



Vydate™ Insecticide/Nematicide

GROUP	1A	INSECTICIDE/ NEMATICIDE
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WATER SOLUBLE LIQUID RESTRICTED

READ THE LABEL BEFORE USING

ACTIVE INGREDIENT: Oxamyl 240 g/L REGISTRATION NO. 17995 PEST CONTROL

PRODUCTS ACT

DO NOT APPLY BY AIR

KEEP OUT OF REACH OF CHILDREN PREVENT ACCESS BY UNAUTHORIZED PERSONNEL

HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS CONTAINS METHANOL MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. MAY BE FATAL IF ABSORBED THROUGH SKIN OR INHALED. DO NOT SUBJECT TO TEMPERATURES BELOW 0 °C.

DANGER (skull and crossbones symbol in octagon) **POISON**

NET CONTENTS: 10 L

Production Agriscience Canada Company
P. O. Box 730
7398 Queen's Line
Chatham, Ontario
N7M 5L1
519-352-6350

IF WARNING SYMPTOMS APPEAR (see WARNING SYMPTOMS on side panel), get medical attention. See

Side Panel for Precautionary Statements

PRECAUTIONS

- **KEEP OUT OF REACH OF CHILDREN**
- **PREVENT ACCESS BY UNAUTHORIZED PERSONNEL**
- DO NOT APPLY BY AIR
- HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS
- CONTAINS METHANOL
- MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.
- MAY BE FATAL IF ABSORBED THROUGH SKIN OR INHALED.
- DO NOT SUBJECT TO TEMPERATURES BELOW 0 °C
- When mixing, loading, applying or otherwise handling, wear:
 - Coveralls over long sleeved shirt and long pants
 - Chemical resistant gloves such as barrier laminate, butyl rubber, neoprene rubber, polyvinylchloride (PVC), viton, or nitrile rubber
 - Chemical resistant footwear plus socks
 - Goggles (or preferably a full face shield)
 - Chemical resistant apron when cleaning equipment, mixing or loading
- Gloves should be washed with soap and water after use and replaced regularly.
- Wear clean clothes daily.
- Wash thoroughly after handling and before eating or smoking.
- Keep animals and unprotected persons out of operational areas during treatment and while there is danger of drift.
- Apply only when the potential for drift to areas of human habitation or areas of human activity (houses, cottages, schools and recreational areas) is minimal. Take into consideration wind speed, wind direction, temperature inversion, application equipment and sprayer settings
- Do not store near food or feed
- Do not breathe vapours or spray mist. Do not get in eyes, on skin, or on clothing.

FIRST AID

IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

For medical emergencies call 1-800-441-3637 (24 hours).

TOXICOLOGICAL INFORMATION: ATROPINE IS AN ANTIDOTE--SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING

Oxamyl is a carbamate, which is a cholinesterase inhibitor. Typical symptoms of overexposure to cholinesterase inhibitors include malaise, muscle weakness, dizziness and sweating. Headache, salivation, nausea, vomiting, abdominal pain and diarrhea are often prominent. A life threatening poisoning is signified by loss of consciousness, incontinence, convulsions and respiratory depression with a secondary cardiovascular component. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate degree of exposure (baseline data are useful). However, if a blood sample is taken several hours after exposure, it is unlikely that blood cholinesterase activities will be depressed, due to rapid reactivation of

cholinesterase. Atropine, only by injection, is the preferable antidote. Do not use pralidoxime. In cases of severe acute poisoning, use antidotes immediately after establishing an open airway and respiration. With oral exposure, the decision of whether to induce vomiting or not should be made by an attending physician.

WARNING SYMPTOMS - Oxamyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors.

REPEATED INHALATION OR SKIN CONTACT WITH VYDATE™ NEMATICIDE/ INSECTICIDE OR OTHER ORGANOPHOSPHATE AND CARBAMATE PESTICIDES MAY, WITHOUT SYMPTOMS, PROGRESSIVELY INCREASE SUSCEPTIBILITY TO POISONING.

NOTE TO PHYSICIAN

TREATMENT - Atropine sulphate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to Vydate Nematicide/Insecticide alone. However, for exposure to combinations of Vydate Nematicide/ Insecticide and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

Mixing, Loading and Applying

Wear coveralls over a long-sleeved shirt, long pants, chemical resistant gloves, and a respirator with a NIOSH approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH approved canister approved for pesticides during mixing/loading, application, clean up and repair. Chemical-resistant gloves are not required to be worn during ground boom application but are required for clean-up and repair.

Backpack Application to Raspberries

Wear chemical-resistant coveralls over a long sleeved shirt, long pants, chemical resistant gloves, with a NIOSH approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH approved canister approved for pesticides during mixing/loading, application, clean-up and, repair.

