

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIRECCIÓN DE NUEVAS CREACIONES

2020
Bogotá D.C.,

Abogado
ALVARO CORREA ORDOÑEZ
office.bogota@bakermckenzie.com
alvaro.correa@bakermckenzie.com

ASUNTO	Radicación	10 097 375
	Trámite	011
	Evento	378
	Actuación	519
	Oficio	R 1 5 9 5 7
	Folios	17

Patente de Invención	☒	Patente de Modelo de Utilidad	☐
Vía Nacional	☐		
Vía PCT (Fase Nacional)	☒	Capítulo I	☒
		Capítulo II	☐
No. Solicitud Internacional	PCT/EP2009/050347		
Fecha de Presentación Internacional	14/Enero/2009		

Como resultado del Examen de Fondo realizado, con fundamento en el Artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se comunica:

1. Documentos estudiados

Descripción:	Folios 49 a 109	09/Agosto/2010
Reivindicaciones:	Folios 110 a 122	09/Agosto/2010
Prioridad:	EP08356006.0	15/Enero/2008

2. Análisis de la Prioridad

Se acepta la reivindicación de Prioridad porque esta solicitud fue presentada dentro del plazo establecido (Art. 9 D 486) y su contenido técnico corresponde con el de la prioridad reivindicada.

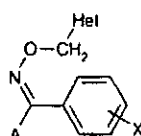
3. Objeto de la invención

Título de la solicitud: "Composición plaguicida que comprende un derivado de tetrazoliloxima y una sustancia activa fungicida".

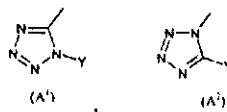
El problema planteado en esta solicitud es la necesidad de una composición plaguicida para la protección de plantas capaz de ser más activa durante un mayor
Expediente 10 097 375 1er Art 45

intervalo de tiempo, que requiera una menor dosis y que sea menos tóxica.

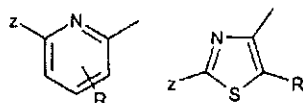
Para resolver este problema técnico la solicitud en estudio proporciona una composición que comprende: compuesto de fórmula (I):



donde **X**: hidrógeno, halógeno, alquilo, alcoxi, ciano, measulfonilo, nitro,



trifluorometilo, grupo arilo; **A**: (A¹), (A²), con, **Y**: alquilo;



Het: (Het¹), (Het²), con, **R**: hidrógeno, halógeno, **Z**: hidrógeno, amino, QC(=O)NH-(Q es hidrógeno, alquilo); y **(b)** un compuesto fungicida, en una relación en peso de A/B que varía de 0.001/1 a 1/1.000.

4. Reivindicaciones relativas a un uso o a un segundo uso (Art 14 y 21 D 486)

Aunque la reivindicación 24 se presenta como una reivindicación de método, esta hace referencia al uso de la formulación de la reivindicación 1. Es evidente que la llamada etapa de “aplicar la formulación de la reivindicación 1” corresponde a la forma de usar la composición. Por lo tanto dicho método no es patentable a partir del artículo 14 de la Decisión 486.

Se le aclara al solicitante que un proceso cuya única etapa es una aplicación de una composición, corresponde a un uso de dicha composición. Sírvese retirar dicha reivindicación de la solicitud.

5. De la Solicitud de Patente

Reivindicaciones (Art 30 D 486, Art 22 PCT)

El capítulo reivindicatorio actualmente presentado no es claro porque las definiciones de los radicales “Het”, “X” y “A” presente en los compuestos de fórmula (I) de la composición reivindicada son muy amplias y abarcan un gran número de compuestos que no encuentran un debido sustento en el capítulo descriptivo, lo cual impide entender el alcance de la invención. Se requiere que el solicitante modifique la totalidad de pliego reivindicatorio de tal forma que las definiciones de los sustituyentes de la fórmula (I) se limiten solamente a los compuestos que fueron utilizados y probados en la preparación de la composición.

El capítulo reivindicatorio actualmente presentado no es clara porque las expresiones “un compuesto fungicida”, “un segundo compuesto fungicida adicional”, “un compuesto insecticida” son muy amplias y no permiten entender el alcance de la invención. Se requiere que el solicitante modifique la totalidad del pliego reivindicatorio de tal forma que las expresiones antes mencionadas sea limitadas al

nombre específico de los compuestos fungicidas e insecticidas que fueron empleados y probados en la composición reivindicada.

6. Unidad de invención (Art 25 D 486)

El objeto de la invención está caracterizado por la presencia de los compuestos de fórmula (I) como ingrediente activo de la composición y después de una comparación con el estado del arte se encontró que dicha fórmula no se puede considerar el elemento unificador que relaciona las modalidades de la invención, puesto que el compuesto de fórmula I está divulgado en el documento D1 (página 4, línea 40 a página 6, línea 35). Por lo tanto el concepto común no es inventivo y no se cumple el requisito de unidad de invención.

De tal manera que se encuentran 14 grupos inventivos debido a las diferencias estructurales que exhiben los fungicidas e insecticidas con los cuales se combinan los compuestos de fórmula (I).

