolixus, Triatoma infestans.

They are used in aerosols, pressure-free spray products, for example pump and atomizer sprays, automatic fogging systems, foggers, foams, gels, evaporator products with evaporator tablets made of cellulose or plastic, liquid evaporators, gel and membrane evaporators, propeller-driven evaporators, energy-free, or passive, evaporation systems, moth papers, moth bags and moth gels, as granules or dusts, in baits for spreading or in bait stations.

The active compound combinations according to the invention are not only active against plant pests, hygiene pests and stored-product pests, but also, in the veterinary medicine sector, against animal parasites (ectoparasites) such as hard ticks, soft ticks, mange mites, harvest mites, flies (stinging and licking), parasitizing fly larvae, lice, hair lice, bird lice and fleas. These parasites include:

From the order of the Anoplurida, for example, Haematopinus spp., Linognathus spp., Pediculus spp., Phtirus spp. and Solenopotes spp.

From the order of the Mallophagida and the suborders Amblycerina and Ischnocerina, for example, Trimenopon spp., Menopon spp., Trinoton spp., Bovicola spp., Werneckiella spp., Lepikentron spp., Damalina spp., Trichodectes spp. and Felicola spp..

From the order of the Diptera and the suborders Nematocerina and Brachycerina, for example, Aedes spp., Anopheles spp., Culex spp., Simulium spp., Eusimulium spp., Phlebotomus spp., Lutzomyia spp., Culicoides spp., Chrysops spp., Hybomitra spp., Atylotus spp., Tabanus spp., Haematopota spp., Philipomyia spp., Braula spp., Musca spp., Hydrotaea spp., Stomoxys spp., Haematobia spp., Morellia spp., Fannia spp., Glossina spp., Calliphora spp., Lucilia spp., Chrysomyia spp., Wohlfahrtia spp., Sarcophaga spp., Oestrus spp., Hypoderma spp., Gasterophilus spp., Hippobosca spp., Lipoptena spp. and Melophagus spp..

From the order of the Siphonapterida, for example Pulex spp., Ctenocephalides spp., Xenopsylla spp. and Ceratophyllus spp.

From the order of the Heteropterida, for example, Cimex spp., Triatoma spp., Rhodnius spp. and Panstrongylus spp.

From the order of the Blattarida, for example Blatta orientalis, Periplaneta americana, Blattela germanica and Supella spp.

From the subclass of the Acaria (Acarida) and the orders of the Meta- and Mesostigmata, for example, Argas spp., Ornithodorus spp., Otobius spp., Ixodes spp., Amblyomma spp., Boophilus spp., Dermacentor spp., Haemophysalis spp., Hyalomma spp., Rhipicephalus spp., Dermanyssus spp., Raillietia spp., Pneumonyssus spp., Sternostoma spp. and Varroa spp.

From the order of the Actinedida (Prostigmata) and Acaridida (Astigmata), for example, Acarapis spp., Cheyletiella spp., Ornithocheyletia spp., Myobia spp., Psorergates spp., Demodex spp., Trombicula spp., Listrophorus spp., Acarus spp., Tyrophagus spp., Caloglyphus spp., Hypodectes spp., Pterolichus spp., Psoroptes spp., Chorioptes spp., Otodectes spp., Sarcoptes spp., Notoedres spp., Knemidocoptes spp., Cytodites spp. and Laminosioptes spp..

The active compound combinations according to the invention are also suitable for controlling arthropods which attack agricultural livestock such as, for example, cattle, sheep, goats, horses, pigs, donkeys, camels, buffaloes, rabbits, chickens, turkeys, ducks, geese, honey-bees, other domestic animals such as, for example, dogs, cats, caged birds, aquarium fish and so-called experimental animals such as, for example, hamsters, guinea pigs, rats and mice. The control of these arthropods is intended to reduce cases of death and reduced productivity (of meat, milk, wool, hides, eggs, honey etc.), and so more economic and easier animal husbandry is possible by use of the active compound combinations according to the invention.

The active compound combinations according to the invention are used in the veterinary sector in a known manner by enteral administration in the form of, for example, tablets, capsules, potions, drenches, granules, pastes, boluses, the feed-through process and suppositories, by parenteral

administration, such as, for example, by injection (intramuscular, subcutaneous, intravenous, intraperitoneal and the like), implants, by nasal administration, by dermal use in the form, for example, of dipping or bathing, spraying, pouring on and spotting on, washing and powdering, and also with the aid of moulded articles containing the active compound, such as collars, ear marks, tail marks, limb bands, halters, marking devices and the like.

When used for cattle, poultry, domestic animals and the like, the active compound combinations can be applied as formulations (for example powders, emulsions, flowables) comprising the active compounds in an amount of 1 to 80% by weight, either directly or after 100- to 10 000-fold dilution, or they may be used as a chemical dip.

If appropriate, the active compound combinations according to the invention can, at certain concentrations or application rates, also be used as herbicides, safeners, growth regulators or agents to improve plant properties, or as microbicides, for example as fungicides, antimycotics, bactericides, viricides (including agents against viroids) or as agents against MLO (Mycoplasma-like organisms) and RLO (Rickettsia-like organisms).

The present invention further relates to formulations and use forms prepared therefrom as crop protection compositions and/or pesticides, for example drench, drip and spray liquors, comprising at least one of the active compound combinations according to the invention. In some cases, the use forms comprise further crop protection compositions and/or pesticides and/or adjuvants which improve action, such as penetrants, e.g. vegetable oils, for example rapeseed oil, sunflower oil, mineral oils, for example paraffin oils, alkyl esters of vegetable fatty acids, for example rapeseed oil methyl ester or soya oil methyl ester, or alkanol alkoxylates and/or spreaders, for example alkylsiloxanes and/or salts, for example organic or inorganic ammonium or phosphonium salts, for example ammonium sulphate or diammonium hydrogenphosphate and/or retention promoters, for example dioctyl sulphosuccinate or hydroxypropyl guar polymers and/or humectants, for example glycerol and/or fertilizers, for example ammonium-, potassium- or phosphorus-containing fertilizers.

Customary formulations are, for example, water-soluble liquids (SL), emulsion concentrates (EC), emulsions in water (EW), suspension concentrates (SC, SE, FS, OD), water-dispersible granules (WG), granules (GR) and capsule concentrates (CS); these and further possible formulation types are described, for example, by Crop Life International and in Pesticide Specifications, Manual on development and use of FAO and WHO specifications for pesticides, FAO Plant Production and Protection Papers – 173, prepared by the FAO/WHO Joint Meeting on Pesticide Specifications, 2004, ISBN: 9251048576. The formulations optionally comprise, in addition to one or more active compounds according to the invention, further agrochemically active compounds.

These are preferably formulations or use forms which comprise auxiliaries, for example extenders,

solvents, spontaneity promoters, carriers, emulsifiers, dispersants, frost protectants, biocides, thickeners and/or further auxiliaries, for example adjuvants. An adjuvant in this context is a component which enhances the biological effect of the formulation, without the component itself having a biological effect. Examples of adjuvants are agents which promote retention, spreading, attachment to the leaf surface or penetration.

These formulations are prepared in a known manner, for example by mixing the active compounds with auxiliaries such as, for example, extenders, solvents and/or solid carriers and/or further auxiliaries such as, for example, surfactants. The formulations are produced either in suitable plants or else before or during application.

Auxiliaries used may be substances capable of giving the formulation of the active compound, or the application forms prepared from these formulations (such as ready-to-use crop protection compositions, for example, such as spray liquors or seed dressings) particular properties, such as certain physical, technical and/or biological properties.

Suitable extenders are, for example, water, polar and nonpolar organic chemical liquids, for example from the classes of the aromatic and non-aromatic hydrocarbons (such as paraffins, alkylbenzenes, alkylnaphthalenes, chlorobenzenes), the alcohols and polyols (which, if appropriate, may also be substituted, etherified and/or esterified), the ketones (such as acetone, cyclohexanone), esters (including fats and oils) and (poly)ethers, the unsubstituted and substituted amines, amides, lactams (such as N-alkylpyrrolidones) and lactones, the sulphones and sulphoxides (such as dimethyl sulphoxide).

If the extender used is water, it is also possible to employ, for example, organic solvents as auxiliary solvents. Essentially, suitable liquid solvents are: aromatics such as xylene, toluene or alkylnaphthalenes, chlorinated aromatics and chlorinated aliphatic hydrocarbons such as chlorobenzenes, chloroethylenes or methylene chloride, aliphatic hydrocarbons such as cyclohexane or paraffins, for example mineral oil fractions, mineral and vegetable oils, alcohols such as butanol or glycol and their ethers and esters, ketones such as acetone, methyl ethyl ketone, methyl isobutyl ketone or cyclohexanone, strongly polar solvents such as dimethylformamide and dimethyl sulphoxide, and also water.

In principle it is possible to use all suitable solvents. Examples of suitable solvents are aromatic hydrocarbons, such as xylene, toluene or alkylnaphthalenes, chlorinated aromatic or chlorinated aliphatic hydrocarbons, such as chlorobenzene, chloroethylene or methylene chloride, aliphatic hydrocarbons, such as cyclohexane, paraffins, petroleum fractions, mineral and vegetable oils, alcohols, such as methanol, ethanol, isopropanol, butanol or glycol and their ethers and esters, ketones such as acetone, methyl ethyl ketone, methyl isobutyl ketone or cyclohexanone, strongly polar solvents, such as dimethyl sulphoxide, and also water.

In principle it is possible to use all suitable carriers. Useful carriers include especially: for example ammonium salts and ground natural minerals such as kaolins, clays, talc, chalk, quartz, attapulgite, montmorillonite or diatomaceous earth, and ground synthetic minerals such as finely divided silica, alumina and natural and synthetic silicates, resins, waxes and/or solid fertilizers. Mixtures of such carriers may also be used. Useful solid carriers for granules include: for example crushed and fractionated natural rocks such as calcite, marble, pumice, sepiolite, dolomite, and synthetic granules of inorganic and organic meals, and also granules of organic material such as sawdust, paper, coconut shells, maize cobs and tobacco stalks.

Liquefied gaseous extenders or solvents can also be used. Particularly suitable extenders or carriers are those which are gaseous at ambient temperature and under atmospheric pressure, for example aerosol propellant gases, such as halohydrocarbons, and also butane, propane, nitrogen and carbon dioxide.

Examples of emulsifiers and/or foam formers, dispersants or wetting agents with ionic or nonionic properties, or mixtures of these surfactants, are salts of polyacrylic acid, salts of lignosulphonic acid, salts of phenolsulphonic acid or naphthalenesulphonic acid, polycondensates of ethylene oxide with fatty alcohols or with fatty acids or with fatty amines, with substituted phenols (preferably alkylphenols or arylphenols), salts of sulphosuccinic esters, taurine derivatives (preferably alkyl taurates), phosphoric esters of polyethoxylated alcohols or phenols, fatty esters of polyols, and derivatives of the compounds containing sulphates, sulphonates and phosphates, for example alkylaryl polyglycol ethers, alkylsulphonates, alkyl sulphates, arylsulphonates, protein hydrolysates, lignosulphite waste liquors and methylcellulose. The presence of a surfactant is advantageous if one of the active compounds and/or one of the inert carriers is insoluble in water and when the application takes place in water.

It is possible to use dyes such as inorganic pigments, for example iron oxide, titanium oxide and Prussian Blue, and organic dyes such as alizarin dyes, azo dyes and metal phthalocyanine dyes, and trace nutrients such as salts of iron, manganese, boron, copper, cobalt, molybdenum and zinc as further auxiliaries in the formulations and the use forms derived therefrom.

Stabilizers, such as low-temperature stabilizers, preservatives, antioxidants, light stabilizers or other agents which improve chemical and/or physical stability, may also be present. Foam formers or antifoams may also be present.

Tackifiers such as carboxymethylcellulose and natural and synthetic polymers in the form of powders, granules or latices, such as gum arabic, polyvinyl alcohol and polyvinyl acetate, or else natural phospholipids such as cephalins and lecithins and synthetic phospholipids may also be present as additional auxiliaries in the formulations and the use forms derived therefrom. Other possible auxiliaries are mineral and vegetable oils.

If appropriate, the formulations and the use forms derived therefrom may also comprise further

auxiliaries. Examples of such additives include fragrances, protective colloids, binders, adhesives, thickeners, thixotropic agents, penetrants, retention promoters, stabilizers, sequestrants, complexing agents, humectants, spreaders. In general, the active compounds can be combined with any solid or liquid additive customarily used for formulation purposes.

Useful retention promoters include all those substances which reduce the dynamic surface tension, for example dioctyl sulphosuccinate, or increase the viscoelasticity, for example hydroxypropylguar polymers.

