

2023-0783
2023-07-04

GROUP	40	FUNGICIDE
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REVUS® Fungicide

SUSPENSION

COMMERCIAL

To control or suppress certain diseases in vegetable crops. Also, for use as seed treatment to control or suppress certain diseases in potatoes.

ACTIVE INGREDIENT:

Mandipropamid 250 g/L

Contains 1,2-benzisothiazolin-3-one at 0.017% OR 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00098% AND 2-methyl-4-isothiazolin-3-one at 0.00033% as preservatives.

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

REGISTRATION NO: **29074**
PEST CONTROL PRODUCTS ACT

NET CONTENTS: 250 mL to Bulk

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. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If 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.

3.0 TOXICOLOGICAL INFORMATION

There is no specific antidote if this product is ingested. Treat symptomatically. There is no known medical condition likely to be aggravated by the exposure.

4.0 PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

RESTRICTED ENTRY INTERVAL (REI): DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

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

For ground applications (foliar, soil and chemigation): Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and

repair. Gloves are not required during application within a closed cab or closed cockpit.

Potato seed piece treatment: Wear coveralls over long-sleeved shirt, long pants, chemical-resistant gloves, socks and boots during mixing, loading, application, clean-up, and repair. When handling treated potato seed pieces or when working with or around equipment used to transport or plant treated potato seed pieces, workers must wear a long-sleeved shirt, long pants, gloves, socks and boots. For good hygiene practice, it is recommended to wear a NIOSH-approved N95 (minimum) filtering facepiece respirator (dust mask) that is properly fit tested during all job activities.

DO NOT use open treating equipment when treating potato seed pieces. This product must be applied using a closed treatment system.

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.

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Wash thoroughly with soap and water after handling.

6.0 ENVIRONMENTAL PRECAUTIONS

Runoff:

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

7.0 STORAGE

Store in a cool, dry place. Do not store food, beverages or tobacco products in storage area.

To prevent contamination store this product away from food or feed.

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 clean up of spills.

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.

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 use this container for any other purpose.

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***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,
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Pamphlet

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CALL 1-800-327-8633 (1-800-FASTMED)***

9.0 PRODUCT INFORMATION

REVUS® Fungicide is a fungicide for control or suppression of certain foliar and root diseases in Brassica vegetables, bulb onions, cucurbits, fruiting vegetables, potatoes, leafy vegetables, hops, grapes, ginseng, basil and edible-podded beans.

REVUS Fungicide product also controls seedborne late blight in potatoes.

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 apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuarine/marine habitats.

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.

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.

10.2 Greenhouse Application

DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.

10.3 Soil Application (In-furrow and Drip (Trickle) Chemigation)

For soil application, apply REVUS Fungicide using drip application, transplant water application (water wheel or continuous stream transplanters), surface band or directed application, or in-furrow application. If the application method does not move the product to the target root/crown disease zone, the application must be followed with irrigation or cultivation to correctly place the product for disease control.

10.3.1 Transplant Water Application

Transplants should be adequately watered before transplanting. Ensure transplant water volume is sufficient to thoroughly wet the rootzone. Ensure 125-250 ml transplant water/transplant depending on sandy (125 to 250 ml) or silty soil (175 to 250 ml). For water wheel transplanters, use the plant population to determine the rate per plant.

10.3.2 Surface Band or Directed Application

Apply in a 10 to 30 cm (4 to 12 inch) band. Follow application with cultivation or irrigation (1.25 to 2.5 cm (0.5 to 1 inch)) to move REVUS Fungicide to the target disease zone.

10.3.3 Transplant Tray Application

Apply as a foliar spray to the transplants in the transplant tray 24 to 48 hours prior to transplanting. Immediately water the spray off the foliage into the transplant tray soil, not watering past soil saturation. Wait 24 hours to transplant. For this application, the hectare of transplants receives the full recommended hectare rate for transplant tray application, applied as a foliar spray, and then washed into the transplant cubes. Transplant cubes should be on the dry side at the

beginning of this treatment.

10.3.4 Application through Irrigation Equipment (Chemigation)

REVUS Fungicide must be applied in a manner that ensures the product is in the root zone. REVUS Fungicide must be in the root zone to provide effective control of target pests. **Do not** begin applications until after crop emergence in direct seeded crops or until roots are present for transplants. **Do not** make applications if soil moisture is below the level required for active plant growth.

This product MAY ONLY be applied through lower pressure micro sprinklers and surface laid drip irrigation AND ONLY at rates specified on this label. **DO NOT** apply this product through any other type of irrigation system, including permanent sub-surface drip irrigation system (ie drip tape buried beneath more than 15 cm of soil). This product MAY BE applied through surface type drip irrigation tape buried up to 15 cm of soil. **DO NOT** apply REVUS FUNGICIDE through any irrigation system which is physically connected to a public water system. REVUS FUNGICIDE may be applied through irrigation systems, which may be **supplied** by a public water system **only if** the water is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

DO NOT apply when wind speed causes non-uniform distribution and/or favors drift beyond the area intended for treatment.

DO NOT apply by chemigation if the area to be treated is within 100 metres of a residential area or park.

The irrigation system **must provide uniform distribution of treated water**. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. The system **must be calibrated to uniformly apply the rates specified**. If you have questions about calibration, contact your equipment manufacturers or distributor. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Dilute REVUS FUNGICIDE in the solution tank at a ratio of at least 5 parts of water to one part of REVUS FUNGICIDE. Injecting a larger volume of a more dilute solution will usually allow a more accurate calibration of the metering equipment. Meter the fungicide into the irrigation water during the irrigation cycle.

