



GROUP	7, 11	FUNGICIDE
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LUNA SENSATION™

SUSPENSION FUNGICIDE

For control of listed diseases on root vegetables, leafy green and petiole vegetables, brassica leafy vegetables, cucurbits, stone fruit, hops, and low growing berries.

COMMERCIAL

REGISTRATION NUMBER 32107 PEST CONTROL PRODUCTS ACT

ACTIVE INGREDIENT:

Fluopyram	250 g/L
Trifloxystrobin	250 g/L

Contains 1,2-benzisothiazolin-3-one at 0.035% and 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0009% and 2-methyl-4-isothiazolin-3-one at 0.0003% 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

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).

LUNA SENSATION

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GENERAL INFORMATION

SECTION 1: NOTICE

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.

SECTION 2: THE PRODUCT

LUNA SENSATION is a broad spectrum fungicide with preventative, systemic, and curative properties recommended for the control of certain crop diseases. LUNA SENSATION is best suited for use in a preventative treatment program.

SAFETY AND HANDLING

SECTION 3: PRECAUTIONS, PROTECTIVE CLOTHING AND EQUIPMENT

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 www.cropscience.bayer.ca.

PROTECTIVE CLOTHING AND EQUIPMENT:

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab. In addition, wear chemical-resistant headgear during open cab airblast application. Chemical-resistant headgear includes Sou'Wester hat, chemical-resistant rain hat or large brimmed waterproof hat and hood with sufficient neck protection.

RE-ENTRY RESTRICTION:

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours after application.

SECTION 4: FIRST AID AND TOXICOLOGICAL INFORMATION

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.

SECTION 5: ENVIRONMENTAL HAZARDS

TOXIC to wild birds and mammals

Toxic to certain beneficial insects

TOXIC to aquatic organisms.

Observe buffer zones specified under DIRECTIONS FOR USE

DO NOT apply directly to aquatic habitats (such as lakes, rivers, sloughs, ponds, coulees, prairie potholes, creeks, marshes, streams, reservoirs, and wetlands) and estuarine/marine habitats. **DO NOT** contaminate water by cleaning of equipment or disposal of wastes.

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.

Residues of this product demonstrate 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.

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.

SECTION 7: 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.

DIRECTIONS FOR USE

SECTION 8: APPLICATION INFORMATION AND PRECAUTIONS
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APPLICATION INFORMATION:

Thorough coverage of all plant parts to be protected is essential for good disease control. Use sufficient water volume and spray pressure to provide thorough and uniform coverage for optimum disease control.

Fruit Crops (stone fruit and hops): Apply LUNA SENSATION by airblast equipment in a minimum spray volume of 500 L/ha, unless otherwise specified on the label.

For Vegetable Crops (root vegetables, leafy green and petiole vegetables, brassica leafy and cucurbits) and low growing berries: Apply LUNA SENSATION by field sprayer equipment in a minimum spray volume of 200 L/ha.

APPLICATION PRECAUTIONS:

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 Engineers (ASAE) medium 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 –using aerial application equipment. DO NOT apply this product through any type of irrigation system.

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.

Buffer zones

Spot treatments using hand-held equipment DO NOT require a buffer zone.

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), 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 Habitats of Depths:		Terrestrial habitat
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer	Carrots and other root vegetables Crop Subgroup 13-07G (Low-growing berries)		3	1	1	1	1
	Leafy green vegetables (except Brassica) Brassica (cole) leafy vegetables		4	1	1	1	1
	Leafy petiole vegetables (except Brassica) Cucurbit vegetables		2	1	1	1	1
Airblast	Stone fruits	Early growth stage	15	5	3	1	2
		Late growth stage	10	2	2	1	1
	Hops	Early growth stage	30	5	4	1	2
		Late growth stage	25	3	2	1	1

The buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

SECTION 9: CROP, DISEASE, RATE, TIMING

CROP SUBGROUP 1B: CARROT AND OTHER ROOT VEGETABLES

Beet (garden), Burdock (edible), Carrot, Celeriac (celery root), Chervil (turnip-rooted), Chicory, Ginseng, Horseradish, Parsley (turnip-rooted), Parsnip, Radish, Oriental radish (daikon), Rutabaga, Salsify (black), Salsify (oyster plant), Salsify (Spanish), Skirret, Turnip

Tops or greens may be utilized for food or feed.

Disease Control	Rate (mL/ha)	Use Information
Alternaria blight (<i>Alternaria dauci</i>)	300-500	Begin fungicide applications preventatively. Continue as needed on a 7- to 14-day interval. When disease pressure is severe, use the higher rates.
Powdery mildew (<i>Erysiphe</i> spp.)	300-400	
Cottony rot / Sclerotinia rot (<i>Sclerotinia sclerotiorum</i>)	500	Apply at the critical timings for disease control. Continue as needed on a 7- to 14-day interval.

