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(54) Title: A SYNERGISTIC FUNGICIDAL COMPOSITION AND USE THEREOF

(57) Abstract: A synergistic fungicidal composition is provided, the composition comprising: (A) the crystalline modification II of 3-pyridinecarboxamide, 2-chloro-N-(4'chloro[1,1'biphenyl]-2-yl) (boscalid); and (B) the crystalline modification IV of methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl] phenyl}(N-methoxy) carbamate (pyraclostrobin). A method of treating fungal infestations in plants and plant materials is also provided.

A SYNERGISTIC FUNGICIDAL COMPOSITION AND USE THEREOF

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims priority to GB Patent Application No.1613454.6, titled "A SYNERGISTIC FUNGICIDAL COMPOSITION AND USE THEREOF", filed with GB Intellectual Property Office on August 4, 2016, the entire contents of which are incorporated herein by reference.

FIELD

[0002] The present invention relates to a synergistic fungicidal composition. The composition finds use in preventing and/or treating fungal infestations in plants and plant parts. The present invention also relates to a method of preventing and/or treating fungal infestations in plants and plant parts.

BACKGROUND

[0003] There is a continuing need to develop improved fungicidally active compounds, for the protection of crops. Moreover, experience with the single active straight formulation fungicides worldwide indicates there is a high risk of development of resistance. Resistance has been reported worldwide in an increasing number of pathogens of field crops, fruit, vegetable, and so on. The mixing of different fungicides may help to reduce selection pressure towards resistance in the target pathogens.

[0004] The compound 2-chloro-N-(4'chloro[1,1'biphenyl]-2-yl)-3-pyridinecarboxamide having the common name boscalid, was first described in US 5,330,995. The crystalline modification I of the anhydrate of boscalid, having a melting point from 144 °C to 145 °C, is known. This modification is discussed in US 7,501,384. Boscalid is active as a fungicide and is now commercially available in a range of formulations for the treatment of fungal infestations.

[0005] We have found that it is hard to mill the crystalline modification I of the anhydrate of boscalid in water. As a consequence, it is not a straightforward task to directly formulate

the crystalline modification I of the anhydrate of boscalid into formulations which require grinding and/or milling processes. Such formulations are, for example, granules, encapsulated granules, tablets, water-dispersible granules, water-dispersible tablets, water-dispersible powders or water dispersible powders for seed treatment, dust formulations, and formulations in which the active compound is present in dispersed form, such as, for example, suspension concentrates, oil-based suspension concentrates, suspoemulsions, or suspension concentrates for seed treatment. Hydration of the crystalline modification I of the anhydrate of boscalid is needed prior formulating into a suspension concentrate.

[0006] It is suggested in US 7,501,384 that the crystalline modification II of the anhydrate of boscalid is more suitable for making formulations which require grinding/milling processes.

[0007] The compound methyl *N*-[2-[[[1-(4-chlorophenyl)-1*H*-pyrazol-3-yl] oxy] methyl] phenyl]-*N*-methoxycarbamate, having the common name pyraclostrobin, is a known fungicide. Formulations comprising pyraclostrobin for the treatment of fungal infestations in crops are known and are commercially available. US 7,816,392 disclosed four different crystalline modifications, I to IV, of pyraclostrobin.

[0008] We have surprisingly found that combining the crystalline modification II of boscalid with the crystalline modification IV of pyraclostrobin provides a composition having a synergistic activity, that is an increased fungicidal activity, compared with the activity expected from the activity of the two components when applied individually.

SUMMARY

[0009] In a first aspect, the present invention provides a fungicidal composition comprising:

[0010] (A) the crystalline modification II of 3-pyridinecarboxamide, 2-chloro-N-(4'chloro[1,1'biphenyl]-2-yl) (boscalid); and

[0011] (B) the crystalline modification IV of methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate (pyraclostrobin).

[0012] The composition of the present invention is of particular use for preventing and/or treating fungal infestations in plants and/or plant parts.

[0013] In a second aspect, the present invention provides a method of preventing and/or treating fungal infestations in plants and/or plant parts comprising applying to the plants and/or plant parts:

[0014] (A) the crystalline modification II of 3-pyridinecarboxamide, 2-chloro-N-(4'chloro[1,1'biphenyl]-2-yl) (boscalid); and

[0015] (B) the crystalline modification IV of methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl] phenyl}(N-methoxy) carbamate (pyraclostrobin).

[0016] In a further aspect, the present invention provides the use in the prevention and/or treatment of fungal infestations in plants and/or plant parts of:

[0017] (A) the crystalline modification II of 3-pyridinecarboxamide, 2-chloro-N-(4'chloro[1,1'biphenyl]-2-yl) (boscalid); and

[0018] (B) the crystalline modification IV of methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy) carbamate (pyraclostrobin).

[0019] The references to the crystalline modification II of boscalid as used herein, refer to the crystalline modification of boscalid disclosed in US 7,501,384. The references to the crystalline modifications I to IV of pyraclostrobin as used herein, refer to the crystalline modifications of pyraclostrobin disclosed in US 7,816,392.

DETAILED DESCRIPTION OF EMBODIMENTS

[0020] "Plant" as used herein, refers to all plant and plant populations such as desired and undesired wild plants or crop plants.

[0021] "Plant parts" as used herein, refers to all parts and organs of plants, such as shoot, leaves, needles, stalks, stems, fruit bodies, fruits, seeds, roots, tubers and rhizomes. Harvested materials, and vegetative and generative propagation materials, for example, cutting, tubers, meristem tissue, rhizomes, offsets, seeds, single and multiple plant cells and any other plant tissues, are also included.

[0022] The word "locus" refers to the place on which the plants are growing, the place on which the plant propagation materials of the plants are sown or the place on which the plant propagation materials of the plants will be sown.

[0023] "At least one" designates a number of the respective compounds or components of 1, 2, 3, 4, 5, 6, 7, 8, 9 or more, preferably 1, 2, or 3.

[0024] The synergistic fungicidal composition, the method and use of the present invention are suitable for the treatment of plants of a wide range of crops, including: cereals, for example wheat, barley, rye, oats, corn, rice, sorghum, triticale and related crops; fruit, such as pome fruit, stone fruit and soft fruit, such as apples, pears, plums, peaches, pistachio, almonds, cherries, and berries, for example grape, banana, strawberries, bushberry, caneberry, raspberries and blackberries; leguminous plants, for example beans, lentils, peas, and soybeans; oil plants, for example oilseed rape, mustard and sunflowers; cucurbitaceae, for example cantaloupe, marrows, cucumbers, melons, pumpkin, squash and watermelon; citrus fruit, such as oranges, lemons, grapefruit and mandarins; and vegetables, for example spinach, lettuce, asparagus, cabbages, carrots, onions, tomatoes, potatoes, paprika, garlic and leeks; coffee; sugarcane; hops; tree nuts; as well as ornamentals, for example flowers, such as roses, shrubs, broad-leaved trees and evergreens, such as conifers.

[0025] The composition, method and use of the present invention are particularly advantageous when applied to cereals, fruit, leguminous plants, oil plants and vegetables.

[0026] The composition, method and use of the present invention are of advantage when applied to wheat, barley, oats, rice, grape, banana, soybean, oilseed rape and vegetables.

