

Matrina: pericolo occulto ai danni dei consumatori (**in**)consapevoli



ICQRF SARDEGNA



ITALIA
EXPO MILANO 2015



Dott. Emilio Vinci
Funzionario Agrario ICQRF SARDEGNA

Di cosa parleremo?



Sophora flavescens
(Ku Shen)



MATRINA

Estratto vegetale



Non sempre ciò che è naturale fa bene all'uomo e all'ambiente



DIPARTIMENTO

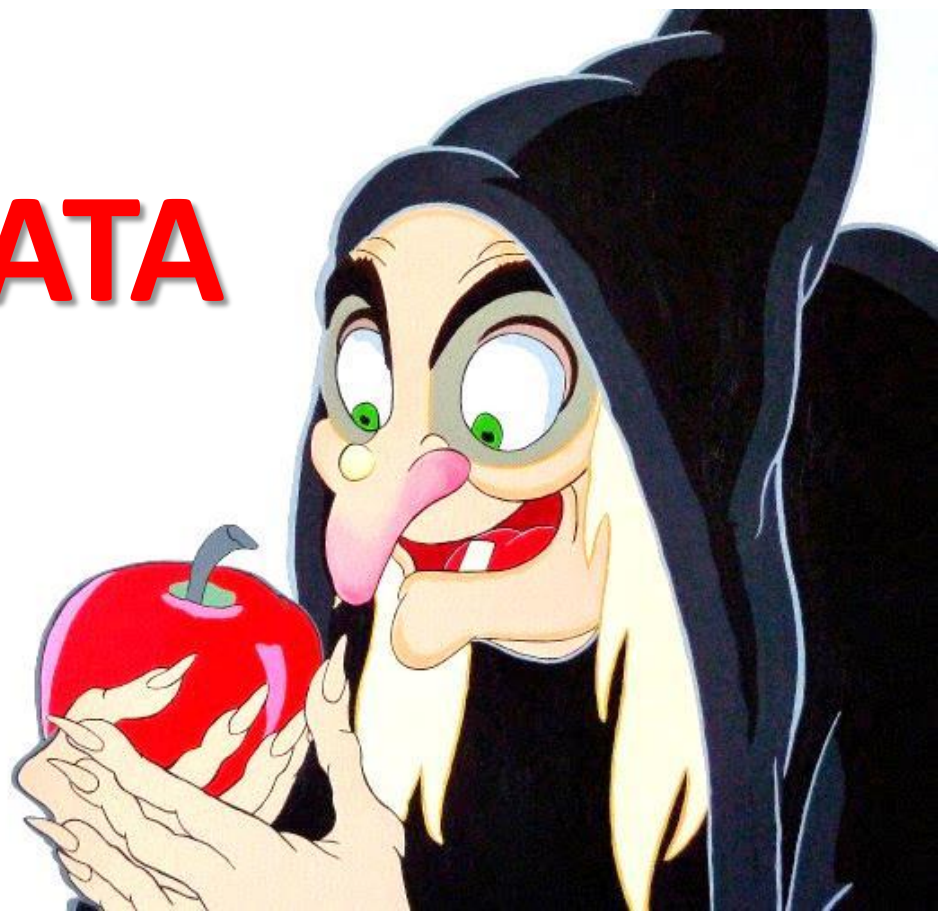


ISPettorato CENTRALE DELLA TUTELA DELLA QUALITÀ
E REPRESSIONE FRODI DEI PRODOTTI AGRICOLI E ALIMENTARI
ICQRF SARDEGNA

FEDERBIO

FEDERAZIONE ITALIANA AGRICOLTURA BIOLOGICA E BIODINAMICA

operazione: MELA STREGATA



DIPARTIMENTO



ISPETTORATO CENTRALE DELLA TUTELA DELLA QUALITÀ
E REPRESSIONE FRODI DEI PRODOTTI AGROALIMENTARI

ICQRF SARDEGNA

FEDERBIO

FEDERAZIONE ITALIANA AGRICOLTURA BIOLOGICA E BIODINAMICA

operazione: MELA STREGATA

- 60 tonnellate di prodotti sequestrati contenenti Matrina dallo 0,05% al 2,5%
- valore commerciale complessivo di 3,5 milioni di Euro



I PUNTI DEBOLI DEL SISTEMA



DIPARTIMENTO



ICQRF

ISPettorato Centrale della Tutela della Qualità
e Repressione Frodi dei Prodotti Agroalimentari

