

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

74530-94

EPA Reg. Number:

Date of Issuance:

8/18/20

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X Registration
Reregistration
(under FIFRA, as amended)

Unconditional

Name of Pesticide Product:

Term of Issuance:

Helmstar Fungicide

Name and Address of Registrant (include ZIP Code):

Helm Agro US, Inc. 401 E. Jackson St., Suite 1400 Tampa, FL 33602

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. 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.

Signature of Approving Official:	Date:
Shaja B. Joyner, Product Manager 20	8/18/20
Fungicide-Herbicide Branch	
Registration Division 7505P	

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EPA Form 8570-6

- 2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 74530-94."
- 3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

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.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 8/17/2020
- Alternate CSF 1 dated 8/17/2020
- Alternate CSF 2 dated 8/17/2020
- Alternate CSF 3 dated 8/17/2020
- Alternate CSF 4 dated 8/17/2020

If you have any questions, please contact Manjula Unnikrishnan by phone at 703-347-8520, or via email at <a href="mailto:unnikrishnan.manjula@epa.gov">unnikrishnan.manjula@epa.gov</a>

Enclosure



## **HELMSTAR FUNGICIDE**

[ABNs: HELMSTAR]

Broad spectrum fungicide for the control of plant diseases [For Control of Certain Post Harvest Diseases in Banana and Citrus]

ACTIVE INGREDIENT: Azoxystrobin: (methyl (E)-2-{216-(2-cyanophenoxy)pyrimidin-4-yloxyl- phenyl)- 3-methoxyacrylate:  DTHER INGREDIENTS:	 <u>77.1%</u>
Contains 2.08 pounds of active ingredient per gallon	
EPA Reg. No. 74530-OU	

## **KEEP OUT OF REACH OF CHILDREN CAUTION**

Si usted no entiende la etiqueta busque a alguien para que se la explique a usted en detalle. (If you do not understand the label find someone to explain it to you in detail)

SEE [BELOW] [LABEL BOOKLET] [INSIDE BOOKLET] [BACK PANEL] FOR [FIRST AID] [AND] [ADDITIONAL] [PRECAUTIONARY STATEMENTS] [AND] [DIRECTIONS FOR USE] [INCLUDING STORAGE AND DISPOSAL]

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300

FIRST AID						
If on skin or clothing  • Take off contaminated clothing. •Rinse skin immediately with plenty of water for 15 to 20 minutes. •Call a poison control center or doctor for treatment advice.						
HOT LINE NUMBER For Chemical Emergency call CHEMTREC 1-800-424-9300						
Manufactured [by]	[for]: <b>HELM AGRO US, Inc.,</b> 401 E. Jackson St., Suite 1400, Tampa, FL 33602					
NET [WEIGHT] [CONTENTS]LBS. (Kg) [Designation as "NONREFILLABLE" or "REFILLABLE" for containers > 50 Lbs.]						

ACCEPTED

08/18/2020

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 74530-94

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION / PRECAUCTION

Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber.
- · Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, 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.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

#### **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

- 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 freshwater and estuarine/marine fish and aquatic invertebrates. **DO NOT** apply directly to water except as specified on this label. For terrestrial uses, **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 may be hazardous to aquatic organisms in neighboring areas. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

The active ingredient, azoxystrobin, in this product can be persistent for several months or longer. Azoxystrobin has degradation products which have properties similar to chemicals which are known to leach through soil to ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Notify State and/or Federal authorities and HELM Agro immediately if you observe any adverse environmental effects due to use of this product.

**Physical and Chemical Hazard Statement:** Do not mix or allow coming in contact with oxidizing agent. Hazardous Chemical reaction may occur.

#### **DIRECTIONS FOR USE**

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

Use of this product through airblast application equipment on grapes is prohibited in the following townships and boroughs of Erie County, Pennsylvania:

North East, Harborcreek, Lawrence Park, Erie, Presque Isle, MillCreek, Fairview, Girard, and Springfield.

This prohibition is intended to help eliminate phytotoxicity problems with apples observed in this geographic location.

## FAILURE TO FOLLOW THE USE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL

**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), notification to workers, and restricted-entry interval. 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 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 such as polyvinyl chloride, nitrile rubber or butyl rubber
- Shoes plus socks

#### PRODUCT INFORMATION

This product is a suspension concentrate (SC) or flowable formulation. It is a broad spectrum, preventative fungicide with systemic and curative properties specified for the control of many important plant diseases. This product may also improve the yield and/or quality of the crop. These additional benefits are due to positive effects on plant physiology. The effects may vary according to factors such as the crop, crop hybrid, or environment. This product may be applied as a foliar spray in alternating spray programs or in tank mixes with other registered crop protection products. Make all applications according to the use directions on this label.

#### RESTRICTIONS

**DO NOT** use this product in greenhouses.

#### **PRECAUTIONS**

Some phytotoxicity may be observed when applying tank mixtures of this product with emulsifiable concentrate (EC) formulations. These effects may be enhanced if applications are made under cool, cloudy conditions and these conditions remain for several days following application. In addition, adjuvants that contain some forms of silicone may also contribute to phytotoxicity.

#### **ATTENTION**

This product is extremely phytotoxic to certain apple varieties.

**AVOID SPRAY DRIFT.** Extreme care must be used to prevent injury to apple trees (and apple fruit). Refer to SPRAY DRIFT MANAGEMENT information below.

**DO NOT** spray this product where spray drift may reach apple trees.

**DO NOT** spray apple trees with spray equipment previously used to apply this product. Even trace amounts of product may cause unacceptable phytotoxicity to certain apple and crabapple varieties.

## **MANDATORY SPRAY DRIFT**

#### **Aerial Applications:**

- Do not release spray at a height greater than 10 ft. above the ground or crop canopy, unless a
  greater application height is necessary for pilot safety.
- Applicators are required to select nozzles that deliver Medium to coarse spray droplets in accordance with ASABE Standard S-572.1.
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Do not apply during temperature inversions.

#### **SPRAY DRIFT**

## **Groundboom Applications:**

- User must only apply with the release height recommended by the "Ground Boom Applications" manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **SPRAY DRIFT**

## **Airblast Applications:**

- Sprays must be directed into the canopy.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer rows.
- Do not apply during temperature inversions.

#### 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 manufacturers 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.

#### **PLANTBACK INTERVALS**

The following crops may be planted at the specified interval following application of this product.

Crop	Plantback Interval
Buckwheat	12 months
Millet	12 1116111116
All other crops with Azoxystrobin Registered Uses	0 Days

#### **INTEGRATED PEST MANAGEMENT (IPM)**

To reduce the potential for development of resistance, integrate this product into an overall disease and pest management strategy whenever the use of a fungicide is required. Follow cultural practices known to reduce disease development such as selection of disease-resistant varieties, removal of plant debris in which inoculum overwinters, and proper timing and placement of irrigation. Consult with your State Agricultural Experiment Station or Extension Service specialist for additional IPM strategies established for your area. This product may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

**Crop Resistance:** Plant resistance has been found to be acceptable for all crops on the label. However, not all possible tank mixture combinations have been tested under all conditions. It is recommended to test tank mixture combinations on a small portion of the crop to assess plant response before large scale applications. See the USE PRECAUTIONS AND LIMITATIONS section for apple phytotoxicity information.

#### RESISTANCE MANAGEMENT

This product is a Group 11 fungicide. The mode of action for this product is the inhibition of the QoI (quinone outside) site within the electron transport system [Group 11]. 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 alternating and/or tank-mixing with products having different modes of action or limiting the total number of applications per year. HELM Agro encourages responsible resistance management to ensure the effective long-term control of the fungal diseases on this label. for use.

Follow the crop specific resistance management recommendations in the directions for use.

If no resistance recommendation on number of applications is specified in the directions for use, follow the recommendations in the table below.

If planned total number of fungicide applications per crop is:	1	2	3	4	5	6	7	8	9	10	11	12
Recommended Solo Qol fungicide sprays	1	1	2	2	2	2	2	3	3	3	3	4
Recommended Qol fungicide sprays in mixture (tank-mix or formulated)	1	2	2	2	2	3	3	4	4	5	5	6

Under conditions requiring multiple fungicide applications, develop season long spray programs for Group 11 (Qol) Fungicides. In crops where two sequential Group 11 Fungicide applications are made, alternating with two or more applications of a fungicide that is not in Group 11 will help reduce the potential for resistance development. If more than 12 applications are made, observe the following guidelines:

- When a QoI fungicide is used as a solo product, make no more than 1/3 (33%) of the total number of fungicide applications per year with the QoI containing product.
- For programs including tank mixes or premixes of a Qol fungicide with mixing partners of a different mode of action, the number of Qol containing applications must represent no more than 1/2 (50%) of the total number of fungicide applications per year.
- In programs including applications of QoI fungicides as both solo products and mixtures, the number of QoI containing applications must represent no more than 1/2 (50%) of the total number of fungicide applications per year.

If a Group 11 Fungicide is applied to the seed or soil, do not make another application with a Group 11 fungicide for at least 3 weeks.

#### SOILBORNE/SEEDLING DISEASE CONTROL

For crops that have specific use directions for soilborne disease control:

This product can provide control of many soilborne diseases if applied early in the growing season. Specific applications for soilborne diseases include in-furrow applications and banded applications applied over the row, either shortly after plant emergence or during herbicide applications or cultivation. These applications will provide control of pre- or postemergence damping off and diseases that infect plants at the soil-plant interface.

The use of either type of application depends on the regional cultural practices. In some locations, one type of application may provide better disease control than the other, depending on the timing of the disease epidemic. Seedling diseases are generally controlled by in-furrow applications while banded applications are more effective against soilborne diseases that develop later in the season. Consult your local expert to get some guidance regarding application type.

Under cool, wet conditions, crop injury from soil directed applications can occur.

#### Banded application

Apply this product prior to infection as a directed spray to the soil, using single or multiple nozzles, adjusted to provide thorough coverage of the lower stems and the soil surface surrounding the plants. Limit band width to 7 inches or less. Apply this product at a rate of 0.40-0.80 fl oz product (0.10-0.20 oz. a.i.) per 1000 row feet. For banded applications on 22-inch rows, the maximum application rate is 0.70 fl oz (0.175 oz a.i.) per 1000 row feet. These applications come into contact with the foliage and are counted as foliar applications when considering resistance management. They may be applied during cultivation or hilling operations to provide soil incorporation.

#### In-furrow application

Apply this product as an in-furrow spray in 3-15 gallons of water at planting. Mount the spray nozzle so the spray is directed into the furrow just before the seeds are covered. Use the higher rate allowed when weather conditions are expected to favor disease development, if the field has a history of Pythium problems, or if minimum/low till programs are in place.

#### **In-Furrow Application Rates**

	per ow Feet		,	Amount of I	Product per	Acre (fl oz	2)	
fl oz product	oz a. i.	22" rows	30" rows	32" rows	34" rows	36" rows	38" rows	40" rows
0.40	0.10	9.5	7.0	6.5	6.1	5.8	5.5	5.2
0.60	0.15	14.3	10.5	9.8	9.2	8.7	8.3	7.8
0.80	0.20	19.0	14.0	13.0	12.2	11.6	11.0	10.4

22" = 23,760 row ft/A 32" = 16,315 row ft/A 36" = 14,520 row ft/A 40" = 13,068 row ft/A 30" = 17,424 row ft/A 34" = 15,374 row ft/A 38" = 13,754 row ft/A

#### Drip

Refer to the Instructions for Use through Irrigation Systems (Chemigation) section.

#### PRODUCT USE INSTRUCTIONS

**Application:** Thorough coverage is necessary to provide good disease control. Make no more spray solution than is needed for application. Avoid spray overlap, as crop injury may occur.

**Adjuvants:** The use of an adjuvant may improve consistency and performance of this product. Refer to crop specific directions for use for information regarding the use of adjuvants.

