



The miracles of science™

YOUR BEST PARTNER AGAINST NEMATODES AND INSECTS.

DuPont Vydate is a systemic broad-spectrum nematicide for the control of key pests in vegetable crops, with insecticidal properties.

**DuPont™
Vydate® SL**
nematicide/insecticide

**DuPont™
Vydate® 100 GR**
nematicide/insecticide



The mode of action

The active ingredient in Vydate® SL and Vydate® 100 GR is oxamyl, a carbamate cholinesterase inhibitor which acts on the enzyme acetylcholinesterase, to reversibly inhibit its function to transmit nerve impulses. Inhibition of acetylcholinesterase causes persistent firing of nerve pulses leading to nerve dysfunction. Within minutes, treated pests will exhibit symptoms that include hyperactivity, tremors, convulsions, paralysis, and death.



Nematodes on tomato roots

Vydate® acts by contact on Nematodes and affects them in different ways:

- Causes paralysis (nematostatic properties)
- Inhibits movement and orientation towards roots
- Inhibits root penetration and feeding, often leading to death
- Decreases reproduction
- Inhibits egg development & hatching

Vydate® effectively protects vegetable crops during the critical phase of establishment and early growth from nematode attack and damage, namely: *Meloidogyne* spp. (rootknot), *Pratylenchus* spp, *Rotylenchus* spp. and other nematode species.

The properties of Oxamyl

The active ingredient **oxamyl** has a unique systemic action with an upward movement from the root system to the leaves. This allows Vydate® SL to have a secondary activity: it is toxic by ingestion and controls sucking and mining insects: aphids, thrips, leafminers. Not only does it prevent direct damage from such pests, but it also decreases the risk of transmission of viruses of which sucking insects are vectors.



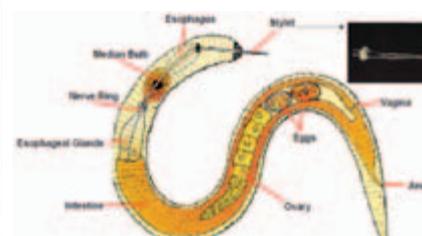
Damage of nematodes on tomato plants.

Oxamyl has a medium persistency in plants. **Oxamyl** hydrolyses rapidly to the corresponding non-toxic oximino compound in water exposed to sunlight and is readily metabolised in soil. Under field conditions, the half-life is 1-2 weeks.

Although oxamyl is mobile in the soil, the rapid degradation prevents any accumulation or massive downward movement. In soil micro-organisms studies, the application of **oxamyl** did not show any adverse effect on the population of soil fungi or bacteria; nor is there any sterilizing effect on soil nitrifying bacteria.



Damaged potato tubers by nematodes

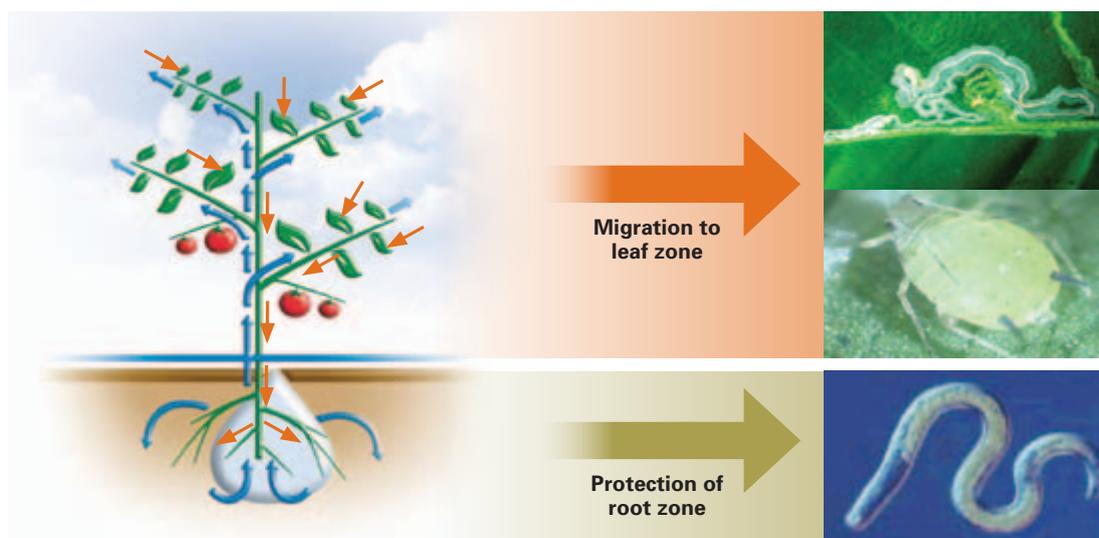




The flow of Oxamyl in the plant

Vydate® SL

Vydate® 100GR



Vydate® is highly water soluble and has excellent systemicity. Applied to the soil, it is rapidly absorbed by the roots and distributed to the leaves. Applied to the leaves, it is rapidly absorbed and distributed to the roots.

