GROUP 7 FUNGICIDE

# A15457 Fungicide

#### **FUNGICIDE**

#### **EMULSIFIABLE CONCENTRATE**

**COMMERCIAL - AGRICULTURAL** 

Fungicide for control or suppression of diseases in labelled crops.

## **ACTIVE INGREDIENT:**

Benzovindiflupyr......100 g/L

# READ THE LABEL AND ATTACHED PAMPHLET BEFORE USING KEEP OUT OF REACH OF CHILDREN



POISON
DANGER: CORROSIVE TO EYES & SKIN

REGISTRATION NO: 31522
PEST CONTROL PRODUCTS ACT

NET CONTENTS: 0.5 - 1000 L

Syngenta Canada Inc.

140 Research Lane, Research Park Guelph, Ontario N1G 4Z3 Telephone: 1-877-964-3682

Label

#### 1.0 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.

#### 2.0 FIRST AID

**IN CASE OF POISONING**, contact a physician or a poison control centre **IMMEDIATELY**. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

**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 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 treatment advice.

**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.

#### 3.0 TOXICOLOGICAL INFORMATION

There is no specific antidote. Treat symptomatically. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

#### 4.0 PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN AND ANIMALS. Keep unused product in original container tightly closed, locked up and away from food and feed.

CORROSIVE to the eye. DO NOT get in eyes. Causes irreversible eye damage. Harmful or fatal if swallowed. Harmful if inhaled. Avoid inhaling/breathing sprays. Severely irritating to the skin. DO NOT get on skin.

For cane turning and girdling in grapes, DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 days. For all other activities in grapes and other labelled crops, DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Apply only to agricultural crops when the potential for drift to areas of human habitation and

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 other countries in the world and you require information on acceptable residue levels in these countries, please contact Syngenta Canada Inc. at 1-87-SYNGENTA / 1-877-964-3682.

## 5.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks, chemical-resistant footwear and protective eyewear (goggles or face shield) during mixing, loading, application, clean-up and repair. Protective eyewear, chemical-resistant gloves and coveralls are not required during application within a closed cab and/or cockpit.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

All users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

#### 6.0 ENVIRONMENTAL PRECAUTIONS

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

Benzovindiflupyr is persistent and may carryover. It is recommended that this product not be used in areas treated with any products containing benzovindiflupyr during the previous season.

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.

#### 7.0 STORAGE

Store this product away from food or feed. Keep in original container, tightly closed, during storage. Store in a cool, dry, well-ventilated area out of the reach of children and animals. This product does not require heated storage.

### 8.0 DISPOSAL

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.

#### For Returnable Containers

Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

#### For Refillable Containers

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

#### For Recyclable Containers

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.

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING, CALL 1-800-327-8633 (FASTMED)

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Pamphlet

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Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

All users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

#### 6.0 ENVIRONMENTAL PRECAUTIONS

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

Benzovindiflupyr is persistent and may carryover. It is recommended that this product not be used in areas treated with any products containing benzovindiflupyr during the previous season.

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.

#### 7.0 STORAGE

Store this product away from food or feed. Keep in original container, tightly closed, during storage. Store in a cool, dry, well-ventilated area out of the reach of children and animals. This product does not require heated storage.

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- 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.

# IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING, CALL 1-800-327-8633 (FASTMED)

#### 9.0 PRODUCT INFORMATION

A15457 Fungicide is a broad-spectrum product and is recommended for the control or suppression of many important plant diseases. A15457 Fungicide provides disease control of many rust, leaf spots and powdery mildews. A15457 Fungicide is primarily applied as a foliar spray and can be used in block, or alternating spray programs with other crop protection products. All applications should be made according to the use directions listed in the label.

#### 9.1 General Use Precautions

Do not apply A15457 Fungicide through any type of irrigation equipment.

DO NOT USE IN GREENHOUSES (ALONE OR IN TANK MIXTURES).

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

Apply the higher rate and shorter interval under conditions of high disease pressures.

Unless indicated otherwise in the use directions for specific crops, make no more than two sequential applications of A15457 Fungicide before alternating with a non-Group 7 fungicide registered for the same disease.

#### 10.0 DIRECTIONS FOR USE

#### 10.1 General Information

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.

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Syngenta Canada Inc. at 1-87-SYNGENTA (1-877-964-3682) for information before applying any tank mix that is not specifically recommended on this label.

Syngenta Canada Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) of all potential tank-mixes under all environmental conditions or for all crop varieties. Tank mixes that are not specifically listed on this label should be tested on a small area first, under local conditions and using standard practices, to confirm the tank mix is suitable for widespread application.

To determine the physical compatibility of this product with other products, use a jar test.

Always read and follow label directions including WALES mixing order.

Thorough coverage is necessary to provide good disease control. Applications using nozzles, sufficient water volume and pressure to provide thorough and uniform coverage generally provide the most effective disease control.

To avoid spray drift, do not apply when conditions favor drift beyond the target area. Avoid spray overlap, as crop injury may occur.

For more information on spray equipment and calibration, consult sprayer manufacturers and provincial recommendations.

Do not apply through any ultra-low volume (ULV) spray system.

# 10.2 Ground Application

- Apply in a minimum of 150 L of water per hectare, unless specified otherwise.
- Do not apply through any ultra-low volume (ULV) spray system.
- Thorough coverage is necessary to provide good disease control.

