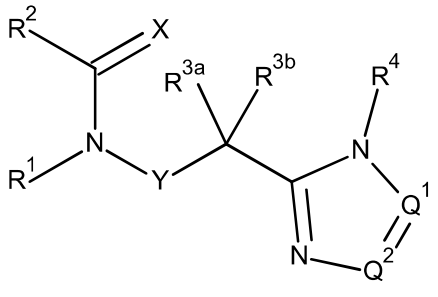
Claims:

1. Compound of the formula (I)



(I),

in which

X is O or S;

Q^1 and Q^2 are independently CR^5 or N, provided at least one of Q^1 and Q^2 is N;

Y is a direct bond or optionally substituted CH_2;

R^1 is hydrogen; C_1-C_6alkyl optionally substituted with one substituent selected from -CN, -$CONH_2$, -COOH, -NO_2 and -$Si(CH_3)_3$; C_1-C_6haloalkyl; C_2-C_6alkenyl; C_2-C_6haloalkenyl; C_2-C_6alkynyl; C_2-C_6haloalkynyl; C_3-C_4cycloalkyl-C_1-C_2alkyl- wherein the C_3-C_4cycloalkyl is optionally substituted with one or two halogen atoms; oxetan-3-yl-CH_2- or benzyl optionally substituted with halogen or C_1-C_3haloalkyl;

R^2

is a heterocyclic ring which is selected from the group consisting of 5-membered heteroaryl, 9-membered heteroaryl and 10-membered heteroaryl, each of which is optionally substituted by one to three substituents independently selected from the group consisting of

halogen, =O (oxo), hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -SF_5, -NH_2,

and in each case optionally substituted C_1-C_6alkyl, C_3-C_6cycloalkyl, C_3-C_6cycloalkyl-C_1-C_6alkyl, C_1-C_6haloalkyl, C_1-C_6alkoxy, C_1-C_6haloalkoxy, C_1-C_6alkylthio, C_1-C_6alkylsulfinyl, C_1-C_6alkylsulfonyl, C_3-C_6cycloalkylsulfanyl, C_3-C_6cycloalkylsulfinyl, C_3-C_6cycloalkylsulfonyl, C_1-C_6haloalkylthio, C_1-C_6haloalkylsulfinyl, C_1-C_6haloalkylsulfonyl, phenylsulfanyl, phenylsulfinyl, phenylsulfonyl, -NH(C_1-C_6alkyl), -N(C_1-C_6alkyl)$_2$, -NHCO-C_1-C_6alkyl, -N(C_1-C_6alkyl)CO-C_1-C_6alkyl, -NHCO-phenyl, -

CO_2C_1-C_6alkyl, -CONH(C_1-C_6alkyl), -CON(C_1-C_6alkyl)$_2$, -C(=NOC_1-C_6alkyl)H, -C(=NOC_1-C_6alkyl)-C_1-C_6alkyl;

and phenyl and 5- to 6-membered heteroaryl, wherein the phenyl or 5- to 6-membered heteroaryl is optionally substituted with one to two substituents, each independently selected from the group consisting of halogen, -CN, in each case optionally substituted C_1-C_6alkyl, C_1-C_6haloalkyl and C_1-C_6alkoxy;

R^{3a}, R^{3b} are independently selected from the group consisting of hydrogen; halogen; -CN; C_1-C_6alkyl optionally substituted by one to three substituents independently selected from the group consisting of halogen, hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -NH_2, in each case optionally substituted C_1-C_6alkyl, C_3-C_6cycloalkyl, C_1-C_6alkoxy, C_1-C_6alkylthio, C_1-C_6alkylsulfinyl, C_1-C_6alkylsulfonyl, -NH(C_1-C_6alkyl), -N(C_1-C_6alkyl)$_2$, -NHCO-C_1-C_6alkyl, -N(C_1-C_6alkyl)CO-C_1-C_6alkyl, -CO_2C_1-C_6alkyl, -CONH(C_1-C_6alkyl), and -CON(C_1-C_6alkyl)$_2$; optionally substituted C_3-C_6cycloalkyl; optionally substituted C_1-C_6haloalkyl; optionally substituted C_2-C_6alkenyl; optionally substituted C_2-C_6haloalkenyl; optionally substituted C_2-C_6alkynyl; benzyl wherein the phenyl substituent is optionally substituted with one to five substituents, each independently selected from the group consisting of halogen, hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -NH_2, -SF_5, in each case optionally substituted C_1-C_6alkyl, C_1-C_6alkoxy, C_1-C_6alkylthio, C_1-C_6alkylsulfinyl, and C_1-C_6alkylsulfonyl; heterocyclyl-C_1-C_6alkyl wherein the heterocyclyl substituent is selected from the group consisting of 4- to 10-membered saturated and partially unsaturated heterocyclyl, 5-membered heteroaryl and 6-membered heteroaryl, each of which is optionally substituted by one to three substituents independently selected from the group consisting of halogen, =O (oxo), hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -NH_2, in each case optionally substituted C_1-C_6alkyl, and C_1-C_6alkoxy; phenyl optionally substituted with one to five substituents, each independently selected from the group consisting of halogen, hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -NH_2, -SF_5, in each case optionally substituted C_1-C_6alkyl, C_1-C_6alkoxy, C_1-C_6alkylthio, C_1-C_6alkylsulfinyl, and C_1-C_6alkylsulfonyl; or heterocyclyl wherein the heterocyclyl substituent is selected from the group consisting of 4- to 10-membered saturated and partially unsaturated heterocyclyl, 5-membered heteroaryl and 6-membered heteroaryl, each of which is optionally substituted by one to three substituents independently selected from the group consisting of halogen, =O (oxo), hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -NH_2, in each case optionally substituted C_1-C_6alkyl, and C_1-C_6alkoxy;

or

R^{3a}, R^{3b} form together with the carbon to which they are connected a C_3-C_6-carbocyclic or 3- to 6-membered heterocyclic ring system, optionally substituted with one to two substituents, each independently selected from the group consisting of halogen, -CN, in each case optionally substituted C_1-C_6alkyl, C_1-C_6alkoxy and C_1-C_6haloalkoxy;