10.3.5 Operating Instructions for All Labeled Types of Irrigation Systems

1. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, contact the equipment manufacturer.
2. The system must contain a functional check-valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must also contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the

system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
6. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
7. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump or Venturi injector), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
8. Do not apply when wind speed favors drift beyond the area intended, except in drip chemigation.
9. The pesticide injection pipeline must be on the downstream (field) side of the system filters to avoid potential pesticide off-site contamination or misapplication as a result of the filter backflushing process.
10. Have a dedicated pesticide injection tank for chemigation purposes rather than tank-mixing pesticides with fertilizers or other non-pesticide chemigation products. This reduces the potential for incompatibility issues which could result in misapplication.
11. Make REVUS FUNGICIDE injections into the center of the water pipe for a thorough and quick mix. This can be accomplished with an "injection tube" which should contain a check valve.

10.3.6 Specific Low Pressure Micro Sprinklers and Drip Irrigation Instructions:

REVUS FUNGICIDE must be applied on the schedule specified in the tabulated crop and pest specific directions for use, not according to the irrigation schedule. The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through low-pressure microsprinkler or drip type irrigation equipment. Check with provincial and other applicable regulatory agencies for potential use restrictions before applying any agricultural chemicals through irrigation equipment.

1. Each run of the irrigation system must be calibrated separately to determine the time it takes water to move through the system and to make sure all emitters in the system are putting out the same amount of water.
2. Use only pressure injection or Venturi equipment.
3. Determine the area to be treated in each irrigation run.
4. Measure the output of each of the emitters or drip tubes closest to and farthest from the injection point.
5. For calibration, substitute a concentrated laundry detergent for the REVUS FUNGICIDE mixture in the injector (solution) tank. It is important to use the same volume of soap solution as the planned volume of REVUS FUNGICIDE solution when calibrating the system. The detergent will bubble as it leaves the emitters. Check the time period over which the bubbles occur for both the closest and farthest emitters. If these times are not within 2 minutes of each other, adjust the dilution ratio and/or the injection rate.

10.3.7 Step-by-Step Calibration and Application Instructions

1. Before starting to calibrate, operate the system until all of the emitters are putting out at equal flow rates or until the system is operating at full pressure.
2. Make up an indicator solution of detergent, using the same rate of indicator as the planned volume of REVUS FUNGICIDE to be used in the mix.
3. Set the injector to apply the indicator solution at the injection rate to be used in the actual

REVUS FUNGICIDE application.

4. Attach a 30 cm length of flexible tubing over the emitter closest to the injection point, another 30 cm length over the emitter farthest away. Both emitters should be monitored to determine the time intervals that the indicator solution is observed.
5. Begin injecting the indicator solution. Direct the flow from the flexible tubes into a small container. Begin timing when the indicator solution is first detected. Stop timing when the indicator solutions are no longer detected in the container.
6. If the period of detection of the indicator solution between the near and far emitter is within 2 minutes, comparable coverage will be obtained. If they are not, make adjustments by increasing the dilution ratio, ie using more than a 5:1 ratio of water to REVUS FUNGICIDE, or adjust the injector to a slower flow rate.
7. Once the system is calibrated, dilute the needed amount of REVUS FUNGICIDE with water and any other tank mix partners in the injection tank at a minimum dilution of 5 parts water to 1 part REVUS FUNGICIDE. Follow the directions for mixing and equipment set up in the **Mixing Instructions** section of this label for complete details.
8. Do not begin to inject REVUS FUNGICIDE into the system until all emitters are producing equal flow rates, or until the system is at full pressure.
9. Inject the REVUS FUNGICIDE solution into the system at the beginning of the irrigation set in 1.5-2.5 cm of irrigation water.

10.4 Ground Application

10.4.1 General Precautions

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

Spray nozzles should be selected which will provide accurate and uniform spray deposition. Use spray nozzles, which provide medium-sized droplets and reduce drift. To help ensure accuracy, calibrate sprayer before each use. Do not apply REVUS Fungicide through any type of ultra low volume (ULV) spray system. For information on spray equipment and calibration, consult sprayer manufacturers and/or the local agricultural representative specialists.

Apply REVUS Fungicide using sufficient water volume to provide thorough and uniform coverage. For ground applications, use a minimum of 100 L/ha unless otherwise indicated on this label. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. Avoid making applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Avoid spray overlap.

Precautions:

- 1) Select nozzles that can produce the desired droplet sizes at the normal rated pressure range.
- 2) The sprayer should travel at a uniform speed across the field.

10.4.2 Mixing Instructions

1. Add 1/2 of the required amount of water to the mix tank.
2. With the agitator running, add the desired amount of REVUS Fungicide to the tank.
3. Continue agitation while adding the remainder of the water.
4. Begin application of the solution after REVUS Fungicide has completely dispersed into the

mix water.

5. Maintain agitation until all of the mixture has been applied.

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. Keep product container tightly closed when not in use.

10.4.3 Spraying Instructions

1. Water Volume: Apply in a minimum spray volume of 100 L/ha OR the volume given in the crop and pest specific instructions tabulated below, whichever is LARGER.
2. Sprayer Agitation: Use a jet agitator or liquid sparge tube which recirculates 7-10% of the tank per minute. **DO NOT** use an air sparger.
3. Pump: Screens should be used on the suction side of the pump for protection and to prevent clogging. **DO NOT** place a screen in the recirculation line. Use 50 mesh or *coarser* screens between the pump and boom unless directed otherwise by the sprayer manufacturer.
4. Spray Nozzles: 80° or 110° flat fan incorporating a drift reducing technology wherever feasible. Use 50 mesh nozzle screens or as recommended by the nozzle manufacturer. **DO NOT** use flood type nozzles, controlled droplet application equipment, spray foils or hollow cone nozzles.
5. Pressure: As recommended by the nozzle manufacturer to achieve the target spray quality. **DO NOT** apply finer than ASABE fine quality sprays.
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.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in overly fine particles (mist). **DO NOT** apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. **DO NOT** spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

10.4.4 Equipment Clean-Up

Before Spraying:

- Prior to using REVUS Fungicide, ensure that the spray tank, lines and filter are thoroughly clean.