Los Grupos Inventivos están definidos por las siguientes características **esenciales**:

- 1) Composición de compuestos de fórmula (I) en combinación con inhibidores de la síntesis de ácidos nucleicos;
- 2) Composición de compuestos de fórmula (I) en combinación con inhibidores de la mitosis;
- 3) Composición de compuestos de fórmula (I) en combinación con inhibidores de la respiración;
- 4) Composición de compuestos de fórmula (I) en combinación con compuestos capaces de actuar como un desacoplador;
- 5) Composición de compuestos de fórmula (I) en combinación con inhibidores de la producción de ATP;
- 6) Composición de compuestos de fórmula (I) en combinación con inhibidores de biosíntesis de aminoácido;
- 7) Composición de compuestos de fórmula (I) en combinación con inhibidores de la transducción de señales;
- 8) Composición de compuestos de fórmula (I) en combinación con inhibidores de la síntesis de lípidos;
- 9) Composición de compuestos de fórmula (I) en combinación con inhibidores de la biosíntesis de ergosterol;
- 10) Composición de compuestos de fórmula (I) en combinación con inhibidores de la síntesis de la pared celular;
- 11) Composición de compuestos de fórmula (I) en combinación con inhibidores de la biosíntesis de melanina;
- 12) Composición de compuestos de fórmula (I) en combinación con compuestos capaces de inducir una defensa del huésped;
- 13) Composición de compuestos de fórmula (I) en combinación con compuestos capaces de tener una acción multisitio;
- 14) Composición de compuestos de fórmula (I) en combinación con compuestos adicionales;

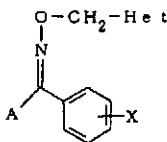
Se sugiere presentar las solicitudes divisionales que considere necesarias, ó limitar la solicitud inicial a una sola invención, eliminando de ella las otras invenciones.

7. Determinación del Estado de la Técnica

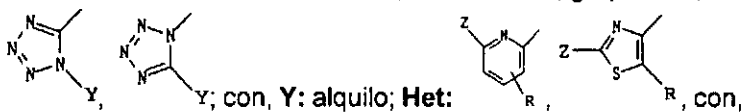
El Estado de la Técnica se determinó con base en la Fecha de Presentación de la Solicitud de Prioridad: Enero 15 de 2008 y se encontraron los siguientes documentos que anticipan el objeto de esta solicitud:

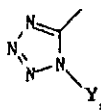
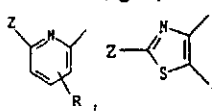
Item	Documento	Título	Fecha de Publicación
D1	EP1426371	Tetrazoyl oxime derivatives and agrochemicals containing the same as the active ingredient	09/Junio/2004
D2	JP2004131416	Tetrazole compound and plant disease controlling application thereof	30/Abril/2004
D3	JP2004131392	Tetrazole compound and application thereof	30/Abril/2004

D1
http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20040609&CC=EP&NR=1426371A1&KC=A1 enseña una composición que comprende (página 4, línea 40 a página 6, línea 35; página 30, líneas 25-30, párrafo 0065): Compuestos de fórmula general (I):

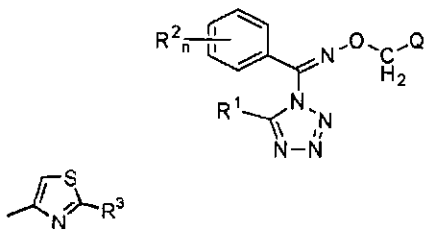


Donde: X: hidrógeno, halógeno, alquilo, alcoxi ciano, metilsulfonil, nitro, trifluorometil, grupo arilo;



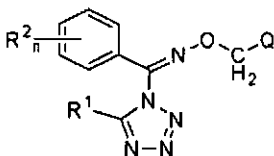
A: grupo tetrazol de fórmula general: ; con, Y: alquilo; Het: ; con, R: hidrógeno, halógeno; Z: hidrógeno, amino, QC(=O)NH-(Q es hidrógeno, alquilo); y fungicidas e insecticidas (página 30, líneas 25-30, párrafo 0065). Los compuestos de fórmula (I) están presentes en de 0.5 a 95% en peso en la formulación y preferiblemente de 2 a 70% en peso (página 30, líneas 25-30, párrafo 0065).

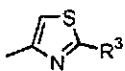
D2
http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20040430&CC=JP&NR=2004131416A&KC=A (traducción folios 154-158) enseña composiciones que comprenden (párrafos 0001-0010; y 0048-0049): compuestos de formula (I):



Donde: R²: halógeno. Q:  , R³: hidrógeno; e Insecticidas tal como diniconazol.

D3
http://worldwide.espacenet.com/publicationDetails/biblio?DB=EPODOC&II=0&ND=3&adjacent=true&locale=en_EP&FT=D&date=20040430&CC=JP&NR=2004131392A&KC=A (traducción folios 159-162) enseña composiciones que comprenden (párrafos 0001-0011; y 0054-0055): compuestos de formula (I):





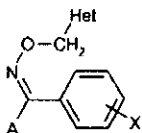
Donde: R^2 : halógeno. Q : Q^1 , R^3 : hidrógeno; e Insecticidas tal como diniconazol.

8. Examen de Patentabilidad (Art 14 D486)

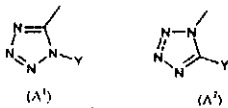
Novedad (Art 16 D486)

