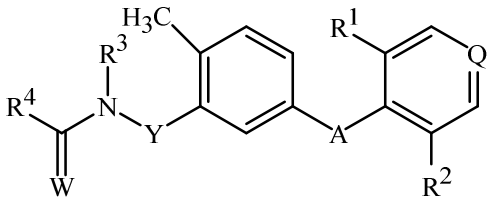
Claims

What is claimed is:

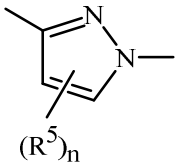
1. A compound selected from Formula **1**, tautomers, *N*-oxides, and salts thereof,



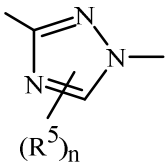
1

wherein

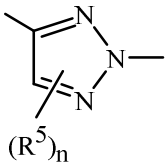
A is a radical selected from the group consisting of



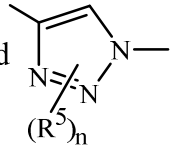
A-1



A-2



A-3

and 

A-4

wherein the bond extending to the right is attached to the ring containing Q and the bond extending to the left is attached to the phenyl ring bearing the Y-N(R^3)C(=W)R^4 substituent;

Q is CR^6 or N;

Y is $CR^{7a}R^{7b}$, O or NR^8;

W is O or S;

R^1 and R^2 are each independently halogen, cyano, hydroxy, nitro, amino, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_2-C_6 alkenyl, C_2-C_6 haloalkenyl, C_2-C_6 alkynyl, C_2-C_6 haloalkynyl, C_2-C_6 cyanoalkyl, C_3-C_6 cycloalkyl, C_3-C_6 halocycloalkyl, C_4-C_8 cycloalkylalkyl, C_2-C_6 alkoxyalkyl, C_1-C_6 alkoxy, C_1-C_6 haloalkoxy, C_2-C_6 alkenyloxy, C_2-C_6 haloalkenyloxy, C_2-C_6 alkynyloxy, C_2-C_6 haloalkynyloxy, C_2-C_6 cyanoalkoxy, C_3-C_6 cycloalkoxy, C_4-C_8 cycloalkylalkoxy, C_2-C_6 alkoxyalkoxy, C_1-C_6 alkylthio, C_1-C_6 haloalkylthio, C_1-C_6 alkylsulfinyl, C_1-C_6 haloalkylsulfinyl, C_1-C_6 alkylsulfonyl or C_1-C_6 haloalkylsulfonyl;

~~R^3 is H, C_1-C_3 alkyl, C_1-C_3 haloalkyl, cyclopropyl, C_2-C_4 alkylcarbonyl, C_2-C_4 haloalkylcarbonyl, C_2-C_4 alkoxycarbonyl or C_2-C_4 haloalkoxycarbonyl;~~

R^3 is H or methyl;

R^4 is C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_1-C_3 alkoxy, C_1-C_3 haloalkoxy, C_1-C_3 alkylamino or C_2-C_4 dialkylamino;

each R^5 is independently halogen, cyano, C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_1-C_3 alkoxy or C_1-C_3 haloalkoxy;

n is 0, 1 or 2;

R^6 is ~~H,~~ halogen, cyano, hydroxy, nitro, amino, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_2-C_6 alkenyl, C_2-C_6 haloalkenyl, C_2-C_6 alkynyl, C_2-C_6 haloalkynyl, C_2-C_6 cyanoalkyl, C_1-C_6 hydroxyalkyl, C_2-C_6 alkoxyalkyl, C_1-C_6 alkoxy, C_1-C_6 haloalkoxy, C_2-C_6 alkenyloxy, C_2-C_6 haloalkenyloxy, C_2-C_6 alkynyloxy, C_2-C_6 haloalkynyloxy, C_2-C_6 cyanoalkoxy, C_2-C_6 alkoxyalkoxy, C_1-C_6 alkylamino, C_1-C_6 alkylthio, C_1-C_6 haloalkylthio, C_1-C_6 alkylsulfinyl, C_1-C_6 haloalkylsulfinyl, C_1-C_6 alkylsulfonyl, C_1-C_6 haloalkylsulfonyl, -ZC(=O)V, CR^{10a}=NOR^{10b}, ON=$CR^{11a}R^{11b}$, CR^{12a}=$NNR^{12b}R^{12c}$ or -L-J;

