Monday, November 21, 2022

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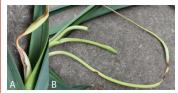
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## New Disease Report: Anthracnose of garlic scapes Katie Goldenhar, Horticulture Pathologist, OMAFRA

Anthracnose of garlic has been reported to infect only garlic scapes and bulbils. This disease has been observed in multiple northern US states including New York, Maryland and Indiana. In the early summer of 2022, lesions were seen on garlic scapes in Ontario (**Figure 1**). These lesions were orange, and sunken and spores were seen as a mat on the lesion surface as weather conditions were conducing to sporulation. The disease was confirmed using microscopy (**Figure 2**).



**Figure 1.** Orange, sunken lesions with salmon-coloured spores (**A**), and multiple lesions on garlic scape (**B**).

This is the first confirmed report of anthracnose of garlic scapes in Ontario. The disease is caused by the fungal pathogen *Colletotrichum fioriniae*, which has a wide host range. This pathogen can cause disease in apples and pears (bitter rot) and celery (leaf curl). *Colletotrichum fioriniae* has also been reported to infect and survive on numerous common weed species.

Temperatures from 25°C–30°C are optimum for disease development. Sporulation is triggered when at least 12 hr of leaf wetness have occurred. Spores are moved by splashing during rain or irrigation. Driving winds can move spores, but in general, spores do not travel well in wind. People and equipment can easily spread spores across fields and to other fields. *Colletotrichum fioriniae* can overwinter as mycelium on infected plants. Bulbils can be infected and result in the spread of disease. Overwintered mycelium can infect scapes the following spring.



**Figure 2**. A close-up of lesion on garlic scape with a mass of salmon-coloured spores visible (**A**) and conidia of *Colletotrichum fioriniae* under magnification (**B**).

Anthracnose of garlic does not seem to affect bulbs. If scapes are removed for consumption, scape yield may be reduced. The disease will negatively affect bulbil production for propagation.

If you have concerns about anthracnose of garlic scapes, please contact Travis Cranmer <u>travis.cranmer@ontario.ca</u>; 519-835-3382 or Katie Goldenhar <u>katie.goldenhar@ontario.ca</u>; 519-835-5792.



# CENTURION Herbicide label expanded via Minor Use Program to help manage labelled weeds in Rutabaga, Green Onion, and Leeks

Josh Mosiondz, Minor Use Coordinator, OMAFRA



The Pest Management Regulatory Agency (PMRA) recently announced the approval of a minor use label expansion registration for CENTURION® Herbicide for control or suppression of labelled weeds in Rutabaga, Green Onion, and Leeks in Canada. CENTURION® Herbicide was already labeled for management of weeds on a wide range of crops in Canada. These minor use proposals were submitted by Agriculture & Agri-Food Canada, Pest Management Centre (AAFC-PMC) and the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec as a result of minor use priorities established by growers and extension personnel.

The following is provided as an abbreviated, general outline only. Users should be making weed management decisions within a robust integrated weed management program and should consult the complete label before using CENTURION® Herbicide.

Crop(s)	Target	Rate (L product/ha)	Application Information	PHI (days)
Rutabaga	Suppression of Control of Labelled Weeds	0.19 – 0.38	Apply CENTURION post- emergence of weeds and crop using ground equipment. Apply a maximum of two applications per year. If repeat application is required, allow at least 14 days between first and second application. Do not apply more than 0.38 L/ha (90 grams a.i./ha) per crop per season. Apply in a minimum spray volume of 110 L/ha. Ground application only.	30
Green Onion	Suppression or Control of Labelled Weeds	0.19 - 0.38	Apply CENTURION post-emergent when the crop is in the 2 to 3 leaf stage. Apply a maximum of one application per season, using ground equipment. Apply in a minimum spray volume of 110 L/ha.  Ground application only.	14
Leek	Suppression or Control of Labelled Weeds	0.19 – 0.38	Apply CENTURION post-emergent at least 2 weeks after transplanting when crop is well established and has produced one new fully expanded leaf. Apply a maximum of one application per season, using ground equipment. Apply in a minimum spray volume of 110 L/ha. Ground application only.	14

TOXIC to aquatic organisms and non-target terrestrial plants. Observe buffer zones specific under DIRECTIONS FOR USE. Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland. To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body. This product contains aromatic petroleum distillates that are toxic to aquatic organisms. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (for example, sandy soil) and/or the depth to the water table is shallow.

