



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 19, 2022

Zenna Burke  
Senior Regulatory Manager  
Valent USA LLC  
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PO Box 8025  
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Subject: Registration Review Label Mitigation for Fluopicolide  
Product Name: V-10161 4 SC Fungicide  
EPA Registration Number: 59639-140  
Application Dates: 9/5/2019  
Decision Numbers: 555056

Dear Ms. Burke:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Fluopicolide Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label 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.

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Decision No. 555056

If you have any questions about this letter, please contact Darius Stanton by phone at 703-347-0433, or via email at [stanton.darius@epa.gov](mailto:stanton.darius@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a long horizontal flourish extending to the right.

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure



FLUOPICOLIDE | GROUP 43 | FUNGICIDE

[Bracketed text is optional]

# V-10161 4 SC Fungicide

**FOR CONTROL AND/OR SUPPRESSION OF CERTAIN DISEASES IN BASIL; BRASSICA (COLE) LEAFY VEGETABLES; BULB VEGETABLES; CITRUS FRUIT; CUCURBIT VEGETABLES; FRUIT, SMALL, VINE CLIMBING SUBGROUP, EXCEPT FUZZY KIWIFRUIT; FRUITING VEGETABLES; HOPS; LEAFY VEGETABLES (EXCEPT BRASSICA VEGETABLES); NON-BEARING FRUIT TREES; NON-BEARING NUT TREES; ROOT AND TUBER VEGETABLES; LISTED SUCCULENT BEANS; AND TOBACCO; AND FOR CONTROL OF PYTHIUM AND PHYTOPHTHORA ON ORNAMENTALS AND TURFGRASS**

Active Ingredient	By Wt
Fluopicolide* .....	39.5%
Other Ingredients .....	<u>60.5%</u>
Total	100.0%

\*2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide

V-10161 4 SC Fungicide is a suspension concentrate containing 4 lb active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN**

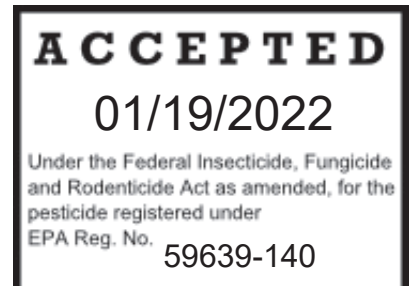
### CAUTION

**SEE NEXT [PAGE] [PANEL] [BOOKLET] FOR ADDITIONAL PRECAUTIONARY STATEMENTS.**

**NET CONTENT \_\_\_\_**

**ALWAYS MIX PRODUCT THOROUGHLY BEFORE USE.**

EPA Reg. No. 59639-140  
EPA Est. \_\_\_\_\_



<b>FIRST AID</b>	
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for further treatment advice</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b>	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact <b>800-892-0099</b> for emergency medical treatment information.</p>	

## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS & DOMESTIC ANIMALS**

**CAUTION:** Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist.

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, socks plus shoes and chemical-resistant gloves made of any waterproof material for example natural rubber ≥ 14 mils.

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.

### **USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 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.

### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water by disposing of equipment washwaters or rinsate.

### **DIRECTIONS FOR USE**

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

**READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.**

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 (WPS), 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 restricted-entry interval (REI) of 12 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 for example natural rubber  $\geq$  14 mils, socks and shoes.

### **NON-AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are **NOT** within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, greenhouses or sod farms.

Keep all unprotected persons out of operating areas or vicinity where there may be drift.  
Do not enter treated areas without protective clothing until sprays have dried.

**DISCLAIMER, RISKS OF USING THIS PRODUCT,  
LIMITED WARRANTY  
AND LIMITATION OF LIABILITY**

**IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.**

**RISKS OF USING THIS PRODUCT**

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. To the extent consistent with applicable law buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

**LIMITED WARRANTY**

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label **and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED.** No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

**LIMITATION OF LIABILITY**

**To the extent consistent with applicable law Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR 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 THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

**PROMPT NOTICE OF CLAIM**

To the extent consistent with applicable law allowing such requirements, Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is later, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law, if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

**NO AMENDMENTS**

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability**, which may not be modified by any oral or written agreement.

**TANK MIXES**

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor, consistent with applicable law.

**Read and follow the entire label of each product to be used in the tank mix with this product.**

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## USE INFORMATION

V-10161 4 SC Fungicide is formulated as 4 lb ai/gallon suspension concentrate (SC). The active ingredient in V-10161 4 SC Fungicide is fluopicolide. V-10161 4 SC Fungicide exhibits protective, curative, eradicated and antisporulant activity. Fluopicolide is locally systemic and translaminar and also moves systemically via xylem tissue.

V-10161 4 SC Fungicide is most effective when applied in a regularly scheduled spray program used in combination and/or rotation with other effective fungicides that have different modes of action (i.e., non FRAC Group 43 fungicides).

### TANK MIXING

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### RESTRICTIONS AND LIMITATIONS

- Do not apply to greenhouse food crops.
- Do not apply this product when weather conditions favor spray drift from treated areas.
- When applying by air, observe drift management restrictions and precautions listed under "AERIAL APPLICATION". Best control is achieved through ground application.
- It is the responsibility of the applicator to ensure that spray drift does not occur from the application site. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making decisions. Where states have more stringent regulations, they must be followed.

### MODE OF ACTION

V-10161 4 SC Fungicide is active against selective oomycetes. It exhibits the typical mode of action of specific systemic fungicides against oomycete fungi affecting several steps in the reproduction cycle.

