



diary from diachem's world

discover

METEOR

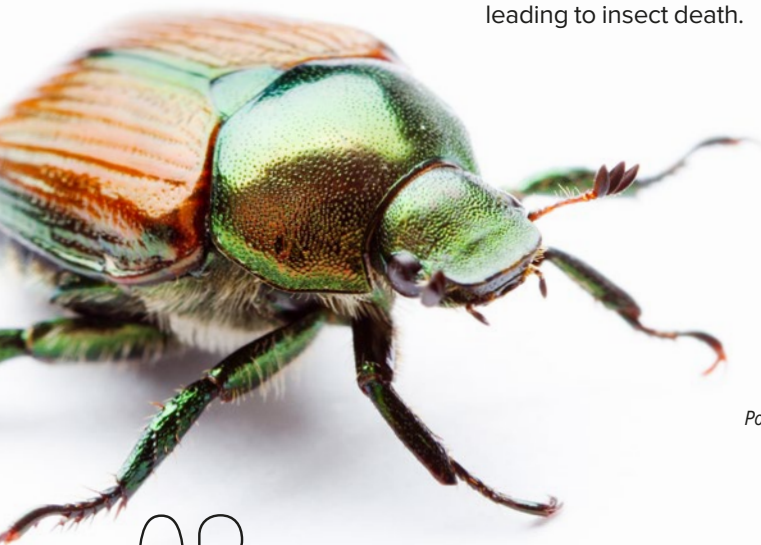
DELTA METHRIN? YES, BUT IN A SUSPENSION CONCENTRATE FORMULATION

 DIACHEM®

Deltamethrin? Yes, but in a suspension concentrate formulation

Meteor, a Diachem-branded insecticide, combines the broad spectrum of activity of deltamethrin with high formulation quality

As is well known, pyrethroids are synthetic analogues of pyrethrins, natural substances obtained by grinding the flower heads of certain members of the Asteraceae family belonging to the genus *Chrysanthemum*. The advantage of pyrethroids lies in their lower thermal and photolability compared to pyrethrins, which extends their residual efficacy over time. Pyrethroids act by contact and ingestion and exert a knockdown effect on insects. Their activity targets the insect nervous system by interfering with the function of the so-called "sodium channels", effectively preventing the restoration of the resting state after nervous excitation and ultimately leading to insect death.



Deltamethrin, a broad-spectrum insecticidal active substance

Deltamethrin is considered the leading compound of the pyrethroids used in agriculture for the control of various pests, including some of more recent introduction.

It is, for example, effective in controlling:

- › **Grape berry moths** (*Eupoecilia ambiguella*, *Cryptoblabes gnidiella*...)
- › **European grapevine moth** (*Lobesia botrana*)
- › **Stem borers**
- › **Noctuid moths**
- › **Leafhoppers** (*Stictocephala bisonia*, *Jacobiasca lybica*, *Scaphoideus titanus*, *Empoasca vitis*, *Zygina rhamni*...)
- › **Aphids**
- › **Leaf-rolling weevil** (*Byctiscus betulae*)
- › **Japanese beetle** (*Popillia japonica*)
- › **Fruit flies** (*Ceratitis capitata*, *Bactrocera dorsalis*), **Spotted wing drosophila** (*Drosophila suzukii*)
- › **Spittlebug** (*Philaenus spumarius*).

Popillia Japonica.

Low active ingredient rates and high-quality formulation: Meteor

Meteor is a Diachem-branded insecticide based on deltamethrin (15.7 g/L), registered for use on a wide range of crops including grapevine, fruit trees, vegetable crops, and cereals.

In addition to its broad spectrum of activity, ensured by the active substance even at very low application rates, it offers further advantages, including:

- › a short pre-harvest interval on numerous fruit and vegetable crops;
- › compatibility with protein bait mixtures (e.g., amadenes).

The suspension concentrate (SC) formulation is characterised by a high degree of micronisation and the absence of solvents. This ensures the absence of unpleasant hydrocarbon odours during application.



Scaphoideus titanus.
Photo: Yerpo - CC BY-SA 3.0 - Mod.

For the control of “difficult targets”

The product is registered for the control of certain pests that are particularly difficult to manage, quarantine pests, or those subject to mandatory control measures, such as:

Scaphoideus titanus

Known as the vector of the phytoplasma responsible for grapevine yellows known as *Flavescence dorée*, the leafhopper is causing significant concern particularly in vineyards in Northern Italy.