Grupo Inventivo 9

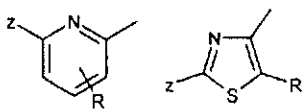
La reivindicación 1 consiste en una composición que comprende; un compuesto de fórmula (I):



donde X : hidrógeno, halógeno, alquilo, alcoxi, ciano, measulfonilo, nitro,



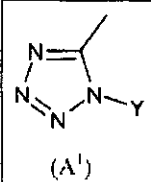
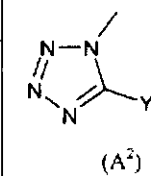
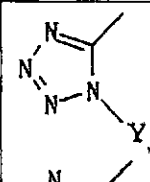
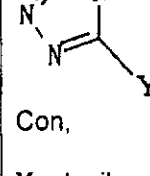
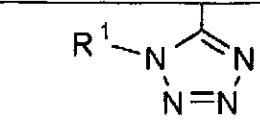
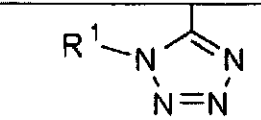
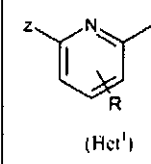
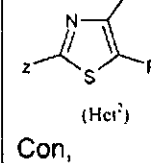
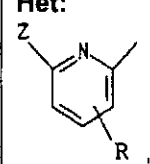
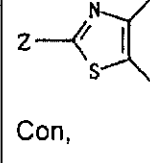
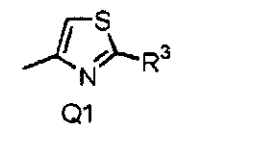
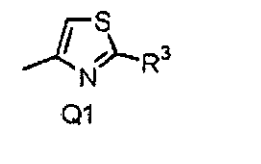
trifluorometilo, grupo arilo; A : (A^1) , (A^2) , con, Y : alquilo;



Het : (Het^1) , (Het^2) , con, R : hidrógeno, halógeno, Z : hidrógeno, amino, $QC(=O)NH-(Q$ es hidrógeno, alquilo); y (b) un compuesto fungicida, en una relación en peso de A/B que varia de 0.001/1 a 1/1.000.

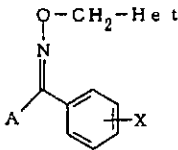
Comparación de las características técnicas **esenciales**, con las del Estado de la Técnica:

Características esenciales	D1	D2	D3
Una composición que comprende:	Una composición que comprende (página 4, línea 40 a página 6, línea 35; página 30, líneas 25-30, párrafo 0065):	Composiciones que comprenden (párrafos 0001-0010; y 0048-0049):	Composiciones que comprenden (párrafos 0001-0011; y 0054-0055):
(a) Un compuesto de fórmula (I): 	Compuestos de fórmula general (I): Donde:	Compuestos de formula (I): Donde:	Compuestos de formula (I): Donde:
donde: X : hidrógeno, halógeno, alquilo, alcoxi, ciano, measulfonilo, nitro, trifluorometilo, grupo arilo.	X : hidrógeno, halógeno, alquilo, alcoxi ciano, metilsulfonil, nitro, trifluorometil, grupo arilo;	R^2 : halógeno.	R^2 : halógeno.
A :	A : grupo tetrazol de fórmula general:		

 (A¹)  (A²) Con, Y: alquilo;	 (A¹)  (A²) Con, Y: alquilo;	 Con, R¹: alquilo	 Con, R¹: alquilo
Het:  (Het¹)  (Het²) Con, R: hidrógeno, halógeno Z: hidrógeno, amino, QC(=O)NH-(Q es hidrógeno, alquilo); y	Het:  (Het¹)  (Het²) Con, R: hidrógeno, halógeno; Z: hidrógeno, amino, QC(=O)NH-(Q es hidrógeno, alquilo); y	Q:  Q1 R³: hidrógeno; y	Q:  Q1 R³: hidrógeno; y
(b) Un compuesto tal como diniconazol	Fungicidas e insecticidas (página 30, líneas 25-30, párrafo 0065).	Insecticidas tal como diniconazol.	Insecticidas tal como diniconazol.
en una relación en peso de A/B que varia de 0.001/1 a 1/1.000	Los compuestos de fórmula (I) están presentes en de 0.5 a 95% en peso en la formulación y preferiblemente de 2 a 70% en peso (página 30, líneas 25-30, párrafo 0065).		

Las características esenciales de la composición descrita en la reivindicación 1 ya habían sido reveladas previamente por los documentos D1, D2 y D3 porque.

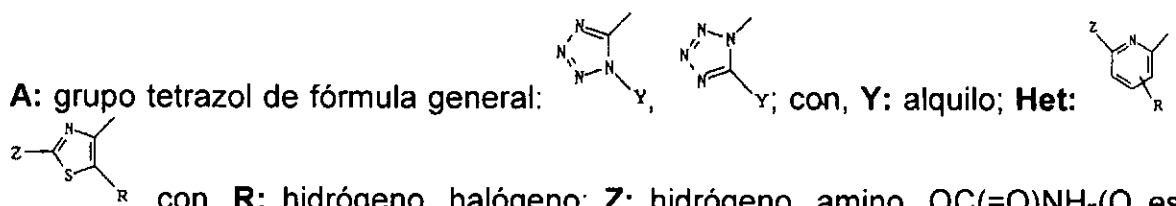
El documento D1 enseña una composición que comprende (página 4, línea 40 a página 6, línea 35; página 30, líneas 25-30, párrafo 0065): Compuestos de fórmula general (I):



Donde: X: hidrógeno, halógeno, alquilo, alcoxi ciano, metilsulfonil, nitro, trifluorometil, grupo arilo;

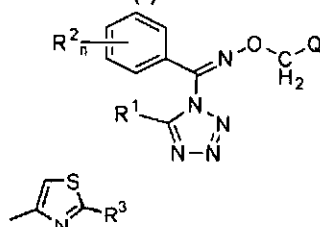
X: hidrógeno, halógeno, alquilo, alcoxi ciano, metilsulfonil, nitro, trifluorometil, grupo arilo;

A: grupo tetrazol de fórmula general:



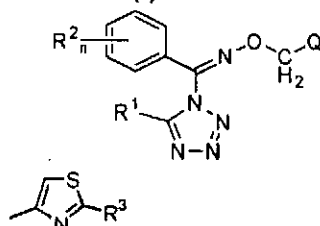
con, **R:** hidrógeno, halógeno; **Z:** hidrógeno, amino, $QC(=O)NH$ (**Q** es hidrógeno, alquilo); y fungicidas e insecticidas (página 30, líneas 25-30, párrafo 0065). Los compuestos de fórmula (I) están presentes en de 0.5 a 95% en peso en la formulación y preferiblemente de 2 a 70% en peso (página 30, líneas 25-30, párrafo 0065).

