

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

September 9, 2015

Tammy Tyler Regulatory Product Manager Syngenta Crop Protection, LLC PO Box 18300 Greensboro, NC 27419

Subject: PRIA Label Amendment – Adds new use on non-bearing citrus; revises

terminology for some crop headings; clarifies "Specific Use Restrictions"

Product Name: Revus Fungicide EPA Registration Number: 100-1254

Application Date: 5/27/2014 Decision Number: 491653

Dear Ms. Tyler:

The application referred to above, submitted under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable under FIFRA sec 3 (c)(5). You must submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Page 2 of 2 EPA Reg. No. 100-1254 Decision No. 491653

Insert the following expiration date on the Supplemental label -9/9/2018

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Lindsay Roe by phone at 703-347-0506, or via email at roe.lindsay@epa.gov.

Sincerely,

Tony Kish, Product Manager 22

Fungicide Branch

Registration Division (7505P)

Office of Pesticide Programs

Enclosure

#### **IMPORTANT NOTICE**

U.S. LABEL – It is a violation of the United States law to use this product in the United States in a manner inconsistent with its United States labeling.

GROUP 40 FUNGICIDE

**Revus®** 

**Fungicide** 

For control of certain diseases in listed vegetable crops

ACCEPTED

09/09/2015

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 400 405 4

100-1254

Active Ingredient/Guarantee:

 Mandipropamid\*
 23.3%

 Other Ingredients:
 76.7%

 Total:
 100.0%

Revus is formulated as a suspension concentrate.

Contains 1,2-benzisothiazolin-3-one at 0.017% as a preservative.

Contains 23.3% Mandipropamid equivalent to 2.08 pounds per gallon or 250 grams per liter of active ingredient.

#### KEEP OUT OF REACH OF CHILDREN.

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1254

EPA Est. 100-NE-001

1 gallon Net Contents

1 quart Net Contents

<sup>\*</sup> CAS No. 374726-62-2

#### **FIRST AID**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

#### **HOT LINE NUMBER**

For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372

#### PRECAUTIONARY STATEMENTS

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

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

#### **User Safety Requirements**

Follow the 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.

#### **Engineering Controls**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **User Safety Recommendations**

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
   Wash thoroughly with soap and water after handling.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### **Environmental Hazards**

For terrestrial use. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or regional office of the EPA.

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the REI of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

### PRODUCT USE PRECAUTIONS

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

#### PRODUCT INFORMATION

Revus provides control of diseases caused by downy mildews. It has preventative and limited curative properties. Revus is applied as a foliar spray and can be used in block, alternating spray, or tank mix programs with other crop protection products. All applications must be made according to the use directions that follow.

#### PRODUCT USE INSTRUCTIONS

**Application**: Thorough coverage is necessary to provide good disease control. Mix only the amount of spray solution needed for immediate application. Avoid spray overlap, as crop injury may occur.

**Adjuvants:** For some uses on this label, a spreading/penetrating type adjuvant such as a non-ionic surfactant, crop oil concentrate, silicone based, or blend must be added at the manufacturer's recommended rates. For other crop uses, an adjuvant is recommended. When an adjuvant is to be used with this product, SYNGENTA recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

**Efficacy:** Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if maximum amount of Revus has been used. If isolates that are resistant to Group 40 fungicides are present, efficacy may be reduced for certain diseases. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when environmental conditions conducive to disease exist.

**Disease Suppression:** If a use indicates suppression it refers to erratic control from fair to good, or consistent control at a level below that obtained with products registered for control.

Integrated Pest Management (IPM): Revus should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. Consult your local agricultural authorities for additional IPM strategies established for your area. Revus may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

# **Resistance Management**

# GROUP 40 FUNGICIDE

Revus contains mandipropamid, a Carboxylic Acid Amide (CAA) fungicide in Group 40. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include rotating and/or tank mixing with products having different modes of action or limiting the total number of applications per season. SYNGENTA encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label. Revus must not be alternated or tank mixed with any fungicide to which resistance has already developed.

As part of a resistance management strategy:

- Apply a maximum of 4 sprays during one crop cycle.
- Apply no more than 2 sequential applications unless otherwise stated in the crop section.
- When tank mixing or alternating, use an effective partner one that provides satisfactory disease control when used alone at the mixture rate.
- Do not use Revus in vegetable transplant production.

**Crop Tolerance:** Plant tolerance has been found acceptable for all crops on the label; however, not all possible tank mix combinations have been tested under all conditions. When possible, it is recommended to test the combinations on a small portion of the crop to ensure a phytotoxic response will not occur as a result of application.