1) LE CARENZE NORMATIVE



- **Agrofarmaci**



- **Fertilizzanti**





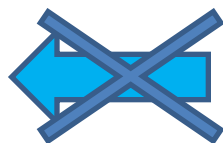
VS



FITOFARMACI



Ministero della Salute



MATRINA

Estratto vegetale



FERTILIZZANTI

CORROBORANTI

mipaaf

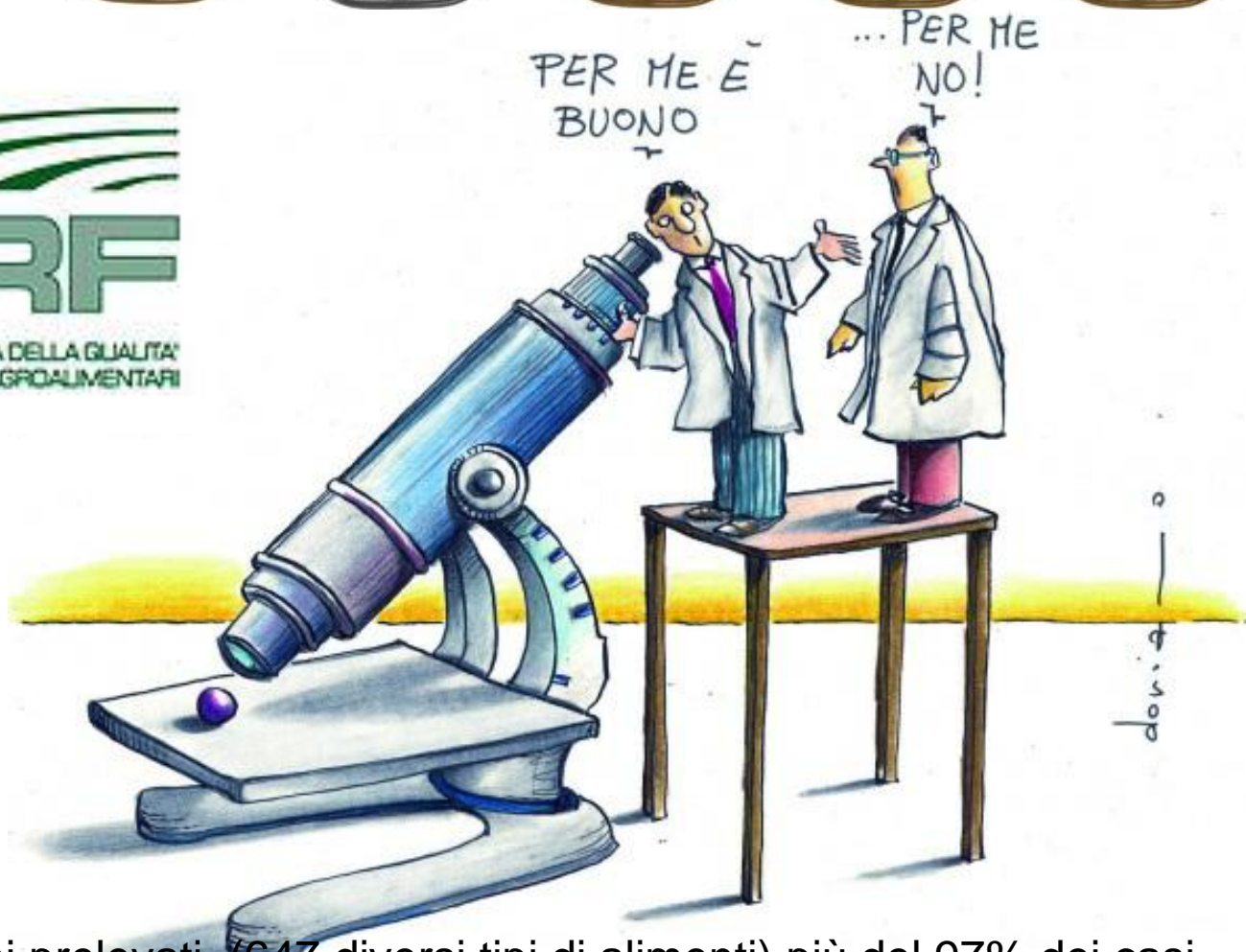
SERVIZIO FITOSANITARIO
CENTRALE - COSVIR XI



- Descrizione del contenuto
- processo di produzione
(D.M. 17 Luglio 2012 11175)



2) I CONTROLLI (sugli alimenti e sui mezzi tecnici)



su circa 79 mila campioni prelevati (647 diversi tipi di alimenti) più del 97% dei casi presenta valori residui di fitofarmaci al di sotto dei limiti fissati dalle normative vigenti.

3) Gli agricoltori



estratto vegetale, miglioratore delle difese



IN SINTESI

A causa del luogo comune per cui **un estratto vegetale** non può danneggiare l'ambiente e sfruttando delle carenze normative, è stato possibile importare dall'estero e commercializzare prodotti a base di sostanze di cui poco o nulla si sa sugli effetti per il suolo, l'acqua, l'uomo.

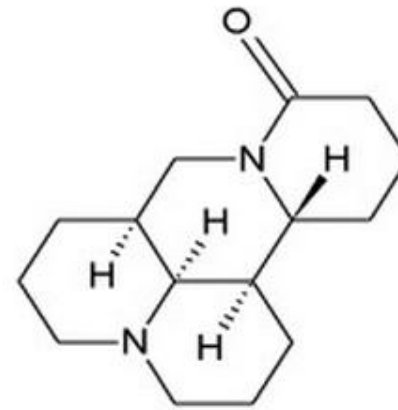
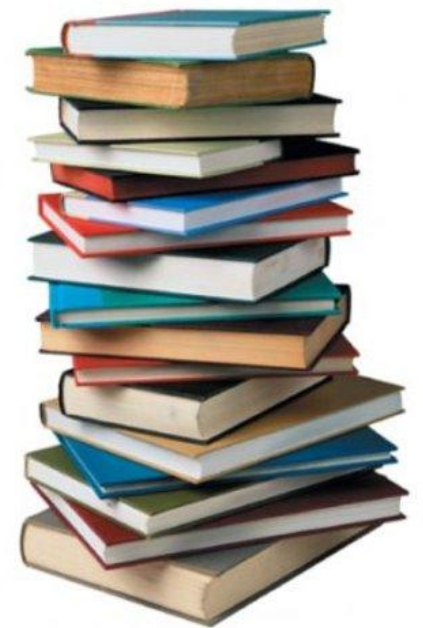
E' questo il caso della:



MATRINA: questa (S)conosciuta???



MATRINA: Botanicals Pesticide



Matrine



Sophora flavescens (Ku Shen)



MATRINA

TOCCASANA DELLA MEDICINA CINESE

(... e non solo...)

- **farmaco a largo spettro usato nella medicina orientale** (antitumorale, antivirale, antibatterico)
- **come fitofarmaco** (insetti, funghi, batteri, nematodi, acari e protozoi).





Biopesticide Development in China

Agrow's guest author Shuyou Han traces the development and prospects of biopesticides in China



Table 3. Botanical pesticides registered in China

Botanical pesticides	No of registration	No of manufacturers	Pesticide type
matrine	60	47	insecticide/ fungicide
eugenol	4	4	fungicide
azadirachtin	15	9	insecticide
rotenone	14	10	insecticide
pyrethrins	9	5	insecticide
cnidiadin	4	2	insecticide/ fungicide
vertrine	4	3	insecticide
nicotine	7	6	insecticide
Celastrus angulatus	2	1	insecticide
camphor (d-camphor)	5	5	insecticide
curcumol	2	1	rodenticide
Da Huang Su Jia Mi	2	1	fungicide
eucalyptol	2	2	insecticide
carvacrol	1	1	fungicide
ethylicin	19	14	fungicide

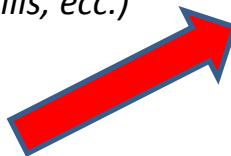
Matrina



Rotenone



Leguminose tropicali
(*Derris elliptica*,
Lonchocarpus utilis, ecc.)

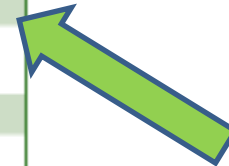


Nicotina

Leguminose tropicali
(*Derris elliptica*,
Lonchocarpus utilis, ecc.)



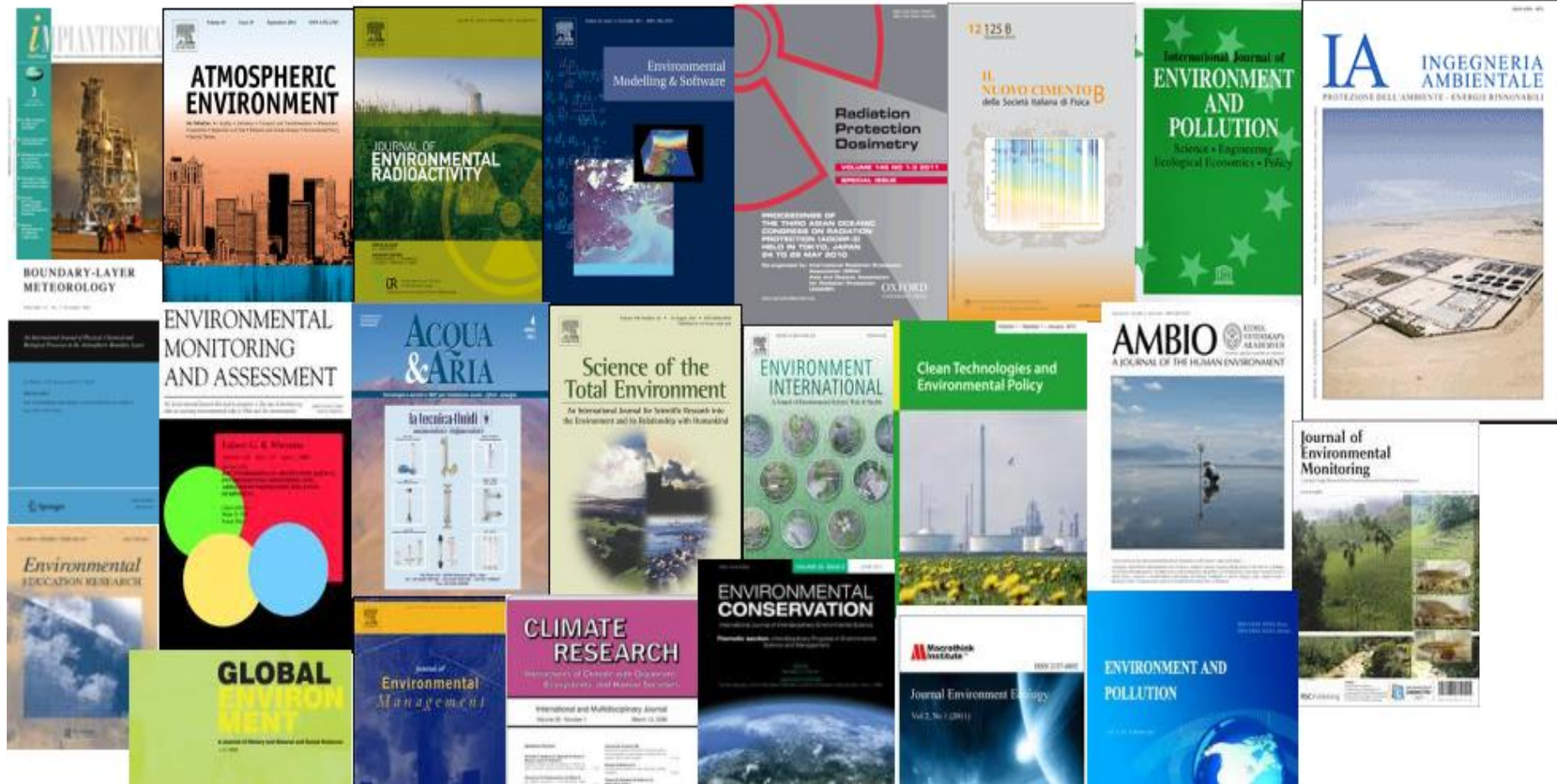
Azadiractina
albero di Neem
(*Azadirachta indica*)