El documento D2 enseña composiciones que comprenden (párrafos 0001-0010; y 0048-0049): compuestos de fórmula (I):



Donde: **R²:** halógeno. **Q:** Q_1 , **R³:** hidrógeno; e Insecticidas tal como diniconazol.

El documento D3 enseña composiciones que comprenden (párrafos 0001-0011; y 0054-0055): compuestos de fórmula (I):



Donde: **R²:** halógeno. **Q:** Q_1 , **R³:** hidrógeno; e Insecticidas tal como diniconazol.

Las reivindicaciones 2 a 23 no mencionan alguna característica que haga novedosa la composición descrita en la reivindicación 1 y por tal razón tampoco se les reconoce novedad.

9. Conclusión

Los requisitos de Patentabilidad de la presente Solicitud están afectados así:

Item	Documento	Reivindicaciones afectadas	Requisito que afecta
D1	EP1426371	1-23	Novedad
D2	JP2004131416	1-23	Novedad
D3	JP2004131392	1-23	Novedad

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta (60) días contados a partir de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única No. 10 de 2001.



JOSÉ LUIS SALAZAR LÓPEZ
Director de Nuevas Creaciones (C)

El anterior requerimiento fue notificado por fijación en lista, de fecha
11 SET. 2012

Elaborado por: Juan Carlos Cortés García
Revisado por: Jacqueline Alfonso Rozo *OKU*

TRADUCCIÓN DOCUMENTO D2

JP2004131416A

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention]

The present invention relates to a tetrazole compound and its use.

[0002]

[Description of the Prior Art]

Although he can proceed development of the drugs for controlling plant disease widely conventionally and practical use is presented with the many plant disease controlling agent, the effect may not necessarily be sufficient.

The present invention makes it problem to provide the compound which has an outstanding plant disease control effect, and its pest controlling applications.

[0003]

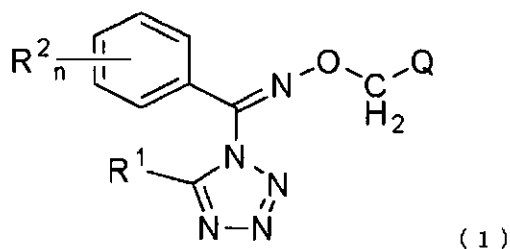
[Means for solving problem]

As a result of inquiring intensively in order to find out the compound which has an outstanding plant disease control effect, the inventor found out having plant disease control effect that the tetrazole compound shown with a following formula (1) was excellent, and completed the present invention.

[0004]

That is, the present invention is a formula (1).

Formula (1)



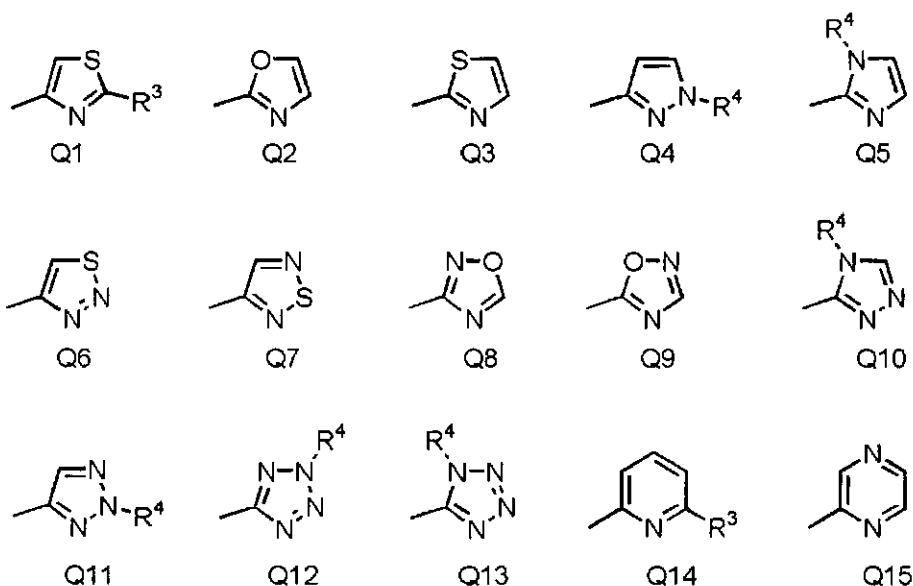
Inside of [type

R¹ expresses C1-C3 alkyl group,

R² expresses a halogen atom,

n expresses the integer of 0-3,

One Q is indicated to be below of bases



A table is carried out,

R^3 -- a hydrogen atom or a NHCOR^5 group -- { -- here -- R^5 -- a hydrogen atom -- C1-C6 alkyl group, a C1-C6 halo alkyl group, C2-C6 alkenyl group, A C2-C6 halo alkenyl group, C2-C6 alkynyl group, a C2-C6 halo alkynyl group, C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C3-C6 alkenyloxy group, A C3-C6 halo alkenyloxy group, a C3-C6 alkynyloxy group, A C3-C6 halo alkynyloxy group, C3-C6 cycloalkyl group, a C3-C6 cycloalkoxy group, a JI (C1-C3 alkyl) amino group, or a phenyl group (this phenyl group -- a halogen atom --) being replaced by C1-C3 alkyl group, the C1-C3 halo alkyl group, C1-C3 alkoxy group, the C1-C3 haloalkoxy group, C1-C3 alkylthio group, the C1-C3 halo alkylthio group, the cyano group, or a nitro group -- **** -- it expresses. } is expressed,

R^4 expresses a hydrogen atom or C1-C3 alkyl group.]

