

# **VELUM<sup>TM</sup> PRIME**

NEMATICIDE FUNGICIDE

SUSPENSION

Broad spectrum nematicide/fungicide for use in potato, other tuberous and corm vegetables, and small berries (CG13-07G)

COMMERCIAL

REGISTRATION NUMBER: 32108 PEST CONTROL PRODUCTS ACT

GUARANTEE: Fluopyram 500 g/L

Contains 1,2-benzisothiazolin-3-one at 0.029% and 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0007% and 2-methyl-4-isothiazolin-3-one at 0.00025% as preservatives.

READ THE LABEL AND BROCHURE BEFORE USING

KEEP OUT OF REACH OF CHILDREN

NET CONTENTS: 1 - 200 L

Bayer CropScience Inc. Suite 200, 160 Quarry Park Blvd. SE Calgary, AB T2C 3G3

www.cropscience.bayer.ca For product information, call 1-888-283-6847.

In case of spills, poisoning or fire, call telephone emergency response number 1-800-334-7577 (24 hours a day).

## 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.

DIRECTIONS FOR USE: See the printed booklet provided with this container.

## PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. Avoid contact with the skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. If product comes in contact with clothing, remove all contaminated clothing, wash skin with soap and water and dress in clean clothing. Launder applicator clothing separate from other laundry.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools, and recreation areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

If this pest control product is to be used on a commodity that may be exported and you require information regarding Maximum Residue Limits for an importing country, please contact Bayer CropScience Canada Inc. at 1-888-283-6847 or <u>www.cropscience.bayer.ca</u>.

## PROTECTIVE CLOTHING AND EQUIPMENT:

During mixing, loading, application, clean-up and repair activities, workers must wear long sleeved shirt and long pants, shoes plus socks, and chemical-resistant gloves.

#### **RE-ENTRY RESTRICTION:**

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

## 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 in eyes: Hold eye open and rinse slowly and gently with water for 15 to 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.

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 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.

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

TOXICOLOGICAL INFORMATION: Treat symptomatically. Medical Personnel should contact Bayer's Medical Information Services, Toll-Free: 1-800-334-7577.

## ENVIRONMENTAL HAZARDS

TOXIC to birds. TOXIC to aquatic organisms and non-target terrestrial plants. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the high water mark. Do not contaminate water when disposing of equipment washwaters. This product may contaminate water through runoff. This product has a potential for runoff several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

This chemical has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

### STORAGE

Do not contaminate water, food, or feed by storage or disposal. Do not store below freezing. If stored for 1 year or longer, shake well before using. Store the tightly closed container away from feeds, seeds, fertilizer, plants and foodstuffs. Do not use or store in or around the home. Keep the product in the original container during storage. In case of fire, leaking or damaged containers, call toll free 1-800-334-7577.

## DISPOSAL

Recyclable Container 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.

Disposal of Unused, Unwanted Product:

For information on 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 cleanup of spills.

Disposal of Unused Spray Solution:

If any spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the area just sprayed, away from water supplies, ditches, and irrigation canals.

VELUM<sup> $^{TM}$ </sup> PRIME is a trademark of Bayer.

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| NEMATICIDE |   |           |  |  |
|------------|---|-----------|--|--|
| GROUP      | 7 | FUNGICIDE |  |  |

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VELUM<sup>TM</sup> PRIME

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## SECTION 1: NOTICE

## NOTICE TO USER:

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## SECTION 2: THE PRODUCT

VELUM<sup>™</sup> PRIME is a broad spectrum nematicide/fungicide with preventative, systemic, and curative properties recommended for the suppression of certain soil plant pathogenic nematodes and control of certain crop diseases. VELUM PRIME is best suited for use in a preventative treatment program.

## SAFETY AND HANDLING

### SECTION 3: PRECAUTIONS

### **PRECAUTIONS:**

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#### PROTECTIVE CLOTHING AND EQUIPMENT:

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#### **RE-ENTRY RESTRICTION:**

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## SECTION 4: FIRST AID AND TOXICOLOGICAL INFORMATION

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#### TOXICOLOGICAL INFORMATION:

Treat symptomatically. Medical Personnel should contact Bayer's Medical Information Services, Toll-Free: 1-800-334-7577.