Biochemical studies have shown that fluopicolide has an effect on spectrin-like proteins, believed to play a role in maintaining the membrane stability in ascomycete fungi or oomycetes, especially during hyphal tip extension. Microscopy studies demonstrate that fluopicolide induces a quick redistribution of these proteins from the membrane to the cytoplasm in both hyphae and zoospores.

### Resistance Management

For resistance management, V-10161 4 SC Fungicide contains a Group 43 fungicide. Any fungal population may contain individuals naturally resistant to V-10161 4 SC and other Group 43 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance, take one or more of the following steps:

- Rotate the use of V-10161 4 SC Fungicide or other Group 43 fungicides within a growing season sequence with different groups that control the same pathogens.
- Avoid application of more than the maximum number of the applications listed in “CROP SPECIFIC REQUIREMENTS” and follow label instructions regarding sequential applications of V-10161 4 SC Fungicide or other fungicides in the same group in a season.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which 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. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance contact Valent U.S.A. LLC at 800-6-Valent (682-5368). You can also contact your pesticide distributor or university extension specialist to report resistance.

### **RAINFASTNESS**

Foliar sprays are rainfast 2 hours after application. Applications for foliar disease control must not be made if measurable rain is expected within 2 hours of application or foliar disease control may be reduced.

### **JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND V-10161 4 SC FUNGICIDE**

Perform a jar test before mixing commercial quantities of V-10161 4 SC Fungicide, when using V-10161 4 SC Fungicide for the first time, or when a new water source is being used.

1. Add 1 pt of water plus adjuvant to a quart jar. Use water from the same source and temperature as water that will be used in the spray tank mixing operation.
2. Add 2.5 ml (1/2 tsp) of V-10161 4 SC Fungicide to the quart jar and gently mix until product goes into suspension.
3. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.

4. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed reevaluate the choice of adjuvant:
  - a) Layer of oil or globules on the mixture's surface.
  - b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: thickening texture (coagulated) like gelatin.

## **APPLICATION INSTRUCTIONS**

### **SPRAYER PREPARATION**

Before applying V-10161 4 SC Fungicide, start with clean, well maintained application equipment. The spray tank, hoses and booms must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply V-10161 4 SC Fungicide. If two or more products were tank mixed prior to V-10161 4 SC Fungicide application, follow the most restrictive cleanup procedure.

### **MIXING INSTRUCTIONS**

1. Fill clean spray or nurse tank 1/2 to 2/3 of desired level with clean water.
2. While agitating, slowly add the V-10161 4 SC Fungicide to the tank. Adequate agitation will create a rippling or rolling action on the water surface.
3. When tank mixing V-10161 4 SC Fungicide with other labeled pesticides, add water soluble packets first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. When tank mixing, follow the label directions for the most restrictive of label precautions and limitations.
4. Add any required adjuvants.
5. Fill tank to desired level with water. Continue agitation until all spray solution has been used or applied.

### **SPRAYER CLEANUP**

Spray equipment must be cleaned following application of V-10161 4 SC Fungicide. After V-10161 4 SC Fungicide is applied, the following steps must be used to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. Drain tank completely.
4. Remove all nozzles and screens and rinse them in clean water.
5. The rinsate solution may be applied to the crops listed on this label. Do not exceed the maximum labeled use rate. If cleaners are used, consult the cleaner label for disposal instructions. If no instructions are given, dispose of rinsate at an approved waste disposal facility.

### **APPLICATION EQUIPMENT**

Keep application equipment clean and in good repair. Check nozzles frequently for accuracy.

### **CARRIER VOLUME**

Apply V-10161 4 SC Fungicide in sufficient water to ensure thorough coverage of foliage, bloom and fruit. Thorough coverage is required for optimal disease control. For ground application, apply a minimum of 20 gallons of spray mixture per acre and for aerial application, do not apply less than 5 gallons of spray mixture per acre to assure uniform coverage. Follow individual "CROP SPECIFIC REQUIREMENTS" for appropriate spray volumes.

## AERIAL APPLICATION

To minimize spray drift, apply the largest droplet size consistent with uniform coverage and satisfactory disease control. Refer to Spray Drift Management for additional guidance.

- **Carrier Volume and Spray Pressure:** Application at less than 5 gals per acre may provide inadequate coverage and control. The higher gallonage applications generally afford more consistent disease control. Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Adjuvants and Drift Control Additives:** Refer to tank mix partner's label for information on adjuvant usage. Drift control additives may be used although it is better to obtain coarser sprays through appropriate nozzle selection and use wherever possible. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label, and be certain of compatibility with the tank mix and nozzle types being used before selecting any adjuvant types.

### SPRAY DRIFT MANAGEMENT

#### Aerial Application

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### Ground Boom Applications

- Apply with the nozzle height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 3 feet from the target vegetation.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.  
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

## **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### **Controlling Droplet Size – Ground Boom**

- Volume – Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure – Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle – Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### **Controlling Droplet Size – Aircraft**

- Adjust Nozzles – Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### **BOOM HEIGHT – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift.

### **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

### **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### **Boomless Ground Applications**

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

### **Handheld Technology Applications**

- Take precautions to minimize spray drift.

## **CHEMIGATION (SPRINKLER IRRIGATION)**

V-10161 4 SC Fungicide may be applied through sprinkler irrigation and injection (drip irrigation) systems mainly for soilborne infections. Follow all label requirements regarding application rates, timing of application, special instructions and precautions.

For chemigation applications apply this product only through center pivot, solid set, hand move and injection (drip irrigation) systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of efficacy or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

The system must be properly calibrated (with water only) to ensure that the amount of V-10161 4 SC Fungicide applied corresponds to the required rate on this label for the crop being chemigated.