Piretrine
(*Tanacetum cinerariifolium*)

(pag. 17 della rivista **Agrow World crop protection news – Biopesticides acquire mainstream status**).

RICERCHE E PUBBLICAZIONI SCIENTIFICHE





Nematicidal Activity of Matrine and Its Derivatives against Pine Wood Nematodes

Kazuhiko Matsuda,* Kazuhisa Yamada, Mikiko Kimura, and Masayuki Hamada

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The nematicidal activity of matrine and its derivatives isolated from the epigeal part of *Sophora flavescens* was examined against the pine wood nematode (*Bursaphelenchus xylophilus*). The nematicidal activity of matrine, which is one of the major alkaloids in the root of the plant, was poor. However, sophocarpine, one of the unsaturated derivatives of matrine, had strong nematicidal activity against nematodes; another unsaturated derivative, sophoramine, had such activity, but it was less than that of sophocarpine. These results suggest that the degree of unsaturation in the δ -lactam ring of matrine-type alkaloids is important to nematicidal activity.

INTRODUCTION

The pine wilt disease is a very serious problem affecting pine trees (*Pinus densiflora* and *P. thunbergii*) in Japan. The disease is caused by the pine wood nematode (*Bursaphelenchus xylophilus*), spreading with the vector beetle (*Monochamus alternatus*). One method of controlling the disease is to kill or suppress the parasitic nematode, but no effective and practical controls by chemicals have so far been established.

A variety of lupin alkaloids have been isolated and their structures characterized (Figure 1). Some have biological activities against plants, microorganisms, and molluscs (Wink, 1983, 1984a,b). *N*-Methylcytisine (5) and anagrine (6), isolated from the root of *Sophora flavescens*, are nematicidal toward the pine wood nematode (Matsuda et al., 1989). In that study, the crude fraction containing matrine (1) and sophocarpine (2) was found to be less active against the nematodes than that containing the cytisine-type alkaloids 5 and 6. However, matrine shows biological activity against human parasitic nematodes (Terada et al., 1982), and therefore matrine and its derivatives may also have nematicidal activities against *B. xylophilus*. A few matrine-type alkaloids were consequently isolated and their nematicidal activity against pine wood nematodes was examined to investigate the structure-activity relationship with respect to the δ -lactam moiety of the alkaloids.

MATERIALS AND METHODS

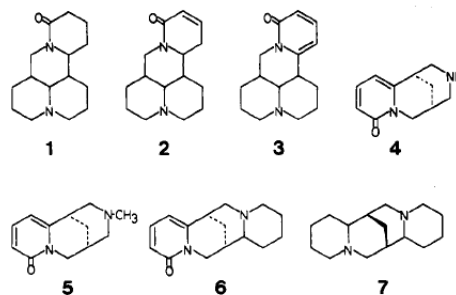
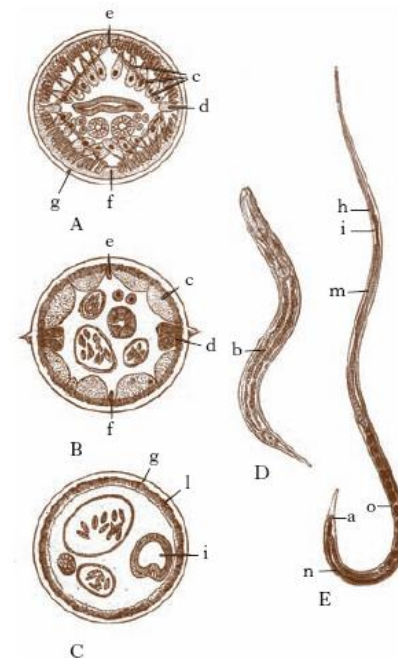
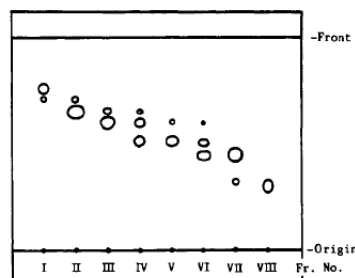


Figure 1. Chemical structures of lupin alkaloids. 1, Matrine; 2, sophocarpine; 3, sophoramine; 4, cytisine; 5, *N*-methylcytisine; 6, anagrine; 7, sparteine.





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Efficacy of binary combinations of botanical pesticides for rotifer elimination in microalgal cultivation



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^cUniversity of Chinese Academy of Sciences, Beijing 100049, PR China

HIGHLIGHTS

- Binary toxicity of celangulin, matrine and toosendanin for rotifers were studied.
- Celangulin/matine and celangulin/toosendanin at a 1:9 ratio exhibited synergism.
- Celangulin/toosendanin (1:9) exterminated rotifers and allowed microalgae survive.
- Application of celangulin/toosendanin (1:9) reduces biocide dosages and the cost.
- Celangulin/toosendanin (1:9) is a potential practical rotifer-control combination.