**Spray Drift Management:** To avoid spray drift, do not apply when conditions favor drift beyond the target area. The interaction of many equipment and weather related factors determine the potential for spray drift. AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

**Rotational Crops:** To avoid possible illegal residues, do not plant any other crop within 30 days of a Revus application to the preceding crop unless the crop appears in the table below.

Rotational Crop	Days from Last Application
Basil	
Bean, snap	
Brassica, head and stem, Crop subgroup 5A	
Brassica, leafy greens, Crop subgroup 5B	
Onion, dry bulb	
Onion, green	
Cucurbit Vegetables, Crop group 9	0
Fruiting Vegetables, including tomatoes, Crop group 8	
Ginseng	
Grapes	
Hops	
Leafy Vegetables, except brassica, Crop group 4	
Okra	
Tobacco	
Tuberous and corm vegetables, including potatoes, Crop	
subgroup 1C	
All other crops intended for food or feed	30

#### MIXING AND APPLICATION METHODS

#### **Spray Equipment**

#### Nozzles

- Equip sprayers with nozzles that provide accurate and uniform application.
- Nozzles should be the same size and uniformly spaced across the boom.

- Calibrate sprayer before use.
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging.
- Screens placed on suction side of pump should be 16-mesh or coarser.
- Do not place a screen in the recirculation line.
- Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles.
- Check nozzle manufacturer's recommendations.

#### Pump

- Use a pump with capacity to:
  - (1) maintain 35-40 psi at nozzles
  - (2) provide sufficient agitation in tank to keep mixture in suspension this requires recirculation of 10% of tank volume per minute.
- Use a jet agitator or liquid sparge tube for agitation.
- Do not air sparge.

For more information on spray equipment and calibration, consult sprayer manufacturer's and state recommendations. For specific local directions and spray schedules, consult the current state agricultural recommendations.

#### **Mixing Instructions**

- Prepare no more spray mixture than is required for the immediate operation.
- Thoroughly clean spray equipment before using this product.
- Agitate the spray solution before and during application.
- Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.
- Do not allow spray mixture to stand overnight or for prolonged periods of time (more than 3 hours) without agitation.

#### Revus Alone (no tank mix):

- Add  $\frac{1}{2}$ - $\frac{2}{3}$  of the required amount of water to the spray or mixing tank.
- With the agitator running, add Revus to the tank.
- Continue agitation while adding the remainder of the water.
- Begin application of the spray solution after Revus has completely dispersed into the mix water.
- Maintain agitation until all of the mixture has been sprayed.

**Revus + Tank Mixtures:** Revus is usually compatible with all tank-mix partners listed on this label. To determine the physical compatibility of Revus with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to 1 quart of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

It is important to mix only the amount of product that can be sprayed immediately. Continuous agitation is recommended. If circumstances cause a delay of more than 3 hours, the product(s) may settle and be difficult to re-suspend. If this

# occurs, good agitation is required for a minimum of 15 minutes before and during spray operation.

### Mixing in the Spray Tank

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

# **Application Instructions**

Revus may be applied with all types of spray equipment commonly used for making ground and aerial applications. Proper adjustments and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control.

#### **Revus Conversion Table**

Oz product/acre	Lb ai/acre
5.5	0.09
7	0.11
8	0.13

#### **Ground Application:**

- Apply in a minimum of 10 gallons of water per acre, unless specified otherwise on this label.
- Do not apply through any ultra-low volume (ULV) spray system.
- Thorough coverage is necessary to provide good disease control.

#### **Aerial Application:**

- Use only on crops where aerial applications are indicated.
- Thorough coverage is necessary to provide good disease control.
- Apply in a minimum of 5 gallons of water per acre unless specified otherwise on this label.
- Avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur.
- Do not apply directly to humans or animals.
- Do not apply through any ultra-low volume (ULV) spray system.

## Application Through Irrigation Systems (Chemigation) -

- Use only on crops where chemigation is specified on this label.
- Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- Apply Revus use rates in 0.1 0.25 inches per acre. Excessive water may reduce efficacy.

- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place.
- 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.

### **Operating Instructions**

- 1. 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.
- 2. The pesticide injection pipeline must contain a functional, automatic, quickclosing check-valve to prevent the flow of fluid back toward the injection pump.
- 3. 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.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. 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.
- 6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended.

#### **Center Pivot Irrigation Equipment**

**Notes:** (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating Revus through center pivot systems, because of non-uniform application.