Suitable penetrants in the present context are all those substances which are usually used for improving the penetration of agrochemical active compounds into plants. Penetrants are defined in this context by their ability to penetrate from the (generally aqueous) spray liquor and/or from the spray coating into the cuticle of the plant and thereby increase the mobility of active compounds in the cuticle. The method described in the literature (Baur et al., 1997, Pesticide Science 51, 131-152) can be used for determining this property. Examples include alcohol alkoxylates such as coconut fatty ethoxylate (10) or isotridecyl ethoxylate (12), fatty acid esters, for example rapeseed oil methyl ester or soya oil methyl ester, fatty amine alkoxylates, for example tallowamine ethoxylate (15), or ammonium and/or phosphonium salts, for example ammonium sulphate or diammonium hydrogenphosphate.

The active compound content of the use forms prepared from the commercially available formulations may vary within wide limits. The active compound concentration of the use forms is in the range of from 0.00000001 to 97% by weight of active compound, preferably in the range of from 0.0000001 to 97% by weight, particularly preferably in the range of from 0.000001 to 83% by weight or 0.000001 to 5% by weight, and very particularly preferably in the range of from 0.0001 to 1% by weight.

The active compound combinations according to the invention can be present in their commercially available formulations and in the use forms, prepared from these formulations, as a mixture with other active compounds, such as insecticides, attractants, sterilizing agents, bactericides, acaricides, nematicides, fungicides, growth-regulating substances, herbicides, safeners, fertilizers or semiochemicals.

A mixture with other known active compounds, such as herbicides, fertilizers, growth regulators, safeners, semiochemicals, or else with agents for improving the plant properties, is also possible.

When used as fungicides and/or insecticides, the active compound combinations according to the invention can furthermore be present in their commercially available formulations and in the use forms, prepared from these formulations, as a mixture with synergists. Synergists are compounds which increase the action of the active compounds, without it being necessary for the synergist added to be active itself.

When used as fungicides and/or insecticides, the active compound combinations according to the

invention can furthermore be present in their commercially available formulations and in the use forms, prepared from these formulations, as a mixture with inhibitors which reduce degradation of the active compound after use in the environment of the plant, on the surface of parts of plants or in plant tissues.

The compounds are employed in a customary manner appropriate for the use forms.

All plants and plant parts can be treated in accordance with the invention. Plants are understood here to mean all plants and plant populations, such as desired and undesired wild plants or crop plants (including naturally occurring crop plants). Crop plants can be plants which can be obtained by conventional breeding and optimization methods or by biotechnological and genetic engineering methods or combinations of these methods, including the plant varieties which can or cannot be protected by varietal property rights. Parts of plants are to be understood as meaning all above-ground and below-ground parts and organs of plants, such as shoot, leaf, flower and root, examples which may be mentioned being leaves, needles, stems, trunks, flowers, fruit-bodies, fruits and seeds and also roots, tubers and rhizomes. The plant parts also include harvested material and also vegetative and generative propagation material, for example fruits, seeds, cuttings, tubers, rhizomes, slips, seed, bulbils, layers and runners.

Treatment according to the invention of the plants and plant parts with the active compound combinations is carried out directly or by allowing the compounds to act on the surroundings, environment or storage space by the customary treatment methods, for example by immersion, spraying, evaporation, fogging, scattering, painting on, injection and, in the case of propagation material, in particular in the case of seeds, also by applying one or more coats. Here, the active compound combinations can be prepared prior to the treatment by mixing the individual active compounds. Alternatively, the treatment is carried out successively by initially using a compound of the formula (I) or (I-1), followed by treatment with an active compound of group II. However, it is also possible to treat the plants or plant parts first with an active compound of group II, followed by treatment with a compound of the formula I or (I-1).

The following plants may be mentioned as plants which can be treated according to the invention: cotton, flax, grapevine, fruit, vegetables, such as Rosaceae sp. (for example pome fruits such as apples and pears, but also stone fruits such as apricots, cherries, almonds and peaches, and soft fruits such as strawberries), Ribesioidae sp., Juglandaceae sp., Betulaceae sp., Anacardiaceae sp., Fagaceae sp., Moraceae sp., Oleaceae sp., Actinidaceae sp., Lauraceae sp., Musaceae sp. (for example banana plants and banana plantations), Rubiaceae sp. (for example coffee), Theaceae sp., Sterculiceae sp., Rutaceae sp. (for example lemons, oranges and grapefruit); Solanaceae sp. (for example tomatoes), Liliaceae sp., Asteraceae sp. (for example lettuce), Umbelliferae sp., Cruciferae sp., Chenopodiaceae sp., Cucurbitaceae sp. (for example cucumber), Alliaceae sp. (for example leeks, onions), Papilionaceae sp. (for example peas); major crop plants such as

Gramineae sp. (for example maize, turf, cereals such as wheat, rye, rice, barley, oats, millet and triticale), Asteraceae sp. (for example sunflower), Brassicaceae sp. (for example white cabbage, red cabbage, broccoli, cauliflower, Brussels sprouts, pak choi, kohlrabi, radishes and oilseed rape, mustard, horseradish and cress), Fabacae sp. (for example beans, peanuts), Papilionaceae sp. (for example soya bean), Solanaceae sp. (for example potatoes), Chenopodiaceae sp. (for example sugar beet, fodder beet, Swiss chard, beetroot); useful plants and ornamental plants in gardens and forests.

Depending on the plant species or plant varieties, their location and growth conditions (soils, climate, vegetation period, diet), the treatment according to the invention may also result in superadditive ("synergistic") effects. For example, the following effects exceeding the effects actually to be expected are possible: reduced application rates and/or a widening of the activity spectrum and/or an increase in the activity of the active compounds and compositions which can be used according to the invention, better plant growth, increased tolerance to high or low temperatures, increased tolerance to drought or to water or soil salt content, increased flowering performance, easier harvesting, accelerated maturation, higher harvest yields, bigger fruits, larger plant height, greener leaf colour, earlier flowering, higher quality and/or a higher nutritional value of the harvested products, higher sugar concentration within the fruits, better storage stability and/or processibility of the harvested products.

At certain application rates, the active compound combinations according to the invention may also have a strengthening effect in plants. Accordingly, they are suitable for mobilizing the defence system of the plant against attack by unwanted phytopathogenic fungi and/or microorganisms and/or viruses. This may, if appropriate, be one of the reasons for the enhanced activity of the combinations according to the invention, for example against fungi. Plant-strengthening (resistance-inducing) substances are to be understood as meaning, in the present context, also those substances or combinations of substances which are capable of stimulating the defence system of plants in such a way that, when subsequently inoculated with unwanted phytopathogenic fungi and/or microorganisms and/or viruses, the treated plants display a substantial degree of resistance to these unwanted phytopathogenic fungi and/or microorganisms and/or viruses. In the present case, unwanted phytopathogenic fungi and/or microorganisms and/or viruses are understood as meaning phytopathogenic fungi, bacteria and viruses. Thus, the substances according to the invention can be employed for protecting plants against attack by the abovementioned pathogens within a certain period of time after the treatment. The period within which protection is brought about generally extends from 1 to 10 days, preferably 1 to 7 days, after the treatment of the plants with the active compounds.

Plants and plant varieties which are preferably treated according to the invention include all plants which have genetic material which imparts particularly advantageous, useful traits to these plants (whether obtained by breeding and/or biotechnological means).

Plants and plant varieties which are also preferably treated according to the invention are resistant against one or more biotic stress factors, i.e. said plants have a better defence against animal and microbial pests, such as against nematodes, insects, mites, phytopathogenic fungi, bacteria, viruses and/or viroids.

Plants and plant varieties which may also be treated according to the invention are those plants characterized by enhanced yield characteristics. Enhanced yield in said plants can be the result of, for example, improved plant physiology, growth and development, such as water use efficiency, water retention efficiency, improved nitrogen use, enhanced carbon assimilation, improved photosynthesis, increased germination efficiency and accelerated maturation. Yield can furthermore be affected by improved plant architecture (under stress and non-stress conditions), including early flowering, flowering control for hybrid seed production, seedling vigour, plant size, internode number and distance, root growth, seed size, fruit size, pod size, pod or ear number, seed number per pod or ear, seed mass, enhanced seed filling, reduced seed dispersal, reduced pod dehiscence and lodging resistance. Further yield traits include seed composition, such as carbohydrate content, protein content, oil content and composition, nutritional value, reduction in anti-nutritional compounds, improved processability and better storage stability.

Plants that may be treated according to the invention are hybrid plants that already express the characteristics of heterosis, or hybrid vigour, which results in generally higher yield, increased vigour, better health and better resistance towards biotic and abiotic stress factors. Such plants are typically made by crossing an inbred male-sterile parent line (the female parent) with another inbred male-fertile parent line (the male parent). Hybrid seed is typically harvested from the male-sterile plants and sold to growers. Male-sterile plants can sometimes (e.g. in maize) be produced by detasseling (i.e. the mechanical removal of the male reproductive organs or male flowers) but, more typically, male sterility is the result of genetic determinants in the plant genome. In that case, and especially when seed is the desired product to be harvested from the hybrid plants, it is typically useful to ensure that male fertility in hybrid plants, which contain the genetic determinants responsible for male sterility, is fully restored. This can be accomplished by ensuring that the male parents have appropriate fertility restorer genes which are capable of restoring the male fertility in hybrid plants that contain the genetic determinants responsible for male sterility. Genetic determinants for male sterility may be located in the cytoplasm. Examples of cytoplasmic male sterility (CMS) were for instance described in Brassica species (WO 1992/005251, WO 1995/009910, WO 1998/27806, WO 2005/002324, WO 2006/021972 and US 6,229,072). However, genetic determinants for male sterility can also be located in the nuclear genome. Male-sterile plants can also be obtained by plant biotechnology methods such as genetic engineering. A particularly useful means of obtaining male-sterile plants is described in WO 89/10396 in which, for example, a ribonuclease such as a barnase is selectively expressed in the tapetum cells in the stamens. Fertility can then be restored by expression in the tapetum cells of a ribonuclease inhibitor such as

barstar (e.g. WO 1991/002069).

Plants or plant varieties (obtained by plant biotechnology methods) which may be treated according to the invention are herbicide-tolerant plants, i.e. plants made tolerant to one or more given herbicides. Such plants can be obtained by selection of plants containing a mutation imparting such herbicide tolerance.

The active compound combinations according to the invention are particularly suitable for the treatment of seed. Here, particular mention may be made of the combinations according to the invention mentioned above as preferred or particularly preferred. Thus, most of the damage to crop plants which is caused by phytopathogenic fungi and/or animal pests occurs as early as when the seed is infested during storage and after the seed is introduced into the soil, and during and immediately after germination of the plants. This phase is particularly critical since the roots and shoots of the growing plant are particularly sensitive and even minor damage can lead to the death of the whole plant. Protecting the seed and the germinating plant by the use of suitable compositions is therefore of particularly great interest.

The control of phytopathogenic fungi and/or animal pests by treating the seed of plants has been known for a long time and is the subject of continuous improvements. However, the treatment of seed entails a series of problems which cannot always be solved in a satisfactory manner. Thus, it is desirable to develop methods for protecting the seed and the germinating plant which dispense with the additional application of crop protection products after sowing or after emergence of the plants. It is furthermore desirable to optimize the amount of active compound employed in such a way as to provide optimum protection for the seed and the germinating plant from attack by phytopathogenic fungi and/or animal pests, but without damaging the plant itself by the active compound employed. In particular, methods for the treatment of seed should also take into consideration the intrinsic fungicidal and/or insecticidal properties of transgenic plants in order to achieve optimum protection of the seed and the germinating plant with a minimum of crop protection products being employed.

Accordingly, the present invention also relates in particular to a method for protecting seed and germinating plants against attack by phytopathogenic fungi and/or animal pests by treating the seed with an active compound combination according to the invention. The method according to the invention for protecting seed and germinating plants against attack by phytopathogenic fungi and/or animal pests comprises a method where the seed is treated simultaneously with a compound of the formula (I) and an active compound from group (II) listed above. It also comprises a method where the seed is treated at different times with a compound of the formula (I) and an active compound from group (II) listed above.

The invention also relates to the use of the active compound combinations according to the invention

for treating seed for protecting the seed and the germinating plant against phytopathogenic fungi and/or animal pests.

Furthermore, the invention relates to seed treated with an active compound combination according to the invention for protection against phytopathogenic fungi and/or animal pests. The invention also relates to seed which has been treated simultaneously with a compound of the formula (I) and an active compound from group II. The invention further relates to seed which has been treated at different times with a compound of the formula (I) and an active compound from group II. In the case of seed which has been treated at different times with a compound of the formula (I) and an active compound from group II, the individual active compounds of the inventive active compounds combination may be present in different layers on the seed. The layers comprising a compound of the formula (I) and an active compound from group II may optionally be separated by an intermediate layer. The invention also relates to seed wherein a compound of the formula (I) and an active compound from group II are applied as part of a coating or as a further layer or further layers in addition to a coating.