[0027] The composition, method and use of the present invention can be used in the agricultural sector and related fields of use for preventing and/or treating fungal infestations, including but not limited to:

[0028] Cereals:

[0029] Oat: Leaf rust (*Puccinia coronate var. avenae*);

[0030] Barley: Stain-brown; common root rot (*Bipolaris sorokiniana*); spot-type net blotch, blotch (*Drechslera/Pyrenophora teres*); Leaf blotch (*Rhynchosporium secalis*); Ramularia leaf spot (*Ramularia collo-cygni*); Brown rust (*Puccinia hordei*); powdery mildew (*Blumeria graminis*);

[0031] Wheat: tan spot, helminthosporiosis (*Pyrenophora tritici-repentis*); leaf/brown rust (*Puccinia triticina, Puccinia tritici-duri*); Septoria tritici blotch, Septoria (*Septoria tritici*); glume blotch (*stagonospora nodorum*); Helminthosporiose; common root rot (*Bipolaris*

sorokiniana); powdery mildew (*Blumeria graminis*); yellow rust (*Puccinia strillformis*);

[0032] Berries: Alternaria leaf spot and fruit rot (*Alternaria spp.*); Anthracnose (*Colletotrichum spp., Elsinoe spp.*); Botrytis gray mold (*Botrytis cinerea*); Leaf spot and blotch (*Mycosphaerella spp., Septoria spp., Mycosphaerella fijiensis*); Monilinia blight and mummy berry (*Monilinia spp.*); Phomopsis leaf spot, twig blight, and fruit rot (*Phomopsis spp.*); Powdery mildew (*Sphaerotheca spp., Microsphaera spp., Oidium spp.*); Spur blight (*Didymella spp., Phoma spp.*); Mal-de-Sigatoka, Sigatoka (*Musicola Mycosphaerella*);

[0033] Banana: *Mycosphaerella fijiensis*;

[0034] Grapes: Angular leaf spot (*Mycosphaerella angulata*); Anthracnose (*Elsinoe ampelina*); Black rot (*Guignardia bidwellii*); Downy mildew (*Plasmopara viticola*); Leaf blight (*Pseudocercospora vitis*); Phomopsis cane and leaf spot (*Phomopsis viticola*); Powdery mildew (*Uncinula necator*); Ripe rot (*Colletotrichum gloeosporioides*); Summer bunch rot (Sour rot) (*Cladosporium spp. and Aspergillus spp.*); Botrytis gray mold (*Botrytis cinerea*);

[0035] Soybean: *Phakopsora pachyrhizi*;

[0036] Bulb Vegetables: Botrytis leaf blight (*Botrytis spp.*); Botrytis neck rot (*Botrytis spp.*); Purple blotch and leaf blight (*Alternaria porri*); Stemphylium leaf blight and stalk rot (*Stemphylium vesicarium*); Downy mildew (*Peronospora destructor*);

[0037] Carrots: Alternaria leaf spot (*Alternaria spp.*); Cercospora leaf spot (*Cercospora spp.*); Powdery mildew (*Erysiphe spp.*); Southern root rot (*Sclerotium rolfsii*); yiuch;

[0038] Cucurbit Vegetables: Downy mildew (*Pseudoperonospora cubensis*); Alternaria blight (*Alternaria cucumerina*); Cercospora leaf spot (*Cercospora citrulina*); Gummy stem blight (*Didymella bryoniae*); Powdery mildew (*Sphaerotheca fuliginea, Erysiphe cichoracearum*); Anthracnose (*Colletotrichum orbiculare*);

[0039] Hops: Powdery mildew (*Erysiphe cichoracearum, Sphaerotheca spp.*); Downy mildew (*Pseudoperonospora humuli*); Powdery mildew (*Erysiphe cichoracearum, Sphaerotheca humuli, Sphaerotheca macularis, Sphaerotheca spp.*);

[0040] Pistachio: Alternaria late blight (*Alternaria spp.*); Botrytis blossom and shoot blight (*Botrytis cinerea*); Panicle and shoot blight (*Botryosphaeria dothidea*);

[0041] Pome Fruits: Alternaria blotch (*Alternaria mali*); Apple scab (*Venturia inaequalis*);

Bitter rot (*Colletotrichum spp.*); Black rot/Frogeye leaf spot (*Botryosphaeria obtusa*); Blue mold (*Penicillium spp.*); Brooks spot (*Mycosphaerella pomi*); Flyspeck (*Zygophiala jamaicensis*); Gray mold (*Botrytis spp.*); Pear scab (*Venturia pirina*); Powdery mildew (*Podosphaera leucotricha*); Sooty blotch (disease complex); White rot (*Botryosphaeria dothidea*); Cedar apple rust (*Gymnosporangium juniperi- virginianae*); Quince rust (*Gymnosporangium clavipes*);

[0042] Oilseed rape: phoma (*Leptosphaeria maculans*); light leaf spot (*Pyrenopeziza brassicae*); *Sclerotinia sclerotiorum*;

[0043] Fruit: Powdery mildew (*Podospheara leucotricha; Sphaerotheca pannosa*), scab (*Venturia inaequalis*);

[0044] Stone Fruits: Alternaria leaf spot (*Alternaria spp.*); Anthracnose (*Colletotrichum spp.*); Blossom blight (*Monilinia spp.*); Brown rot (*Monilinia spp.*); Leaf spot (*Blumeriella jaapii*); Powdery mildew (*Sphaerotheca spp., Podosphaera spp.*); Ripe fruit rot (*Monilinia fructicola, Monilinia laxa, Botrytis cinerea, Rhizopus spp.*); Rust (Tranzschelia discolor); Scab (*Cladosporium carpophilum*); Shothole (*Wilsonomyces carpophilus*);

[0045] Strawberries: Anthracnose (*Colletotrichum spp.*); Botrytis gray mold (*Botrytis cinerea*); Leaf spot (*Mycosphaerella fragariae*); Powdery mildew (*Sphaerotheca macularis*);

[0046] Tree Nuts: Alternaria leaf spot (*Alternaria spp.*); Anthracnose (*Colletotrichum spp.*); Blossom blight (*Monilinia spp.*); Eastern filbert blight (*Anisogramma anomala*); Leaf rust (Tranzschelia discolor); Scab (*Cladosporium carpophilum, C. caryigenum*); Green fruit rot (*Botrytis cinerea*); Shothole (*Wilsonomyces carpophilus*);

[0047] Vegetables: Downy mildew (*Plasmopara spp.*); Powdery mildew (*Oidium spp.*); Botrytis gray mold (*Botrytis cinerea*).

[0048] The fungicidal composition, method and use of the present invention exhibit surprisingly high effectiveness in treating and/or preventing fungal diseases caused by fungal pathogens, including:

[0049] Barley: blotch (*Drechslera/Pyrenophora teres*); Leaf blotch (*Rhynchosporium secalis*); Ramularia leaf spot (Ramularia collo-cygni);

[0050] Wheat: leaf/brown rust (*Puccinia triticina, Puccinia tritici-duri*); Septoria tritici blotch, Septoria (*Septoria tritici*); glume blotch (*stagonospora nodorum*); yellow rust

(*Puccinia strillformis*);

[0051] Banana: *Mycosphaerella fijiensis*;

[0052] Grapes: Downy mildew (*Plasmopara viticola*); Powdery mildew (*Uncinula necator*); Botrytis gray mold (*Botrytis cinerea*);

[0053] Soybean: *Phakopsora pachyrhizi*;

[0054] Oilseed rape: phoma (*Leptosphaeria maculans*); light leaf spot (*Pyrenopeziza brassicae*); *Sclerotinia sclerotiorum*;

[0055] Fruit: Powdery mildew (*Podospheara leucotricha; Sphaerotheca pannosa*), scab (*Venturia inaequalis*);

[0056] Vegetables: Downy mildew (*Plasmopara spp.*); Powdery mildew (*Oidium spp.*); Botrytis gray mold (*Botrytis cinerea*).