R^4 is pyridine, pyrimidine, pyrazine, pyridazine or 5-membered heteroaryl, wherein the pyridine, pyrimidine, pyrazine, pyridazine or 5-membered heteroaryl is optionally substituted with one to three substituents selected from the group consisting of halogen, hydroxy, -CN, -COOH, -CO_2-C_1-C_6alkyl, -SO_2NH_2, -$CONH_2$, -$CSNH_2$, -NO_2, -NH_2, in each case optionally substituted C_1-C_6alkyl, C_3-C_6cycloalkyl, C_1-C_6haloalkyl, C_1-C_6alkoxy, C_1-C_6haloalkoxy, C_1-C_6alkylthio, C_1-C_6alkylsulfinyl, C_1-C_6alkylsulfonyl, C_1-C_6haloalkylthio, C_1-C_6haloalkylsulfinyl, C_1-C_6haloalkylsulfonyl, C_3-C_6cycloalkylsulfanyl, C_3-C_6cycloalkylsulfinyl, C_3-C_6cycloalkylsulfonyl, C_2-C_4alkenylsulfanyl, C_2-C_4alkenylsulfinyl, C_2-C_4alkenylsulfonyl, C_2-C_4alkinylsulfanyl, C_2-C_4alkinylsulfinyl, C_2-C_4alkinylsulfonyl, phenylsulfanyl, phenylsulfinyl, phenylsulfonyl, S-C_1-C_6alkylsulfinimidoyl, S-C_3-C_6cycloalkylsulfinimidoyl, S-C_2-C_6alkenylsulfinimidoyl, S-C_2-C_6alkinylsulfinimidoyl, S-phenylsulfinimidoyl, S-C_1-C_6alkylsulfonimidoyl, S-C_3-C_6cycloalkylsulfonimidoyl, S-C_2-C_6alkenylsulfonimidoyl, S-C_2-C_6alkinylsulfonimidoyl, S-phenylsulfonimidoyl, -NH(C_1-C_6alkyl), -N(C_1-C_6alkyl)$_2$, -NHCO-C_1-C_6alkyl, -N(C_1-C_6alkyl)CO-C_1-C_6alkyl, -N(C_3-C_6cycloalkyl)CO-C_1-C_6alkyl, -NHCO-C_3-C_6cycloalkyl, -N(C_1-C_6alkyl)CO-(C_3-C_6cycloalkyl), -N(C_3-C_6cycloalkyl)CO-(C_3-C_6cycloalkyl), -N(C_1-C_6alkyl)CO-phenyl, -N(C_3-C_6cycloalkyl)CO-phenyl, -NHCO-phenyl, -N(CO-C_1-C_6alkyl)$_2$, -N(CO-C_3-C_6cycloalkyl)$_2$, -N(CO-phenyl)$_2$, -N(CO-C_3-C_6cycloalkyl)(CO-C_1-C_6alkyl), -N(CO-C_3-C_6cycloalkyl)(CO-phenyl), -N(CO-C_1-C_6alkyl)(CO-phenyl), -CONH(C_1-C_6alkyl), -CON(C_1-C_6alkyl)$_2$, -CONH(C_3-C_6cycloalkyl), -CON(C_1-C_6alkyl)(C_3-C_6cycloalkyl), -CON(C_3-C_6cycloalkyl)$_2$, -CONH-SO_2-C_1-C_6alkyl, -CONH-SO_2-phenyl, -CONH-SO_2-(C_3-C_6cycloalkyl), -CON(C_1-C_6alkyl)-SO_2-C_1-C_6alkyl, -CON(C_1-C_6alkyl)-SO_2-phenyl, -CON(C_1-C_6alkyl)-SO_2-(C_3-C_6cycloalkyl), -CONH-phenyl, -CON(C_1-C_6alkyl)phenyl, -CON(C_3-C_6cycloalkyl)phenyl, -N(SO_2C_1-C_6alkyl)$_2$, -N(SO_2C_1-C_6haloalkyl)$_2$, -N(SO_2C_3-C_6cycloalkyl)$_2$, -N(SO_2C_1-C_6alkyl)SO_2-phenyl, -N(SO_2C_3-C_6cycloalkyl)SO_2-phenyl, -NHSO_2-C_1-C_6alkyl, -NHSO_2-C_1-C_6haloalkyl, -N(C_1-C_6alkyl)SO_2-C_1-C_6alkyl, -N(C_3-C_6cycloalkyl)SO_2-C_1-C_6alkyl, -NHSO_2-phenyl, -N(C_1-C_6alkyl)SO_2-phenyl, -N(C_3-C_6cycloalkyl)SO_2-phenyl, -NHSO_2-C_3-C_6cycloalkyl, -N(C_1-C_6alkyl)SO_2-(C_3-C_6cycloalkyl), -N(C_3-C_6cycloalkyl)SO_2-(C_3-