An advantage of the present invention is the synergistically increased insecticidal activity of the active compound combinations according to the invention in comparison with the individual insecticidally active compound, which exceeds the expected activity of the two active compounds when applied individually. Also advantageous is the synergictic enhancement of the fungicidal activity of the active compound combinations according to the invention compared with the individul fungicidally active compound, which exceeds the expected activity of the active compound applied individually. This makes possible an optimization of the amount of active compound employed.

It is likewise to be considered advantageous that the active compound combinations according to the invention can be used in particular also for transgenic seed.

The active compound combinations according to the invention are suitable for protecting seed of any plant variety as already mentioned above which is employed in agriculture, in the greenhouse, in forests or in horticulture. In particular, this takes the form of seed of maize, peanut, canola, oilseed rape, poppy, soya beans, cotton, beet (for example sugar beet and fodder beet), rice, millet, wheat, barley, oats, rye, sunflower, tobacco, potatoes or vegetables (for example tomatoes, cabbage species, lettuce, etc.). The active compound combinations according to the invention are likewise suitable for treating the seed of fruit plants and vegetables as already mentioned above. The treatment of the seed of maize, soya beans, cotton, rice, beet, wheat and canola or oilseed rape is of particular importance.

Within the context of the present invention, the active compound combination according to the invention is applied to the seed either alone or in a suitable formulation. Preferably, the seed is treated in a state in which it is stable enough to avoid damage during treatment. In general, the seed may be treated at any point in time between harvest and sowing. The seed usually used has been separated from

the plant and freed from cobs, shells, stalks, coats, hairs or the flesh of the fruits. Thus, it is possible to use, for example, seed which has been harvested, cleaned and dried to a moisture content of less than 15% by weight. Alternatively, it is also possible to use seed which, after drying, has been treated, for example, with water and then dried again.

When treating the seed, care must generally be taken that the amount of the active compound combination according to the invention applied to the seed and/or the amount of further additives is chosen in such a way that the germination of the seed is not adversely affected, or that the resulting plant is not damaged. This must be borne in mind in particular in the case of active compounds which can have phytotoxic effects at certain application rates.

The compositions according to the invention can be applied directly, i.e. without containing any other components and undiluted. In general, it is preferred to apply the compositions to the seed in the form of a suitable formulation. Suitable formulations and methods for treating seed are known to the person skilled in the art and are described, for example, in the following documents: US 4,272,417 A, US 4,245,432 A, US 4,808,430 A, US 5,876,739 A, US 2003/0176428 A1, WO 2002/080675 A1, WO 2002/028186 A2.

The active compounds which can be used in accordance with the invention can be converted into the customary seed-dressing formulations, such as solutions, emulsions, suspensions, powders, foams, slurries or other coating compositions for seed, and also ULV formulations.

These formulations are prepared in a known manner, by mixing the active compounds with customary additives such as, for example, customary extenders and also solvents or diluents, colorants, wetting agents, dispersants, emulsifiers, antifoams, preservatives, secondary thickeners, adhesives, gibberellins and also water.

Colorants which may be present in the seed-dressing formulations which can be used in accordance with the invention are all colorants which are customary for such purposes. In this context, not only pigments, which are sparingly soluble in water, but also dyes, which are soluble in water, may be used. Examples include the dyes known by the names Rhodamine B, C.I. Pigment Red 112 and C.I. Solvent Red 1.

Suitable wetting agents which may be present in the seed-dressing formulations which can be used in accordance with the invention are all substances which promote wetting and which are conventionally used for the formulation of agrochemical active compounds. Preference is given to using alkylnaphthalenesulphonates, such as diisopropyl or diisobutylnaphthalenesulphonates.

Suitable dispersants and/or emulsifiers which may be present in the seed-dressing formulations which can be used in accordance with the invention are all nonionic, anionic and cationic dispersants

conventionally used for the formulation of agrochemical active compounds. Preference is given to using nonionic or anionic dispersants or mixtures of nonionic or anionic dispersants. Suitable nonionic dispersants which may be mentioned are, in particular, ethylene oxide/propylene oxide block polymers, alkylphenol polyglycol ethers and tristryrylphenol polyglycol ether, and their phosphated or sulphated derivatives. Suitable anionic dispersants are, in particular, lignosulphonates, polyacrylic acid salts and arylsulphonate/formaldehyde condensates.

Antifoams which may be present in the seed-dressing formulations which can be used in accordance with the invention are all foam-inhibiting substances conventionally used for the formulation of agrochemical active compounds. Silicone antifoams and magnesium stearate can preferably be used.

Preservatives which may be present in the seed-dressing formulations which can be used in accordance with the invention are all substances which can be employed for such purposes in agrochemical compositions. Dichlorophene and benzyl alcohol hemiformal may be mentioned by way of example.

Secondary thickeners which may be present in the seed-dressing formulations which can be used in accordance with the invention are all substances which can be employed for such purposes in agrochemical compositions. Cellulose derivatives, acrylic acid derivatives, xanthan, modified clays and finely divided silica are preferred.

Adhesives which may be present in the seed-dressing formulations which can be used in accordance with the invention are all customary binders which can be employed in seed-dressing products. Polyvinylpyrrolidone, polyvinyl acetate, polyvinyl alcohol and tylose may be mentioned as being preferred.

Gibberellins which can be present in the seed-dressing formulations which can be used in accordance with the invention are preferably the gibberellins A1, A3 (= gibberellic acid), A4 and A7; gibberellic acid is especially preferably used. The gibberellins are known (cf. R. Wegler "Chemie der Pflanzenschutz- und Schädlingsbekämpfungsmittel" [Chemistry of the Crop Protection Compositions and Pesticides], Vol. 2, Springer Verlag, 1970, p. 401-412).

The seed-dressing formulations which can be used in accordance with the invention can be employed for the treatment of a wide range of seed, including the seed of transgenic plants, either directly or after previously having been diluted with water. In this context, additional synergistic effects may also occur in cooperation with the substances formed by expression.

All mixers which can conventionally be employed for the seed-dressing operation are suitable for treating seed with the seed-dressing formulations which can be used in accordance with the invention or with the preparations prepared therefrom by addition of water. Specifically, a procedure is followed during the seed-dressing operation in which the seed is placed into a mixer, the specific desired amount

of seed-dressing formulations, either as such or after previously having been diluted with water, is added, and everything is mixed until the formulation is distributed uniformly on the seed. If appropriate, this is followed by a drying process.

The active compound combinations according to the invention are also suitable for increasing the yield of crops. In addition, they have reduced toxicity and are well tolerated by plants.

The active compound combinations according to the invention also exhibit a potent strengthening effect in plants. They can therefore be used to mobilize the plant's own defences against attack by undesirable microorganisms.

Plant-strengthening (resistance-inducing) substances are to be understood as meaning, in the present context, those substances which are capable of stimulating the defence system of plants in such a way that the treated plants, when subsequently inoculated with undesirable microorganisms, develop a high degree of resistance to these microorganisms.

In the present case, undesired microorganisms are to be understood as meaning phytopathogenic fungi, bacteria and viruses. Accordingly, the substances according to the invention can be used to protect plants for a certain period after the treatment against attack by the pathogens mentioned. The period for which protection is provided generally extends over 1 to 10 days, preferably 1 to 7 days, after the treatment of the plants with the active compounds.

The plants listed can be treated according to the invention in a particularly advantageous manner with the active compound mixtures according to the invention. The preferred ranges stated above for the active compound combinations also apply to the treatment of these plants. Particular emphasis is given to the treatment of plants with the active compound combinations specifically mentioned in the present text.

The good insecticidal and fungicidal action of the active compound combinations according to the invention can be seen from the examples which follow. While the individual active compounds show weaknesses in their action, the combinations show an action which exceeds a simple sum of actions.

A synergistic effect in insecticides and fungicides is always present when the insecticidal or fungicidal action of the active compound combinations exceeds the total of the actions of the active compounds when applied individually.

The expected insecticidal or fungicidal action for a given combination of two active compounds can be calculated according to S.R. Colby ("Calculating Synergistic and Antagonistic Responses of Herbicide Combinations", Weeds 1967, 15, 20-22), as follows:

If

X is the *kill rate* or *efficacy*, expressed in % of the untreated control, when the active compound A is used at an application rate of *m ppm* or *g/ha*,

Y is the *kill rate* or *efficacy*, expressed in % of the untreated control, when the active compound B is used at an application rate of *n ppm* or *g/ha*,

E is the *kill rate* or *efficacy*, expressed in % of the untreated control, when the active compounds A and B are used at respective application rates of *m ppm and n ppm* or *g/ha*,

then $$E = X + Y - \frac{X \times Y}{100}.$$

Here, the kill rate or efficacy is determined in %. 0% means a kill rate or an efficacy that corresponds to that of the control, whereas a kill rate of 100 % means that all animals are dead and an efficacy of 100 % means that no infection is observed.

If the actual fungicidal or insecticidal activity exceeds the calculated value, the activity of the combination is superadditive, i.e. a synergistic effect is present. In this case, the actually observed efficacy must exceed the value calculated using the above formula for the expected efficacy (E).

Example **A**

Myzus persicae test

Solvents: 78 parts by weight of acetone
1.5 parts by weight of dimethylformamide

Emulsifier: 0.5 part by weight of alkylaryl polyglycol ether

To produce a suitable preparation of active compound, 1 part by weight of active compound is mixed with the stated amount of solvent and emulsifier, and the concentrate is diluted with emulsifier-containing water to the desired concentration.

Cabbage leaves (*Brassica oleracea*) which are heavily infested by the green peach aphid (*Myzus persicae*) are treated by spraying with the active compound preparation of the desired concentration.

After the desired period of time, the kill in % is determined. 100 % means that all of the aphids have been killed; 0 % means that none of the aphids have been killed. The kill rates determined are entered into Colby's formula.

In this test, for example, the following active compound combinations in accordance with the present application show a synergistically enhanced activity compared to the active compounds applied individually:

Table A – 1: **Myzus persicae test**

Active compound	**Concentration in g/ha**	**Kill in % after 1d**
compound (I-1-1)/compound (I-1-7)* **	4	0
metominostrobin	100	0
compound (I-1-1)/compound (I-1-7)* + metominostrobin (1 : 25)** according to the invention	**4 + 100**	**found* calc.**** **70 0**
ipconazole	100	0
compound (I-1-1)/compound (I-1-7)* + ipconazole (1 : 25)** according to the invention	**4 + 100**	**found* calc.**** **70 0**
mancozeb	100	0
compound (I-1-1)/compound (I-1-7)* + mancozeb (1 : 25)** according to the invention	**4 + 100**	**found* calc.**** **70 0**
mefenoxam	100	0
compound (I-1-1)/compound (I-1-7)* + mefenoxam (1 : 25)** according to the invention	**4 + 100**	**found* calc.**** **70 0**
azoxystrobin		

Active compound	Concentration in g/ha	Kill in % after 1d
	100	0
compound (I-1-1)/compound (I-1-7)* + azoxystrobin (1 : 25)** according to the invention	**4 + 100**	**found* calc.** 70 0**

*** In the mixtures tested of compound (I-1-1)/compound (I-1-7) or compound (I-1-2)/compound (I-1-8), the compounds (I-1-1) and (I-1-2) were in each case present in an amount of about 85% and about 84%, respectively, the compounds (I-1-7) and (I-1-8) were each present in an amount of about 15%.

Table A – 2: **Myzus persicae test**

Active compound	Concentration in g/ha	Kill in % after 5d
compound (I-1-2)/compound (I-1-8)* **	0.16	0
tebuconazole	100	0
compound (I-1-2)/compound (I-1-8)* + tebuconazole (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** 70 0**
flutolanil	100	0
compound (I-1-2)/compound (I-1-8)* + flutolanil (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** 70 0**

*found = activity found ** calc. = activity calculated using Colby's formula

*** In the mixtures tested of compound (I-1-1)/compound (I-1-7) or compound (I-1-2)/compound (I-1-8), the compounds (I-1-1) and (I-1-2) were in each case present in an amount of about 85% and about 84%, respectively, the compounds (I-1-7) and (I-1-8) were each present in an amount of about 15%.

Example **B**

Phaedon cochleariae larvae test

Solvents: 78 parts by weight of acetone
1.5 parts by weight of dimethylformamide

Emulsifier: 0.5 part by weight of alkylaryl polyglycol ether

To produce a suitable preparation of active compound, 1 part by weight of active compound is mixed with the stated amount of solvent and emulsifier, and the concentrate is diluted with emulsifier-containing water to the desired concentration.