**Efficacy:** Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications once the maximum amount of this product has been used. If resistant isolates to Group 11 fungicides are present, product performance may be reduced for certain diseases. When heavy infection pressure exists, when treating varieties highly susceptible to disease, or when environmental conditions are conducive to disease development, best results are obtained when using the higher rates and/or the shorter spray intervals allowed in the crop specific use directions on this label.

#### MIXING AND APPLICATION INSTRUCTIONS

#### **Spray Equipment**

All types of spray equipment commonly used for ground and aerial applications may be used with this product. Proper adjustment and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control.

#### **Nozzles**

- Equip sprayers with nozzles that provide accurate and uniform application.
- Use nozzles that are the same size and uniformly spaced across the boom.
- Calibrate sprayer before use.
- Use screens to protect the pump and to prevent nozzles from clogging.
- Use screens 16-mesh or coarser on the suction side of the pump.
- **DO NOT** place a screen in the recirculation line.
- Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles.
- Check nozzle manufacturer's use guidelines.

#### **Pump**

- Use a pump with capacity to:
  - a) Maintain 35 to 40 psi at nozzles.
- b) 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 manufacturers and state agricultural agency for advice. For specific local directions and spray schedules, consult your state agricultural agency for advice.

## **Spray Solution Preparation**

- Proper mixing of this product with water requires use of a spray tank equipped with agitation.
- Prepare only the amount of spray solution required for immediate use. **DO NOT** allow spray mixture *to* stand overnight or for prolonged periods.
- Thoroughly clean spray equipment before preparing the spray solution.
- Maintain constant agitation throughout the spraying operation.
- Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area

## Stand-alone product solution:

- Add 1/2 to 2/3 of the required amount of water to a spray or mixing tank and begin agitation.
- Add the specified amount of this product to the tank.
- Continue agitation while adding the remainder of the water and allow time for good dispersion.
- Begin application of the spray solution after the product has completely dispersed in the mix water and maintain agitation during spraying.

#### Tank mixture with other products:

- Add 1/2 to 2/3 of the required amount of water to a spray or mixing tank and begin agitation.
- Add tank mix partners to the tank in the following order: 1) wettable powder and water dispersible granule (WDG) formulations, 2) liquid flowables (aqueous suspensions), and 3) emulsifiable concentrates.
- Allow the material to completely dissolve and disperse into the mix water.
- Continue agitation while adding the remainder of the water and this product to the tank mix and allow time for good dispersion
- Begin application of the spray mixture while maintaining agitation.

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.

## Compatibility

This product is compatible with many pesticides and additives commonly used in tank mixtures. To determine the physical compatibility of this product with other products prior to full scale use, conduct a jar test as follows: Using a quart jar, add the proportionate amounts of the tank mixture components to 1 qt. of water. Add wettable powders and water dispersible granule (WDG) products first, then liquid flowables, and emulsifiable concentrates last. Mix thoroughly and 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 confirmed, use the same procedure for adding required ingredients to the spray tank.

**NOTE:** Some phytotoxicity may be observed when applying tank mixtures of this product with emulsifiable concentrate (EC) formulations. These effects may be enhanced if applications are made under cool, cloudy conditions and these conditions remain for several days following application. In addition, adjuvants that contain some forms of silicone may also contribute to phytotoxicity.

#### INSTRUCTIONS FOR USE THROUGH IRRIGATION SYSTEMS (CHEMIGATION)

- Use only on crops for which chemigation is specified on this label.
- Apply this product through 1) sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; 2) drip 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 in 0.1-0.25 inches of water per acre. Excessive water may reduce efficacy.
- If you have questions about calibration, you must 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 if the need arise.

**Spray Preparation:** Clean chemical tank and injector system thoroughly. Flush system with clean water.

**Drip Irrigation:** This product may be applied through drip irrigation systems for soilborne disease control. The soil must have adequate moisture capacity prior to drip application.

Terminate drip irrigation at fungicide depletion from the main feed supply tank or after 6 hours from start, whichever is shorter. For maximum efficacy, delay subsequent irrigation (water only) for at least 2.4 hours following drip application.

#### Sprinkler Irrigation

Apply this product through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move. Apply with center pivot or continuous-move equipment distributing 1/2 acre-inch or less during treatment. In general, use the least amount of water required for proper distribution and coverage. If stationary systems (solid set, handlines or wheel lines other than continuous-move) are used, inject this product into no more than the last 20-30 minutes of the set.

**DO NOT** apply when winds are greater than 10-15 mph to avoid drift or wind skips. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

Plant injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniformly treated water. Thorough coverage of foliage is required for good control. Maintain good agitation during the entire application period.

If you have questions about calibration, contact your State Extension Service specialist, equipment manufacturer or other experts.

## **Operating Instructions:**

- 1. DO NOT apply when wind speed favors drift beyond the area intended for treatment.
- 2. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 6. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 7. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 8. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. 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 if the needs arise
- 9. **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.

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

**Notes:** (1) Use only with drive systems which provide uniform water distribution. (2) **DO NOT** use end guns when applying this product through center pivot systems as it may result in non-uniform application.

- Determine the size of the area to be treated.
- Determine the time required to apply 1/8 to 1/2 inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as specified by the equipment manufacturer. When applying this product 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 product required to treat the area covered by the irrigation system.
- Add the required amount of product 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 spray solution. Time the
  injection to last at least as long as it takes to bring the system to full pressure.
- Maintain constant agitation of the spray solution during the injection period.
- Continue to operate the system until the spray solution has cleared the sprinkler lead.

## 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 this product through irrigation equipment, use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of product required to treat the area covered by the irrigation system.
- · Add the required amount of product 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 spray 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, 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 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, quick-closing 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.

## **DIRECTIONS FOR USE**

#### ALFALFA

(See Application Directions for Non-grass Animal Feeds (Forage, Fodder, Straw and Hay) Crop Group 18)

#### ALMONDS

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Alternaria leaf and fruit spot (Alternaria alternate) Anthracnose (Colletotrichum acutatum) Leaf Blight (Seimatosporium lichenicola) Leaf rust (Tranzschelia discolor) Scab (Cladosporium carpophilum) Shothole (Wilsonomyces carpophilus)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season following the resistance management guidelines. Apply by ground, air, or chemigation. For aerial applications, use a minimum spray volume of 15 GPA. Thorough and uniform coverage is essential for disease control  Reduced efficacy has been observed as a result of non-uniform coverage.  This product may be applied by air only at growth stages prior to and including 5 weeks after petal fall. An adjuvant may be added at label specified rates.  For anthracnose scab and shothole, begin applications prior to disease development and continue at 7- to 14-day intervals throughout the season.
Brown Rot Blossom Blight (Monilinia laxa, M. fructicola)	12.0-15.5 (0.20-0.25)	For blossom blight, begin applications at early bloom and continue through petal fall.

- Specific Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.

  DO NOT apply more than 1.5 lbs. of azoxystrobin per acre per year.

  DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 oz./A (0.25 lb. a.i./A) rate per year.
  - Pre-Harvest Interval (PHI): 28 days.
  - Minimum Application Interval: 7 days
  - DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

#### ARTICHOKE, GLOBE

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Ramularia leaf spot (Ramularia cynaree)	(0.18-0.25)	Begin applications prior to or in the early stages of disease development and continue as needed throughout the season at 2- to 3-week intervals up to and including the day of harvest. Apply by ground, air, or chemigation. For ground applications, apply in 50-200 gallons of water per acre to obtain coverage without excessive runoff. For aerial applications, use a minimum of 5 gallons of water per acre. An adjuvant may be added at label specified rates.

## Specific Use Restrictions:

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.
- **DO NOT** apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 1.5 lbs. of azoxystrobin per acre per year.
- DO NOT make more than 8 applications at the 11 fl. oz./A (0.18 lb. a.i./A) rate or 5 applications at the rate of 15.5 fl. oz./A (0.25 lb. a.i./A) per year.
- Minimum Application Interval: 7 days
- Pre-Harvest Interval (PHI): 0 days
- DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

#### **ASPARAGUS**

Target Disease	Use Rate fl oz product/A lb a.i./A	Application Directions
Stemphylium purple spot (Stemphylium vesicarium)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates. Use a minimum of 10 gallons of water per acre by ground and a minimum of 3 gallons per acre by air.

- Specific Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.

  DO NOT apply more than 1.5 lbs. of acoxystrobin per acre per year.

  - DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
  - Pre-Harvest Interval (PHI): 100 days\
  - Minimum Application Interval: 7 days
  - DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in

#### **BANANAS, PLANTAINS**

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Black Sigatoka (Mycosphaerella fijiensis) Yellow Sigatoka (Mycosphaerella musicola)	5.5-8.5 (0.09-0.135)	Begin applications prior to disease development and continue throughout the season at 12- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.

- Specific Use Restrictions:

  DO NOT apply more than 8.5 fl. oz./A (0.135 lb. a.i./A) per single application.

  DO NOT apply more than 66.0 fl. oz. of this product (1.08 lb. a.i./A) per acre per year.

  DO NOT apply a total of more than 1.08 lbs. of azoxystrobin per acre per year.

  DO NOT make more than 12 applications at the 5.5 fl. oz./A (0.09 lb. a.i./A) rate or 7 applications at the 8.5 fl. oz./A (0.135 lb. a.i./A) rate per year.

  Minimum Application Interval: 12 days

  Pro-Harvest Interval (PHI): 0 days

  - Pre-Harvest Interval (PHI): 0 days
    Pro-Harvest Interval (PHI): 0 days
    DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

Post Harvest Applications: Crown rot/Crown mold (Colletotrichum musae, Fusarium pallidoroseum, Acremonium spp., Ceratocystis paradoxa, Glomerella cingulate, Penicillium spp.	11.0-21.0 (0.18-0.35) (200-400 ppm Solution)	or by pain transporta transporta frequently	ting onto the cut ends of t tion (e.g., within the U.S.) tion (e.g., exports). If alur as it will settle out. The a lity of this mixture.	400 ppm solution to achieve good of the bananas. Use the 200 ppm application on (1% w/v) is added to the spray my ddition of a non-ionic surfactant (0 trequired per 100 gallons of spr	lication rate for short distance rate for long distance ixture, stir the suspension .10% v/v) may improve the
			Desired Concentration (ppm)	fl oz of product / 100 Gallons Spray Solution	lb. a.i. / 100 Gallons Spray Solution
			200	11	0.18
			300	15	0.25
			400	21	0.35

#### Specific Post Harvest Application Use Restrictions:

- DO NOT make more than one post harvest application.

  DO NOT store treated fruit in direct sunlight. This product may degrade when exposed to direct sunlight.

#### **BERRIES - BUSHBERRY SUBGROUP 13-07B**

Aronia berry; Blueberry (highbush and lowbush); Buffalo Currant; Chilean Guava; Cranberry (highbush); Currant (black and red); Elderberry; European Barberry; Gooseberry; Honeysuckle (edible); Huckleberry; Jostaberry; Juneberry (Saskatoon berry); Lingonberry; Native Currant; Salal; Sea Buckthorn; and all Cultivars, Varieties, and/or Hybrids of these

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Alternaria Fruit Rot (Alternaria spp.) Anthracnose fruit rot (Colletotrichum gloeosporioides) Botryosphaeria canker (Botryosphaeria spp.) Mummy berry (Monilinia vaccinii-corymbosi) Phomopsis stem canker (Phomopsis vaccinii) Powdery mildew (Sphaerotheca spp.) Septoria blight (Septoria spp.)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 42.0 fl. oz. of this product (0.75 lb. a.i.) per acre per year.

  DO NOT apply more than 0.75 lb. of azoxystrobin per acre per year.

  DO NOT make more than 7 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 2 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.