Apply V-10161 4 SC Fungicide in 1/2 to 3/4 inches of water during the first sprinkler set. Allow time for all lines to flush the fungicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining fungicide, a dye indicator may be injected into the lines to mark the end of the application period.

If you have any questions about calibration, contact your State Extension Specialist, equipment manufacturers or other experts.

### **Chemigation of Turf and Ornamentals**

For chemigation to turfgrass sites, apply this product only through center pivot, solid set, hand move or moving wheel irrigation systems. Apply V-10161 4 SC Fungicide in 1/2 to 3/4 inches of water during the first sprinkler set.

For chemigation to ornamental sites apply this product only through microirrigation (individual spaghetti tube), drip irrigation, overhead irrigation or motorized calibrated irrigation equipment.

### **Special Precautions for Chemigation**

1. Do not connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
2. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of that person shall shut the system down and make necessary adjustments.
3. The system must be free of leaks and clogged nozzles.
4. The pesticide must be supplied continuously for the duration of the aqueous application. An uneven application may cause injury to the crop or poor control.
5. Agitation must be maintained in the nurse tank.
6. The sprinkler chemigation 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.
7. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
8. 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.

9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or, in the case where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
10. 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.
11. 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 the pesticides being used and capable of being fitted with a system interlock.
12. Do not apply when wind speed favors drift beyond the area intended for treatment.

### **Chemigation Systems Connected to Public Water Systems**

1. Public water system means a system for the provision to the public of piped water for human consumption, if such a 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 the public water system must contain a functional, reduced pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system 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 the top overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. All chemigation systems connected to the public water system must also follow restrictions listed in the preceding section titled "Special Precautions for Chemigation".



## ROTATIONAL RESTRICTIONS

The following rotational crops may be planted after applying V-10161 4 SC Fungicide at the labeled rate. Planting earlier than the labeled rotational interval is not allowed.

CROPS	ROTATIONAL INTERVAL
Basil Brassica (Cole) Leafy Vegetables (Crop Group 5) Bulb Vegetables (Crop Group 3-07) Citrus Fruit (Crop Group 10-10) Cucurbit Vegetables (Crop Group 9) Fruit, Small, Vine Climbing, Except Fuzzy Kiwifruit (Crop Subgroup 13-07F) Fruiting Vegetables (Crop Group 8-10) Hops Leafy Vegetables (Except Brassica Vegetables) (Crop Group 4) Root and Tuber Vegetables (Crop Group 1) Listed Succulent Beans Tobacco	Immediately
Field Corn Wheat	30 days
All Other Crops	18 months

## SPECIFIC REQUIREMENTS – All Crops

**When to Apply:** Begin application when crop and/or environmental conditions favor disease development. Make applications on a 7- to 14-day interval, depending on disease pressure, unless otherwise noted under crop specific use instructions. Under severe disease pressure or if rain is expected, use the higher labeled rate and shortest interval. Apply as a foliar spray in sufficient water to obtain thorough coverage. Chemigation is not recommended when the primary disease is downy mildew or other foliar diseases.

**Resistance Management:** V-10161 4 SC Fungicide must be used as part of an Integrated Pest Management (IPM) program. When tank mixing is required in the crop specific use instructions, use with another labeled fungicide product with a different mode of action on the target pathogen in sufficient water to obtain thorough coverage.

### Restrictions and Limitations

- **Maximum rate V-10161 4 SC Fungicide per application:** 4 fl oz per acre.
- **Maximum rate of V-10161 4 SC Fungicide per year unless otherwise noted under crop specific use instructions:** 12 fl oz per acre.
- Apply no more than 2 sequential applications of V-10161 4 SC Fungicide before alternating with an effective fungicide from a different resistance management group unless otherwise noted under crop specific use instructions.
- Do not make more than 4 applications of V-10161 4 SC Fungicide per acre per year unless otherwise noted under crop specific use instructions.
- **In Hawaii:** Apply V-10161 4 SC Fungicide by foliar and chemigation (sprinkler irrigation) only.



**SPECIFIC REQUIREMENTS – All Crops (continued)**

<b>Basil[*]</b>				
<b>Diseases</b>	<b>Application Rates</b>		<b>Minimum Time from Last Application to Harvest (PHI)</b>	<b>Specific Use Instructions</b>
	<b>fl oz/A</b>	<b>GPA Spray Mixture</b>		
Downy Mildew ( <i>Peronospora belbahrii</i> )	4 (0.125 lb ai/A)	Ground: Minimum 20  Aerial: Minimum 5	1 day	<b>[Resistance Management]</b> [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]  Make foliar applications on a 7- to 14-day schedule beginning when conditions are favorable, but prior to disease development.

[\*Do not use in California.]

continued

**SPECIFIC REQUIREMENTS – All Crops (continued)**

<b>Listed Succulent Beans[*]</b> asparagus bean; Chinese long bean; moth bean; runner bean; snap bean; wax bean; yardlong bean				
<b>Diseases</b>	<b>Application Rates</b>		<b>Minimum Time from Last Application to Harvest (PHI)</b>	<b>Specific Use Instructions</b>
	<b>fl oz/A</b>	<b>GPA Spray Mixture</b>		
Phytophthora Root Rot ( <i>Phytophthora parasitica</i> )  Phytophthora Blight ( <i>Phytophthora capsici</i> )	4 (0.125 lb ai/A)	Ground: Minimum 30  Aerial: Minimum 5	0 day	<b>Resistance Management</b> V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.  Make foliar applications on a 7- to 14-day schedule beginning when conditions are favorable, but prior to disease development.