[0057] The composition of the present invention comprises (A) the crystalline modification II of 3-pyridinecarboxamide, 2-chloro-N-(4'chloro[1,1'biphenyl]-2-yl) (boscalid); and (B) the crystalline modification IV of methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl] phenyl}(N-methoxy) carbamate (pyraclostrobin). The crystalline modification II of boscalid may be present in the synergistic fungicidal composition of the present invention in any suitable amount, and is preferably present in an amount of up to 80% by weight, more preferably up to 70% by weight, still more preferably up to 60% by weight. The crystalline modification II of boscalid may be present in an amount of from about 1% to about 80% by weight of the composition, preferably from about 1% to 70% by weight, more preferably from about 1% to about 60% by weight of the composition.

[0058] The crystalline modification IV of pyraclostrobin may be present in the synergistic fungicidal composition in any suitable amount, and is preferably present in an amount of up to 70% by weight, more preferably up to 60% by weight, still more preferably up to 50% by weight. The crystalline modification IV of pyraclostrobin may be present in an amount of from about 1% to about 70% by weight of the composition, preferably from about 1% to about 60% by weight, more preferably from about 1% to about 50% by weight of the composition.

[0059] The components (A) and (B) may be employed in the composition, method or use of the present invention in any suitable weight ratio. The weight ratio of the crystalline

modification II of boscalid and the crystalline modification IV of pyraclostrobin in the composition may be in the range of from about 50:1 to about 1:50, preferably from about 25:1 to about 1:25, more preferably from about 20:1 to about 1:20, still more preferably from about 15:1 to about 1:15, more preferably still from about 10:1 to about 1:10. A preferred weight ratio for many embodiments is about 5:1 to about 1:5.

[0060] The compositions of the present invention may be produced in a conventional manner, for example by mixing the crystalline modification II of boscalid with the crystalline modification IV of pyraclostrobin, together with auxiliaries appropriate for the form of the formulation. Suitable auxiliaries which may be comprised in the composition according to the invention include all customary formulation adjuvants or components, such as extenders, carriers, solvents, surfactants, stabilizers, anti-foaming agents, anti-freezing agents, preservatives, antioxidants, colorants, thickeners, solid adherents and inert fillers. Such auxiliaries are known in the art and are commercially available. Their use in the formulation of the compositions of the present invention will be apparent to the person skilled in the art.

[0061] The composition of the present invention may be provided in a wide range of formulation types. Suitable formulations includes a water-soluble concentrate (SL), an emulsifiable concentrate (EC), an emulsion (EW), a micro-emulsion (ME), suspension concentrates (SC), oil-based suspension concentrates (OD), a flowable suspension (FS), water-dispersible granules (WG), water-soluble granules (SG), a water-dispersible powder (WP), a water soluble powder (SP), granules (GR), encapsulated granules (CG), fine granules (FG), macrogranules (GG), a suspo-emulsion (SE), a capsule suspension (CS) and microgranules (MG). Preferably, the synergistic fungicidal composition is formulated as a suspension concentrate (SC), water-dispersible granules (WG), a suspo-emulsion (SE), a capsule suspension (CS), an oil-based suspension concentrate (OD), or water-soluble granules (SG).

[0062] The fungicidal composition may comprise one or more inert fillers. Such inert fillers are known in the art and available commercially. Suitable fillers include, for example, natural ground minerals, such as kaolins, aluminas, talc, chalk, quartz, attapulgite, montmorillonite, and diatomaceous earth, or synthetic ground minerals, such as highly dispersed silicic acid, aluminum oxide, silicates, and calcium phosphates and calcium hydrogen phosphates. Suitable inert fillers for granules include, for example, crushed and

fractionated natural minerals, such as calcite, marble, pumice, sepiolite, and dolomite, or synthetic granules of inorganic and organic ground materials, as well as granules of organic material, such as sawdust, coconut husks, corn cobs, and tobacco stalks.

[0063] The fungicidal composition optionally includes one or more surfactants which are preferably non-ionic, cationic and/or anionic in nature and surfactant mixtures which have good emulsifying, dispersing and wetting properties, depending on the nature of the active compound to be formulated. Suitable surfactants are known in the art and are commercially available.

[0064] Suitable anionic surfactants can be both so-called water-soluble soaps and water-soluble synthetic surface-active compounds. Soaps which may be used are the alkali metal, alkaline earth metal or substituted or unsubstituted ammonium salts of higher fatty acids (C_{10} to C_{22}), for example the sodium or potassium salt of oleic or stearic acid, or of natural fatty acid mixtures.

[0065] The surfactant can be an emulsifier, dispersant or wetting agent of ionic or nonionic type. Examples which may be used are salts of polyacrylic acids, salts of lignosulphonic acid, salts of phenylsulphonic or naphthalenesulphonic acids, polycondensates of ethylene oxide with fatty alcohols or with fatty acids or with fatty amines, substituted phenols, especially alkylphenols, sulphosuccinic ester salts, taurine derivatives, especially alkyltaurates, or phosphoric esters of polyethoxylated phenols or alcohols. The presence of at least one surfactant is generally required when the active compound and/or the inert carrier and/or auxiliary/adjuvant are insoluble in water and the vehicle for the final application of the composition to the plants or plant parts is water.

[0066] The fungicidal composition optionally further comprises one or more polymeric stabilizers. The suitable polymeric stabilizers that may be used in the present invention include, but are not limited to, polypropylene, polyisobutylene, polyisoprene, copolymers of monoolefins and diolefins, polyacrylates, polystyrene, polyvinyl acetate, polyurethanes or polyamides. Suitable stabilizers are known in the art and commercially available.

[0067] The surfactants and polymeric stabilizers mentioned above are generally believed to impart stability to the composition, in turn allowing the composition to be formulated, stored, transported and applied.

[0068] Suitable anti-foam agents include all substances which can normally be used for this purpose in agrochemical compositions. Suitable anti-foam agents are known in the art and are available commercially. Particularly preferred antifoam agents are mixtures of polydimethylsiloxanes and perfluroalkylphosphonic acids, such as the silicone anti-foam agents available from GE or Compton.

[0069] Suitable organic solvents may be selected from all customary organic solvents which thoroughly dissolve the active compounds employed. Again, suitable organic solvents for tebuconazole and chlorothalonil are known in the art. The following may be mentioned as being preferred: N-methyl pyrrolidone, N-octyl pyrrolidone, cyclohexyl-1-pyrrolidone; or SOLVESSO^{TM}200, a mixture of paraffinic, isoparaffinic, cycloparaffinic and aromatic hydrocarbons. Suitable solvents are commercially available.

[0070] Suitable preservatives include all substances which can normally be used for this purpose in agrochemical compositions of this type and again are well known in the art. Suitable examples that may be mentioned include PREVENTOL® (from Bayer AG) and PROXEL® (from Bayer AG).

[0071] Suitable antioxidants are all substances which can normally be used for this purpose in agrochemical compositions, as is known in the art. Preference is given to butylated hydroxytoluene.

[0072] Suitable thickeners include all substances which can normally be used for this purpose in agrochemical compositions. For example xanthan gum, PVOH, cellulose and its derivatives, clay hydrated silicates, magnesium aluminum silicates or a mixture thereof. Again, such thickeners are known in the art and available commercially.

[0073] The fungicidal composition may further comprise one or more solid adherents. Such adherents are known in the art and available commercially. They include organic adhesives, including tackifiers, such as celluloses of substituted celluloses, natural and synthetic polymers in the form of powders, granules, or lattices, and inorganic adhesives such as gypsum, silica, or cement.

[0074] In addition, depending upon the formulation, the composition according to the invention may also comprise water.

[0075] The formulated composition may for example be applied in spray form, for example

employing appropriate dilutions using a diluent, such as water.