- Minimum Application Interval: 7 days
  Pre-Harvest Interval (PHI): 0 days

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

#### **BERRIES - CANEBERRY SUBGROUP 13-07A**

Blackberry; Bingleberry; Boysenberry; Dewberry; Lowberry; Marionberry; Olallieberry; Youngberry; Loganberry; Raspberry (red and black); Raspberry (wild); all Cultivars, Varieties, and/or Hybrids of these

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Anthracnose (Sphaceloma necator), (Elsinoe veneta) Botryosphaeria canker (Botryosphaeria dothidea) Colletotrichum rot (Colletotrichum gloeosporioides) Leaf spot (Septoria rubi, Sphaerulina rubi) Powdery mildew (Sphaerotheca macularis) Rosette or double blossom of blackberries (Cercosporella rubi) Spur blight (Didymella applanata)	6.0-15.5 (0.10-0.25)	Begin applications at onset of disease and continue as required until harvest. Make applications at 7- to 14-day intervals. Use a minimum water volume of 10 gal per acre by ground and a minimum of 3 gal by air.
Blackberry Rust (Phragmidium spp.)	1015.5 (0.16-0.25)	

- C Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.

  DO NOT apply more than 1.5 lbs. of azoxystrobin per acre per year.

  DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.

  Minimum Application Interval: 7 days

  Pre-Harvest Interval (PHI): 0 days

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

## BERRIES - LOW GROWING SUBGROUP 13-07G (Except Cranberry)

Strawberry; Bearberry; Bilberry; Cloudberry; Muntries; Partridgeberry; all Cultivars, Varieties, and/or Hybrids of these

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Anthracnose (Colletotrichum fragariae) Leather rot (Phytophthora cactorum) Powdery Mildew (Sphaerotheca macularis)  Suppression of Botrytis on the Foliage (Botrytis cinerea)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 10-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.  For leather rot control, make 2 applications at 7-day intervals from late bloom through harvest.  Dip applications at transplanting for commercial berry production: For suppression of root and crown rot caused by Colletotrichum spp., mix 5-8 fl oz of this product (0.08 – 0.13 lb. a.i.) per 100 gallons of water. Dip plants for 2-5 minutes. Plant treated plants as quickly as possible. It is advised that transplants be washed prior to dipping to remove excess soil. For continued anthracnose control, follow with foliar applications beginning 2-3 weeks after transplant.
Soilborne Diseases Seedling Root Rot, Basal Stem Rot (Rhizoctonia solani)	0.40-0.80 fl oz /1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	For soilborne/seedling disease control, see directions and rates under the SOILBORNE/SEEDLING DISEASE CONTROL section.

- c Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 60.0 fl. oz. of this product (1.0 lb. a.i.) per acre per year.

  DO NOT apply more than 1.0 lb. of azoxystrobin per acre per year.

  DO NOT make more than 10 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 3 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.

  Minimum Application Interval: 7 days

  DO NOT use in plant propagation nurseries.

  Pre-Harvest Interval (PHI): 0 days

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

#### BERRIES - LOW GROWING SUBGROUP 13-07H (Except Strawberry)

Bearberry; Bilberry; Blueberry, lowbush; Cranberry; Cloudberry; Lingonberry; Muntries; Partridgeberry and cultivars/hybrids of these

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Cottonball (Monilinia oxycocci) Fruit Rots (Physalospora vaccinia, Glomerella cingulate, Coleophoma empetri) Lophodermium Twig Blight (Lophodermium spp.)	6.0-15.5 (0.10-0.25)	Apply 6 – 15.5 fl. oz. (0.10 – 0.25 lb. a.i.) per acre per application. For fruit rot, cottonball, and twig blight, make applications by air, ground, or chemigation at 5 to 10% bloom. If conditions favor disease development, continue treatments on a 7- to 14-day interval following a resistance management program for your area.
Fairy Ring (Psilocybe spp.) Suppression Only	15.5 (0.25)	Apply 15.5 fl. oz. (0.25 lb. a.i.) per acre in 30 – 100 gals. of water to the affected area. For treatment area, determine the ring diameter and add an additional 10 ft. to the diameter. Make initial application at bud break. Follow application by 1 to 2 hours of irrigation to allow for adequate penetration. If needed, make an additional application 14 – 28 days later. Ensure sufficient water volume for thorough and uniform coverage and penetration.

- c Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.

  DO NOT apply more than 1.5 lb. of azoxystrobin per acre per year.

  DO NOT make more than 1.5 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.

  Minimum Application Interval: 7 days

  Pre-Harvest Interval (PHI): 3 days

  DO NOT treat cranberry bogs also used for aquaculture.

  DO NOT apply to flooded bogs.

  DO NOT release flood or irrigation water to non-target aquatic habitat for a minimum of 14 days after application.

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11. not in Group 11.

#### **BRASSICA - HEAD AND STEM SUBGROUP 5A**

Broccoli; Chinese Broccoli (gai Ion); Brussels Sprouts; Cabbage; Chinese Cabbage (napa); Chinese Mustard Cabbage (gai choy); Cauliflower; Cavalo Broccolo; Kohlrabi; all Cultivars and/or Hybrids of these

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Alternaria leaf spot (Alternaria spp.) Downy mildew (Peronospora parasitica) Pin rot (Alternaria spp.)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates. Use a minimum of 10 gallons of water per acre by ground and a minimum of 3 gallons per acre by air.

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.
- DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.

  DO NOT make more than 1.5 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
- Minimum Application Interval: 7 days
- Pre-Harvest Interval (PHI): 0 days

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

#### **BRASSICA - LEAFY GREENS SUBGROUP 5B**

Broccoli Raab; Chinese Cabbage (bok choy); Collards; Kale; Mizuna; Mustard Greens; Mustard Spinach; Rape Greens; all Cultivars and/or Hybrids of these

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Black spot (Afternaria spp.) Cercospora leaf spot (Cercospora spp.) White rust (Albugo candida)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.
Soilborne Diseases Seedling Root Rot, Basal Stem Rot (Rhizoctonia solani)	0.40-0.80 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	For soilborne/seedling disease control, see directions and rates under SOILBORNE/SEEDLING DISEASE CONTROL section.

- Specific Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.
  DO NOT apply more than 42.0 fl. oz. of this product (0.75 lb. a.i.) per acre per year.
  DO NOT apply a total of more than 0.75 lb. of azoxystrobin per acre per year.
  DO NOT make more than 7 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 2 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
  Minimum Application Interval: 7 days
  Pre-Harvest Interval (PHI): 0 days
  DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group

#### **BULB VEGETABLES, CROP GROUP 3-07**

Garlic; Leek; Bulb Onion [Chinese onion (bulb); daylily (bulb); fritillaria (bulb); garlic (bulb); great-headed garlic (bulb); lily (bulb); onion (bulb); pearl onion; potato onion (bulb); serpent garlic (bulb); shallot (bulb)]; Green Onion [Beltsville bunching onion; Chinese chive (fresh leaves), chive (fresh leaves); elegans hosta; fresh onion; fritillaria (leaves); green onion; kurrat; lady's leek; macrostem onion; shallot (fresh leaves); tree onion (tops); Welsh onion (tops); wild leek]; all cultivars, varieties, and/or hybrids of these

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Foliar Diseases Cladosporium leaf blotch (Cladosporium allii) Purple blotch (Alternaria porn) Rust (Puccinia allii)	6.0-12.0 (0.10-0.20)	For downy mildew, make preventative applications at 5- to 7-day intervals.  For all other diseases, begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. For aerial applications, use the higher rates for adequate control. An adjuvant may be added at label specified rates.
Botrytis leaf blight (Botrytis aclada) Downy mildew (Peronospora destructor)	9.0-15.5 (0.15-0.25)	Test mixtures of this product with insecticides and silicone adjuvants for crop safety before applying to the crop.
Soilborne Diseases Rhizoctonia Damping-Off (Rhizoctonia solani)	0.40-0.80 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	For soilborne/seedling disease control, see directions under <b>SOILBORNE/SEEDLING DISEASE CONTROL</b> section. For in-furrow applications, direct the spray into the furrow just prior to seed placement so that the majority of the chemical is under the seed. This will reduce the potential for phytotoxicity, especially if fertilizer is added to the application.

- **DO NOT** apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.
- **DO NOT** apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.
- **DO NOT** apply more than 1.5 lbs. of azoxystrobin per acre per year.
- DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
- Minimum Application Interval: 5 days
- Pre-Harvest Interval (PHI): 0 days
- DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group

CANOLA (see Oilseed Crops for additional information)

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Alternaria blackspot (Alternaria spp.) Blackleg (Leptosphaeria maculans) Sclerotinia stem rot (Sclerotinia sclerotiorum)	6.0-15.5 (0.10-0.25)	In general, apply 7.0 fl oz of this product (0.11 lb. a.i.) at early bud followed by 14.0 fl oz (0.22 lb. a.i.) at about 45 days before harvest. A third application of 7.0 fl oz (0.11 lb. a.i.) may be made 30 days before harvest. Specifically for blackleg, apply at the 2- to 4-leaf stage.  For Alternaria or Sclerotinia, apply 9.0-15.5 fl oz (0.14 – 0.25 lb. a.i.) at 10-25% flowering (3-7 days following first flower). Use the higher rate under heavy disease pressure or when conditions are favorable for disease development.  For control of Alternaria alone, apply 8.0 fl oz (0.13 lb. a.i.) at pod stage (approximately 95% petal fall). Apply by ground, air, or chemigation. Use a minimum of 10 gallons of water per acre for ground applications.

- Specific Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 24.0 fl. oz. of this product (0.45 lb. a.i.) per acre per year.

  DO NOT apply more than 0.45 lb. of azoxystrobin per acre per year.

  DO NOT make more than 4 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 1 application at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.

  - Minimum Application Interval: 14 days
    Pre-Harvest Interval (PHI): 30 days

    DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group

#### **CARROTS**

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Early blight (Cercospora carotae) Late blight (Alternaria dauci) White mold (Sclerotium rolfsii)	9.0-20.0 (0.15-0.33)	Begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.
For additional diseases, see Application Direction for Root Vegetables Subgroup 1A		
Soilborne Diseases Rhizoctonia root rot (Rhizoctonia solani)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	For soilborne/seedling disease control, see directions and rates under SOILBORNE/SEEDLING DISEASE CONTROL section.

- DO NOT apply more than 20 fl. oz./A (0.33 lb. a.i./A) per single application
  DO NOT apply more than 120.0 fl. oz. of this product (2.0 lbs. a.i.) per acre per year.
  DO NOT apply more than 2.0 lbs. of azoxystrobin per acre per year.
  DO NOT make more than 13 applications at the 9 fl. oz./A (0.15 lb. a.i./A) rate or 6 applications at the 20 fl. oz./A (0.33 lb. a.i./A) rate per year.

- Minimum Application Interval: 7 days
  Pre-Harvest Interval (PHI): 0 days

  DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

#### CELERY

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Early blight (Cercospora apii) Late blight (Septoria apicola)	9.0-15.5 (0.15-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.
For additional diseases, see Leafy Vegetables (except Brassica)		
Soilborne Diseases Rhizoctonia root rot (Rhizoctonia solani)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	For soilborne/seedling disease control, see directions and rates under SOILBORNE/SEEDLING DISEASE CONTROL section.

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.
- DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.