R^{7a} is H, hydroxy, halogen, cyano, C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_2-C_3 alkoxyalkyl, C_1-C_3 alkoxy, C_1-C_3 haloalkoxy, C_1-C_3 alkylsulfinyl or C_1-C_3 alkylsulfonyl;

R^{7b} is H, C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_2-C_3 alkoxyalkyl, C_1-C_3 alkoxy or C_1-C_3 haloalkoxy;

R^8 is H, C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_2-C_3 alkylcarbonyl or C_2-C_3 haloalkylcarbonyl;

Z is a direct bond, O, S or NH; or CH_2 optionally substituted with up to 2 substituents independently selected from halogen, methyl or methoxy;

V is R^9 or OR^9;

R^9, R^{10b}, R^{11a} and R^{12c} are each H, C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_2-C_4 alkenyl, C_2-C_4 haloalkenyl, C_2-C_4 alkynyl, C_3-C_6 cycloalkyl, C_3-C_6 halocycloalkyl or C_4-C_8 cycloalkylalkyl;

R^{10a}, R^{11b}, R^{12a} and R^{12b} are each independently H, C_1-C_3 alkyl or C_1-C_3 haloalkyl;

L is a direct bond, CH_2, O, S, NR^{13}, OCH_2, CH_2O, C(=O), S(=O) or $S(=O)_2$;

J is a 3- to 6-membered nonaromatic carbocyclic ring, wherein up to 3 carbon atom ring members are independently selected from C(=O) and C(=S), each ring optionally substituted with up to 4 substituents independently selected from R^{14}; or

J is a 3- to 6-membered heterocyclic ring, each ring containing ring members selected from carbon atoms and 1 to 4 heteroatoms independently selected from up to 2 O, up to 2 S and up to 4 N atoms, wherein up to 3 carbon atom ring members are independently selected from C(=O) and C(=S), each ring optionally substituted with up to 4 substituents independently selected from R^{14};

R^{13} is H, C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_2-C_3 alkylcarbonyl or C_2-C_3 haloalkylcarbonyl;

each R^{14} is independently halogen, hydroxy, cyano, nitro, C_1-C_4 alkyl, C_1-C_4 haloalkyl, C_2-C_4 alkenyl, C_2-C_4 haloalkenyl, C_1-C_4 alkoxy, C_1-C_4 haloalkoxy or C(=O)OR^{15}; and

each R^{15} is independently H, C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_2-C_4 alkenyl, C_2-C_4 haloalkenyl, C_2-C_4 alkynyl, C_3-C_6 cycloalkyl or C_3-C_6 halocycloalkyl.

2. A compound of Claim 1 wherein:

A is A-1, A-3 or A-4;

Q is CR^6;

Y is $CR^{7a}CR^{7b}$;

W is O;

R^1 and R^2 are each independently halogen, C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_2-C_4 alkoxyalkyl, C_1-C_3 alkoxy, C_1-C_3 haloalkoxy, C_2-C_4 alkenyloxy, C_2-C_4 haloalkenyloxy, C_2-C_4 alkoxyalkoxy or C_1-C_3 alkylthio;

~~R^3 is H, methyl, methylcarbonyl or methoxycarbonyl;~~

R^4 is methyl, methoxy, ethoxy, methylamino or dimethylamino;

each R^5 is independently halogen or methyl;