Restrictions: Do not apply more than 1680 mL of LUNA SENSATION per hectare per season. Do not apply LUNA SENSATION within 7 days of harvest. Do not allow livestock to graze treated areas for 7 days after application. To limit the potential for development of disease resistance to these fungicide classes, do not make more than 2 applications of LUNA SENSATION or any Group 7 or Group 11 containing fungicide before rotating with a fungicide from a different Group.

CROP SUBGROUP 4A: LEAFY GREEN VEGETABLES (except Brassica)

Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Chervil, Chrysanthemum (edible leaved and garland), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Spinach [including New Zealand and vine (Malabar spinach, Indian spinach)]

Disease Control	Rate mL/ha	Use Information
Lettuce drop and sclerotinia rot (<i>Sclerotinia minor</i>) (<i>Sclerotinia sclerotiorum</i>)	400-600	Begin fungicide applications preventatively. Continue as needed, on a 9 -14-day interval. When disease pressure is severe use the higher rate
Powdery mildew (<i>Erysiphe</i> spp.)	300-400	Begin fungicide applications preventatively. Continue as needed on a 7 to 14-day interval. When disease pressure is severe, use the higher rates.

Restrictions: Do not apply more than 1120 mL of LUNA SENSATION per hectare per season. LUNA SENSATION may be applied the day of harvest. To limit the potential for development of disease resistance to these fungicide classes do not make more than 2 applications of LUNA SENSATION or any Group 7 or Group 11 containing fungicide before rotating with a fungicide from a different Group.

CROP SUBGROUP 4B: LEAFY PETIOLE VEGETABLES (except Brassica)

Cardoon, Celery, Celtuce, Chinese celery, Florence fennel (including, sweet anise, sweet fennel, Finocchio), Rhubarb, Swiss chard.

Disease Control	Rate mL/ha	Use Information
Late blight (<i>Septoria apiicola</i>)	300 - 400	Begin fungicide applications preventatively. Continue as needed, on a 7 to 10-day interval. When disease pressure is severe use the higher rate.
Powdery mildew (<i>Erysiphe</i> spp.)	300-400	Begin fungicide applications preventatively. Continue as needed on a 7 to 14-day interval. When disease pressure is severe, use the higher rates.

Restrictions: Do not apply more than 1120 mL of LUNA SENSATION per hectare per season. LUNA SENSATION may be applied the day of harvest. To limit the potential for development of disease resistance to these fungicide classes do not make more than 2 applications of LUNA SENSATION or any Group 7 or Group 11 containing fungicide before rotating with a fungicide from a different Group.

CROP GROUP 5: BRASSICA (COLE) LEAFY VEGETABLES

Broccoli, Chinese broccoli (gai lon), Brussels sprouts, Cabbage, Chinese cabbage (napa), Chinese cabbage (bok choy), Chinese mustard cabbage (gai choy), Cauliflower, Cavalo broccolo, Kohlrabi, Broccoli raab (rapini), Collards, Kale, Mizuna, Mustard greens, Mustard spinach, Rape greens, Turnip greens. Including all cultivars and/or hybrids of these.

Disease Control	Rate mL/ha	Use Information
Sclerotinia rot (<i>Sclerotinia minor</i>) (<i>Sclerotinia sclerotiorum</i>)	400-600	Begin fungicide applications preventatively. Continue as needed, on a 9 -14-day interval. When disease pressure is severe use the higher rate.
Powdery mildew (<i>Erysiphe</i> spp.)	300-400	Begin fungicide applications preventatively. Continue as needed on a 7 to 14-day interval. When disease pressure is severe, use the higher rates.
Alternaria leaf blight (<i>Alternaria brassicae</i>)	300-500	

Restrictions: Do not apply more than 1120 mL of LUNA SENSATION per hectare per season. LUNA SENSATION may be applied the day of harvest. To limit the potential for development of disease resistance to these fungicide classes, do not make more than 2 applications of LUNA SENSATION or any Group 7 or Group 11 containing fungicide before rotating with a fungicide from a different Group.

CROP GROUP 9: CUCURBIT VEGETABLES

Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd (edible, includes hyotan, cucuzza, hechima, Chinese okra), *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of *Cucumis melo* including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Squash (includes summer squash types such as: crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini, and winter squash types such as acorn squash, butternut squash, calabaza, Hubbard squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of *Citrullus lanatus*).

Note: A mild yellowing on leaf margins is sometimes seen following application of LUNA SENSATION in cucurbits.

Disease Control	Rate mL/ha)	Use Information
Powdery mildew (<i>Podosphaera xanthii</i> , <i>Erysiphe cichoracearum</i>)	300-400	Begin fungicide applications preventatively, when conditions are favourable for disease. Continue as needed on a 7- to14-day interval. When disease pressure is severe use the higher rates.

