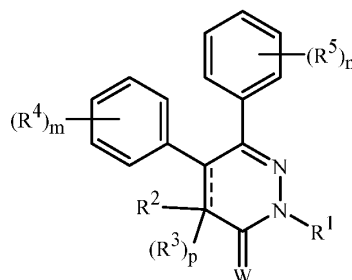


CLAIMS

What is claimed is:

1. A compound selected from Formula **1**, tautomers, *N*-oxides, and salts thereof,

**1**

5 wherein

W is O or S;

R¹ is C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₂-C₆ cyanoalkyl or C₂-C₆ alkoxyalkyl, each optionally substituted with up to 3 substituents independently selected from halogen;

10 R² is H, halogen, cyano, hydroxy, nitro, C(=O)NR^{7a}R^{7b}, C(=O)OH, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl, C₂-C₆ cyanoalkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ alkoxyalkyl, C₂-C₆ haloalkoxyalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₂-C₆ alkenyloxy, C₂-C₆ haloalkenyloxy, C₂-C₆ alkynyloxy, C₂-C₆ haloalkynyloxy, C₃-C₆ cycloalkoxy, C₂-C₆ alkylcarbonyloxy, C₂-C₆ haloalkylcarbonyloxy, C₁-C₆ alkylthio, C₁-C₆ haloalkylthio, C₁-C₆ alkylsulfinyl, C₁-C₆ haloalkylsulfinyl, C₁-C₆ alkylsulfonyl, C₁-C₆ haloalkylsulfonyl, C₂-C₆ alkylcarbonyl, C₂-C₆ haloalkylcarbonyl, C₂-C₆ alkoxy carbonyl, C₂-C₆ haloalkoxy carbonyl, C₁-C₆ alkylamino, C₁-C₆ haloalkylamino or C₂-C₆ dialkylamino;

20 p is 0 or 1;

the dotted line in Formula **1** represents an optional bond, provided that the optional bond is present when p is 0, and the optional bond is absent when p is 1;

R³ is H or C₁-C₃ alkyl;

25 each R⁴ and R⁵ is independently cyano, nitro, halogen or hydroxy; or C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₂-C₆ cyanoalkyl, C₁-C₆ hydroxyalkyl, C₁-C₆ alkoxy, C₂-C₆ alkenyloxy, C₂-C₆ alkynyloxy, C₂-C₆ cyanoalkoxy or C₁-C₆ alkylthio, each optionally substituted with up to 3 substituents independently selected from halogen and C₁-C₃ alkyl; or -U-V-T;