### SECTION 5: ENVIRONMENTAL HAZARDS

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This chemical has properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

### SECTION 6: STORAGE

Do not contaminate water, food, or feed by storage or disposal. Do not store below freezing. If stored for 1 year or longer, shake well before using. Store the tightly closed container away from feeds, seeds, fertilizer, plants and foodstuffs. Do not use or store in or around the home. Keep the product in the original container during storage. In case of fire, leaking or damaged containers, call toll free 1-800-334-7577.

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Disposal of Unused, Unwanted Product:

For information on 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 cleanup of spills.

Disposal of Unused Spray Solution:

If any spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the area just sprayed, away from water supplies, ditches, and irrigation canals.

#### SECTION 8: CROP, PESTS, RATE, TIMING AND APPLICATION INSTRUCTIONS

#### POTATO AND OTHER TUBEROUS AND CORM VEGETABLES

Arracacha, Arrowroot, Artichoke (Chinese and jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter & sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, **Potato, Sweet Potato,** Tanier (cocoyam), Turmeric, Yam bean (jicama, manoic pea), Yam (true)

| Pest/Disease  | Rate                                 | Use Information  |
|---|--------------------------------------|--|
| Suppression of Plant<br>pathogenic nematodes<br>including:            | 500 mL/ha<br>or                      | Soil Applications using ground equipment:<br>Spray specified dosage in a 10-15 cm band in- furrow<br>at planting and cover with soil. For best results<br>direct the in- furrow spray to the seed and soil.  |
| Root lesion nematodes ( <i>Pratylenchus</i> spp.),                    | 4.5 mL/ 100 m<br>row<br>(based on 90 | Apply in 50-150 L of water per hectare.  |
| Root knot nematodes   | cm row                               | For transplanted crops:  |
| (Meloidogyne spp.),   | spacing)                             | 1. Post-planting drench, or hill drench.   |
| Potato cyst nematodes   |                                      | 2. Transplant water drench with mechanical planting.   |
| (including Pale cyst and Golden Nematode)                             |                                      | 3. Transplant water drench with hand planting.   |
| (Globodera pallida,<br>Globodera rostochiensis)                       |                                      | For maximum efficacy against nematodes, VELUM<br>PRIME must be utilized as part of an integrated<br>approach to nematode management. This approach   |
| Suppression of  |                                      | involves cultural practices and use of alternative chemistries when necessary.   |
| Early blight<br>( <i>Alternaria solani</i> )<br>on <b>Potato</b> only |                                      | Early blight pressure should be monitored<br>throughout the growing season. Use of fungicides<br>with different modes of action for in-season foliar<br>applications will help limit the development of<br>resistance and enhance late season control. |
|   |                                      | When using fungicides for late blight control throughout the season, utilize actives that also have activity on early blight.  |
|   |                                      | Ensure additional resistance management recommendations in Section 11 are followed.  |
|   |                                      | uopyram/ha per year, regardless of formulation or<br>ELUM PRIME is applied as a soil application use   |

**Restrictions:** Do not apply more than 500 g fluopyram/ha per year, regardless of formulation or method of application (soil or foliar). When VELUM PRIME is applied as a soil application use another mode of action for the first foliar fungicide application.

Tops or greens from these crops may be utilized for food or feed. Do not allow livestock to graze treated area for 7 days after application.

## LOW GROWING BERRIES (CG 13-07G):

Crop Sub Group 13-07 G: Low growing berry subgroup; bearberry; bilberry; blueberry, lowbush; cloudberry; cranberry; lingonberry; muntries; partridgeberry; strawberry; cultivars, varieties, and/or hybrids of these.

| Pest/Disease   | Rate<br>(mL/ha) | Use Information   |
|--|-----------------|---|
| Control of Powdery<br>mildew<br>(Sphaerotheca macularis)                           | 500             | Apply through drip irrigation system<br>preventatively.<br>Continue as needed on a 5- to 7-day interval.  |
| Suppression of<br>soil-dwelling, root-<br>feeding nematodes<br>(juveniles, adults) | 500             | Apply specified dosage in the following methods:<br>Chemigation into the root-zone through low-<br>pressure drip, trickle, micro-sprinkler or equivalent<br>equipment.<br>Minimum of 7 day interval between soil<br>applications. |

Restrictions: For application through drip irrigation equipment only. Do not apply more than 500 g fluopyram/ha per year, regardless of formulation or method of application (soil or foliar). VELUM PRIME can be applied up to the day of harvest. To limit the potential for development of disease resistance to this fungicide class do not make more than 2 sequential applications of VELUM PRIME or any other Group 7 containing fungicide before rotating with a fungicide from a different Group registered for the same use. When VELUM PRIME is applied as a soil application, use a different mode of action for the first foliar fungicide application.