<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 S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

## 10.2.1 Mixing Instructions

- 1. Ensure that the sprayer interior is clean, then fill the spray tank with ½ the required amount of water and engage gentle agitation. Good agitation is indicated by a rippling or rolling action on the surface of the water.
- 2. Add any WG or DF formulation mix partners and agitate to ensure complete mixing.
- 3. Add any additional SC formulation mix partners and agitate to ensure complete mixing.
- 4. Add A15457 Fungicide and agitate to ensure complete mixing.
- 5. Add any other EC formulation mix partners and agitate to ensure complete mixing.
- 6. Fill the tank to 3/4 the required amount of water.
- 7. Add any solution (SN or SL) formulation mix partners and agitate to ensure complete mixing.
- 8. Finish filling the sprayer with water, maintaining good agitation.
- 9. After any break in spraying operations, agitate thoroughly before spraying again.
- 10. Spray the pesticide suspension the same day as mixing.
- 11. **DO NOT** mix, load or clean spray equipment where there is a potential to contaminate wells or aquatic systems.

When using chemical handling equipment to fill the sprayer, the following additional recommendations apply:

- WG and DF formulations are preferentially batch mixed.
- SC, SN, and SL formulations may be inducted or batch mixed.
- EC formulations are preferentially batch mixed.

#### 10.2.2 Spraying Instructions

- 1. <u>Water Volume:</u> Apply in a minimum spray volume of 150 L/ha OR the volume given in the crop and pest specific instructions tabulated below, whichever is LARGER.
- 2. <u>Sprayer Agitation</u>: Use a jet agitator or liquid sparge tub which recirculates 10% or more of the tank per minute. **DO NOT** use an air sparger.
- 3. <u>Pump:</u> Screens should be used to protect the pump and prevent clogging. Use 16 mesh or *coarser* screens on the suction side of the pump. **DO NOT** place a screen in the recirculation line. Use 50 mesh or *coarser* screens between the pump and boom.
- 4. <u>Spray Nozzles:</u> 80° or 110° drift reducing flat fan (e.g. those with a pre-orifice or turbulence chamber) or air induction nozzles are recommended. Use 50 mesh nozzle screens. **DO NOT** use flood type nozzles, controlled droplet application equipment, spray foils or hollow cone nozzles.
- 5. <u>Pressure:</u> As recommended by the nozzle manufacturer to achieve ASAE medium sized droplets.

6. Apply at uniform speed and avoid overlapping. Shut off spray boom while starting, turning, slowing or stopping to avoid potential crop injury from over application.

# 10.2.3 Equipment Clean-Up

#### Before Spraying:

Prior to using A15457 Fungicide, ensure that the spray tank, chem handling equipment, lines and filter are thoroughly cleaned.

#### After Spraying:

Thoroughly clean application equipment immediately after spraying. **DO NOT** let A15457 Fungicide residue to dry within application equipment.

When using tank mixes, consult the tank-mix partner label for additional clean-up instructions.

The following recommendations are provided:

- 1. Drain and flush tank walls, boom and all hoses for ten minutes with a clean water/detergent mixture. Rinse with clean water. **DO NOT** clean application equipment near desirable vegetation, wells or other water sources.
- 2. Remove all nozzles and screens and wash separately.
- 3. Dispose of all rinsate in accordance with provincial regulations.

# 10.3 Airblast Application

<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.

## 10.3.1 Spraying Instructions

- 1. <u>Water Volume:</u> Apply in a minimum spray volume of 375 L/ha OR the volume given in the crop and pest specific instructions tabulated below, whichever is LARGER. Water volume should exceed the minimum recommendation at later stages of fruit development.
- 2. <u>Spray Quality:</u> Select nozzles and pressure to achieve a minimum of ASAE fine sized droplets.
- 3. <u>Spray Distribution:</u> Select nozzles, orient deflectors, and adjust air speed and volume to ensure only the canopy is sprayed. Spray should just reach the top of the target. Account for the shape and canopy density of the target when setting spray distribution.
- 4. Apply at uniform speed and avoid overlapping. Shut off spray boom while starting, turning, slowing or stopping to avoid potential crop injury from over application.

#### 10.4 Aerial Application

<u>Aerial application</u>: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply when wind speed is greater than 16 km/h at flying height at the site of application. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotorspan.

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions, and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. When no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

#### **10.4.1 Operator Precautions**

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

#### 10.4.2 Pilot Precautions

Read and understand the entire label before using this product. Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the *National Aerial Pesticide Application Manual*, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides. Ensure uniform application and a uniform spray with minimum potential for drift. To avoid streaked, uneven or overlapped application, use appropriate marking technology. GPS based marking is preferred.

#### 10.4.3 Mixing Instructions

Mixing this product directly in the aircraft hopper **IS NOT** recommended. The use of chemical handling or managing equipment to load the hopper **IS** recommended. This product **MAY BE** inducted into a hopper which is prefilled with water or when the product and water are mixed prior to entering the hopper. This product **MAY BE** batch mixed and pumped into the hopper. In all cases the chemical handling equipment and hopper interior must be clean prior to use.

**NOTE:** WG and DF formulations are preferentially batch mixed.

NOTE: SC, SN, and SL formulations may be inducted or batch mixed.