- Determine the size of the area to be treated.
- Determine the time required to apply 1/8–1/2 inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. When applying Revus through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution. Run the system at 80-95% of the manufacturer's rated capacity.

- Using water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of Revus required to treat the area covered by the irrigation system.
- Add the required amount of Revus and sufficient water to meet the injection time requirements to the solution tank.
- Make sure the system is fully charged with water before starting injection of the Revus solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- Maintain constant solution tank agitation during the injection period.
- Continue to operate the system until the Revus solution has cleared the sprinkler head.

#### Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

- Determine the acreage covered by the sprinklers.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20 to 30-minute interval. When applying Revus through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of Revus required to treat the area covered by the irrigation system.
- Add the required amount of Revus into the same quantity of water used to calibrate the injection period.
- Operate the system at the same pressure and time interval established during the calibration.
- Stop injection equipment after treatment is completed. Continue to operate the system until the Revus solution has cleared the last sprinkler head.

#### SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS

- 1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system

should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

- 3. The pesticide injection pipeline must contain a functional, automatic, quickclosing check valve to prevent the flow of fluid back toward the injection pump.
- 4. The pesticide injection pipeline must 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, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.

# SPECIFIC DIRECTIONS FOR USE

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
Basil (fresh and dried)	Downy mildew (Peronospora belbahrii)	5.5 - 8.0 (0.09 - 0.13)	Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Revus may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.  The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant or crop oil concentrate or blend is recommended.
			sufficient water volume to provide thorough ground, chemigation, or aerial application.

- Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/season).
   If multiple croppings, apply no more than 2.08 lb ai/A/year.
   Do not apply within 1 day of harvest (1-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
Bean, snap	Downy mildew (Phytophthora nicotianae)	5.5 - 8.0 (0.09 - 0.13)	Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Revus may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.  The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant or crop oil concentrate or blend is recommended.
			e sufficient water volume to provide be applied by ground, chemigation, or aerial

- Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
   Do not apply within 1 day of harvest (1-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
Brassica head/stem and leafy greens, Crop Subgroups 5A and 5B  Broccoli Brussels sprouts Cabbage Cauliflower Collards Kale Mustard greens  Including all cultivars and/or hybrids of these.  See additional crops below.	Downy mildew (Peronospora parasitica)	5.5 - 8.0 (0.09 - 0.13)	Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Revus may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.  A spreading/penetrating type adjuvant such as a silicone based adjuvant, non-ionic surfactant, crop oil concentrate, or blend must be added at recommended rates when applied by ground or air.
	<b>Application:</b> For best results, use sufficient water volume to provide thorough coverage. Revus may be applied by ground, chemigation, or aerial application.		

**Head and Stem Brassica Crop subgroup 5A includes** Broccoli; broccoli, Chinese; brussels sprouts; cabbage; cabbage, Chinese (napa); cabbage, Chinese mustard; cauliflower; cavalo broccolo; kohlrabi

**Leafy Brassica greens Crop subgroup 5B includes** Broccoli raab; cabbage, Chinese (bok choy); collards; kale; mizuna; mustard greens; mustard spinach; rape greens

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) Do not apply within 1 day of harvest (1-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
Bulb Vegetables:	Downy mildew (Peronospora	5.5 - 8.0 (0.09 - 0.13)	Begin applications prior to disease development and continue throughout the
Dry bulb	destructor)		season on a 7-10 day interval. Make no more
Onion, bulb Garlic Shallot			than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when
Green Onion			conditions are conducive to disease. Revus may be tank mixed with another fungicide
Onions, green Leek Welch onion			labeled for downy mildew that has a different mode of action.
Including cultivars, varieties, and/or			A silicone-based adjuvant must be added at recommended rates.
hybrids of these and others in this group (see below).			sufficient water volume to provide thorough y ground, chemigation, or aerial application.

**Onion, bulb Crop subgroup 3-07A includes:** Daylily, bulb; fritillaria, bulb; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; lily, bulb; onion, bulb; onion, Chinese, bulb; onion, pearl; onion, potato, bulb; shallot, bulb; cultivars, varieties, and/or hybrids of these

Onion, green Crop subgroup 3-07B includes: chive, fresh leaves; chive, Chinese, fresh leaves; elegans hosta; fritillaria, leaves; kurrat; lady's leek; leek; leek, wild; onion, Beltsville bunching; onion, fresh; onion, green; onion, macrostem; onion, tree, tops; onion, Welsh, tops; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these

- 1) For dry bulb vegetables do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) For green onions do not apply more than 24 fl oz of product/A/season (0.39 lb ai/A/year).
- 3) Do not apply within 7 days of harvest (7-day PHI).