After Spraying:

- Thoroughly clean application equipment immediately after spraying. **DO NOT** allow REVUS Fungicide residue to dry within the spray tank.
- 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 the sprayer 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 Aerial Application

10.5.1 General Precautions

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) medium classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing or rotor span. Apply in 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. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

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.

10.5.2 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.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas.

10.5.3 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 a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, clean-up and repair. Gloves are not required within a closed cockpit. 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.

10.5.4 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.

DO NOT apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas.

DO NOT apply during atmospheric conditions of thermal inversion which are characterized by 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 spray droplets which are smaller than the American Society of Agricultural and Biological Engineers medium classification (ASABE Standard S-572.1). The nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing or rotor span in order to reduce drift caused by turbulent wingtip vortices.

10.5.5 Product Specific Precautions

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-87-SYNGENTA (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 of 45 litres of water per hectare.

Do not spray when the wind blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

10.5.6 Mixing Instructions

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

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. Keep product container tightly closed when not in use.

10.5.7 Spraying Instructions

1. Water Volume: 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. Spray Nozzles: Use only ASABE medium or coarse nozzles rated as delivering droplets of volume median diameter of 300 microns or greater.
3. Pressure: As recommended by the nozzle manufacturer to achieve ASABE medium or coarse sized droplets.
4. Ensure hopper agitation is engaged whenever possible during flight.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in overly fine particles (mist). **DO NOT** apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. **DO NOT** spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

10.5.8 Equipment Clean-Up

Before Spraying:

- Prior to using REVUS Fungicide, ensure that the hopper, chemical handling equipment, lines and filter are thoroughly cleaned.

After Spraying:

- Thoroughly clean application equipment immediately after spraying. **DO NOT** allow REVUS 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.

10.6 Integrated Pest (Disease) Management

REVUS Fungicide should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.

10.7 Resistance Management

Follow the resistance management guidelines in the Resistance Management Section. Follow directions regarding the maximum number of successive applications for each use outlined in the Use Directions Tables.

10.8 Rotational Crop Restrictions

Do not plant any crop which is not registered for use with REVUS Fungicide for a period of 30 days after the last application.

11.0 CROP USE DIRECTIONS

REVUS Rate Conversion Chart

mL Product/ha	g ai/ha	Treated ha/1 L Product
400	100	2.5
500	125	2.0
600	150	1.7

11.1 Bulb Onions

Crop	Bulb Onions: Garlic, bulb (<i>Allium sativum</i> L. var. <i>sativum</i>); Garlic, great-headed, bulb (<i>Allium ampeloprasum</i> L. var. <i>ampeloprasum</i>); Garlic, serpent, bulb (<i>Allium sativum</i> var. <i>ophioscorodon</i>); Onion, bulb (<i>Allium cepa</i> L. var. <i>cepa</i>); Onion, Chinese, bulb (<i>Allium chinense</i> G. Don); Onion, pearl (<i>Allium porrum</i> var. <i>sectivum</i>); Onion, potato, bulb (<i>Allium cepa</i> L. var. <i>aggregatum</i> G. Don); Shallot, bulb (<i>Allium cepa</i> var. <i>aggregatum</i>)
Disease controlled	Downy mildew (<i>Peronospora destructor</i>)
Use Rate mL product/ha	400
Application Timing/Instructions	REVUS Fungicide applications should begin prior to disease development and continue throughout the season on a 7 day schedule of fungicides, following the resistance management guidelines. The use of a non-ionic adjuvant (0.25% v/v) or mineral oil at 1.0% v/v is recommended. Applications may be made by ground or air.
Minimum recommended application water volume	100 L/ha for ground application 45 L/ha for aerial application
Maximum number of consecutive sprays	2
Maximum number of applications per crop	4
Maximum amount of active ingredients per season	400 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	7 days
Specific Use Restrictions	1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended.

11.2 Leafy Vegetables

Crop	Leafy Vegetables: Field and Greenhouse: Lettuce, head (<i>Lactuca sativa</i> ; including <i>Lactuca sativa</i> var. <i>capitata</i>), Lettuce, leaf (Romaine) (<i>Lactuca sativa</i> ; including <i>Lactuca sativa</i> var. <i>longifolia</i> ; <i>Lactuca sativa</i> var. <i>crispa</i>), Spinach (<i>Spinacia oleracea</i>) (For use in greenhouse only – not for transplant to the field)
Diseases controlled	Downy mildew (<i>Bremia lactucae</i>) and Blue Mold (<i>Peronospora effusa</i>)
Use Rate mL product/ha	400 - 600
Application Timing/Instructions	REVUS Fungicide applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule of fungicides, following the resistance management guidelines. The use of a non-ionic adjuvant (0.25% v/v) is recommended.
Minimum recommended application water volume	100 L/ha for ground application
Maximum number of consecutive sprays	2
Maximum number of applications per crop	4
Maximum amount of active ingredients per season	600 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	Field Lettuce (leaf and head) and Spinach – 1 day Greenhouse Lettuce – 7 days
Specific Use Restrictions	<ol style="list-style-type: none"> 1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended. 3. For Resistance Management purposes, do not apply REVUS Fungicide to greenhouse-grown seedlings to be transplanted in the field, until after they have been transplanted out.