C_6cycloalkyl), -$SO_2NH(C_1$-C_6alkyl), -$SO_2N(C_1$-C_6alkyl)$_2$, -$SO_2N(C_1$-C_6alkyl)(C_3-C_6cycloalkyl), -$SO_2NH(C_3$-C_6cycloalkyl), -$SO_2N(C_3$-C_6cycloalkyl)$_2$, -SO_2NH(phenyl), -$SO_2N(C_1$-C_6alkyl)(phenyl), -$SO_2N(C_1$-C_4cycloalkyl)(phenyl), -C(=NOC_1-C_6alkyl)H and -C(=NOC_1-C_6alkyl)-C_1-C_6alkyl;

R^5 is hydrogen, halogen, -CN, or in each case optionally substituted C_1-C_6alkyl, C_3-C_6cycloalkyl, C_1-C_6alkoxy, C_1-C_6alkoxyC(O)-, (C_1-C_6alkoxy)$_2$CH-, -CO_2C_1-C_6alkyl, -$CONH(C_1$-C_6alkyl), -$CON(C_1$-C_6alkyl)$_2$, -NHCO-C_1-C_6alkyl, -$N(C_1$-C_6alkyl)CO-C_1-C_6alkyl, -C(=NOC_1-C_6alkyl)H, or -C(=NOC_1-C_6alkyl)-C_1-C_6alkyl.

2. Compound according to Claim 1, in which

X is O or S;

Q^1 and Q^2 are independently CR^5 or N, provided at least one of Q^1 and Q^2 is N;

Y is a direct bond or CH_2;

R^1 is hydrogen; C_1-C_6alkyl optionally substituted with one substituent selected from -CN, -$CONH_2$, -COOH, -NO_2 and -$Si(CH_3)_3$; C_1-C_6haloalkyl; C_2-C_6alkenyl; C_2-C_6haloalkenyl; C_2-C_6alkynyl; C_2-C_6haloalkynyl; C_3-C_4cycloalkyl-C_1-C_2alkyl- wherein the C_3-C_4cycloalkyl is optionally substituted with one or two halogen atoms; oxetan-3-yl-CH_2-; or benzyl optionally substituted with halogen or C_1-C_3haloalkyl;

R^2 is a heterocyclic ring which is selected from the group consisting of 5-membered heteroaryl, 9-membered heteroaryl and 10-membered heteroaryl, each of which is optionally substituted by one to three substituents independently selected from the group consisting of

halogen, =O (oxo), hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -SF_5, -NH_2, C_1-C_6alkyl,

optionally substituted C_3-C_6cycloalkyl;

C_3-C_6cycloalkyl-C_1-C_6alkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy, C_1-C_3haloalkoxy, C_1-C_6alkylthio, C_1-C_6alkylsulfinyl, C_1-C_6alkylsulfonyl, C_3-C_6cycloalkylsulfanyl, C_3-C_6cycloalkylsulfinyl, C_3-C_6cycloalkylsulfonyl, C_1-C_3haloalkylthio, C_1-C_3haloalkylsulfinyl, C_1-C_3haloalkylsulfonyl;

phenylsulfanyl, phenylsulfinyl, phenylsulfonyl, wherein in each case the phenyl is optionally substituted with one to two substituents selected from the group consisting of halogen, CN, C_1-C_6alkyl and C_1-C_3haloalkyl;

-NH(C_1-C_4alkyl), -N(C_1-C_4alkyl)$_2$, -NHCO-C_1-C_4alkyl, -N(C_1-C_4alkyl)CO-C_1-C_4alkyl; -NHCO-phenyl, wherein the phenyl is optionally substituted with one to two substituents selected from the group consisting of halogen, CN, C_1-C_6alkyl and C_1-C_3haloalkyl;

-$CO_2$$C_1$-$C_4$alkyl, -CONH($C_1$-$C_4$alkyl), -CON($C_1$-$C_4$alkyl)$_2$, -C(=NO$C_1$-$C_4$alkyl)H, -C(=NO$C_1$-$C_4$alkyl)-$C_1$-$C_4$alkyl;

and phenyl and 5- to 6-membered heteroaryl, wherein the phenyl or 5- to 6-membered heteroaryl is optionally substituted with one to two substituents, each independently selected from the group consisting of halogen, -CN, C_1-C_6alkyl, C_1-C_3haloalkyl and C_1-C_4alkoxy;

R^{3a}, R^{3b} are independently selected from the group consisting of hydrogen; halogen; -CN; C_1-C_6alkyl optionally substituted by one to three substituents independently selected from the group consisting of hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -NH_2, C_1-C_6alkyl, C_3-C_6cycloalkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy, C_1-C_3haloalkoxy, C_1-C_3alkylthio, C_1-C_3alkylsulfinyl, C_1-C_3alkylsulfonyl, C_1-C_3haloalkylthio, C_1-C_3haloalkylsulfinyl, C_1-C_3haloalkylsulfonyl, -NH(C_1-C_4alkyl), -N(C_1-C_4alkyl)$_2$, -NHCO-C_1-C_4alkyl, -N(C_1-C_4alkyl)CO-C_1-C_4alkyl, -$CO_2$$C_1$-$C_4$alkyl, -CONH($C_1$-$C_4$alkyl), and -CON($C_1$-$C_4$alkyl)$_2$; C_3-C_6cycloalkyl optionally substituted with one to two substituents selected from the group consisting of halogen, -CN, -COOH, -$CONH_2$, C_1-C_6alkyl, C_1-C_6haloalkyl, C_3-C_6cycloalkyl, C_1-C_6alkoxy, C_1-C_6haloalkoxy, -$CO_2$$C_1$-$C_4$alkyl, -CONH($C_1$-$C_4$alkyl), and -CON($C_1$-$C_4$alkyl)$_2$; C_1-C_6haloalkyl optionally substituted with one to two substituents selected from the group consisting of hydroxy, -CN, C_3-C_6cycloalkyl, C_1-C_6alkoxy, C_1-C_6haloalkoxy, -$CO_2$$C_1$-$C_4$alkyl, -CONH($C_1$-$C_4$alkyl), and -CON($C_1$-$C_4$alkyl)$_2$; C_2-C_6alkenyl; C_2-C_6haloalkenyl; C_2-C_6alkynyl; C_2-C_6haloalkynyl; benzyl wherein the phenyl substituent is optionally substituted with one to five substituents, each independently selected from the group consisting of halogen, hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -NH_2, -SF_5, C_1-C_6alkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy, C_1-C_4haloalkoxy, C_1-C_3alkylthio, C_1-C_3alkylsulfinyl, C_1-C_3alkylsulfonyl, C_1-C_3haloalkylthio, C_1-C_3haloalkylsulfinyl, and C_1-C_3haloalkylsulfonyl; heterocyclyl-C_1-C_6alkyl wherein the heterocyclyl substituent is selected from the group consisting of 4- to 10-membered saturated and partially