R^6 is ~~H,~~ halogen, nitro, amino, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_2-C_6 alkenyl, C_2-C_6 haloalkenyl, C_2-C_6 alkynyl, C_2-C_6 haloalkynyl, C_2-C_6 alkoxyalkyl, C_1-C_6 alkoxy, C_1-C_6 haloalkoxy, C_2-C_6 alkenyloxy, C_2-C_6 haloalkenyloxy, C_2-C_6 alkynyloxy, C_2-C_6 haloalkynyloxy, C_2-C_6 alkoxyalkoxy, C_1-C_6 alkylthio, C_1-C_6 haloalkylthio, -ZC(=O)V, CR^{10a}=NOR^{10b}, CR^{12a}=$NNR^{12b}R^{12c}$ or -L-J;

R^{7a} is H, halogen, methyl or methoxy;

R^{7b} is H or methyl;

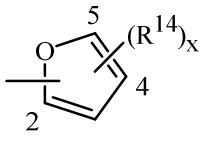
Z is a direct bond, O, NH, CH_2 or $CH(OCH_3)$;

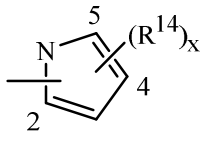
R^9, R^{10b} and R^{12c} are each H, C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_2-C_4 alkenyl or C_2-C_4 haloalkenyl;

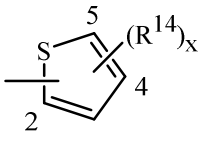
R^{10a}, R^{12a} and R^{12b} are each independently H, methyl or halomethyl;

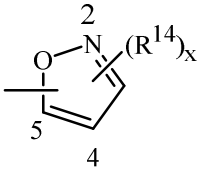
L is a direct bond, CH_2, O, OCH_2 or CH_2O;