11.3 Crop Group 4-13B - Brassica Leafy Greens

Crop	Brassica leafy greens (Crop Group 4-13B) Arugula (<i>Eruca sativa</i>), Broccoli raab (<i>Brassica ruvo</i>), Broccoli, Chinese (<i>Brassica oleracea</i> var. <i>alboglabra</i>), Cabbage, Abyssinian (<i>Brassica carinata</i>), Cabbage, seakale (<i>Brassica oleracea</i> L. var. <i>costata</i>), Chinese cabbage, bok choy (<i>Brassica rapa</i> subsp. <i>chinensis</i>), Collards (<i>Brassica oleracea</i> var. <i>viridis</i>), Cress, garden (<i>Lepidium sativum</i>), Cress, upland (<i>Barbarea vulgaris</i>), Hanover salad (<i>Brassica napus</i> var. <i>pabularia</i>), Kale (<i>Brassica oleracea</i> var. <i>sabellica</i>), Maca (<i>Lepidium meyenii</i>), Mizuna (<i>Brassica rapa</i> L. subsp. <i>nipposinica</i>), Mustard greens (<i>Brassica juncea</i> subsp.; including <i>Brassica juncea</i> subsp. <i>Integrifolia</i> and <i>Brassica juncea</i> subsp. <i>tsatsai</i>), Radish, leaves (<i>Raphanus sativus</i> L. var. <i>sativus</i> ; including <i>Raphanus sativus</i> var. <i>mougri</i> , <i>Raphanus sativus</i> L. var. <i>oleiformis</i>), Rape greens (<i>Brassica napus</i> var. <i>napus</i> including <i>Brassica rapa</i> subsp. <i>trilocularis</i> ; <i>Brassica rapa</i> subsp. <i>dichotoma</i> , <i>Brassica rapa</i> subsp. <i>oleifera</i>), Rocket, wild (<i>Diplotaxis tenuifolia</i>), Shepherd's purse (<i>Capsella bursa-pastoris</i>), Turnip greens (<i>Brassica rapa</i> L. subsp. <i>rapa</i>), Watercress (<i>Nasturtium officinale</i>), Cultivars, varieties, and hybrids of these commodities.
Disease Controlled	Downy mildew (<i>Peronospora parasitica</i>)
Use Rate mL product/ha	400 - 600
Application Timing/Instructions	REVUS Fungicide applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule of fungicides, following the resistance management guidelines. The use of a non-ionic adjuvant (0.25% v/v) is recommended. Applications may be made by ground or air.
Minimum recommended application water volume	100 L/ha for ground application 45 L/ha for aerial application
Maximum number of consecutive sprays	2
Maximum number of applications per crop	4
Maximum amount of active ingredients per season	600 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	1 day
Specific Restrictions	1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended.

11.4 Kohlrabi (*Brassica oleracea* var. *gongylodes*) and Crop Group 5-13 – Brassica Head and Stem Vegetables

Crop	Brassica head and stem vegetables (Crop Group 5-13) Broccoli (<i>Brassica oleracea</i> var. <i>italica</i>), Brussels sprouts (<i>Brassica oleracea</i> var. <i>gemmifera</i>), Cabbage (<i>Brassica oleracea</i> var. <i>capitata</i>), Cabbage, Chinese, napa (<i>Brassica rapa</i> subsp. <i>pekinensis</i>), Cauliflower (<i>Brassica oleracea</i> var. <i>capitata</i>), Cultivars, hybrids, and varieties of these commodities; Kohlrabi (<i>Brassica oleracea</i> var. <i>gongylodes</i>)
Disease Controlled	Downy mildew (<i>Peronospora parasitica</i>)
Use Rate mL product/ha	400 - 600
Application Timing/Instructions	REVUS Fungicide applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule of fungicides, following the resistance management guidelines. The use of a non-ionic adjuvant (0.25% v/v) is recommended. Applications may be made by ground or air.
Minimum recommended application water volume	100 L/ha for ground application 45 L/ha for aerial application
Maximum number of consecutive sprays	2
Maximum number of applications per crop	4
Maximum amount of active ingredients per season	600 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	1 day
Specific Restrictions	1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended.

11.5 Crop Group 8-09 - Fruiting Vegetables

Crop	Fruiting vegetables (Crop Group 8-09) (except tomatoes, see TOMATO sections): African eggplant (<i>Solanum macrocarpon</i>), Cocona (<i>Solanum sessiliflorum</i>), Eggplant (<i>Solanum melongena</i>), Garden huckleberry (<i>Solanum scabrum</i>), Goji berry (<i>Lycium barbarum</i>), Groundcherry (<i>Physalis alkekengi</i> , <i>P. grisea</i> , <i>P. peruvian</i> , <i>P. pubescens.</i>), Martynia (<i>Proboscidea louisianica</i>), Naranjilla (<i>Solanum quitoense</i>), Okra (<i>Abelmoschus esculentus</i>), Pea eggplant (<i>Solanum torvum</i>), Pepino (<i>Solanum muricatum</i>), Pepper, bell (<i>Capsicum annuum</i> , <i>Capsicum</i> spp.), Pepper, non-bell (<i>Capsicum chinense</i> , <i>C. annuum</i> , <i>C. frutescens</i> , <i>C. baccatum</i> , <i>C. pubescens</i> , <i>Capsicum</i> spp.), Roselle (<i>Hibiscus sabdariffa</i>), Scarlet eggplant (<i>Solanum aethiopicum</i>), Sunberry (<i>Solanum retroflexum</i>) Cultivars, varieties and/or hybrids of these
Greenhouse only	
For use on crops to be treated in the greenhouse and immediately transplanted to the field	
Disease suppressed	Phytophthora blight (<i>Phytophthora capsici</i>)
Use Rate mL product/ha	600
Application Timing/Instructions	Make one application of REVUS Fungicide as a drench, immediately before transplant to the field.*
Maximum number of applications	1
Maximum amount of active ingredients per season	150 g ai/ha
Field and Greenhouse	
When used in greenhouse not for transplant to the field	
Disease suppressed	Phytophthora blight (<i>Phytophthora capsici</i>) – foliar phase
Use Rate mL product/ha	600
Application Timing/Instructions	Begin applications prior to disease development and continue throughout the season on a 7- to 10-day interval. Apply REVUS as a foliar spray beginning at the first sign of disease or based on local recommendations. For best results, use sufficient water volume to provide thorough coverage.
Diseases suppressed	Phytophthora root and crown rot (<i>Phytophthora capsici</i>) - soil phase
Use Rate mL product/ha	600
Application Timing/Instructions	For suppression of the soil phase of Phytophthora root and crown rot, REVUS Fungicide must be applied in a manner that ensures the product solution adequately saturates the target crop root/crown zone via in-furrow or drip (trickle) chemigation. When applied to the root/crown zone before, during, or soon after sowing once roots are present or transplanting the crop, REVUS Fungicide will suppress phytophthora root and crown rot that limits crop stand establishment. Subsequent applications can be made via in furrow and trickle drip irrigation on a 7-10 day interval.