unsaturated heterocyclyl, 5-membered heteroaryl and 6-membered heteroaryl, each of which is optionally substituted by one to three substituents independently selected from the group consisting of halogen, =O (oxo), hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -NH_2, C_1-C_6alkyl, C_1-C_3haloalkyl and C_1-C_4alkoxy; phenyl optionally substituted with one to five substituents, each independently selected from the group consisting of halogen, hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -NH_2, -SF_5, C_1-C_6alkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy, C_1-C_4haloalkoxy, C_1-C_3alkylthio, C_1-C_3alkylsulfinyl, C_1-C_3alkylsulfonyl, C_1-C_3haloalkylthio, C_1-C_3haloalkylsulfinyl, and C_1-C_3haloalkylsulfonyl; and heterocyclyl wherein the heterocyclyl substituent is selected from the group consisting of 4- to 10-membered saturated and partially unsaturated heterocyclyl, 5-membered heteroaryl and 6-membered heteroaryl, each of which is optionally substituted by one to three substituents independently selected from the group consisting of halogen, =O (oxo), hydroxy, -CN, -COOH, -$CONH_2$, -NO_2, -NH_2, C_1-C_6alkyl, C_1-C_3haloalkyl and C_1-C_4alkoxy;

or

R^{3a}, R^{3b} form together with the carbon to which they are connected a C_3-C_6-carbocyclic or 3- to 6-membered heterocyclic ring system, optionally substituted with one to two substituents, each independently selected from the group consisting of halogen, -CN, C_1-C_6alkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy and C_1-C_3haloalkoxy;

R^4 is pyridine, pyrimidine, pyrazine, pyridazine or 5-membered heteroaryl, wherein the pyridine, pyrimidine, pyrazine, pyridazine or 5-membered heteroaryl is optionally substituted with one to three substituents selected from the group consisting of halogen, hydroxy, -CN, -COOH, -CO_2-C_1-C_6alkyl, -$CONH_2$, -$CSNH_2$, -NO_2, -NH_2, C_1-C_6alkyl, C_3-C_6cycloalkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy, C_1-C_3haloalkoxy, C_1-C_6alkylthio, C_1-C_6alkylsulfinyl, C_1-C_6alkylsulfonyl, C_1-C_3haloalkylthio, C_1-C_3haloalkylsulfinyl, C_1-C_3haloalkylsulfonyl, -NH(C_1-C_4alkyl), -N(C_1-C_4alkyl)$_2$, -NHCO-C_1-C_4alkyl, wherein the alkyl is optionally substituted with -CN, C_1-C_6alkyl and C_1-C_4alkoxy; -NHCO-C_1-C_4haloalkyl, -NHCO-C_3-C_6cycloalkyl, wherein the cycloalkyl is optionally substituted with one to two substituents selected from the group consisting of halogen, -CN, C_1-C_6alkyl or C_1-C_4alkoxy; -NHCO-phenyl, wherein the phenyl is optionally substituted with one to two substituents selected from the group consisting of halogen, -CN, C_1-C_6alkyl and C_1-C_3haloalkyl; -N(C_1-C_4alkyl)CO-C_1-C_4alkyl, -N(C_1-C_4alkyl)CO-C_3-C_6cycloalkyl; -N(C_1-C_4alkyl)CO-phenyl, wherein the phenyl is optionally substituted with one to two substituents selected from the group consisting of halogen, CN, C_1-C_6alkyl and C_1-

C_3haloalkyl; -N(SO_2C_1-C_3alkyl)$_2$, -NH(SO_2C_1-C_3alkyl), -N(C_1-C_4alkyl)(SO_2C_1-C_3alkyl), -N(SO_2C_1-C_3haloalkyl)$_2$, -NH(SO_2C_1-C_3haloalkyl), -CONH(C_1-C_4alkyl), -CON(C_1-C_4alkyl)$_2$, -CONH-SO_2-C_1-C_3alkyl, -CON(C_1-C_4alkyl)(C_3-C_6cycloalkyl), -CONH(C_1-C_4haloalkyl), -CONH(C_3-C_6cycloalkyl), -CONH(C_3-C_6cyanocycloalkyl), -C(=NOC_1-C_4alkyl)H and -C(=NOC_1-C_4alkyl)-C_1-C_4alkyl; and -CONH-phenyl, wherein the phenyl is optionally substituted with one to two substituents, each independently selected from the group consisting of halogen, -CN, C_1-C_6alkyl, C_1-C_3haloalkyl and C_1-C_4alkoxy;

R^5 is hydrogen, halogen, -CN, C_1-C_3alkyl, C_1-C_3haloalkyl, C_3-C_4cycloalkyl, C_1-C_3alkoxy, C_1-C_3haloalkoxy, C_1-C_3alkoxyC(O)-, (C_1-C_3alkoxy)$_2$CH-, -CO_2C_1-C_4alkyl, -CONH(C_1-C_4alkyl), -CON(C_1-C_4alkyl)$_2$, -NHCO-C_1-C_4alkyl, -N(C_1-C_4alkyl)CO-C_1-C_4alkyl, -C(=NOC_1-C_4alkyl)H, or -C(=NOC_1-C_4alkyl)-C_1-C_4alkyl.

