

*Container Label*

<b>GROUP</b>	<b>29</b>	<b>FUNGICIDE</b>
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# VANTANA

FUNGICIDE

SUSPENSION

COMMERCIAL (AGRICULTURAL)

**READ THE LABEL BEFORE USING**

**ACTIVE INGREDIENT:** Fluazinam..... 500 g/L

Contains 1,2-Benzisothiazolin-3-one at 0.015% as a preservative

REGISTRATION NO: 35050 PEST CONTROL PRODUCTS ACT

Net Contents: 1 L to 1050 L

ADAMA Agricultural Solutions Canada Ltd.  
300 – 191 Lombard Avenue  
Winnipeg MB R3B 0X1  
1-855-264-6262

For emergency medical help call PROPHARMA at 1.877.250.9291 (24 hours a day)

For spill, leak or fire call INFOTRAC at 1.800.535.5053 (24 hours a day)

## **PRECAUTIONS**

**KEEP OUT OF REACH OF CHILDREN**

**DO NOT** get on skin.

**DO NOT** take internally, harmful if swallowed.

Harmful if absorbed through skin. Avoid contact with eyes. Wash exposed areas of skin thoroughly with soap and water after handling. Remove contaminated clothing and wash before re-use.

Avoid breathing spray mist.

### **Personal Protective Equipment (PPE)**

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

**Mechanically-pressurized handheld equipment:** Wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear during mixing, loading, application, clean-up and repair. For application, wear a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides, or a NIOSH-approved canister approved for pesticides.

**All other ground equipment:** Wear coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear during mixing, loading, application, clean-up and repair. Custom applicators must use groundboom equipment with an enclosed cab. Gloves are not required during application within a closed cab.

**For application using aerial equipment:** Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Gloves are not required during application within a closed cockpit.

**DO NOT** apply using handheld mist blower/airblast or handheld fogging equipment.

**Restricted-Entry Intervals (REIs):** **DO NOT** enter or allow workers entry into treated areas during the restricted-entry interval of 3 days to perform hand weeding in bulb onions (crop subgroup 3-07A). For all other post application activities, **DO NOT** enter or allow workers entry into treated areas during the restricted-entry interval (REI) of 24 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.

### **FIRST AID**

**IF SWALLOWED:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or a doctor. 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 further 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.

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

### **TOXICOLOGICAL INFORMATION**

Treat symptomatically.

### **ENVIRONMENTAL PRECAUTIONS**

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

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with 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. Fluazinam is persistent and will carry over; it is recommended that the product, VANTANA containing fluazinam, not be used in areas treated with this product during the previous season.

### **STORAGE**

Store this product away from food or feed. Store product in original container, in a secured, dry place separate from other pesticides and fertilizer.

### **DISPOSAL**

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/territorial requirements.

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.

**Disposal of unused, unwanted product:**

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial/territorial regulatory agency. Contact the manufacturer and the provincial/territorial regulatory agency in case of a spill, and for clean-up of spills.

**NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

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

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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.

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## **TOXICOLOGICAL INFORMATION**

Treat symptomatically.

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

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with 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. Fluazinam is persistent and will carry over; it is recommended that the product, VANTANA containing fluazinam, not be used in areas treated with this product during the previous season.

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## **NOTICE TO USER**

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## **DIRECTIONS FOR USE**

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.

VANTANA can be used effectively in dilute spray. Thorough, uniform coverage is essential for disease control.

NOTE: Slowly invert container several times to assure uniform mixture.

Dosage rates on this label indicate litres of VANTANA per hectare, unless otherwise stated. Under conditions which favour disease development the shortest application interval should be used.

The required amount of VANTANA should be added slowly into the spray tank during filling. Keep agitator running when filling spray tank and during spray operations.

## **Rotational Crop Restrictions**

Areas treated with VANTANA may be replanted with potatoes and dry shelled beans as soon as practical after the last application. Other root crops and leafy vegetables can be planted 30 days after the last application. All other crops can be planted 70 days after the last application.

## **Integrated Pest Management**

VANTANA is recommended for use as part of an Integrated Pest Management (IPM) program, which may include the use of disease resistant potato varieties, cultural practices, biological control agents, pest scouting and disease forecasting systems aimed at preventing economic pest damage. Practices known to reduce disease development should be followed. Consult your provincial agricultural authorities for additional IPM strategies established in your area. VANTANA may be used in disease forecasting programs, which recommend application timing based on environmental factors that favour disease



development.