ARTICLE INFO

Article history:

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Binary interaction

Rotifer contamination

Microalgal cultivation

ABSTRACT

Binary interactions of celangulin, matrine and toosendanin against the rotifer *Brachionus plicatilis* were studied. Types of interactions (antagonism, synergism and addition) were dependent on the biocides themselves and their ratios in combinations. Mixtures of matrine/toosendanin mainly produced addition owing to their similar modes of action aiming at the nervous system. Combinations of celangulin mixed with matrine or toosendanin at 1:9 exhibited synergism, which is attributed to the interference of matrine or toosendanin with the detoxification enzymes of celangulin. Both the synergistic combinations were inappropriate for rotifer extermination in *Isochrysis* sp. cultivation owing to the high phytotoxicity resulting from the absence of cell walls. However, the celangulin/toosendanin (1:9) mixture decreased rotifer reproduction without damaging cells of *Chlorella* and *Nannochloropsis* sp. Application of frequent, low doses of celangulin/toosendanin (1:9) mixture also reduced the dosage of biocides, thereby reducing the cost of exterminating rotifers, and indicating a considerable practical application in microalgal cultivation.

PUBBLICAZIONI SCIENTIFICHE

[Zhongguo Zhongyao Zazhi](#)

Volume 38, Issue 21, 1 November 2013, Pages 3676-3680

Population dynamics and control techniques of aphids on honeysuckle (Article)

[Sun, Y.](#) , [Xue, M.](#) , [Zhang, X.](#), [Zhao, H.-P.](#), [Li, Z.-X.](#)

College of Plant Protection, Shandong Agricultural University, Tai'an 271018, China

[View references \(20\)](#)





PUBBLICAZIONI SCIENTIFICHE



Indian J.L.Sci.2(1) : 113-116, 2012

ACUTE TOXICITY OF MATRINE CONTAINING BIOPESTICIDE KETHRIN ON A FRESHWATER FISH, *Labeo rohita* (HAMILTON)

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ABSTRACT

The objective of this study was to determine the toxicity of biopesticide Matrine (Kethrin, Brand name) on the freshwater fish *Labeo rohita*. Fishes were exposed to various concentrations of botanical insecticide matrine for 96 h and the percent mortality was recorded. The 96h LC₅₀ value determined by Finney's Probit Analysis Method was found to be 21.68 ppm. Behavioural patterns were observed critically during the whole experiment. The test fish exhibited erratic swimming, increased surfacing, decreased rate of opercular movement, reduced agility and inability to maintain normal posture and balance with increasing exposure time.

KEYWORDS : Toxicity, Matrine, Kethrin, *Labeo rohita*, LC₅₀



LA PERSISTENZA DELLA MATRINA NEGLI ALIMENTI



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FEDERAZIONE ITALIANA AGRICOLTURA BIOLOGICA E BIODINAMICA

LA MATRINA NEGLI ALIMENTI: LATTUGA E FRAGOLA

LATTUGA

PRE TRATTAMENTO	0
APPENA TRATTATO	1,82 mg/Kg
DOPO TRE GIORNI	1,18 mg/Kg
DOPO 7 GIORNI	0,55 mg/Kg



FRAGOLA

PRE TRATTAMENTO	0
APPENA TRATTATO	0,39 mg/Kg
DOPO TRE GIORNI	0,30 mg/Kg



FEDERBIO

FEDERAZIONE ITALIANA AGRICOLTURA BIOLOGICA E BIODINAMICA

LA MATRINA NEGLI ALIMENTI: PEPPERONE



Laboratorio di Analisi chimiche, microbiologiche, ecologiche, bromatologiche, zootecniche.



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Page



CUSTOMER

Analysis report of 04/08/2014

SAMPLE	1407396	DATE OF RECEIPT	30/07/2014	START ANALYSIS	30/07/2014	END ANALYSIS	04/08/2014
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Description PEPERONI
Sample YELLOW PEPPER
Data of receipt 30/07/2014
Batch 7/22 APP 05

ANALYSIS DESCRIPTION	RESULT	U.M.	L.Q. (LIMIT OF QUANTIT.)	MRL	ANALYSIS METHOD	UNCERTAINTY (U.M.)	START ANALYSIS	END ANALYSIS	NOTES
TRALOMETHRIN	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRI-ALLAT	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIADIMEFON	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIADIMENOL	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIADIMENOL E TRIADIMEFON (somma)	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIASULFURON	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIAZAMATE	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIAZOPHOS	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIBENURON METHYL	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRICHLORFON	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRICLOPYR	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIFLOXYSTROBIN	< L.Q.	mg/kg	0.01		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIFLUMIZOLE	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIFLUMURON	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIFLURALIN	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIFLUSULFURON-METHYL	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRIFORINE	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
TRITICONAZOLE	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
VALIFENALATE	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
VAMIDOTHION	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
VINICLOZOLIN	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
ZOXAMIDE	< L.Q.	mg/kg	0.005		UNI EN 15662:2009		30/07/2014	04/08/2014	
DITIOCARBAMMATI espresso come CS2	< L.Q.	mg/kg	0.01		UNI EN 12396-2:1999		30/07/2014	04/08/2014	
MATRINA	0.071	mg/kg	0.01		MIP_FITOF 00148 REV.00		30/07/2014	04/08/2014	

Notes: < L.Q. : < L.Q. : lower than quantification limit. Each results expressed as "<LQ" does not mean, in any case, the absence of the parameter searched in the examined sample. Eventual results expressed in numbers in brackets, after the expression "<LQ" are merely indication of traces which are not exactly measurable.

*Campione prelevato dopo 20 giorni dal trattamento

LA MATRINA NEGLI ALIMENTI: BASILICO



Laboratorio di Analisi chimiche, microbiologiche, ecologiche, bromatologiche, zootecniche.



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Pagina

1 di 1

COMMITTENTE

RAPPORTO DI PROVA del 19/09/2014

CAMPIONE	1409830	ACCETTAZIONE	17/09/2014	DATA INIZIO ANALISI	17/09/2014	DATA FINE ANALISI	19/09/2014
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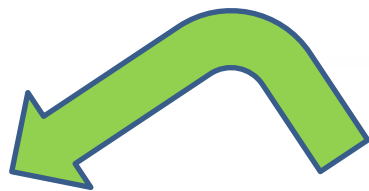
Descrizione
 BASILICO
 Campione: BASILICO
 Data arrivo: 17/09/2014

DESCRIZIONE	RESULTATO	UNITÀ DI MISURA (U.M.)	(L.Q.) LIMITE DI QUANTIF.	LIMITE DI LEGGE (U.M.)	METODO DI PROVA	INCER. U (U.M.)	DATA INIZIO ANALISI	DATA FINE ANALISI	NOTE
PYRACLOSTROBIN MATRINA	< L.Q. 0.030	mg/kg mg/kg	0.005 0.01	0.01	UNI EN 15442:2009 MP_PROF 00148 REV.00		17/09/2014 17/09/2014	19/09/2014 19/09/2014	

Note: < L.Q.: inferiore al limite di quantificazione. Si precisa che ogni risultato espresso come "< L.Q." non indica, in ogni caso, l'assenza del parametro ricercato nel campione in esame.

*Campione prelevato su un terreno ove in precedenza erano stati prodotti ortaggi sui quali erano stati applicati i preparati a base di MATRINA,

MECCANISMO D'AZIONE DELLA MATRINA



MECCANISMO D'AZIONE DELLA MATRINA

Pest Management Science

Pest Manag Sci 64:1222–1228 (2008)



Actions of quinolizidine alkaloids on *Periplaneta americana* nicotinic acetylcholine receptors

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²Department of Life Science and Biotechnology, Faculty of Life and Environmental Science, Shimane University, Matsue 690-8504, Japan

³Department of Applied Biological Chemistry, School of Agriculture, Kinki University, Nara 631-8505, Japan

Abstract

BACKGROUND: Botanical insecticides do not play a major role as crop protectants, but they are beneficial in some applications. The authors investigated the actions of naturally occurring alkaloids on insect nicotinic acetylcholine (ACh) receptors (nAChRs) by evaluating their abilities to inhibit specific binding of [³H]imidacloprid (IMI) to nerve-cord membranes from *Periplaneta americana* L. Two alkaloids were also tested for their actions on nAChRs expressed by cockroach neurons using patch-clamp electrophysiology.