- each U is independently a direct bond, O, C(=O) or NR⁶;
- each V is independently C₁-C₆ alkylene, C₂-C₆ alkenylene or C₃-C₆ alkynylene,
 wherein up to 2 carbon atoms are C(=O), each optionally substituted with up to 3
 substituents independently selected from halogen, cyano, nitro, hydroxy, C₁-C₆
 5 alkyl, C₁-C₆ haloalkyl, C₁-C₆ alkoxy and C₁-C₆ haloalkoxy;
- each T is independently NR^{7a}R^{7b}, OR⁸ or S(=O)_qR⁹;
- each R⁶ is independently H, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkylcarbonyl, C₂-C₆
 haloalkylcarbonyl, C₂-C₆ alkoxycarbonyl, C₂-C₆ (alkylthio)carbonyl or C₂-C₆
 alkoxy(thiocarbonyl);
- 10 each R^{7a} and R^{7b} is independently H, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl,
 C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₂-C₆ haloalkynyl, C₃-C₆ cycloalkyl, C₃-C₆
 halocycloalkyl, C₁-C₆ alkoxy, C₁-C₆ haloalkoxy, C₂-C₆ alkylcarbonyl or C₂-C₆
 alkoxycarbonyl; or
- R^{7a} and R^{7b} are taken together with the nitrogen atom to which they are attached to
 15 form a 3- to 6-membered fully saturated heterocyclic ring, each ring containing
 ring members, in addition to the connecting nitrogen atom, selected from carbon
 atoms and up to 2 heteroatoms independently selected from up to 2 O, up to 2 S
 and up to 2 N atoms, each ring optionally substituted with up to 3 substituents
 independently selected from R¹⁰;
- 20 each R⁸ and R⁹ is independently H, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl,
 C₂-C₆ haloalkenyl, C₂-C₆ alkynyl, C₃-C₆ cycloalkyl, C₃-C₆ halocycloalkyl,
 C₂-C₆ alkylcarbonyl, C₂-C₆ haloalkylcarbonyl or C₂-C₆ alkoxycarbonyl;
- each R¹⁰ is independently halogen, C₁-C₃ alkyl, C₁-C₃ haloalkyl, C₁-C₃ alkoxy or
 C₁-C₃ haloalkoxy; and
- 25 m and n are each independently 0 to 5;
 each q is independently 0, 1 or 2.
- provided that the compound of Formula **1** is not:
- 2-methyl-5,6-diphenyl-3(2*H*)-pyridazinone;
 - 2-ethyl-5,6-diphenyl-3(2*H*)-pyridazinone;
 - 2-(methoxymethyl)-5,6-diphenyl-3(2*H*)-pyridazinone;
 - 2-(2-methoxyethyl)-5,6-diphenyl-3(2*H*)-pyridazinone;
 - 2-(2-methoxyethyl)-5,6-diphenyl-3(2*H*)-pyridazinethione;
 - 2,3-dihydro-2-methyl-3-oxo-5,6-diphenyl-4-pyridazinecarbonitrile;
 - 2,3-dihydro-3-oxo-5,6-diphenyl-2-propyl-4-pyridazinecarbonitrile;
 - 2,3-dihydro-2-(1-methylethyl)-3-oxo-5,6-diphenyl-4-pyridazinecarbonitrile;
 - 5-cyano-6-oxo-3,4-diphenyl-1(6*H*)-pyridazinepropanenitrile;
 - 2,3-dihydro-3-oxo-2-(2-pentyn-1-yl)-5,6-diphenyl-4-pyridazinecarbonitrile;
 - 5,6-bis(4-chlorophenyl)-2-methyl-3(2*H*)-pyridazinone;

2-(methoxymethyl)-5-(4-methylphenyl)-6-phenyl-3(2*H*)-pyridazinone;
 5-(4-chlorophenyl)-2-(methoxymethyl)-6-phenyl-3(2*H*)-pyridazinone;
 2-(2-chloroethyl)-5,6-bis(4-chlorophenyl)-2,3-dihydro-3-oxo-4-pyridazinecarbonitrile;
 5,6-bis(4-methoxyphenyl)-2-methyl-3(2*H*)-pyridazinone;
 2-ethyl-5,6-bis(4-methoxyphenyl)-3(2*H*)-pyridazinone;
 5,6-bis(4-methoxyphenyl)-2-(1-methylethyl)-3(2*H*)-pyridazinone;
 2-cyclopropyl-5,6-bis(4-methoxyphenyl)-3(2*H*)-pyridazinone;
 2-(2-chloroethyl)-5,6-bis(4-methoxyphenyl)-3(2*H*)-pyridazinone;
 5,6-bis(4-methoxyphenyl)-2-(2-propen-1-yl)-3(2*H*)-pyridazinone;
 2-cyclopentyl-5,6-bis(4-methoxyphenyl)-3(2*H*)-pyridazinone;
 2-ethyl-2,3-dihydro-5,6-bis(4-methoxyphenyl)-3-oxo-4-pyridazinecarbonitrile;
 2,3-dihydro-5,6-bis(4-methoxyphenyl)-3-oxo-2-propyl-4-pyridazinecarbonitrile;
 2,3-dihydro-5,6-bis(4-methoxyphenyl)-2-(1-methylethyl)-3-oxo-4-pyridazinecarbonitrile;
 2-ethyl-6-(3-fluoro-4-methoxyphenyl)-5-(4-methoxyphenyl)-3(2*H*)-pyridazinone;
 2-ethyl-5-(3-fluoro-4-methoxyphenyl)-6-(4-methoxyphenyl)-3(2*H*)-pyridazinone;
 2-ethyl-5,6-bis(3-fluoro-4-methoxyphenyl)-3(2*H*)-pyridazinone;
 2-ethyl-5,6-bis(3-fluoro-4-methoxyphenyl)-4,5-dihydro-3(2*H*)-pyridazinone;
 6-(4-methoxyphenyl)-2-methyl-5-(3,4,5-trimethoxyphenyl)-3(2*H*)-pyridazinone;
 2-methyl-4-nitro-5,6-diphenyl-3(2*H*)-pyridazinone;
 2-methyl-4-(methylthio)-5,6-diphenyl-3(2*H*)-pyridazinone; and
 4-(ethylthio)-2-methyl-5,6-diphenyl-3(2*H*)-pyridazinone.

