Container





## **FLINT FUNGICIDE**

WETTABLE GRANULES

#### **COMMERCIAL**

For control or suppression of certain diseases in grapes, pome fruits (apple, crabapple, mayhaw, pear, oriental pear and quince), asparagus, sugarbeet, stone fruits, celery, Chinese celery, root vegetables, strawberry, peanut hazelnuts, bulb vegetables (CG 3-07), edible honeysuckle and Christmas trees.

FLINT Fungicide is a water-dispersible granule.

ACTIVE INGREDIENT:

Trifloxystrobin: 50%

READ THE LABEL AND BOOKLET BEFORE USING

REGISTRATION NO.: 30619 PEST CONTROL PRODUCTS ACT

KEEP OUT OF REACH OF CHILDREN

CAUTION EYE IRRITANT, POTENTIAL SKIN SENSITIZER

NET CONTENTS: 500 g – 10 Kg

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

FOR PRODUCT INFORMATION, CALL: 1-888-283-6847. IN CASE OF SPILLS, POISONING, FIRE OR OTHER EMERGENCIES, CALL: 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.

#### PRECAUTIONS:

- KEEP OUT OF REACH OF CHILDREN. May irritate eyes. Avoid contact with eyes. Harmful if absorbed through skin. Potential skin sensitizer. Avoid contact with skin, or clothing. Wash exposed areas of skin thoroughly with soap and water after handling.
- Restricted Entry Intervals:
  - For grapes: DO NOT enter, or allow worker entry, into treated areas within 12 days after application to carry out girdling activities and within 5 days after application to carry out pruning, thinning, training, tying and leaf pulling activities. For all other activities, DO NOT enter, or allow worker entry, into treated areas for 12 hours after application.
  - For stone fruits group (apricots, nectarines, peaches, plums, plumcots, prunes): DO NOT enter, or allow worker entry, into treated areas within 7 days after application to carry out thinning activities. For all other activities, DO NOT enter, or allow worker entry, into treated areas for 12 hours after application.
  - For pome fruits (apple, crabapple, mayhaw, pear, oriental pear, quince) and cherries: DO NOT enter, or allow worker entry, into treated areas within 4 days after application to carry out thinning activities. For all other activities, DO NOT enter, or allow worker entry, into treated areas for 12 hours after application.
  - For bulb vegetables (Crop Group 3-07): DO NOT enter or allow worker entry into treated areas within 9 days after application to carry out hand weeding activities. For all other activities, DO NOT enter or allow worker enter into treated areas for 12 hours after application.
  - For all other crops: DO NOT enter, or allow worker entry, into treated areas for 12 hours after application.
- Wear long-sleeved shirt, long pants and chemical-resistant gloves, socks and shoes during mixing, loading, application, clean up and repair. In addition, wear protective eyewear (googles or face shield) during mixing and loading. Gloves are not required during application within a closed cab.
- Remove clothing IMMEDIATELY if pesticide gets inside. Then wash exposed areas of skin thoroughly and put on clean clothing.
- DO NOT use, pour, spill, or store product near heat or open flame.
- DO NOT apply this product through any type of irrigation system.
- DO NOT apply FLINT Fungicide in combination with organosilicate surfactants or crop injury may occur.
- DO NOT USE IN GREENHOUSES
- Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational 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 to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's website at <a href="https://www.croplife.ca">www.croplife.ca</a>.

## DO NOT APPLY BY AIR

#### FIRST AID:

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. 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.

# **ENVIRONMENTAL PRECAUTIONS:**

Observe buffer zones specified under Use Directions for Specific Crops.

DO NOT apply beyond the field boundary.

Toxic to fish and other aquatic organisms. 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 irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

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

HARMFUL TO BENEFICIAL PREDATORY OR PARASITIC ARTHROPODS. Minimize spray drift (see Application Instructions) to reduce effects on beneficial arthropods in habitats adjacent to the application site such as hedgerow and woodland.

DO NOT apply to areas where runoff is likely to occur. Runoff from treated areas into

aquatic habitats may be hazardous to aquatic organisms. Site characteristics that may lead to runoff following heavy rainfall include, but are not limited to: a moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted, fine textured, or low in organic matter). If rainfall is imminent, delay spraying.

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.

#### STORAGE:

Store in a cool, dry, place away from food, drinks, and animal feeding stuffs. Keep in the original container tightly closed.