**NOTE:** EC formulations are preferentially batch mixed.

It is **NOT** recommended to combine solid (WG or DF) formulations with liquid tank mix partners within a single batch. Batch mix WG or DF formulations first, pump into the hopper, and then add liquid tank mix partners by induction or as an additional batch mix. When tank mixing multiple products, follow the mixing order outlined below:

- 1. Pump water into the hopper to at least ¼ to ½ of the desired spray volume. Engage hopper circulation, if possible.
- 2. Thoroughly batch mix any WG or DF formulation mix partners and agitate to ensure complete mixing. Pump into the hopper
- 3. Induct or thoroughly batch mix any SE or SC formulations.
- 4. Thoroughly batch mix A15457 Fungicide and any EC formulation mix partners. EC formulations may be added to the batch from Step 3, if desired.
- 5. Induct or thoroughly batch mix any solution (SN or SL) formulation mix partners. SN/SL formulations may be added to the batch from Step 3, if desired.
- 6. Pump batch mixed SC, EC, and/or SN/SL products into the hopper.
- 7. Finish filling the hopper with water.
- 8. If it was not possible to engage hopper agitation in Step 1, do so as soon as possible once airborne.
- 9. Spray the pesticide suspension the same day as mixing.
- 10. **DO NOT** mix, load or clean equipment where there is a potential to contaminate wells or aquatic systems.

# Mixing in the Spray Tank

- Add  $\frac{1}{2}$ - $\frac{2}{3}$  of the required amount of water to the spray or mixing tank.
- With the agitator running, add the tank-mix partner(s) into the tank in the same order as described above.
- Allow the material to completely dissolve and disperse into the mix water. Continue agitation while adding the remainder of the water and A15457 Fungicide to the spray tank.
- Allow A15457 Fungicide to completely disperse.
- Spray the mixture with the agitator running.

#### 10.4.4 Spraying Instructions

- 1. <u>Water Volume:</u> Apply in a minimum spray volume of 45 L/ha OR the volume given in the crop and pest specific instructions tabulated below, whichever is LARGER.
- 2. <u>Spray Nozzles:</u> Use only ASAE medium or coarse nozzles rated as delivering droplets of volume median diameter of 300 microns or greater.
- 3. <u>Pressure:</u> As recommended by the nozzle manufacturer to achieve ASAE medium sized droplets.
- 4. Ensure hopper agitation is engaged whenever possible during flight.

#### 10.4.5 Equipment Clean-Up

#### Before Spraying:

Prior to using A15457 Fungicide, ensure that the hopper, chem handling equipment, lines and filter are thoroughly cleaned.

#### After Spraying:

Thoroughly clean application equipment immediately after spraying. **DO NOT** let A15457 Fungicide residue to dry within application equipment.

When using tank mixes, consult the tank-mix partner label for additional clean-up instructions.

The following recommendations are provided:

- Drain and flush tank walls, boom and all hoses for ten minutes with a clean water/detergent mixture. Rinse with clean water. **DO NOT** clean application equipment near desirable vegetation, wells or other water sources.
- 2. Remove all nozzles and screens and wash separately.
- 3. Dispose of all rinsate in accordance with provincial regulations.

# 10.5 Product Specific Precautions

Follow recommendations provided by local disease monitoring services or provincial spray calendars regarding the appropriate application timing for protectant fungicides in your area. Cultural practices such as canopy management and removal of overwintered plant debris should be integrated with the use of fungicides to reduce disease incidence. Use the higher rate, and the shorter application interval under conditions of heavy infection pressure, on highly susceptible varieties, or when environmental conditions are favourable for disease development.

A15457 Fungicide treatments should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, plant residue management, crop rotation, and proper timing and placement of fertilizer and irrigation. Fungicide applications should begin prior to disease infection and continue throughout the season following a resistance management strategy (see **Resistance Management Recommendations**).

Read and understand the entire label before opening this product. If you have questions, call Syngenta Canada Inc. at 1-877-964-3682 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

Volume: Apply the recommended rate in a minimum spray volume of 45 litres per hectare.

#### 10.6 Spray Buffer Zones

A spray buffer zone is NOT required for uses with hand-held application equipment permitted on this label.

Use of low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage, soil drench or soil incorporation do not require a spray buffer zone.

The spray 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	)	Spray Buffer Zones (metres) Required for the Protection of:					
			Freshwater Habitat of Depths:		Estuarir Habitat d	Terrestrial habitat		
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m		
Field sprayer	Potatoes and sweet potatoes*, fruiting vegetables, cucurbit vegetables, onions, sugar beets		15	2	1	1	1	
	Dried shelled pea and bean, soybeans, lowbush blueberries, cereals (wheat, barley, oats, rye, triticale), corn (field, sweet, pop and specialty), lowbush blueberries, grasses grown for seed (timothy, annual and perennial ryegrass)		10	1	1	1	1	
	Rapeseeds		5	1	1	1	0	
Airblast	Small fruits vine climbing	Early growth stage	50	25	15	5	3	
		Late growth stage	40	15	5	3	2	
	Pome fruits	Early growth stage	45	20	10	3	2	
		Late growth stage	35	10	4	2	1	

Method of application	Сгор		Crop Spray Buffer Zones (metres) R of:					equired for the Protection		
				ter Habitat epths:		ne/Marine of Depths:	Terrestrial habitat			
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m				
Aerial	Potatoes and sweet*	Fixed wing	675	15	5	1	15			
	potatoes, dried shelled pea and bean, soybeans, cereals (wheat, barley, oats, rye, triticale), corn (field, sweet, pop and specialty)	Rotary wing	325	10	2	1	10			
	Rapeseed	Fixed wing	125	10	1	1	0			
		Rotary wing	125	5	1	1	0			

<sup>\*</sup> For potatoes and sweet potatoes: If applications are made by one method (ground or air) all consecutive applications must be made by the same method – it is not acceptable to mix aerial and ground applications in the same calendar year. Do not make more than 4 applications by ground (for a total of 3 L/ha/season of A15457 Fungicide). Do not make more than 2 applications by air (for a total of 1.5 L/ha/season of A15457 Fungicide).