[0076] The rates of application (use) of the components (A) and (B) in the method and use of the present invention may vary, for example, according to type of use, soil type, season, climate, soil ecology, type of plants, but are such that the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin are both applied in an effective amount to provide the desired action. The application rate of the components (A) and (B) for a given set of conditions can readily be determined by routine trials.

[0077] Typically, the application rate of the synergistic fungicidal composition of the present invention lies in the range of from about 1 to 3 liters or kg per ha.

[0078] The application rate of the total amount of component (A), the crystalline modification II of boscalid, and component (B), the crystalline modification IV of pyraclostrobin, in the method and use of the invention preferably lies in the range of from about 50 to 2000 gram per hectare, more preferably from about 100 to about 1000 gram per hectare. In general, satisfactory results will be obtained when employing from about 25 to about 800 gram per hectare, preferably from about 20 to about 650 gram per hectare, more preferably from about 100 to about 500 gram per hectare of the crystalline modification II of boscalid; and from about 5 to about 400 gram per hectare, preferably from about 5 to about 350 gram per hectare, more preferably from about 50 to about 300 gram per hectare of the crystalline modification IV of pyraclostrobin.

[0079] Using such formulations, either straight (that is undiluted) or diluted with a suitable solvent, especially, water, plants, plant parts and/or the locus can be treated and protected against fungal infestations by techniques known in the art. Generally, the formulations containing the active ingredients can be diluted with water. The composition can be applied with the methods known in the art. These methods include coating, spraying, dipping, pouring, immersing, soaking, injection, irrigation and the like.

[0080] Components (A) and (B) can be applied to the plants, plant parts and/or locus where control is desired either simultaneously and/or in succession, preferably at short intervals, for example on the same day.

[0081] The components (A) and (B) may be applied to the plant, one or more parts thereof (such as leaves or seeds), or the locus thereof in any order. Each component may be applied

just once or a plurality of times. Preferably, each of the components (A) and (B) is applied a plurality of times, in particular from 1 to 6 times.

[0082] Components (A) and (B) may be applied in any suitable form, as described above. Typically, the active components will be applied as formulations, that is compositions comprising one or more of the active components together with further carriers, surfactants or other application-promoting adjuvants customarily employed in formulation technology.

[0083] In the event, components (A) and (B) are applied simultaneously in the present invention, they may be applied as a composition containing components (A) and (B), in which case components (A) and (B) can be obtained from a separate formulation source and mixed together (known as a tank-mix, ready-to-apply, spray broth, or slurry), optionally with other pesticides, or components (A) and (B) can be obtained as a single formulation mixture source (known as a pre-mix, concentrate, formulated compound (or product)), and optionally mixed together with other pesticides.

[0084] In a preferred embodiment, the method and use of the present invention employ a composition according to the present invention.

[0085] The compositions according to the invention are distinguished by the fact that they are especially well tolerated by plants being treated and are environmentally friendly.

[0086] Embodiments of the present invention will be described, for illustrative purposes, by way of the following examples.

[0087] In the examples, percentages are weight percent, unless otherwise indicated.

EXAMPLES

Formulation Examples

Example 1 - Crystalline modification II boscalid suspension concentrate (SC)

[0088] A suspension concentrate (SC) comprising the crystalline II modification of boscalid was prepared from the components set out in the following table.

Crystalline modification II boscalid	25.2%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%

Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Example 2 - Crystalline modification IV pyraclostrobin suspension concentrate (SC)

[0089] A suspension concentrate (SC) comprising the crystalline IV modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification IV pyraclostrobin	12.8%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Example 3 - Crystalline modification I boscalid + Crystalline modification I pyraclostrobin suspension concentrate (SC)

[0090] A suspension concentrate (SC) comprising the crystalline I modification of boscalid and the crystalline I modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification I boscalid	25.2%
Crystalline modification I pyraclostrobin	12.8%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Example 4 - Crystalline modification I boscalid + crystalline modification II

pyraclostrobin suspension (SC)

[0091] A suspension concentrate (SC) comprising the crystalline I modification of boscalid and the crystalline II modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification I boscalid	25.2%
Crystalline modification II pyraclostrobin	12.8%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Example 5 - Crystalline modification I boscalid + crystalline modification III pyraclostrobin suspension concentrate (SC)

[0092] A suspension concentrate (SC) comprising the crystalline I modification of boscalid and the crystalline III modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification I boscalid	25.2%
Crystalline modification III pyraclostrobin	12.8%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Example 6 - Crystalline modification I boscalid + crystalline modification IV pyraclostrobin suspension concentrate (SC)

[0093] A suspension concentrate (SC) comprising the crystalline I modification of boscalid and the crystalline IV modification of pyraclostrobin was prepared from the components set

out in the following table.

Crystalline modification I boscalid	25.2%
Crystalline modification IV pyraclostrobin	12.8%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Example 7 - Crystalline modification II boscalid + crystalline modification I pyraclostrobin suspension (SC)

[0094] A suspension concentrate (SC) comprising the crystalline II modification of boscalid and the crystalline I modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	25.2%
Crystalline modification I pyraclostrobin	12.8%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Example 8 - Crystalline modification II boscalid + crystalline modification II pyraclostrobin suspension concentrate (SC)

[0095] A suspension concentrate (SC) comprising the crystalline II modification of boscalid and the crystalline II modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	25.2%
Crystalline modification II pyraclostrobin	12.8%
Propylene glycol	10%

Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Example 9 - Crystalline modification II boscalid + crystalline modification III pyraclostrobin suspension concentrate (SC)

[0096] A suspension concentrate (SC) comprising the crystalline II modification of boscalid and the crystalline III modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	25.2%
Crystalline modification III pyraclostrobin	12.8%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Example 10 - Crystalline modification II boscalid + crystalline modification IV pyraclostrobin suspension concentrate (SC)

[0097] A suspension concentrate (SC) comprising the crystalline II modification of boscalid and the crystalline IV modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	25.2%
Crystalline modification IV pyraclostrobin	12.8%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%

Water	Balance to 1L

Example 11 - Crystalline modification II boscalid + crystalline modification IV pyraclostrobin suspension concentrate (SC)

[0098] A suspension concentrate (SC) comprising the crystalline II modification of boscalid and the crystalline IV modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	16.67%
Crystalline modification IV pyraclostrobin	10%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Example 12 - Crystalline modification II boscalid + crystalline modification IV pyraclostrobin water dispersible granules (WG)

[0099] A water dispersible granule (WG) composition comprising the crystalline II modification of boscalid and the crystalline IV modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	5%
Crystalline modification IV pyraclostrobin	30%
Poly vinyl alcohol	2%
DISPERSOGEN®1494 (sodium salt of a cresol-formaldehyde condensation)	5%
Kaolin	balance to 100 g

Example 13 - Crystalline modification II boscalid + crystalline modification IV pyraclostrobin capsule suspension (CS)

[00100] A capsule suspension (SC) comprising the crystalline II modification of boscalid and

the crystalline IV modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	10%
Crystalline modification IV pyraclostrobin	5%
SOLVESSO™100 (blend of aromatic hydrocarbon solvents)	15%
PVA (polyvinyl alcohol)	0.8%
Sodium lignosulfonate	0.6%
SUPRASEC®5005 (polymeric diphenylmethane diisocyanate)	3%
Diethylenetriamine	1.4%
Propylene glycol	4%
Xanthan	0.1%
NIPACIDE BIT 20 (biocide)	0.1%
Silicone oil (in the form of a 75% emulsion in water)	0.2%
Water	Balance to 100%

Example 14 - Crystalline modification II boscalid + crystalline modification IV pyraclostrobin water dispersible granules (WG)

