

(Container)



Radiant™ SC

Insecticide

GROUP	5	INSECTICIDE
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A Naturalyte™ insect control product for control or suppression of many foliage feeding pests infesting listed crops.

COMMERCIAL

READ THE LABEL AND BOOKLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN

GUARANTEE: Spinetoram: 120 g/L
Contains 1,2-benzisothiazolin-3-one at 0.04% as a preservative
Suspension

REGISTRATION NO. 28777 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 1 L, 4 L

Corteva Agriscience Canada Company

Suite 240, 115 Quarry Park Rd. SE
Calgary, AB
T2C 5G9
1-800-667-3852

™ Trademark of Corteva Agriscience and its affiliated companies.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

DO NOT APPLY BY AIR

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

Do not enter, or allow workers, adults, children or pets to enter into treated areas for 12 hours after application.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at www.croplife.ca.

FIRST AID

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

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.

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.

TOXICOLOGICAL INFORMATION

No specific antidote. Employ supportive care. Treatment should be based on the judgment of the physician in response to reactions of the patient.

AGRICULTURAL CHEMICAL

Do not ship or store with food, feeds, drugs or clothing.

ENVIRONMENTAL HAZARDS

TOXIC to bees exposed to direct treatment, drift, or residues on flowering crops or weeds. **DO NOT** apply this product to flowering crops or weeds if bees are visiting the treatment area. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site.

TOXIC to small wild mammals.

May be 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.

TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

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.

STORAGE

Avoid freezing. Store in original container in a secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. To prevent contamination store this product away from food or feed.

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 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.

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.

(Booklet)



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TOXIC to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

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.

STORAGE

Avoid freezing. Store in original container in a secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. To prevent contamination store this produce away from food or feed.

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.
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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 clean-up of spills.

GENERAL USE PRECAUTIONS

READ ALL DIRECTIONS CAREFULLY BEFORE APPLYING. FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC INSECT CONTROL OR CROP DAMAGE.

Always shake well before use. Avoid freezing.

Tank Mixing

In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact Corteva Agriscience Canada Company at 1-800-667-3852 or www.corteva.ca for information before mixing any pesticide or fertilizer that is not specifically recommended on this label. The user assumes the risk of losses that result from the use of tank mixes that do not appear on this label or that are not specifically recommended by Corteva Agriscience Canada Company.

DIRECTIONS FOR USE

Radiant SC Insecticide is derived from the fermentation of *Saccharopolyspora spinosa*. Radiant SC Insecticide is recommended for use in integrated pest management programs and should be applied when scouting indicates that target pest densities have reached the economic threshold. Follow the specific use instructions given in this label to control target pests. Radiant SC Insecticide should be mixed with water and can be applied using ground application equipment only. Any insect control agent can become less effective over time if target insects develop resistance to its mode of action. Adherence to local integrated pest management strategies helps to prolong the usefulness of all insect control products.

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.

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) fine classification. Boom height must be 60 cm or less above the crop or ground.

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.

Mixing Instructions

Fill the spray tank one-half full with the amount of clean water required. Start agitation and add the required amount of Radiant SC Insecticide. Always shake the container well before use (avoid freezing the product). Continue agitation while filling the spray tank to the required spray volume. Maintain agitation in the spray tank during mixing, loading, and application.

Application Instructions

Mix the recommended dosage of Radiant SC Insecticide in sufficient water to ensure thorough coverage of the entire plant. Use ground based spray equipment capable of thorough coverage of the target. Orient the boom and the nozzles to obtain uniform crop coverage. Follow manufacturers' recommendations for the ideal nozzle spacing and spray pressure. Attention should be given to sprayer speed and calibration, wind speed, and foliar canopy to ensure adequate spray coverage of Radiant SC Insecticide. Treated field may only be rotated to labelled crops.

Buffer Zones

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer, inter-row hooded sprayer, spot treatment, soil drench, and soil incorporation.

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, riparian areas and shrublands).

Method of Application	Crop		Buffer Zones (metres) Required for the Protection of:
			Terrestrial Habitat
Field sprayer	Field crops		1
Airblast	Stone fruits and grapes	Early growth stage	2
		Late growth stage	1

Insect Pests Controlled with Radiant SC Insecticide

Pome Fruit (apple, crabapple, pear, Oriental pear, quince)

Maximum of three applications per year with a minimum treatment interval of 7 days and a preharvest interval of 7 days.