Minimum recommended application water volume	100 L/ha for ground application																																											
Maximum number of consecutive sprays	2																																											
Maximum number of applications per crop	4																																											
Maximum amount of active ingredients per season	600 g ai/ha																																											
Re-entry Interval (REI)	12 hours after application																																											
Pre harvest interval (PHI)	1 day																																											
* Drenching Guidelines	<p>Number of plants/ha = 34,100</p> <p>Volume of prepared REVUS Fungicide solution per plant = 150 to 200 mL</p> <p>Total volume of solution/ha = 5,115 to 6,800 L</p>																																											
Specific Use Restrictions Phytophthora blight (<i>Phytophthora capsici</i>) – foliar and soil phase	<ol style="list-style-type: none"> 1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended. <p>Rate Conversion Chart for Chemigation</p> <table border="1"> <thead> <tr> <th rowspan="3">Rate mL product /ha</th> <th colspan="8">Rate in mL product /100 m row for specified row spacing</th> </tr> <tr> <th colspan="8">Row Spacing (cm)</th> </tr> <tr> <th>90</th> <th>120</th> <th>150</th> <th>180</th> <th>210</th> <th>240</th> <th>270</th> <th>300</th> </tr> </thead> <tbody> <tr> <td>400</td> <td>3.6</td> <td>4.8</td> <td>6</td> <td>7.2</td> <td>8.4</td> <td>9.6</td> <td>10.8</td> <td>12</td> </tr> <tr> <td>600</td> <td>5.4</td> <td>7.2</td> <td>9</td> <td>10.8</td> <td>12.6</td> <td>14.4</td> <td>16.2</td> <td>18</td> </tr> </tbody> </table>	Rate mL product /ha	Rate in mL product /100 m row for specified row spacing								Row Spacing (cm)								90	120	150	180	210	240	270	300	400	3.6	4.8	6	7.2	8.4	9.6	10.8	12	600	5.4	7.2	9	10.8	12.6	14.4	16.2	18
Rate mL product /ha	Rate in mL product /100 m row for specified row spacing																																											
	Row Spacing (cm)																																											
	90	120	150	180	210	240	270	300																																				
400	3.6	4.8	6	7.2	8.4	9.6	10.8	12																																				
600	5.4	7.2	9	10.8	12.6	14.4	16.2	18																																				

11.6 Crop Group 9 – Cucurbit Vegetables

Crop	Cucurbit vegetables (Crop Group 9) Chayote (fruit) (<i>Sechium edule</i>), Chinese waxgourd (Chinese preserving melon) (<i>Benincasa hispida</i>), Citron melon (<i>Citrullus lanatus</i> var. <i>citroides</i>), Cucumber (field) (<i>Cucumis sativus</i>), Gerkin (<i>Cucumis anguria</i>), Gourd, edible (<i>Lagenaria</i> spp.) (includes hyotan, cucuzza), Gourd, edible (<i>Luffa acutangula</i> , <i>L. cylindrica</i>) (includes hechima, Chinese okra), Momordica spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelons (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon and snake melon), Pumpkin (<i>Cucurbita</i> spp.), Squash, Summer (<i>Cucurbita pepo</i> var. <i>melopepo</i>) (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter (<i>Cucurbita maxima</i> , <i>C. moschata</i>) (includes butternut squash, calabaza, hubbard squash); (<i>C. mixta</i> , <i>C. pepo</i>) (includes acorn squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of <i>Citrullus lanatus</i>)
Disease suppressed	Downy mildew (<i>Pseudoperonospora cubensis</i>)
Use Rate mL product/ha	400 – 600 mL/ha REVUS Fungicide
Application Timing/Instructions	REVUS Fungicide applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule of fungicides, following the resistance management guidelines. The use of a non-ionic adjuvant (0.25% v/v) is recommended. Applications may be made by ground or air. REVUS Fungicide must be tank mixed with a non-Group 40 fungicide with efficacy against the target pest. Do not make more than 4 applications per year of a Group 40 fungicide.
Disease suppressed	Phytophthora blight (<i>Phytophthora capsici</i>) – foliar phase
Use Rate mL product/ha	600
Application Timing/Instructions	Begin foliar applications prior to disease development and continue throughout the season on a 7- to 10-day interval. Applications may be made by ground or air. Apply REVUS as a foliar spray beginning at the first sign of disease or based on local recommendations. For best results, use sufficient water volume to provide thorough coverage.

Diseases suppressed	Phytophthora root and crown rot (<i>Phytophthora capsici</i>) - soil phase
Use Rate mL product/ha	600
Application Timing/Instructions	For suppression of the soil phase of Phytophthora root and crown rot, REVUS Fungicide must be applied in a manner that ensures the product solution adequately saturates the target crop root/crown zone via in-furrow and drip (trickle) chemigation. When applied to the root/crown zone before, during, or soon after sowing once roots are present or transplanting the crop, REVUS Fungicide will suppress Phytophthora root and crown rot that limits crop stand establishment. Subsequent applications can be made via in furrow and trickle drip irrigation on a 7- to 10-day interval. Applications may be made by ground.
Minimum recommended application water volume	100 L/ha for ground application 45 L/ha for aerial application
Maximum number of consecutive sprays	1
Maximum number of applications per crop	4
Maximum amount of active ingredients per season	600 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	0 days
Specific Use Restrictions	<ol style="list-style-type: none"> 1. Do not make more than one application before switching to another effective non-Group 40 fungicide. 2. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 3. For Resistance Management purposes, do not apply REVUS Fungicide to greenhouse-grown seedlings to be transplanted in the field, until after they have been transplanted out.