RESULTS: Four natural quinolizidine alkaloids (matrine, sophocarpine, cytisine and aloperine) exhibited more than 50% inhibition of [³H]IMI binding at 10 μM, although other compounds were found to have no or low inhibitory activity. The rank order of potency based on concentration–inhibition curves was cytisine > sophocarpine ≥ aloperine ≥ matrine. Patch-clamp analysis indicated that sophocarpine and aloperine were not agonists of nAChRs expressed in *P. americana* neurons, yet, at 10 μM, aloperine, but not sophocarpine, suppressed ACh-induced inward currents significantly.

CONCLUSION: Three of the four natural alkaloids tested possess structural moieties that are necessary for interaction with *P. americana* nAChRs. Aloperine, which possesses a unique structure and showed a distinctive dose–response curve, was found to act as an antagonist. Appropriate modifications of these alkaloids might result in novel insecticidal nAChR ligands.

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Keywords: quinolizidine alkaloids; nicotinic acetylcholine receptors; [³H]imidacloprid; structure–activity relationships



LA MATRINA NEL MONDO





LA MATRINA NEL MONDO: CINA



China Pesticide Information Network

Institute for the Control of Agrochemicals, Ministry of Agriculture, P.R. China



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Product Registert

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- Active ingredients ▶
- Registered company ▶

Search with Active Ingredients

Active ingredient name in English:

Total:85 Active Articles

RegistrationNo	ProductName	Period	ProductDetails
LS20120002	matrine 1.3%	2014.01.05-2015.01.05	>>
LS20120331	matrine 1.3%	2013.09.28-2014.09.28	>>
LS20130383	matrine 5%	2014.07.29-2015.07.29	>>
LS20140107	matrine 0.3%、vertrine 0.3%	2014.03.17-2015.03.17	>>
PD20100678	matrine 0.5%、 nicotine 0.7%	2010.01.15-2015.01.15	>>
PD20100679	matrine 5%	2010.01.15-2015.01.15	>>
PD20101207	matrine 5%	2010.02.21-2015.02.21	>>
PD20101216	matrine 0.05%、 nicotine 0.45%	2010.02.21-2015.02.21	>>
PD20101227	matrine 0.3%	2010.03.01-2015.03.01	>>
PD20101233	matrine 0.3%	2010.03.01-2015.03.01	>>
PD20101234	matrine 0.3%	2010.03.01-2015.03.01	>>
PD20101239	matrine 0.3%	2010.03.01-2015.03.01	>>
PD20101244	matrine 0.3%	2015.03.01-2020.03.01	>>
PD20101283	matrine 0.5%	2010.03.12-2015.03.12	>>

Categories

- < Any Category
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- < Agrochemicals & Pesticides
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- Insecticide

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- Liquid (34)
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Fipronil CAS NO.: 120068-37-3

insecticide fipronil+matrine 5%+1.3%SC

RMB 570000-620000 / Ton (FOB Price)
100 Kilograms (Min. Order)

Place of Origin: CN;JIA Classification: Insecticide
CAS No.: 120068-37-3 EINECS No.: 120068-37-3
Brand Name: reform State: Powder

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Organic insecticide Matrine 1.5% SL Main Product ✓

1000 Liters (Min. Order)

Place of Origin: CN;SIC Classification: Biological Pesticide
CAS No.: 519-02-8 EINECS No.: --
Brand Name: Newsun State: Liquid

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insecticide Matrine

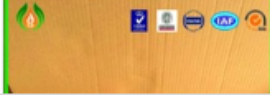
10 Kilograms (Min. Order)

Place of Origin: CN;ANH Classification: Insecticide
CAS No.: 519-02-8 Brand Name: longcan
EINECS No.: -- State: Powder

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pesticide Matrine 90%TC

US \$1-50 / Kilogram (FOB Price)
1 Kilogram (Min. Order)

Place of Origin: CN;ANH Classification: Pesticide
CAS No.: 519-02-8 Brand Name: longcan
EINECS No.: -- State: Powder

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Premium Related Products

- 

Natural Kava Extract Kava Lactones 80% HPLC
- 

Nicosulfuron 95%TC,4% SC,80%WP,40g/ISC,75%
- 

Best price natural Biopesticide raw material
- 

Bitter sophom root extract 98% oxymatrine matrine



LA MATRINA NEL MONDO: USA



US 20080300225A1

(19) **United States**

(12) **Patent Application Publication**

Marrone

(10) **Pub. No.: US 2008/0300225 A1**

(43) **Pub. Date: Dec. 4, 2008**

(54) **PESTICIDAL FORMULATION CONTAINING OXYMATRINE OR MATRINE**

(75) Inventor: **Pamela G. Marrone, Davis, CA (US)**

Correspondence Address:
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PO BOX 806
PELHAM, NY 10803 (US)**

(73) Assignee: **Marrone Organic Innovations, Davis, CA (US)**

(21) Appl. No.: **12/018,196**

(22) Filed: **Jan. 23, 2008**

Related U.S. Application Data

(60) Provisional application No. 60/897,029, filed on Jan. 23, 2007.

Publication Classification

(51) **Int. Cl.**
A01N 43/40 (2006.01)
A01N 43/42 (2006.01)
A01N 45/00 (2006.01)
A01P 7/04 (2006.01)

(52) **U.S. Cl. 514/171; 514/284; 514/277; 514/285**

(57) **ABSTRACT**

Compositions and methods are provided for a water-soluble insecticidal or pesticidal comprising at least one alkaloid, particularly at least one tetracyclo-quinolizindine alkaloid derived from sophora roots, particularly matrine and/or oxy-matrine.

-Afidi
-acari
-Tripidi
-lepidotteri

LA MATRINA NEL MONDO: PERU'



ARANЕК

Concentrado soluble

Insecticida - acaricida

Reg. PBUA Nº 215 - SENASA

DESCRIPCIÓN: Aranek es un insecticida-acaricida de origen vegetal creado en base a las teorías chinas sobre el uso de las plantas y a las avanzadas técnicas de extracción de los principios activos de éstas. Aranek se extrae de hierbas como Matriline y *Stenomona sessifolia*.

Aranek es de alto rendimiento y de amplio espectro y baja toxicidad. No deja residuos a bajas dosis y no genera resistencia. Dada su naturaleza orgánica, suministra a las plantas tratadas una mejora en su mecanismo fisiológico ocasionando un mejor crecimiento y calidad.

Es un producto no contaminante y seguro al ambiente

MODO DE ACCIÓN: Actúa sobre los insectos principalmente por contacto directo y secundariamente por envenenamiento estomacal.