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray 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.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

# 10.7 Rotational Crop Restrictions

Please see the following table for the crop rotational restrictions:

Rotational Crops	Planting Time From Last A15457 Fungicide Application
Potatoes and tuberous and corm vegetable subgroup (CG 1C)	
Dried shelled pea and bean subgroup (CG 6C) Soybeans	
Fruiting vegetables crop group (CG 8-09) Cucurbit vegetables crop group (CG 9)	
Cereals (wheat, barley, oats, rye, triticale)	0 days
Grasses grown for seed (timothy, annual and perennial ryegrass)	
Corn (field, sweet, pop and specialty)	
Rapeseed subgroup (CG 20A)	
Onions (Crop Subgroups 3-07A and 3-07B)	
Sugar beets	
All other crops Intended for Food and Feed	6 months/180 days

#### 11.0 CROP USE DIRECTIONS

Apply the higher rate and shorter interval under conditions of high disease pressures.

Diseases are controlled unless otherwise indicated as suppressed.

# 11.1 Potatoes and Sweet Potatoes – Foliar Applications

**Application Timing/Instructions:** Begin foliar applications prior to disease development and continue throughout the season on a 7-14 day interval. If disease pressure is high, use the highest rate and shortest interval. For best results, sufficient water volume must be used to provide thorough coverage. A15457 Fungicide can be applied by ground or aerial application. Please see Specific Use Restrictions for number of application by each method. A minimum spray volume of 150 L/ha for ground applications is recommended. For aerial applications, a minimum of 45 L/ha of water is recommended.

- 1. Do not make more than 2 applications using aerial application (for a total of 1.5 L/ha/season of A15457 Fungicide) OR do not make more than 4 applications by ground (for a total of 3 L/ha/season of A15457 Fungicide). If applications are made by one method (ground or aerial application) all consecutive applications must be made by the same method it is not acceptable to mix aerial and ground applications in the same calendar year.
- 2. Do not apply more than 100 g a.i./ha of foliar benzovindiflupyr-containing products on potato crops per season if an in-furrow application was made.
- 3. Do not apply within 14 days of harvest (14-day PHI) for foliar applications.
- 4. Do not apply more than 2 consecutive applications before switching to a non-Group 7 fungicide. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program.

Discours controlled at 500 750 rel man deat/ha	Forby Elimba / Allama aria a alama
Diseases controlled at 500-750 mL product/ha	Early blight (Alternaria solani)

# 11.2 Potatoes – In Furrow Application

**Application Timing/Instructions:** Make an in-furrow application in a water volume of 50-150 L per hectare at planting. Mount the spray nozzle so the spray is directed into the furrow as a 15-20 cm band just before the seed is covered. Apply the spray in a narrow band over the seed piece. Do not apply by air.

#### **Specific Use Restrictions:**

1. Do not apply more than 100 g a.i./ha of foliar benzovindiflupyr-containing products on potato crops per season if an in-furrow application was made.

Diseases suppressed at 500-750 mL product/ha.	Stem and stolon canker and black scurf
See Rate Conversion Chart – Potatoes for rates per	(Rhizoctonia solani)
100 m row	
Diseases suppressed at 750 mL product/ha. See	Verticillium wilt (Verticillium dahliae)
Rate Conversion Chart – Potatoes for rates per 100	
m row	
Diseases suppressed at 500-750 mL product/ha.	Silver scurf (Helminthosporium solani)
See Rate Conversion Chart – Potatoes for rates per	
100 m row	

#### **RATE CONVERSION CHART - POTATOES**

	Rate	in ml	_ proc	luct /1	00 m	row fo	r spec	ified r	ow spa	acing
Rate mL product /ha	Row Spacing (cm)									
	75	80	85	90	95	100	105	110	115	120
500	3.8	4.0	4.3	4.5	4.8	5.0	5.3	5.5	5.8	6.0
750	5.6	6.0	6.4	6.8	7.1	7.5	7.9	8.3	8.6	9.0

#### 11.3 Sugar Beets

**Application Timing/Instructions:** Apply once in-furrow at seeding with a minimum water volume of 50 L/ha or a banded application with a minimum water volume of 100 L/ha over the row soon after emergence but before the 6th leaf stage. If cool soil conditions are expected after planting which could result in an extended period of plant emergence, do not apply A15457 in-furrow.

Diseases suppressed at 500-750 mL product/ha.	Rhizoctonia root and crown rot
	(Rhizoctonia solani)

# 11.4 Dried Shelled Pea and Bean (except soybean) (Crop Subgroup 6C)\*

**Application Timing/Instructions:** Make the first application prior to disease development. A second application can be made 14 days after the first application, when disease pressure is severe or when agronomic or weather conditions are conducive to disease development or movement. If disease pressure is high, use the highest rate and shortest interval. For best results, sufficient water volume must be used to provide thorough coverage. A minimum spray volume of 100-200 L/ha for ground applications is recommended. For aerial applications, a minimum of 45 L/ha of water is recommended.

### **Specific Use Restrictions:**

- 1. Do not apply more than 1.5 L/ha/season of A15457 Fungicide.
- 2. Do not apply within 15 days of harvest for dry shelled peas and beans (15-day PHI).
- 3. Dry pea hay and vines may be fed or harvested 15 days (15-day PHI) after last application.
- 4. Do not apply more than 2 consecutive applications before switching to a non-Group 7 fungicide. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program.
- Not all members of the legume vegetable subgroup 6C have been tested for efficacy and phytotoxicity at the recommended label rates, and should be used at the discretion of the user.

Diseases controlled at 500-750 mL product/ha	Ascochyta blight (Ascochyta spp.)
-	Asian soybean rust (Phakopsora pachyrhizi)
	Anthracnose (Colletotrichum spp.)