  DO NOT make more than 1.0 applications at the 9 fl. oz./A (0.15 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
- Minimum Application Interval: 7 days
- Pre-Harvest Interval (PHI): 0 days

  DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

#### CEREALS Barley, Oats, Rye

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Kernel Blight ( <i>Alternaria</i> spp.) Leaf Rust ( <i>Puccinia hordei</i> )	6.0-12.0 (0.10-0.20)	Apply this product prior to disease development. Protecting the flag leaf is important for maximizing disease control. For best results, use sufficient water volume to provide thorough coverage. Apply by ground, air, or chemigation. A crop oil concentrate adjuvant may be added at 1.0% v/v to optimize efficacy. For chemigation, apply in 0.1 to 0.25 inch of water per acre. Chemigation with an
Barley Stripe (Drechslera graminea = Pyrenophora graminea) Net blotch (Pyrenophora teres)	9.0-12.0 (0.15-0.20)	excessive amount of water may reduce efficacy.
Powdery Mildew (Erysiphe graminis f. sp. hordei) Stagonospora Blotch (Stagonospora nodorum)	12.0 (0.20)	

- Specific Use Restrictions:

  DO NOT apply more than 12.0 fl. oz./A (0.20 lb. a.i./A) per single application.
  DO NOT apply more than 24.0 fl. oz. of this product (0.40 lb. a.i.) per acre per year.
  DO NOT apply more than 0.40 lb. of azoxystrobin per acre per year.
  DO NOT make more than 4 applications at 6 fl. oz./ A (0.10 lb. a.i./A) rate or 2 applications at 12 fl. oz./A (0.20 lb. a.i./A) rate per year.
  DO NOT apply more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

  - Minimum Application Interval: 14 days
    Pre-Harvest Interval (PHI): 7 days Grazing, Forage, and Hay
    DO NOT apply this product after Feekes growth scale of 10.54.

#### CEREALS Wheat, Triticale

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Leaf Rust (Puccinia triticina = Puccinia recondita f.sp. tritici) Septoria leaf and Glume blotch (Septoria tritici, Septoria nodorum) Stem Rust (Puccinia graminis) Stripe Rust (Puccinia striiformis) Tan Spot (Pyrenophora tritici-repentis)	4.0-12.0 (0.07-0.20)	Apply this product prior to disease development. Apply by ground, air, or chemigation. A crop oil concentrate adjuvant may be added at 1.0% v/v to optimize efficacy.
Powdery Mildew (Erysiphe graminis)	7.5-11.0 (0.125-0.175)	

- Specific Use Restrictions:

  DO NOT apply more than 12.0 fl. oz./A (0.20 lb. a.i./A) per single application.

  DO NOT apply more than 24.0 fl. oz. of this product (0.40 lb. a.i.) per acre per year.

  DO NOT apply a total of more than 0.40 lb. of azoxystrobin per acre per year.

  DO NOT make more than 2 applications of HELMSTAR FUNGICIDE or other Group 11 fungicide per year.

  Minimum Application Interval: 14 days

  Pre-Harvest Intervals (PHI): Forage and Hay 7 days; Grazing 14 days

  DO NOT apply this product after growth stage Feekes 10.54.

#### **CHRISTMAS TREES**

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Diplodia tip blight (Diplodia pinea) Lophodermium needle cast (Lophodermium pinastri) Swiss needle cast (Phaeocrytopus gaumannii)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 21-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.

- Specific Use Restrictions:

  Do NoT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.
  Do NoT apply more than 120.0 fl. oz. of this product (2.0 lbs. a.i.) per acre per year.
  Do NoT apply a total of more than 2.0 lbs. of azoxystrobin per acre per year.
  Do NoT make more than 20 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 7 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
  Minimum Application Interval: 7 days
  Pre-Harvest Interval (PHI): Not Applicable
  Do NoT make more than 2 sequential applications of HELMSTAR FUNGICIDE SC or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

#### **CITRUS FRUIT, 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 and 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

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Albinism (Alternaria alternata pv citri) Alternaria leaf and fruit spot (Alternaria citri) Cercospora leaf spot (Cercospora spp.) Diplodia stem-end rot (Diplodia natalensis) Greasy spot (Mycosphaerella citri) Melanose (Diporthe citri) Penicillium Decays Green mold, Whisker mold, Suppression of Blue mold (Penicillium spp.) Phomopsis stem-end rot (Phomopsis citri) Post bloom fruit drop (PFD) (Colletotrichum acutatum) Powdery mildew (Erysiphe spp.) Scab (Elsinoe fawcettii) Sweet Orange Scab (Elsinoe australis) Black Spot (Guignardia citricarpa)	12.0-15.5 (0.20-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 21-day intervals following the resistance management guidelines. Under conditions that favor severe disease epidemics, use the higher application rates. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates. Use a horticultural spray oil to improve control of greasy spot.
For Pummelo Ind Cirrus Hybrid (Uniq fruit only) Soil Borne Diseases	0.40-0.80 fl. oz./1000 row feet (0.006 - 0.013	For soilborne/seedling disease control, see direction and rates under the SOILBORNE/SEEDLING DISEASE CONTROL section.
Seedling Root Rot, Basal Stem Rot (Rhizoctonia solani)	lb. a.i./1000 row ft)	

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.
- DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.

  DO NOT make more than 5 applications of this product at the rate of 15.5 fl. oz. or any other Group 11 fungicide per year.
- Minimum Application Interval: 7 days

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.
- **DO NOT** use this product in nurseries for propagation of citrus. Pre-Harvest Interval (PHI): 0 days

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Citrus Fruit Crop Group 10-10 (Continued)  Post-Harvest Applications: Penicillium Decays	See Application Directions column	Apply as a dip, drench, flood, or spray.  High volume (dilute) applications: Mix 32-64 fl oz in 25-100 gallons of water, wax/oil emulsion, or aqueous dilution of a wax/oil emulsion as appropriate for the crop being treated. Use T-Jet, flooders, or similar application systems.
Green mold, Whisker mold, Suppression of blue mold (Penicillium spp.) Diplodia stem-end rot		Low volume (concentrate) applications: Mix 32-64 fl oz in 7-25 gallons of water, wax/oil emulsion, or aqueous dilution of a wax/oil emulsion as appropriate for the crop being treated. Apply to 250,000 pounds of fruit. Use a controlled droplet type applicator or similar system.
(Diplodia natalensis) Phomopsis stem-end rot (Phomopsis citri)		Dip applications: Mix 32-64 fl oz in 100 gallons of water, wax/oil emulsion, or aqueous dilution of a wax/oil emulsion. Dip fruit for 30 seconds and allow to drain. For maximum decay control, treat citrus fruit once before storage and once after storage, just prior to marketing.

- Specific Use Restrictions:

  DO NOT make more than 2 applications post-harvest.

  DO NOT apply more than 64 fl. oz. (1.05 lb. a.i.) of this product per single application.

  DO NOT apply more than 128 fl. oz. (2.1 lbs. a.i.) of this product per year.

  DO NOT store fruit directly in the sun as product may degrade with sunlight.

**CLOVER (and Stands Containing Clover)** 

(See Application Directions for Non-grass Animal Feeds (Forage, Fodder, Straw and Hay), Crop Group 18)

#### CORN

## Field, Pop, Sweet (Including Seed Production)

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Rust (Puccinia sorghi)	6.0-9.0 (0.10-0.15)	For gray leaf spot, apply this product at the onset of disease. A second application may be required
Anthracnose leaf blight (Colletotrichum graminicola) Eye spot (Aureobasidium zeae) Gray leaf spot (Cercospora sorghi) Northern corn leaf blight (Setosphaeria turcica) Northern corn leaf spot (Cochliobolus carbonum) Southern corn leaf blight (Cochliobolus heterostrophus)	6.0-15.5 (0.10-0.25)	For gray leaf spot, apply this product at the onset of disease. A second application may be required 14 days later if disease pressure persists.  For all other diseases, begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines, Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.
Early Application (V4 — V8)	6.0 (0.10)	This product may be applied early (V4 — V8) for early season disease control and beneficial physiological benefits.
Soilborne Diseases Rhizoctonia root and stalk rot (Rhizoctonia solani)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	For soilborne/seedling disease control, see directions and rates under SOILBORNE/SEEDLING DISEASE CONTROL section.

- Specific Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 120.0 fl. oz. of this product (2.0 lbs. a.i.) per acre per year.

  DO NOT apply more than 2.0 lbs. of azoxystrobin per acre per year.

  DO NOT make more than 20 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 7 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year, except for field corn and field corn grown for seed.

  Field Corn and Field Corn Grown for Seed: Do not make more than 2 applications per year.

  - Minimum Application Interval: 7 days
    Pre-Harvest Interval (PHI): 7 days

    DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

#### COTTON

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Anthracnose (Glomerella gossypii) Ascochyta Blight (A. gossypii) Boll Rot (A. gossypii) Cotton Rust (Puccinia schedonnardii) Hardlock (Fusarium verticillioides) Southwestern Cotton Rust (Puccinia cacabata)	6.0-9.0 (0.1-0.15)	For optimum disease control, begin applications prior to or in the early stages of disease development. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates. Minimum application volumes for air and ground are 5 and 10 gallons per acre, respectively. Target the first application at approximately pinhead square to first bloom to protect the plant from diseases. Make subsequent application(s) at 14- to 21-day intervals. An additional application may be made depending on environmental conditions and the health of the cotton plant.  Under poor environmental conditions conducive to seedling disease and poor cotton growth, treat early season cotton to suppress damping-off and other diseases which result in plant stand loss.
Pythium seedling blight (Pythium aphanidermatum) Rhizoctonia seedling blight (Rhizoctonia solani)	In-Furrow Application 0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	Apply this product as an in-furrow spray in 3-7 gallons of water at planting. Mount the spray nozzle so the spray is directed into the furrow just before the seed are covered. Use the higher rate when the weather conditions are expected to favor disease development, if the field has a history of Pythium infections, or if minimum/low till programs are in place.  Refer to the SOILBORNE/SEEDLING DISEASE CONTROL section for table illustrating total fluid ounces per acre with various row spacings.

- **DO NOT** apply more than 9 fl. oz./A (0.15 lb. a.i./A) per single application.
- **DO NOT** apply more than 27 fl. oz. of this product (0.45 lb. a.i.) per acre per crop per year as a foliar spray.
- **DO NOT** apply a total of more than 0.45 lb. of azoxystrobin per acre per year.
- DO NOT make more than 3 foliar applications of HELMSTAR FUNGICIDE or other Group 11 fungicides per crop per acre per year.
- Minimum Application Interval: 14 days
- Pre-Harvest Interval (PHI): 45 days. **DO NOT** make more than 2 foliar applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

#### **CRANBERRY**

#### LOW GROWING BERRY SUBGROUP 13-07H (except Strawberry)

Bearberry; Bilberry; Blueberry (Iowbush); Cloudberry; Cranberry; Lingonberry; Muntries; Partridgeberry; Cultivars, Varieties, and/or Hybrids of these

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Cotton ball (Monilinia oxycocci) Fruit rots (Physalospora vaccinii) (Glomerella cingulata) (Coleophoma empetri) Lophodermium twig blight (Lophodermium spp.)	6.0-15.5 (0.10-0.25)	Begin applications at 5-10% bloom and repeat at 7- to 14-day intervals if conditions favor disease development. Apply by ground, air, or chemigation.
Fairy ring (suppression) (Psilocybe spp.)	15.5 (0.25)	Make the first application at bud break. Apply at a rate equivalent to 15.5 fl. oz/Acre (0.25 lb. a.i./A) in water to the affected area (measure the ring diameter and add 10 feet to that diameter). Irrigation (1-2 hours) following application will help ensure penetration to the base of the plant. If needed, make another application 2-4 weeks later. For ground application, ensure adequate water volume for thorough canopy penetration.

- Specific Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.

  DO NOT apply more than 1.5 lb. of azoxystrobin per acre per year.

  DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.

  Minimum Application Interval: 7 days

  Pre-Harvest Interval (PHI): 3 days

  DO NOT treat cranberry bogs also used for aquaculture.

  - DO NOT alleast channelly bogs also used for aquadature.

    DO NOT apply to flooded bogs.

    DO NOT release flood or irrigation water to non-target aquatic habitat for a minimum of 14 days after application.

    DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is
  - not in Group 11. **DO NOT** apply when weather conditions favor drift from treated areas to non-target aquatic habitat. Applicators must use care in making applications near non-target aquatic habitats.