Follow all other precautions, restrictions, and directions for use on the CENTURION® Herbicide label carefully.

For a copy of the new minor use label contact Travis Cranmer, Vegetable Crop Specialist (Leeks, Green Onions) OMAFRA, Guelph (519) 835-3382, or Dennis Van Dyk, Vegetable Crop Specialist (Rutabaga) OMAFRA, Guelph (519) 766-5337, your regional supply outlet, or visit the PMRA label site <a href="http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php">http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php</a>

# Oberon miticide label expanded via Minor Use Program to help manage Two-Spotted Spider Mite on Crop Subgroup 3-07B (Green Onion subgroup)

Josh Mosiondz, Minor Use Coordinator, OMAFRA



Oberon® miticide label expanded via Minor Use Program to help manage Two-Spotted Spider Mite on Crop Subgroup 3-07B (Green Onion subgroup)

The Pest Management Regulatory Agency (PMRA) recently announced the approval of a minor use label expansion registration for Oberon® miticide for control of two-spotted spider mites on Crop Subgroup 3-07B (Green Onion subgroup). Oberon® miticide was

already labeled for management of insects on a wide range of crops in Canada. This minor use proposal was submitted by the Agriculture & Agri-Food Canada, Pest Management Centre (AAFC-PMC) as a result of minor use priorities established by growers and extension personnel.

The following is provided as an abbreviated, general outline only. Users should be making insect management decisions within a robust integrated insect management program and should consult the complete label before using Oberon® miticide.

Crop(s)	Target	Rate (mL product / ha)	Application Information	PHI (days)
CG 3-07B (Green Onion subgroup which also includes leeks and chives)	Control of Two-Spotted Spider Mites		Apply specific dosage of Oberon® Miticide as needed for control. Good coverage of the foliage is necessary for optimal control. For best results the treatment should be made when whitefly or mite populations begin to build and before a damaging population becomes established. Minimum application volume: 100 L/ha – ground application. Apply in adequate water for uniform coverage with ground or aerial application equipment. Repeat applications at listed intervals if monitoring indicates the need. Maximum allowed per 7-day interval: 600 mL/ha. Maximum allowed per crop season: 1,800 mL/ha. Maximum number of applications per crop season: 3.	7

TOXIC to certain beneficial arthropods (which may include predatory and parasitic insects, spiders, and mites). Minimize spray drift to reduce harmful effects on beneficial arthropods in habitats next to the application site such as hedgerows and woodland. To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body. May be toxic to bee brood. Bee brood may be exposed to residues on pollen and nectar brought back to the hive by bees foraging on flowering crops and weeds. To minimize potential exposure to bees, avoid application if bees are visiting the treatment area. Minimize spray drift to habitats close to the application site.

Follow all other precautions, restrictions, and directions for use on the Oberon® miticide label carefully.

For a copy of the new minor use label contact Travis Cranmer, Vegetable Crops Specialist OMAFRA, Guelph (519) 835-3382, your regional supply outlet, or visit the PMRA label site <a href="http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php">http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php</a>

# RIDOMIL GOLD 480 SL® Fungicide label expanded via Minor Use Program to help manage downy mildew on green onions

Josh Mosiondz, Minor Use Coordinator, OMAFRA



The Pest Management Regulatory Agency (PMRA) recently announced the approval of a minor use label expansion registration for RIDOMIL GOLD 480 SL® Fungicide for suppression of downy mildew on green onions.

RIDOMIL GOLD 480 SL® Fungicide was already labeled for management of diseases on a wide range of crops in Canada. This minor use proposal was submitted by Agriculture & Agri-Food Canada's Pest Management Centre (AAFC-PMC) as a result of minor use priorities established by

growers and extension personnel.

The following is provided as an abbreviated, general outline only. Users should be making disease management decisions within a robust integrated disease management program and should consult the complete label before using RIDOMIL GOLD 480 SL® Fungicide.

C	rop(s)	Target	Rate (mL of product / ha)		PHI (days)
	reen nions	Suppression of downy mildew		Apply by ground spray, foliar broadcast application. Apply every 7-14 days but do not make back-to-back applications. Alternate with a product with a different mode of action. Begin applications when conditions favour the outbreak of Downy mildew. Where possible, rotate the use of RIDOMIL GOLD 480 SL Fungicide or other Group 4 fungicides with different groups that control the same pathogens. When changing to a contact fungicide, apply the contact fungicide within 10 days of the last RIDOMIL GOLD 480 SL application. DO NOT apply by air.	7

TOXIC to aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE. Avoid application when weather conditions favour drift from treated areas. This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application of this product when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

Follow all other precautions, restrictions, and directions for use on the RIDOMIL GOLD 480 SL® Fungicide label carefully.