Do not handle more than 4 kg of active ingredient in one day (approximately 1.8 ha at a rate of 2.24 kg a.i./ha). These restrictions are in place to minimize exposure to individual applicators. Applications may need to be performed over multiple days or using multiple applicators.

Airblast Application to Non-bearing Apple trees

During airblast application, wear coveralls over a long sleeved shirt, long pants, chemical resistant gloves, and a respirator with a NIOSH approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH approved canister approved for pesticides during mixing/loading, application, clean up and repair.

If handling more than 20 kg of active ingredient in a day (approximately 12 ha at a rate of 1.68 kg a.i./ha), use a closed cab that provides both a physical barrier and respiratory protection (i.e. dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Wear long sleeved shirt, long pants, shoes plus socks. A respirator with a NIOSH approved canister approved for pesticides and chemical resistant gloves are not required to be worn inside the closed cab, but have them ready for leaving the cab during calibration, repair or cleaning of equipment. Wear ALL of the labelled-specific PPE if exiting the cab within treated area. Once the PPE has been worn in a treated area it must be removed before re-entering the cab. Have ALL of the labelled-specific PPR immediately available and stored in a chemical resistant container for use in case of emergency.

Groundboom Application to Potatoes

Wear coveralls over a long-sleeved shirt, long pants, chemical resistant gloves, and a respirator with a NIOSH approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH approved canister approved for pesticides during mixing/loading, application, clean up and repair. Chemical-resistant gloves are not required to be worn during ground boom application but are required for clean-up and repair.

If handling more than 125 kg active ingredient in a day (approximately 175 ha at a rate of 0.72 kg a.i./ha), use a closed mixing and loading system and a closed cab that provides both a physical barrier and respiratory protection (i.e. dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. A respirator with a NIOSH approved canister approved for pesticides and chemical resistant gloves are not required to be worn inside the closed cab, but have them ready for leaving the cab during calibration, repair or cleaning of equipment. Wear ALL of the labelled-specific PPE if exiting the cab within treated area. Once the PPE has been worn in a treated area it must be removed before re- entering the cab. Have ALL of the labelled-specific PPR immediately available and stored in a chemical resistant container for use in case of emergency.

NATURE OF RESTRICTION: This product is to be stored and displayed away from food and feed.

STORAGE

Store product in original container only, away from fertilizer, food and feed. Not for use or storage in or around the home. Keep container closed.

DIRECTIONS FOR USE

Vydate Nematicide/Insecticide should be used only in accordance with recommendations on this label or in separate Production Agriscience Canada Company recommendations available through local dealers.

Maximum Rate

The maximum application rate must be reduced from 2.244 kg a.i./ha to 1.68 kg a.i./ha for foliar application of Oxamyl on non-bearing apple trees.

Minimum Interval Between Applications

For potatoes, limit the number of applications to a maximum of 2 with a minimum of 14 days between applications.

PHYSICAL AND CHEMICAL HAZARDS

Flammable. Keep away from heat, sparks, and open flame. Keep container closed. Use with adequate ventilation.

ENVIRONMENTAL HAZARDS

TOXIC to bees, birds, mammals and aquatic organisms. Do not apply this product while bees are actively visiting the treatment area. Time applications to coincide with periods of minimum bee activity.

Do not apply directly to water.

Observe buffer zones specified under the DIRECTIONS FOR USE.

Avoid application of this product when heavy rain is forecast.

Do not apply where runoff is likely to occur. To reduce runoff from treated areas into aquatic habitats, include a vegetative strip between the treated area and the edge of the water body. Also, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to: heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted or fine textured such as clay).

Do not apply when weather conditions favour drift from areas treated. Do not spray when wind speed exceeds 10 km/h.

Do not contaminate water by cleaning of equipment or disposal of wastes.

DISPOSAL

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean up of spills.

DIRECTIONS FOR USE

SPRAY PREPARATION

Fill spray tank 1/4 to 1/2 full of water. Add Vydate Nematicide/Insecticide directly to the tank. Add remaining water to mix thoroughly. No further agitation is necessary. Always wear gloves when handling containers or contaminated equipment.

NON-BEARING APPLE TREES

(Trees that will not bear fruit within 12 months after application)

NEMATODES: root-lesion nematodes. Liquid drench treatment:

Mix 1.25 litres of Vydate Nematicide/Insecticide per 1000 litres of water. Apply drench at a rate of 3.5 to 10 litres in a circle approximately 1 metre in diameter around the base of each tree, to cover the root zone.

Apply in spring just as active root and green leaf growth commences on young whips and non-bearing trees already established. Temperatures should be over 7°C. Do not apply to trees under water stress or if not actively growing. Do not dip nursery stock.