3. Compound according to Claim 1 or 2, in which

X is O or S;

Q^1 and Q^2 are independently CR^5 or N, provided at least one of Q^1 and Q^2 is N;

Y is a direct bond or CH_2;

R^1 is hydrogen; C_1-C_3alkyl optionally substituted with one substituent selected from -CN, -$CONH_2$, -COOH, -NO_2 and -Si(CH_3)$_3$; C_1-C_3haloalkyl; C_2-C_4alkenyl; C_2-C_4haloalkenyl; C_2-C_4alkynyl; C_2-C_4haloalkynyl; C_3-C_4cycloalkyl-C_1-C_2alkyl- wherein the C_3-C_4cycloalkyl is optionally substituted with one or two halogen atoms; oxetan-3-yl-CH_2-; or benzyl optionally substituted with halogen or C_1-C_3haloalkyl;

R^2 is thiophene, furane, pyrazole, thiazole, isothiazole, oxazole or isoxazole each of which is optionally substituted by one to three substituents independently selected from the group consisting of

halogen, hydroxy, -CN, -NO_2, C_1-C_6alkyl, C_3-C_4cycloalkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy, C_1-C_3haloalkoxy, C_1-C_3alkylthio, C_1-C_3alkylsulfinyl, C_1-C_3alkylsulfonyl, C_3-C_4cycloalkylsulfanyl, C_3-C_4cycloalkylsulfinyl, C_3-C_4cycloalkylsulfonyl, C_1-C_3haloalkylthio, C_1-C_3haloalkylsulfinyl, C_1-C_3haloalkylsulfonyl;

and phenyl and 5- to 6-membered heteroaryl, wherein the phenyl or 5- to 6-membered heteroaryl is optionally substituted with one to two substituents selected from the group consisting of halogen, -CN, C_1-C_3alkyl and C_1-C_3haloalkyl;

or

R^2 is a 9-membered or 10-membered heteroaryl, which is optionally substituted by one to three substituents independently selected from the group consisting of

halogen, hydroxy, -CN, $-NO_2$, C_1-C_6alkyl, C_3-C_4cycloalkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy, C_1-C_3haloalkoxy, C_1-C_3alkylthio, C_1-C_3alkylsulfinyl, C_1-C_3alkylsulfonyl, C_3-C_4cycloalkylsulfanyl, C_3-C_4cycloalkylsulfinyl, C_3-C_4cycloalkylsulfonyl, C_1-C_3haloalkylthio, C_1-C_3haloalkylsulfinyl, C_1-C_3haloalkylsulfonyl;

and phenyl and 5- to 6-membered heteroaryl, wherein the phenyl or 5- to 6-membered heteroaryl is optionally substituted with one to two substituents selected from the group consisting of halogen, -CN, C_1-C_3alkyl and C_1-C_3haloalkyl;

R^{3a}, R^{3b} are independently selected from the group consisting of hydrogen; C_1-C_6alkyl optionally substituted by one to three substituents independently selected from the group consisting of C_1-C_6alkyl, C_3-C_6cycloalkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy, C_1-C_3haloalkoxy, C_1-C_3alkylthio, C_1-C_3alkylsulfinyl, C_1-C_3alkylsulfonyl, C_1-C_3haloalkylthio, C_1-C_3haloalkylsulfinyl, and C_1-C_3haloalkylsulfonyl; C_3-C_6cycloalkyl; C_1-C_6haloalkyl; C_2-C_6alkenyl; C_2-C_6haloalkenyl; C_2-C_6alkynyl; C_2-C_6haloalkynyl; benzyl wherein the phenyl substituent is optionally substituted with one to three substituents independently selected from the group consisting of halogen, -CN, $-NO_2$, C_1-C_6alkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy, and C_1-C_4haloalkoxy; or heterocyclyl-C_1-C_6alkyl wherein the heterocyclyl substituent is selected from the group consisting of 4 - to 10-membered heterocyclyl, 5-membered heteroaryl and 6-membered heteroaryl, each of which is optionally substituted by one to three substituents independently selected from the group consisting of halogen, -CN, $-NO_2$, C_1-C_6alkyl, C_1-C_3haloalkyl, and C_1-C_4alkoxy; or phenyl optionally substituted with one substituent selected from the group consisting of halogen, -CN, $-NO_2$, C_1-C_6alkyl, C_1-C_3haloalkyl and C_1-C_4alkoxy;

or

R^{3a}, R^{3b} form together with the carbon to which they are connected a cyclopropane, cyclobutane, oxetane or tetrahydropyrane ring optionally substituted with one to two substituents, each independently selected from the group consisting of halogen, -CN, C_1-C_6alkyl, C_1-C_3haloalkyl and C_1-C_4alkoxy;