[\*Do not use in California.]

continued

**SPECIFIC REQUIREMENTS – All Crops (continued)**

<p align="center"><b>Brassica (Cole) Leafy Vegetables (Crop Group 5)</b></p> <p align="center">Broccoli; broccoli, Chinese (gai lon); broccoli raab (rapini); Brussels sprouts; cabbage; cabbage, Chinese (bok choy); cabbage, Chinese (napa); cabbage, Chinese mustard (gai choy); cauliflower; cavalo broccolo; collards; kale; kohlrabi; mizuna; mustard greens; mustard spinach; rape greens</p>				
Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
	fl oz/A	GPA Spray Mixture		
<p>Downy Mildew (<i>Peronospora parasitica</i>)</p> <p>Damping-off (<i>Pythium</i> spp.)</p> <p>Phytophthora Root Rot (<i>Phytophthora megasperma</i>)</p>	<p>3 to 4 (0.09 to 0.125 lb ai/A)</p>	<p>Ground: Minimum 20</p> <p>Aerial: Minimum 5</p>	<p>2 days</p>	<p><b>[Resistance Management]</b> [Foliar application of] [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p><b>Injection (drip irrigation) for soilborne diseases:</b> Inject V-10161 4 SC Fungicide into the irrigation water at the defined application rates.</p> <p><b>Downy Mildew:</b> make foliar applications beginning with initial flowering, or when disease conditions are favorable, but prior to disease development. [Use the lower rate as preventive and the higher rate if disease is present.]</p> <p><b>Damping-off and Phytophthora Root Rot:</b> apply as a soil drench at planting/transplanting. As plants grow, use a soil-directed application beginning when disease conditions are favorable, but prior to disease development.</p> <p>Re-treatment interval: 10 days.</p>

continued

**SPECIFIC REQUIREMENTS – All Crops (continued)**

<b>Bulb Vegetables (Crop Group 3-07)</b> [For Use in California Only]				
Chive, fresh leaves; chive, Chinese, fresh leaves; daylily, bulb; elegans hosta; fritillaria, bulb; fritillaria, leaves; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; kurrat; lady's leek; leek; leek, wild; lily, bulb; onion, Beltsville bunching; onion, bulb; onion, Chinese, bulb; onion, fresh; onion, green; onion, macrostem; onion, pearl; onion, potato, bulb; onion, tree, tops; onion, Welsh, tops; shallot, bulb; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these				
Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
	fl oz/A	GPA Spray Mixture		
Downy Mildew ( <i>Peronospora destructor</i> )	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: Minimum 20  Aerial: Minimum 5	2 days	<b>Resistance Management</b> V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.  <b>Downy Mildew:</b> Tank mix V-10161 4 SC with non-ionic surfactant (NIS) and make foliar applications on a 7- to 10-day schedule beginning with initial flowering, or when disease conditions are favorable, but prior to disease development. Use the low rate and longer interval as preventive applications. Use the higher rate and shorter interval if disease is present.

continued

**SPECIFIC REQUIREMENTS – All Crops (continued)**

<b>Citrus Fruit[*] (Crop Group 10-10)</b> 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; unqi fruit; cultivars, varieties, and/or hybrids of these				
Diseases	Application Rates		Minimum Time from Last Applicati on to Harvest (PHI)	Specific Use Instructions
	fl oz/A	GPA Spray Mixture		
Phytophthora Foot Rot and Root Rot ( <i>Phytophthora</i> spp.)	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: Minimum 10	30 days	<p><b>Resistance Management</b>                      [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p>Use V-10161 4 SC Fungicide as one component of an integrated disease management strategy that includes good cultural practices and use of rootstocks that are more tolerant to disease.</p> <p>Apply before disease development.</p> <p>Do not apply more than one application of V-10161 4 SC Fungicide per year.</p> <p><b>New or Established Plantings:</b> Apply to the soil beneath the canopy or apply through the drip or micro-sprinkler irrigation system following the use directions in the Chemigation (Sprinkler Irrigation) section.</p> <p><b>Individual Tree Application to New Plantings or Resets:</b> Mix 3 to 4 ounces of V-10161 4 SC Fungicide in 20 gallons of water. Apply up to 10 fl oz of finished solution uniformly around the base of each tree, directed at the root zone. If rainfall does not occur within 24 hours after application, irrigate with sufficient water to move product into the root zone. Depending on soil type and root depth, this could require 1/2 to 1 inch of water.</p>

[\*Do not use in California.]

continued

**SPECIFIC REQUIREMENTS – All Crops (continued)**

<b>Cucurbit Vegetables (Crop Group 9)</b>				
Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); <i>Momordica</i> spp (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon				
Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
	fl oz/A	GPA Spray Mixture		
Downy Mildew ( <i>Pseudoperonospora cubensis</i> )  Phytophthora Blight/Crown Rot ( <i>Phytophthora capsici</i> )	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: Minimum 20  Aerial: Minimum 5	2 days	<p><b>[Resistance Management]</b>                      [Foliar applications of][V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p>[Do not apply sequentially.]</p> <p>[Make no more than 2 applications per year.]</p> <p><b>Injection (drip irrigation) for soilborne diseases:</b> Inject V-10161 4 SC Fungicide into the irrigation water at the defined application rates.</p> <p><b>Downy Mildew:</b> make foliar applications on a 7- to 10-day schedule beginning when conditions are favorable, but prior to disease development. Use the [lower rate and longer interval as preventive applications. Use the higher rate and] shorter interval if disease is present.</p> <p><b>Phytophthora Blight/Crown Rot:</b> apply as a soil or foliar application on a 7- to 10-day schedule beginning when conditions are favorable for disease development and prior to disease onset. Begin application at planting/transplanting for best results.</p>

continued

**SPECIFIC REQUIREMENTS – All Crops (continued)**

<b>Fruit, Small, Vine Climbing, Except Fuzzy Kiwifruit (Crop Subgroup 13-07F)</b> Amur river grape; gooseberry; grape; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these				
Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
	fl oz/A	GPA Spray Mixture		
Downy Mildew ( <i>Plasmopara viticola</i> )	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: Minimum 20  Aerial: Minimum 5	21 days	<b>Resistance Management</b> V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.  <b>Downy Mildew:</b> make foliar applications on a 7- to 14-day schedule beginning when conditions are favorable, but prior to disease development. Use the lower rate and longer interval as preventive applications. Use the higher rate and shorter interval if disease is present.