Target Pest	Application Rate Millilitres of Product Per Hectare	Application Timing
Codling Moth Oriental Fruit Moth	875	For the control of each generation, apply at first egg hatch based on pheromone trap catches and degree days after biofix dates. These pests must be controlled before the larvae penetrate the fruit so early timing is critical. Repeat at 14 day intervals to maintain control depending on pest pressure.
Obliquebanded & Threelined (Pandemis) leafrollers	440-875	For the control of the over wintering (spring) generation, apply when larvae have emerged and are actively feeding but before they roll up in the leaves. Under high insect pressure, an application timed to target the overwintering generation is recommended to reduce summer populations. For control of the summer generation, apply at first egg

		hatch as determined by monitoring adult moth flights. Repeat in 14 days if monitoring of populations indicates a second application is required. Use the higher rate under high pest pressure and/or larger larvae.
Spotted & Western Tentiform Leafminers	440-875	Apply at egg hatch as determined by monitoring or at the first sign of sap-feeding on the leaves to control leafminers. Use the higher rate under high pest pressure.
Apple Maggot	875	For the suppression of this pest, apply 7-10 days after the first apple maggot fly is caught on yellow scented sticky boards near or in the orchard. Repeat in 14 days if populations warrant.
Plum Curculio	875	For the suppression of this pest, monitor trees along the edge of the orchard or adjacent wild trees for the first sign of feeding damage after bloom. Repeat in 14 days if populations warrant.

Asparagus

For the suppression of asparagus beetle, apply 290-580 millilitres of product per hectare. Make applications to the asparagus ferns only. Application timing is at egg hatch or to small larvae. Use the higher rate under high insect infestations and/or advanced growth stages of the beetle. Maximum of three applications per year with a minimum re-treatment interval of 5 days and a preharvest interval of 60 days.

Bushberries (highbush and lowbush blueberries)

For the suppression of blueberry spanworm, apply 210-440 millilitres of product per hectare. Monitor insect populations to determine application timing. Apply at egg hatch or to small larvae. Use the higher rate for high populations and/or larger larvae. Reapply if populations warrant. Maximum of three applications per year with a minimum re-treatment interval of 6 days and a preharvest interval of 3 days.

Caneberries (raspberry, blackberry)

For the control of obliquebanded leafroller, apply 210-420 millilitres of product per hectare. Apply at egg hatch or to small larvae. Use the higher rate for high populations and/or larger larvae. Reapply if populations warrant. Maximum of three applications per year with a minimum re-treatment interval of 5 days and a preharvest interval of 1 day.

Cereals (wheat, barley, oats, rye)

For the control of armyworm, apply 210-420 millilitres of product per hectare. Scout for the pest with enough regularity to monitor egg laying and egg hatch and treat when thresholds are reached. Applications perform best when timed to coincide with peak egg hatch and/or small larval stage of growth of each generation. Maximum of three applications per year with a minimum re-treatment interval of 5 days and a preharvest interval of 21 days.

Cole Crops [Brassica leafy vegetables] (broccoli, Chinese broccoli, brussels sprouts, cabbage, Chinese cabbage, Mustard/Chinese cabbage, Napa/Chinese cabbage, cauliflower, cavalo broccolo, kohlrabi, broccoli raab [rapini], Bok Choy/Chinese cabbage, collards, kale, mustard greens, mustard spinach, rape greens)

For the control of diamondback moth, cabbage looper and imported cabbageworm, apply 290-420 millilitres of product per hectare. Apply when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications. Use the higher rate for high infestations or advanced growth stages of the target pests. Maximum of three applications per year with a minimum re-treatment interval of 5 days and a preharvest interval of 1 day.

Fruiting Vegetables and Okra (eggplant, pepino, bell pepper, chili pepper, non-bell pepper, sweet non-bell pepper, tomatillo, tomato; okra)

For the control of cabbage looper, apply 290-420 millilitres of product per hectare. Time the application to coincide with peak egg hatch. Repeat applications based on population monitoring. Use the higher rate for heavy infestations or advanced growth stages of the target pest. Maximum of three applications per year with a minimum re-treatment interval of 5 days and a preharvest interval of 1 day.