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.

VANTANA 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**).

### Potato - Application Rate

Crop	Diseases Controlled	Rate/ha	Application Timing
Potatoes	Late blight ( <i>Phytophthora infestans</i> )	0.4 L	Begin applications when the plants are 15 – 20 cm tall or when conditions favour disease development. Repeat applications at intervals of 7 – 10 days. Do not make more than 10 applications per year.
	White mould ( <i>Sclerotinia sclerotiorum</i> )	0.4 – 0.6 L	Begin applications at full bloom. Repeat applications at intervals of 7 – 10 days. When white mould pressure is low to moderate, use 400 mL. When conditions favour moderate to high white mould pressure, increase the rate to 600 mL. Do not make more than three sequential applications.

#### Application instructions:

- **Method:** Apply VANTANA in sufficient water to obtain adequate coverage of foliage. Spray volumes to be used vary with amount of plant growth. Spray volume usually will range from 200 to 600 litres per hectare for ground application. For aerial application, apply in a minimum of 45 litres per hectare.
- **DO NOT make more than 3 sequential applications of VANTANA before alternating to a fungicide with a different mode of action. DO NOT apply more than the maximum yearly use rate of 4.0 litres per hectare. DO NOT apply within 14 days of harvest.**

### Potato - Recommended Application

Begin applications when the plants are 15 to 20 centimetres tall or when conditions favour disease development. Repeat application at intervals of 7 to 10 days. Apply VANTANA in sufficient water to obtain adequate coverage of foliage. Spray volumes to be used vary with amount of plant growth. Spray volume usually will range from 200 to 600 litres per hectare for ground application. For aerial application, apply in a minimum of 45 litres per hectare. **DO NOT** apply more than the maximum yearly use rate of 4.0 litres per hectare during each growing season. **DO NOT** apply within 14 days prior to harvest. **DO NOT** make more than 3 sequential applications of VANTANA before alternating to a fungicide with a different mode of action. **DO NOT** apply more than 10 applications per year.

## Soybeans - Application Rate

Crop	Diseases Controlled/Suppressed	Rate/ha	Application timing
Soybeans	For control of: White mould ( <i>Sclerotinia sclerotiorum</i> )	0.88 – 1.17 L	Spray volume will range from 100 to 600 litres per hectare (ground application) or a minimum of 45 litres of water per hectare (aerial application).
	For suppression of: White mould ( <i>Sclerotinia sclerotiorum</i> )	0.44 L	Spray volume will range from 100 to 600 litres per hectare (ground application) or a minimum of 45 litres of water per hectare (aerial application).
<p><b>Application instructions:</b></p> <ul style="list-style-type: none"> <li>• <b>Maximum of 2 applications per year.</b> DO NOT apply more than the maximum yearly use rate of 2.34 litres per hectare during each growing season.</li> <li>• <b>Re-application Interval:</b> 10 to 14 days.</li> <li>• <b>Timing:</b> Begin applications at the R1 (early bloom) to R2 (full bloom) stage of development and, if needed, again 10- to 14-days later at early pod formation (R3). As a preventative spray or with conditions favoring low disease pressure, use the low rate. For conditions favoring moderate to high disease development, use high rate. Apply VANTANA in sufficient water to obtain adequate coverage of foliage.</li> <li>• <b>Pre-Harvest Interval (PHI):</b> DO NOT apply after growth stage R3, early pod formation. DO NOT allow livestock to graze treated areas. DO NOT feed hay from treated fields to livestock.</li> </ul>			

## APPLICATION METHODS

### Ground Application

**Field sprayer application:** DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification. Boom height must be 60 cm or less above the crop or ground.

**Airblast application:** DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

### Aerial Application

**Aerial application:** 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 the recommended rate with at least 45 litres of water per hectare.

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. Where 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.

### **Use Precautions**

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.

### **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 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, clean-up and repair.

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.

### **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-855-264-6262 or [www.adama.com/canada](http://www.adama.com/canada) or obtain technical advice from the distributor or your provincial agricultural representative.

### **SPRAY BUFFER ZONES**

A spray buffer zone is NOT required for:

- uses with hand-held application equipment permitted on this label,
- low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage,
- soil drench.