MECANISMO DE ACCIÓN: Una vez que el producto cae sobre las plagas el sistema nerviosos de estas se paraliza inmediatamente, ocasionando una desnaturalización de las proteínas provocando la muerte por disnea o dificultad respiratoria

COMPOSICION :

Matrine.....	0.5 %
Etanol.....	0.5%
Agua	99.0%

-Aleurodidi
-Afidi
-Acari
-Ragno
rosso



LA MATRINA NEL MONDO: VIETNAM

**BỘ NÔNG NGHIỆP
VÀ PHÁT TRIỂN NÔNG THÔN**

**CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập Tự do Hạnh phúc**

90270401

Phụ lục 1. SỬA ĐỔI TÊN TỔ CHỨC XIN ĐĂNG KÝ, TÊN HOẠT CHẤT, TÊN THƯƠNG PHẨM

(Ban hành kèm theo Thông tư số **73** /2011/TT-BNNPTNT ngày **26** tháng **10** năm 2011
của Bộ trưởng Bộ Nông nghiệp và Phát triển nông thôn).

TT	MÃ HS	TÊN THƯƠNG PHẨM (TRADE NAME)	TÊN HOẠT CHẤT NGUYÊN LIỆU (COMMON NAME)	ĐỐI TƯỢNG PHÒNG TRỪ (CROP/ PEST)	TỔ CHỨC XIN ĐĂNG KÝ (APPLICANT)
56	3808.10	CLB-Thôn trang 750WP	Acetamiprid 150 g/kg + Buprofezin 150 g/kg + Chlorpyrifos Ethyl 450g/kg	Rầy nâu/lúa	Công ty TNHH TM SX Thôn Trang
57	3808.10	Co-cyfos 550EC	Chlorpyrifos Ethyl 500g/l + Cypermethrin 50g/l	Rầy nâu/lúa	Công ty TNHH Baconco
58	3808.10	Cruiser plus 312.5FS	Difenoconazole 25g/l + Fludioxonil 25g/l + Thiamethoxam 262.5g/l	Xử lý hạt giống trừ rầy nâu, rầy lưng trắng/lúa	Syngenta Vietnam Ltd
59	3808.10	Cypetox 500EC	Cypermethrin	Sâu cuốn lá/lúa	Công ty CP Thanh Điền
60	3808.10	Danobull 50WG	Emamectin benzoate	Rầy bông/xoài, sâu đục ngon/điều, rệp sáp/cà phê	Công ty CP Nông dược Đại Nông
61	3808.10	Decis 2.5EC	Deltamethrin	Sâu đục thân/ngô, rệp muội/lạc, sâu xanh/đậu tương, bọ xít dài/lúa, sâu vẽ bùa/cam, rệp muội/dừa hấu, sâu khoang/nho, sâu ăn lá/điều, mọt đục quả/cà phê	Bayer Vietnam Ltd (BVL)
62	3808.10	Dizorin super 55EC	Chlorpyrifos Ethyl 48% + Imidacloprid 7%	Rầy lưng trắng/lúa, rệp sáp/hồ tiêu, cà phê	Công ty TNHH – TM Tân Thành
63	3808.10	Dolagan 25EC	Emamectin benzoate 24 g/l + Matrine 1 g/l	Sâu cuốn lá/lúa, sâu tơ/ bắp cải, sâu vẽ bùa/ cam, bọ cánh tơ, rầy xanh, nhện đỏ/chè	Công ty CP ND Quốc tế Nhật Bản

TT	MÃ HS	TÊN THƯƠNG PHẨM (TRADE NAME)	TÊN HOẠT CHẤT NGUYÊN LIỆU (COMMON NAME)	ĐỐI TƯỢNG PHÒNG TRỪ (CROP/ PEST)	TỔ CHỨC XIN ĐĂNG KÝ (APPLICANT)
150	3808.10	Pro-sure 100WG	Emamectin benzoate 95g/kg + Matrine 5g/kg	Sâu cuốn lá/lúa	Công ty CP Nông Việt

LA MATRINA NEL MONDO: KENYA

Biological Insecticide

Introduction

Levo 2.4 SL™ is a new broad spectrum Biological insecticide for use on a wide range of crops against a wide spectrum of Pests. Levo 2.4 SL™ shows excellent efficacy against many species of plant eating spider mites, yet it is able to discriminate and has a low mortality rate against beneficial insects and mites.

Levo 2.4 SL™ is a natural derivative from the plant *Sophora flavescens*, a medicinal plant, widely used in various pharmaceutical formulations and traditional medicinal remedies. Levo 2.4 SL™ does not contain any synthetic ingredients, is of low toxicity to humans and livestock and is environmental friendly.

Levo 2.4 SL™ is ECOCERT accredited and poses very low residue index – This important character qualifies Levo 2.4 SL™ to be used in IPM programs as well as in Organic Agriculture and in other cases where low residue products are required.

Advantages

- High efficiency against a wide range of pests
- Pest Resistance Management programs compliant
- Ideal for IPM program due to Levo 2.4 SL™ safety to Beneficials, such as *Phytoseiulus* sp. and bumblebees
- Low MRL Index
- Stimulates crop growth and general well-being, making plants less vulnerable
- Suitable for application as foliar pesticide as well as drenching with irrigation water
- Can be used in Biological and Organic agriculture

Key Target Pests

- Aphids
- Thrips
- Lepidoptera species such as Diamond-back moth
- Spider mites

Mode of Action

Levo 2.4 SL™ exerts its function mainly by direct contact as a stomach poison and has additional anti-feeding and repelling effects. The natural active ingredient of Levo 2.4 SL™ is Prosular Oxymatrine, which is extracted and derived directly from the seeds of *Sophora flavescens*. Insects treated with Levo 2.4 SL™ display breath inhibition and motion imbalance symptoms related to the Central Nerve System.

Levo 2.4 SL™ has a multiple mode of action:

1. Levo 2.4 SL™ accelerates the Acetyl Cholinesterase enzyme's activity. Due to over-activity of the enzyme the insect paralyses and its respiratory fails.
2. Levo 2.4 SL™ results in the elevation of the phenol oxidase (PO) enzyme activity. Consequently, when this enzyme's activity increases without control, the insect paralyses and dies.
3. Levo 2.4 SL™ causes a significant decrease in the activity of carbohydrate hydrolyzing enzymes activity; without it the insect's digestive system fails and the insect paralyses.
4. Levo 2.4 SL™ contains a complex of secondary metabolites, which act as a defender against microbial pathogens and invertebrate pests arming the plants against its parasites. Levo 2.4 SL™ protects the plants for a longer period of time while making them less susceptible to secondary infections and pest re-occurrence.

Through various field studies it was proven that Levo 2.4 SL™ has a repellent and/or deterrent activity that results in a lower food intake by the insects.



Levo 2.4 SL™

LEVO 2,4 SL è un naturale derivato della pianta *sophora flavescens*, una pianta medicinale largamente usata nelle formulazioni farmaceutiche e come medicina tradizionale.

PARASSITI BERSAGLIO: afidi, tripidi, lepidotteri, acari...

MODALITA' DI AZIONE (tradotto)

- LEVO 2,4 SL accelera l'attività degli enzimi acetilcolinesterasici attraverso una super attività dell'enzima, l'insetto ha paralisi e blocco respiratorio;
- LEVO 2,4 SL va ad influenzare l'attività dell'enzima fenolossidasi.
- Conseguentemente quando l'attività di questo enzima aumenta senza controllo l'insetto si paralizza e muore;
- LEVO 2,4 SL causa una elevata diminuzione della attività degli enzimi che idrolizzano i carboidrati; senza di questi il sistema digerente degli insetti si blocca e l'insetto si paralizza.