**SPECIFIC REQUIREMENTS – All Crops (continued)**

<b>Fruiting Vegetables (Crop Group 8-10)</b> African eggplant; bush tomato; bell pepper; cocona; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; naranjilla; okra; pea eggplant; pepino; non-bell pepper; roselle; scarlet eggplant; sunberry; tomatillo; tomato; tree tomato; cultivars, varieties, and/or hybrids of these				
Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
	fl oz/A	GPA Spray Mixture		
Late Blight <i>(Phytophthora infestans)</i>  Phytophthora Root Root Rot <i>(Phytophthora parasitica)</i>  Phytophthora Blight <i>(Phytophthora capsici)</i>	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: Minimum 20  Aerial: Minimum 5	2 days	<p><b>[Resistance Management]</b>                      [Foliar applications of                      [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p><b>Injection (drip irrigation) for soilborne diseases:</b> Inject V-10161 4 SC Fungicide into the irrigation water at the defined application rates.</p> <p><b>Phytophthora Diseases:</b> apply as a soil or foliar application on a 7- to 10-day schedule beginning when conditions are favorable for disease development and prior to disease onset. Begin application at planting/transplanting for best results.</p>

continued

**SPECIFIC REQUIREMENTS – All Crops (continued)**

<b>Hops[*]</b>				
<b>Diseases</b>	<b>Application Rates</b>		<b>Minimum Time from Last Application to Harvest (PHI)</b>	<b>Specific Use Instructions</b>
	<b>fl oz/A</b>	<b>GPA Spray Mixture</b>		
Downy Mildew ( <i>Pseudoperonospora humuli</i> )	4 (0.125 lb ai/A)	Ground: Minimum 50  Aerial: Minimum 5	24 days	<b>Resistance Management</b> V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.  Make foliar applications on a 10- to 14-day schedule beginning when conditions are favorable, but prior to disease development.

[\*Do not use in California.]

continued



**SPECIFIC REQUIREMENTS – All Crops (continued)**

**Leafy Vegetables (Except Brassica Vegetables)  
(Crop Group 4)**

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

Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
	fl oz/A	GPA Spray Mixture		
Downy Mildews ( <i>Bremia</i> , <i>Peronospora</i> , <i>Plasmopara</i> and others)  White Rust ( <i>Albugo occidentalis</i> )	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: Minimum 20  Aerial: Minimum 5	2 days	<p><b>[Resistance Management]</b> [Foliar applications of] [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p><b>Injection (drip irrigation) for soilborne diseases:</b> Inject V-10161 4 SC Fungicide into the irrigation water at the defined application rates.</p> <p><b>Downy Mildew and White Rust:</b> make foliar applications on a 7- to 10-day schedule beginning when conditions are favorable, but prior to disease development. Use the lower rate and longer interval as preventive applications. Use the higher rate and shorter interval if disease is present.</p>

continued

**SPECIFIC REQUIREMENTS – All Crops (continued)**

<b>Root and Tuber Vegetables (Except Carrot and Potato) (Crop Group 1)</b>				
Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; beet, garden; beet, sugar; burdock, edible; canna, edible; cassava, bitter and sweet; celeriac; chayote (root); chervil, turnip-rooted; chicory; chufa; dasheen (taro); ginger; ginseng; horseradish; leren; parsley, turnip-rooted; parsnip; radish; radish, oriental (daikon); rutabaga; salsify; salsify, black; salsify, Spanish; skirret; sweet potato; tanier; turmeric; turnip; yam bean; yam, true				
Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
	fl oz/A	GPA Spray Mixture		
Pythium Diseases ( <i>Pythium</i> spp.)  Phytophthora Diseases ( <i>Phytophthora</i> spp.)	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: Minimum 20  Aerial: Minimum 5	7 days	<p><b>[Resistance Management]</b>                      [Foliar applications of [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p>Minimum retreatment interval: 10 days</p> <p><b>Restriction</b>                      Do not use on varieties of turnips such as fodder turnips intended for livestock use.</p>