#### **CUCURBIT VEGETABLES, CROP GROUP 9**

Cantaloupe; Chayote; Chinese-Waxgourd; Cucumber; Gourds; Honeydew Melon; *Momordica* spp. (bitter melon, balsam apple); Muskmelon; Watermelon; Pumpkin; Squash, Zucchini; Varieties, Cultivars, and/or Hybrids of these

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Anthracnose (Colletotrichum lagenarium) Belly rot (Rhizoctonia solani) Downy mildew (Pseudoperonospora cubensis) Gummy stem blight (Didymella bryoniae) Leaf spots (Alternaria spp., Cercospora spp.) Myrothecium canker (Myrothecium roridum) Plectosporium blight (Plectosporium tabacinum) Powdery Mildew (Sphaerotheca fuliginea), (Erysiphe cichoracearum) Ulocladium Leaf Spot (Ulocladium cucurbitae)	6.0-15.5 (0.10-0.25)	For downy mildew and powdery mildew, make preventative applications at 5- to 7-day intervals.  For belly rot control, make the first application at the 1-3 leaf crop stage with a second application just before vines tip over or 10-14 days later, whichever occurs first.  For all other diseases, begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines.  Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.  DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.  DO NOT make more than 4 foliar applications of Azoxystrobin 22.9% SC or other Group 11 fungicides per crop per acre per year.
Soilborne diseases Rhizoctonia root rot (Rhizoctonia solani)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	For soilborne/seedling disease control, see directions and rates under <b>SOILBORNE/SEEDLING DISEASE CONTROL</b> section.

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.

  DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.

  DO NOT apply more than 5 applications per year at the high rate (15.5 fl oz/A) or 15 applications per year at the low rate (6.0 fl oz/A).
- Minimum Application Interval: 5 days
- Pre-Harvest Interval (PHI): 1 day
- **DO NOT** mix this product with silicon adjuvants, crop oil concentrates (COCs), or methylated spray oils (MSOs).
- DO NOT tank mix this product with 2,6-dichloro-4-nitroaniline, Chlorpyrifos, Dicofol, Endosulfan, Malathion, Methomyl, or Potassium salts of fatty

#### FRUITING VEGETABLES — PEPPER / EGGPLANT SUBGROUP 8-10B

African Eggplant; Bell Pepper; Eggplant; Martynia; Nonbell Pepper; Okra; Pea Eggplant; Pepino; Roselle; Scarlet Eggplant; Cultivars, Varieties, and/or Hybrids of these

(For use on tomatoes, see crop specific Application Directions for TOMATO SUBGROUP 8-10A)

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Anthracnose (Colletotrichum spp.) Powdery Mildew (Sphaerotheca spp.)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines.  Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.
Soilborne diseases Rhizoctonia seedling rot (Rhizoctonia solani)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	For soilborne/seedling disease control, see directions and rates under SOILBORNE/SEEDLING DISEASE CONTROL section.

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 60.0 fl. oz. of this product (1.0 lb. a.i.) per acre per year.

  DO NOT apply a total of more than 1.0 lb. of azoxystrobin per acre per year.

  DO NOT make more than 10 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 3 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
- Minimum Application Interval: 7 days
- Pre-Harvest Interval. (PHI): 0 days **DO NOT** make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

## GRAPE and Other SMALL FRUIT VINE CLIMBING SUBGROUP 13-07F (except Fuzzy Kiwifruit)

Amur River Grape; Gooseberry; Grape; Kiwifruit (hardy); Maypop; Muscadines; Schisandra Berry; Cultivars, Varieties, and/or Hybrids of these

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Black rot (Guignardia bidwellii) Downy mildew (Plasmopara viticola) Phomopsis cane and leaf spot (Phomopsis viticola) Powdery mildew (Uncinula necator)	10.0-15.5 (0.16-0.25)	Begin applications prior to disease development and continue throughout the season at 10- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.  ATTENTION  This product is extremely phytotoxic to certain apple varieties.  AVOID SPRAY DRIFT. Extreme care must be used to prevent injury to apple trees (and apple fruit).
Suppression Only: Botrytis bunch rot (Botrytis cinerea)		

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  Due to potential issues with drift from grapes leading to adverse crop response in apples, DO NOT apply this product to grapes using airblast equipment in these boroughs and townships in Erie County of Pennsylvania: Erie, Fairview, Girard, Harborcreek, Lawrence Park, Millcreek, North East, Presque Isle, and Springfield.
- DO NOT spray this product where drift may reach apples or apple varieties as adverse crop response can occur in the trees and fruit. Extreme caution must be taken to avoid injury to varieties of apple trees and fruit. Avoiding spray drift is the responsibility of the applicator. Consult the Spray Drift section of this label for additional information.
- DO NOT use spray equipment that has been used to apply this product in apple trees or apple tree varieties due to the nature of even trace amounts of this product causing adverse crop response.
- **DO NOT** apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.
- DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.
- DO NOT make more than 9 applications at the 10 fl. oz./A (0.16 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
- Minimum Application Interval: 10 days
- Pre-Harvest Interval (PHI): 14 days
- DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

## **GRASSES (Grown for Seed)**

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Ergot Stem Diseases Powdery mildew (Erysiphe graminis) Rust (Puccinia spp.)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 10- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.

- Specific Use Restrictions:

   DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.
  - **DO NOT** apply more than 48.0 fl. oz. of this product (0.8 lb. a.i.) per acre per year.

  - DO NOT apply more than 0.80 lb. of azoxystrobin per acre per year.

    DO NOT make more than 8 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 3 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
  - Minimum Application Interval: 10 days

  - Pre-Harvest Interval (PHI): 8 days

    DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.
  - Screenings, seed and/or straw treated with this product must NOT be fed to livestock.

## HERBS & SPICES (Except Black Pepper), CROP GROUP 19

Allspice; Angelica; Anise (seed); Anise (star); Annatto (seed); Balm; Basil; Borage; Burnet; Chamomile; Caper (buds); caraway; Caraway (black); cardamom; Cassia Bark; Cassia Buds; Catnip; Celery Seed; Chervil (dried); Chinese Chive; Chive; Cinnamon; Clary; Clove Buds; Coriander Leaf (cilantro or Chinese parsley); Coriander Seed (cilantro); Costmary; Culantro (leaf); Culantro (seed); Cumin; Curry (leaf); Dill (dillweed); Dill (seed); Fennel (common); Florence Fennel (seed); Fenugreek; Grains of Paradise; Horehound; Hyssop; Juniper Berry; Lavender; Lemongrass; Lovage (leaf); Lovage (seed); Mace; Marigold; Marjoram; Mustard (seed); Nasturtium; Nutmeg; Parsley (dried); Pennyroyal; Pepper (black and white); Poppy (seed); Rosemary; Rue; Saffron; Sage; Savory (summer and winter); Sweet Bay; Tarragon; Thyme; Vanilla; Wasabi, Wintergreen; Woodruff; Wormwood

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Corynespora blight (Corynespora cassiicola) Dill blight (Cercosporidium punctum) Phoma blight (Passelora puncta)	6.0-15.5 (0.10-0.25)	Begin applications at the onset of disease development and continue throughout the season at 7-day intervals following the resistance management guidelines, Apply by ground only. An adjuvant may be added at label specified rates. Use a minimum of 30 gallons of water per acre.
Fusarium Rhizome and Root Rot (Pythium spp.)	6:2-15.4 (0.10-0.25)	For Wasabi only:  Begin applications at the onset of disease development and continue throughout the season at 7-day intervals following the resistance management guidelines, Apply by ground or chemigation. An adjuvant may be added at label specified rates. Use a minimum of 30 gallons of water per acre.

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.
- DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.
- DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
- Minimum Application Interval: 7 days
- Pre-Harvest Interval (PHI): 0 days
- DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is

## LEAFY VEGETABLES (Except Brassica)

Amaranth, Arugula, Cardoon, Celery\*\*, Celtuce, Chervil, Chrysanthemum (edible), Coriander leaves (Cilantro), Corn salad, Cress, Dandelion, Dock, Endive, Fennel, Lettuce (head and leaf), Orach, Parsley, Purslane, Radicchio, Rhubarb, Spinach, Swiss Chard, Cultivars, Varieties, and/or Hybrids of these

\*\*See also crop specific Application Directions for CELERY

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Foliar Diseases Alternaria leaf spot (Alternaria sonchi, A. spp.) Anthracnose (Microdochium panattonianum, Colletotrichum dematium) Cercospora leaf spot (Cercospora spp.) Septoria leaf spot (Septoria petroselini) White rust (Albugo occidentalis)	6.0-15.5 (0.10-0.25)	For downy and powdery mildew, make preventative applications at 5- to 7-day intervals.  For all other diseases, begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.  ATTENTION  Applications of this product to leafy vegetable foliage may contribute to foliar phytotoxicity under certain circumstances. Proceed with caution with regard to tank mixes and adjuvants when treating any leafy vegetable crops with this product.  Under some conditions, this product may cause adverse crop response to leafy vegetables. In particular DO NOT tank mix with products that increase leaf penetration, including but not limited to silicone wetters, aluminum tris (O-ethyl phosphonate), permethrin, or Lambda-Cyhalothrin.
Downy mildew (Bremia lactucae) Powdery mildew (Erysiphe cichoracearum)	12.0-15.5 (0.20-0.25)	
Soilborne Diseases Web blight, Bottom rot, Crater rot, Root rot (Rhizoctonia solani)	0.4-0.8 fl oz/ 1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	For soilborne/seedling disease control, see directions and rates under <b>SOILBORNE/SEEDLING DISEASE CONTROL</b> section.

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.

  DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.

  DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.

  Minimum Application Interval: 5 days

- Pre-Harvest Interval (PHI): 0 days

  DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group

# LEGUME VEGETABLES, DRY AND SUCCULENT \*\*

and

## LEGUME VEGETABLES, FOLIAGE OF ANY CULTIVAR OF BEAN (Phaseolus spp.) & FIELD PEA (Pisum spp.)

Bean (Lupinus spp.) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin)

Bean (Lupinus spp.) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin)
Bean (Phaseolus spp.) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean)
Bean (Vigna spp.) (includes adzuki bean, asparagus bean, blackeyed pea, cowpea, catjang, Chinese longbean, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean)
Bean (Glycine max) (Soybean, Immature Seed (edamame))\*\*
Broad bean (fava bean) (Vicia faba)
Chickpea (garbanzo bean), (Cicer arietinum)
Guar (Carpansis tetragonoloba)

Guar (Cyamopsis tetragonoloba)

Jackbean (Canavalia ensiformis)

Lablab bean (hyacinth bean) (Lablab purpureus)

Lentil (Lens esculenta)

Pea (Pisum spp.) (includes dwarf pea, edible-pod pea, English pea, garden pea, green pea, field pea, snow pea, sugar snap pea)

Pigeon pea (Cajanus cajan)

Sword bean (Canavalia gladiata)

\*\*For use on soybeans, refer also to the crop specific Application Directions for SOYBEAN and SOYBEAN, IMMATURE SEED (Edamame)

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Bean rust (Uromyces appendiculatus)	6.0 (0.10)	Begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines. Use the higher rates under severe disease pressure. Apply by ground, air, or chemigation. An adjuvant may be added at label
Alternaria blight (Alternaria spp.) Alternaria leaf spot (Alternaria alternata) Anthracnose (Colletotrichum lindemuthianum) Ascochyta blight (Mycosphaerella pinodes) Ascochyta leaf and pod spot (Ascochyta spp.) Ascochyta leaf spot (Ascochyta Rust (Phakopsora spp.) Southern blight (Sclerotium rolfsii) Web blight (Rhizoctonia solani)	6.0-15.5 (0.10-0.25)	specified rates. For rust, use of a non-ionic surfactant is advised.
Soilborne Diseases Rhizoctonia Root Rot (Rhizoctonia solani)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row	This product may be applied to the furrow and covering soil at planting time in a 7-inch band. Avoid
		Note: Conduct a seed safety test with your crop before making in-furrow applications.