For a copy of the new minor use label contact Travis Cranmer, Vegetable Crop Specialist, OMAFRA, Guelph (519) 835-3382, your regional supply outlet, or visit the PMRA label site <a href="http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php">http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php</a>

## EXIREL Insecticide label expanded via Minor Use Program to help manage Allium leaf miner on Allium Bulb Vegetables

Josh Mosiondz, Minor Use Coordinator, OMAFRA



Note: Allium leafminer has <u>not</u> been detected in Canada. This label expansion was submitted pre-emptively in the event of detection in Canada.

The Pest Management Regulatory Agency (PMRA) recently announced the approval of a minor use label expansion registration for EXIREL® insecticide for control of Allium leaf miner on Allium Bulb Vegetables.

EXIREL® insecticide was already labeled for management of insects on a wide range of crops in Canada. This minor use proposal was submitted by the Ontario Ministry of Agriculture, Food, and Rural Affairs as a result of minor use priorities established by growers and extension personnel.

The following is provided as an abbreviated, general outline only. Users should be making insect management decisions within a robust integrated insect management program and should consult the complete label before using EXIREL® insecticide.

Crop(s)	Target	Rate (mL product / ha)	Application Information	PHI (days)
Allium Bulb Vegetables (refer to label for full list)	Control of Allium leaf miner	100-1500	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control. Use sufficient water to obtain thorough, uniform coverage. For the pest listed above, use the high rate under heavy pest pressure. Do not make more than 4 applications per season. Do not apply more than once every 5 days. Do not exceed a total of 4.5 litres EXIREL® insecticide per ha per season. Do not make a foliar application of EXIREL® insecticide for a minimum of 60 days following an in-furrow or soil application or planting of seed or seed pieces treated with any Group 28 insecticide.	1

Toxic to non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE. Toxic to aquatic organisms. Observe spray buffer zones specified under DIRECTIONS FOR USE. Toxic to certain beneficial arthropods (which may include predatory and parasitic insects, spiders, and mites). Minimize spray drift to reduce harmful effects on beneficial arthropods in habitats next to the application site such as hedgerows and woodland. Toxic to bees. DO NOT apply this product to blooming crops or weeds while bees are actively visiting the treatment area. Apply early in the morning or late in the evening when bees are not active. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body. As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters. To further minimize exposure to pollinators, refer to the complete guidance "Protecting Pollinators during Pesticide Spraying – Best Management Practices" on the Health Canada website (www.canada.ca/pollinators).

Follow all other precautions, restrictions, and directions for use on the EXIREL® insecticide label carefully.

For a copy of the new minor use label contact Travis Cranmer, Vegetable Crops Specialist, OMAFRA, Guelph (519) 835-3382, your regional supply outlet, or visit the PMRA label site <a href="http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php">http://www.hc-sc.gc.ca/cps-spc/pest/registrant-titulaire/tools-outils/label-etiq-eng.php</a>

## **Maximizing Your Nitrogen Dollar 2022 Webinar Series**

Join academic, extension, and grower experts to discuss maximizing N use efficiency using available tools, BMPs, and new technology.

Register Here(https://www.eventbrite.ca/e/maximizing-your-nitrogen-dollar-2022-webinar-series-tickets-460828549597)

Nov 23 Overview – the science of N, the N cycle & emissions

12 – 1 pm Dr. Dave Burton (Dalhousie University) Dr. Claudia Wagner-Riddle (University of Guelph)

Nov 30 Maximizing N use efficiency – horticulture crops

12 – 1 pm Dr. Mario Tenuta (University of Manitoba) Elaine Roddy (OMAFRA) Joe Tomecek (Tomecek Agronomy Services)

Dec 7 Maximizing N use efficiency – field crops

12 – 1 pm Dr. Craig Drury (AAFC Harrow) Colin Elgie (OMAFRA) Caleb Niemeyer (Woodrill Farms)

Dec 14 Maximizing N use efficiency – livestock & manure

12 – 1 pm Dr. Andrew VanderZaag (AAFC Ottawa) Christoph Wand (OMAFRA)