[00101] A water dispersible granule (WG) composition comprising the crystalline II modification of boscalid and the crystalline IV modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	50%
Crystalline modification IV pyraclostrobin	2.5%
Poly vinyl alcohol	2%
DISPERSOGEN®1494 (sodium salt of a cresol-formaldehyde condensation)	5%
Kaolin	balance to 100 g

Example 15 - Crystalline modification II boscalid + crystalline modification IV pyraclostrobin water soluble granules (SG)

[00102] A water soluble granule (SG) composition comprising the crystalline II modification

of boscalid and the crystalline IV modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	25%
Crystalline modification IV pyraclostrobin	15%
Sodium lauryl sulfate	0.5%
Sodium lignosulfonate	4.5%
Lactose	55%

Example 16 - Crystalline modification II boscalid + crystalline modification IV pyraclostrobin flowable suspension (FS)

[00103] A flowable suspension (FS) comprising the crystalline II modification of boscalid and the crystalline IV modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	3%
Crystalline modification IV pyraclostrobin	1.67%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Example 17 - Crystalline modification II boscalid + crystalline modification IV pyraclostrobin suspo-emulsion (SE)

[00104] A suspo-emulsion (SE) composition comprising the crystalline II modification of boscalid and the crystalline IV modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	30%
Crystalline modification IV pyraclostrobin	20%
N-methylpyrrolidone	15%
Alkamuls OR/36 (ethoxylated castor oil)	4.5%

Polyurethanes	3%
TERSPERSE®2500 (comb-graft copolymer)	3.75%
SOPROPHOR®FLK (ethoxylated tristyrylphenol phosphate potassium salt)	1.5%
Propylene glycol	10%
2% xanthan gum	11.25%
Silicone oil (in the form of a 75% emulsion in water)	1.5%
Water	Balance to 1L

Example 18 - Crystalline modification II boscalid + crystalline modification IV pyraclostrobin oil-based suspension concentrate (OD)

[00105] An oil-based suspension concentrate (OD) composition comprising the crystalline II modification of boscalid and the crystalline IV modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification II boscalid	40%
Crystalline modification IV pyraclostrobin	20%
Tristyrylphenol ethoxylates	7.5%
Sodium lignosulfonate	1.5%
Silicon dioxide	1.5%
Silicone oil	1.5%
Vegetable oil	Balance to 100%

Example 19 - Crystalline modification II boscalid water dispersible granules (WG)

[00106] A water dispersible granule (WG) composition comprising the crystalline II modification of boscalid was prepared from the components set out in the following table.

Crystalline modification II boscalid	50%
PVA (Polyvinyl alcohol)	2%
DISPERSOGEN®1494 (sodium salt of a cresol-formaldehyde condensation)	5%
Kaolin	balance to 100 g

Example 20 - Crystalline modification IV pyraclostrobin suspension concentrate (SC)

[00107] A suspension concentrate (SC) composition comprising the crystalline IV modification of pyraclostrobin was prepared from the components set out in the following table.

Crystalline modification IV pyraclostrobin	30%
Propylene glycol	10%
Tristyrylphenol ethoxylates	5%
Sodium lignosulfonate	1%
Carboxymethylcellulose	1%
Silicone oil (in the form of a 75% emulsion in water)	1%
Water	Balance to 1L

Biological Examples

[00108] A synergistic effect exists with a combination of two active compounds when the activity of a composition comprising both active compounds is greater than the sum of the activities of the two active compounds applied individually. The expected activity for a given combination of two active compounds can be calculated by the so called "Colby equation" (see S.R. Colby, "Calculating Synergistic and Antagonistic Responses of Herbicide Combinations", Weeds 1967,15, 20-22):

[00109] whereby:

[00110] A = the activity percentage of compound A when active compound A is empolyed at an application rate of m g/ha;

[00111] B = the activity percentage of compound B when active compound B is empolyed at an application rate of n g/ha;

[00112] E = the percentage of estimated activity when compounds A and B are empolyed together at an application rate of m g/ha and n g/ha;

[00113] then:

[00114] $E = A+B-(A \times B/100)$.

[00115] If the actual activity observed for the combination of compunds A and B is greater

than that calculated, then the activity of the combination is superadditive. In other words, synergism is present.

[00116] The severity of the fungal infestation is indicated in the following examples in terms of the percentage of the plant observed to be infested with the indicated fungus.

Biological Example 1 – Grape (*Plasmopara viticola*)

[00117] Grape plants were sprayed with a conidial suspension of Plasmopara viticola and incubated at conditions of 20˚C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions of Formulations Examples 1 to 20 set out above. The treated plants were held in a greenhouse at conditions of 15˚C and 80% relative atmospheric humidity for 10 days, after which, the severity of the fungal infestation was assessed.

[00118] The results are set out in the following table.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	65
Example 3	252	128	45
Example 4	252	128	45
Example 5	252	128	40
Example 6	252	128	35
Example 7	252	128	40
Example 8	252	128	45
Example 9	252	128	35
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	5
Example 13	100	50	5
Example 14	500	25	10
Example 15	250	150	5

Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	5
Example 19	500	0	50
Example 20	0	300	55
Control	0	0	80

[00119] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 2 – Grape (*Uncinula necator*)

[00120] Grape plants were sprayed with a conidial suspension of *Uncinula necator* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. Thereafter, the plants were sprayed with compositions of Formulations Examples 1 to 20 set out above. The treated plants were kept in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00121] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	65
Example 2	0	128	65
Example 3	252	128	50
Example 4	252	128	45
Example 5	252	128	50
Example 6	252	128	40
Example 7	252	128	40
Example 8	252	128	45
Example 9	252	128	40

Example 10	252	128	5
Example 11	333.4	200	10
Example 12	50	300	5
Example 13	100	50	10
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	5
Example 19	500	0	60
Example 20	0	300	65
Control	0	0	90

[00122] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 3 – Grape (*Botrytis cinerea*)

[00123] Grape plants were sprayed with a conidial suspension of *Botrytis cinerea* and incubated at conditions of 20˚C and 100% relative atmospheric humidity for 48 hours. The plants were then were sprayed with compositions of the Formulations Examples 1 to 20 set out above. After treatment, the plants were held in a greenhouse at conditions of 15˚C and 80% relative atmospheric humidity for 10 days, following which the severity of the fungal infestation was assessed. The results are set out in the following table.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	55
Example 3	252	128	50
Example 4	252	128	50
Example 5	252	128	45

Example 6	252	128	40
Example 7	252	128	35
Example 8	252	128	40
Example 9	252	128	40
Example 10	252	128	10
Example 11	333.4	200	5
Example 12	50	300	10
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	0
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	10
Example 19	500	0	50
Example 20	0	300	60
Control	0	0	90

[00124] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 4 – Barley (*Drechslera/Pyrenophora teres*)

[00125] Barley plants were sprayed with a conidial suspension of *Drechslera/Pyrenophora teres* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then were sprayed with compositions of Formulations Examples 1 to 20 set out above. After treatment, the plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days. The severity of the fungal infestation was then assessed.