2. A compound Claim 1 wherein

W is O;

R¹ is C₁-C₃ alkyl, C₂-C₅ alkenyl, C₂-C₅ alkynyl, C₃-C₅ cycloalkyl, C₂-C₄ cyanoalkyl or C₂-C₅ alkoxyalkyl;

5 R² is H, halogen, cyano, C₁-C₃ alkyl, C₁-C₃ haloalkyl, cyclopropyl, halocyclopropyl, C₁-C₃ alkoxy, C₁-C₃ haloalkoxy, C₂-C₃ alkenyloxy or C₂-C₃ haloalkenyloxy;

R³ is H, methyl or ethyl;

each R⁴ and R⁵ is independently cyano, nitro or halogen; or C₁-C₃ alkyl, C₂-C₃ alkenyl, C₂-C₄ cyanoalkyl, C₁-C₃ alkoxy, C₂-C₄ alkenyloxy or C₂-C₄

10 cyanoalkoxy, each optionally substituted with up to 3 substituents independently selected from halogen; or -U-V-T;

each U is independently a direct bond, O, C(=O) or NH;

each V is independently C₁-C₃ alkylene, wherein up to 1 carbon atom is C(=O), each optionally substituted with up to 2 substituents independently selected from

15 halogen, methyl, halomethyl and methoxy;

each T is independently $\text{NR}^{7a}\text{R}^{7b}$ or OR^8 ;
each R^{7a} and R^{7b} is independently H, $\text{C}_1\text{-C}_3$ alkyl, $\text{C}_1\text{-C}_3$ haloalkyl, cyclopropyl,
 $\text{C}_2\text{-C}_3$ alkylcarbonyl or $\text{C}_2\text{-C}_3$ alkoxy carbonyl; and
m and n are each independently 1 to 4.

- 5 3. A compound of Claim 2 wherein
 R^1 is $\text{C}_1\text{-C}_2$ alkyl, $\text{C}_3\text{-C}_4$ cycloalkyl or $\text{C}_2\text{-C}_3$ cyanoalkyl;
 R^2 is H, halogen, cyano, $\text{C}_1\text{-C}_2$ alkyl, $\text{C}_1\text{-C}_2$ haloalkyl, $\text{C}_1\text{-C}_2$ alkoxy or $\text{C}_1\text{-C}_2$
 haloalkoxy;
 R^3 is H or methyl;
10 each R^4 and R^5 is independently cyano or halogen; or $\text{C}_1\text{-C}_2$ alkyl or $\text{C}_1\text{-C}_2$ alkoxy,
 each optionally substituted with up to 3 substituents independently selected from
 halogen; or -U-V-T;
 each U is independently a direct bond, O or NH;
 each V is independently CH_2 , CH_2CH_2 or $\text{C}(=\text{O})$;
15 each R^{7a} and R^{7b} is independently H, $\text{C}_1\text{-C}_2$ alkyl, $\text{C}_1\text{-C}_2$ haloalkyl or cyclopropyl;
 m and n are each independently 1 to 3.
4. A compound of Claim 3 wherein
 R^1 is methyl, ethyl, cyclopropyl or $-\text{CH}_2\text{C}\equiv\text{N}$;
 R^2 is H, halogen, $\text{C}_1\text{-C}_2$ alkyl or methoxy;
20 p is 0; and
 each R^4 and R^5 is independently halogen or methoxy.
5. A compound of Claim 4 wherein
 R^1 is methyl;
 R^2 is Br, Cl, methyl, ethyl or methoxy;
25 each R^4 and R^5 is independently Br, Cl, F or methoxy;
 m is 2 and the R^4 substituents are attached at the 2- and 6-positions; or m is 2 and the
 R^4 substituents are attached at the 2- and 4-positions; or m is 2 and the R^4
 substituents are attached at the 3- and 5-positions; and
 n is 2 and the R^5 substituents are attached at the 3- and 5-positions; or n is 2 and the R^5
30 substituents are attached at the 2- and 4-positions; or n is 2 and the R^5
 substituents are attached at the 2- and 5-positions; or n is 2 and the R^5
 substituents are attached at the 2- and 6-positions; or n is 3 and the R^5
 substituents are attached at the 2-, 3- and 5-positions.
6. A compound of Claim 5 wherein
35 R^2 is Cl, methyl, ethyl or methoxy;
 each R^4 is independently Cl or F; and
 each R^5 is independently Br, Cl, F or methoxy.