## **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 clean-up of spills.

For more information contact:

Bayer CropScience Inc. Suite 200, 160 Quarry Park Blvd. S.E. Calgary, Alberta T2C 3G3

Booklet



Group 11 Fungicide

# **FLINT FUNGICIDE**

#### WETTABLE GRANULES

# COMMERCIAL

For control or suppression of certain diseases in grapes, pome fruits (apple, crabapple, mayhaw, pear, oriental pear and quince), asparagus, sugar beet, stone fruits, celery, Chinese celery, root vegetables, strawberry, peanut hazelnut, bulb vegetables (CG 3-07), edible honeysuckle and Christmas trees.

FLINT Fungicide is a water-dispersible granule.

**ACTIVE INGREDIENT:** 

Trifloxystrobin: 50%

READ THE LABEL AND BOOKLET BEFORE USING

REGISTRATION NO.: 30619 PEST CONTROL PRODUCTS ACT

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CAUTION EYE IRRITANT, POTENTIAL SKIN SENSITIZER

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# **FLINT Fungicide**

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For more information, contact:

Bayer CropScience Inc. Suite 200, 160 Quarry Park Blvd. S.E. Calgary, Alberta T2C 3G3

## **GENERAL INFORMATION**

## Section 1: Notices

#### 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

For control or suppression of certain diseases in grapes, pome fruits (apple, crabapple, mayhaw, pear, oriental pear and quince), asparagus, sugar beet, stone fruits, celery, Chinese celery, root vegetables, strawberry, peanut hazelnut, bulb vegetables (CG 3-07), edible honeysuckle and Christmas trees. FLINT Fungicide works by interfering with respiration in plant pathogenic fungi. FLINT Fungicide is a potent inhibitor of spore germination and mycelial growth.

#### SAFETY AND HANDLING

# Section 3: Precautions, Protective Clothing & Equipment, and Re-entry Restriction

- KEEP OUT OF REACH OF CHILDREN. May irritate eyes. Avoid contact with eyes. Harmful if absorbed through skin. Potential skin sensitizer. Avoid contact with skin, or clothing. Wash exposed areas of skin thoroughly with soap and water after handling.
- Restricted Entry Intervals:
  - For grapes: DO NOT enter, or allow worker entry, into treated areas within 12 days after application to carry out girdling activities and within 5 days after application to carry out pruning, thinning, training, tying and leaf pulling activities. For all other activities, DO NOT enter, or allow worker entry, into treated areas for 12 hours after application.
  - For stone fruits group (apricots, nectarines, peaches, plums, plumcots, prunes): DO NOT enter, or allow worker entry, into treated areas within 7 days after application to carry out thinning activities. For all other activities, DO NOT enter, or allow worker entry, into treated areas for 12 hours after application.
  - For pome fruits (apple, crabapple, mayhaw, pear, oriental pear, quince) and cherries: DO NOT enter, or allow worker entry, into treated areas within 4 days after application to carry out thinning activities. For all other activities, DO NOT enter, or allow worker entry, into treated areas for 12 hours after application.
  - For bulb vegetables (Crop Group 3-07): DO NOT enter or allow worker entry into treated areas within 9 days after application to carry out hand weeding activities. For all other activities, DO NOT enter or allow worker enter into treated areas for 12 hours after application.
  - For all other crops: DO NOT enter, or allow worker entry, into treated areas

for 12 hours after application.

- Wear long-sleeved shirt, long pants and chemical-resistant gloves, socks and shoes
  during mixing, loading, application, clean up and repair. In addition, wear protective
  eyewear (googles or face shield) during mixing and loading. Gloves are not required
  during application within a closed cab.
- Remove clothing IMMEDIATELY if pesticide gets inside. Then wash exposed areas of skin thoroughly and put on clean clothing.
- DO NOT use, pour, spill, or store product near heat or open flame.
- DO NOT apply this product through any type of irrigation system.
- DO NOT apply FLINT Fungicide in combination with organosilicate surfactants or crop injury may occur.
- DO NOT USE IN GREENHOUSES
- Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational 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 to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's website at www.croplife.ca.

## DO NOT APPLY BY AIR

# Section 4: First Aid and Toxicological Information

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. 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.

# Section 5: Environmental Precautions

Observe buffer zones specified under Use Directions for Specific Crops.

DO NOT apply beyond the field boundary.