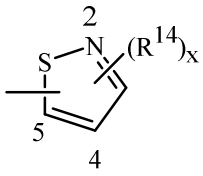
J is selected from J-1 through J-71

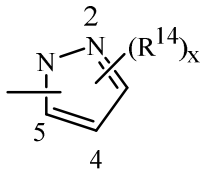

J-1 ,

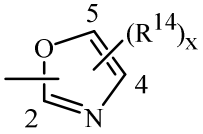

J-2 ,

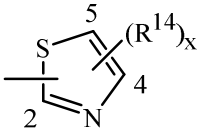

J-3 ,

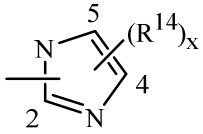

J-4 ,

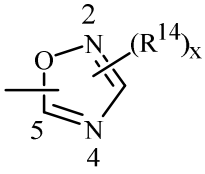

J-5 ,

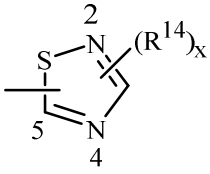

J-6 ,

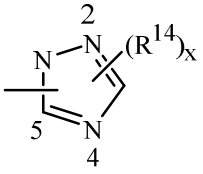

J-7 ,

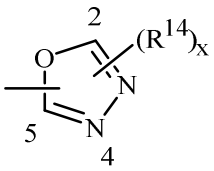

J-8 ,

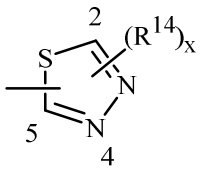

J-9 ,

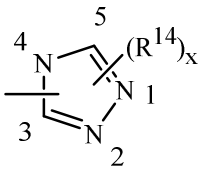

J-10 ,

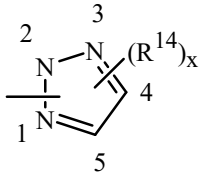

J-11 ,

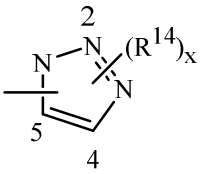

J-12 ,

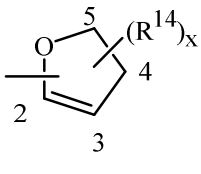

J-13 ,

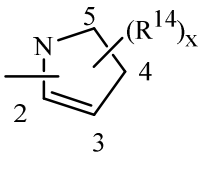

J-14 ,

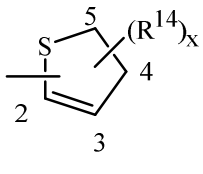

J-15 ,

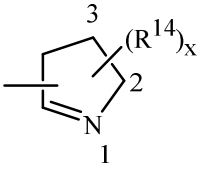

J-16 ,

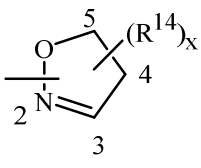

J-17 ,

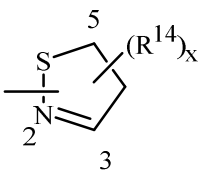

J-18 ,

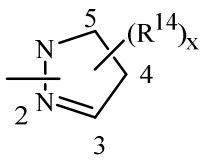

J-19 ,

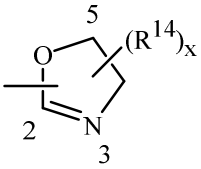

J-20 ,

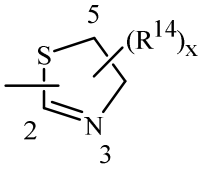

J-21 ,

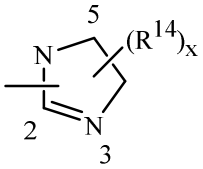

J-22 ,

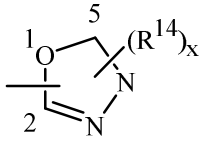

J-23 ,

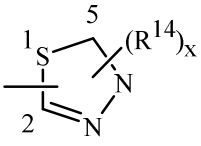

J-24 ,

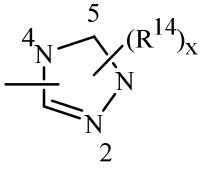

J-25 ,

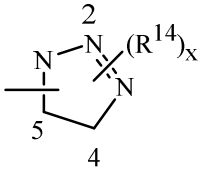

J-26 ,

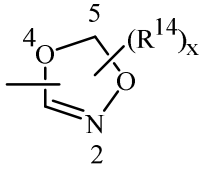

J-27 ,

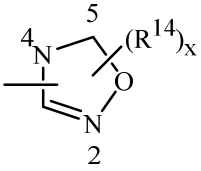

J-28 ,

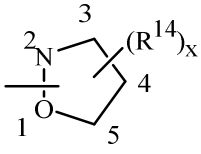

J-29 ,

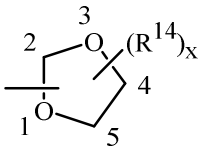

J-30 ,

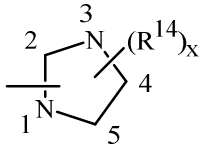

J-31 ,

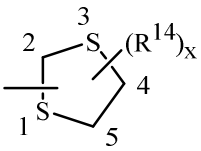

J-32 ,

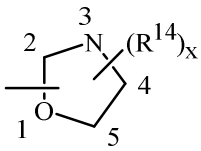

J-33 ,

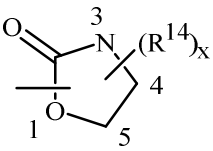

J-34 ,

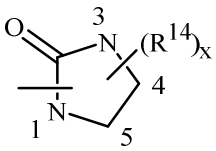

J-35 ,

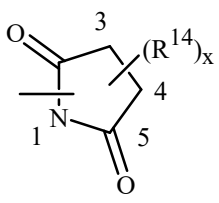