Crop	Disease	Rate fl oz/100 gal	Remarks
Citrus – NON-BEARING only  For use in container production in nurseries and prior to transplanting.	Phytophthora root rot ( <i>Phytophthora</i> spp.)  Application: Use a	8.0 – 16.0	Revus controls the germinating spores of Phytophthora so it is important that Revus be used preventively. Apply as a drench (see Table below for volume) to the container 2-4 times a year, with a minimum interval of 3 months, during root flushes to protect the new root growth and the crown of the plant.  In order to maintain protection in the field, drench pot prior to transplanting.

**Citrus Crop Group 10-10:** Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrids of these

### **Specific Use Restrictions:**

- 1) Do not apply more than 16 oz/100 gallons per application.
- 2) Do not apply within 365 days of harvest (365-day PHI).
- 3) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).

**Volume of Revus Drench by Container Size** 

Pot Diameter	Drench Solution (oz) per Container
4	4
5	5
6	6
8	10
10	20
12	30

#### Amount of Revus to Achieve Desired Volume of Drench Solution

Rate/100 gal	5 gal	10 gal	25 gal	50 gal	75 gal	100 gal
8 oz	0.4 oz	0.8 oz	2 oz	4 oz	6 oz	8 oz
16 oz	0.8 oz	1.6 oz	4 oz	8 oz	12 oz	16 oz

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks	
Cucurbits, Crop group 9:  Cantaloupe Cucumber Honeydew Muskmelon Watermelon Pumpkin Squash Zucchini  Including cultivars and/or hybrids of these.  See additional cucurbit crops below.	For suppression of:  Downy mildew (Pseudopero- nospora cubensis)	5.5 - 8.0 (0.09 - 0.13)	Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 1 application before switching to another effective non-Group 40 fungicide. Revus must be tank mixed with another fungicide labeled for downy mildew that has a different mode of action. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.  A spreading/penetrating type adjuvant such as a non-ionic surfactant, crop oil concentrate, or blend must be added at recommended rates.	
сиситын сторх ыеюж.	For suppression of: Phytophthora blight (P. capsici)	8.0 (0.13)	For best results, begin the disease management program with an initial treatment at planting or transplanting with a fungicide registered for this use. Apply Revus as a foliar spray in a mixture with a copper based fungicide (at the recommended rate) beginning at first sign of disease or based on local recommendations. Revus should be alternated with another registered fungicide such as Ridomil Gold® Copper on a 7-14 day interval. Use adjuvants as recommended above.	
	<b>Application:</b> For best results, use sufficient water volume to provide the coverage. Revus may be applied by ground, chemigation, or aerial applier For <i>P. capsici</i> applications use a minimum of 20 gal/A by ground.			

**Cucurbit vegetable Crop group 9 includes:** Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) May be applied the day of harvest (0-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks	
Ginseng	Phythophthora root rot ( <i>P. cactorum</i> )	5.5 - 8.0 (0.09 - 0.13)	Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Revus may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.  The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant or crop oil concentrate or blend is recommended.	
	<b>Application:</b> For best results, use sufficient water volume to provide thorough coverage. Revus may be applied by ground, chemigation, or aerial application.			

- Specific Use Restrictions:

  1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).

  2) Do not apply within 2 days of harvest (2-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
Grapes  Including cultivars, varieties, and/or hybrids of these and others in this group (see below).	Downy mildew ( <i>Plasmopora</i> viticola)	5.5 - 8.0 (0.09 - 0.13)	Begin applications prior to disease development and continue throughout the season on a 7-day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.  The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant or crop oil concentrate or blend is recommended.
	<b>Application:</b> For best results, use sufficient water volume to provide thorough coverage. Revus may be applied by either ground (15 gal minimum) or aerial application (10 gal minimum).		

Complete list of Small Fruit vine climbing subgroup, except fuzzy kiwifruit: Amur river grape, gooseberry, grape; kiwifruit (hardy); maypop; schisandra berry.

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) Do not apply within 14 days of harvest (14-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks			
Hops	Downy mildew (Pseudopero- nospora humuli)	5.5 - 8.0 (0.09 - 0.13)	Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to an effective non-Group 40 fungicide. For resistance management, no more than 50% of the sprays should be Revus. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. Revus may be tank mixed with another fungicide labeled for downy mildew that has a different mode of action.  The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant or blend is recommended.			
		<b>Application:</b> For best results, use sufficient water volume to provide thorough coverage. Revus may be applied by ground, chemigation, or aerial application.				