R^4 is pyridine, pyrimidine, pyrazine, pyridazine or thiazole, wherein (A) the pyridine, pyrimidine, pyrazine or pyridazine is optionally substituted with one to three substituents selected from the group consisting of halogen, -CN, $-NH_2$, $-NO_2$, -COOH, $-CONH_2$, $-CSNH_2$, $-CO_2-C_1-C_3$alkyl, C_1-C_6alkyl, C_3-C_6cycloalkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy, C_1-C_3haloalkoxy, C_1-C_3alkylthio, C_1-C_3alkylsulfinyl, C_1-C_3alkylsulfonyl, C_1-C_3haloalkylthio, C_1-C_3haloalkylsulfinyl, C_1-C_3haloalkylsulfonyl, $-NHCO-C_1-C_3$alkyl, $-NHCO-C_1-C_3$haloalkyl, $-NHCO-C_1-C_3$cyanoalkyl, $-NHCO-C_3-C_4$cycloalkyl, wherein the cycloalkyl is optionally substituted with one to two substituents selected from the group consisting of fluorine, chlorine, -CN, C_1-C_6alkyl or C_1-C_4alkoxy; -NHCO-phenyl, wherein the phenyl is optionally substituted with one to two substituents selected from the group consisting of halogen, -CN, C_1-C_3alkyl, C_1-C_3haloalkyl, C_1-C_3alkoxy and C_1-C_3haloalkoxy; $-NHSO_2-C_1-C_3$alkyl, $-NHSO_2-C_1-C_3$haloalkyl, $-CONH(C_1-C_3alkyl)$, $-CON(C_1-C_3alkyl)_2$, $-CONH-SO_2-C_1-C_3$alkyl, $-CON(C_1-C_3alkyl)(C_3-C_6cycloalkyl)$, $-CONH(C_1-C_3haloalkyl)$, $-CONH(C_3-C_6cycloalkyl)$, $-CONH(1\text{-cyano-}C_3-C_6cycloalkyl)$, -CONH-phenyl, wherein the phenyl is optionally substituted with one to two substituents selected from the group consisting of halogen, -CN, C_1-C_3alkyl, C_1-C_3haloalkyl, C_1-C_3alkoxy and C_1-C_3haloalkoxy;

and (B) the thiazole is optionally substituted with one to two substituents selected from the group consisting of halogen, -CN, $-NO_2$, C_1-C_6alkyl, C_3-C_6cycloalkyl, C_1-C_3haloalkyl, C_1-C_4alkoxy, C_1-C_3haloalkoxy, C_1-C_3alkylthio, C_1-C_3alkylsulfinyl, C_1-C_3alkylsulfonyl, C_1-C_3haloalkylthio, C_1-C_3haloalkylsulfinyl and C_1-C_3haloalkylsulfonyl;

R^5 is hydrogen, halogen, -CN, C_1-C_3alkyl, C_1-C_3haloalkyl, C_3-C_4cycloalkyl, or C_1-C_3alkoxy.

4. Compound according to any of Claims 1 to 3, in which

X is O or S;

Q^1 and Q^2 are independently CR^5 or N, provided at least one of Q^1 and Q^2 is N;

Y is a direct bond or CH_2;

R^1 is hydrogen; C_1-C_3alkyl optionally substituted with -CN, $-Si(CH_3)_3$ or one to three substituents selected from the group consisting of fluorine, chlorine or bromine; C_2-C_4alkenyl; C_2-C_4alkynyl; C_3-C_4cycloalkyl-C_1-C_2alkyl- wherein the C_3-C_4cycloalkyl is optionally substituted with one to two substituents selected from the group consisting of fluorine, chlorine and bromine;

R^2 is thiophene, furane, pyrazole, thiazole, oxazole or isoxazole each of which is optionally substituted by one to three substituents independently selected from the group consisting of of

fluorine, chlorine, bromine, -CN, $-NO_2$, methyl, cyclopropyl, difluoromethyl, trifluoromethyl, methoxy, trifluoromethoxy, difluoromethoxy, methylthio, methylsulfinyl, methylsulfonyl, difluoromethylthio, difluoromethylsulfinyl, difluoromethylsulfonyl, trifluoromethylthio, trifluoromethylsulfinyl, trifluoromethylsulfonyl

and phenyl, wherein the phenyl is optionally substituted with one two substituents selected from the group consisting of fluorine, chlorine, bromine, -CN, difluoromethyl and trifluoromethyl;

or

R^2 is pyrazolo[1.5-a]pyridin-2-yl, optionally substituted with trifluoromethyl or chlorine;

R^{3a}, R^{3b} are independently selected from the group consisting of hydrogen; C_1-C_3alkyl optionally substituted by one to three substituents independently selected from the group consisting of methyl, ethyl, iso-propyl, n-propyl, cyclopropyl, cyclobutyl, difluoromethyl, trifluoromethyl, methoxy, ethoxy, difluoromethoxy, trifluoromethoxy, methylthio, methylsulfinyl, methylsulfonyl, trifluoromethylthio, trifluoromethylsulfinyl, and trifluoromethylsulfonyl; cyclopropyl, difluoromethyl, trifluoromethyl, difluoromethyl, trifluoromethyl, 2,2-difluoroethyl, 2,2,2-trifluoroethyl, ethinyl, 2-propen-1-yl and 2-propin-1-yl; benzyl wherein the phenyl substituent is optionally substituted with one to three substituents independently selected from the group consisting of fluorine, chlorine, bromine, -CN, NO_2, methyl, trifluoromethyl and methoxy; heterocyclyl-methyl wherein the heterocyclyl substituent is selected from the group consisting of 4 - to 10-membered heterocyclyl, 5-membered heteroaryl and 6-membered heteroaryl, each of which is optionally substituted by one to three substituents independently selected from the group consisting of fluorine, chlorine, bromine, -CN, $-NO_2$, methyl, trifluoromethyl and methoxy; and phenyl optionally substituted with one substituent selected from the group consisting of fluorine, chlorine, bromine, -CN, $-NO_2$, methyl, trifluoromethyl and methoxy;

or

R^{3a}, R^{3b} form together with the carbon to which they are connected a cyclopropane, cyclobutane, oxetane or tetrahydropyrane ring;