11.7 Grapes

Crop	Grape (<i>Vitis spp.</i>)
Disease controlled	Downy mildew (<i>Plasmopara viticola</i>)
Use Rate mL product/ha	500
Application Timing/Instructions	<p>REVUS Fungicide applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule of fungicides, following the resistance management guidelines.</p> <p>The use of a non-ionic adjuvant (0.25% v/v) is recommended.</p> <p>Applications may be made by ground or air.</p> <p>REVUS Fungicide must be tank mixed with a non-Group 40 fungicide with efficacy against the target pest.</p>
Minimum recommended application water volume	100 L/ha for ground application 45 L/ha for aerial application
Maximum number of consecutive sprays	1
Maximum number of applications per crop	4
Maximum amount of active ingredients per season	500 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	14 days
Specific Use Restrictions	<ol style="list-style-type: none"> 1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Do not make more than four applications per season of a Group 40 fungicide.

11.8 Tomatoes – Field and Greenhouse

Crop	Tomatoes – Field and Greenhouse Field Tomato, Tomatillo, Currant tomato, Greenhouse Tomatoes (For use in greenhouse only - not for transplant to the field)
Disease controlled	Late blight (<i>Phytophthora infestans</i>)
Use Rate mL product/ha	400 - 600
Application Timing/Instructions	<p>REVUS Fungicide applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule of fungicides, following the resistance management guidelines.</p> <p>The use of a non-ionic adjuvant (0.25% v/v) is recommended. Applications may be made by ground or air.</p> <p>For greenhouse water volumes, refer to the Greenhouse Water Volumes chart.</p>
Disease suppressed	Phytophthora blight (<i>Phytophthora capsici</i>) – foliar phase
Use Rate mL product/ha	600
Application Timing/Instructions	<p>Begin applications prior to disease development and continue throughout the season on a 7- to 10-day interval.</p> <p>The use of a non-ionic adjuvant (0.25% v/v) is recommended.</p> <p>Applications may be made by ground or air.</p> <p>For greenhouse water volumes, refer to the Greenhouse Water Volumes chart.</p> <p>Apply REVUS as a foliar spray beginning at the first sign of disease or based on local recommendations. For best results, use sufficient water volume to provide thorough coverage.</p>

Diseases suppressed	Phytophthora root and crown rot (<i>Phytophthora capsici</i>) - soil phase																																																		
Use Rate mL product/ha	600																																																		
Application Timing/Instructions	<p>For suppression of the soil phase of Phytophthora root and crown rot, REVUS Fungicide must be applied in a manner that ensures the product solution adequately saturates the target crop root/crown zone via in-furrow or drip (trickle) chemigation. When applied to the root/crown zone before, during, or soon after sowing once roots are present or transplanting the crop, REVUS Fungicide will suppress Phytophthora root and crown rot that limits crop stand establishment. Subsequent applications can be made via in furrow and trickle drip irrigation on a 7- to 10-day interval.</p> <p>Applications may be made by ground.</p> <p>For greenhouse water volumes, refer to the Greenhouse Water Volumes chart.</p>																																																		
Minimum recommended application water volume	100 L/ha for ground application 45 L/ha for aerial application																																																		
Maximum number of consecutive sprays	2																																																		
Maximum number of applications per crop	4																																																		
Maximum amount of active ingredients per season	600 g ai/ha																																																		
Re-entry Interval (REI)	12 hours after application																																																		
Pre harvest interval (PHI)	1 day																																																		
Specific Restrictions	Use	<ol style="list-style-type: none"> 1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended. 3. For Resistance Management purposes, do not apply REVUS Fungicide to greenhouse-grown seedlings to be transplanted in the field, until after they have been transplanted out. <p>Rate Conversion Chart for Chemigation</p> <table border="1"> <thead> <tr> <th rowspan="3">Rate mL product /ha</th> <th colspan="8">Rate in mL product /100 m row for specified row spacing</th> </tr> <tr> <th colspan="8">Row Spacing (cm)</th> </tr> <tr> <th>90</th> <th>120</th> <th>150</th> <th>180</th> <th>210</th> <th>240</th> <th>270</th> <th>300</th> </tr> </thead> <tbody> <tr> <td>400</td> <td>3.6</td> <td>4.8</td> <td>6</td> <td>7.2</td> <td>8.4</td> <td>9.6</td> <td>10.8</td> <td>12</td> </tr> <tr> <td>600</td> <td>5.4</td> <td>7.2</td> <td>9</td> <td>10.8</td> <td>12.6</td> <td>14.4</td> <td>16.2</td> <td>18</td> </tr> </tbody> </table>							Rate mL product /ha	Rate in mL product /100 m row for specified row spacing								Row Spacing (cm)								90	120	150	180	210	240	270	300	400	3.6	4.8	6	7.2	8.4	9.6	10.8	12	600	5.4	7.2	9	10.8	12.6	14.4	16.2	18
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Greenhouse Water Volume Guidelines	<table border="1"> <thead> <tr> <th>Crop</th> <th>Size</th> <th>Height (m)</th> <th>Volume per unit area (L/ha)</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Tomato</td> <td>Small</td> <td>0.6</td> <td>285</td> </tr> <tr> <td>Medium</td> <td>1.2</td> <td>627</td> </tr> <tr> <td>Large</td> <td>2.7</td> <td>1200-1400</td> </tr> </tbody> </table>								Crop	Size	Height (m)	Volume per unit area (L/ha)	Tomato	Small	0.6	285	Medium	1.2	627	Large	2.7	1200-1400																													
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11.9 Greenhouse Cucumbers