Grape

For the suppression of grape berry moth, apply 580 millilitres of product per hectare. Time the application for egg hatch of each generation. A repeat application may be required if populations of the pest are high and/or woodlots are near the vineyard. Apply in sufficient water to ensure thorough coverage of the foliage. Maximum of three applications per year with a minimum re-treatment interval of 5 days and a preharvest interval of 7 days.

Leafy Vegetables (arugula, chervil, garden cress, upland cress, endive, head lettuce, leaf lettuce, orach, parsley, radicchio, spinach, New Zealand spinach, vine spinach, cardoon, celery, Chinese celery, celtuce, Florence fennel, rhubarb, Swiss chard)

For the control of cabbage looper, apply 290-420 millilitres of product per hectare. Apply when pest appears, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications. Use the higher rate for heavy infestations or advanced growth stages of the target pest. Maximum of three applications per year with a minimum re-treatment interval of 5 days and a preharvest interval of 1 day.

Leaves of Root and Tuber Vegetables (turnip and beet greens)

For the control of diamondback moth, cabbage looper and imported cabbageworm, apply 290-420 millilitres of product per hectare. Apply when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications. Use the higher rate for heavy infestations or advanced growth stages of the target pests. Maximum of three applications per year with a minimum re-treatment interval of 7 days and a preharvest interval of 3 days.

Root Vegetables (carrot, horseradish, radish, Oriental radish, rutabaga, turnip)

For the control of diamondback moth, cabbage looper and imported cabbageworm, apply 290-420 millilitres of product per hectare. Apply when pests appear, targeting eggs at hatch or small larvae. Heavy infestations may require repeat applications. Use the higher rate for heavy infestations or advanced growth stages of the target pests. Maximum of three applications per year with a minimum re-treatment interval of 5 days and a preharvest interval of 3 days.

Soybean

For the control of armyworm, apply 210-420 millilitres of product per hectare. Time the initial application to target small larvae and use sufficient spray volume to ensure good coverage. Use the higher rate for heavy infestation and/or difficult spray coverage situations. Maximum of three applications per year with a minimum re-treatment interval of 5 days and a preharvest interval of 28 days.

Stone Fruit (apricot, sweet cherry, sour cherry, nectarine, peach, plum, chickasaw plum, damson plum, Japanese plum, prune)

For the control of Oriental fruit moth, apply 875 millilitres of product per hectare. Apply at first egg hatch of each generation based on pheromone trap catches and degree days after biofix dates. Repeat at 14 day intervals if required.

For the control of obliquebanded and threelined leafroller, apply 440-875 millilitres of product per hectare. Apply at first egg hatch as determined by monitoring adult moth flights. Repeat in 14 days if monitoring of populations indicates a second application is required. Thorough coverage is necessary for optimal control. Use the higher rate for high pest pressure and/or larger larvae.

For cherries, plums and prunes: Maximum of three applications per year with a minimum re-treatment interval of 7 days and a preharvest interval of 7 days.

For peaches, nectarines and apricots: Maximum of three applications per year with a minimum re-treatment interval of 7 days and a preharvest interval of 14 days.

Strawberry

For the suppression of thrips, apply 420-580 millilitres of product per hectare. Monitor insect population to determine when initial application is required. A three to four day re-treatment schedule may be necessary for thrips if there is a heavy pest pressure or if the pest population is increasing rapidly. Maximum of three applications per year with a minimum re-treatment interval of 3 days and a preharvest interval of 1 day.

Resistance Management Recommendations

For resistance management, please note that Radiant SC Insecticide contains a Group 5 insecticide. Any insect population may contain individuals naturally resistant to Radiant SC Insecticide and other Group 5 insecticides. 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 are 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 Radiant SC Insecticide or other Group 5 insecticides with different groups that control the same pests in a field.
- 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 the specific site and pest problems in your area.
- For further information or to report suspected resistance, contact Corteva Agriscience Canada Company at 1-800-667-3852 or at www.corteva.ca

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