[00126] The results are set out in the following table.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**	**% Severity**

	Boscalid	Pyraclostrobin	
Example 1	252	0	50
Example 2	0	128	55
Example 3	252	128	45
Example 4	252	128	50
Example 5	252	128	45
Example 6	252	128	35
Example 7	252	128	40
Example 8	252	128	40
Example 9	252	128	35
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	5
Example 13	100	50	10
Example 14	500	25	5
Example 15	250	150	10
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	5
Example 19	500	0	45
Example 20	0	300	55
Control	0	0	85

[00127] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 5 – Barley (*Rhynchosporium secalis*)

[00128] Barley plants were sprayed with a conidial suspension of *Rhynchosporium secalis* and incubated at conditions of 20˚C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions of Formulations Examples 1 to 20 set out above. The treated plants were held in a greenhouse at conditions of 15˚C and 80% relative

atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00129] The results are set out in the following table.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	60
Example 3	252	128	45
Example 4	252	128	45
Example 5	252	128	50
Example 6	252	128	35
Example 7	252	128	40
Example 8	252	128	40
Example 9	252	128	35
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	5
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	10
Example 18	400	200	10
Example 19	500	0	50
Example 20	0	300	55
Control	0	0	80

[00130] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 6 – Barley (*Ramularia collo-cygni*)

[00131] Barley plants were sprayed with a conidial suspension of *Ramularia collo-cygni* and incubated at conditions of 20˚C and 100% relative atmospheric humidity for 48 hours. The plants were then were sprayed with compositions of Formulations Examples 1 to 20 set out above. The treated plants were held in a greenhouse at conditions of 15˚C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00132] The results are set out in the following table.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	60
Example 2	0	128	60
Example 3	252	128	50
Example 4	252	128	50
Example 5	252	128	45
Example 6	252	128	40
Example 7	252	128	40
Example 8	252	128	40
Example 9	252	128	35
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	10
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	10
Example 19	500	0	55
Example 20	0	300	55
Control	0	0	85

[00133] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 7 – Wheat (*Puccinia triticina*)

[00134] Wheat plants were sprayed with a conidial suspension of *Puccinia triticina* and incubated at conditions of 20˚C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15˚C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00135] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	60
Example 3	252	128	45
Example 4	252	128	45
Example 5	252	128	50
Example 6	252	128	35
Example 7	252	128	40
Example 8	252	128	40
Example 9	252	128	35
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	5
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	10

Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	5
Example 19	500	0	50
Example 20	0	300	55
Control	0	0	85

[00136] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 8 – Wheat (*Septoria tritici*)

[00137] Wheat plants were sprayed with a conidial suspension of *Septoria tritici* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00138] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	60
Example 3	252	128	50
Example 4	252	128	45
Example 5	252	128	45
Example 6	252	128	40
Example 7	252	128	35
Example 8	252	128	40
Example 9	252	128	40

Example 10	252	128	5
Example 11	333.4	200	10
Example 12	50	300	5
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	10
Example 19	500	0	50
Example 20	0	300	55
Control	0	0	90

[00139] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 9 – Wheat (*stagonospora nodorum*)

[00140] Wheat plants were sprayed with a conidial suspension of *stagonospora nodorum* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00141] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	60
Example 3	252	128	40

Example 4	252	128	40
Example 5	252	128	45
Example 6	252	128	40
Example 7	252	128	40
Example 8	252	128	40
Example 9	252	128	35
Example 10	252	128	0
Example 11	333.4	200	5
Example 12	50	300	5
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	5
Example 19	500	0	50
Example 20	0	300	50
Control	0	0	80

[00142] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 10 – Wheat (*Puccinia striiformis*)

[00143] Wheat plants were sprayed with a conidial suspension of *Puccinia striiformis* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00144] The results are set out in the table below.

Example	Application rate of boscalid and pyraclostrobin (g AI/ha)		% Severity
	Boscalid	Pyraclostrobin	
Example 1	252	0	60
Example 2	0	128	65
Example 3	252	128	55
Example 4	252	128	50
Example 5	252	128	50
Example 6	252	128	40
Example 7	252	128	40
Example 8	252	128	40
Example 9	252	128	45
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	10
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	10
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	5
Example 19	500	0	55
Example 20	0	300	60
Control	0	0	95

[00145] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 11 – Banana (*Mycosphaerella fijiensis*)

[00146] Banana plants were sprayed with a conidial suspension of *Mycosphaerella fijiensis* and incubated at conditions of 20˚C and 100% relative atmospheric humidity for 48 hours.

The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00147] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	50
Example 2	0	128	65
Example 3	252	128	45
Example 4	252	128	40
Example 5	252	128	40
Example 6	252	128	40
Example 7	252	128	35
Example 8	252	128	45
Example 9	252	128	35
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	5
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	10
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	5
Example 19	500	0	50
Example 20	0	300	55
Control	0	0	80

[00148] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased

activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 12 – Soybean *(Phakopsora pachyrhizi)*

[00149] Soybean plants were sprayed with a conidial suspension of *Phakopsora pachyrhizi* and incubated at conditions of 20˚C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15˚C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00150] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	65
Example 3	252	128	50
Example 4	252	128	50
Example 5	252	128	45
Example 6	252	128	40
Example 7	252	128	40
Example 8	252	128	40
Example 9	252	128	40
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	10
Example 13	100	50	10
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	10

Example 19	500	0	55
Example 20	0	300	60
Control	0	0	90

[00151] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 13 – Oilseed rape *(Leptosphaeria maculans)*

[00152] Oilseed rape plants were sprayed with a conidial suspension of *Leptosphaeria maculans* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00153] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	60
Example 3	252	128	50
Example 4	252	128	45
Example 5	252	128	45
Example 6	252	128	40
Example 7	252	128	40
Example 8	252	128	45
Example 9	252	128	40
Example 10	252	128	10
Example 11	333.4	200	5
Example 12	50	300	5

Example 13	100	50	10
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	5
Example 19	500	0	50
Example 20	0	300	55
Control	0	0	85

[00154] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 14 – Oilseed rape *(Pyrenopeziza brassicae)*

[00155] Oilseed rape plants were sprayed with a conidial suspension of *Pyrenopeziza brassicae* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00156] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	55
Example 3	252	128	45
Example 4	252	128	45
Example 5	252	128	45
Example 6	252	128	40

Example 7	252	128	40
Example 8	252	128	35
Example 9	252	128	35
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	5
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	10
Example 19	500	0	50
Example 20	0	300	50
Control	0	0	85

[00157] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 15 – Oilseed rape *(Sclerotinia sclerotiorum)*

[00158] Oilseed rape plants were sprayed with a conidial suspension of *Sclerotinia sclerotiorum* and incubated at conditions of 20˚C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15˚C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00159] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**	**% Severity**
	Boscalid Pyraclostrobin	

Example 1	252	0	60
Example 2	0	128	65
Example 3	252	128	50
Example 4	252	128	50
Example 5	252	128	45
Example 6	252	128	40
Example 7	252	128	40
Example 8	252	128	45
Example 9	252	128	45
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	10
Example 13	100	50	10
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	10
Example 19	500	0	50
Example 20	0	300	55
Control	0	0	90

[00160] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 16 – Apple *(Podosphaera leucotricha)*

[00161] Apple plants were sprayed with a conidial suspension of *Podosphaera leucotricha* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal

infestation was assessed.