Cabbage leaves (*Brassica oleracea*) are treated by spraying with the active compound preparation of the desired concentration and populated with larvae of the mustard beetle (*Phaedon cochleariae*) while the leaves are still moist.

After the desired period of time, the kill in % is determined. 100% means that all beetle larvae have been killed; 0% means that none of the beetle larvae have been killed. The kill rates determined are entered into Colby's formula.

In this test, the following active compound combinations in accordance with the present application show a synergistically enhanced activity compared to the active compounds applied individually:

Table B – 1: **Phaedon cochleariae larvae test**

Active compound	Concentration in g/ha	Kill in % after 2d
compound (I-1-1)/compound (I-1-7)***	0.8	67
fluopyram	100	0
compound (I-1-1)/compound (I-1-7)* + fluopyram (1 : 125)** according to the invention	**0.8 + 100**	**found* calc.**** **83 0**

Table B – 2: **Phaedon cochleariae larvae test**

Active compound	Concentration in g/ha	Kill in % after 5d
compound (I-1-2)/compound (I-1-8)***	0.16	0
compound (I-1-1)/compound (I-1-7)***	0.16	0
prothioconazole	100	0
compound (I-1-2)/compound (I-1-8)* + prothioconazole (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.**** **100 0**
compound (I-1-1)/compound (I-1-7)* + prothioconazole (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.**** **100 0**
tebuconazole	100	0
compound (I-1-2)/compound (I-1-8)* + tebuconazole (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.**** **100 0**
compound (I-1-1)/compound (I-1-7)* + tebuconazole (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.**** **100 0**
triadimenol	100	0
compound (I-1-2)/compound (I-1-8)* + triadimenol (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.**** **33 0**
compound (I-1-1)/compound (I-1-7)* + triadimenol (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.**** **100 0**
fluquinconazole	100	0

Active compound	Concentration in g/ha	Kill in % after 5d
compound (I-1-2)/compound (I-1-8)* + fluquinconazole (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **100 0**
compound (I-1-1)/compound (I-1-7)* + fluquinconazole (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **100 0**
fluoxastrobin	100	0
compound (I-1-2)/compound (I-1-8)* + fluoxastrobin (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **33 0**
compound (I-1-1)/compound (I-1-7)* + fluoxastrobin (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **67 0**
trifloxystrobin	100	0
compound (I-1-2)/compound (I-1-8)* + trifloxystrobin (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **67 0**
compound (I-1-1)/compound (I-1-7)* + trifloxystrobin (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **83 0**
triazoxide	100	0
compound (I-1-2)/compound (I-1-8)* + triazoxide (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **67 0**
penflufen	100	0
compound (I-1-1)/compound (I-1-7)* + penflufen (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **83 0**
fluopicolide	100	0
compound (I-1-2)/compound (I-1-8)* + fluopicolide (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **33 0**
compound (I-1-1)/compound (I-1-7)* + fluopicolide (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **33 0**
fenamidone	100	0
compound (I-1-2)/compound (I-1-8)* + fenamidone (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **100 0**
compound (I-1-1)/compound (I-1-7)* + fenamidone (1 : 625)** according to the invention	**0.16 + 100**	found* calc.** **100 0**
carpropamid	100	0
compound (I-1-2)/compound (I-1-8)* + carpropamid (1 : 625)**	**0.16 + 100**	found* calc.** **67 0**

Active compound	Concentration in g/ha	Kill in % after 5d
according to the invention		
compound (I-1-1)/compound (I-1-7)* + carpropamid (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** **83 0**
isotianil	100	0
compound (I-1-2)/compound (I-1-8)* + isotianil (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** **100 0**
compound (I-1-1)/compound (I-1-7)* + isotianil (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** **100 0**
pencycuron	100	0
compound (I-1-1)/compound (I-1-7)* + pencycuron (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** **100 0**
fludioxonil	100	0
compound (I-1-2)/compound (I-1-8)* + fludioxonil (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** **67 0**
ipconazole	100	0
compound (I-1-2)/compound (I-1-8)* + ipconazole (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** **33 0**
compound (I-1-1)/compound (I-1-7)* + ipconazole (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** **100 0**
imazalil	100	0
compound (I-1-2)/compound (I-1-8)* + imazalil (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** **100 0**
mancozeb	100	0
compound (I-1-1)/compound (I-1-7)* + mancozeb (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** **83 0**
metalaxyl	100	0
compound (I-1-1)/compound (I-1-7)* + metalaxyl (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** **83 0**
mefenoxam	100	0
compound (I-1-2)/compound (I-1-8)* + mefenoxam (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** **83 0**
compound (I-1-1)/compound (I-1-7)* + mefenoxam (1 : 625)**	**0.16 + 100**	**found* calc.** **83 0**

Active compound	**Concentration in g/ha**	**Kill in % after 5d**
according to the invention		
sedaxane	100	0
compound (I-1-1)/compound (I-1-7)* + sedaxane (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** 100 0**
azoxystrobin	100	0
compound (I-1-2)/compound (I-1-8)* + azoxystrobin (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** 50 0**
compound (I-1-1)/compound (I-1-7)* + azoxystrobin (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** 83 0**
boscalid	100	0
compound (I-1-1)/compound (I-1-7)* + boscalid (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** 67 0**
flutolanil	100	0
compound (I-1-1)/compound (I-1-7)* + flutolanil (1 : 625)** according to the invention	**0.16 + 100**	**found* calc.** 83 0**

* found = activity found ** calc. = activity calculated using Colby's formula

*** In the mixtures tested of compound (I-1-1)/compound (I-1-7) or compound (I-1-2)/compound (I-1-8), the compounds (I-1-1) and (I-1-2) were in each case present in an amount of about 85% and about 84%, respectively, the compounds (I-1-7) and (I-1-8) were each present in an amount of about 15%.

Example C

Spodoptera frugiperda larvae test

Solvents: 78 parts by weight of acetone
1.5 parts by weight of dimethylformamide

Emulsifier: 0.5 part by weight of alkylaryl polyglycol ether

To produce a suitable preparation of active compound, 1 part by weight of active compound is mixed with the stated amount of solvent and emulsifier, and the concentrate is diluted with emulsifier-containing water to the desired concentration.

Cabbage leaves (*Brassica oleracea*) are treated by being sprayed with the preparation of active compound of the desired concentration and are populated with larvae of the armyworm (*Spodoptera frugiperda*) while the leaves are still moist.

After the desired period of time, the kill in % is determined. 100% means that all caterpillars have been killed; 0% means that none of the caterpillars have been killed. The kill rates determined are entered into Colby's formula.

In this test, the following active compound combinations in accordance with the present application show a synergistically enhanced activity compared to the active compounds applied individually:

Table C – 1: **Spodoptera frugiperda larvae test**

Active compound	**Concentration in g/ha**	**Kill in % after 2d**
compound (I-1-2)/compound (I-1-8)* **	0.16	67
compound (I-1-1)/compound (I-1-7)* **	4 0.8 0.16	0 0 0
penflufen	100	0
compound (I-1-2)/compound (I-1-8)* ** + **penflufen (1 : 625)** according to the invention	**0.16 + 100**	**found*** **calc.**** **100** **67**
imazalil	100	0
compound (I-1-2)/compound (I-1-8)* ** + **imazalil (1 : 625)** according to the invention	**0.16 + 100**	**found*** **calc.**** **100** **67**

*found = activity found ** calc. = activity calculated using Colby's formula *** In the mixtures tested of compound (I-1-1)/compound (I-1-7) or compound (I-1-2)/compound (I-1-8), the compounds (I-1-1) and (I-1-2) were in each case present in an amount of about 85% and about 84%, respectively, the compounds (I-1-7) and (I-1-8) were each present in an amount of about 15%.

Table C – 2: **Spodoptera frugiperda larvae test**

Active compound	**Concentration in g/ha**	**Kill in % after 6d**
compound (I-1-1)/compound (I-1-7)* **	0.16	33
fosetyl-aluminium	500	0
compound (I-1-1)/compound (I-1-7)* + fosetyl-aluminium (1 : 3125)** according to the invention	**0.16 + 500**	**found* 67 calc.** 33**

* found = activity found ** calc. = activity calculated using Colby's formula *** In the mixtures tested of compound (I-1-1)/compound (I-1-7) or compound (I-1-2)/compound (I-1-8), the compounds (I-1-1) and (I-1-2) were in each case present in an amount of about 85% and about 84%, respectively, the compounds (I-1-7) and (I-1-8) were each present in an amount of about 15%.

Example **D**

Aphis gossypii test

Solvent: 7 parts by weight of dimethylformamide

Emulsifier: 2 parts by weight of alkylaryl polyglycol ether

To produce a suitable preparation of active compound, 1 part by weight of active compound is mixed with the stated amount of solvent and emulsifier, and the concentrate is diluted with emulsifier-containing water to the desired concentration.

Cotton plants (*Gossypium hirsutum*) severely infested by the cotton aphid (*Aphis gossypii*) are treated by spraying with the active compound preparation in the desired concentration.

After the desired period of time, the kill in % is determined. 100 % means that all of the aphids have been killed; 0 % means that none of the aphids have been killed. The kill rates determined are entered into Colby's formula.

In this test, the following active compound combination in accordance with the present application shows a synergistically enhanced activity compared to the compounds applied individually:

Table D **Aphis gossypii test**

Active compound	**Concentration ppm**	**Kill in % after 1d**
compound (I-1-1)/compound (I-1-7)***	4	10
2,6-DIMETHYL-1H,5H-[1,4]DITHIINO[2,3-C:5,6-C']DIPYRROLE-1,3,5,7(2H,6H)-TETRONE	500	0
compound (I-1-1)/compound (I-1-7)***+ 2,6-DIMETHYL-1H,5H-[1,4]DITHIINO[2,3-C:5,6-C']DIPYRROLE-1,3,5,7(2H,6H)-TETRONE **(1:125)** according to the invention	**4 + 500**	**found* calc.** **45 10**
Active compound	**Concentration ppm**	**Kill in % after 2d**
compound (I-1-1)/compound (I-1-7)***	20	35
fluopyram	500	0
compound (I-1-1)/compound (I-1-7)*** + **fluopyram (1 :25)** according to the invention	**20 + 500**	**found* calc.** **60 35**
Active compound	**Concentration ppm**	**Kill in % after 3d**
compound (I-1-2)/compound (I-1-8)***	4	10
2,6-DIMETHYL-1H,5H-[1,4]DITHIINO[2,3-C:5,6-C']DIPYRROLE-1,3,5,7(2H,6H)-TETRONE	500	0
compound (I-1-2)/compound (I-1-8)***+ 2,6-DIMETHYL-1H,5H-[1,4]DITHIINO[2,3-C:5,6-C']DIPYRROLE-1,3,5,7(2H,6H)-TETRONE (1:125) according to the invention	**4 + 500**	**found* calc.** **65 10**

* found=activity found ** calc. = activity calculated using the Colby formula

*** In the mixtures tested of compound (I-1-1)/compound (I-1-7) or compound (I-1-2)/compound (I-1-8), the compounds (I-1-1) and (I-1-2) were in each case present in an amount of about 85% and about 84%, respectively, the compounds (I-1-7) and (I-1-8) were each present in an amount of about 15%.

Example **E**

Myzus persicae test (Run-off application)

Solvent: 7 parts by weight of dimethylformamide

Emulsifier: 2 parts by weight of alkylaryl polyglycol ether

To produce a suitable preparation of active compound, 1 part by weight of active compound is mixed with the stated amount of solvent and emulsifier, and the concentrate is diluted with emulsifier-containing water to the desired concentration.

Cabbage leaves (*Brassica oleracea*) which are heavily infested by the green peach aphid (*Myzus persicae*) are treated by spraying to run-off point with the active compound preparation of the desired concentration.

After the desired period of time, the kill in % is determined. 100 % means that all of the aphids have been killed; 0 % means that none of the aphids have been killed. The kill rates determined are entered into Colby's formula.

In this test, the following active compound combination in accordance with the present application shows a synergistically enhanced activity compared to the compounds applied individually:

Table E: **Myzus persicae test**

Active compound	**Concentration ppm**	**Kill in % after 1d**
compound (I-1-1)/compound (I-1-7)***	4	50
2,6-DIMETHYL-1H,5H-[1,4]DITHIINO[2,3-C:5,6-C']DIPYRROLE-1,3,5,7(2H,6H)-TETRONE	500	0
compound (I-1-1)/compound (I-1-7)***+ 2,6-DIMETHYL-1H,5H-[1,4]DITHIINO[2,3-C:5,6-C']DIPYRROLE-1,3,5,7(2H,6H)-TETRONE **(1:125)** according to the invention	**4 + 500**	**found* calc.**** **70 50**

* found=activity found ** calc. = activity calculated using the Colby formula

*** In the mixtures tested of compound (I-1-1)/compound (I-1-7) or compound (I-1-2)/compound (I-1-8), the compounds (I-1-1) and (I-1-2) were in each case present in an amount of about 85% and about 84%, respectively, the compounds (I-1-7) and (I-1-8) were each present in an amount of about 15%.