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:	Estuarine / Marine Habitats:	Terrestrial Habitats
Field sprayer	Potato		30	25	1
	Edible-podded legume vegetables (except peas), dry shelled beans (except soybean)		35	25	0
	Soybeans		35	30	0
	Ginseng, bulb onions (Crop Subgroup 3-07A)		35	30	1
	Highbush and lowbush blueberry, currant, elderberry, gooseberry, huckleberry, Crop Subgroup 5A and 5B		40	35	1
Airblast sprayer	Apples		45	40	1
Aerial	Potato	Fixed wing	70	30	15
		Rotary wing	55	25	10
	Edible-podded legume vegetables (except peas), dry shelled beans, soybeans	Fixed wing	150	60	0
		Rotary wing	125	45	0

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.

**NOTE TO USER: 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 ADAMA Agricultural Solutions Canada Ltd. under the User Requested Minor Use Label Expansion program. For these uses, ADAMA Agricultural Solutions Canada Ltd. 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.

**Directions for Use:**

Crop	Disease Controlled	Rate of application and spray volume
Bok choy Chinese cabbage; broccoli; broccoli raab; Brussels sprouts; cabbages; cauliflower; cavalo broccolo; Chinese broccoli; Chinese mustard cabbage; collards; kale; kohlrabi;	Clubroot ( <i>Plasmodiophora brassicae</i> )	<p><u>Transplant treatment:</u> Mix 50 mL of VANTANA with water to make a 100 L solution. Apply 100 mL of solution per plant immediately after transplanting.</p> <p><u>Pre-transplant treatment:</u> Apply VANTANA at a rate of 2.9 L product in 500 L of water per hectare in a minimum band of 25 cm along the planting row and incorporate to a</p>

mizuna; mustard greens; mustard spinach; Chinese Napa cabbage and rape greens		depth of 15 to 20 cm with a precision incorporator in the same operation. Transplant the seedlings into the treated band. If planting to a bed, a broadcast application could be made prior to forming the bed. <b>DO NOT</b> apply by air.
<b>Application instructions:</b>		
<ul style="list-style-type: none"> <li>• <u>Maximum of 1 application per year.</u></li> <li>• <u>Pre-Harvest Interval (PHI):</u> <ul style="list-style-type: none"> <li>○ <b>Head and Stem Brassica subgroup 5A:</b> (Broccoli; Chinese broccoli; Brussels sprouts; cabbages; Chinese Napa cabbage; Chinese mustard cabbage; cauliflower; cavalo broccolo; kohlrabi) - <b>65 days</b></li> <li>○ <b>Leafy Brassica Greens subgroup 5B:</b> (Broccoli raab; Bok choy Chinese cabbage; collards, kale; mizuna; mustard greens; rape greens) - <b>30 days</b></li> </ul> </li> </ul>		
<b>Directions for Use:</b>		
<b>Crop</b>	<b>Diseases Suppressed</b>	<b>Rate of application and spray volume</b>
Highbush, lowbush blueberry, currant, elderberry, gooseberry, huckleberry	<p>Highbush, lowbush blueberry</p> <p>For suppression of:</p> <p>Mummyberry (<i>Monilia vaccinii-corymbosi</i>), Phomopsis fruit rots (<i>Phomopsis vaccinii</i>) and fruit anthracnose (<i>Colletotrichum gloeosporioides</i> and <i>C. acutatum</i>)</p> <p>Currants, Elderberry, Gooseberry and Huckleberry</p> <p>For suppression of:</p> <p>Fruit anthracnose (<i>Colletotrichum gloeosporioides</i> and <i>C. acutatum</i>)</p>	<p>2.24 litres per hectare in 300 to 1000 litres of water per hectare.</p> <p>Apply VANTANA as a foliar spray.</p> <p><b>DO NOT</b> apply by air.</p>
<b>Application instructions:</b>		
<ul style="list-style-type: none"> <li>• <u>Maximum of 2 applications per year.</u></li> <li>• <u>Re-application Interval:</u> 7 to 10 days.</li> <li>• <u>Timing:</u> Begin applications at bud break and repeat on a 7 to 10 day interval to petal fall.</li> <li>• <u>Pre-Harvest Interval (PHI):</u> 30 days.</li> </ul>		
<b>Directions for Use:</b>		
<b>Crop</b>	<b>Disease Controlled</b>	<b>Rate of application and spray volume</b>
Edible-podded legume vegetables (except pea): Bean ( <i>Phaseolus</i> spp.) (includes runner bean, snap bean, wax bean). Bean ( <i>Vigna</i> spp.) (includes asparagus bean, Chinese longbean, moth bean, yardlong bean), jackbean, soybean (immature seed) and sword bean	White mold ( <i>Sclerotinia sclerotiorum</i> )	0.6 - 1.0 litres per hectare in 300 to 1000 litres of water per hectare (ground application) or a minimum of 45 litres of water per hectare (aerial application). Apply VANTANA as a foliar spray.
<b>Application instructions:</b>		
<ul style="list-style-type: none"> <li>• <u>Maximum of 2 applications per year.</u></li> <li>• <u>Re-application Interval:</u> 7 to 10 days.</li> <li>• <u>Timing:</u> For control of white mold, begin applications when plants are at first bloom to 10% bloom; i.e. when 10% of the plants have at least one open bloom. Make a second application 7 to 10 days later, but no later than when 50% of the plants have at least one open bloom. Under</li> </ul>		