The control method of the plant disease processing the effective dose of the plant disease controlling agent coming out and containing the tetrazole compound (it is hereafter described as a present invention compound.) shown and a present invention compound as an active principle, and a present invention compound in the soil which grows a plant or a plant is provided.

[0005]

[Mode for carrying out the invention]

As C1-C3 alkyl group shown by R^1 in the present invention, a methyl group, an ethyl group, and a propyl group are mentioned, for example.

As a halogen atom shown by R^2 , a fluorine atom, a chlorine atom, and a bromine atom are mentioned, for example.

[0006]

It is shown by R^5 .

As C1-C6 alkyl group, a methyl group, an ethyl group, a propyl group, an isopropyl group, a butyl group, an isobutyl group, a sec-butyl group, a tert-butyl group, a pentyl

group, an isopentyl group, and a hexyl group are mentioned, for example, As a C1-C6 halo alkyl group, for example Difluoromethyl group, a trifluoromethyl group, A chlorodifluoromethyl group, a chlorofluoromethyl group, bromo difluoromethyl group, A trichloromethyl group, a dichloro bromomethyl group, a pentafluoroethyl group, a 2,2,2-trifluoroethyl group, an 1,1-difluoroethyl group, a 2,2-difluoroethyl group, 2-fluoroethyl group, and a 6,6,6-trifluoro hexyl group are mentioned,

As C2-C6 alkenyl group, for example A vinyl group, 1-propenyl group, 2-propenyl group, a 1-methyl-1-propenyl group, a 1-methyl-2-propenyl group, A xenyl group is mentioned [at a 2-methyl-1-propenyl group, a 2-methyl-2-propenyl group, 1-butenyl group, 2-butenyl group, 3-butenyl group, and 1-] to a xenyl group, and is mentioned [at 2-] to a xenyl group and 5-,

As a C2-C6 halo alkenyl group, 1-chlorovinyl group, 2-chlorovinyl group, a 2,2-dichlorovinyl group, a 2,2-difluorovinyl group, a 1,2-dichlorovinyl group, a 3,3-dichloro-2-propenyl group, and a 3,3-difluoro-2-propenyl group are mentioned, for example,

As C2-C6 alkynyl group, an ethynyl group, 3-butylnyl group, 3-hexynil group, and 5-hexynil group are mentioned, for example,

As a C2-C6 halo alkynyl group, 2-chloro ethynyl group, 2-bromo ethynyl group, 3-chloro-2-propynyl group, 3-bromo-2-propynyl group, and a 6-chloro-5-hexynil group are mentioned, for example,

[0007]

As C1-C6 alkoxy group, a methoxy group, an ethoxy basis, a propoxy group, an isopropoxy group, a butoxy group, an isobutoxy group, a sec-butoxy group, a tert-butoxy group, a pentyloxy group, an isopentyloxy group, and a hexyloxy group are mentioned, for example,

As a C1-C6 haloalkoxy group, a 2,2,2-trifluoroethoxy group, 5-chloro pentyloxy group, 4-fluoro isopentyloxy group, and a 2,2-dichloro hexyloxy group are mentioned, for example,

As a C3-C6 alkenyloxy group, a xenyl oxy group and 5-hexenyloxy group are mentioned to 2-propenyloxy group, a 1-methyl-2-propenyloxy group, a 2-methyl-2-propenyloxy group, 2-butenyloxy group, 3-butenyloxy group, and 2-, for example,

As a C3-C6 halo alkenyloxy group, For example, a 3,3-dichloro-2-propenyloxy group, a 3,3-difluoro-2-propenyloxy group, A xenyl oxy group and a 2,2-dichloro-5-hexenyloxy group are mentioned to 3,3-dibromo-2-propenyloxy group, 2,3-dichloro propenyloxy group, and 6-fluoro-2-,

As a C3-C6 alkynyloxy group, 2-propynyloxy group, a 1-methyl-2-propynyloxy group, 2-butyloxy group, 3-butyloxy group, 2-hexyniloxy group, and 5-hexyniloxy group are mentioned, for example,

As a C3-C6 halo alkynyloxy group, a 3-chloro-2-propynyloxy group, a 3-bromo-2-propynyloxy group, a 3-iodo-2-propynyloxy group, and a 6-chloro-5-hexyniloxy group are mentioned, for example,

As C3-C6 cycloalkyl group, a cyclopropyl group, a cyclobutyl group, a cyclopentyl group, and a cyclohexyl group are mentioned, for example,

As a C3-C6 cycloalkoxy group, a cyclo propoxy group, a cyclobutoxy group, a cyclopenthyloxy group, and a cyclohexyloxy group are mentioned, for example, As a JI (C1-C3 alkyl) amino group, a dimethylamino group, a diethylamino group, and a dipropylamino group are mentioned, for example,