Crop	Greenhouse Cucumber – Greenhouse use only, not for transplant to the field
Disease suppressed	Downy mildew (<i>Pseudoperonospora cubensis</i>)
Use Rate mL product/ha	400 mL/ha of REVUS
Application Timing/Instructions	<p>REVUS Fungicide must be tank mixed with a non-Group 40 fungicide with efficacy against the target pest. Apply preventatively as a foliar application when plants begin to vine or when disease threatens.</p> <p>DO NOT allow effluent or runoff from greenhouses containing this product to enter lakes, streams, ponds or other waters.</p> <p>Refer to other sections of this label for additional application instructions and/or use precautions.</p> <p>The use of a non-ionic adjuvant (0.125% v/v) is recommended.</p>
Minimum recommended application water volume	100 L/ha for ground application
Maximum number of consecutive sprays	1
Maximum number of applications per crop	1
Maximum amount of active ingredients per season	100 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	2 days
Specific Use Restrictions	<ol style="list-style-type: none"> DO NOT apply by chemigation. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control.

11.10 Potatoes

Crop	Potatoes
Disease controlled	Late blight (<i>Phytophthora infestans</i>)
Use Rate mL product/ha	400 - 600
Application Timing/Instructions	REVUS Fungicide applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule of fungicides, following the resistance management guidelines. The use of a non-ionic adjuvant (0.25% v/v) is recommended. Applications may be made by ground or air.
Minimum recommended application water volume	100 L/ha for ground application 45 L/ha for aerial application
Maximum number of consecutive sprays	2
Maximum number of applications per crop	4
Maximum amount of active ingredients per season	600 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	14 days
Specific Use Restrictions	<ol style="list-style-type: none"> 1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended. 3. If REVUS Fungicide was used as a seed piece treatment, apply a fungicide belonging to a group other than Group 40 as the first foliar application of the season. Refer to chart under the SEED TREATMENT APPLICATIONS section for more information on the maximum number of foliar applications allowed following the use of REVUS Fungicide as potato seed piece treatment.

11.11 Potato Seed Piece Treatment

REVUS Fungicide is to be used as an integral part of a potato disease management strategy. This strategy includes the use of high quality seed and the incorporation of cultural techniques such as: crop rotation and optimal harvest time for tubers to minimize disease development, proper handling of tubers to avoid unnecessary bruising, management and sanitation of equipment and storage areas to reduce inoculum including avoidance of storage conditions that lead to free moisture or condensation and application of the seed piece treatment to clean seed pieces with a properly calibrated application system.

Apply using standard seed treatment equipment that provides uniform seed coverage. Uneven or incomplete seed coverage may not give the desired level of disease control. Add sufficient water to allow for a slurry volume that will allow for sufficient coverage. Follow the manufacturer's application instructions for the seed treatment equipment being used.

NOTE: Treatment of highly mechanically scarred, excessively sprouted, bruised, or damaged seed pieces, or seed pieces known to be of low vigour, "physiologically old" (that has multiple sprouts) and poor quality, except for the purpose of curative control of existing disease pests, may

result in reduced germination and/or reduction of seed piece and seedling vigour. Treat a small quantity of seed pieces using equipment similar to that planned for treating the total seed lot. Conduct germination tests on a small portion of seed pieces before committing the total seed lot to a selected seed treatment. Due to seed piece quality and seed piece storage conditions beyond the control of Syngenta Canada Inc., no claims are made to guarantee the germination of potato seed pieces.

Crop	Potatoes (seed piece treatment)
Disease	For preventative control of seed borne late blight (<i>Phytophthora infestans</i>) For suppression of pink rot caused by the pathogen <i>Phytophthora erythroseptica</i> .
Rate mL product/100 kg seed (g ai/100 kg seed)	13 – 26 (3.25 – 6.5)
Application Directions	Shake or mix well before using. DO NOT use open treating equipment when treating potato seed pieces. This product must be applied using a closed treatment system. Uneven or incomplete seed coverage may not give the desired level of disease control. Follow the manufacturer's application instructions for the seed treatment equipment being used. Use the higher rate when conditions favour heavy infection pressure. REVUS Fungicide will not cure pre-existing infection in potato seed pieces. REVUS Fungicide used as a seed piece treatment will not prevent late blight infection of plants or tubers after germination. Refer to chart below for more information on the maximum number of foliar applications allowed following the use of REVUS Fungicide as potato seed piece treatment.
Maximum amount of active ingredients per season	600 g ai/ha
Pre harvest interval (PHI)	14 days
Specific Restrictions	Use
	<ol style="list-style-type: none"> 1. If following a seed treatment application of REVUS Fungicide with foliar applications of this product, apply a fungicide belonging to a group other than Group 40 as the first foliar application of the season. 2. Do not make more than four applications per season of REVUS Fungicide.

MAXIMUM FOLIAR APPLICATIONS OF REVUS FUNGICIDE PERMITTED AFTER USE OF REVUS FUNGICIDE AS A POTATO SEED PIECE TREATMENT*

Seeding Rate (x100 kg/ha)	Seed Treatment Rate (mL/100 kg seed)	Seed Treatment Rate (g ai/100 kg seed)	Foliar Rate (mL/ha)	Foliar Rate (g ai/ha)	Number of Foliar Applications*
≤23	13 - 26	3.25 – 6.5	400	100	4
			600	150	3
24 - 30	13	3.25	400	100	4
			600	150	3
	26	6.5	400	100	4
			600	150	2
31 - 40	13	3.25	400	100	4
			600	150	3
	26	6.5	400	100	3
			600	150	2

*If REVUS Fungicide was used as potato seed piece treatment apply a fungicide belonging to a group other than Group 40 as the first foliar application of the season.