R^4 is pyridine, pyrimidine, pyrazine or thiazole, wherein (A) the pyridine, pyrimidine or pyrazine is optionally substituted with one to three substituents selected from the group consisting of fluorine, chlorine, bromine, -CN, $-NH_2$, $-NO_2$, -COOH, $-CONH_2$, $-CSNH_2$, $-CO_2Me$, methyl, ethyl, difluoromethyl, trifluoromethyl, pentafluoroethyl, cyclopropyl, methoxy, difluoromethoxy, trifluoromethoxy, methylthio, methylsulfinyl, methylsulfonyl, difluoromethylthio, difluoromethylsulfinyl, difluoromethylsulfonyl, trifluoromethylthio, trifluoromethylsulfinyl, trifluoromethylsulfonyl, -NHCO-methyl, -NHCO-trifluoromethyl, $-NHCO-CH_2CN$, -NHCO-cyclopropyl, -NHCO-1-cyanocyclopropyl, $-NHSO_2$-methyl, $-NHSO_2$-trifluoromethyl, -NHCO-phenyl, wherein the phenyl is optionally substituted with one to two substituents selected from the group consisting of fluorine, chlorine, bromine, -CN, methyl, difluoromethyl, trifluoromethyl, methoxy, difluoromethoxy and trifluoromethoxy; -CONH-methyl, $-CONH-SO_2$-methyl, -CON-(N-methyl)-N-cyclopropyl, -CONH-difluoroethyl, -CONH-trifluoroethyl, -CONH-cyclopropyl, -CONH-1-cyanocyclopropyl, -CONH-phenyl, wherein the phenyl is optionally substituted with one to two substituents selected from the group consisting of fluorine, chlorine, bromine, -CN, methyl, difluoromethyl, trifluoromethyl, methoxy, difluoromethoxy and trifluoromethoxy;

and (B) the thiazole is optionally substituted with one to two substituents selected from the group consisting of fluorine, chlorine, bromine, -CN, $-NO_2$, methyl, ethyl, difluoromethyl, trifluoromethyl, pentafluoroethyl, cyclopropyl, methoxy, difluoromethoxy, trifluoromethoxy, methylthio, methylsulfinyl, methylsulfonyl, difluoromethylthio, difluoromethylsulfinyl, difluoromethylsulfonyl, trifluoromethylthio, trifluoromethylsulfinyl and trifluoromethylsulfonyl;

R^5 is hydrogen, fluorine, chlorine, bromine, -CN, methyl, ethyl, iso-propyl, difluoromethyl, trifluoromethyl, cyclopropyl, methoxy, or ethoxy.

5. Compound according to any of Claims 1 to 4, in which

X is O or S;

Q^1 is N

Q^2 is CR^5

Y is a direct bond or CH_2;

R^1 is hydrogen, methyl, ethyl, 2-(trimethylsilyl)ethyl, 2,2-difluoroethyl, 2,2,2-trifluoroethyl, 3,3,3-trifluoropropyl, or cyclopropyl-CH_2- ;

R^2 5-chloro-3-thienyl, 3,4,5-trichloro-2-thienyl, 2,5-dichloro-3-thienyl, 4,5-dichloro-2-thienyl, 1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl, 4-chloro-1-methyl-3-(trifluoromethyl)-1H-pyrazol-5-yl, 5-methyl-1,2-oxazol-3-yl, 5-cyclopropyl-1,2-oxazol-3-yl, 3-chloro-1,2-oxazol-5-yl, 2-chloro-1,3-thiazol-5-yl, 1-methyl-1H-pyrazol-4-yl, 5-chloro-1-methyl-1H-pyrazol-4-yl, 1-(4-fluorophenyl)-3-(trifluoromethyl)-1H-pyrazol-5-yl, 1-(4-fluorophenyl)-1H-pyrazol-4-yl, or 1-(4-fluorophenyl)-5-(trifluoromethyl)-1H-pyrazol-3-yl;

R^{3a} is hydrogen, methyl or methoxymethyl;

R^{3b} is methyl or methoxymethyl if R^{3a} is hydrogen;

R^{3b} is hydrogen if R^{3a} is methyl or methoxymethyl;

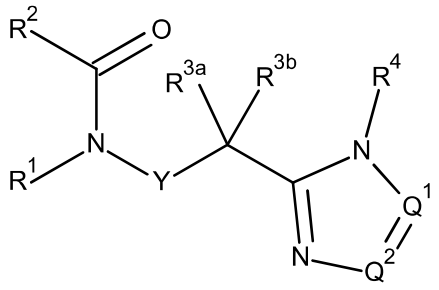
R^{3a} and R^{3b} form together with the carbon to which they are connected a cyclopropane ring;