<p>conditions favorable for severe disease development, use the higher rate.</p> <ul style="list-style-type: none"> <li>• <u>Pre-Harvest Interval (PHI):</u> 14 days.</li> </ul>		
<b>Directions for Use:</b>		
<b>Crop</b>	<b>Diseases Controlled</b>	<b>Rate of application and spray volume</b>
Dry Shelled Beans, except soybean	White mold ( <i>Sclerotinia sclerotiorum</i> ), Anthracnose ( <i>Colletotrichum lindemuthianum</i> )	0.6 - 1.0 L of product /ha Apply VANTANA in sufficient water to obtain adequate coverage of foliage. Spray volume usually will range from 200 to 600 litres per hectare (ground application) or a minimum of 45 litres of water per hectare (aerial application).
<b>Application instructions:</b>		
<ul style="list-style-type: none"> <li>• <u>Maximum of 2 applications per year.</u> <b>DO NOT</b> apply more than the maximum yearly userate of 2.0 litres per hectare during each growing season.</li> <li>• <u>Re-application Interval:</u> 7 to 10 days for White mold, 10 to 14 days for Anthracnose.</li> <li>• <u>Timing:</u> For control of white mold make the first application at 10 to 30% bloom (e.g. when 10 to 30% of the plants have at least one (1) open bloom). If needed, a second application may be applied 7 to 10 days later. Under conditions favorable for severe disease development use the higher rate. <ul style="list-style-type: none"> <li>○ For control of Anthracnose make first application at 10-30% bloom (e.g. when 10 to 30% of the plants have at least (1) open bloom). If needed, a second application may be applied 10 to 14 days later. Under conditions favourable for severe disease development, use higher rate.</li> </ul> </li> <li>• <u>Pre-Harvest Interval (PHI):</u> 30 days.</li> </ul>		
<b>Directions for Use:</b>		
<b>Crop</b>	<b>Diseases Controlled</b>	<b>Rate of application and spray volume</b>
Ginseng	Rhizoctonia root rot ( <i>Rhizoctonia solani</i> ), Alternaria blight ( <i>Alternaria panax</i> ) and Botrytis blight ( <i>Botrytis cinerea</i> )	1.2 litres per hectare in 100 to 500 litres of water per hectare. <b>DO NOT</b> apply by air.
<b>Application instructions:</b>		
<ul style="list-style-type: none"> <li>• <u>Maximum of 4 applications per year.</u></li> <li>• <u>Re-application Interval:</u> 7 to 14 days.</li> <li>• <u>Timing:</u> For control of Rhizoctonia root rot, begin at seed then continue on a 14-day interval. For control of Alternaria blight and Botrytis blight, begin when the disease first appears or when conditions are favourable for disease development. Repeat applications on a 7- to 14-day interval.</li> <li>• <u>Pre-Harvest Interval (PHI):</u> 30 days.</li> </ul>		
<b>Directions for Use:</b>		
<b>Crop</b>	<b>Diseases Controlled/Suppressed</b>	<b>Rate of application and spray volume</b>
Apples		
	<b>For Control of:</b> Cedar apple rust ( <i>Gymnosporangium juniperi-virginianae</i> )	0.75 to 1.0 L of product/ha Spray volume: minimum of 1000 litres per hectare. <b>DO NOT</b> apply by air.
	<b>For Suppression of:</b> Black rot ( <i>Botryosphaeria obtusa</i> ) Brooks spot ( <i>Mycosphaerella pomi</i> ) Quince rust ( <i>Gymnosporangium clavipes</i> )	1.0 L of product/ha Spray volume: minimum of 1000 litres per hectare. <b>DO NOT</b> apply by air..
<b>Application instructions:</b>		