After the peak of its spread in Italy during the 1990s, which was subsequently contained, the incidence of *Flavescence dorée* has increased again in recent years. Control necessarily relies on insecticide treatments targeting the leafhopper, for which mandatory control measures have been in place since 2000.

Halyomorpha halys

The invasive brown marmorated stink bug (*Halyomorpha halys*), recently introduced in Europe, is now present throughout the Italian territory. Due to its high polyphagy, it causes both direct damage (feeding punctures followed by tissue necrosis in fruits) and indirect damage (sooty mould development), affecting numerous herbaceous and woody crops.

Popillia japonica

Also known as the Japanese beetle, this species is highly polyphagous and can cause damage to the above-ground plant parts as an adult, and to root systems (particularly of grasses) during its larval stage.



Halyomorpha Halys.



Drosophila suzukii on tomato.

Drosophila suzukii

Also known as the spotted wing drosophila, *Drosophila suzukii* is now capable of causing extensive damage to a wide range of fruit crops as well as grapevine. The female lays eggs in thin-skinned or overripe fruits, which therefore have reduced firmness.

Bactrocera dorsalis

The oriental fruit fly causes damage similar to that caused by *Ceratitis capitata*, associated with oviposition punctures and larval feeding activity within the fruits of stone fruits, pome fruits, citrus, and vegetable crops.



Bactrocera dorsalis.

For correct use of Meteor

It is recommended to thoroughly and uniformly wet the treated vegetation, applying the product early against exposed insects that are not protected by plant tissues (e.g., rolled leaves).

In the case of crops that are difficult to wet, add a suitable adjuvant (e.g., Vector at a rate of 1 L/ha).

Crop	Desease	Dose (ml/ha)	Pre-harvest interval	Maximum number of treatments
Citrus	Aphis, Mediterranean fruit fly, Greenhouse whitefly, Scale	70-87	30 days	1
Fruit trees (Apple, Pear, Apricot, Peach, Cherry, Plum)	Neonates of S. José scale for summer treatments, Pear Psylla, Fruit Moth and Anarsia	90	Cherry and Plum: 7 days	3 (on Cherry and Plum every 14 days)
	Codling Moth	60	Other crops: 3 days	
	Tortrix moths (<i>Capua</i> sp, <i>Cacoecia</i> sp), Microlepidoptera Apple and Pear Miner, Weevil, Common Cockchafer, Apple Sawfly	60-90		
	Apple aphis, Peach aphis, Thrips and Mediterranean Fruit Fly	70-90		
	Aromia bungii on Apricot, Peach, Cherry, Plum	60-90		
	With treatments localized to the trunk	200		
Almond	Aphids, Fruit moth and Weevil	70-87	30 days	3 every 14 days
Grape	Leafhopper, Moth, Aphids, Vine Leaves Roller, Nocturnal Moth, European Corn Borer	70-90	3 days	3
OLIVE (olive oil and table)	Olive fruit fly, Olive moth, Olive scale, Thrips	80-90	Olive oil: 7 days Table oil: 3 days	3 (on Olive oil every 14 days)
Vegetables in open field: Garlic, Artichoke, flowering Cabbages (broccoli and cauliflowers), Brussels sprouts, Cabbages, Carrot, Onion, Bean, French bean, Broad bean, Lettuces and other salads (except broad-leaf scarole/endive and baby leaf of chicory, spinach and leaves chard), Melon, Potato, Pea, Leek, Pepper, Rocket salad, Celery leaves, Asparagus (only after harvesting)	Mangold Fleabeetle, Cabbage Butterfly, Colorado Potato Beetle, Nocturnal Moth, Apple Sawfly, Thrips	60-70	Garlic, Onion, Leek, Celery leaves, Potato, Brussels sprouts, Carrot: 7 days On other crops: 3 days	3 (Carrot, Tomato (open field), Melon, Onion and Garlic every 14 days; on Asparagus after harvesting 2 every 7-14 days; on Brussels sprouts 2 every 7 days)
	Aphids, Greenhouse Whitefly, Cloudy Tortoise Beetle, Bug, Cereal Leaf Beetle, Depressaria, Fly, European Corn Borer, Grasshopper	80-90		
Strawberry and vegetables in open field and greenhouse: Cucumber, Aubergine, Tomato, Zucchini, Pumpkin			Asparagus: only after harvesting	
Wheat, Barley, Corn	European corn borer, Western corn rootworm, Aphids,Bug, Nocturnal moth, Thrips	0,6-0,8 l/ha	Wheat: 30 days Other crops: 3 days	3 (on Wheat every 14 days)
Cotton (textile use only)	Leafhopper, Nocturnal moth, European corn borer, Thrips, Lygus	0,6 l/ha	15 days	3
Alfa-alfa	Nocturnal moth, Geometer caterpillar	0,6 l/ha	15 days	3
	Grassophers	0,8 l/ha		
Sugarbeet	Mangold fleabeetle, Nocturnal moth and Mamestra	0,6 l/ha	30 days	1
	Lixus, Sugar-beet weevil	0,8 l/ha		
Tobacco	Aphids, Thrips, Nocturnal moth, Epithrix	0,6-0,8 l/ha	3 days	3
Poplar	- in nursery: Wood borer and Gypsonoma aceriana For treatments localized to the trunk: <i>Chriporrinchus mendicus</i> , <i>Megaplatypus mutatus</i>	90	n.r.	3
	-in open field: Chrisomelid Beetle For treatments localized to the trunk: <i>Chriporrinchus mendicus</i> , <i>Megaplatypus mutatus</i>	150		
		60-90		
		150-200		
Flowers (in open field and greenhouse)	Aphids, Greenhouse whitefly, Thrips, June Bugs, Common Cockchafer and Tortrix moths	80-90	n.r.	3
Ornamentals and nurseries (in open field and greenhouse)	Aphids, Lace Bug, Sycamore lace bug, Common Cockchafer, June Bug and Lepidoptera larvae	80-90	n.r.	3