## Specific Use Restrictions:

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.
- DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.
- DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
- Minimum Application Interval: 7 days
- Pre-Harvest Interval (PHI): Succulent Beans and Peas 0 days; Dry Legume Vegetables (dry beans and dry pea seeds) 14 days

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

### MINT - Peppermint tops and spearmint tops Fresh or for Processing into Mint Oil

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Powdery mildew (Erysiphe spp.) Rust (Puccinia menthae)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 10-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.
Soilborne Diseases Seedling root rot, Basal stem rot (Rhizoctonia solani)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row	For soilborne/seedling disease control, see directions and rates under SOILBORNE/SEEDLING DISEASE CONTROL section.

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 42.0 fl. oz. of this product (0.75 lb. a.i.) per acre per year.

  DO NOT apply a total of more than 0.75 lb. of azoxystrobin per acre per year.
- DO NOT make more than 7 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 2 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
- Minimum Application Interval: 7 days
- Pre-Harvest Interval (PHI): Processed Mint 7 days; Fresh Mint 0 days

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is

## NONGRASS ANIMAL FEEDS (FORAGE, FODDER, STRAW AND HAY), CROP GROUP 18

For pure/mixed stands of the following or stands mixed with grasses: Alfalfa; Bean (velvet); Clover (*Trifolium* spp., *Melilotus* spp.); Kudzu; Lespedeza; Lupin; Sainfoin; Trefoil; Vetch; Vetch (crown); Vetch (milk)

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Foliar Diseases Alternaria leaf spot (Alternaria spp.)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season. Use the higher rates under severe disease pressure. Apply by ground, air, or chemigation. Use of an additive such as crop oil concentrate or non-ionic surfactant is advised.
Cercospora leaf spot (Cercospora spp.) Downy mildew (Peronospora spp.) Powdery mildew (Oidium spp.), (Erysiphe spp.) Rust (Phakopsora spp.)		For management of outbreaks of Asian soybean rust and other Puccinia species on alternate host species such as kudzu, lespedeza, trefoil, and vetch, apply this product to forages grown in the vicinity of soybeans and other legume crops (beans and peas) as a part of an Asian rust disease management strategy. Consult with local experts and university extension agents for the latest advice.

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 42.0 fl. oz. of this product (0.75 lb. a.i.) per acre per year.

- DO NOT apply more than 0.25 lb. of azoxystrobin per acre per cutting.

  DO NOT apply a total of more than 0.75 lb. of azoxystrobin per acre per cutting.

  DO NOT make more than 0.75 lb. of azoxystrobin per acre per year.

  DO NOT make more than 7 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 2 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.

  Minimum Application Interval: 14 days

- Pre-Harvest Interval (PHI): Grazing or harvest for forage and hay 14 days **DO NOT** make more than 3 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11. **DO NOT** apply to areas used as rangeland.

## **OILSEED CROPS, CROP GROUP 20**

Borage; Calendula; Castor Oil Plant; Chinese Tallowtree; Cottonseed\*\*; Crambe; Cuphea; Echium; Euphorbia; Evening Primrose; Flax Seed; Gold Of Pleasure; Hare's Ear Mustard; Jojoba; Lesquerella; Lunaria; Meadowfoam; Milkweed; Mustard Seed; Niger Seed; Oil Radish; Poppy Seed; Rapeseed\*\*; Rose Hip; Safflower; Sesame; Stokes Aster; Sunflower; Sweet Rocket; Tallowwood; Tea Oil Plant; Vernonia; Cultivars, Varieties, an/d/or Hybrids of these

\*\*Refer also to crop specific Application Directions for COTTON AND CANOLA

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Alternaria Leaf Spot (Alternaria spp.) Downy Mildew (Plasmopora halstedii, Plasmopora helianthi) Pasmo (Septoria linicola garass) Sunflower Rust (Puccinia helianthi)	6.0-15.5 (0.10-0.25)	Apply 6.0 fl oz of this product (0.10 lb. a.i.) at early bud followed by 14.0 fl oz (0.23 lb. a.i.) about 45 days before harvest. Make a third application of 7.0 fl oz 30 days before harvest. Apply by ground, air, or chemigation. Use a minimum of 10 gallons of water per acre for ground applications.

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 24.0 fl. oz. of this product (0.45 lb. a.i.) per acre per year.

  DO NOT apply a total of more than 0.45 lb. of azoxystrobin per acre per year.

  DO NOT make more than 4 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 1 application at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.

  Minimum Application Interval: 14 days

  Pre-Harvest Interval (PHI): 30 days

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

## PEANUT

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Soilborne diseases — early season (in-furrow application) Aspergillus crown rot (Aspergillus niger) Pythium damping-off (Pythium spp.) Stem rot / White mold suppression (Scierotium rolfsii)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	Apply this product in-furrow at planting for control of various seed/seedling diseases including early season suppression of stem rot. See directions and rates under <b>SOIL BORNE SEEDLING DISEASE CONTROL</b> section.
Soilborne diseases — mid-late season  Rhizoctonia peg and pod rot (Rhizoctonia solani) Stem rot / White mold (Sclerotium rolfsii)  Suppression only: Cylindrocladium black rot (Cylindrocladium crotalariae) Pythium pod rot (Pythium myriotylum)	12.0-24.5 (0.20-0.40)	Apply this product as a foliar spray approximately 60 and 90 days after planting. Make both applications earlier in the season if environmental conditions favor disease development. These applications will provide protection against soil borne diseases as well as control of listed foliar diseases for a 10- to 14-day period after each spray.  Under heavy disease pressure and/or where there is high rainfall and/or irrigation, use 18.5-24.5 fl oz/Acre (0.31 - 0.40 lb. a.i./A). For light disease pressure and dry environmental conditions (non-irrigated, low <i>rainfall</i> ), use 12.0-24.5 fl oz/Acre (0.2 - 0.40 lb. a.i. A).  For control of Pythium, a rate of 24.5 fl oz/Acre (0.40 lb. a.i. A) is required. Follow with applications of other fungicides at 10- to 14-day intervals to provide season-long control of leaf spot diseases. Apply by ground, air, or chemigation, An adjuvant may be added at label specified rates.
Foliar diseases Early leaf spot (Cercospora arachidicola) Late leaf spot (Cercosporidium personatum) Rust (Puccinia arachidis) Web blotch (Phoma arachidicola)	6.0-18.5 (0.10-0.30)	For foliar disease control only, treat at a reduced rate of 6.0 to 18.5 fl oz/Acre (0.1 - 0.31 lb. a.i./A) at 10-to 14-day intervals.

- Specific Use Restrictions:

  Do NoT apply more than 24.5 fl. oz./A (0.40 lb. a.i./A) per single application.
  Do NoT apply more than 49 fl. oz. of this product (0.8 lb. a.i.) per acre per year.
  Do NoT apply a total of more than 0.80 lb. of azoxystrobin per acre per year.
  Do NoT make more than 8 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 2 applications at 24.5 fl. oz./A (0.40 lb. a.i./A) rate per year.
  Minimum Application Interval: 10 days
  Pre-Harvest Interval (PHI): 14 days
  Do NoT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11. not in Group 11.

## **PECANS**

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Anthracnose (Glomerella cingulata) Scab (Cladosporium caniigenum)	6.0-12.0 (0.10-0.20)	Begin applications prior to disease development and continue throughout the season at 7- to 21-intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.

## Specific Use Restrictions:

- **DO NOT** apply more than 12 fl. oz./A (0.20 lb. a.i./A) per single application. **DO NOT** apply more than 72.0 fl. oz. of this product (1.2 lbs. a.i.) per acre per year.
- **DO NOT** apply a total of more than 1.2 lbs. of azoxystrobin per acre per year.
- DO NOT make more than 12 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 6 applications at the 12 fl. oz./A (0.20 lb. a.i./A) rate per year.
- Minimum Application Interval: 7 days
- Pre-Harvest Interval (PHI): 45 days **DO NOT** make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

### **PISTACHIOS**

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Alternaria late blight (Alternaria alternate) Botryosphaeria panicle and shoot blight (Botryosphaeria dothidea) Septoria leaf spot (Septoria pistaciarum)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 21-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.

- DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.

  DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.

  DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.

- Minimum Application Interval: 7 days
  Pre-Harvest Interval (PHI): 7 days

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

## **POTATOES**

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Black dot (Colletotrichum coccodes) Early Blight (Alternaria solani) Late Blight (Phytophthora infestans) Powdery mildew (Erysiphe cichoracearum)	6.0-20.0 (0.10-0.33)	Early blight - For a 7-day application schedule, use 6.2 fl. oz. product/A (0.1 lb. a.i./A). For a 14-day application schedule, use the 12.0 fl. oz. product/A (0.2 lb. a.i./A) rate.  Late blight - Apply 12.0 fl oz product/Acre (0.2 lb. a.i./A) and repeat at 7-day intervals. Initiate late blight applications as a preventive treatment according to local practices. If late blight symptoms appear or conditions favor disease development, switch immediately to a non-Group 11 fungicides and repeat applications at 5-day intervals. Adding a spreader/sticker to the spray mixture may improve coverage.  For all other diseases, begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines. Use the high rate and the shorter interval if disease epidemics are severe. Apply by ground, air, or chemigation.
Soilborne Diseases Black dot (Colletotrichum coccodes) Black scurf (Rhizoctonia solani) Silver scurf (Helminthosporium solani)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	For soilborne/seedling disease control, see directions and rates under SOILBORNE/SEEDLING DISEASE CONTROL section.

- Specific Use Restrictions:

  DO NOT apply more than 20 fl. oz./A (0.33 lb. a.i./A) per single application.
  DO NOT apply more than 120.0 fl. oz. of this product per acre per year.
  DO NOT apply a total of more than 2 lbs. of azoxystrobin per acre per year.
  DO NOT make more than 20 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 6 applications at the 20 fl. oz./A (0.33 lb. a.i./A) rate per year.
  Minimum Application Interval: 7 days
  Pre-Harvest Interval (PHI): 14 days
  Do not make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

Nice		
Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Sheath/Stem Diseases Sheath Blight (Rhizoctonia solani)	6.0-18.5 (0.10-0.30)	Apply this product by ground, air, or chemigation prior to disease development. For aerial application, use volumes of 5-10 GPA. An adjuvant may be added at label specified rates.
Aggregate Sheath Spot (Ceratobasidium oryzae-sativae = Rhizoctonia oryzae-sativae) Black Sheath Rot	9.0-18.5 (0.15-0.30)	For sheath blight control, application rates may vary from 9.0 to 12.0 fl oz/A (0.15 - 0.2 lb. a.i./A) depending on the growth stage of the rice and the severity of the disease.
(Gaeumannomyces graminis var. graminis) Sheath Spot (Rhizoctonia oryzae)		For other stem/sheath diseases including aggregate sheath spot, black sheath rot, sheath spot, and stem rot, apply when disease is less than 4 inches above water line, usually between panicle differentiation (PD) +5 days to (PD) +10 days, or at initial sign of disease. Under heavy disease pressure and conditions favorable for disease development, make a second application.
Stem Rot (Magnaporthe salvinii = Sclerotium oryzae = Nakateae sigmoidea)		For foliar and panicle diseases, apply this product prior to disease development. For blast control, apply as a preventive treatment before favorable conditions for blast development. For panicle blast, make the first application at mid-boot to boot-split but prior to full head emergence. Make a second application when panicles are approximately 60-90% emerged from the boot (7-14 days later).
Foliar Diseases Brown leaf spot (Cochliobolus miyabeanus) Leaf smut (Entyloma oryzae) Narrow brown leaf spot (Cercospora janseana = Cercospora oryzae)		For panicle blast on continuous rice acreage (no rotation to other crops), no more than two (2) sequential foliar applications of this product or other Group 11 fungicides need to be made over multiple years before alternating with a fungicide that has a different mode of action.
Panicle Diseases Kernel smut (Tilletia barclayana = Neovossia barclayana) Panicle blast (Pyricularia grisea)		

- Specific Use Restrictions:

  DO NOT apply more than 18.5 fl. oz./A (0.30 lb. a.i./A) per single application.