continued

**SPECIFIC REQUIREMENTS – All Crops (continued)**

<b>Carrot</b>				
<b>Diseases</b>	<b>Application Rates</b>		<b>Minimum Time from Last Application to Harvest (PHI)</b>	<b>Specific Use Instructions</b>
	<b>fl oz/A</b>	<b>GPA Spray Mixture</b>		
<p>For suppression of: Cavity Spot (<i>Pythium violae</i>)</p> <p>Root Dieback (Forking and Stubbing) (<i>Pythium ultimum</i> and <i>Pythium irregulare</i>)</p>	<p>4 (0.125 lb ai/A)</p>	<p>In-furrow: 5 to 10</p> <p>Side-dress: 20 to 40</p> <p>Ground: Minimum 20</p>	<p>7 days</p>	<p><b>Resistance Management</b> [Foliar applications of] [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p>Do not make more than 3 total applications of V-10161 4 SC Fungicide per year.</p> <p>Do not make more than 2 sequential applications.</p> <p>Apply V-10161 4 SC Fungicide at any of the following application timings/methods:</p> <ol style="list-style-type: none"> <li>1) Preplant incorporated treatment (broadcast or band) to a 2 inch depth prior to planting. Use sufficient water to ensure uniform soil coverage.</li> <li>2) A foliar application at emergence.</li> <li>3) Beginning 28 to 50 days after planting (shorter if conditions are favorable for disease and longer if they are not).</li> <li>4) Continue applications on a 14- to 21-day interval by chemigation, by ground equipment with a spray directed to the base of the plant, or shanked in with liquid fertilizer. All ground applications must be followed by irrigation/rainfall with 0.25 to 1 inch of water to promote movement of material into the root zone.</li> <li>5) Irrigation: Inject V-10161 4 SC Fungicide into the irrigation water (do not use drip irrigation).</li> </ol>

**SPECIFIC REQUIREMENTS – All Crops (continued)**

<b>Potato</b>				
<b>Diseases</b>	<b>Application Rates</b>		<b>Minimum Time from Last Application to Harvest (PHI)</b>	<b>Specific Use Instructions</b>
	<b>fl oz/A</b>	<b>GPA Spray Mixture</b>		
Do not make both soil and foliar applications of any fluopicolide containing products during the same year.				
Late Blight ( <i>Phytophthora infestans</i> )	4 (0.125 lb ai/A)	Ground: Minimum 20  Aerial: Minimum 5	7 days	<p><b>[Resistance Management]</b> [Foliar applications of] [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p>Make foliar applications on a 7- to 10-day schedule beginning when conditions are favorable, but prior to disease development.</p>
Pink Rot ( <i>Phytophthora erythroseptica</i> )	4 (0.125 lb ai/A)	In-furrow: 5 to 10  Side-dress: 20 to 40	30 days	<p><b>[Resistance Management]</b> [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p>For soil application of V-10161 4 SC Fungicide, apply using a 6 to 8 inch band directly over the seed piece, or in the furrow where the seed piece is to be dropped, prior to furrow closure. Between hilling and tuber initiation, make one side-dressing application.</p> <p>Do not make more than 2 soil applications of V-10161 4 SC Fungicide per year.</p> <p>A number of factors affect pink rot severity including: variety susceptibility, field history, environmental conditions, etc. Additional applications of an effective material on pink rot may be necessary.</p>

continued

## SPECIFIC REQUIREMENTS – All Crops

<b>Tobacco</b> [Do not use in California]				
Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
	fl oz/A	GPA Spray Mixture		
Black Shank* ( <i>Phytophthora nicotianae</i> )  Pythium Root Rot ( <i>Pythium</i> spp.)	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: Minimum 20	N/A	<p><b>Resistance Management</b> Do not make sequential applications of V-10161 4 SC Fungicide; alternate with a fungicide which has a different mode of action (different FRAC group) against the target pathogen.</p> <p>Do not make more than 2 [ground]/[soil] spray applications per year.</p> <p>Do not make more than 3 total applications of V-10161 4 SC Fungicide per year.</p> <p>Minimum treatment interval: 14 days.</p> <p><b>[At-planting program</b> For control of black shank or Pythium root rot, apply preventively in transplant water (setter water) at planting. An additional application of V-10161 4 SC Fungicide can be made as late as layby (last cultivation), if a fungicide with a different mode of action was used in the interim. When treating after transplanting, direct nozzles to cover soil beneath lower leaves; incorporate immediately with cultivator.</p> <p><b>or]</b></p> <p><b>Post-transplant program</b> If a fungicide with a different mode of action is used at or immediately after transplanting, one application of V-10161 4 SC Fungicide can be made at either first cultivation or layby (last cultivation). Direct nozzles to cover soil beneath lower leaves; incorporate immediately with cultivator.</p>

\*For best control of black shank with V-10161 4 SC Fungicide, use with tobacco varieties that have moderate-to-high resistance to the black shank pathogen. Consult your local Cooperative Extension Service office or university specialist for information on variety selection. continued

**SPECIFIC REQUIREMENTS – All Crops**

<b>Tobacco</b> [Do not use in California]				
Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions
	fl oz/A	GPA Spray Mixture		
Blue Mold ( <i>Peronospora tabacina</i> )	3 to 4 (0.09 to 0.125 lb ai/A)	Ground: Minimum 20  Aerial: Minimum 10	7 days	<p><b>[Resistance Management]</b>                      [Foliar applications of] [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p>Do not make more than 2 foliar applications per year.</p> <p>Do not make more than 3 total applications of V-10161 4 SC Fungicide per year.</p> <p>Apply as a foliar spray prior to disease onset or at first indication that blue mold is in the area.</p> <p>Minimum retreatment interval: 7 days</p>

**SPECIFIC REQUIREMENTS – All Crops**

**Non-bearing Fruit Trees**

(Young trees which will not produce fruit at least one year after final product application including apple, cherry, grapefruit, lemon, lime, orange, peach, pear and plum)[\*]

**Non-bearing Nut Trees**

(Young trees which will not produce nuts at least one year after final product application including almond, hazelnut, pecan, pistachio and walnut) [\*]