R^4 is pyridin-2-yl, pyrimidin-2-yl, pyrimidin-4-yl, 5-fluoropyrimidin-2-yl, 5-chloropyrimidin-2-yl, 5-cyanopyrimidin-2-yl, 5-(trifluoromethyl)pyrimidin-2-yl, 5-methylpyrimidin-2-yl, 5-fluoropyridin-2-yl, 5-chloropyridin-2-yl, 2-chloropyridin-4-yl, 5-cyanopyridin-2-yl, 4-cyano-pyridin-2-yl, 6-cyano-pyridin-2-yl, 5-methoxy-pyridin-2-yl, 5-(trifluoromethyl)-pyridin-2-yl, 5-(difluoromethoxy)pyridin-2-yl, 5-(trifluoromethylthio)pyridin-2-yl, 5-nitropyridin-2-yl, 5-aminopyridin-2-yl, 3,5-difluoropyridin-2-yl, 5-chloro-3-fluoropyridin-2-yl, pyridin-2-yl-5-carboxylic acid, methyl pyridin-2-yl-5-carboxylate, N-methyl-pyridin-2-yl-5-carboxamide, N-cyclopropyl-pyridin-2-yl-5-carboxamide, N-cyclopropyl-N-methyl-pyridin-2-yl-5-carboxamide, N-(1-cyanocyclopropyl)-pyridin-2-yl-5-carboxamide, N-(2,2-difluoroethyl)-pyridin-2-yl-5-carboxamide, N-(2,2,2-trifluoroethyl)-pyridin-2-yl-5-carboxamide, N-methylsulfonyl-pyridin-2-yl-5-carboxamide, N-(4-fluorophenyl)-pyridin-2-yl-5-carboxamide, 5-acetamidopyridin-2-yl, 5-(trifluoroacetamido)-pyridin-2-yl, 5-(2-cyanoacetylamino)-pyridin-2-yl, 5-[(cyclopropylcarbonyl)amino]pyridin-2-yl, 5-[(1-cyanocyclopropylcarbonyl)amino]-pyridin-2-yl, 5-(methanesulfonamido)-pyridin-2-

yl, 5-(trifluoromethylsulfonamido)-pyridin-2-yl, 5-[(4-fluorobenzoyl)amino]pyridine-2-yl pyrazin-2-yl, 2-cyano-pyrazin-5-yl, or 1,3-thiazol-2-yl;

R^5 is hydrogen, methyl or trifluoromethyl.

6. Compound according to any of Claims 1 to 5, characterized in that it has a structure according to formula (I')



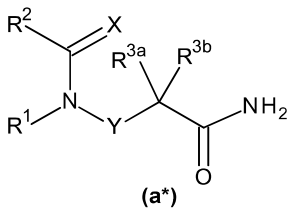
(I'),

in which the structural elements Y, Q^1, Q^2, R^1, R^2, R^{3a}, R^{3b}, R^4 and R^5 have the meanings given in Claim 1 or the meanings given in Claim 2 or the meanings given in Claim 3 or the meanings given in Claim 4 or the meanings given in Claim 5.

7. Compound according to any of Claims 1 to 6, in which Q^1 represents N or CR^5 and Q^2 represents N and all further structural elements Y, R^1, R^2, R^{3a}, R^{3b}, R^4 and R^5 have the meanings given in Claim 1 or the meanings given in Claim 2 or the meanings given in Claim 3 or the meanings given in Claim 4 or the meanings given in Claim 5.

8. Compound according to any of Claims 1 to 6, in Q^1 represents N and Q^2 represents CR^5 and all further structural elements Y, R^1, R^2, R^{3a}, R^{3b}, R^4 and R^5 have the meanings given in Claim 1 or the meanings given in Claim 2 or the meanings given in Claim 3 or the meanings given in Claim 4 or the meanings given in Claim 5.

9. Compound of the formula (**a***)



(a*) ,

in which the structural elements Y, R^1, R^2, R^{3a} and R^{3b} have the meanings given in Claim 5.

10. Formulation comprising at least one compound of the formula (I) according to any of Claims 1 to 8.

11. Formulation according to Claim 10, further comprising at least one extender and/or at least one surface-active substance.

12. Formulation according to Claim 10 or 11, characterized in that the compound of the formula (I) is in a mixture with at least one further active compound.

13. Method for controlling pests, characterized in that a compound of the formula (I) according to any of Claims 1 to 8 or a formulation according to any of Claims 10 to 12 is allowed to act on the pests and/or their habitat, wherein methods for treatment of the animal body by surgery or therapy and diagnostic methods practised on the animal body are excluded.

14. Method according to Claim 13, characterized in that the pest is an animal pest and comprises an insect, an arachnid or a nematode, or in that the pest is an insect, an arachnid or a nematode, wherein methods for treatment of the animal body by surgery or therapy and diagnostic methods practised on the animal body are excluded.

15. Use of a compound of the formula (I) according to any of Claims 1 to 8 or of a formulation according to any of Claims 10 to 12 for controlling animal pests, wherein methods for treatment of the animal body by surgery or therapy and diagnostic methods practised on the animal body are excluded.

16. Use according to Claim 15, characterized in that the animal pest comprises an insect, an arachnid or a nematode, or in that the animal pest is an insect, an arachnid or a nematode, wherein methods for treatment of the animal body by surgery or therapy and diagnostic methods practised on the animal body are excluded.

17. Use according to Claim 15 or 16 in crop protection, wherein methods for treatment of the animal body by surgery or therapy and diagnostic methods practised on the animal body are excluded.

18. Use according to Claim 15 or 16 in the field of animal health, wherein methods for treatment of the animal body by surgery or therapy and diagnostic methods practised on the animal body are excluded.

19. Method for protecting seed or a germinating plant from pests, especially animal pests, comprising a method step in which the seed is contacted with a compound of the formula (I) according to any of Claims 1 to 8 or with a formulation according to any of Claims 10 to 12.