<ul style="list-style-type: none"> <li>• <u>Method of application</u>: Foliar.</li> <li>• <u>Maximum of 5 applications per year</u>. No more than 3 sequential applications of VANTANA before alternating to another fungicide belonging to a different chemical family.</li> <li>• <u>Re-application Interval</u>: 7 to 14 days.</li> <li>• <u>Timing</u>: VANTANA should be applied as a broadcast spray on a preventative basis. <ul style="list-style-type: none"> <li>○ For suppression of Black rot and Brooks spot, begin applications before disease occurs, continue on a 7-day schedule. When VANTANA is used as a cover spray, initiate the applications at petal fall and continue applications on a 7-day schedule to within 28 days of harvest.</li> <li>○ For diseases that are only suppressed, use the high rate of 1.0 L/ha and make applications on a 7-day interval.</li> </ul> </li> <li>• <u>Pre-Harvest Interval (PHI)</u>: 28 days.</li> </ul>		
<b>Directions for Use:</b>		
<b>Crop</b>	<b>Diseases Suppressed</b>	<b>Rate of application and spray volume</b>
Bulb onion subgroup (Subgroup 3-07A)	Purple blotch ( <i>Alternaria porri</i> ); Botrytis leaf blight ( <i>Botrytis squamosa</i> )	1.16 litres per hectare (584 grams fluazinam per hectare). Spray volume: Use a sufficient water volume to ensure thorough coverage of the crop but no less than 100 L per hectare are recommended. <b>DO NOT</b> apply by air.
<b>Application instructions:</b>		
<ul style="list-style-type: none"> <li>• <u>Method of application</u>: Foliar, broadcast.</li> <li>• <u>Maximum of 5 applications per year</u>. No more than 3 sequential applications of VANTANA before alternating to another fungicide belonging to a different chemical family.</li> <li>• <u>Re-application Interval</u>: 7 to 10 days.</li> <li>• <u>Timing</u>: Initiate applications when conditions are favourable for disease development or when first disease symptoms appear.</li> <li>• <u>Pre-Harvest Interval (PHI)</u>: 7 days.</li> </ul>		
<b>FOR USE IN EASTERN CANADA ONLY</b>		
<b>Crop</b>	<b>Disease Suppressed</b>	<b>Rate of application and spray volume</b>
Lowbush blueberry	Valdensinia leaf spot ( <i>Valdensinia heterodoxa</i> )	0.4 to 0.8 litres per hectare in 300 to 1000 litres of water per hectare. Apply VANTANA as a foliar spray, ground application only.
<b>Application instructions:</b>		
<ul style="list-style-type: none"> <li>• <u>Maximum of 4 applications per year</u>.</li> <li>• <u>Re-application Interval</u>: 7 to 14 days.</li> <li>• <u>Timing</u>: Begin applications at early bloom or at first symptoms in fruiting fields and at an equivalent time in sprout fields. Use the shorter interval and higher rate of application when disease pressure is high. Good spray coverage into the canopy is essential for good disease management.</li> <li>• <u>Pre-Harvest Interval (PHI)</u>: 30 days.</li> </ul>		

### Resistance Management Recommendations

For resistance management, VANTANA contains a Group 29 fungicide. Any fungal population may contain individuals naturally resistant to VANTANA and other Group 29 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:**

For resistance management, VANTANA contains a Group 29 fungicide which is considered to have a low risk of resistance development. However, as a general principle, it is recommended not to rely exclusively on the same product for pest control. To prolong effectiveness of this product, the following resistance management strategies should be followed:

- Do not make more than three consecutive sprays of VANTANA or other Group 29 fungicides in a block sequence before switching to a fungicide with a different mode of action. Several three-application blocks of VANTANA may be applied in a season if separated by applications of fungicides with a different mode of action.
- Use tank mixtures with fungicide 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 resistance development. Notify ADAMA Agricultural Solutions Canada Ltd. if reduced sensitivity of the pathogen to VANTANA 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 site of action, if available.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.

For further information and to report suspected resistance, contact ADAMA Agricultural Solutions Canada Ltd. at 1-855-264-6262 or [www.adama.com/canada](http://www.adama.com/canada).