[0008]

a halogen atom, C1-C3 alkyl group, and a C1-C3 halo alkyl group -- C1-C3 alkoxy group, a C1-C3 haloalkoxy group, C1-C3 alkylthio group, Even if replaced by the C1-C3 halo alkylthio group, the cyano group, or the nitro group, as a good phenyl group, For example, a phenyl group, 2-fluorophenyl group, 3-fluorophenyl group, 4-fluorophenyl group, 2-chlorophenyl group, a 3-chlorophenyl group, 4-chlorophenyl group, a 2,3-difluoro phenyl group, a 2,4-difluoro phenyl group, A 2,5-difluoro phenyl group, a 2,6-difluoro phenyl group, a 3,4-difluoro phenyl group, A 3,5-difluoro phenyl group, 2, 3-dichlorophenyl group, 2, 4-dichlorophenyl group, 2, 5-dichlorophenyl group, 2, 6-dichlorophenyl group, 3, 4-dichlorophenyl group, A 2,4,6-trifluoro phenyl group, a 2,4,6-trichloro phenyl group, 2-methylphenyl group, 3-methylphenyl group, 4-methylphenyl group, 2, 3-dimethylphenyl group, 2, 4-dimethylphenyl group, 2, 5-dimethylphenyl group, 2, 6-dimethylphenyl group, 3, 5-dimethylphenyl group, A 2,4,6-trimethyl phenyl group, 2-trifluoro methylphenyl group, 3-trifluoro methylphenyl group, 4-trifluoro methylphenyl group, 2-methoxypheny group, 3-methoxypheny group, 4-methoxypheny group, 2-trifluoro methoxypheny group, 3-trifluoro methoxypheny group, 4-trifluoro methoxypheny group, 2-methylthio phenyl group, 3-methylthio phenyl group, 4-methylthio phenyl group, 2-cyanophenyl group, 3-cyanophenyl group, 4-cyanophenyl group, 2-nitrophenyl group, 3-nitrophenyl group, and 4-nitrophenyl group are mentioned.

[0009]

As C1-C3 alkyl group shown by R^4 , a methyl group, an ethyl group, a propyl group, and an isopropyl group are mentioned.

[0010]

as the mode of a present invention compound -- for example

Tetrazole compound whose Q is Q1 or Q14 in a formula (1);

The tetrazole compound whose R^1 is a methyl group in a formula (1); it reaches.

In a formula (1), Q is Q1 or Q14, and the tetrazole compound whose R^1 is a methyl group is mentioned.

[0011]

It describes about the manufacturing method of a present invention compound.

A present invention compound can be manufactured with the following manufacturing method.

[0048]

The plant disease controlling agent agent of the present invention can also be used with other plant disease controlling agent agent, insecticide, miticide, nematicides, weed killers, plant growth regulators, and/or manure.

[0049]

As an active principle of this plant disease controlling agent, for example Chlorothalonil, fluazinam, dichlofluanid, fosetyl aluminum, and an annular imide derivative (captan --) dithiocarbamate derivatives (maneb --), such as a captor hole and folpet inorganic or organic copper derivatives (basic copper sulfate --), such as mancozeb, thiram, Dilam, a zineb, and propineb acyl alanine derivatives (metalaxyl --), such as copper oxychloride, copper hydroxide, and oxine copper Furalaxyl, ofurace, the SHIPRO franc, benalaxyl, oxadixyl, etc., a straw BIRURIN system compound (kresoxim-methyl and azoxystrobin --) Trifloxystrobin, picoxystrobin, pyraclostrobin, anilino pyrimidine derivatives (cyprodinil --), such as dimoxystrobin phenyl pyrrole derivatives (fenpiclonil --), such as pyrimethanil and mepanipyrim imide derivatives (procymidone and iprodione --), such as fludioxonil Benzimidazole derivatives (carbendazim, BENOMIRU, thiabendazole, thiophanate-methyl, etc.), such as vincrozone, an amine derivative (fenpropimorph, tridemorph, fenpropidin, spiroxamine, etc.), an azole derivative (propiconazole, triazimenol, and prochloraz --) Penconazole, tebuconazole, flusilazole, diniconazol, Bromuconazole, epoxyconazole, difenoconazole, cyproconazole, Metoconazole, triflumizole, tetraconazole, micro swine nil, Fenbuconazole, hexaconazole, fluquinconazole, bird TIKO Nazon, Cymoxanil, such as Bitertanol, imazalil, and flutriafol, Dimethomorph, famoxadone, fenamidone, iprovalicarb, benthiavalicarb, cyazofamid, zoxamide, ethaboxam, Nico biphen-, fenhexamid, quinoxifen, diethofencarb, and reed benzo RARU S methyl are mentioned.

TRADUCCIÓN DOCUMENTO D3

JP2004131392

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention]

The present invention relates to a tetrazole compound and its use.

[0002]

[Description of the Prior Art]

Although he can proceed development of the drugs for controlling plant disease widely conventionally and practical use is presented with the many plant disease controlling agent, the effect may not necessarily be sufficient.

The present invention makes it problem to provide the compound which has an outstanding plant disease control effect, and its pest controlling applications.

[0003]

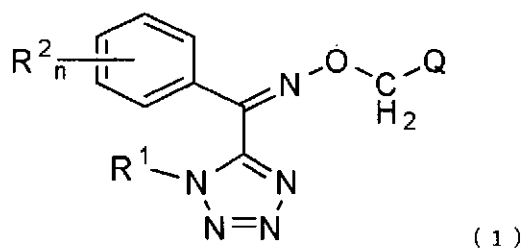
[Means for solving problem]

As a result of inquiring intensively in order to find out the compound which has an outstanding plant disease control effect, the inventor found out having plant disease control effect that the tetrazole compound shown with a following formula (1) was excellent, and completed the present invention.

[0004]

That is, the present invention is a formula (1).