LIQUID DRENCH PLUS FOLIAR TREATMENT

For best results apply a soil drench and one foliar spray at the high rate. Apply both treatments when growth commences.

Foliar treatment

Mix 4.1 to 7 litres of Vydate Nematicide/ Insecticide L per 1000 litres of water and apply as a dilute spray. Spray to runoff. Do not apply more than 7 litres Vydate Nematicide/ Insecticide per hectare in one application. Apply first spray at first full leaf or when plants are in a period of active growth. Apply on a 2-3 week schedule for a total of three applications. Do not apply to plants under water stress or to plants not actively growing. This treatment will also control insect pests present at time of spraying. See next section for insects controlled.

INSECTS AND MITES

(Green apple aphid, rosy apple aphid, leafhoppers, leaf rollers, tarnished plant bug, tentiform leafminers, apple rust mites, two spotted spider mites and European red mites)

Foliar treatment

Mix 1.5 to 3 litres Vydate Nematicide/ Insecticide per 1000 litres of water and apply as a dilute spray. Spray to runoff but do not exceed 7.0 litres Vydate Nematicide/ Insecticide per hectare in one application. Apply as needed to maintain control.

Do not apply more than once every 14 days. Do not make more than 3 applications per year.

POTATOES

Insects

(Colorado potato beetle, flea beetles, green peach aphid, potato aphid, potato leafhopper, tarnished plant bug)

Foliar treatment

Apply 2.3 to 3 litres of Vydate Nematicide/ Insecticide per hectare in 300-900 L/ha spray solution. Apply sufficient volume of spray solution to thoroughly wet the foliage. Make applications when insects first appear and repeat weekly or as needed. Use the low rate for light infestations of insects. Use the higher rate for severe infestations or if aphids are the primary pest. Do not apply within 7 days of harvest.

NOTE

Vydate Nematicide/ Insecticide will not control Colorado potato beetles resistant to carbamates. Do not make more than 2 applications per season.

RASPBERRIES

Vydate Nematicide/ Insecticide is recommended for the control of Raspberry Root Lesion Nematode in raspberries. For soil drench application only.

Soil Drench

Apply one application in fall before October 31 at a rate of 9.35 litres per hectare as a soil drench over raspberry roots. Apply only once during a 12 month period. Do not apply in the spring.

Do not enter or allow worker entry into treated areas during the restricted entry interval of 12 hours.

Restricted Entry Intervals

Crop	Activity	Restricted Entry Interval
Non-bearing apple trees	Hand pruning, scouting, training	7 days
	Hand thinning	32 days
	All other activities	12 hours
Raspberries	All activities	12 hours
Potatoes	Irrigation (hand set)	3 days
	Roguing	1 day
	All other activities	12 hours

General Use Restrictions

Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural and Biological Engineers (ASABE) medium classification.

Airblast application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. **DO NOT** apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

DO NOT apply by air.

BUFFER ZONES

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, rangelands, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of Application	Crop	Buffer zones (metres) required for the protection of					
		Freshwater habitat of depths:			Estuarine/Marine Habitat of depths:		
		Less than 1m	1 – 3 m	Greater than 3 m	Less than 1m	1 – 3 m	Greater than 3 m
Field sprayer*	Potato	2	1	0	1	0	0
	Raspberry	3	1	1	2	1	0
Airblast (early growth stage)	Non-bearing apple tree	33	21	10	25	13	4
Airblast (late growth stage)		24	14	4	16	6	2

*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy or ground, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy or ground, the labelled buffer zone can be reduced by 30%.

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, please note that Vydate Nematicide/ Insecticide contains a Group 1A Insecticide/nematicide. Any insect population may contain individuals naturally resistant to Vydate Nematicide/ Insecticide and other Group 1A insecticides/nematicides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance:

- Where possible, rotate the use of Vydate Nematicide/ Insecticide or other Group 1A insecticides/nematicides with different insecticide/nematicide groups that control the same pests in a field.
- Avoid exceeding the maximum number of applications per season as outlined in “Directions for Use” for each crop type. Avoid consecutive sprays of Vydate Nematicide/Insecticide or other insecticides in the same group in a season.
- Use tank mixtures with insecticides from a different group when such use is permitted
- Insecticide use should be based on an IPM program that includes scouting, record keeping, and considers cultural, biological and other chemical control practices.
- Monitor treated pest populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific site and pest problems in your area.
- For further information or to report suspected resistance, contact your local Production Agriscience Canada Company representative or the Production Agriscience Canada Company hotline at 1-800-667-3852 for further information.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

Purchase of this material does not confer any rights under patents of Countries outside Canada.

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Label Code: CN-17995-001-E

Specimen Label Notes

Notification to change to Product name from Vydate L to Vydate