12.0 MINOR USES

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 Hops

Crop	Hops
Disease controlled	Downy Mildew (<i>Pseudoperonospora humuli</i>)
Use Rate mL product/ha	600
Application Timing/Instructions	<p>Post-emergent foliar broadcast treatment by ground or air.</p> <p>Apply in sufficient water volume to provide thorough coverage.</p> <p>Prior to disease development and continue throughout the season on a 7-10 day interval.</p> <p>Use the shorter interval under high pressure or when conditions are conducive to disease.</p> <p>The use of a non-ionic adjuvant (0.25% v/v) is recommended.</p>
Minimum recommended application water volume	100 L/ha for ground application 45 L/ha for aerial application
Maximum number of consecutive sprays	2
Maximum number of applications per crop	3
Maximum amount of active ingredients per season	450 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	7 days
Specific Use Restrictions	<ol style="list-style-type: none"> 1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended.

12.2 Ginseng

Crop	Ginseng
Disease controlled	Phytophthora blight and root rot (<i>Phytophthora cactorum</i>)
Use Rate mL product/ha	583
Application Timing/Instructions	Foliar or drench application by ground equipment only. Apply in a spray volume of 470-1400 L/ha. Prior to disease development and continue throughout the season on a 7-day interval. Follow resistance management guidelines. The use of a non-ionic adjuvant (0.25% v/v) is recommended.
Minimum recommended application water volume	470 L/ha
Maximum number of consecutive sprays	2
Maximum number of applications per crop	4
Maximum amount of active ingredients per season	584 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	3 days
Specific Use Restrictions	<ol style="list-style-type: none"> 1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended. 3. Do not apply by air.

12.3 Basil (field and greenhouse)

Crop	Basil (field and greenhouse)
Disease controlled	Downy mildew (<i>Peronospora belbahrii</i>)
Use Rate mL product/ha	583
Application Timing/Instructions	Foliar application using ground equipment only. Apply in a spray volume of 95 – 280 L/ha. Prior to disease development and continue throughout the season, allowing at least a 7 day interval. Follow resistance management guidelines. The use of a non-ionic adjuvant (0.25% v/v) is recommended.
Minimum recommended application water volume	95 L/ha
Maximum number of consecutive sprays	2
Maximum number of applications per crop	4
Maximum amount of active ingredients per season	584 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	1 day
Specific Use Restrictions	<ol style="list-style-type: none"> 1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended. 3. Do not apply by chemigation.

12.4 Edible-Podded Beans

Crop	Edible-Podded Beans - edible-podded runner beans, edible-podded snap beans, edible-podded wax beans, edible-podded moth beans, edible-podded yardlong beans, edible-podded jackbeans and edible-podded sword beans.
Disease controlled	Phytophthora blight (<i>Phytophthora capsici</i>) and Downy mildew (<i>Phytophthora nicotianae</i> var. <i>parasitica</i>)
Use Rate mL product/ha	600
Application Timing/Instructions	<p>Ground or aerial application.</p> <p>For best results, sufficient water volume must be used to provide thorough coverage. Use a minimum of 100 L/ha of water for ground application, 45 L/ha of water for aerial application.</p> <p>Prior to disease development and continue throughout the season on a 7-10 day interval.</p> <p>Follow resistance management guidelines.</p> <p>The use of a non-ionic adjuvant (0.25% v/v) is recommended.</p>
Minimum recommended application water volume	100 L/ha for ground application 45 L/ha for aerial application
Maximum number of consecutive sprays	2
Maximum number of applications per crop	4
Maximum amount of active ingredients per season	600 g ai/ha
Re-entry Interval (REI)	12 hours after application
Pre harvest interval (PHI)	1 day
Specific Use Restrictions	<ol style="list-style-type: none"> 1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended. 3. Do not apply by chemigation.

12.5 Greenhouse and Outdoor Ornamentals	
Crop	Greenhouse and Outdoor Ornamentals
Disease Controlled	Downy mildew (<i>Peronospora</i> spp.)
Diseases Suppressed	Phytophthora foliar blight (<i>Phytophthora nicotianae</i> and <i>Phytophthora ramorum</i>)
Use Rate mL product/100 L	30 – 60
Application Timing/Instructions	<p>Begin foliar applications prior to disease development and continue on a 7- to 14 day interval when conditions are favorable for disease development as a preventative spray or at first sign of disease symptoms. Use the shorter interval and/or higher rates under high disease pressure or when conditions are conducive to disease development.</p> <p>The use of a non-ionic adjuvant (0.25% v/v) is recommended.</p> <p>Plant safety has been found to be acceptable for many ornamental plants, however, not all possible plant species and varieties have been tested under all conditions. It is recommended to test REVUS Fungicide on a small portion of the crop to ensure that a phytotoxic response will not occur.</p>
Minimum recommended application water volume	Apply in sufficient water for adequate coverage, with a minimum water volume of 234 L/ha. Standard water volume is 935 L/ha.
Maximum number of consecutive sprays	2
Maximum number of applications per crop cycle	4
Maximum amount of active ingredients per crop cycle	60 g ai/ha
Re-entry Interval (REI)	12 hours after application
Specific Use Restrictions	<ol style="list-style-type: none"> 1. The number of applications containing a Group 40 fungicide must not exceed 50% of the total number of intended applications for disease control. 2. Alternation with non-Group 40 fungicides is recommended.

13.0 RESISTANCE-MANAGEMENT RECOMMENDATIONS

For Resistance management, please note that REVUS Fungicide contains a Group 40 fungicide. Any fungal population may contain individuals naturally resistant to REVUS Fungicide and other Group 40 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:

Do not exceed the total number of applications of REVUS Fungicide per season per crop.

Follow directions regarding the maximum number of successive applications for each use outlined in the Use Directions Tables. Do not apply at rates lower than recommended on the label.

Use tank mixtures with fungicides from a different Group that are 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 REVUS 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, if available.

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

For further information and to report suspected resistance, contact company representatives at 1-87-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

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