Toxic to fish and other aquatic organisms. 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 irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

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

HARMFUL TO BENEFICIAL PREDATORY OR PARASITIC ARTHROPODS. Minimize spray drift (see Application Instructions) to reduce effects on beneficial arthropods in habitats adjacent to the application site such as hedgerow and woodland.

DO NOT apply to areas where runoff is likely to occur. Runoff from treated areas into aquatic habitats may be hazardous to aquatic organisms. Site characteristics that may lead to runoff following heavy rainfall include, but are not limited to: a moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted, fine textured, or low in organic matter). If rainfall is imminent, delay spraying.

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

Store in a cool, dry, place away from food, drinks, and animal feeding stuffs. Keep in the original container tightly closed.

# Section 7: 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 clean-up of spills.

#### DIRECTIONS FOR USE:

For control or suppression of certain diseases in grapes, pome fruits (apple, crabapple, mayhaw, pear, oriental pear and quince), asparagus, sugar beet, stone fruits, celery, Chinese celery, root vegetables, strawberry, peanut hazelnut and Christmas trees. FLINT Fungicide works by interfering with respiration in plant pathogenic fungi. FLINT Fungicide is a potent inhibitor of spore germination and mycelial growth.

<u>Field sprayer application</u>: 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.

<u>Airblast application</u>: 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:**

Use of the following spray methods or equipment DO NOT require a buffer zone: handheld or backpack sprayer and spot treatment.

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.

		Buffer Zones (metres) Required for the Protection of:				e Protection	
Method of application	('ron		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	All crops		1	1	1	1	1
	Grapes, cherries, pome fruit (apples,	Early growth stage	15	2	15	1	1
Airblast	crabapples, mayhaw, pear, oriental pear, quince), Christmas trees, edible honeysuckle	Late growth stage	10	2	5	1	1
	Stone fruit (apricots, nectarines,	Early growth stage	20	3	15	2	1
	peaches, plums, plumcots, prunes) hazelnuts	Late growth stage	10	2	5	1	1

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.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

FLINT Fungicide is part of a season-long control program, which may include different fungicide products as needed. Observe the maximum number of applications for FLINT Fungicide noted below.

DO NOT APPLY FLINT FUNGICIDE TO CONCORD GRAPES OR CROP INJURY MAY OCCUR. DO NOT apply FLINT Fungicide where spray drift may reach Concord grapes or crop injury may occur. Spray equipment should be rinsed after applying FLINT Fungicide before application of other products to Concord grapes or crop injury may occur.

# Grapes:

**DO NOT** apply FLINT Fungicide to Concord grapes or crop injury may occur. **DO NOT** apply FLINT Fungicide where spray drift may reach Concord grapes or crop injury may occur. Spray equipment should be rinsed after applying FLINT Fungicide before application of other products to Concord grapes or crop injury may occur.

Disease Control	Rate g/ha	Application Timing	Notes
Powdery Mildew (Uncinula necator)	105-140	Begin applications preventively and continue as needed on a 14-21 day interval.	Use the higher rate and shorter spray interval when disease pressure is severe.
Black Rot (Guignardia bidwellii)	105-140	Begin applications when shoots are 3-9 cm (1-3 in.) in length and continue as needed on a 7-14 day interval.	FLINT Fungicide is most effective when applied preventatively. Use the higher rate and shorter spray interval when disease pressure is severe.

Restrictions: DO NOT apply more than 560 g of FLINT Fungicide per hectare per season. DO NOT apply FLINT Fungicide within 14 days of harvest. DO NOT exceed 4 applications of FLINT Fungicide or other strobilurin (Group 11) fungicides to table or wine grapes per season. To limit the potential for resistance to develop, DO NOT apply more than 2 sequential applications of FLINT Fungicide or other strobilurin fungicides before alternating with a non-strobilurin fungicide for at least 2 applications.

#### **Cherries (Sweet and Tart):**

Disease Control	Rate g/ha	Application Timing	Notes
Powdery Mildew (Podosphaera clandestina)	175 - 210	Begin applications preventatively at petal fall and repeat at 7-14 day	Use the higher rate and shorter spray interval when disease pressure is severe.
Leaf Spot (Blumeriella jaapii)		intervals.	1

Restrictions: DO NOT apply more than 1050 g of FLINT Fungicide per hectare per season. DO NOT apply FLINT Fungicide within 1 day of harvest. DO NOT exceed 5 total applications of FLINT Fungicide per season. To limit the potential for resistance to develop, DO NOT apply more than 2 sequential applications of FLINT Fungicide or other strobilurin (Group 11) fungicides before alternating to a non-strobilurin fungicide for at least 2 applications.