J-36 ,


J-37 ,

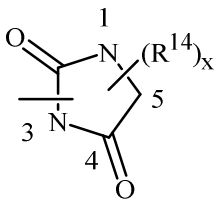

J-38 ,


J-39 ,

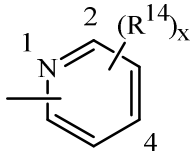

J-40 ,



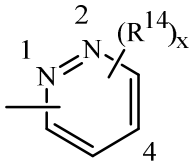
J-41 ,



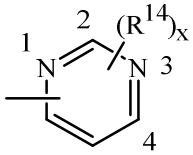
J-42 ,



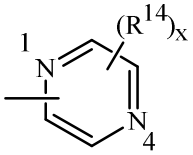
J-43 ,



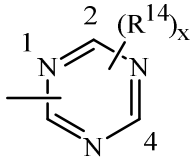
J-44 ,



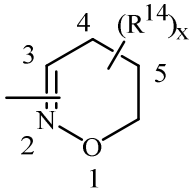
J-45 ,



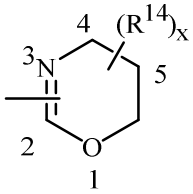
J-46 ,



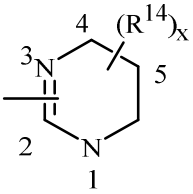
J-47 ,



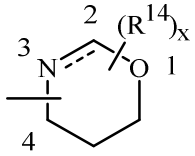
J-48 ,



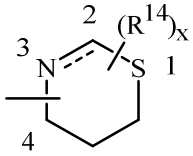
J-49 ,



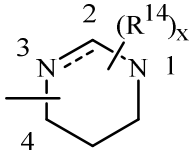
J-50 ,



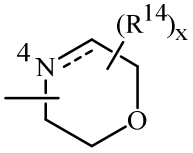
J-51 ,



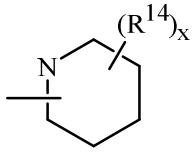
J-52 ,



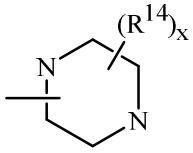
J-53 ,



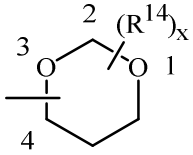
J-54 ,



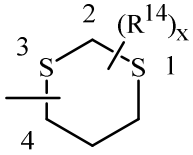
J-56 ,



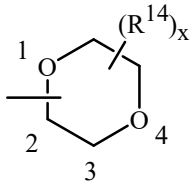
J-57 ,



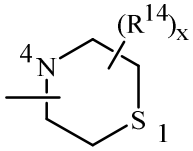
J-58 ,



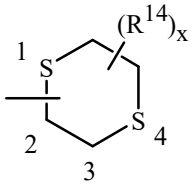
J-59 ,



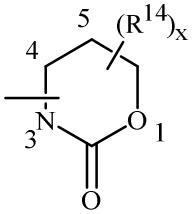
J-60 ,



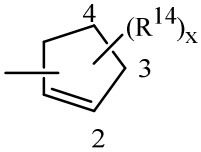
J-61 ,



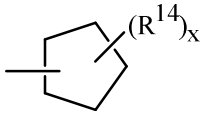
J-62 ,



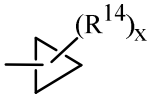
J-63 ,



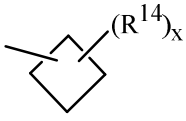
J-64 ,



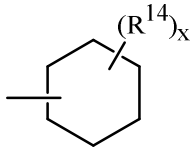
J-65 ,



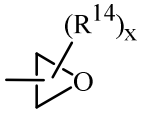
J-66 ,



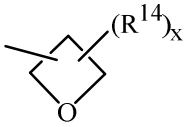
J-67 ,



J-68 ,

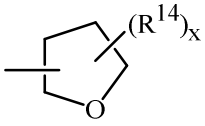


J-69 ,



J-70

and



J-71 ,

wherein the floating bond is connected to L through any available carbon or nitrogen atom of the depicted ring; and x is 0, 1, 2 or 3;

each R^{14} is independently ~~independently~~ halogen, methyl, methoxy or $C(=O)OR^{15}$; and

each R^{15} is independently C_1-C_3 alkyl, C_1-C_3 haloalkyl or cyclopropyl.