2011275871 20 Aug 2015

Throughout this specification and the claims which follow, unless the context requires otherwise, the word "comprise", and variations such as "comprises" or "comprising", will be understood to imply the inclusion of a stated integer or step or group of integers or steps but not the exclusion of any other integer or step or group of integers or steps.

The reference in this specification to any prior publication (or information derived from it), or to any matter which is known, is not, and should not be taken as an acknowledgment or admission or any form of suggestion that that prior publication (or information derived from it) or known matter forms part of the common general knowledge in the field of endeavour to which this specification relates.

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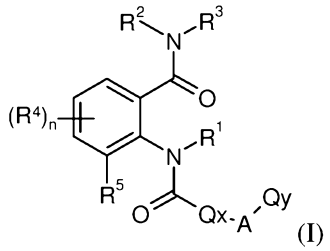
The claims defining the invention are as follows:

1. An active compound combination comprising a synergistically effective combination of at least one compound of the general formula (I)



(I)

in which

R^1 represents hydrogen, amino, hydroxyl or represents C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl or C_3-C_6-cycloalkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of halogen, cyano, nitro, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, (C_1-C_4-alkoxy)carbonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino and (C_1-C_4-alkyl)-C_3-C_6-cycloalkylamino,

R^2 represents hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, C_1-C_6-alkoxycarbonyl or C_1-C_6-alkylcarbonyl,

R^3 represents hydrogen or represents C_1-C_6-alkyl, C_1-C_6-alkoxy, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_{12}-cycloalkyl, C_3-C_{12}-cycloalkyl-C_1-C_6-alkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of amino, C_3-C_6-cycloalkylamino, halogen, cyano, carboxyl, carbamoyl, nitro, hydroxyl, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_3-C_6-trialkylsilyl and a saturated or partially saturated heterocyclic ring, an aromatic or heteroaromatic ring or a saturated, partially saturated or aromatic heterobicyclic ring, where the ring or the ring system is optionally mono- or polysubstituted by identical or different substituents from the group consisting of SF_5, halogen, cyano, nitro, hydroxyl, amino, carboxyl, carbamoyl, aminosulphonyl, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_6-haloalkyl, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-alkylsulphimino, C_1-C_4-alkylsulphimino-C_1-C_4-alkyl, C_1-C_4-alkylsulphimino-C_2-C_5-alkylcarbonyl, C_1-C_4-alkylsulphoximino, C_1-C_4-

2011275871 20 Aug 2015

alkylsulphoximino-C_1-C_4-alkyl, C_1-C_4-alkylsulphoximino-C_2-C_5-alkylcarbonyl, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_3-C_6-trialkylsilyl, benzyl C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino and a 3- to 6-membered ring, where the ring may optionally be substituted by C_1-C_6-alkyl, halogen, cyano, nitro, halo-(C_1-C_6)-alkyl, C_1-C_6-alkoxy or halo-(C_1-C_6)-alkoxy, or

R^3 represents C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_1-C_6-alkylaminocarbonyl or di-(C_1-C_6)-alkylaminocarbonyl, or

R^3 furthermore represents a 5- or 6-membered aromatic or heteroaromatic ring, a 4-, 5- or 6-membered partially saturated ring or saturated heterocyclic ring, or a saturated, partially saturated or aromatic heterobicyclic ring which may optionally contain one to three heteroatoms from the group consisting of O, S and N, where the ring or ring system is mono- or polysubstituted by identical or different substituents, where the substituents independently of one another are selected from the group consisting of SF_5, halogen, cyano, nitro, hydroxyl, amino, carboxyl, carbamoyl, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_6-haloalkyl, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-alkylsulphimino, C_1-C_4-alkylsulphimino-C_1-C_4-alkyl, C_1-C_4-alkylsulphimino-C_1-C_5-alkylcarbonyl, C_1-C_4-alkylsulphoximino, C_1-C_4-alkylsulphoximino-C_1-C_4-alkyl, C_1-C_4-alkylsulphoximino-C_2-C_5-alkylcarbonyl, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_3-C_6-trialkylsilyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino and C_3-C_6-cycloalkylamino, or a 3- to 6-membered ring, where the ring may optionally be substituted by C_1-C_6-alkyl, halogen, cyano, nitro, halo-(C_1-C_6)-alkyl, C_1-C_6-alkoxy or halo-(C_1-C_6)-alkoxy,

R^2 and R^3 may be linked with each other via two to six carbon atoms and form a ring which optionally additionally contains a further nitrogen, sulphur or oxygen atom and which may optionally be mono- to tetrasubstituted by C_1-C_2-alkyl, C_1-C_2-haloalkyl, halogen, cyano, amino, C_1-C_2-alkoxy or C_1-C_2-haloalkoxy,

R^2 and R^3 furthermore together represent $=S(C_1\text{-}C_4\text{-alkyl})_2$ or $=S(O)(C_1\text{-}C_4\text{-alkyl})_2$,

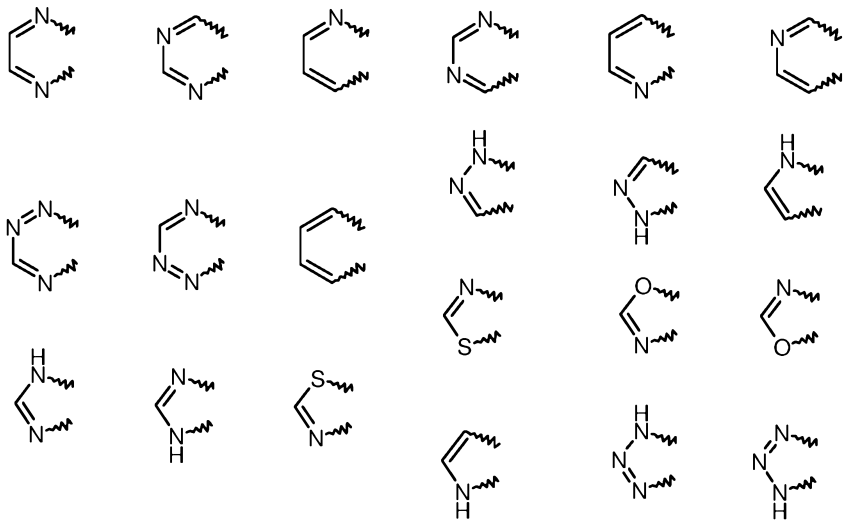
R^4 represents hydrogen, halogen, cyano, nitro, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_2-C_6-alkenyl, C_2-C_6-haloalkenyl, C_2-C_6-alkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, SF_5, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-

2011275871 20 Aug 2015

haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_4-alkoxy)imino, (C_1-C_4-alkyl)(C_1-C_4-alkoxy)imino, (C_1-C_4-haloalkyl)(C_1-C_4-alkoxy)imino or C_3-C_6-trialkylsilyl, or

two adjacent radicals R^4, via adjacent carbon atoms, form a ring which represents -$(CH_2)_3$-, -$(CH_2)_4$-, -$(CH_2)_5$-, -(CH=CH-)$_2$-, -OCH_2O-, -$O(CH_2)_2O$-, -OCF_2O-, -$(CF_2)_2O$-, -$O(CF_2)_2O$-, -(CH=CH-CH=N)- or -(CH=CH-N=CH)-,

two adjacent radicals R^4 furthermore, via adjacent carbon atoms, form the fused rings below, which are optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_3-C_6-halocycloalkyl, halogen, C_1-C_6-alkoxy, C_1-C_4-alkylthio-(C_1-C_6-alkyl), C_1-C_4-alkylsulphinyl-(C_1-C_6-alkyl), C_1-C_4-alkylsulphonyl-(C_1-C_6-alkyl), C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino and C_3-C_6-cycloalkylamino,



n represents an integer from 0 to 3,

R^5 represents C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_1-C_6-halocycloalkyl, C_2-C_6-alkenyl, C_2-C_6-haloalkenyl, C_2-C_6-alkynyl, C_2-C_6-haloalkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, halogen, cyano, nitro or C_3-C_6-trialkylsilyl,

Q_X represents an aromatic or heteroaromatic 5- or 6-membered ring which is optionally mono- or polysubstituted by identical or different R^7 substituents and which may contain one to three heteroatoms from the group consisting of N, S and O,

2011275871 20 Aug 2015

A represents optionally mono- or polysubstituted -(C_1-C_6-alkylene)-, -(C_2-C_6-alkenylene)-, -(C_2-C_6-alkynylene)-, -R^8-(C_3-C_6-cycloalkyl)-R^8-, -R^8-O-R^8-, -R^8-S-R^8-, -R^8-S(=O)-R^8-, -R^8-S(=O)$_2$-R^8-, -R^8-N(C_1-C_6-alkyl)-R^8-, -R^8-C=NO(C_1-C_6-alkyl)-R^8, -CH[CO_2(C_1-C_6-alkyl)-, -R^8-C(=O)-R^8, -R^8-C(=O)NH-R^8, R^8-C(=O)N(C_1-C_6-alkyl)-R^8, -R^8-C(=O)NHNH-R^8-, -R^8-C(=O)N(C_1-C_6-alkyl)-NH-R^8-, -R^8-C(=O)NHN(C_1-C_6-alkyl)-R^8, -R^8-O(C=O)-R^8, -R^8-O(C=O)NH-R^8, -R^8-O(C=O)N(C_1-C_6-alkyl)-R^8, -R^8-S(=O)$_2$NH-R^8, -R^8-S(=O)$_2$N(C_1-C_6-alkyl)-R^8, -R^8-S(C=O)-R^8, -R^8-S(C=O)NH-R^8, -R^8-S(C=O)N(C_1-C_6-alkyl)-R^8, -R^8-NHNH-R^8, -R^8-NHN(C_1-C_6-alkyl)-R^8, -R^8-N(C_1-C_6-alkyl)-NH-R^8, -R^8-N(C_1-C_6-alkyl)-N(C_1-C_6-alkyl)-R^8, -R^8-N=CH-O-R^8, -R^8-NH(C=O)O-R^8, -R^8-N(C_1-C_6-alkyl)-(C=O)O-R^8, -R^8-NH(C=O)NH-R^8, -R^8-NH(C=S)NH-R^8, -R^8-NHS(=O)$_2$-R^8, R^8-NH-R^8, R^8-C(=O)-C(=O)-R^8, R^8-C(OH)-R^8, R^8-NH(C=O)-R^8, R^8-Qz-R^8 , R^8-C(=N-NR'$_2$)-R^8, R^8-C(=C-R'$_2$)-R^8 or -R^8-N(C_1-C_6-alkyl)S(=O)$_2$-R^8,

where the substituents independently of one another may be selected from the group consisting of halogen, cyano, nitro, hydroxyl, C_1-C_6-alkyl, C_1-C_6-alkyloxy, halo-C_1-C_6-alkyl, amino, (C_1-C_6-alkyl)amino, di-(C_1-C_6-alkyl)amino and C_3-C_6-cycloalkyl

where -(C_3-C_6-cycloalkyl)- in the ring may optionally contain 1 or 2 heteroatoms selected from the group consisting of N, S and O,

R^8 represents straight-chain or branched -(C_1-C_6-alkylene)- or represents a direct bond,

where a plurality of R^8 independently of one another represent straight-chain or branched -(C_1-C_6-alkylene)- or represent a direct bond,

where R' represents alkyl, alkylcarbonyl, alkenyl, alkynyl, which may optionally be mono- or polysubstituted by halogen,

Qz represents a 3- or 4-membered partially saturated or saturated ring or a 5- or 6-membered partially saturated, saturated or aromatic ring or represents a 6- to 10-membered bicyclic ring system,

where the ring or the bicyclic ring system may optionally contain one to three heteroatoms from the group consisting of N, S and O,

where the ring or the bicyclic ring system is optionally mono- or polysubstituted by identical or different substituents and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carbamoyl, nitro, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio,

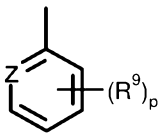
2011275871 20 Aug 2015

C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkyl)aminocarbonyl and di-(C_1-C_4-alkyl)aminocarbonyl,

Q_Y represents a 5- or 6-membered partially saturated or saturated heterocyclic or heteroaromatic ring or an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system, where the ring or the ring system is optionally mono- or polysubstituted by identical or different substituents and the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carboxyl, carbamoyl, nitro, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl, (C_1-C_6-alkyl)aminocarbonyl, di-(C_1-C_4-alkyl)aminocarbonyl, tri-(C_1-C_2)alkylsilyl and (C_1-C_4-alkyl)(C_1-C_4-alkoxy)imino,

or where the substituents independently of one another may be selected from the group consisting of phenyl and a 5- or 6-membered heteroaromatic ring, where phenyl or the ring may optionally be mono- or polysubstituted by identical or different substituents from the group consisting of C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, nitro, hydroxyl, C_1-C_4-alkoxy and C_1-C_4-haloalkoxy,

R^7 represents hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_3-C_6-cycloalkoxy or



R^9 independently of one another represent hydrogen, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, halogen, cyano, nitro, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio or C_1-C_4-haloalkylthio,

p represents an integer from 0 to 4,

2011275871 20 Aug 2015

Z represents N, CH, CF, CCl, CBr or CI,

the compounds of the general formula (I) further comprising the N-oxides and salts thereof,

and one or more fungicides of group (II) selected from:

an ergosterol biosynthesis inhibitor;

a respiration inhibitor (respiratory chain inhibitor);

a respiration inhibitor (respiratory chain inhibitor) acting on complex III of the respiratory chain;

a mitosis and cell division inhibitor;

a compound with multisite activity;

a resistance inductor;

an amino acid and protein biosynthesis inhibitor;

an ATP production inhibitor;

a cell wall synthesis inhibitor;

a lipid and membrane synthesis inhibitor;

a melanin biosynthesis inhibitor;

a nucleic acid synthesis inhibitor;

a signal transduction inhibitor;

a decoupler; or

a further fungicide.