## Chemigation Application:

Apply this product only through drip irrigation systems, and only to crops where specified under Section 9 of this label. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact provincial extension service specialists, equipment manufacturers or other experts. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. This product has not been sufficiently tested when applied through irrigation systems to assure consistent product performance for all labeled uses. The following application techniques are provided for user reference but do not constitute a warranty of fitness for application through drip irrigation equipment. Users must check with provincial and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler or drip irrigation equipment.

Do not connect an irrigation system used for pesticide application to a public water system, unless the pesticide label prescribed safety devices for public water systems are in place. 'Public water system' means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ), back flow

preventer, or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an alternative to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. Pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The systems must contain functional interlocking controls, to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. Apply pesticide continuously for the duration of the water application. For mixing instructions, please refer to directions in Section 11 of this label.

This product may be used through drip irrigation on crops where specified under Section 9 of this label. The system must contain a functional check valve, vacuum relief valve, and lowpressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. With stationary systems, an effectively designed in-line Venturi applicator unit is preferred to support even and quick distribution. However, a positivedisplacement pump can also be used. Mix desired amount of this product for area to be covered with water so that the total mixture of this product plus water in the injection tank is equal to the quantity of water used during calibration. Provide chemical supply tank agitation sufficient for mixing until chemigation is completed. Operate entire system at normal pressures recommended by the manufacturer of injection equipment used, for amount of time established during calibration. This product can be injected during the irrigation cycle or as a separate application. For drip irrigation systems, introduce fungicide into irrigation solution for a period sufficient to distribute the product uniformly in the crop. Fungicide should be added near the end of the normal irrigation cycle so that subsequent watering will not flush the product from the root zone. Stop injection equipment with any system after treatment is completed and continue to operate irrigation system until this product has been cleared from the last drip irrigation line. See crops section on the label for recommended treatment rates and additional use information.

When applied as a tank-mix combination, read and observe all label directions, including rates, restrictions, and grazing limitations for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both labels.

#### SECTION 9: ROTATIONAL CROP RESTRICTIONS:

Do not apply more than the maximum seasonal rate for each specific crop from any combination of products containing FLUOPYRAM.

Do not replant to alfalfa for 14 days after application. All other crops may be replanted immediately following the last application of VELUM PRIME.

## SECTION 10: MIXING INSTRUCTIONS

VELUM PRIME must be applied with properly calibrated, clean equipment.

Prior to adding VELUM PRIME to the spray tank, ensure that the spray tank is thoroughly clean:

- Add one-half of the required amount of water to the spray or mixing tank and start agitation.
- Add the required quantity of VELUM PRIME to the water and complete filling with water to the required total volume.
- Maintain agitation throughout mixing and spraying.

## SECTION 11: RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, VELUM PRIME contains a Group 7 fungicide. Any fungal population may contain individuals naturally resistant to VELUM PRIME and other Group 7 fungicides. A gradual or total loss of pest control may occur over time if this product is used repeatedly in the same field. 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 fungicide resistance:

- Where possible, rotate the use of VELUM PRIME (Fungicide Group 7) or other Group 7 fungicides with different groups that control the same pests.
- Use tank mixtures with fungicides from a different group when such use is permitted.
- Avoid consecutive applications of VELUM PRIME or other Group 7 fungicides in a season. When VELUM PRIME is applied as a soil application, use another mode of action for the first foliar fungicide application.
- For multi-spray crops: The total number of sprays containing Group 7 fungicides in a mixture should not exceed half of the total number of fungicide applications in a season.
- Nematicide/fungicide use should be based on an integrated disease management program that includes scouting, historical information related to pesticide use and crop rotation and considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information and to report suspected resistance, contact a Bayer representative at 1-888-283-6847 or at <u>www.cropscience.bayer.ca</u>.

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