\*Complete list of crops (CSG 6C): dried cultivars of bean (*Lupinus* spp.) (includes grain lupin, sweet lupin, white lupin, and sweet white lupin); bean (*Vigna* spp.) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, southern pea, urd bean); (*Phaseolus* spp.) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean,); broad bean (dry, faba bean); chickpea; guar; lablab bean; lentil; pea (*Pisum* spp.) (includes field pea); and pigeon pea

# 11.5 Soybeans

**Application Timing/Instructions:** Make the first application prior to disease establishment. A second application can be made 7-14 days after the first application, when disease pressure is severe or when agronomic or weather conditions are conducive to disease development or movement. If disease pressure is high, use the highest rate and shortest interval. For best results, sufficient water volume must be used to provide thorough coverage. A minimum spray volume of 100-200 L/ha for ground applications is recommended. For aerial applications, a minimum of 45 L/ha of water is recommended.

#### **Specific Use Restrictions:**

- 1. Do not apply more than 1.5 L/ha/season of A15457 Fungicide.
- 2. Do not apply within 14 days of harvest for soybean grain (14-day PHI).
- 3. Soybean forage and hay may be fed or harvested 1 day (1-day PHI) after last application.
- 4. For best management practices when applying A15457 Fungicide to soybean, apply in tank-mix or pre-mix with another fungicide from a different mode of action group that controls the same pathogen.
- 5. Apply a maximum of two A15457 fungicide or other SDHI containing sprays per soybean crop. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program.

Diseases controlled at 300-750 mL product/ha	Asian soybean rust (Phakopsora pachyrhizi)
Diseases controlled at 500-750 mL product/ha	Septoria brown spot (Septoria glycines)
Diseases suppressed at 500-750 mL	Frogeye leaf spot (Cercospora sojina)
product/ha	Pod and stem blight (Diaporthe phaseolorum)

## 11.6 Fruiting Vegetables \*

**Application Timing/Instructions:** Begin applications prior to disease development and continue throughout the season on a 7 day interval, starting at first fruit set for all diseases except early

blight. For early blight apply on a 7-14 day interval starting prior to disease establishment. If disease pressure is high, use the highest rate. For best results, sufficient water volume must be used to provide thorough coverage. Apply as a broadcast foliar spray in a minimum of 150 L/ha of water for thorough coverage.

# **Specific Use Restrictions:**

- 1. Do not apply more than 3 L/ha/season of A15457 Fungicide.
- 2. Do not apply by air.
- 3. Do not apply within 1 day of harvest (1-day PHI).
- 4. If used solo, apply A15457 Fungicide in strict alternation with fungicides from a different cross-resistance group.
- 5. If use in mixture, do not apply more than 2 consecutive applications before switching to a non-Group 7 fungicide. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program.

Diseases controlled at 500-750 mL product/ha	Early blight (Alternaria solani)		
	Anthracnose (Colletotrichum spp.)		
	Powdery mildew (Oidiopsis sicula)		
	Septoria leaf spot (Septoria lycopersici)		
*Complete list of crops: Eggplant; Groundcherry; Okra; Pepino; Pepper (includes bell pepper, chili			
pepper, cooking pepper, pimento, sweet pepper); Tomatillo: Tomato			

# 11.7 Cucurbit Vegetables \*

**Application Timing/Instructions:** Begin applications prior to disease development and continue throughout the season on a 7 day interval. If disease pressure is high, use the highest rate. For best results, sufficient water volume must be used to provide thorough coverage. Apply as a broadcast foliar spray in a minimum of 150 L/ha of water for thorough coverage. To control Gummy stem blight use 190 L/ha of water.

#### **Specific Use Restrictions:**

- 1. Do not apply more than 3 L/ha/season of A15457 Fungicide.
- 2. Do not apply by air.
- 3. Do not apply within 1 day of harvest (1-day PHI).
- 4. Do not apply more than 2 consecutive applications before switching to a non-Group 7 fungicide.
- 5. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program.

Diseases controlled at 500-750 mL product/ha	Powdery mildew (Sphaerotheca fuliginea,	
	Erysiphe cichoracearum)	
	Alternaria leaf blight and spot ( Alternaria	
	cucumerina and A. alternata)	
Diseases controlled at 750 mL product/ha	Anthracnose (Colletotrichum orbiculare)	
	Cercospora leaf spot (Cercospora citrullina)	
	Gummy stem blight (Didymella bryoniae)	
•*Complete list of crops: Chinese waxgourd; Citron melon; Cucumber (field); Gerkin; Gourd, edible;		
Momordica spp.; Muskmelons (includes cantaloupe); Pumpkin; Squash, summer (includes zucchini);		
Squash, winter; Watermelon. Including cultivars and/or hybrids of these.		

#### 11.8 Pome Fruits \*

Application Timing/Instructions for Protective Spray Schedule against Scab: Apply every 7-10 days starting at 6-13 mm (¼-½ inch) green tip or when environmental conditions become conducive for scab. If disease pressure is high, use the highest rate. Continue through petal fall until the threat of primary scab is complete. For improved fruit scab control, combine A15457 Fungicide with a protectant fungicide registered to control scab (such as Allegro® 500F Fungicide, Dithane™ DG 75 Fungicide, Manzate® Pro-Stick™ Fungicide and Penncozeb® 75DF Fungicide). Only apply in combination on crops appearing on the labels of both partner products.