2. An active compound combination according to claim 1, wherein:

the ergosterol biosynthesis inhibitor is selected from aldimorph, azaconazole, bitertanol, bromuconazole, cyproconazole, diclobutrazole, difenoconazole, diniconazole, diniconazole-M, dodemorph, dodemorph acetate, epoxiconazole, etaconazole, fenarimol, fenbuconazole, fenhexamid, fenpropidin, fenpropimorph, fluquinconazole, flurprimidol, flusilazole, flutriafol, furconazole, furconazole-cis, hexaconazole, imazalil, imazalil sulphate, imibenconazole,

2011275871 20 Aug 2015

ipconazole, metconazole, myclobutanil, naftifin, nuarimol, oxpoconazole, paclobutrazole, pefurazoate, penconazole, piperalin, prochloraz, propiconazole, prothioconazole, pyributicarb, pyrifenox, quinconazole, simeconazole, spiroxamine, tebuconazole, terbinafine, tetraconazole, triadimefon, triadimenol, tridemorph, triflumizole, triforine, triticonazole, uniconazole, uniconazole-p, viniconazole, voriconazole, 1-(4-chlorophenyl)-2-(1H-1,2,4-triazol-1-yl)cycloheptanol, methyl 1-(2,2-dimethyl-2,3-dihydro-1H-inden-1-yl)-1H-imidazole-5-carboxylate, N'-{5-(difluoromethyl)-2-methyl-4-[3-(trimethylsilyl)propoxy]phenyl}-N-ethyl-N-methylimidoformamide, N-ethyl-N-methyl-N'-{2-methyl-5-(trifluoromethyl)-4-[3-(trimethylsilyl)propoxy]phenyl}imidoformamide and O-[1-(4-methoxyphenoxy)-3,3-dimethylbutan-2-yl] 1H-imidazole-1-carbothioate;

the respiration inhibitor (respiratory chain inhibitor) is selected from bixafen, boscalid, carboxin, diflumetorim, fenfuram, fluopyram, flutolanil, fluxapyroxad, furametpyr, furmecyclox, isopyrazam mixture of the syn-epimeric racemate 1RS,4SR,9RS and of the anti-epimeric racemate 1RS,4SR,9SR, isopyrazam (anti-epimeric racemate), isopyrazam (anti-epimeric enantiomer 1R,4S,9S), isopyrazam (anti-epimeric enantiomer 1S,4R,9R), isopyrazam (syn-epimeric racemate 1RS,4SR,9RS), isopyrazam (syn-epimeric enantiomer 1R,4S,9R), isopyrazam (syn-epimeric enantiomer 1S,4R,9S), mepronil, oxycarboxin, penflufen, penthiopyrad, sedaxane, thifluzamid, 1-methyl-N-[2-(1,1,2,2-tetrafluoroethoxy)phenyl]-3-(trifluoromethyl)-1H-pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-[2-(1,1,2,2-tetrafluoroethoxy)phenyl]-1H-pyrazole-4-carboxamide, 3-(difluoromethyl)-N-[4-fluoro-2-(1,1,2,3,3,3-hexafluoropropoxy)phenyl]-1-methyl-1H-pyrazole-4-carboxamide, N-[1-(2,4-dichlorophenyl)-1-methoxypropan-2-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, 5,8-difluoro-N-[2-(2-fluoro-4-{[4-(trifluoromethyl)pyridin-2-yl]oxy}phenyl)ethyl]quinazoline-4-amine, N-[9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, N-[(1S,4R)-9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide and N-[(1R,4S)-9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide;

the respiration inhibitor (respiratory chain inhibitor) acting on complex III of the respiratory chain is selected from ametoctradin, amisulbrom, azoxystrobin, cyazofamid, coumethoxystrobin, coumoxystrobin, dimoxystrobin, enestroburin, famoxadone, fenamidone, fenoxystrobin, fluoxastrobin, kresoxim-methyl, metominostrobin, orysastrobin, picoxystrobin, pyraclostrobin, pyrametostrobin, pyraoxystrobin, pyribencarb, triclopyricarb, trifloxystrobin, (2E)-2-(2-{[6-(3-chloro-2-methylphenoxy)-5-fluoropyrimidin-4-yl]oxy}phenyl)-2-(methoxyimino)-N-methylethanamide, (2E)-2-(methoxyimino)-N-methyl-2-(2-{[({(1E)-1-[3-

2011275871 20 Aug 2015

(trifluoromethyl)phenyl]ethylidene}amino)oxy]methyl}phenyl)ethanamide, (2E)-2-(methoxyimino)-N-methyl-2-{2-[(E)-({1-[3-(trifluoromethyl)phenyl]ethoxy}imino)methyl]phenyl}ethanamide, (2E)-2-{2-[({[(1E)-1-(3-{[(E)-1-fluoro-2-phenylethenyl]oxy}phenyl)ethylidene]amino}oxy)methyl]phenyl}-2-(methoxyimino)-N-methylethanamide, (2E)-2-{2-[({[(2E,3E)-4-(2,6-dichlorophenyl)but-3-en-2-ylidene]amino}oxy)methyl]phenyl}-2-(methoxyimino)-N-methylethanamide, 2-chloro-N-(1,1,3-trimethyl-2,3-dihydro-1H-inden-4-yl)pyridine-3-carboxamide, 5-methoxy-2-methyl-4-(2-{[({(1E)-1-[3-(trifluoromethyl)phenyl]ethylidene}amino)oxy]methyl}phenyl)-2,4-dihydro-3H-1,2,4-triazol-3-one, methyl (2E)-2-{2-[({cyclopropyl[(4-methoxyphenyl)imino]methyl}sulphanyl)methyl]phenyl}-3-methoxyprop-2-enoate, N-(3-ethyl-3,5,5-trimethylcyclohexyl)-3-(formylamino)-2-hydroxybenzamide, 2-{2-[(2,5-dimethylphenoxy)methyl]phenyl}-2-methoxy-N-methylacetamide and (2R)-2-{2-[(2,5-dimethylphenoxy)methyl]phenyl}-2-methoxy-N-methylacetamide;

the mitosis and cell division inhibitor is selected from benomyl, carbendazim, chlorfenazole, diethofencarb, ethaboxam, fluopicolide, fuberidazole, pencycuron, thiabendazole, thiophanate-methyl, thiophanate, zoxamide, 5-chloro-7-(4-methylpiperidin-1-yl)-6-(2,4,6-trifluorophenyl)[1,2,4]triazolo[1,5-a]pyrimidine and 3-chloro-5-(6-chloropyridin-3-yl)-6-methyl-4-(2,4,6-trifluorophenyl)pyridazine;

the compound with multisite activity is selected from Bordeaux mixture, captafol, captan, chlorothalonil, copper preparations such as copper hydroxide, copper naphthenate, copper oxide, copper oxychloride, copper sulphate, dichlofluanid, dithianon, dodine, dodine free base, ferbam, fluorofolpet, folpet, guazatine, guazatine acetate, iminoctadine, iminoctadine albesilate, iminoctadine triacetate, mancopper, mancozeb, maneb, metiram, metiram zinc, oxine-copper, propamidine, propineb, sulphur and sulphur preparations, for example calcium polysulphide, thiram, tolylfluanid, zineb and ziram;

the resistance inductor is selected from acibenzolar-S-methyl, isotianil, probenazole and tiadinil;

the amino acid and protein biosynthesis inhibitor is selected from andoprim, blasticidin-S, cyprodinil, kasugamycin, kasugamycin hydrochloride hydrate, mepanipyrim, pyrimethanil and 3-(5-fluoro-3,3,4,4-tetramethyl-3,4-dihydroisoquinolin-1-yl)quinolone;

the ATP production inhibitor is selected from fentin acetate, fentin chloride, fentin hydroxide and silthiofam;

the cell wall synthesis inhibitor is selected from benthiavalicarb, dimethomorph, flumorph, iprovalicarb, mandipropamid, polyoxins, polyoxorim, validamycin A and valifenalate;

2011275871 20 Aug 2015

the lipid and membrane synthesis inhibitor is selected from biphenyl, chloroneb, dicloran, edifenphos, etridiazole, iodocarb, iprobenfos, isoprothiolane, propamocarb, propamocarb hydrochloride, prothiocarb, pyrazophos, quintozene, tecnazene and tolclofos-methyl;

the melanin biosynthesis inhibitor is selected from carpropamid, diclocymet, fenoxanil, fthalide, pyroquilon, tricyclazole and 2,2,2-trifluoroethyl {3-methyl-1-[(4-methylbenzoyl)amino]butan-2-yl}carbamate;

the nucleic acid synthesis inhibitor is selected from benalaxyl, benalaxyl-M (kiralaxyl), bupirimate, clozylacon, dimethirimol, ethirimol, furalaxyl, hymexazol, metalaxyl, metalaxyl-M (mefenoxam), ofurace, oxadixyl and oxolinic acid;

the signal transduction inhibitor is selected from chlozolinate, fenpiclonil, fludioxonil, iprodione, procymidone, quinoxyfen and vinclozolin;

the decoupler is selected from binapacryl, dinocap, ferimzone, fluazinam and meptyldinocap; or

the further fungicide is selected from benthiazole, bethoxazin, capsimycin, carvone, chinomethionat, pyriofenone (chlazafenone), cufraneb, cyflufenamid, cymoxanil, cyprosulfamide, dazomet, debacarb, dichlorophen, diclomezine, difenzoquat, difenzoquat methylsulphate, diphenylamine, ecomat, fenpyrazamine, flumetover, fluoromide, flusulfamide, flutianil, fosetyl-aluminium, fosetyl-calcium, fosetyl-sodium, hexachlorobenzene, irumamycin, methasulfocarb, methyl isothiocyanate, metrafenon, mildiomycin, natamycin, nickel dimethyldithiocarbamate, nitrothal-isopropyl, octhilinone, oxamocarb, oxyfenthiin, pentachlorophenol and salts thereof, phenothrin, phosphoric acid and salts thereof, propamocarb-fosetylate, propanosine-sodium, proquinazid, pyrimorph, pyrrolnitrin, tebufloquin, tecloftalam, tolnifanid, triazoxide, trichlamide, zarilamide, (3S,6S,7R,8R)-8-benzyl-3-[({3-[(isobutyryloxy)methoxy]-4-methoxypyridin-2-yl}carbonyl)amino]-6-methyl-4,9-dioxo-1,5-dioxonan-7-yl 2-methylpropanoate, 1-(4-{4-[(5R)-5-(2,6-difluorophenyl)-4,5-dihydro-1,2-oxazol-3-yl]-1,3-thiazol-2-yl}piperidin-1-yl)-2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]ethanone, 1-(4-{4-[(5S)-5-(2,6-difluorophenyl)-4,5-dihydro-1,2-oxazol-3-yl]-1,3-thiazol-2-yl}piperidin-1-yl)-2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]ethanone, 1-(4-{4-[5-(2,6-difluorophenyl)-4,5-dihydro-1,2-oxazol-3-yl]-1,3-thiazol-2-yl}piperidin-1-yl)-2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]ethanone, 1-(4-methoxyphenoxy)-3,3-dimethylbutan-2-yl 1H-imidazole-1-carboxylate, 2,3,5,6-tetrachloro-4-(methylsulphonyl)pyridine, 2,3-dibutyl-6-chlorothieno[2,3-d]pyrimidin-4(3H)-one, 2,6-dimethyl-1H,5H-[1,4]dithiino[2,3-c:5,6-c']dipyrrole-1,3,5,7(2H,6H)-tetrone, 2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]-1-(4-{4-[(5R)-5-phenyl-4,5-dihydro-1,2-oxazol-3-yl]-1,3-thiazol-2-yl}piperidin-1-yl)ethanone, 2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]-1-(4-{4-