Formula (1)



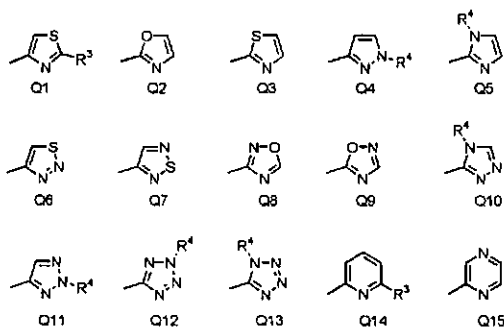
Inside of [type

R¹ expresses C1-C3 alkyl group,

R² expresses a halogen atom,

n expresses the integer of 0-3,

One Q is indicated to be below of bases



A table is carried out,

R^3 -- a hydrogen atom or a NHCOR^5 group -- {-- here -- R^5 -- a hydrogen atom -- C1-C6 alkyl group, a C1-C6 halo alkyl group, C2-C6 alkenyl group, A C2-C6 halo alkenyl group, C2-C6 alkynyl group, a C2-C6 halo alkynyl group, C1-C6 alkoxy group, a C1-C6 haloalkoxy group, a C3-C6 alkenyloxy group, A C3-C6 halo alkenyloxy group, a C3-C6 alkynyloxy group, A C3-C6 halo alkynyloxy group, C3-C6 cycloalkyl group, a C3-C6 cycloalkoxy group, a JI (C1-C3 alkyl) amino group, or a phenyl group (this phenyl group -- a halogen atom --) being replaced by C1-C3 alkyl group, the C1-C3 halo alkyl group, C1-C3 alkoxy group, the C1-C3 haloalkoxy group, C1-C3 alkylthio group, the C1-C3 halo alkylthio group, the cyano group, or a nitro group -- **** -- it expresses. } is expressed,

R^4 expresses a hydrogen atom or C1-C3 alkyl group.]

The control method of the plant disease processing the effective dose of the plant disease controlling agent coming out and containing the tetrazole compound (it is hereafter described as a present invention compound.) shown and a present invention compound as an active principle, and a present invention compound in the soil which grows a plant or a plant is provided.

[0005]

[Mode for carrying out the invention]

As C1-C3 alkyl group shown by R^1 in the present invention, a methyl group, an ethyl group, and a propyl group are mentioned, for example.

As a halogen atom shown by R^2 , a fluorine atom, a chlorine atom, and a bromine atom are mentioned, for example.

[0006]

It is shown by R^5 .

As C1-C6 alkyl group, a methyl group, an ethyl group, a propyl group, an isopropyl group, a butyl group, an isobutyl group, a sec-butyl group, a tert-butyl group, a pentyl group, an isopentyl group, and a hexyl group are raised, for example,

As a C1-C6 halo alkyl group, for example Difluoromethyl group, a trifluoromethyl group, A chlorodifluoromethyl group, a chlorofluoromethyl group, bromo difluoromethyl group, A trichloromethyl group, a dichloro bromomethyl group, a pentafluoroethyl group, a 2,2,2-trifluoroethyl group, an 1,1-difluoroethyl group, a 2,2-difluoroethyl group, 2-fluoroethyl group, and a 6,6,6-trifluoro hexyl group are raised,

As C2-C6 alkenyl group, for example A vinyl group, 1-propenyl group, 2-propenyl group, a 1-methyl-1-propenyl group, a 1-methyl-2-propenyl group, A xenyl group is raised to a xenyl group to a 2-methyl-1-propenyl group, a 2-methyl-2-propenyl group, 1-butenyl group, 2-butenyl group, 3-butenyl group, and 1-, and is raised to 2- to a xenyl group and 5-,

As a C2-C6 halo alkenyl group, 1-chlorovinyl group, 2-chlorovinyl group, a 2,2-dichlorovinyl group, a 2,2-difluorovinyl group, a 1,2-dichlorovinyl group, a 3,3-dichloro-2-propenyl group, and a 3,3-difluoro-2-propenyl group are raised, for example,

As C2-C6 alkynyl group, an ethynyl group, 3-butenyl group, 3-hexynyl group, and 5-hexynyl group are raised, for example,

As a C2-C6 halo alkynyl group, 2-chloro ethynyl group, 2-bromo ethynyl group, 3-chloro-2-propynyl group, 3-bromo-2-propynyl group, and a 6-chloro-5-hexynyl group are raised, for example,

[0007]

As C1-C6 alkoxy group, a methoxy group, an ethoxy group, a propoxy group, an isopropoxy group, a butoxy group, an isobutoxy group, a sec-butoxy group, a tert-butoxy group, a pentyloxy group, an isopentyloxy group, and a hexyloxy group are raised, for example,

As a C1-C6 haloalkoxy group, a 2,2,2-trifluoroethoxy group, 5-chloro pentyloxy group, 4-fluoro isopentyloxy group, and a 2,2-dichloro hexyloxy group are raised, for example,

As a C3-C6 alkenyloxy group, a xenyl oxy group and 5-hexenyloxy group are raised, for example to 2-propenyloxy group, a 1-methyl-2-propenyloxy group, a 2-methyl-2-propenyloxy group, 2-butenyloxy group, 3-butenyloxy group, and 2-

As a C3-C6 halo alkenyloxy group, For example, a 3,3-dichloro-2-propenyloxy group, a 3,3-difluoro-2-propenyloxy group, A xenyl oxy group and a 2,2-dichloro-5-hexenyloxy group are raised to 3,3-dibromo-2-propenyloxy group, 2,3-dichloro propenyloxy group, and 6-fluoro-2-