[00162] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	55
Example 3	252	128	45
Example 4	252	128	45
Example 5	252	128	40
Example 6	252	128	40
Example 7	252	128	40
Example 8	252	128	40
Example 9	252	128	35
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	5
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	10
Example 16	90	50	10
Example 17	300	200	10
Example 18	400	200	5
Example 19	500	0	50
Example 20	0	300	50
Control	0	0	80

[00163] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 17 – Peach *(Sphaerotheca pannosa)*

[00164] Peach plants were sprayed with a conidial suspension of *Sphaerotheca pannosa* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00165] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	60
Example 3	252	128	45
Example 4	252	128	40
Example 5	252	128	45
Example 6	252	128	35
Example 7	252	128	40
Example 8	252	128	35
Example 9	252	128	35
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	5
Example 13	100	50	10
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	10
Example 19	500	0	50
Example 20	0	300	55
Control	0	0	85

[00166] As can be seen from the data set out in the above table, the combination of boscalid

and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 18 – Pear *(Venturia inaequalis)*

[00167] Pear plants were sprayed with a conidial suspension of *Venturia inaequalis* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00168] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	60
Example 3	252	128	45
Example 4	252	128	45
Example 5	252	128	45
Example 6	252	128	40
Example 7	252	128	45
Example 8	252	128	40
Example 9	252	128	35
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	10
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10

Example 17	300	200	10
Example 18	400	200	5
Example 19	500	0	50
Example 20	0	300	50
Control	0	0	80

[00169] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 19 – Cabbage *(Plasmopara spp.)*

[00170] Cabbage plants were sprayed with a conidial suspension of *Plasmopara spp.* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00171] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	60
Example 3	252	128	50
Example 4	252	128	45
Example 5	252	128	45
Example 6	252	128	40
Example 7	252	128	40
Example 8	252	128	45
Example 9	252	128	45
Example 10	252	128	5

Example 11	333.4	200	5
Example 12	50	300	10
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	10
Example 19	500	0	50
Example 20	0	300	55
Control	0	0	80

[00172] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 20 – Tomato *(Oidium spp.)*

[00173] Tomato plants were sprayed with a conidial suspension of *Oidium spp.* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00174] The results are set out in the table below.

Example	**Application rate of boscalid and pyraclostrobin (g AI/ha)**		**% Severity**
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	60
Example 2	0	128	60
Example 3	252	128	50
Example 4	252	128	50

Example 5	252	128	45
Example 6	252	128	40
Example 7	252	128	40
Example 8	252	128	40
Example 9	252	128	45
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	5
Example 13	100	50	5
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	10
Example 18	400	200	10
Example 19	500	0	50
Example 20	0	300	55
Control	0	0	85

[00175] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

Biological Example 21 – Cucumber *(Botrytis cinerea)*

[00176] Cucumber plants were sprayed with a conidial suspension of *Botrytis cinerea* and incubated at conditions of 20°C and 100% relative atmospheric humidity for 48 hours. The plants were then sprayed with compositions according to Formulations Examples 1 to 20 set out above. Thereafter, the treated plants were held in a greenhouse at conditions of 15°C and 80% relative atmospheric humidity for 10 days, after which the severity of the fungal infestation was assessed.

[00177] The results are set out in the table below.

Example	**Application rate of**	**% Severity**

	boscalid and pyraclostrobin (g AI/ha)		
	Boscalid	**Pyraclostrobin**	
Example 1	252	0	55
Example 2	0	128	60
Example 3	252	128	50
Example 4	252	128	45
Example 5	252	128	45
Example 6	252	128	40
Example 7	252	128	45
Example 8	252	128	40
Example 9	252	128	40
Example 10	252	128	5
Example 11	333.4	200	5
Example 12	50	300	5
Example 13	100	50	10
Example 14	500	25	5
Example 15	250	150	5
Example 16	90	50	10
Example 17	300	200	5
Example 18	400	200	5
Example 19	500	0	50
Example 20	0	300	55
Control	0	0	80

[00178] As can be seen from the data set out in the above table, the combination of boscalid and pyraclostrobin, in particular the combination of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin, exhibited significantly increased activity in the control of the fungal infestation. The results demonstrate a synergistic effect.

CLAIMS

1. A fungicidal composition comprising:

(A) the crystalline modification II of 3-pyridinecarboxamide, 2-chloro-N-(4'chloro [1,1'biphenyl]-2-yl) (boscalid); and

(B) the crystalline modification IV of methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy) carbamate (pyraclostrobin).

2. The composition according to claim 1, wherein the crystalline modification II of boscalid is present in the synergistic fungicidal composition in an amount of from about 1% to about 80% by weight of the composition.

3. The composition according to claim 2, wherein the crystalline modification II of boscalid is present in the synergistic fungicidal composition in an amount of from about 1% to 70% by weight.

4. The composition according to claim 3, wherein the crystalline modification II of boscalid is present in the synergistic fungicidal composition in an amount of from about 1% to 60% by weight.

5. The composition according to any preceding claim, wherein the crystalline modification IV of pyraclostrobin is present in the synergistic fungicidal composition in an amount of from about 1% to 70% by weight.

6. The composition according to claim 5, wherein the crystalline modification IV of pyraclostrobin is present in the synergistic fungicidal composition in an amount of from about 1% to 60% by weight.

7. The composition according to claim 6, wherein the crystalline modification IV of pyraclostrobin is present in the synergistic fungicidal composition in an amount of from about 1% to 50% by weight.

8. The composition according to any preceding claim, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin in the composition is in the range of from about 50:1 to about 1:50.

9. The composition according to claim 8, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin in the composition is in the range of from about 25:1 to about 1:25.

10. The composition according to claim 9, wherein the weight ratio of the crystalline

modification II of boscalid and the crystalline modification IV of pyraclostrobin in the composition is in the range of from about 20:1 to about 1:20.

11. The composition according to claim 10, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin in the composition is in the range of from about 15:1 to about 1:15.

12. The composition according to claim 11, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin in the composition is in the range of from about 10:1 to about 1:10.

13. The composition according to claim 12, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin in the composition is in the range of from about 5:1 to about 1:5.

14. The composition according to any preceding claim, wherein the composition comprises one or more auxiliaries selected from extenders, carriers, solvents, surfactants, stabilizers, anti-foaming agents, anti-freezing agents, preservatives, antioxidants, colorants, thickeners, solid adherents and inert fillers.

15. The composition according to any preceding claim, wherein the composition is a water-soluble concentrate (SL), an emulsifiable concentrate (EC), an emulsion (EW), a micro-emulsion (ME), suspension concentrates (SC), oil-based suspension concentrates (OD), a flowable suspension (FS), water-dispersible granules (WG), water-soluble granules (SG), a water-dispersible powder (WP), a water soluble powder (SP), granules (GR), encapsulated granules (CG), fine granules (FG), macrogranules (GG), a suspo-emulsion (SE), a capsule suspensions (CS) or microgranules (MG).

16. The composition according to claim 15, wherein the composition is a suspension concentrate (SC), water-dispersible granules (WG), a suspo-emulsion (SE), a capsule suspension (CS), an oil-based suspension concentrate (OD), or water-soluble granules (SG).

17. A method of preventing and/or treating fungal infestations in plants and/or plant parts comprising applying to the plants and/or plant parts:

(A) the crystalline modification II of 3-pyridinecarboxamide, 2-chloro-N-(4'chloro [1,1'biphenyl]-2-yl) (boscalid); and

(B) the crystalline modification IV of methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate (pyraclostrobin).

18. The method according to claim 17, wherein the plants being treated are selected from

cereals, fruit, berries, leguminous plants, oil plants, cucurbitaceae, citrus fruit, vegetables, ornamentals, broad-leaved trees and evergreens.

19. The method according to claim 18, wherein the plants being treated are selected from wheat, barley, rye, oats, corn, rice, sorghum and triticale; apples, pears, plums, peaches, pistachio, almonds, cherries, grape, banana, strawberries, bushberry, caneberry, raspberries and blackberries; beans, lentils, peas, and soybeans; oilseed rape, mustard and sunflowers; cantaloupe, marrows, cucumbers, melons, pumpkin, squash and watermelon; oranges, lemons, grapefruit and mandarins; spinach, lettuce, asparagus, cabbages, carrots, onions, tomatoes, potatoes, paprika, garlic and leeks; coffee; sugarcane; hops; tree nuts; roses, shrubs, and conifers.

20. The method according to claim 19, wherein the plants being treated are selected from wheat, barley, oats, rice, grape, banana, soybean, oilseed rape and vegetables.

21. The method according to any of claims 17 to 20, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 50:1 to about 1:50.