Application Timing/Instructions for Forecasting Spray Schedule against Scab: Use a forecasting system beginning at green tip. Apply within 48 hours of the onset of an infection period. Apply a follow-up spray after 7 days. For improved fruit scab control, combine A15457 Fungicide with a protectant fungicide registered to control scab beginning at bloom (such as Allegro 500F, Dithane DG 75 Fungicide, Manzate Pro-Stick Fungicide and Penncozeb 75DF Fungicide). Only apply in combination on crops appearing on the labels of both partner products. For best results, sufficient water volume must be used to provide thorough coverage. A minimum spray volume of 375 L/ha for ground applications is recommended. The most restrictive directions must be followed.

**General Application Timing/Instructions:** Begin applications preventively. Apply A15457 Fungicide alone or in combination with other non-Group 7 fungicides. For resistance management, apply no more than 2 consecutive sprays before alternating to a non-Group 7 containing fungicide. For best results, sufficient water volume must be used to provide thorough coverage. A minimum spray volume of 375 L/ha for ground applications is recommended.

#### **Specific Use Restrictions:**

- 1. Do not apply more than 2 L/ha/season of A15457 Fungicide.
- 2. Do not apply by air.
- 3. Do not apply within 30 day of harvest (30-day PHI).
- 4. Do not apply more than 2 consecutive applications before switching to a non-Group 7 fungicide. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program.

Diseases controlled at 300-500 mL product/ha	Scab (Venturia inaequalis and V. pyrina)	
Diseases controlled at 500 mL product/ha	Powdery mildew (Podosphaera leucotricha)	
	Alternaria blotch (Alternaria mali)	
*Complete list of crops: Apples, Crabapples, Pear, Pear (Asian), Quince, and Cultivars, varieties and/or		
hybrids of these commodities		

#### 11.9 Blueberries (Lowbush) – SPROUTING AND FRUITING YEARS

**Application Timing/Instructions:** Apply at the first sign of disease. A second application can be made 10-14 days after the first application, when disease pressure is severe or when agronomic or weather conditions are conducive to disease development or movement. A minimum spray volume of 200-300 L/ha for ground applications is recommended.

- 1. Do not apply more than 1.5 L/ha/season of A15457 Fungicide.
- 2. Do not apply by air.
- 3. Do not apply within 1 days of harvest (1-day PHI).
- 4. Add non-ionic surfactant to achieve a final concentration of 0.2% v/v in the spray tank. If using an organo-silicone blend or vegetable based crop oil, the rate should be 0.125%

v/v.

- 5. Apply A15457 Fungicide in strict alternation with fungicides from a different cross-resistance group.
- 6. Crop safety has been found to be acceptable; however, not all possible blueberry clones have been tested under all conditions. It is recommended to test A15457 Fungicide on a representative portion of the crop and in local conditions to ensure that a phytotoxic response will not occur.

Disease controlled at 500-750 mL product/ha	Blueberry leaf rust (Thekopsora minima)
Disease supressed at 750 mL product/ha	Valdensinia leaf spot (Valdensinia heterodoxa)

#### 11.10 Small Fruits Vine Climbing

**Application Timing/Instructions:** For powdery mildew, begin at bud break and apply on a 7-21 day interval. Use the high rate and shorter interval when conditions are more conducive to disease. Apply in sufficient water volume to obtain thorough coverage. A minimum spray volume of 150 L/ha is recommended.

## **Specific Use Restrictions:**

- 1. Do not apply more than 3 L/ha/season of A15457 Fungicide.
- 2. Do not apply by air.
- 3. Do not apply within 21 days of harvest (21-day PHI).
- 4. If used solo, apply A15457 Fungicide in strict alternation with fungicides from a different cross-resistance group.
- 5. If used in mixture, do not apply more than 2 consecutive applications before switching to a non-Group 7 fungicide. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program.
- 6. Do not apply more than three total applications of any Group 7 product per season on grapes. A fourth application is allowed where 12 or more fungicide applications are made.

Diseases product/ha	controlled	at	500-750	mL	Powdery mildew (Erysiphe spp., Sphaerotheca spp.)
*Complete list of crops:Gooseberry, Grape, Maypop, Amur River Grape, Schisandra berry and					
cultivars,	varieties and/	or hyl	orids of thes	se	

#### 11.11 Cereal Crops

**Application Timing/Instructions:** Apply A15457 Fungicide prior to disease development. Make applications no closer than 14 days apart.

For early disease suppression, apply at beginning of tillering to stem elongation (BBCH 21-30 or Feekes 2-4), typically when herbicide treatments are applied.

For disease control or suppression on the stem or leaves, apply at beginning of stem elongation to the end of flowering (BBCH 29-70 or Feekes 4-10.5.4). If disease pressure is high, use the highest rate. A minimum spray volume of 100 L/ha for ground applications is recommended.

- 1. Do not apply more than 1.5 L/ha/season of A15457 Fungicide.
- 2. For best management practices when applying A15457 Fungicide to cereal crops, apply in tank-mix or pre-mix with another fungicide from a different mode of action group that

- controls the same pathogen.

  3. Do not apply more than a total of 2 Group 7 applications per season on cereals.

  4. Do not apply after Feekes 10.5.4 or BBCH 70 (full flower).
- 5. Forage and hay may be fed or harvested 7 days (7-day PHI) after last application.