As a C3-C6 alkynyloxy group, 2-propynyloxy group, a 1-methyl-2-propynyloxy group, 2-butyloxy group, 3-butyloxy group, 2-hexynyloxy group, and 5-hexynyloxy group are raised, for example,

As a C3-C6 halo alkynyloxy group, a 3-chloro-2-propynyloxy group, a 3-bromo-2-propynyloxy group, a 3-iodo-2-propynyloxy group, and a 6-chloro-5-hexynyloxy group are raised, for example,

As C3-C6 cycloalkyl group, a cyclopropyl group, a cyclobutyl group, a cyclopentyl group, and a cyclohexyl group are raised, for example,

As a C3-C6 cycloalkoxy group, a cyclopropoxy group, a cyclobutoxy group, a cyclopentyloxy group, and a cyclohexyloxy group are raised, for example,

As a JI (C1-C3 alkyl) amino group, a dimethylamino group, a diethylamino group, and a dipropylamino group are raised, for example,

[0008]

a halogen atom, C1-C3 alkyl group, and a C1-C3 halo alkyl group -- C1-C3 alkoxy group, a C1-C3 haloalkoxy group, C1-C3 alkylthio group, Even if replaced by the C1-C3 halo alkylthio group, the cyano group, or the nitro group, as a good phenyl group, For example, a phenyl group, 2-fluorophenyl group, 3-fluorophenyl group, 4-fluorophenyl group, 2-chlorophenyl group, a 3-chlorophenyl group, 4-chlorophenyl group, a 2,3-difluoro phenyl group, a 2,4-difluoro phenyl group, A 2,5-difluoro phenyl group, a 2,6-difluoro phenyl group, a 3,4-difluoro phenyl group, A 3,5-difluoro phenyl group, 2, 3-dichlorophenyl group, 2, 4-dichlorophenyl group, 2, 5-dichlorophenyl group, 2, 6-dichlorophenyl group, 3, 4-dichlorophenyl group, A 2,4,6-trifluoro phenyl group, a 2,4,6-trichloro phenyl group, 2-methylphenyl group, 3-methylphenyl group, 4-methylphenyl group, 2, 3-dimethylphenyl group, 2, 4-dimethylphenyl group, 2, 5-dimethylphenyl group, 2, 6-dimethylphenyl group, 3, 5-dimethylphenyl group, A 2,4,6-trimethyl phenyl group, 2-trifluoro methylphenyl group, 3-trifluoro methylphenyl group, 4-trifluoro methylphenyl group, 2-methoxyphenyl group, 3-methoxyphenyl group, 4-methoxyphenyl group, 2-trifluoro methoxyphenyl group, 3-trifluoro methoxyphenyl group, 4-trifluoro methoxyphenyl group, 2-methylthio phenyl group, 3-methylthio phenyl group, 4-methylthio phenyl group, 2-cyanophenyl group, 3-cyanophenyl group, 4-cyanophenyl group, 2-nitrophenyl group, 3-nitrophenyl group, and 4-nitrophenyl group are mentioned.

[0009]

As C1-C3 alkyl group shown by R⁴, a methyl group, an ethyl group, a propyl group, and an isopropyl group are raised.

[0010]

as the mode of a present invention compound -- for example

Tetrazole compound whose Q is Q1 or Q14 in a formula (1);

The tetrazole compound whose R¹ is a methyl group in a formula (1); it reaches.

In a formula (1), Q is Q1 or Q14, and the tetrazole compound whose R¹ is a methyl group is

mentioned.

[0011]

It describes about the manufacturing method of a present invention compound.

A present invention compound can be manufactured with the following manufacturing method.

[0054]

The plant disease controlling agent of the present invention can also be used with other plant disease controlling agent, insecticide, miticide, nematocides, weed killers, plant growth regulators, and/or manure.

[0055]

As an active principle of this plant disease controlling agent, for example Chlorothalonil, fluazinam, dichlofluanid, fosetyl aluminum, and an annular imide derivative (captan --) dithiocarbamate derivatives (maneb --), such as a captor hole and folpet inorganic or organic copper derivatives (basic copper sulfate --), such as mancozeb, thiram, Dilam, a zineb, and propineb acyl alanine derivatives (metalaxyl --), such as copper oxychloride, copper hydroxide, and oxine copper Furalaxyl, ofurace, the SHIPRO franc, benalaxyl, oxadixyl, etc., a straw BIRURIN system compound (kresoxim-methyl and azoxystrobin --) Trifloxystrobin, picoxystrobin, pyraclostrobin, anilino pyrimidine derivatives (cyprodinil --), such as dimoxystrobin phenyl pyrrole derivatives (fenpiclonil --), such as pyrimethanil and mepanipyrim imide derivatives (procymidone and iprodione --), such as fludioxonil Benzimidazole derivatives (carbendazim, BENOMIRU, thiabendazole, thiophanate-methyl, etc.), such as vincrozone, an amine derivative (fenpropimorph, tridemorph, fenpropidin, spiroxamine, etc.), an azole derivative (propiconazole, triazimenol, and prochloraz --) Penconazole, tebuconazole, flusilazole, diniconazole, Bromuconazole, epoxyconazole, difenoconazole, cyproconazole, Metoconazole, triflumizole, tetraconazole, micro swine nil, Fenbuconazole, hexaconazole, fluquinconazole, bird TIKO Nazor, Cymoxanil, such as Bitertanol, imazalil, and flutriafol, Dimethomorph, famoxadone, fenamidone, iprovalicarb, benthiavalicarb, cyazofamid, zoxamide, ethaboxam, Nico biphen-, fenhexamid, quinoxifen, diethofencarb, and reed benzo RARU S methyl are mentioned.