COMPOSITION	Deltametrina 1,51% (15,7 g/l)
REGISTRATION OF ITALIAN MINISTRY OF HEALTH	no. 10976 dated 12.07.2001
HAZARDS INDICATIONS	Warning  H410; EUH208; EUH401
FORMULATION	Suspension concentrate (SC)
PACKAGING	250 ml bottle (carton box 20 pcs); 1 lt bottle (carton box 10 pcs); 5 lt can (carton box 4 pcs)

MODE OF ACTION: insecticide active mainly by contact, at very reduced doses of active substance, with rapid knock down effect

IRAC CODE: 3a - apply suitable anti-resistance strategies

Advice for the correct use

- Carefully wet the treated vegetation by intervening earlier on exposed insects, not protected by plant tissues (eg rolled up leaves). In case of difficult wetting, add a suitable adjuvant.
- The doses of application in ml/hl refer to treatments at "normal volume": for low of ultra-low volume, increase doses in order to grant the same quantity per hectare.
- For the protection of superficial water bodies read carefully the instructions on the label.

For more information:

METEOR

Plant protection product authorized by the Ministry of Health containing deltamethrin (Reg. No. 10976 dated 12/07/2001). Use plant protection products with caution. Always read the label and product information before use. Pay attention to hazard statements.



Mandatory control of the vector of Flavescence dorée



Scaphoideus titanus - Photo Yerro

Meteor

Insecticide in suspension
concentrate formulation

Deltamethrin 1,5% (15,7 g/l)

Dose: 80-90 ml/hl

PHI: 3 gg

Recommended for use in combination with **Vector**



Piretro Actigreen

Emulsifiable concentrate (EC)
with adequate persistence

Pyrethrins 2% (18,61 g/l)

Dose: 160 ml/hl (2,4 l/ha)

Eltira

Water-dispersible granules
with adequate repellent activity

Lambda-cyhalothrin 2,5%

Dose: 60-100 g/hl (600-1000 g/ha)



High formulation quality
Absence of unpleasant hydrocarbon odours



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We embrace agriculture



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For over 70 years, we have been an Italian, family-owned company evolving alongside agriculture. Our mission is to create sustainable solutions for today's and tomorrow's agriculture. For this reason, we support farmers in their daily challenges, promoting more productive crops while respecting nature, and contributing to food security through continuous investment in research and innovation.

Improving and growing stronger, together, every day.



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