Crops	Wheat
Diseases controlled at 300-750 mL	Stem rust (Puccinia graminis)
product/ha	Leaf rust (P. recondita)
[	Stripe rust (P. striiformis)
Diseases controlled at 500-750 mL	Septoria leaf blotch (Septoria tritici)
product/ha	Tan spot (Pyrenophora tritici-repentis)
	Powdery mildew (Erysiphe graminis)
Crops	Barley
Diseases suppressed at 300 mL product/ha	Net blotch (Drechslera teres)
	Barley scald (Rhynchosporium secalis) – Under
	low disease pressure only.
Diseases controlled at 300-750 mL	Leaf rust (Puccinia hordei)
product/ha	Stem rust (P. graminis)
	Crown rust (P. coronata)
	Stripe rust (P. striiformis)
Diseases controlled at 500-750 mL	Septoria leaf blotch (Septoria tritici)
product/ha	Tan spot (Pyrenophora tritici-repentis)
	Net blotch (Drechslera teres)
	Barley scald (Rhynchosporium secalis)
	Powdery mildew (Erysiphe graminis)
Crops	Rye
Diseases controlled at 300-750 mL/ha	Stem rust (P. graminis)
	Stripe rust (P. striiformis)
	Leaf rust (Puccinia recondita)
Diseases controlled at 500-750 mL	Septoria leaf blotch (Septoria tritici)
product/ha	Tan spot (Pyrenophora tritici-repentis)
	Powdery mildew (Erysiphe graminis)
Crops	Oats
Diseases suppressed at 300 mL product/ha	Net blotch (Drechslera teres)
	Scald (Rhynchosporium secalis) – Under low
Discourse and will also also 750 ml	disease pressure only.
Diseases controlled at 300-750 mL	Stem rust (Puccinia graminis)
product/ha	Crown rust (P. coronata) Leaf rust (P. recondita)
Diseases controlled at 500-750 mL	Septoria leaf blotch (Septoria tritici)
product/ha	Net blotch (Drechslera teres)
Productina	Scald (Rynchopsporium secalis)
	Powdery mildew (Erysiphe graminis)
	i owaci y iniliaew (Liysipile graniinis)

Crops	Triticale
Diseases controlled at 300-750 mL product/ha	Leaf rust (P. recondita)
Diseases controlled at 500-750 mL product/ha	Septoria leaf spot (Septoria tritici) Tan spot (Pyrenophora tritici-repentis) Net blotch (Drechslera teres) Scald (Rynchopsporium secalis) Powdery mildew (Erysiphe graminis

# 11.12 Corn (Field, Sweet, Popcorn and Specialty Including All Cultivars and/or Hybrids of These, Including Seed Production)

**Application Timing/Instructions:** Begin applications prior to disease onset when conditions are conducive for disease. Make applications no closer than 7 days apart. A minimum spray volume of 200 L/ha for ground applications is recommended. For aerial applications, a minimum of 45 L/ha of water is recommended.

#### **Specific Use Restrictions:**

- 1. Do not apply more than 1.5 L/ha/season of A15457 Fungicide.
- 2. Do not apply within 7 days of harvest for corn grain and sweet corn (7 day-PHI)
- 3. Forage may be fed or harvested 7 days (7-day PHI) after last application.
- 4. Do not apply more than 2 consecutive applications before switching to a non-Group 7 fungicide. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program.

Diseases controlled at 300-750 mL product/ha	Rust (Puccinia sorghi)
Diseases controlled at 500-750 mL product/ha	Grey leaf spot (Cercospora zeae-maydis)

#### 11.13 Rapeseeds\*

**Application Timing/Instructions:** Apply during the rosette stage between 2nd true leaf and bolting. A minimum spray volume of 100 L/ha for ground applications is recommended. For aerial applications, a minimum of 45 L/ha of water is recommended.

- 1. Do not apply more than 0.75 L/ha/season of A15457 Fungicide.
- 2. Do not apply within 30 days of harvest (30-day PHI).
- 3. Do not graze the treated rape crop or harvest for forage.

Diseases controlled at 500-750 mL product/ha	Blackleg (Leptosphaeria maculans)	
*Complete list of crops: Crambe, Gold of pleasure	, Hare's ear mustard, Lesquerella, Lunaria, Mustard	
seed, Oil radish, Rapeseed (canola), Sweet rocket and Cultivars and/or hybrids of these.		

#### 11.14 Grasses Grown for Seed

TIMOTHY	
CROPS	Timothy
DISEASES CONTROLLED	Stem Rust (Puccinia graminis)
PRODUCT RATE (L/ha)	0.3- 0.75 If disease pressure is high, use the highest rate. A minimum spray volume of 100 L/ha for ground applications is recommended.
APPLICATION TIMING	Apply prior to disease development. Make applications no closer than 14 days apart.

#### **Specific Use Restrictions:**

- 1. DO NOT apply more than 1.5 L/ha/season of A15457 Fungicide.
- 2. Do not apply by air.
- 3. For best management practices when applying A15457 Fungicide to grasses crops, apply in tank-mix or pre-mix with another fungicide from a different mode of action group that controls the same pathogen.
- 4. Do not apply more than a total of 2 Group 7 applications per season on grasses.
- 5. DO NOT apply to crop 20 days before harvest (20 day PHI).
- 6. DO NOT feed hay cut within 20 days of the last application.
- 7. DO NOT graze treated areas within 140 days of the last application.

GROUND APPLICATION: Apply specified product rate in a minimum of 100 L of water per hectare.

ANNUAL RYEGRASS AND PERENNIAL RYEGRASS		
CROPS	Annual Ryegrass and Perennial Ryegrass	
DISEASES CONTROLLED	Crown Rust (Puccinia coronata)	
PRODUCT RATE (L/ha)	0.3- 0.75 If disease pressure is high, use the highest rate. A minimum spray volume of 100 L/ha for ground applications is recommended.	
APPLICATION TIMING	Apply prior to disease development. Make applications no closer than 14 days apart.	