- Do not apply more than 24 fl oz of product/A/season (0.39 lb ai/A/year).
   Do not apply within 7 days of harvest (7-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks	
Leafy Vegetables, Crop Group 4  Lettuce, leaf and head Spinach Celery  Including cultivars and/or hybrids of these.  See additional crops below.			Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.  The addition of a spreading/ penetrating type adjuvant such as a non-ionic surfactant or crop oil concentrate or blend is recommended.	
	coverage. Revus may be applied by ground, chemigation, or aerial application.			

Leafy vegetables (except brassica vegetables) Crop Group 4 includes: Amaranth (Chinese spinach); arugula (roquette); cardoon; celery; celery, Chinese; celtuce; chervil; chrysanthemum, edible-leaved; chrysanthemum, garland; corn salad; cress, garden; cress, upland; dandelion; dock (sorrel); endive (escarole); fennel, Florence; lettuce, head and leaf; orach; parsley; purslane, garden; purslane, winter; radicchio (red chicory); rhubarb; spinach; spinach, New Zealand; spinach, vine; Swiss chard

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) Do not apply within 1 day of harvest (1-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks		
Fruiting Vegetable Group (except tomatoes, see TOMATO section), Crop Group 8  Peppers	Downy mildew (Peronospora tabacina)	5.5 - 8.0 (0.09 - 0.13)	Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when		
Bell pepper Non-bell pepper Sweet non-bell			conditions are conducive to disease.  The addition of a spreading/penetrating type adjuvant such as a non-ionic surfactant or crop		
Eggplant Okra			oil concentrate or blend is recommended.		
Including cultivars, varieties, and/or hybrids of these and	- For our processing	0.0			
others in this group (see below).	For suppression of:  Phytophthora blight (P. capsici)	8.0 (0.13)	For best results, begin the disease management program with an initial treatment at planting or transplanting with a fungicide registered for this use. Apply Revus as a foliar spray in a mixture with a copper based fungicide (at the recommended rate) beginning at first sign of disease or based on local recommendations. Alternate Revus with another registered fungicide such as Ridomil Gold Copper on a 7-14 day interval or use in a blocking program of 2 applications of Revus, followed by another fungicide for additional applications. Use adjuvants as recommended above.		
	<b>Application:</b> For best results, use sufficient water volume to provide thorough coverage. Revus may be applied by ground, chemigation, or aerial application. For <i>P. capsici</i> applications use a minimum of 20 gal/A by ground.				

Fruiting vegetables (except cucurbits) Crop Group 8 Includes (except for types of tomatoes): Eggplant; groundcherry ( *Physalis* spp); pepino; pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper)

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) Do not apply within 1 day of harvest (1-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks		
Potatoes and other Vegetables, tuberous and corm, Crop Subgroup 1C See additional crops below.	Late blight (Phytophthora infestans)	5.5 - 8.0 (0.09 - 0.13)	Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.  The addition of a spreading/ penetrating type adjuvant such as a non-ionic surfactant or crop oil concentrate or blend is recommended when applying by ground or air.		
	<b>Application:</b> For best results, use sufficient water volume to provide the coverage. Revus may be applied by ground, chemigation, or aerial appli				

**Tuberous and corm vegetables Crop Subgroup 1C includes:** Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; potato; sweet potato; tanier; turmeric; yam bean; yam, true

- 1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).
- 2) Do not apply within 14 days of harvest (14-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks	
Tobacco	Blue mold (Peronospora tabacina)	5.5 - 8.0 (0.09 - 0.13)	Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to an effective non-Group 40 fungicide. Revus may be tank mixed with another fungicide labeled for blue mold that has a different mode of action.  The addition of a spreading/penetrating type adjuvant such as a non-ionic based surfactant may improve activity.	
	<b>Application:</b> For best results, use sufficient water volume to provide thorough coverage. Revus may be applied by ground, chemigation, or aerial application. Aerial applications must be made using a minimum of 2 gallons water per acre.			

- Specific Use Restrictions:

  1) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).

  2) Do not apply within 7 days of harvest (7-day PHI).