Diseases	Application Rates		Minimum Time from Last Application to Harvest(PHI)	Specific Use Instructions
	fl oz/A	GPA Spray Mixture		
Collar Rot Crown Rot Root Rot ( <i>Phytophthora</i> spp.)	4 (0.125 lb ai/A)	Ground Minimum: 20	1 year	<p><b>Resistance Management</b> [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p>Do not apply sequentially. Alternate with a labeled fungicide with a different mode of action on the target pathogen.</p> <p>Use V-10161 4 SC Fungicide as one component of an integrated disease management strategy that includes good cultural practices and use of rootstocks that are more tolerant to disease.</p> <p>Apply before disease development.</p> <p>Minimum retreatment interval: 14 days.</p> <p>Do not apply more than three (3) applications of V-10161 4 SC Fungicide per year (0.375 lb ai/A).</p> <p>[For use only in commercial fruit or nut orchards.]</p> <p><b>Restrictions</b> Do not apply within 1 year of fruit harvest.</p> <p>Do not apply within 1 year of nut harvest.</p> <p>Do not graze or feed cover crops in treated orchards.</p>

[\*Do not use in California.]

continued

**SPECIFIC REQUIREMENTS – All Crops**

**Non-bearing Fruit Trees**

(Young trees which will not produce fruit at least one year after final product application including apple, cherry, grapefruit, lemon, lime, orange, peach, pear and plum)[\*]

**Non-bearing Nut Trees**

(Young trees which will not produce nuts at least one year after final product application including almond, hazelnut, pecan, pistachio and walnut) [\*]

Diseases	Application Rates		Minimum Time from Last Application to Harvest (PHI)	Specific Use Instructions	
	fl oz/A	GPA Spray Mixture			
Collar Rot Crown Rot Root Rot ( <i>Phytophthora</i> spp.)	4 (0.125 lb ai/A)	Ground Minimum: 20	1 year	<p><b>Soil Spray (broadcast or band):</b> Apply to the soil in the early spring before growth starts and/or in the fall before the ground freezes. The treated area is based on the area under the tree canopy or the area of the sprayed row. Placement in the root zone is critical for pathogen control. For soil surface sprays, rainfall will move V-10161 4 SC Fungicide into the root zone, but if rain is not expected within 24 hours after application, irrigate with sufficient water to move product into the root zone. Depending on soil type and root depth, this could require 1/2 to 1 inch of water.</p> <p><b>Drench Application:</b> Use 4 fl oz/100 gallons for drench applications. Apply the diluted mixture around the trunk of each tree in early spring before growth starts and in the fall before the ground freezes. The maximum rate is 100 gallons of diluted mixture per acre per application (0.125 lb ai/A). On new plantings, delay the first application until 2 weeks after planting. Use enough solution to wet the root zone of the trees. Additional irrigation following application may be needed to move the product into the root zone.</p>	
				Drench Application Rates	
				Trees/Acre	fl oz of mixture per tree
				242	53.0
				340	37.6
				605	21.0
				1,089	11.75
<p><b>Chemigation:</b> Use 4 fl oz/acre applied through the drip or micro-sprinkler irrigation system following the use directions in the Chemigation (Sprinkler Irrigation) section.</p>					

[\*Do not use in California]



## TURFGRASS

V-10161 4 SC Fungicide is effective at preventing and controlling damping-off, root rot and stem diseases caused by Pythium species. Pythium diseases are referred to as damping-off, Pythium blight, greasy spot cottony blight and snow blight depending on the type of damage and symptoms caused. Pythium diseases are common in turfgrass areas with poor soil drainage and a wet turfgrass canopy. High humidity and high temperatures provide an ideal environment for development of Pythium diseases. Pythium diseases occur in all cool season grasses, but are especially prevalent in creeping bentgrass, annual bluegrass and perennial ryegrass.

[Not for use on turfgrass in Hawaii.]

### DIRECTIONS FOR USE ON TURFGRASS

<b>Established and Overseeded Turfgrass</b>		
Golf Course Turf; Recreational Turf (lawns and landscape areas around athletic fields and parks); Residential Turf; Commercial Turf (lawns and landscape areas around commercial institutional, public and industrial buildings); Sod Farms		
Diseases	Application Rate	Special Instructions
Pythium Blight Pythium	0.2 fl oz per 1000 sq ft  (8.7 fl oz/A) (0.27 lb ai/A)	<p><b>[Resistance Management]</b> [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p>Do not apply more than two (2) applications of V-10161 4 SC Fungicide per year.</p> <p>Apply in a minimum volume of 2 gallons spray mixture per 1000 sq ft.</p> <p><b>Overseeded Turf:</b> Apply after seed germination to prevent Pythium damping-off.</p> <p><b>Established Turf:</b> Apply when conditions favor disease development. Favorable conditions include high temperatures and high humidity.</p> <p>If necessary, make an additional application after 14 days.</p> <p><b>Restriction</b> Do not apply more than a total of 0.4 fl oz per 1000 sq ft per year (0.54 lb ai/A per year).</p>

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## ORNAMENTAL PLANTS

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V-10161 4 SC Fungicide prevents water mold, root rot, stem rot, crown rot and damping-off caused by Pythium and Phytophthora pathogens (water molds) in ornamental plants. V-10161 4 SC Fungicide is mixed with water and applied as a soil drench at the time of seeding or transplanting. V-10161 4 SC Fungicide may be used on container, bench, or bed grown ornamentals in greenhouses, shadehouses, lathhouses or outdoor nurseries, on conifers including Christmas trees and for use on ornamentals grown for outdoor landscapes.