## **Asparagus:**

Disease Control	Rate g/ha	Application Timing	Notes
Stemphylium Purple Spot (Stemphylium vesicarium)	210-280	Begin applications preventively and continue as needed on a 7-14 day	Use the higher rate and shorter spray interval when disease pressure is severe.
Rust		interval.	
(Puccinia asparagi)		Make applications to the fern stage only.	Make uniform applications in a minimum 280 L per hectare.
			Mow down the asparagus ferns (or allow the ferns to senesce) between the last fungicide application and harvest.

Restrictions: DO NOT apply more than 840 g of FLINT Fungicide per hectare per season. DO NOT apply FLINT Fungicide within 180 days of harvest. DO NOT exceed 3 applications of FLINT Fungicide or other strobilurin (Group 11) fungicides per season. To limit the potential for resistance to develop, alternate every strobilurin fungicide application with at least one application of a non-strobilurin fungicide.

Pome Fruits: Apple, Crabapple, Mayhaw, Pear, Oriental Pear, Quince

	Rate		
Disease Control	g/ha	Application Timing	Notes
Scab (Venturia spp.)	140-175	Begin applications at green tip and continue as needed on a 7-10 day interval.	Use the higher rate and shorter spray interval when disease pressure is severe.
			FLINT Fungicide will provide up to 96 hours of post-infection control of apple scab. Scab applications should begin as soon as possible following a scab infection period. A reliable forecasting system must be used.
Sooty Blotch (Gloeodes pomigena)  Fly Speck (Schizothyrium pomi)	140-175	Begin applications preventively. Continue applications as needed on a 10-14 day interval.	Use the higher rate and shorter spray interval when disease pressure is severe.  For powdery mildew
Powdery Mildew (Podosphaera leucotricha)			control, use higher rate during pink to bloom stage.
Cedar Apple Rust (Gymnosporangium juniperi- virginianae)	140-210		Alternate with a non- strobilurin fungicide, use a sterol inhibitor product if available.

Restrictions: DO NOT apply more than 840 g of FLINT Fungicide per hectare per season. DO NOT apply FLINT Fungicide within 14 days of harvest. DO NOT exceed 4 total applications of FLINT Fungicide or other strobilurin (Group 11) fungicides per season. To limit the potential for resistance to develop, DO NOT apply more than 2 sequential applications of FLINT Fungicide or other strobilurin fungicides before alternating to a non-strobilurin fungicide for at least 2 applications.

#### **Peanuts:**

Disease Suppression	Rate g/ha	Application Timing	Notes
Early Leaf Spot (Mycosphaerella arachidis)	250 g	Begin applications when conditions are favourable for disease but before infection.	

Restrictions: DO NOT apply more than 500 g of FLINT Fungicide per hectare per season. DO NOT apply FLINT Fungicide within 14 days of harvest. DO NOT exceed 2 total applications of FLINT Fungicide per season. In areas with typically a total of 5 or more fungicide sprays per year, DO NOT make more than 2 sequential applications of FLINT Fungicide or other strobilurin (Group 11) fungicides before alternating with a non-strobilurin fungicide for at least 2 applications. In areas with typically 4 or fewer fungicide applications, alternate each application of FLINT Fungicide or other strobilurin fungicides with at least 1 application of a non-strobilurin fungicide.

#### **Sugar beet:**

Disease Control	Rate g/ha	Application Timing	Notes
Powdery mildew (Erysiphe betae, E. polygoni)	182-244	Begin applications preventatively and continue as needed on a 10 to 14-day interval.	Use the higher rate and shorter spray interval when disease pressure is severe.

Restrictions: DO NOT apply more than 740 g of FLINT Fungicide per hectare per season. DO NOT apply FLINT Fungicide within 21 days of harvest. DO NOT exceed 3 total applications of FLINT Fungicide per season. To limit the potential for resistance to develop, 1 application of a strobilurin (Group 11) fungicide may be made up to the 4-leaf stage of the plant. An additional strobilurin application may be made after the 4-leaf stage, but it must be alternated with at least 1 application of a non-strobilurin fungicide before any additional applications of a strobilurin fungicide are allowed.