7. A compound of Claim 6 wherein
R² is Cl or methyl;
each R⁵ is independently Cl, F or methoxy.
8. A compound of Claim 1 which is selected from the group:
6-(2-chloro-3,5-dimethoxyphenyl)-5-(2-chloro-4-fluorophenyl)-2-methyl-3(2*H*)-pyridazinone;
4-chloro-6-(2-chloro-3,5-dimethoxyphenyl)-5-(2,6-difluorophenyl)-2-methyl-3(2*H*)-pyridazinone;
5,6-bis(2-chloro-4-fluorophenyl)-2,4-dimethyl-3(2*H*)-pyridazinone;
4-chloro-6-(2-chloro-5-methoxyphenyl)-5-(2,6-difluorophenyl)-2-methyl-3(2*H*)-pyridazinone;
4-chloro-6-(2-chloro-3,5-dimethoxyphenyl)-5-(2-chloro-4-fluorophenyl)-2-methyl-3(2*H*)-pyridazinone;
6-(2-bromo-3,5-dimethoxyphenyl)-5-(2-chloro-4-fluorophenyl)-2,4-dimethyl-3(2*H*)-pyridazinone;
6-(2-chloro-3,5-dimethoxyphenyl)-5-(2-chloro-4-fluorophenyl)-2,4-dimethyl-3(2*H*)-pyridazinone;
6-(2-chloro-5-methoxyphenyl)-5-(2,6-difluorophenyl)-2,4-dimethyl-3(2*H*)-pyridazinone;
6-(2-bromo-3,5-dimethoxyphenyl)-4-chloro-5-(2-chloro-4-fluorophenyl)-2-methyl-3(2*H*)-pyridazinone;
6-(2-chloro-3,5-dimethoxyphenyl)-5-(2-chloro-4-fluorophenyl)-4-methoxy-2-methyl-3(2*H*)-pyridazinone;
4-chloro-5-(2-chloro-4-fluorophenyl)-6-(2-chloro-5-methoxyphenyl)-2-methyl-3(2*H*)-pyridazinone;
5-(2-chloro-4-fluorophenyl)-6-(2-chloro-5-methoxyphenyl)-2,4-dimethyl-3(2*H*)-pyridazinone;
5-(2-chloro-4-fluorophenyl)-6-(2-chloro-5-methoxyphenyl)-4-ethyl-2-methyl-3(2*H*)-pyridazinone;
6-(2-chloro-5-methoxyphenyl)-5-(2,6-difluorophenyl)-4-ethyl-2-methyl-3(2*H*)-pyridazinone; and
6-(2-chloro-3,5-dimethoxyphenyl)-5-(2,6-difluorophenyl)-2,4-dimethyl-3(2*H*)-pyridazinone,
- 5 9. A fungicidal composition comprising (a) a compound of Claim 1; and (b) at least one other fungicide.
10. A fungicidal composition comprising (a) a compound of Claim 1; and (b) at least one additional component selected from the group consisting of surfactants, solid diluents and liquid diluents.

11. A method for controlling plant diseases caused by fungal plant pathogens comprising applying to the plant or portion thereof, or to the plant seed, a fungicidally effective amount of a compound of Claim 1.