3. A compound of Claim 2 wherein:

A is A-1;

R^1 and R^2 are each independently Br, Cl, F, methyl, trifluoromethyl, methoxy or trifluoromethoxy;

~~R^3 is H or methyl;~~

R^4 is methyl, methoxy or ethoxy;

each R^5 is methyl;

R^6 is ~~H,~~ halogen, amino, C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_1-C_3 alkoxy, C_1-C_3 haloalkoxy, C_2-C_4 alkenyloxy, C_2-C_4 haloalkenyloxy, $CR^{10a}=NOR^{10b}$ or -L-J;

R^{7a} is H or methyl;

R^{7b} is H or methyl;

R^{10b} is H, methyl, C_2-C_4 alkenyl or C_2-C_4 haloalkenyl;

R^{10a} is H or methyl;

L is direct bond, O or OCH_2;

J is J-6, J-22, J-35, J-37, J-58, J-64, J-65, J-66, J-67, J-69 or J-70; and

each R^{14} is independently halogen or methyl.

4. A compound of Claim 3 wherein:

R^1 and R^2 are each independently Cl, F or methyl;

~~R^3 is H;~~

R^4 is methoxy;

n is 0;

R^6 is ~~H,~~ Br, Cl, I, amino, methyl, *i*-propyl, trifluoromethyl, CH_2F, CHF_2, methoxy, ethoxy, *i*-propyloxy, trifluoromethoxy, CH_2FO, CHF_2O, $CH=NOCH_3$, $CH=NOCH_2CH_3$, $C(CH_3)=NOCH_3$ or -L-J;

R^{7a} is H;

R^{7b} is H; and

J is J-65, J-66 or J-67.

5. A compound of Claim 4 wherein:

R^1 and R^2 are each independently Cl or F;

R^6 is ~~H,~~ Br, Cl, I, amino, methoxy, ethoxy, *i*-propyloxy, trifluoromethoxy, CHF_2O, $C(CH_3)=NOCH_3$ or -L-J;

J is J-66 or J-67;

x is 0, 1 or 2; and

R^{14} is Br, Cl, F or methyl.

6. A compound of Claim 5 wherein:

R^1 and R^2 are each F;

R^6 is ~~H,~~ Br, Cl, amino, methoxy, ethoxy or *i*-propyloxy.

7. A compound of Claim 1 which is selected from the group:

methyl *N*-[[5-[1-(2,6-difluoro-4-nitrophenyl)-1*H*-pyrazol-3-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[1-(2,6-difluoro-4-methoxyphenyl)-1*H*-pyrazol-3-yl]-2-methyl-phenyl]methyl]carbamate;

~~methyl *N*-[[5-[1-(2,6-difluorophenyl)-1*H*-pyrazol-3-yl]-2-methylphenyl]-methyl]carbamate;~~

methyl *N*-[[5-[1-(4-amino-2,6-difluorophenyl)-1*H*-pyrazol-3-yl]-2-methyl-phenyl]methyl]carbamate;

methyl N-[[5-[1-(4-chloro-2,6-difluorophenyl)-1H-pyrazol-3-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[1-(4-bromo-2,6-difluorophenyl)-1*H*-pyrazol-3-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[1-(2,6-difluoro-4-iodophenyl)-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-(2,6-difluoro-4-hydroxyphenyl)-1*H*-pyrazol-3-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[1-(4-ethoxy-2,6-difluorophenyl)-1*H*-pyrazol-3-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[1-[4-(cyclobutyloxy)-2,6-difluorophenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-[2,6-difluoro-4-(1-methylethoxy)phenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-[4-(difluoromethoxy)-2,6-difluorophenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-[2,6-difluoro-4-(2-propyn-1-yloxy)phenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-(2,6-difluoro-4-methoxyphenyl)-1*H*-pyrazol-3-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[1-(4-cyclopropyl-2,6-difluorophenyl)-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-[4-[(1,1-dimethylethyl)thio]-2,6-difluorophenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-[4-[(difluoromethyl)thio]-2,6-difluorophenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-(4-ethynyl-2,6-difluorophenyl)-1*H*-pyrazol-3-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[1-[2,6-difluoro-4-(1-methylethyl)phenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-[2,6-difluoro-4-(trifluoromethyl)phenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-(2,6-dichloro-4-cyclopropylphenyl)-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-[4-(cyclopropyloxy)-2,6-difluorophenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-(2,6-difluoro-4-formylphenyl)-1*H*-pyrazol-3-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[1-(4-acetyl-2,6-difluorophenyl)-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl 3,5-difluoro-4-[3-[3-[[(methoxycarbonyl)amino]methyl]-4-methyl-phenyl]-1H-pyrazol-1-yl]benzoate;