## Stone Fruits: apricot, nectarine, peach, plum, plumcot, prune

Disease Control or Suppression	Rate g/ha	Application Timing	Notes
Powdery mildew - suppression (Podosphaera pannosa)	140 - 280	Begin applications preventatively. Apply at petal fall and continue on a 8 to 14-day interval.	Use the higher rate and shorter spray interval when disease pressure is severe.
Shothole (Wilsonomyces carpophilus)	210- 280	Begin applications preventatively and continue on a 8 to 14-day interval.	Use the higher rates and shorter spray intervals when disease pressure is severe.

Restrictions: DO NOT apply more than 1120 g of FLINT Fungicide per hectare per season. DO NOT apply FLINT Fungicide within 1 day of harvest. DO NOT exceed 4 total applications of FLINT Fungicide per season. To limit the potential for resistance to develop, DO NOT apply more than 2 sequential applications of FLINT Fungicide or other strobilurin (Group 11) fungicides before alternating with a non-strobilurin fungicide for at least 2 applications.

# Celery, Chinese celery:

Disease Control	Rate g/ha	Application Timing	Notes
Cercospora early blight (Cercospora apii)	190 - 210	Begin applications preventatively and continue	Use the higher rate and shorter spray interval when
Septoria late blight (Septoria apiicola)	210	as needed on a 7-14 day interval	disease pressure is severe. A minimum spray volume of 280 L/ha is recommended.

Restrictions: DO NOT apply more than 840 g of FLINT Fungicide per hectare per season. DO NOT apply FLINT Fungicide within 7 days of harvest. DO NOT exceed 4 total applications of FLINT Fungicide per season. To limit the potential for resistance to develop, alternate every strobilurin (Group 11) fungicide application with at least one application of a non-strobilurin fungicide.

Root vegetables (except radish): garden beet, edible burdock, carrot, celeriac, turnip-rooted chervil, chicory, ginseng, horseradish, turnip-rooted parsley, parsnip, rutabaga, salsify, black salsify, Spanish salsify, skirret, turnip

Disease Control or Suppression	Rate g/ha	Application Timing	Notes
Leaf blight (Alternaria spp.)  Cercospora leaf spot of carrot (Cercospora carotae)	140 - 210	Begin applications preventatively and continue as needed on a 14-day interval	Use the higher rate and shorter spray interval when disease pressure is severe. Use sufficient water to obtain thorough coverage.
Cercospora early blight of celeriac (Cercospora apii)	190- 210	Begin applications preventatively and continue	
Septoria late blight of celeriac (Septoria apiicola)	210	as needed on a 7-14 day interval	

Restrictions: DO NOT apply more than 840 g of FLINT Fungicide per hectare per season. DO NOT apply FLINT Fungicide within 7 days of harvest. DO NOT exceed 4 total applications of FLINT Fungicide per season. To limit the potential for resistance to develop, alternate every strobilurin (Group 11) fungicide application with at least one application of a non-strobilurin fungicide.

#### **Radish:**

Disease Control	Rate g/ha	Application Timing	Notes
Alternaria leaf spot (Alternaria spp.)	280	Begin applications preventatively and continue as needed on a 7-day interval	Use sufficient water to obtain thorough coverage.

Restrictions: DO NOT apply more than 560 g of FLINT Fungicide per hectare per season. DO NOT apply FLINT Fungicide within 7 days of harvest. DO NOT exceed 2 total applications of FLINT Fungicide per season. To limit the potential for resistance to develop, alternate every strobilurin (Group 11) fungicide application with at least one application of a non-strobilurin fungicide.

## **Strawberry:**

Disease Control	Rate g/ha	Application Timing	Notes
Powdery mildew (Podosphaera aphanis)	140	Begin applications preventatively and continue as needed on a 7-14 day interval	Use the shorter spray interval when disease pressure is severe. Use sufficient water to obtain thorough coverage.

Restrictions: DO NOT apply more than 420 g of FLINT Fungicide per hectare per season. FLINT Fungicide may be applied up to the day of harvest. DO NOT exceed 3 total applications of FLINT Fungicide per season. To limit the potential for resistance to develop, alternate every strobilurin (Group 11) fungicide application with at least one application of a non-strobilurin fungicide.

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Bayer CropScience under the User Requested Minor Use Label Expansion program. For these uses, Bayer CropScience has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

#### Hazelnuts

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Disease Control	Rate g/ha	Application Timing	Notes
Eastern Filbert Blight (Anisogramma anomala)	140-280	Begin applications preventively at bud break and continue as needed on a 14-day interval.	Use the higher rate when disease pressure is severe.