**IMPORTANT:** The large number of existing ornamental species and their varieties and cultivars coupled with the constant introduction of new varieties makes it impossible to field test V-10161 4 SC Fungicide in every locale where it is sold or in all of the combinations of location and plant varieties. Further differences include the soil or media type; pH; moisture or fertility; environmental conditions such as temperature, lighting or degree days; horticultural practice; the manner of use and application of this product. To ensure that V-10161 4 SC Fungicide is compatible with the ornamental plant variety or cultivar under your specific conditions, test this product on a limited scale and observe for phytotoxicity or other unintended effects for two weeks before making large scale applications.

[Not for use on ornamental plants in Hawaii.]

## DIRECTIONS FOR USE ON ORNAMENTAL PLANTS

<b>Ornamentals</b>																
Bedding Plants; Christmas Trees; Conifers; Flowering Plants; Foliage Plants; Ground Covers; Non-Bearing Fruit Trees; Non-Bearing Nut Trees; Ornamentals; Ornamental Trees; Shrubs; and Vines																
Diseases	Product Rates	Special Instructions														
Downy Mildew Phytophthora Pythium Blight Pythium Damping-off	1 to 4 fl oz per 100 gal (2.2 to 4.4 fl oz/A) (0.14 to 0.27 lb ai/A)	<p><b>Resistance Management</b> [Foliar applications of] [V-10161 4 SC Fungicide must be tank mixed with a labeled rate of another fungicide active against the target pathogen, but with a different mode of action.]</p> <p>Do not apply more than 2 applications of V-10161 4 SC Fungicide per year.</p> <p>Do not apply sequentially. Alternate with a labeled fungicide with a different mode of action on the target pathogen.</p> <p>Apply before disease development. Use the higher rate when treating plants with a high potential for disease development.</p> <p>Minimum retreatment interval: 14 days</p> <p><b>Foliar Application:</b> Use between 2 to 4 fl oz/100 gallons for foliar applications. 100 gallons of spray mix will treat approximately 20,000 sq ft of area (0.14 to 0.27 lb ai/A per application). Apply the spray mixture to all plant surfaces to the point of runoff.</p> <p><b>Drench Application:</b> Use between 1 to 4 fl oz/100 gallons for drench applications. Use enough solution to wet the root zones of plants. Use the information below as a guide for drench application.</p> <p><b>Container grown plants:</b> Apply in volume as listed. For pot sizes other than those listed, adjust volume proportionally.<sup>1</sup></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Pot diameter</th> <th style="text-align: center;">fl oz of drench solution per pot</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">4</td><td style="text-align: center;">3</td></tr> <tr><td style="text-align: center;">5</td><td style="text-align: center;">4</td></tr> <tr><td style="text-align: center;">6</td><td style="text-align: center;">6</td></tr> <tr><td style="text-align: center;">8</td><td style="text-align: center;">10</td></tr> <tr><td style="text-align: center;">10</td><td style="text-align: center;">20</td></tr> <tr><td style="text-align: center;">12</td><td style="text-align: center;">30</td></tr> </tbody> </table> <p>Plants grown in flats or beds: Apply at a volume of 1 to 2 pints of solution per square foot of soil surface (5 to 10 quarts of solution per 10 sq ft).<sup>1</sup></p>	Pot diameter	fl oz of drench solution per pot	4	3	5	4	6	6	8	10	10	20	12	30
Pot diameter	fl oz of drench solution per pot															
4	3															
5	4															
6	6															
8	10															
10	20															
12	30															

continued

<sup>†</sup>Do not exceed application rate per acre.

**Restrictions**

- For hand harvesting, thinning, pruning and pinching of cut flowers, a 12 hour reentry interval following the last application of V-10161 4SC Fungicide must be observed.
- Do not apply more than a total of 8.7 fl oz (0.27 lb ai) of V-10161 4 SC Fungicide per acre per application and 17.4 fl oz (0.54 lb ai) of V-10161 4 SC Fungicide per acre per year.
- Do not apply within 1 year of fruit harvest.
- Do not apply within 1 year of nut harvest.
- Do not graze or feed cover crops in treated orchards.

**NOTE:** Since ornamental varieties are numerous, constantly changing and may react differently to V-10161 4 SC and tank mixtures including V-10161 4 SC Fungicide, test the product(s) on a small number of plants before making large scale applications.

**RATE CONVERSION CHART**

Amount of V-10161 4 SC Fungicide (fl oz) per 100 gal	Amount of V-10161 4 SC Fungicide to add to water to achieve desired volume (fl oz) of spray or drench solution									
	1 gallon		5 gallons		10 gallons		25 gallons		50 gallons	
	fl oz	mL	fl oz	mL	fl oz	mL	fl oz	mL	fl oz	mL
1	0.01	0.3	0.05	1.5	0.1	3	0.25	7.5	0.5	15
2	0.02	0.6	0.1	3	0.2	6	0.5	15	1	30
4	0.04	1.2	0.2	6	0.4	12	1	30	2	60

For example, if the use rate is 2 fl oz of V-10161 4 SC Fungicide per 100 gallons, and the desired volume of finished solution is 25 gallons, mix 0.5 fl oz of V-10161 4 SC Fungicide in 25 gallons of water.

## STORAGE AND DISPOSAL

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

### STORAGE

Keep pesticide in original container.

Do not put concentrate or dilute into food or drink containers.

Store in a cool dry place.

Do not store or transport near feed or food.

Do not store at temperature below 32°F. If the product is exposed to temperatures below 32°F, thaw at 50°F or higher and shake gently to unify the product.

For help with any spill, leak, fire or exposure involving this material, call day or night 800-892-0099.

### PESTICIDE DISPOSAL

Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

### CONTAINER HANDLING

Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a 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, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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Manufactured for:

**Valent U.S.A. LLC**

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Walnut Creek, CA 94596-8025

Made in U.S.A.

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