  DO NOT apply more than 42.0 fl. oz. of this product (0.70 lbs. a.i.) per acre per year.

  DO NOT apply a total of more than 0.70 lb. of azoxystrobin per acre per year.

  DO NOT apply more than 2 applications per year at the high rate (18.5 fl oz/A) or 7 applications per year at the low rate (6.0 fl oz/A). When applying at 9.0 fl oz/A, do not apply more than 2 applications per year at the right rate (18.5 fl oz/A) or 7 applications per year at the

## **ROOT VEGETABLES, SUBGROUP 1A and LEAVES OF ROOT AND TUBER VEGETABLES, CROP GROUP 2** Root Vegetable, Except Sugar Beet, Subgroup1B; and Sugar Beet

Beet, Garden & Sugar; Burdock; Carrot\*; Cassava, Bitter & Sweet; Celeriac (Celery Root); Chervil, Turnip-Rooted; Chicory; Dasheen (Taro); Ginseng; Horseradish; Parsley, Turnip-Rooted; Parsnip; Radish; Radish, Oriental (Daikon); Rutabaga; Salsify; Salsify, Black & Spanish; Skirret; Sweet Potato; Turnip; Yam, True

(\*Refer also to the crop specific Application Directions for CARROTS)

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Foliar Diseases Alternaria leaf spot (Alternaria spp., A. alternata) Ascochyta leaf spot (Ascochyta cynarae) Rust (Uromyces betae, Puccinia helianthi) White rust (Albugo tragopogonis)	6.0-20.0 (0.10-0.33)	For powdery mildew, make preventive applications at 5- to 7-day intervals.  For all other diseases, begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines.  Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.
Cercospora leaf spot (Cercospora betae, C. pastinaceae) Powdery mildew (Erysiphe polygoni, Leveillula taurica)	9.0-15.5 (0.15-0.25)	
Soilborne Diseases Circular Spot, Southern blight (Sclerotium rolfsii) Pythium root rot (Pythium aphanidermatum) Rhizoctonia stem canker, Crown rot (Rhizoctonia solani)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row ft)	For soilborne/seedling disease control, see directions and rates under <b>SOILBORNE/SEEDLING DISEASE CONTROL</b> section.  For sugar beets, make 3-7 inch banded applications in a minimum of 10 gallons per acre at the 2- to 8-leaf stage.

- **DO NOT** apply more than 20 fl. oz./A (0.33 lb. a.i./A) per single application.
- **DO NOT** apply more than 120.0 fl. oz. of this product (2.0 lbs. a.i.) per acre per year.
- **DO NOT** apply a total of more than 2.0 lbs. of azoxystrobin per acre per year.
- DO NOT make more than 20 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 6 applications at the 20 fl. oz./A (0.33 lb. a.i./A) rate per year. Minimum Application Interval: 5 days
- Pre-Harvest Interval (PHI): 0 days
- DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.
- Sugar Beets:
  - DO NOT make application directly over the seeds as a dribble.
  - DO NOT make application of this product in-furrow if soil conditions are anticipated to be cool, causing prolonged plant emergence.

  - A starter fertilizer must **NOT** be used with this product if application is made at planting.

    Adverse crop response may occur if this product is tank mixed with methylated spray oil (MSO) or crop oil concentrates (COC).

### SORGHUM

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Use Rate Application Directions
Anthracnose (Colletotrichum graminicola) Gray leaf spot (Cercospora sorghi)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development. Use the high rates when conditions are favorable for severe disease pressure, for dense plant canopies, or when susceptible varieties are planted. Contact Agricultural Extension personnel for local economic thresholds and timings for specific diseases in your area. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.
Soilborne Diseases  Damping-off (Rhizoctonia solani, Pythium aphanidermatum)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row	For soilborne/seedling disease control, see directions and rates under SOILBORNE/SEEDLING DISEASE CONTROL section.

- C Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 30.0 fl. oz. of this product (0.5 lb. a.i.) per acre per year for forage.

  DO NOT apply more than 42.0 fl. oz. of this product (0.75 lb. a.i.) per acre per year for grain or stover

  For forage, DO NOT apply a total of more than 0.50 lb. of azoxystrobin per acre per year.

  For grain or stover, DO NOT apply a total of more than 0.75 lb. of azoxystrobin per acre per year.

  For forage, DO NOT make more than 5 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 1 application at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
  For grain and stover, **DO NOT** make more than 7 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 2 applications at the 15.5 fl. oz./A rate per
- year. Minimum Application Interval: 7 days

- Pre-Harvest Interval (PHI): 14 days

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

## SOYBEAN and SOYBEAN, IMMATURE SEED (Edamame)

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Aerial blight (Rhizoctonia solani) Alternaria leaf spot (Alternaria spp.) Anthracnose (Colletotrichum truncatum)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development. Use the high rates when conditions are conducive to severe disease pressure, for dense plant canopies, or when susceptible varieties are planted. Contact Agricultural Extension personnel for local economic thresholds and timings for specific diseases in your area. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates. Use of a crop oil concentrate or non-ionic surfactant with the lower use rate is advised.
(Septoria glycines) Cercospora blight and leaf spot (Cercospora kikuchii) Frogeye leaf spot (Cercospora sojina) Pod and stem blight (Diaporthe phaseolorum) Rust (Phakopsora spp.)	for use on soybean.	Soybean rust: Use this product at 4.0 fl oz/Acre (0.06 lb. a.i./A) when tank mixing with a triazole fungicide registered.
Soilborne Diseases Rhizoctonia solani (Rhizoctonia solani) Southern blight (Sclerotium rolfsii)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row	For soilborne/seedling disease control, see directions and rates under SOILBORNE/SEEDLING DISEASE CONTROL section.

- fic Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.

  DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.

  For forage and hay, do not make more than a 1 application at the 15.5 fl. oz. per acre rate, or more than 0.25 lb. of azoxystrobin per acre.

  DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year, except for soybean forage and hay.

  Minimum Application Interval: 14 days

  Pre-Harvest Interval (PHI): Soybeans (beans) 14 days; Forage and Hay 0 days

  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

## STONE FRUIT

## Apricot, Cherry (sweet and tart), Nectarine, Peach, Plum, Plumcot, Prune

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Alternaria spot and Fruit rot (Alternaria alternata) Anthracnose (Colletotrichum prunicola, C. gloeosporioides) Leaf rust (Tranzschelia discolor) Powdery mildew (Sphaerotheca pannosa, Podosphaera clandestina) Scab (Cladosporium carpophilum) Shot Hole (Wilsonomyces carpophilus)	6.0-15.5 (0.10-0.25)	For scab control, begin applications at petal fall and continue at 7- to 14-day intervals. For peaches only, apply 9.0-15.5 fl oz of this product (0.15 - 0.25 lb. a.i./A).  For brown rot blossom blight, begin applications at early bloom and continue through petal fall. For brown rot on fruit, apply this product to fruit up to the day of harvest.  For all other diseases, begin applications at the onset of disease as a protectant fungicide and continue at 7- to 14-day intervals.  Apply this product by ground, air, or chemigation.
Brown rot blossom blight and Fruit rot (Monilinia fructicola, M. laxa)	12.0-15.5 (0.20-0.25)	

- Specific Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.

  DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.

  DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.

  Minimum Application Interval: 7 days

  Des Housest Interval (PLN): 0 days

  - Pre-Harvest Interval (PHI): 0 days

    DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

## SUGARCANE

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Brown Rust (Puccinia, melanocephala) Orange Rust (Puccinia Aueitnii)	9.0-12.0 (0.15-0.20)	Begin applications prior to rust development and continue throughout the season at 14- to 28- day intervals following resistance management guidelines. Scout fields and begin applications at the earliest sign of rust. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates. For ground applications, apply in sufficient water volume for adequate coverage and canopy penetration.

- Specific Use Restrictions:

  DO NOT apply more than 12.0 fl. oz./A (0.20 lb. a.i./A) per single application.
  DO NOT apply more than 48.0 fl. oz. (0.80 lb. a.i.) of this product per acre per year.
  DO NOT apply a total of more than 0.80 lb. of azoxystrobin per acre per year.
  DO NOT make more than 4 foliar applications of HELMSTAR FUNGICIDE or other Group 11 fungicides per acre per year.
  Minimum Application Interval: 14 days
  Pre-Harvest Interval (PHI): 30 days
  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

## **TOBACCO**

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Blue mold (Peronospora tabacina) Frogeye leaf spot (Cercospora nicotianae)	6.0-12.0 (0.1-0.2)	Begin applications prior to disease development or at first indication that blue mold is in the area. Apply at 7- to 14-day intervals. Use the shorter intervals when conditions are conducive to disease development.
Target spot (Rhizoctonia solani)		Apply by ground, air, or chemigation. For ground applications, use sufficient water volume for adequate coverage and canopy penetration. For aerial applications, apply in volumes of 10-15 GPA.
		<b>NOTE:</b> This product may enhance weather flecking on the leaves of certain tobacco types. This does not affect yield arid quality.
		<b>DO NOT</b> apply more than one application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

- Specific Use Restrictions:

  DO NOT apply more than 12 fl. oz./A (0.20 lb. a.i./A) per single application.
  DO NOT apply more than 30.0 fl. oz. of this product (0.52 lb. a.i.) per acre per year.
  DO NOT apply a total of more than 0.52 lb. of azoxystrobin per acre per year.
  Pre-Harvest Interval (PHI): 21 days
  DO NOT apply more than 2 applications per year at the high rate (12.0 fl oz/A) or 5 applications per year at the low rate (6.0 fl oz/A).
  Minimum Application Interval: 7 days
  DO NOT apply as a curative application.
  DO NOT apply on greenhouse seedlings.
  DO NOT tank mix with endosulfan. Tank mixing HELMSTAR FUNGICIDE with insecticides formulated as emulsifiable concentrates (EC) or containing high amounts of solvents. may cause some crop injury. high amounts of solvents, may cause some crop injury.

## **TOMATO SUBGROUP 8-10A**

Tomato; Tomatillo; Bush Tomato; Cocona; Currant Tomato; Garden Huckleberry; Goji Berry; Groundcherry; Naranjilla; Sunberry; Tree Tomato; Cultivars, Varieties, and/or Hybrids of these

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Anthracnose (Colletotrichum coccodes) Black mold (Alternaria alternata) Buckeye rot (Phytophthora spp.) Early blight (Alternaria solani) Powdery Mildew (Oidiopsis sicula) Septoria Leaf Spot (Septoria lycopersic0 I arget spot (Corynespora cassiicola)	5.0-6.2 (0.08-0.10)	Begin applications prior to disease development and continue throughout the season following the resistance management guidelines. Apply by ground, air, or chemigation.  For late blight, apply this product at 5- to 7- day intervals.  For all other tomato diseases, make applications at 7- to 21-day intervals.  Tank mixtures with dimethoate may cause phytotoxicity.
Late Blight (Phytophthora infestans)	6.2 (0.10)	

- Specific Use Restrictions:

  DO NOT apply more than 6.2 fl. oz./A (0.10 lb. a.i./A) per single application.
  DO NOT apply more than 35.0 fl. oz. of this product (0.60 lb. a.i.) per acre per year.
  DO NOT apply a total of more than 0.60 lb. of azoxystrobin per acre per year.
  DO NOT make more than 7 applications at the 5 fl. oz./A (0.08 lb. a.i./A) rate or 5 applications at the 6.2 fl. oz./A (0.10 lb. a.i./A) rate per year.
  Minimum Application Interval: 5 days
  Pre-Harvest Interval (PHI): 0 days
  DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

  Use of adjuvants may result in severe phytotoxicity. **DO NOT** exceed 0.125% adjuvant (v/v).