Restrictions: DO NOT exceed 4 applications or a total of 1120 g of FLINT Fungicide per hectare per season. DO NOT apply FLINT Fungicide within 60 days of harvest. Apply in a minimum water volume of 500 L/ha. To limit the potential for resistance to develop, DO NOT apply more than 2 sequential applications of FLINT Fungicide or other strobilurin (Group 11) fungicides before alternating with a non-strobilurin fungicide for at least 2 applications.

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Bayer CropScience under the User Requested Minor Use Label Expansion program. For these uses, Bayer CropScience has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

**Christmas trees (spruce and fir)** 

	<u> </u>		
Disease Control	Rate g/ha	Application Timing	Notes
Rhizosphaera needle cast ( <i>Rhizosphaera kalkhoffii</i> ) on spruce and fir  Stigmina needle cast ( <i>Stigmina</i>	210	Apply first application at shoot emergence when new growth is less than 5cm. Sequential applications	Apply to the point of drip in 250 to 1000 L of water per hectare
lautii) on spruce		should be applied at an interval of 7-10 days.	

Restrictions: **DO NOT** apply more than 3 applications or a total of 630 g of FLINT Fungicide per hectare per season. Apply in a minimum water volume of 250 L/ha. To limit the potential for resistance to develop, **DO NOT** apply sequential applications of FLINT Fungicide or other strobilurin fungicides (Group 11 Fungicides). Alternate every strobilurin fungicide application with at least one application of a non-strobilurin fungicide.

Edible Honeysuckle			
	Rate		
Disease Suppression	g/ha	<b>Application Timing</b>	Notes
Powdery mildew (Microsphaera caprifoliacearum and M. Ionicerae)	140-210	Begin applications preventatively and continue on 7-14 day interval.	Use the higher rate and shorter application interval when conditions favour development of severe disease pressure. Use sufficient water to obtain thorough coverage (min 300L/ha).

Restrictions: FLINT Fungicide may be applied up to the first day of harvest. DO NOT exceed 3 total applications of FLINT Fungicide per season. To limit the potential for resistance to develop, alternate every strobilurin (Group 11) fungicide application with at least one application of a non-strobilurin fungicide.

**Bulb Vegetables** (**Crop Group 3-07**): Chive, Chinese, fresh leaves; Chive, fresh leaves; Daylily, bulb; Elegans hosta; Fritillaria; Garlic, bulb; Garlic, great-headed, bulb; Garlic, serpent, bulb; Kurrat; Lady's leek; Leek; Lily; Onion, Beltsville bunching; Onion, bulb; Onion, Chinese, bulb; Onion, fresh; Onion, green; Onion, macrostem; Onion, pearl; Onion, potato, bulb; Onion, tree, tops; Onion, Welsh, tops; Shallot, bulb and fresh leaves; Wild leek

Disease Suppression	Rate g/ha	Application Timing	Notes
Leaf Blight (Botrytis squamosa)	210-280	Begin applications preventatively and continue on a 7-14	Use the shorter spray interval when disease pressure is severe.
Purple Blotch (Alternaria porri)		day interval.	Use sufficient water to obtain thorough coverage.

Restrictions: FLINT Fungicide may be applied up to 7 days of harvest. DO NOT exceed 4 total applications of FLINT Fungicide per crop season. To limit the potential for resistance to develop, alternate every strobilurin (Group 11) fungicide application with at least one application of a non-strobilurin fungicide.

# Section 9: Use Limitations

DO NOT APPLY FLINT FUNGICIDE TO CONCORD GRAPES OR CROP INJURY MAY OCCUR. DO NOT apply FLINT Fungicide where spray drift may reach Concord grapes or crop injury may occur. Spray equipment should be rinsed after applying FLINT Fungicide before application of other products to Concord grapes or crop injury may occur.

## **ROTATIONAL CROPS:**

Treated areas may be replanted IMMEDIATELY following harvest with any crop listed on this label, in addition to wheat, fruiting vegetables and cucurbits. For crops not listed on this label DO NOT plant back within 30 days of last application.