2011275871 20 Aug 2015

[(5S)-5-phenyl-4,5-dihydro-1,2-oxazol-3-yl]-1,3-thiazol-2-yl}piperidin-1-yl)ethanone, 2-[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]-1-{4-[4-(5-phenyl-4,5-dihydro-1,2-oxazol-3-yl)-1,3-thiazol-2-yl]piperidin-1-yl}ethanone, 2-butoxy-6-iodo-3-propyl-4H-chromen-4-one, 2-chloro-5-[2-chloro-1-(2,6-difluoro-4-methoxyphenyl)-4-methyl-1H-imidazol-5-yl]pyridine, 2-phenylphenol and salts thereof, 3-(4,4,5-trifluoro-3,3-dimethyl-3,4-dihydroisoquinolin-1-yl)quinoline, 3,4,5-trichloropyridine-2,6-dicarbonitrile, 3-[5-(4-chlorophenyl)-2,3-dimethyl-1,2-oxazolidin-3-yl]pyridine, 3-chloro-5-(4-chlorophenyl)-4-(2,6-difluorophenyl)-6-methylpyridazine, 4-(4-chlorophenyl)-5-(2,6-difluorophenyl)-3,6-dimethylpyridazine, 5-amino-1,3,4-thiadiazole-2-thiol, 5-chloro-N'-phenyl-N'-(prop-2-yn-1-yl)thiophene-2-sulphonohydrazide, 5-fluoro-2-[(4-fluorobenzyl)oxy]pyrimidine-4-amine, 5-fluoro-2-[(4-methylbenzyl)oxy]pyrimidine-4-amine, 5-methyl-6-octyl[1,2,4]triazolo[1,5-a]pyrimidine-7-amine, ethyl (2Z)-3-amino-2-cyano-3-phenylprop-2-enoate, N'-(4-{[3-(4-chlorobenzyl)-1,2,4-thiadiazol-5-yl]oxy}-2,5-dimethylphenyl)-N-ethyl-N-methylimidoformamide, N-(4-chlorobenzyl)-3-[3-methoxy-4-(prop-2-yn-1-yloxy)phenyl]propanamide, N-[(4-chlorophenyl)(cyano)methyl]-3-[3-methoxy-4-(prop-2-yn-1-yloxy)phenyl]propanamide, N-[(5-bromo-3-chloropyridin-2-yl)methyl]-2,4-dichloropyridine-3-carboxamide, N-[1-(5-bromo-3-chloropyridin-2-yl)ethyl]-2,4-dichloropyridine-3-carboxamide, N-[1-(5-bromo-3-chloropyridin-2-yl)ethyl]-2-fluoro-4-iodopyridine-3-carboxamide, N-{(E)-[(cyclopropylmethoxy)imino][6-(difluoromethoxy)-2,3-difluorophenyl]methyl}-2-phenylacetamide, N-{(Z)-[(cyclopropylmethoxy)imino][6-(difluoromethoxy)-2,3-difluorophenyl]methyl}-2-phenylacetamide, N'-{4-[(3-tert-butyl-4-cyano-1,2-thiazol-5-yl)oxy]-2-chloro-5-methylphenyl}-N-ethyl-N-methylimidoformamide, N-methyl-2-(1-{[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl}piperidin-4-yl)-N-(1,2,3,4-tetrahydronaphthalen-1-yl)-1,3-thiazole-4-carboxamide, N-methyl-2-(1-{[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl}piperidin-4-yl)-N-[(1R)-1,2,3,4-tetrahydronaphthalen-1-yl]-1,3-thiazole-4-carboxamide, N-methyl-2-(1-{[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl}piperidin-4-yl)-N-[(1S)-1,2,3,4-tetrahydronaphthalen-1-yl]-1,3-thiazole-4-carboxamide, pentyl {6-[({[(1-methyl-1H-tetrazol-5-yl)(phenyl)methylidene]amino}oxy)methyl]pyridin-2-yl}carbamate, phenazine-1-carboxylic acid, quinolin-8-ol, quinolin-8-ol sulphate (2:1) and tert-butyl {6-[({[(1-methyl-1H-tetrazol-5-yl)(phenyl)methylene]amino}oxy)methyl]pyridin-2-yl}carbamate.1-methyl-3-(trifluoromethyl)-N-[2'-(trifluoromethyl)biphenyl-2-yl]-1H-pyrazole-4-carboxamide, N-(4'-chlorobiphenyl-2-yl)-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, N-(2',4'-dichlorobiphenyl-2-yl)-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-[4'-(trifluoromethyl)biphenyl-2-yl]-1H-pyrazole-4-carboxamide, N-(2',5'-difluorobiphenyl-2-yl)-1-methyl-3-(trifluoromethyl)-1H-pyrazole-4-carboxamide, 3-(difluoromethyl)-1-methyl-N-[4'-(prop-1-yn-1-yl)biphenyl-2-yl]-1H-pyrazole-4-carboxamide, 5-fluoro-1,3-dimethyl-N-[4'-(prop-1-yn-1-yl)biphenyl-2-yl]-1H-pyrazole-4-carboxamide, 2-chloro-N-[4'-(prop-1-yn-1-yl)biphenyl-2-yl]pyridine-3-carboxamide, 3-(difluoromethyl)-N-[4'-(3,3-dimethylbut-1-yn-1-yl)biphenyl-2-

2011275871 20 Aug 2015

yl]-1-methyl-1H-pyrazole-4-carboxamide, N-[4'-(3,3-dimethylbut-1-yn-1-yl)biphenyl-2-yl]-5-fluoro-1,3-dimethyl-1H-pyrazole-4-carboxamide, 3-(difluoromethyl)-N-(4'-ethynylbiphenyl-2-yl)-1-methyl-1H-pyrazole-4-carboxamide, N-(4'-ethynylbiphenyl-2-yl)-5-fluoro-1,3-dimethyl-1H-pyrazole-4-carboxamide, 2-chloro-N-(4'-ethynylbiphenyl-2-yl)pyridine-3-carboxamide, 2-chloro-N-[4'-(3,3-dimethylbut-1-yn-1-yl)biphenyl-2-yl]pyridine-3-carboxamide, 4-(difluoromethyl)-2-methyl-N-[4'-(trifluoromethyl)biphenyl-2-yl]-1,3-thiazole-5-carboxamide, 5-fluoro-N-[4'-(3-hydroxy-3-methylbut-1-yn-1-yl)biphenyl-2-yl]-1,3-dimethyl-1H-pyrazole-4-carboxamide, 2-chloro-N-[4'-(3-hydroxy-3-methylbut-1-yn-1-yl)biphenyl-2-yl]pyridine-3-carboxamide, 3-(difluoromethyl)-N-[4'-(3-methoxy-3-methylbut-1-yn-1-yl)biphenyl-2-yl]-1-methyl-1H-pyrazole-4-carboxamide, 5-fluoro-N-[4'-(3-methoxy-3-methylbut-1-yn-1-yl)biphenyl-2-yl]-1,3-dimethyl-1H-pyrazole-4-carboxamide, 2-chloro-N-[4'-(3-methoxy-3-methylbut-1-yn-1-yl)biphenyl-2-yl]pyridine-3-carboxamide, (5-bromo-2-methoxy-4-methylpyridin-3-yl)(2,3,4-trimethoxy-6-methylphenyl)methanone and N-[2-(4-{[3-(4-chlorophenyl)prop-2-yn-1-yl]oxy}-3-methoxyphenyl)ethyl]-N2-(methylsulphonyl)valinamide, 4-oxo-4-[(2-phenylethyl)amino]butanoic acid and but-3-yn-1-yl {6-[({[(Z)-(1-methyl-1H-tetrazol-5-yl)(phenyl)methylene]amino}oxy)methyl]pyridin-2-yl}carbamate.

3. An active compound combination according to Claim 1 or 2, wherein

R^1 represents hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, cyano-(C_1-C_6-alkyl), C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_1-C_4-alkoxy-C_1-C_4-alkyl, C_1-C_4-alkylthio-C_1-C_4-alkyl, C_1-C_4-alkylsulphinyl-C_1-C_4-alkyl or C_1-C_4-alkylsulphonyl-C_1-C_4-alkyl,

R^2 represents hydrogen or C_1-C_6-alkyl,

R^3 represents hydrogen or represents C_1-C_4-alkyl, C_1-C_4-alkoxy, C_2-C_4-alkenyl, C_2-C_4-alkynyl, C_3-C_6-cycloalkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of halogen, cyano, carboxyl, carbamoyl, nitro, hydroxyl, C_1-C_4-alkyl, C_1-C_4-haloalkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-alkoxycarbonyl, C_1-C_4-alkylcarbonyl or a phenyl ring or a 4-, 5- or 6-membered aromatic, partially saturated or saturated heterocyclic ring, where the phenyl ring or heterocyclic ring is optionally mono- or polysubstituted by identical or different substituents and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carboxyl, carbamoyl, NO_2, hydroxyl, C_1-C_4-alkoxy, C_1-

2011275871 20 Aug 2015

C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_6-alkyl)carbonyl, (C_1-C_6-alkoxy)carbonyl or

R^3 represents C_2-C_4-alkoxycarbonyl, C_2-C_4-alkylcarbonyl, C_2-C_4-alkylaminocarbonyl or C_2-C_4-dialkylaminocarbonyl, or

R^3 represents a phenyl ring, a 5- or 6-membered aromatic heterocyclic ring or a 4-, 5- or 6-membered partially saturated or saturated heterocyclic ring which may contain one to three heteroatoms from the group consisting of N, S and O, where the phenyl ring or heterocyclic ring is optionally mono- or polysubstituted by identical or different substituents, and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_4-alkyl, C_2-C_4-alkenyl, C_2-C_4-alkynyl, C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl, C_2-C_4-haloalkenyl, C_2-C_4-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carboxyl, carbamoyl, NO_2, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino, C_3-C_6-cycloalkylamino, (C_1-C_4-alkyl)carbonyl and (C_1-C_4-alkoxy)carbonyl,

R^4 represents hydrogen, C_1-C_4-alkyl, C_1-C_4-haloalkyl, halogen, cyano, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio or C_1-C_4-haloalkylthio,

two adjacent radicals R^4 likewise represent $-(CH_2)_3-$, $-(CH_2)_4-$, $-(CH_2)_5-$, $-(CH=CH-)_2-$, $-OCH_2O-$, $-O(CH_2)_2O-$, $-OCF_2O-$, $-(CF_2)_2O-$, $-O(CF_2)_2O-$, -(CH=CH-CH=N)- or -(CH=CH-N=CH)-,

n represents an integer of 0, 1 or 2,

R^5 represents C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-haloalkyl, C_1-C_6-halocycloalkyl, C_2-C_6-alkenyl, C_2-C_4-haloalkenyl, C_2-C_4-alkynyl, C_2-C_4-haloalkynyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl, C_1-C_4-haloalkylsulphonyl, halogen, cyano, nitro or C_3-C_6-trialkylsilyl,

Q_X represents a 5- or 6-membered heteroaromatic ring which is optionally mono- or polysubstituted by identical or different R^7 and which may contain one to three heteroatoms from the group consisting of N, O and S, or represents phenyl,

2011275871 20 Aug 2015

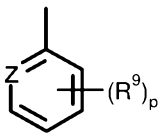
A represents optionally mono- or polysubstituted -(C_1-C_4-alkylene)-, -(C_2-C_4-alkenylene)-, -(C_2-C_4-alkynylene)-, -R^8-(C_3-C_6-cycloalkyl)-R^8-, -R^8-O-R^8-, -R^8-S-R^8-, -R^8-S(=O)-R^8-, -R^8-S(=O)$_2$-R^8-, -R^8-NH-(C_1-C_4-alkyl)-, -R^8-N(C_1-C_4-alkyl)-R^8, -R^8-C=NO(C_1-C_4-alkyl), -R^8-C(=O)-R^8, -R^8-C(=S)-R^8, -R^8-C(=O)NH-R^8, R^8-C(=O)N(C_1-C_4-alkyl)-R^8, -R^8-S(=O)$_2$NH-R^8, -R^8-S(=O)$_2$N(C_1-C_4-alkyl)-R^8, -R^8-NH(C=O)O-R^8, -R^8-N(C_1-C_4-alkyl)-(C=O)O-R^8, -R^8-NH(C=O)NH-R^8, -R^8-NHS(=O)$_2$-R^8, -R^8-N(C_1-C_4-alkyl)S(=O)$_2$-R^8, R^8-NH-R^8, R^8-C(=O)-C(=O)-R^8, R^8-C(OH)-R^8 or R^8-Qz-R^8,

where the substituents independently of one another may be selected from the group consisting of halogen, cyano, nitro, hydroxyl, C_1-C_6-alkyl, C_1-C_6-alkoxy and halo-C_1-C_6-alkyl,