LA MATRINA NEL MONDO: EUROPA



IL VANTAGGIO DOVE STA?



Categories

- < Any Category
- < Chemicals
- < Agrochemicals
- < Agrochemicals & Pesticides
- Products
- Agrochemicals & Pesticides Products
- Insecticide

State

- Liquid (34)
- Powder (58)

Transactions

- conducted via Alibaba.com

Suppliers by Area

- Asia (95)
- South America (1)

Suppliers by Country/Region

- China (Mainland) (92)
- South Korea (2)
- Ecuador (1)
- Thailand (1)

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Products > Chemicals > Agrochemicals > Agrochemicals & Pesticides Products > Insecticide > matrine 96 Product(s)

Products Suppliers

Filter by: Trade Assurance Gold Supplier Onsite Check Assessed Supplier

Location: Minimum Order: Online View as:



Fipronil CAS NO.: 120068-37-3

insecticide fipronil+matrine 5%+1.3%SC

RMB 570000-620000 / Ton (FOB Price)
100 Kilograms (Min. Order)

Place of Origin: CN;JIA Classification: Insecticide
CAS No.: 120068-37-3 EINECS No.: 120068-37-3
Brand Name: reform State: Powder

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Favorites + Compare



Organic insecticide Matrine 1.5% SL Main Product ✓


1000 Liters (Min. Order)

Place of Origin: CN;SIC Classification: Biological Pesticide
CAS No.: 519-02-8 EINECS No.: --
Brand Name: Newsun State: Liquid

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Favorites + Compare



insecticide Matrine

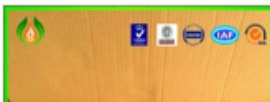
10 Kilograms (Min. Order)

Place of Origin: CN;ANH Classification: Insecticide
CAS No.: 519-02-8 Brand Name: longcan
EINECS No.: -- State: Powder

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Favorites + Compare



pesticide Matrine 90%TC

US \$1-50 / Kilogram (FOB Price)
1 Kilogram (Min. Order)

Place of Origin: CN;ANH Classification: Pesticide
CAS No.: 519-02-8 Brand Name: longcan
EINECS No.: -- State: Powder

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Premium Related Products




Natural Kava Extract Kava Lactones 80% HPLC

[Contact Supplier](#) [Leave Messages](#)



Nicosulfuron 95%TC,4% SC,80%WP,40g/ISC,75%

[Contact Supplier](#) [Leave Messages](#)



Best price natural Biopesticide raw material

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Bitter sophom root extract 98% oxymatrine matrine

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China Wholesale matrine 0.3% 0.36% 0.5% 0.6% 1.3% 2%as 5%tk

FOB Price: US \$120 - 200 / Ton | [Get Latest Price](#)
 Min. Order Quantity: 1 Ton/Tons matrine 0.3% 0.36% 0.5% 0.6% 1.3% 2%as 5%tk
 Supply Ability: 600,000 Ton/Tons per Year matrine 0.3% 0.36% 0.5% 0.6% 1.3% 2%as 5%tk
 Port: Dalian seaport
 Payment Terms: L/C,D/A,D/P,T/T,Western Union,MoneyGram

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Product Details

Company Profile

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Product Description

Packaging & Shipping

Our Services

Company Information

FAQ

Quick Details

Classification:	Nitrogen Fertilizer	Type:	Ammonium Nitrate	CAS No.:	12125-02-9
Other Names:	Amchlor	MF:	NH4CL	EINECS No.:	235-186-4
Place of Origin:	Liaoning China (Mainland)	Release Type:	Quick	State:	Powder
Purity:	25.4%min	Application:	Mainly used as nitrogen fertilizer	Brand Name:	Du Hua Ding Xin
Model Number:	25.4%min Ammonium Chloride Fertilizer	1.Name::	matrine 0.3% 0.36% 0.5% 0.6% 1.3...	2.Other Names::	Amchlor
		property::	White powdered crystal	5.MF::	NH4CL

[/hermes/goldsuppliers.html](#)



CONSAPEVOLI?????





CONSAPEVOLI?????



北京清源保生物科技有限公司
BEIJING KINGBO BIOTECH CO., LTD

中国北京市朝阳区北苑北卫家园 12#硕泽大厦 4层
FLOOR 4, SHUOZE BUILDING NO. 12, BEIWEI HOMESTEAD, BEIYUAN STREET,
CHAORYANG DISTRICT, BEIJING, P.R. CHINA 100012

PACKING LIST

致
To:

发票编号

Invoice No.

H14IT013

合同号

S/C No.

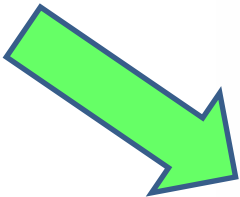
2014KB/IT013

日期

Date

January 09, 2014

唛头数量及品名 Marks Quantities and Descriptions	重量 Weight	包装 package
***** 0.5% VEGARD AS FERTILIZERS OF NATURAL ORIGIN HS code 310100 PACKED IN 1000L TANKS	Net weight: 10000KGS Gross weight: 10400KGS	PACKING: IN 1000L TANKS TOTAL: 10TNAKS



CONSAPEVOLI



DECLARATION

Date: 12th May, 2014



This declaration verifies that MATRINE within Boundary is 100% natural.



Beijing Multigrass Formulation Co., Ltd.

北京三浦百草绿色植物制剂有限公司
BEIJING MULTIGRASS FORMULATION CO., LTD

杜贵生 



Product

• Your present position: Multigrass > product >> TC

› INSECTICIDE

› Normal Insecticide

› Organic Insecticide

› FUNGICIDE

› TC

› FERTILIZER

› Seaweed Fertilizer

› Baigreen

› Amino Acid

› Humic Acid

product search

Search



Emamectin Benzoate



Absmectin



Rotenone



Matrine



Nitenpyram



Pyrethrin



Product

- > INSECTICIDE
 - > Normal Insecticide
 - > Organic Insecticide
- > FUNGICIDE
- > TC
- > FERTILIZER
 - > Seaweed Fertilizer
 - > Baigreen
 - > Amino Acid
 - > Humic Acid

product search

Your present position: Multigrass > product > INSECTICIDE > Matrine

Matrine



Concentration: >60%, >90%

Common name: Matrine
Appearance: dark yellow liquid.

Melting point: 67~69 °C

Solubility: Dissolve in ethanol, chloroform, toluene, benzene, acetone.
Dissolve in water, not easy in hot water.

Stability: not stable in strong light, and adding antioxidant can prevent its oxidation.
[2R-(2a,6aalpha,12aalpha)]-1,2,12,12a-tetrahydro-8,9-dimethoxy-2-(1-methylethyl)[1] benzopyranol [3,4-b] furo [2,3-h] [1]benzopyran-6(6aH)-one .

Characteristic:
High activity and broad spectrum, speedy degradation in environment and low residue and can be used in green foods. The function mechanism: Paralyze nerve center, contact poison first, then solidify albumen and stop up the air vent of insect body, finally make the insect die of suffocation; Suppress microsomal monooxygenase,; and reduce live rate and hinder growth of larva.

... Attività elevata e ad ampio spettro, rapida degradazione nell'ambiente e basso residuo. Attività sull'insetto: **paralisi del centro nervoso, velenoso per contatto, blocca la respirazione dell'insetto, infine, conseguentemente l'insetto muore per soffocamento.** Riduce il tasso degli adulti e ostacola la crescita delle larve ..."