22. The method according to claim 21, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 25:1 to about 1:25.

23. The method according to claim 22, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 20:1 to about 1:20.

24. The method according to claim 23, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 15:1 to about 1:15.

25. The method according to claim 24, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 10:1 to about 1:10.

26. The method according to claim 25, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 5:1 to about 1:5.

27. The method according to any of claims 17 to 26, wherein the application rate of the total amount of component (A), the crystalline modification II of boscalid, and component (B),

the crystalline modification IV of pyraclostrobin, is in the range of from about 100 to about 1000 gram per hectare.

28. The method according to any of claims 17 to 27, wherein the application rate of component (A), the crystalline modification II of boscalid, is in the range of from about 25 to about 800 gram per hectare.

29. The method according to claim 28, wherein the application rate of the crystalline modification II of boscalid is in the range of from about 20 to about 650 gram per hectare.

30. The method according to claim 29, wherein the application rate of the crystalline modification II of boscalid is in the range of from about 100 to about 500 gram per hectare.

31. The method according to any of claims 17 to 30, wherein the application rate of component (B), the crystalline modification IV of pyraclostrobin, is in the range of from about 5 to about 400 gram per hectare.

32. The method according to claim 31, wherein the application rate of the crystalline modification IV of pyraclostrobin, is in the range of from about 5 to about 350 gram per hectare.

33. The method according to claim 32, wherein the application rate of the crystalline modification IV of pyraclostrobin is in the range of from about 50 to about 300 gram per hectare.

34. The method according to any of claims 17 to 33, wherein the components (A) and (B) are applied to the plants, plant parts and/or locus where control is desired simultaneously and/or in succession.

35. The method according to any of claims 17 to 34, wherein a composition of any of claims 1 to 16 is employed.

36. The use in the prevention and/or treatment of fungal infestations in plants and/or plant parts of:

(A) the crystalline modification II of 3-pyridinecarboxamide, 2-chloro-N-(4'chloro [1,1'biphenyl]-2-yl) (boscalid); and

(B) the crystalline modification IV of methyl N-{2-[1-(4-chlorophenyl)-1H-pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate (pyraclostrobin).

37. The use according to claim 36, wherein the plants being treated are selected from cereals, fruit, berries, leguminous plants, oil plants, cucurbitaceae, citrus fruit, vegetables, ornamentals, broad-leaved trees and evergreens.

38. The use according to claim 37, wherein the plants being treated are selected from wheat, barley, rye, oats, corn, rice, sorghum and triticale; apples, pears, plums, peaches, pistachio, almonds, cherries, grape, banana, strawberries, bushberry, caneberry, raspberries and blackberries; beans, lentils, peas, and soybeans; oilseed rape, mustard and sunflowers; cantaloupe, marrows, cucumbers, melons, pumpkin, squash and watermelon; oranges, lemons, grapefruit and mandarins; spinach, lettuce, asparagus, cabbages, carrots, onions, tomatoes, potatoes, paprika, garlic and leeks; coffee; sugarcane; hops; tree nuts; roses, shrubs, and conifers.

39. The use according to claim 38, wherein the plants being treated are selected from wheat, barley, oats, rice, grape, banana, soybean, oilseed rape and vegetables.

40. The use according to any of claims 36 to 39, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 50:1 to about 1:50.

41. The use according to claim 40, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 25:1 to about 1:25.

42. The use according to claim 41, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 20:1 to about 1:20.

43. The use according to claim 42, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 15:1 to about 1:15.

44. The use according to claim 43, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 10:1 to about 1:10.

45. The use according to claim 44, wherein the weight ratio of the crystalline modification II of boscalid and the crystalline modification IV of pyraclostrobin is in the range of from about 5:1 to about 1:5.

46. The use according to any of claims 36 to 45, wherein the application rate of the total amount of component (A), the crystalline modification II of boscalid, and component (B), the crystalline modification IV of pyraclostrobin, is in the range of from about 100 to about 1000 gram per hectare.

47. The use according to any of claims 36 to 46, wherein the application rate of component (A), the crystalline modification II of boscalid, is in the range of from about 25 to about 800 gram per hectare.

48. The use according to claim 47, wherein the application rate of the crystalline modification II of boscalid is in the range of from about 20 to about 650 gram per hectare.

49. The use according to claim 48, wherein the application rate of the crystalline modification II of boscalid is in the range of from about 100 to about 500 gram per hectare.

50. The use according to any of claims 36 to 49, wherein the application rate of component (B), the crystalline modification IV of pyraclostrobin, is in the range of from about 5 to about 400 gram per hectare.

51. The use according to claim 50, wherein the application rate of the crystalline modification IV of pyraclostrobin, is in the range of from about 5 to about 350 gram per hectare.

52. The use according to claim 51, wherein the application rate of the crystalline modification IV of pyraclostrobin is in the range of from about 50 to about 300 gram per hectare.

53. The use according to any of claims 36 to 52, wherein the components (A) and (B) are applied to the plants, plant parts and/or locus where control is desired simultaneously and/or in succession.

54. The use according to any of claims 36 to 53, wherein a composition of any of claims 1 to 16 is employed.

55. A fungicidal composition substantially as hereinbefore described.

56. A method for treating and/or preventing fungal infestations in plants and/or plant materials substantially as hereinbefore described.

57. The use substantially as hereinbefore described.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CN2017/094632

A. CLASSIFICATION OF SUBJECT MATTER

A01N 43/56(2006.01)i; A01P 7/00(2006.01)i; A01P 3/00(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A01N; A01P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CNKI; EPODOC; STN; CNPAT; DWPI; CAPLUS; REGISTRY:boscalid,nicobifen,pyraclostrobin,crystal+,188425-85-6, 175013-18-0

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN 102595879 A (BASF SE) 18 July 2012 (2012-07-18) Claims 1-15	1-57
X	CN 102469775 A (BASF SE) 23 May 2012 (2012-05-23) Claims 1-23	1-57

☐ Further documents are listed in the continuation of Box C. ☑ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
11 October 2017	**19 October 2017**

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
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Patent document cited in search report	Publication date (day/month/year)	Patent family member(s)	Publication date (day/month/year)
CN 102595879 A	18 July 2012	WO 2011054741 A2	12 May 2011
		KR 20120115492 A	18 October 2012
		EP 2496077 A2	12 September 2012
		US 2012220463 A1	30 August 2012
		JP 2013510113 A	21 March 2013
		US 9173391 B2	03 November 2015
		EP 2496077 B1	20 August 2014
		WO 2011054741 A3	30 June 2011
		CN 102595879 B	06 August 2014
CN 102469775 A	23 May 2012	CN 102469775 B	26 February 2014
		AU 2010272571 B2	28 May 2015
		KR 101750574 B1	04 July 2017
		JP 2012532911 A	20 December 2012
		ES 2439284 T3	22 January 2014
		EA 201200117 A1	30 August 2012
		PT 2453739 E	03 October 2013
		CA 2766711 A1	20 January 2011
		WO 2011006896 A3	30 June 2011
		MX 2012000787 A	28 February 2012
		DK 2453739 T3	09 December 2013
		US 8618022 B2	31 December 2013
		EP 2453739 A2	23 May 2012
		EA 020180 B1	30 September 2014
		WO 2011006896 A2	20 January 2011
		JP 5941406 B2	29 June 2016
		PE 12062012 A1	25 August 2012
		CR 20120015 A	18 April 2012
		ZA 201200990 B	29 May 2013
		US 2012128750 A1	24 May 2012
		CA 2766711 C	05 September 2017
		AU 2010272571 A1	09 February 2012
		UA 103689 C2	11 November 2013
		IL 217241 D0	29 February 2012
		KR 20120052980 A	24 May 2012
		EP 2453739 B1	11 September 2013