Qz represents a 3- or 4-membered partially saturated or saturated or a 5- or 6-membered partially saturated, saturated or aromatic ring, where the ring may optionally contain one to three heteroatoms from the group consisting of N, S and O,

where the ring is optionally mono- or polysubstituted by identical or different substituents, and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl and C_1-C_4-haloalkylsulphonyl,

R^7 represents C_1-C_6-alkyl or represents the radical



R^7 furthermore represents C_3-C_6-cycloalkoxy,

R^9 independently of one another represent hydrogen, halogen, cyano, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkyl, C_1-C_4-haloalkoxy, C_1-C_4-haloalkylsulphonyl or (C_1-C_4-alkyl)-C_1-C_4-alkoxyimino,

p represents an integer of 1, 2 or 3,

Z represents N, CH, CF, CCl, CBr or CI,

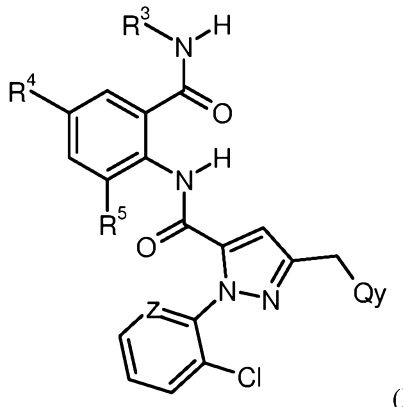
R^8 represents straight-chain or branched -(C_1-C_4-alkylene)- or represents a direct bond,

2011275871 20 Aug 2015

Q_Y represents a 5- or 6-membered partially saturated or saturated heterocyclic or heteroaromatic ring or an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system, where the heteroatoms may be selected from the group consisting of N, S and O, where the ring or the ring system is optionally mono- or polysubstituted by identical or different substituents, and where the substituents independently of one another may be selected from the group consisting of hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, carboxyl, carbamoyl, nitro, hydroxyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_1-C_4-alkylsulphinyl, C_1-C_4-alkylsulphonyl, C_1-C_4-haloalkylthio, C_1-C_4-haloalkylsulphinyl and C_1-C_4-haloalkylsulphonyl,

or where the substituents independently of one another may be selected from the group consisting of phenyl and a 5- or 6-membered heteroaromatic ring, where phenyl or the ring may optionally be mono- or polysubstituted by identical or different substituents from the group consisting of C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_1-C_6-haloalkyl, C_2-C_6-haloalkenyl, C_2-C_6-haloalkynyl, C_3-C_6-halocycloalkyl, halogen, cyano, nitro, hydroxyl, C_1-C_4-alkoxy and C_1-C_4-haloalkoxy.

4. An active compound combination according to any one of Claims 1 to 3, wherein the at least one compound of general formula (I) is a compound of the formula (I-1) or a salt thereof



(I-1)

in which

R^3 represents hydrogen or represents C_1-C_6-alkyl, C_1-C_6-alkoxy, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_{12}-cycloalkyl, C_3-C_{12}-cycloalkyl-C_1-C_6-alkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of halogen, amino, cyano, nitro, hydroxyl, C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_2-C_6-alkoxycarbonyl, C_1-C_6-alkylcarbonyl, C_3-C_6-cycloalkylamino and a 5- or 6-membered heteroaromatic ring,

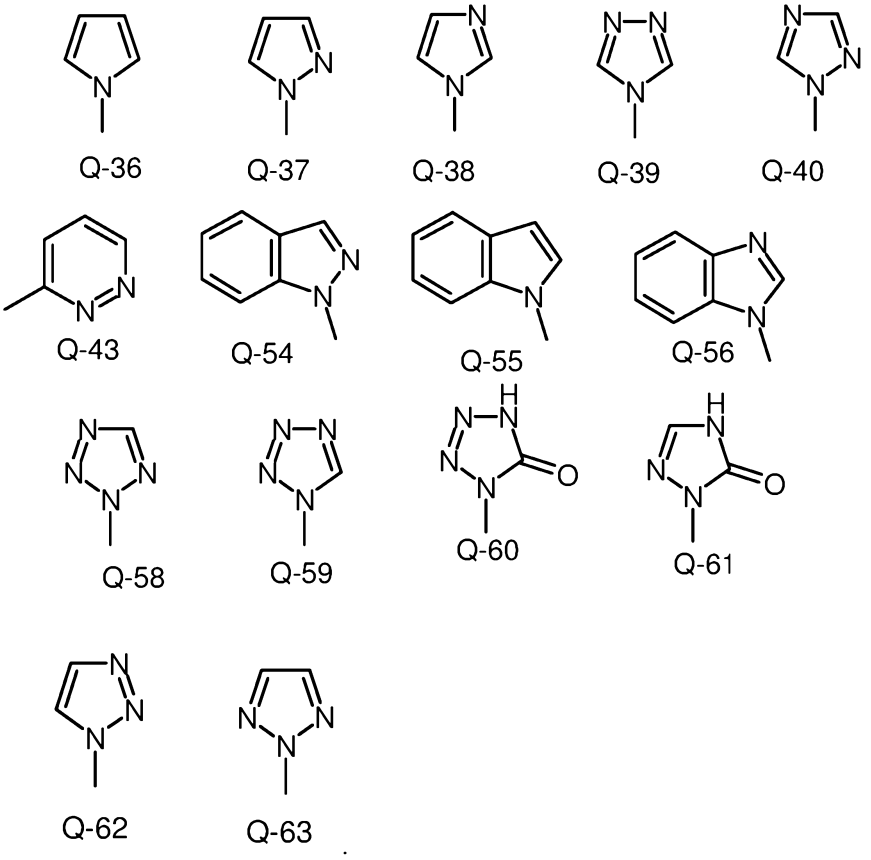
2011275871 20 Aug 2015

R^4 represents halogen, cyano or methyl,

R^5 represents methyl or chlorine,

Z represents N, CCl or CH,

Qy represents an optionally mono- or polysubstituted 5- or 6-membered heteroaromatic ring from the group consisting of Q-36 to Q-40, Q-43, Q-58 to Q-59, Q-62, Q-63, an aromatic 9-membered fused heterobicyclic ring system Q-54 to Q-56 or a 5-membered heterocyclic ring Q-60 to Q-61, where the substituents independently of one another may be selected from the group consisting of C_1-C_3-alkyl, C_1-C_3-haloalkyl, C_1-C_2-alkoxy, halogen, cyano, hydroxyl, nitro or C_1-C_2-haloalkoxy,



5. An active compound combination according to any one of Claims 1 to 4, comprising a mixture of compounds of the general formula (I) or (I-1) in which Qy is Q-62 and Q-63, the ratio of a compound of the formula (I) or (I-1) in which Qy is Q-62 to a compound of the formula (I) or (I-1) in which Qy is Q-63 being 80:20 to 99:1.

6. An active compound combination according to any one of Claims 1 to 4, comprising a mixture of compounds of the general formula (I) or (I-1), in which Qy is Q-58 and Q-59, the ratio of a compound of the formula (I) or (I-1) in which Qy is Q-58 to a compound of the formula (I) or

2011275871 20 Aug 2015

(I-1) in which Qy is Q-59 being 80:20 to 99:1.

7. An active compound combination according to Claim 4, wherein

R^3 represents hydrogen or represents C_1-C_6-alkyl, C_1-C_6-alkoxy, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkyl-C_1-C_6-alkyl, each of which is optionally mono- or polysubstituted by identical or different substituents, where the substituents independently of one another may be selected from the group consisting of halogen, cyano, amino, hydroxyl, C_1-C_6-alkyl, C_1-C_4-alkoxy, C_1-C_4-haloalkoxy, C_1-C_4-alkylthio, C_3-C_6-cycloalkyl and a 5- or 6-membered heteroaromatic ring which contains one or two heteroatoms from the group consisting of N, O and S, where two oxygen atoms in the ring are not adjacent,

R^4 represents halogen, cyano or methyl,

R^5 represents methyl,

Z represents N or CH,

Q_Y represents a heteroaromatic ring from the group consisting of Q-37, Q-38, Q-39, Q-40, Q-43, Q-58, Q-59, Q-62 and Q-63 which is optionally mono- or polysubstituted by identical or different substituents, or represents a 5-membered heterocyclic ring Q-60, where the substituents independently of one another may be selected from the group consisting of methyl, ethyl, cyclopropyl, tert-butyl, chlorine, fluorine, iodine, bromo, cyano, nitro, difluoromethyl, trifluoromethyl, pentafluoroethyl, n-heptafluoropropyl and isoheptafluoropropyl.

8. An active compound combination according to any one of Claims 1 to 7, wherein the ratio of a compound of the formula (I) or (I-1) or a mixture of compounds of the formula (I) or (I-1) to a compound of group (II) is from 625:1 to 1:625.

9. An active compound combination according to any one of Claims 1 to 8, where the one or more fungicides of group (II) are selected from the group consisting of:

bitertanol, bixafen, carpropamid, fenamidone, fluopicolide, fluopyram, fluoxastrobin, fluquinconazole, isotianil, metominostrobin, pencycuron, penflufen, prochloraz, propamocarb, propineb, prothioconazole, spiroxamine, tebuconazole, triadimenol, triazoxide, trifloxystrobin, ametoctradin, azoxystrobin, benthiavalicarb, boscalid, carbendazim, carboxin, chlorothalonil, cymoxanil, cyproconazole, cyprodinil, cyazofamid, difenoconazole, dimoxystrobin, epoxiconazole, fenpropidin, ferimzone, fluazinam, fludioxonil, flutolanil, flutriafol, fluxapyroxad, gentamycin, hymexazol, imazalil, ipconazole, isoprothiolane, isopyrazam,

2011275871 20 Aug 2015

kasugamycin, mancozeb, mandipropamid, maneb, mefenoxam, metalaxyl, metconazole, metrafenone, orysastrobin. penthiopyrad, picoxystrobin, probenazole, propiconazole, proquinazid, pyraclostrobin, pyrimethanil, pyroquilon, quinoxyfen, sedaxane, tetraconazole, thiophanate-methyl, thiram, tolclofos-methyl, tricyclazole, triticonazole, validamycin and fosetyl-aluminium.

10. An active compound combination according to any one of Claims 1 to 9, where the at least one compound of the formula (I-1) is selected from the group consisting of the compounds (I-1-1) to (I-1-60).

11. An active compound combination according to Claim 5 or 6, where the mixtures of compounds of the formula (I-1) are selected from the group consisting of:

I-1-1/I-1-7, I-1-2/I-1-8, I-1-3/I-1-9, I-1-4/I-1-10, I-1-5/I-1-11, I-1-6/I-1-12, I-1-13/I-1-19, I-1-14/I-1-20, I-1-15/I-1-21, I-1-16/I-1-22, I-1-17/I-1-23, I-1-18/I-1-24, I-1-25/I-1-31, I-1-26/I-1-32, I-1-27/I-1-33, I-1-28/I-1-34, I-1-29/I-1-35, I-1-30/I-1-36, I-1-37/I-1-43, I-1-38/I-1-44, I-1-39/I-1-45, I-1-40/I-1-46, I-1-41/I-1-47, I-1-42/I-1-48, I-1-49/I-1-55, I-1-50/I-1-56, I-1-51/I-1-57, I-1-52/I-1-58, I-1-53/I-1-59 and I-1-54/I-1-60.

12. An agrochemical composition comprising an active compound combination according to any one of Claims 1 to 11, and at least one extender and/or surfactant.

13. Use of an active compound combination according to any one of Claims 1 to 11 or a composition according to Claim 12 for controlling animal pests, phytopathogenic fungi, or for treating seed.

14. Method for controlling animal pests, wherein an active compound combination according to any one of Claims 1 to 11 or a composition according to Claim 12 is allowed to act on animal pests and/or their habitat.

15. Process for producing an agrochemical composition, wherein an active compound combination according to any one of Claims 1 to 11 is mixed with at least one extender and/or surfactant.

16 An active compound composition as claimed in Claim 1 and uses thereof, substantially as herein described with reference to the Examples.