Restrictions: Do not apply more than 1980 mL of LUNA SENSATION per hectare per season. LUNA SENSATION may be applied the day of harvest. To limit the potential for development of disease resistance to these fungicide classes, do not make more than 2 applications of LUNA SENSATION or any Group 7 or Group 11 containing fungicide before rotating with a fungicide from a different Group.

CROP GROUP 12-09: STONE FRUIT

Apricot, Apricot (Japanese), Capulin, Cherry (Black, Nanking, Sweet, Tart), , Jujube (Chinese), Nectarine, Peach, Plum, Plum (American, Beach, Canada, Cherry, Chickasaw, Damson, Japanese, Klamath), Prune, Plumcot, Sloe, and cultivars, varieties, and/or hybrids of these.

Disease Control	Rate (mL/ha)	Use Information
Brown rot, Blossom blight and Fruit rot (<i>Monilinia laxa</i> , <i>Monilinia fructicola</i>) Powdery mildew (<i>Podosphaera clandestine</i>) Cherry leaf spot (<i>Blumeriella jaapii</i>) Scab (<i>Cladosporium carpophilum</i>)	300-400	Begin fungicide applications preventatively. Continue as needed on a 7- to 14-day interval. When disease pressure is severe use the higher rate.

Restrictions: Do not apply more than 1980 mL of LUNA SENSATION per hectare per season. Do not apply LUNA SENSATION within 1 day of harvest. To limit the potential for development of disease resistance to these fungicide classes, do not make more than 2 applications of LUNA SENSATION or any Group 7 or Group 11 containing fungicide before rotating with a fungicide from a different Group.

HOPS

Disease Control	Rate (mL/ha)	Use Information
Powdery mildew (<i>Sphaerotheca humuli</i> , syn. <i>Podosphaera macularis</i>)	300-600	Begin fungicide applications preventatively, when conditions are favourable for disease. Continue as needed on a 10-14 day spray interval. Use the low rate when the vines are small and increase the rate as the vines grow. Make applications in sufficient water volume (just to the point of runoff). Thorough coverage is needed for disease control.

Restrictions: Do not apply more than 1980 mL of LUNA SENSATION per hectare per season. Do not apply LUNA SENSATION within 14 days of harvest. To limit the potential for development of disease resistance to these fungicide classes, do not make more than 2 applications of LUNA SENSATION or any Group 7 or Group 11 containing fungicide before rotating with a fungicide from a different Group.

CROP SUB GROUP 13-07G: LOW GROWING BERRY SUBGROUP

Bearberry; bilberry; blueberry, lowbush; cloudberry; cranberry; lingonberry; muntries; partridgeberry; strawberry; cultivars, varieties, and/or hybrids of these

Disease Control	Rate mL/ha	Use Information
Grey Mold <i>(Botrytis cinerea)</i> Anthracnose on strawberry <i>(Colletotrichum fragaria)</i>	500 - 600	Begin fungicide applications preventatively. Continue as needed, on a 7 to 10 day interval. When disease pressure is severe use the higher rate.
Powdery mildew <i>(Sphaerotheca spp., Podosphaera aphanis)</i>	300 - 400	
<p>Restrictions: Do not apply more than 1980 mL of LUNA SENSATION per hectare per season. LUNA SENSATION can be applied the day of harvest. To limit the potential for development of disease resistance to these fungicide classes do not make more than 2 applications of LUNA SENSATION or any Group 7 or Group 11 containing fungicide before rotating with a fungicide from a different Group.</p>		

SECTION 10: ROTATIONAL CROP RESTRICTIONS:

Do not replant to alfalfa for 14 days after application. Crops listed on this label and cereals, corn, soybeans, dry beans, dry peas, peanuts, strawberries and fruiting vegetables may be rotated anytime following the last application of LUNA SENSATION. All other crops may be replanted 30 days following the last application of LUNA SENSATION.

SECTION 11: MIXING INSTRUCTIONS

LUNA SENSATION must be applied with properly calibrated, clean equipment. Prior to adding LUNA SENSATION 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 LUNA SENSATION to the water and complete filling with water to the required total volume.
- Maintain agitation throughout mixing and spraying.

SECTION 12: RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, LUNA SENSATION contains a Group 7 and a Group 11 fungicide. Any fungal population may contain individuals naturally resistant to LUNA SENSATION and other Group 7 and Group 11 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are 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 LUNA SENSATION or other Group 7 and Group 11 fungicides with different groups that control the same pathogens.
- For multi-spray crops: The total number of sprays containing LUNA SENSATION (Group 7 and Group 11 fungicide) should not exceed half of the total number of fungicide applications in a season.
- 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.
- Where possible, make use of predictive disease models to effectively time fungicide applications.
- Monitor treated fungal populations for resistance development. Notify Bayer if reduced sensitivity of the pathogen to LUNA SENSATION is suspected.
- If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of this product, and switch to another fungicide with a different target site of action, if available.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and disease problems in your area.
- For further information and to report suspected resistance, contact a Bayer representative at 1-888-283-6847 or at www.cropscience.bayer.ca.

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