methyl *N*-[[5-[1-[2,6-difluoro-4-(hydroxymethyl)phenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-[2,6-difluoro-4-(trifluoromethoxy)phenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-[2,6-difluoro-4-[1-(methoxyimino)ethyl]phenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[1-[4-(difluoromethyl)-2,6-difluorophenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[2-[2,6-difluoro-4-(1-methylethyl)phenyl]-2*H*-1,2,3-triazol-4-yl]-2-methylphenyl]methyl]carbamate;

methyl *N*-[[5-[2-(4-amino-2,6-difluorophenyl)-2*H*-1,2,3-triazol-4-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[2-(4-chloro-2,6-difluorophenyl)-2*H*-1,2,3-triazol-4-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[2-(2,6-difluoro-4-nitrophenyl)-2*H*-1,2,3-triazol-4-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[1-(4-chloro-2,6-difluorophenyl)-1*H*-1,2,3-triazol-4-yl]-2-methyl-phenyl]methyl]carbamate;

methyl *N*-[[5-[1-(4-amino-2,6-difluorophenyl)-1*H*-1,2,3-triazol-4-yl]-2-methyl-phenyl]methyl]carbamate; and

methyl *N*-[[5-[1-(2,6-difluoro-4-nitrophenyl)-1*H*-1,2,3-triazol-4-yl]-2-methyl-phenyl]methyl]carbamate.

8. A fungicidal composition comprising (a) a compound of Claim 1; and (b) at least one other fungicide.

9. 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.

10. 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.

11. A compound of Claim 1 wherein:

A is A-1 or A-3;

n is 0;

Q is CR^6;

Y is $CR^{7a}R^{7b}$;

W is O;

R^1 and R^2 are each independently Br, Cl, F, methyl, trifluoromethyl, methoxy or trifluoromethoxy;

R^4 is methoxy or ethoxy;

R^6 is halogen, amino, C_1-C_3 alkyl, C_1-C_3 haloalkyl, C_1-C_3 alkoxy, C_1-C_3 haloalkoxy, C_2-C_4 alkenyloxy, C_2-C_4 haloalkenyloxy or $CR^{10a}{=}NOR^{10b}$;

R^{7a} is H or methyl;

R^{7b} is H or methyl;

R^{10b} is H, methyl, ethyl or C_2-C_4 alkenyl; and

R^{10a} is H or methyl.

12. A compound of Claim 1 wherein:

A is A-1;

R^1 and R^2 are each independently Cl, F or methyl;

R^4 is methoxy;

R^6 is Br, Cl, I, amino, methoxy, ethoxy, *i*-propyloxy, trifluoromethoxy, CHF_2O or $C(CH_3)=NOCH_3$;

R^{7a} is H; and

R^{7b} is H.

13. A compound of Claim 1 which is: methyl *N*-[[5-[1-[2,6-difluoro-4-(1-methylethyl)phenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate.

14. A compound of Claim 1 which is: methyl *N*-[[5-[1-[2,6-difluoro-4-(trifluoromethyl)phenyl]-1*H*-pyrazol-3-yl]-2-methylphenyl]methyl]carbamate.