Crop	Disease	Rate fl oz/Acre (lb ai/A)	Remarks
Includes: Tomato, bush Tomato, currant Tomatillo Tomato, tree  And cultivars, varieties, and/or hybrids of these.  See FRUITING VEGETABLE, Crop Group 8 section for other crops in this group.			Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective non-Group 40 fungicide. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.  May be used in field and greenhouse production. Do not use in greenhouse for transplant production.  The addition of a spreading/ penetrating type adjuvant such as a non-ionic surfactant or crop oil concentrate or blend is recommended when applying by ground or air.

- Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/season).
   If multiple croppings, apply no more than 2.08 lb ai/A/year.
   Do not apply within 1 day of harvest (1-day PHI).

# **Storage and Disposal**

Do not contaminate water, food, or feed, by storage or disposal.

### **Pesticide Storage**

Store in original containers only. Store in a cool, dry place. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

#### **Pesticide Disposal**

Pesticide wastes may be acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

#### Container Handling [less than or equal to 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

#### Container Handling [greater than 5 gallons]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

#### Container Handling [greater than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary

landfill, or by incineration, or by other procedures approved by state and local authorities.

# CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

Revus®, Ridomil Gold® and the Syngenta logo are trademarks of a Syngenta Group Company

©20\_\_ Syngenta

For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.

Manufactured for: Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, North Carolina 27419-8300

REVUS 1254 MAS 1213 AMEND-MAY 2014-Version E – mar – 9/3/15 000100-01254.20140522E.REVUS-AMEND-MAY2014.PDF

#### SUPPLEMENTAL LABELING

GROUP

40

**FUNGICIDE** 

# Syngenta Crop Protection, LLC

P. O. Box 18300

Greensboro, North Carolina 27419-8300

SCP 1254A-S

ACCEPTED

09/09/2015

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

**Fungicide** 

**Revus®** 

100-1254

This supplemental label expires on XX/XX/XXXX and must not be used or distributed after this date.

Active Ingredient/Guarantee:

Mandipropamid*	23.3%
Other Ingredients:	76.7%
Total:	100.0%

<sup>\*</sup> CAS No. 374726-62-2

Revus is formulated as a suspension concentrate.

Contains 1,2-benzisothiazolin-3-one at 0.017% as a preservative.

Contains 23.3% Mandipropamid equivalent to 2.08 pounds per gallon or 250 grams per liter of active ingredient.

#### KEEP OUT OF REACH OF CHILDREN.

EPA Reg. No. 100-1254

All applicable directions, restrictions and precautions on the EPA registered label are to be followed. Before using Revus as permitted according to this supplemental label, read and follow all applicable directions, restrictions, and precautions on the EPA registered label on or attached to the pesticide product container. This Supplemental Labeling contains revised use instructions and or restrictions that may be different from those that appear on the container label. This Supplemental Labeling must be in the possession of the user at the time of pesticide application. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

syngenta

#### **DIRECTIONS FOR USE**

Crop	Disease	Rate fl oz/100 gal	Remarks
Citrus – NON-BEARING only  For use in container production in nurseries and prior to transplanting.	Phytophthora root rot ( <i>Phytophthora</i> spp.)	8.0 – 16.0	Revus controls the germinating spores of Phytophthora so it is important that Revus be used preventively. Apply as a drench (see Table below for volume) to the container 2-4 times a year, with a minimum interval of 3 months, during root flushes to protect the new root growth and the crown of the plant.  In order to maintain protection in the field, drench pot prior to transplanting.
	Application: Use a	sufficient volu	ime of water to wet the soil in the container.

Citrus Crop Group 10-10: Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrids of these

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

- 1) Do not apply more than 16 oz/100 gallons per application.
- 2) Do not apply within 365 days of harvest (365-day PHI).
- 3) Do not apply more than 32 fl oz of product/A/season (0.52 lb ai/A/year).

**Volume of Revus Drench by Container Size** 

Pot Diameter	Drench Solution (oz) per Container			
4	4			
5	5			
6	6			
8	10			
10	20			
12	30			

#### Amount of Revus to Achieve Desired Volume of Drench Solution

Rate/100 gal	5 gal	10 gal	25 gal	50 gal	75 gal	100 gal
8 oz	0.4 oz	0.8 oz	2 oz	4 oz	6 oz	8 oz
16 oz	0.8 oz	1.6 oz	4 oz	8 oz	12 oz	16 oz

Revus and the Syngenta logo are trademarks of a Syngenta Group Company

©201\_ Syngenta

REVUS 1254 MAS 1213 AMEND SUP MAY 2014-Version D – mar– 9/3/15 000100-01254.20140522D.REVUS-AMEND-SUP-MAY2014.PDF