#### Specific Use Restrictions

- 1. DO NOT apply more than 1.5 L/ha/season of A15457 Fungicide.
- 2. Do not apply by air.
- 3. For best management practices when applying A15457 Fungicide to grasses crops, apply in tank-mix or pre-mix with another fungicide from a different mode of action group that controls the same pathogen.
- 4. Do not apply more than a total of 2 Group 7 applications per season on grasses.
- 5. DO NOT apply to crop 20 days before harvest (20 day PHI).
- 6. DO NOT feed hay cut within 20 days of the last application.
- 7. DO NOT graze treated areas within 140 days of the last application.

GROUND APPLICATION: Apply specified product rate in a minimum of 100 L of water per hectare.

#### 12.0 MINOR USES

# READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Syngenta Canada Inc. under the User Requested Minor Use Label Expansion program. For these uses, Syngenta Canada Inc. 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.

#### 12.1 Bulb Onions and Green Onions

Crops	Bulb onion (Subgroup 3-07A) and Green onion (Subgroup 3-07B)
Disease Controlled	Purple blotch (Alternaria porri) and garlic rust (Puccinia allii)
Disease Suppressed	Leaf blight (Stemphylium vesicarium)
Use rate (mL product/ha)	750
Application Timing/Instructions	Begin applications when the plants are 5-10 centimeters high or when conditions become favourable for disease development.  Make applications on a 7 – 14 days interval. Use the shorter interval when conditions are more conducive to disease.  Apply specified rates in a minimum of 150 L of water per hectare up to 600 L of water per hectare.

Complete list of crops: Dry bulb: Onion, bulb; Onion, Chinese, bulb; Garlic, bulb; Garlic, greatheaded (elephant); Shallot, bulb

**Green Onion:** Green onions; Leek; Welch onion; Chives, fresh leaves; Chives, Chinese; Shallot, fresh leaves; Lady's leek, Onion, fresh' Onion, tree, tops; Wild leek

#### Specific Use Restrictions:

- 1. Do not apply more than 3 L/ha/season of A15457 (maximum 4 applications per season).
- 2. Do not apply by air.
- 3. Do not apply within 7 days of harvest (7-day PHI).
- 4. Do not apply more than 2 consecutive applications before switching to a non-Group 7 fungicide. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program.

Crops	Blueberries (Lowbush) – SPROUTING AND FRUITING Years
Disease Suppressed	Septoria leaf spot (Septoria spp.)
Use rate (mL product/ha)	750
Adjuvant Use	Add non-ionic surfactant to achieve a final concentration of 0.2%
	v/v in the spray tank. If using an organo-silicone blend or vegetable
	based crop oil, the rate should be 0.125% v/v.
Application Timing/Instructions	Apply at the first sign of disease.
	Make applications on a 10 to 14 day interval. Use the shorter interval when conditions are more conducive to disease.  Apply specified rate in a minimum of 200 - 300 L of water per hectare.

- 1. Do not apply more than 1.5 L/ha/season of A15457 (maximum 2 applications per season).
- 2. Do not apply by air.
- 3. Do not apply within 1 day of harvest (1-day PHI).

- 4. Apply A15457 Fungicide in strict alternation with fungicides from a different cross-resistance group.
- 5. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program.

#### 13.0 RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, A15457 Fungicide contains a Group 7 fungicide in the succinyl dehydrogenase inhibitor (SDHI) class. Any fungal population may contain individuals naturally resistant to benzovindiflupyr and other Group 7 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. 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 benzovindiflupyr or other Group 7 fungicides with different groups that control the same pathogens.

Apply no more than 2 sequential applications unless otherwise stated in the crop section.

Use tank mixtures with fungicides from a different group that is effective on the target pathogen when such use is permitted.

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 sign of resistance development. Notify Syngenta Canada Inc. if reduced sensitivity of the pathogen to A15457 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, to which pathogen resistance has not developed.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.

For further information or to report suspected resistance, Contact Company representatives at 1-87-SYNGENTA (1-877-964-3682) or at <a href="https://www.syngenta.ca">www.syngenta.ca</a>.

**Application Limitations and Pre-harvest Intervals** 

Crop*	Maximum Product Rate/ha/application (mL/ha)	Maximum total (L/ha/ Season)	Pre-Harvest Interval (PHI) (days)	Minimum Re- treatment Interval (days)
Potatoes	750 (foliar) 750 (soil)	1.5 (foliar using aerial application) 3 (foliar by ground)	NA 14 (ground and aerial application)	NA 7
Sweet potatoes	750 (foliar) 750 (soil)	1.75 (soil) 1.5 (foliar using aerial application) 3 (foliar by ground) 1.75 (soil)	NA (soil)  NA 14 (ground and aerial application) NA (soil)	NA 7
Dried Shelled pea and bean (CG 6C)	750	1.5	15	14
Pea hay and vines	750	1.5	15	14
Soybeans	750	1.5	14	7
Soybean forage and hay	750	1.5	1	7
Fruiting Vegetables (CG 8-09)	750	3	1	7
Cucurbit Vegetables	750	3	1	7
Pome Fruits	500	2	30	7
Blueberries	750	1.5	1	10
Small fruits and vine climbing	750	3	21	7
Cereals	750	1.5	FK 10.5.4	14
Cereal forage and hay	750	1.5	7	14
Corn	750	1.5	7	7
Corn forage	750	1.5	7	7
Sweet corn	750	1.5	7	7
Rapeseeds (including Canola	750	0.75	30	NA
Onions (Bulb and Green)	750	3	7	7
Sugar Beets	750 (soil)	0.75 (soil)	NA	NA
Timothy, Perennial and Annual Ryegrass	750	2	20	14

<sup>\*</sup>For specific crops in a group and use directions, refer to the Specific Directions For Use

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