Mode of application

Vydate® 100 GR is very selective, allowing an early application to the soil at planting to protect the crop during the initial growth phases. Vydate® SL is very selective, allowing an early application to the crop and over its vegetative growth stage, as a foliar application. Applied at early stages, Vydate® 100 GR inhibits the development of nematodes and allows the plants to establish a strong root system and maintain a nematode-free root zone for a longer period. The plant grows in a vigorous vegetative cycle, resulting in improved yields and profitable crop investment. The liquid formulation of Vydate® SL is soluble in water and is mainly applied as a foliar application in a spray program to maintain season-long nematode and insect control.

For best results with the Vydate® 100 GR as a soil applied nematicide (in furrow):

- Do not apply on dry soil
- A wet soil enhances the penetration of the product to the root zone
- Apply to a weed free field
- Use the maximum dose rate in case of high levels of nematode populations

Vydate® is a good supplement for the control of *Liriomyza huidobrensis* larvae in the growing season.





Efficient and long-lasting

Vydate® the good choice for an efficient and long-lasting protection of your crops against nematodes and sucking insects.

Crops	Product	Pests	Time of application	Rate of use and treatment frequency	PHI
Potatoes	Vydate® 100 GR	Root knot nematodes Meloidogyne species (excluding Meloidogyne chitwoodi and M. fallax)	Soil application into planting furrow	350g per 100m furrow	30 days
	Vydate® SL	Root knot nematodes Meloidogyne species (excluding Meloidogyne chitwoodi and M. fallax) and reduction of aphids.	Foliar application	Follow up the Vydate® 100 GR soil treatment with three foliar sprays of Vydate® SL at spraying intervals of four weeks. The first Vydate® SL foliar application should be applied at a dosage rate of 3 ℓ per ha three to four weeks, the second at 4 ℓ per ha seven to eight weeks and the third at 5 ℓ per ha eleven to twelve weeks after plant- emergence. This spray program will also reduce aphids. If the spray water has a pH of above 7, it should be buffered to pH 5-6 with Bladbuff 5. However do not add any other adjuvant types to the Vydate® SL spray solution.	40 days
	Vydate® SL	Potato Leaf miner (Liriomyza huidobrensis)	Foliar application	3 ℓ per ha, Apply in 400-600 l per ha ensuring thorough coverage of the foliage. Apply in a program commencing application at the first sign of infestation on the leaves and repeat at 7-14 day intervals. Use the shorter interval under conditions of continuous high infestation. It is recommended that a minimum of 2 consecutive applications (= block applications) of Vydate® SL be used, where after it is alternated with insecticides with a different mode of action if needed. Do not exceed 3 applications per season or a maximum of 12 ℓ of Vydate® SL per ha per season.	40 days
Tomatoes	Vydate® 100 GR	Root knot nematodes Meloidogyne species (excluding Meloidogyne chitwoodi and M. fallax)	Soil application into planting furrow	125 g per 100 m furrow	40 days
	Vydate® SL	Root knot nematodes Meloidogyne species (excluding Meloidogyne chitwoodi and M. fallax)	Seedbed - drench	40 ml per 10 ℓ water, drench seedbeds 48-24 hours prior to transplanting with 2 ℓ of the spray mixture per ml of seedbed surface.	40 days
			Seed trays - foliar application	40 ml per 10 ℓ water, spray seedling trays 48-24 hours prior to transplanting with 0.5 ℓ of the spray mixture per ml of the total seed tray surface.	
			Foliar application after transplanting	Follow up the Vydate® 100 GR soil treatment with 2 or more foliar sprays of Vydate® SL using 800 ml per 100 ℓ water at two weeks after transplanting at 250 ℓ spray mixture per ha (2 ℓ Vydate® SL per ha) and repeat 3 weeks later at 500 l mixture (4 ℓ Vydate® SL per ha), per ha. If the spray water has a pH of above 7, it should be buffered at a pH of 5-6 with Bladbuff 5. However do not add any other adjuvant types to the Vydate® SL spray solution. Allow 21 days between last application and harvest.	

For more information contact

Gert Viljoen - Oos kaap - 072 592 9611, Jim McDermott - Wes kaap 082 565 5597,

BigJohn - Sentraal (Vrystaat) - 083 255 2385, Riaan vd Merwe - Noordelike Area - 082 321 6542

Always follow the instructions on the label. Vydate® SL contains oxamyl, Very toxic, Reg. No. L 5057 Act No. 36 of 1947.
Vydate® 100 GR contains oxamyl, Caution, Reg. No. L3945 Act No.36 of 1947. DuPont de Nemours South Africa Pty (Ltd),
P.O. Box 3332, Halfway House, 1685, Republic of South Africa. Phone: +27 (0) 11 218 8600, Fax: +27 (0) 11 218 8664.
The DuPont Oval Logo, DuPont™, The miracles of science™ and Vydate® are trademarks or registered trademarks of
DuPont or its subsidiaries. © 2012 DuPont or its affiliates. All rights reserved.



The miracles of science™