  For fresh market tomatoes, **DO NOT** use adjuvants or tank mix this product with other pesticides formulated as emulsifiable concentrates (EC).

## TREE NUTS

Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory, Macadamia, Pecan, Walnut

(See also crop specific Application Directions for ALMONDS and PISTACHIOS)

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Alternaria leaf and fruit spot (Alternaria alternata) Anthracnose (Colletotrichum acutatum, Glomerella cingulata) Blossom Blight (Monilinia laxa, M. fructicola) Eastern filbert blight (Anisogramma anomala) Late blight (Alternaria alternata) Scab (Cladosporium carpophilum) Septoria leaf spot (Septoria pistaciarurn) Shothole (Wilsonomyces carpophilus)	6.0-12.0 (0.10-0.20)	Begin applications prior to disease development and continue at 7- to 21-day intervals throughout the season following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.  For blossom blight, begin applications at early bloom and continue through petal fall.

- Specific Use Restrictions:

  DO NOT apply more than 12.0 fl. oz./A (0.20 lb. a.i./A) per single application.

  DO NOT apply more than 72.0 fl. oz. of this product (1.2 lbs. a.i.) per acre per year.

  DO NOT apply a total of more than 1.2 lbs. of azoxystrobin per acre per year.

  DO NOT make more than 12 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 6 applications at the 12 fl. oz./A (0.20 lb. a.i./A) rate per year.
  - Minimum Application Interval: 7 days
  - Pre-Harvest Interval (PHI): 45 days
  - DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is

TROPICAL FRUIT

Acerola, Atemoya, Avocado, Biriba, Canistel, Cherimoya, Custard Apple, Dragon Fruit, Feijoa, Guava, Ilama, Jaboticaba, Jackfruit, Longan, Loquat, Lychee, Mango, Papaya, Passionfruit, Pawpaw, Persimmon, Pulasan, Rambutan, Sapodilla, Sapote (black, mamey, white), Soursop, Star Apple, Starfruit, Sugar Apple, Spanish Lime, Tamarind

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Anthracnose (Colletotrichum spp.) Cercospora leaf spot (Cercospora spp.) Powdery Mildew (Erysiphe spp.) Rust (Puccinia spp.)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 10- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.
Soilborne Diseases	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013	For soilborne/seedling disease control, see directions and rates under SOILBORNE/SEEDLING DISEASE CONTROL section.
Seedling root rot, Basal stem rot (Rhizoctonia solani)	lb. a.i./1000 row	

- Specific Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.

  DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.

  - DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
  - Minimum Application Interval: 10 days
  - Pre-Harvest Interval (PHI): 0 days
  - DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in Group 11.

## TUBEROUS AND CORM VEGETABLES SUBGROUP IC

Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible), Cassava (edible, bitter and sweet), Chayote (root), Chufa, Dasheen (Taro), Ginger, Leren, Potato, Sweet Potato, Tanier, Turmeric, Yam (bean, true)

Dasneen (Taro), Ginger, Leren, Pol	ato, Sweet Potato,	Tanier, Turmeric, Yam (bean, true)
Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Foliar Diseases Alternaria leaf spot (Alternaria spp., A. alternata) Ascochyta leaf spot (Ascochyta cynarae) Rust (Uromyces betae, Puccinia helianthi) White rust (Albugo tragopogonis) Cercospora leaf spot (Cercospora betae, C. pastinaceae) Powdery mildew (Erysiphe polygoni, Leveillula taurica)	6.0-20.0 (0.10-0.33) 9.0-15.5 (0.15-0.25)	For powdery mildew, make preventive applications at 5- to 7- day intervals. For all other diseases, begin applications prior to disease development and continue throughout the season at 7- to 14-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.  DO NOT make more than one (1) application of this product or other Group 11 fungicides before alternating with a fungicide that has a different mode of action.
Soilborne Diseases Circular spot, Southern blight (Sclerotium rolfsii) Rhizoctonia stem canker, Crown rot (Rhizoctonia solani) Pythium root rot (Pythium aphanidermatum)	0.4-0.8 fl oz/1000 row ft (0.006 - 0.013 lb. a.i./1000 row	For soilborne/seedling disease control, see directions and rates under SOILBORNE/SEEDLING DISEASE CONTROL section.

## Specific Use Restrictions:

- **DO NOT** apply more than 20.0 fl. oz./A (0.33 lb. a.i./A) per single application. **DO NOT** apply more than 120.0 fl. oz. of this product (2.0 lbs. a.i.) per acre per year.
- **DO NOT** apply a total of more than 2.0 lbs. of azoxystrobin per acre per year.
- DO NOT make more than 20 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 6 applications at the 20 fl. oz./A (0.33 lb. a.i./A) rate per year.
- Minimum Application Interval: 5 days
- Pre-Harvest Interval (PHI): 14 days
- DO NOT make more than 1 application of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is not in

Oroup 11.		
Post Harvest Applications[*]:	0.6 fl oz/	In-Line Aqueous Spray Application:
Silver Scurf	ton of tubers	Ensure proper coverage of the tubers. Tubers need to be tumbling as they are treated.
(Helminthosporium solani)	(0.001 lb a.i./ton of	Mix the fungicide solution in an appropriate amount of water for the crop being treated.
Fusarium Dry Rot	tubers)	Use T-jet, CDA, or similar application system.
(Fusarium spp.)	,	
Late Blight		Ensure the spray solution remains in suspension by using agitation.
(Phytophthora infestans)		
Pink Rot		
(Phytophthora erythroseptica)		

### Post-Harvest Restrictions:

- Make only 1 post-harvest application.
- DO NOT apply more than 0.6 fl. oz./ton of tubers (0.001 lb. a.i./A) post-harvest.
- DO NOT use on seed pieces or seed potatoes.
   Maintain constant agitation to keep solution suspended during application.
   [\*Not registered for sale or use in California.].

## WATERCRESS

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Cercospora leaf spot (Cercospora spp.)	6.0-15.5 (0.10-0.25)	Begin applications prior to disease development and continue throughout the season at 7- to 10-day intervals following the resistance management guidelines. Apply by ground, air, or chemigation. An adjuvant may be added at label specified rates.

- Specific Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.
  DO NOT apply more than 90.0 fl. oz. of this product (1.5 lbs. a.i.) per acre per year.
  DO NOT apply a total of more than 1.5 lbs. of azoxystrobin per acre per year.
  DO NOT make more than 15 applications at the 6 fl. oz./A (0.10 lb. a.i./A) rate or 5 applications at the 15.5 fl. oz./A (0.25 lb. a.i./A) rate per year.
  Minimum Application Interval: 7 days
  Pre-Harvest Interval (PHI): 7 days
  DO NOT make more than 2 sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicides before alternation with a fungicide that is post in Group 11 not in Group 11.

## WILD RICE

Target Disease	Use Rate fl oz product/A (lb a.i./A)	Application Directions
Brown Spot (Bipolaris oryzae or Bipolaris sorokiniana)	12.5-15.5 (0.20-0.25)	Apply this product prior to disease development. Apply by ground, air, or chemigation. For aerial application, use volumes of 5-10 GPA. An adjuvant may be added at label specified rates.
Also known as Helminthosporium oryzae and H. sativum		For foliar diseases, apply this product prior to disease development. Apply during tillering, boot, early heading, or at initial sign of disease. Under heavy disease pressure and conditions favorable for disease development, make a second application.
Stem Rot (Nakakatawa sigmoidea)		<b>DO NOT</b> apply more than two sequential applications of HELMSTAR FUNGICIDE or other Group 11 fungicide before alternation with a fungicide that is not in Group 11. <b>DO NOT</b> make more than two applications of Abound or other Group 11 fungicide per season.

- Specific Use Restrictions:

  DO NOT apply more than 15.5 fl. oz./A (0.25 lb. a.i./A) per single application.

  DO NOT apply more than 37.5 fl. oz. of this product (0.70 lb. a.i.) per acre per year.

  DO NOT apply a total of more than 0.70 lb. of azoxystrobin per acre per year.

  DO NOT apply more than 2 applications per year at the high rate (15.5 fl oz/A) or 3 applications per year at the low rate (12.5 fl oz/A).

  Minimum Application Interval: 7 days

  DO NOT treat rice fields also used for aquaculture.

  DO NOT apply if weather conditions are conducive to drift from target area to non-target aquatic habitats.

  DO NOT release flood or irrigation waters for a minimum of 14 days after application.

  Pre-Harvest Interval (PHI): 28 days

## STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage and disposal.

**PESTICIDE STORAGE** Store in original containers only. 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 are 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 of the nearest EPA Regional Office for guidance.

## **CONTAINER HANDLING:**

## [Nonrefillable Containers 5 Gallons or Less]

Nonrefillable 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 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 or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

## [Nonrefillable Containers Larger than 5 Gallons]

Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse or pressure 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 1/4 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure-rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

## [Refillable Containers Larger 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 refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times

## LIMITATION OF WARRANTY AND DAMAGES

Seller warrants to those persons lawfully acquiring title to this product that at the time of first sale of this product by Seller that this product conformed to its chemical description and was reasonably fit for the express purposes stated on the label when used in accordance with Seller's directions. To the extent consistent with applicable law. Buyers and users of this product assume the risk of any use contrary to such directions. TO THE FULLEST EXTENT PERMITTED BY LAW, EXCEPT AS PROVIDED ELSEWHERE IN WRITING CONTAINING AN EXPRESS REFERENCE TO THIS LIMITATION OF WARRANTY AND LIMITATION OF DAMAGES, SELLER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OR GUARANTY, AND SELLER EXPRESSLY DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE AND EXPRESSLY DISCLAIMS ALL OTHER EXPRESS OR IMPLIED WARRANTIES THAT MAY EXIST UNDER APPLICABLE LAW, COURSE OF DEALING OR USAGE OF TRADE. There are no warranties which extend beyond the description on the face hereof. NO AGENT OF MANUFACTURER OR SELLER IS AUTHORIZED TO GRANT ANY WARRANTY IN EXCESS OF THAT GRANTED IN THIS LIMITATION OF WARRANTY AND LIMITATION OF DAMAGES. TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT. TO THE FULLEST EXTENT PERMITTED BY LAW. MANUFACTURER'S AND / OR SELLER'S LIABILITY 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 HANDLING OR USE OF THIS PRODUCT SHALL NOT EXCEED THE PURCHASE PRICE OF THE PRODUCT AS TO WHICH A CLAIM IS MADE. To the fullest extent permitted by law, Buyers and users of this product are responsible for all loss or damage from use or handling of this product, including, but not limited to, incompatibility with other products (unless otherwise expressly provided for in the Directions for Use of this product), weather conditions, cultural practices, moisture conditions or other environmental conditions.

(RV081320)



HELM AGRO US, Inc. 401 E. Jackson St., Suite 1400 Tampa, FL 33602

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[NOTES TO REVIEWER:]
Any text found in brackets "[" "]" is optional on container label.]
[State restrictions will not be found on the container label if the product is not registered in that associated

[Making the product more restrictive then Federally accepted by incorporating the optional statement "Not for use in California." Or any other "Not for use in {X state}", may be undertaken on the container label for any use, weed or crop as determined to be necessary to procure state registration.]

[HELM may distribute or sell this product under labeling bearing any subset of the approved directions for use, provided that in limiting the uses listed on the label, no changes would be necessary in precautionary statements, use classification, or packaging of the product.]

# LABEL HISTORY

FILE NAME	REVISION MARK	COMMENTS
074530-000XX.20191024.EPA New.	(RV102419)	EPA New
074530-000OU.20200617.EPA Review	(RV061720)	EPA Review
074530-000OU.20200807.EPA Review	(RV081220)	EPA Review
074530-000OU.20200813.EPA Review	(RV081320)	EPA Review