Crop	Pre-Harvest Interval (days)
Grapes	14
Pome fruits	14
Peanut	14
Asparagus	180
Sugar beet	21
Stone fruits	1
Leafy petiole vegetables	7
Root vegetables	7
Strawberry	up to day of harvest
Tree nuts	60
Edible honeysuckle	up to day of harvest
Bulb vegetables	7

# Section 11: Mixing Instructions

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. DO NOT let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the FLINT Fungicide to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the FLINT Fungicide has completely and uniformly dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

## Section 12: Application Precautions

Thorough coverage is necessary to provide good disease control. Applications using sufficient water volume to provide thorough and uniform coverage generally provide the most effective disease control. For ground application equipment, a minimum of 500 L/ha is recommended for tree crops and grapes, and 100 L/ha for other crops.

# **Air Blast Sprayers**

Air assisted or air blast sprayers move spray droplets into the crop canopy using a forced air system. The fan should be set up to deliver only enough air volume to penetrate the

canopy and provide good coverage. Adjust deflectors or other aiming devices to direct spray only to the target area.

Equip sprayers with nozzles that provide accurate and uniform application. Check whirl plates and nozzle discs for wear and replace as necessary. Calibrate the sprayer before use.

Use a pump with a capacity to maintain the correct rated pressure for the nozzles selected. Maintain sufficient agitation to keep the mixture in suspension. Use jet agitators, a liquid sparge tube, or mechanical paddles for agitation.

It is suggested that screens be used to prevent nozzles from clogging. Screens placed after the tank and before the nozzles should be 50 mesh or coarser. Check nozzle manufacturer's recommendations.

# **Broadcast Ground Sprayers**

Equip sprayers with nozzles that provide accurate and uniform application. Be certain that nozzles are the same size and uniformly spaced across the boom. Calibrate the sprayer before use.

Use a pump with the capacity to: (1) maintain a minimum of 241.5 kPa (35 psi) at nozzles, and (2) provide sufficient agitation in the tank to keep the mixture in suspension - this requires recirculation of 10% of the tank volume per minute. Use jet agitators or a liquid sparge tube for vigorous agitation.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the pump should be 16-mesh or coarser. DO NOT place a screen in the recirculation line. Use 50-mesh screens at the nozzles. Check nozzle manufacturer's recommendations.

For information on spray equipment and calibration, consult sprayer manufacturer's and/or provincial recommendations. For specific local directions and spray schedules, consult the current provincial recommendations.

# Section 13: Resistance Management Recommendations

FLINT Fungicide belongs to the strobilurin class of chemistry which exhibits no known cross-resistance to other chemical classes including sterol inhibitors, dicarboximides, benzimidazoles, aniIinopyrimidines, or phenylamides. Trifloxystrobin (the active ingredient in FLINT Fungicide) does exhibit cross-resistance to other strobilurin fungicides such as azoxystrobin and kresoxim-methyl.

For resistance management, please note that FLINT Fungicide contains a Group 11 fungicide. Any fungal population may contain individuals naturally resistant to FLINT Fungicide and other Group 11 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same locations. 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 fungicide resistance:

- Where possible, rotate the use of FLINT Fungicide or other Group 11 fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that is effective on the target pathogen when such use is permitted.
- Avoid application of consecutive sprays of FLINT Fungicide or other fungicides in the same group in a season. Refer to use directions for the maximum number of sequential applications of FLINT Fungicide or other Group 11 fungicides allowed before alternating to a non-strobilurin fungicide.
- Do not exceed the total number of applications of FLINT Fungicide per season as indicated.

СКОР ТҮРЕ	MAXIMUM NUMBER OF APPLICATIONS OF FLINT Fungicide AT ANY RATE
Table or wine grapes	4
Other grapes	3
Pome fruit group (apple, crabapple, loquat, mayhaw, pear, pear oriental, quince)	4
Peanut	6
Asparagus	3
Sugar beet	3
Cherries	5
Stone fruits (except cherries)	4
Leafy petiole vegetables	4
Root vegetables (except radish)	4
Radish	2
Strawberry	2
Tree nuts	4
Christmas trees	3
Edible honeysuckle	3

- 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 CropScience if reduced sensitivity of the pathogen to FLINT Fungicide 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 turf or crop advisors for any additional pesticide resistance management or IPM recommendations for specific pathogens.
- For further information or to report suspected resistance, contact a Bayer CropScience representative at 1-888-283-6847 or at <a href="https://www.bayercropscience.ca">www.bayercropscience.ca</a>.

For more information contact:

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