ICAN 88LL
1000L IBC
NO. 18-07
MADE IN CHINA
NET WEIGHT: 1000 KGS
GROSS WEIGHT: 1006 KGS
BATCH NO. DC18017
MANUFACTURING DATE: 14-05-17
11032001
www.icanplastic.com

BOUNDARY

NO.: 14-**07**

MADE IN CHINA

NET WEIGHT: 1000 KGS

GROSS WEIGHT: 1086 KGS

BATCH NO.: BC140317

MANUFACTURING DATE: 14-03-17

MANUFACTURER'S CODE: 1100611018

1101ZC011

FOR INDUSTRIAL USE ONLY AND NOT FIT FOR HUMAN CONSUMPTION

BOUNDARY SW

CONCIME ORGANICO

Estratto fluido di lievito contenente

N + C 1,5 + 10

Azoto (N) organico.....1,5% p/p

Carbonio organico (C) di origine biologica.....10% p/p

pH= 5,30

Sostanza organica con peso molecolare nominale < 50kDa 30%

CONSENTITO IN AGRICOLTURA BIOLOGICA

Materie prime:

estratto fluido di lievito contenente alghe brune, ottenuto direttamente mediante estrazione con acqua.

CONTENUTO: 5 LT

Lt. 1 equivalente a peso netto Kg 1,10

RIMANE QUALCHE ALTRO DUBBIO...



Vincere tutti;



DA SOMMARIE INFORMAZIONI....



PUNTI CHIAVE DELLA TRUFFA

1. SPESE RIDOTTE

2. ELEVATI GUADAGNI

3. IVA 4%



Cosa incorre uno «spacciatore» di matrina?



- art. 444 del c.p. (Commercio di sostanze nocive).
- art. 515 c.p. (Frode nell'esercizio del Commercio).
- Art. 640 c.p. (Truffa)

CONSIDERAZIONI

Con l'operazione mela stregata si è portato alla luce un problema che riguarda non solo la Matrina ma tutti quei prodotti non testati che fraudolentemente vengono utilizzati in agricoltura e di cui poco o niente si conosce.

Questo non è un punto di arrivo.

Da qui deve iniziare una campagna di sensibilizzazione, come quella portata avanti da FederBio insieme all'ICQRF. Una campagna mirata a rendere ancora più sicuro quello che mangiamo, indirizzata alle Istituzioni Nazionali ed Europee, per rendere più severe le leggi per quei prodotti che invadono il nostro mercato, e di cui sappiamo poco o nulla della loro tossicità e dell'impatto che hanno sull'ambiente e sull'uomo.



is an eco-friendly alternative to other synthetic contact pesticides. The formulation is primarily based on alkaloids, salts of unsaturated cyclic carboxylic acids & functional media. The product may be used to control targeted pests on crops which include vegetables, grapes and other crops. It can be applied up to harvest.

Mode of Action

This is a contact formula. The spray blocks the insects breathing spaces, interfering with respiration, suffocates and kills them. Residual activity is limited once the spray is dried.

Working Pattern

Apply the full formulation 4 times

Precautions and handling :

- 1. Do not spray on crops if insects are not seen, but apply the spray on the crops if insects are seen.
- 2. Do not spray on crops if the weather is rainy.
- 3. Do not spray on crops if the temperature is above 35°C.
- 4. Do not spray on crops if the humidity is above 80%.
- 5. Do not spray on crops if the wind speed is above 5 km/h.
- 6. Do not spray on crops if the wind direction is towards the crops.
- 7. Do not spray on crops if the wind direction is towards the crops.

Storage of pesticides and empty packages:

- 1. Store pesticides in a cool, dry place, away from sunlight.
- 2. Store pesticides in a secure place, away from children and animals.
- 3. Do not store pesticides in a place where food is stored.
- 4. Do not store pesticides in a place where food is prepared.
- 5. Do not store pesticides in a place where food is consumed.
- 6. Do not store pesticides in a place where food is sold.
- 7. Do not store pesticides in a place where food is transported.

Target

ECO FRIENDLY PLANT PROTECTANT

To control red mites and mealy bugs.



Net Content: 200ml
Batch No: 20/08/2019
Mfg. Date: 08/08/2019

Expiry Date: 2 years from manufacturing date

The use of this product is restricted to crops which are not under organic cultivation. It is not to be used on crops which are under organic cultivation.

Note: All pesticides are highly toxic and should be handled with care. It is advised to wear protective clothing and avoid contact with the skin and eyes.





Net Content : 200 Ltr. When Packed
Batch No:- SIV/BP6/100/13-14
Mfg. Date :- MARCH 2014

Expiry Date : 2 years from the date of mfg.

The Use of this Product is beyond our control we can not assume any responsibility other than the uniform quality of the product. Complete coverage of plant and plant is essential for maximum control.

Note - Apply promptly after mixing with other pesticides if any to avoid or reduce alkaline hydrolysis of certain pesticide. Don't mix with Bordeaux mixture and sulphur

- Eyes :**
- In case of with eyes - rinse immediately with plenty of water and seek medical advice.
- Skin :**
- Flush with plenty of water, remove contaminated clothes and clean before reuse.
- Ingestion**
- If swallowed seek medical advice immediately and show this container or label

Manufactured & packed by :
M/s. SIVECHEM
35A, Jagat Roy Chowdhury Road,
Kolkata-700 008, West Bengal, India
Tel.: 091+ 33 244 5478
Fax: 091+ 33 2447 5604
www.sivechem.com





Home > Product Categories > BP/MI > Bio Pesticide



See larger image

Bio Pesticide

FOB Price: [Get Latest Price](#)

Min. Order Quantity: 5000 Liter/Liters

Supply Ability: 30000 Liter/Liters per Month

Port: Kolkata, Haldia

Payment Terms: L/C, T/T

Quantity Liter/Liters

Please write your requirement here.

Recommend matching suppliers if this supplier doesn't contact me on Message Center within 24 hours.

I agree to share my Business Card to the supplier.

Contact supplier

Leave Messages

Add to Inquiry Cart Add to My Favorites

Verified Supplier - M/S. SIVECHEM

India | [Contact Details](#)

Experience:
Established 2008
0 years OEM

Search products here

Product Categories

- Other Agriculture Products
- Other Chemicals

SIVECHEM

Product Detail [Report Suspicious Activity](#)

Quick Details

Classification: Biological Pesticide	Other Names: Bio Miticide	Place of Origin: West Bengal, India
State: Liquid	Purity: 100% pure non toxic to control red mited & mealy bugs.	Application: Foliar Application.
Model Number: BP8/MI	Viscous Liquid: Green	Brand Name: TARGET

Packaging & Delivery

Packaging Details:	1 Ltr. HDPE Bottle X 10 = 10 Ltr. Box, 5 Ltr. HDPE Jar X 2 = 10 Ltr. Box, 20 Ltr. HDPE Jar & 200 Ltr. HDPE Drum.
Delivery Detail:	Immediate, depending upon the order quantity.

GRAZIE PER L'ATTENZIONE!



DIPARTIMENTO



ICQRF

ISPETTORATO CENTRALE DELLA TUTELA DELLA QUALITÀ
E REPRESSIONE FROCI DEI PRODOTTI AGROALIMENTARI

ICQRF SARDEGNA

Dott. Emilio Vinci
Funzionario Agrario ICQRF SARDEGNA