

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

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

92488-3

Date of Issuance:

488-3

EPA Reg. Number:

Term of Issuance:

10/11/22

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X Registration
Reregistration
(under FIFRA, as amended)

Unconditional

Name of Pesticide Product:

Esendo Fungicide

Name and Address of Registrant (include ZIP Code):

Catherine M. Holmes AgBione Innovations, Inc. 104 TW Alexander Drive Research Traingle Park, NC 27709

**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 pesticide product is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

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.

Continues page 2

Signature of Approving Official:	Date:
Shaja B. Joyner, Product Manager 20 Fungicide-Herbicide Branch Registration Division 7505P	10/11/22

EPA Form 8570-6

Page 2 of 2 EPA Reg. No. 92488-3 Decision No. 577419

- 2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 92488-3."
- 3. Submit one copy of the 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 FIFRA 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) lists 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.

The record for this product currently contains the following CSF(s):

• Basic CSF dated 05/04/2022

If you have any questions, please contact Jennifer Drobish at 202-566-2642 or at Drobish.jennifer@epa.gov.

Enclosure



Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 201400.00

92488-3





# {Dry Flowable} {Fungicide}

#### **ACTIVE INGREDIENT:**

Pseudomonas chlororaphis strain AFS009*	44.25%
Azoxystrobin: methyl(E)-2-{2-[6-(2-cyanophenoxy) pyrimidin-4- yloxy]phenyl}-3- methoxyacrylate	5.75%
OTHER INGREDIENTS	50%
TOTAL	100.0%

<sup>\*</sup>Contains not less than 1x10^6 cfu/ml of Pseudomonas chlororaphis strain AFS009

# CAUTION

#### SEE INSIDE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

FIRST AID					
IF INHALED:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>				
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>				
IF ON SKIN OR CLOTHING:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 – 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>				
IF SWALLOWED:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>				

#### **HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-222-1222 for emergency medical treatment information. For information on this pesticide product (including general health concerns or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 8:00 AM to 12:00 PM Pacific Standard Time. In the event of a medical emergency, call your poison control center at 1-800-222-1222.

EPA REG. NO.: XXXXXX-X EPA EST. NO.: XXXX-XX Net Weight: 15 lbs. {Batch} {Lot} No. XXX

Note: Curly brackets indicate optional text.

(Optional referral statements when booklets and container labels are used:

See Panel for First Aid Instructions and booklet for complete Precautionary Statements and Directions for Use. See label booklet for complete Precautionary Statements, Directions for Use, and Storage and Disposal.

See label booklet for additional Precautionary Statements Directions for Use, and Storage and Disposal. See label booklet for complete Directions for Use.}

<sup>\*</sup>Equivalent to 0.0575 lbs. of azoxystrobin per pound of product

# PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if inhaled, absorbed through skin, or swallowed. Avoid breathing dust or spray mist. Causes moderate eye irritation. Avoid contact with eyes or clothing. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

The PPE requirements below pertain to both Worker Protection Standard (WPS uses (in general, agricultural-plant uses are covered by the Worker Protection Standard (40 CFR Part 170)) and Non-WPS uses.

Applicators and other handlers must wear:

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

Mixer/loaders and applicators must wear a NIOSH-approved particulate respirator with and N, R, or P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables are available, 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**

# Applicators and other handlers must:

- Wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

**DO NOT** discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. **DO NOT** discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the U. S Environmental Protection Agency.

This product is toxic to freshwater and estuarine/marine fish and aquatic invertebrates. Azoxystrobin can be persistent for several months or longer. **DO NOT** apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

# **GROUNDWATER ADVISORY**

Azoxystrobin and a degradate of azoxystrobin are known to leach through soil to groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

#### SURFACE WATER ADVISORY

This product may impact surface water quality due to run-off of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having a high potential for reaching surface water via run-off for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features, such as ponds, streams and springs, will reduce the potential loading of azoxystrobin and a degradate of azoxystrobin from run-off water and sediment. Run-off of this product also will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

# **DIRECTIONS FOR USE**

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

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

Adverse crop response, decreased disease control, or illegal crop residues may result if the Directions for Use, Restrictions and Precautions are not followed.

#### AGRICULTURAL USES

Use for the prevention and control of diseases in sod farms; turf and ornamentals; fruit and nut trees; and vegetable and herb plants grown for transplanting.

# AGRICULTURAL USE REQUIREMENTS

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

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard under certain circumstances allows workers to enter the treated area if there will be no contact with anything that has been treated.

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) includes:

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber
- Shoes plus socks
- Protective eyewear

# **NON-AGRICULTURAL USES**

Use for the prevention and control of diseases of turf and ornamentals in the following use areas:

- Golf courses
- Lawns and landscape areas around: athletic fields, parks, recreational areas, residential, institutional, public, commercial, and industrial buildings

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. The area being treated must be vacated by unprotected persons.

**DO NOT** treat areas while unprotected humans or domestic animals are present in the treatment areas. Because certain states may require more restrictive reentry intervals, consult your State Department of Agriculture for further information.

**DO NOT** allow entry into the treatment area until the area that was treated with **Esendo™ Fungicide** is dry.

# PRODUCT INFORMATION

**Esendo™ Fungicide** is a broad-spectrum fungicidal product for control or suppression of many important foliar and soil borne plant diseases. **Esendo Fungicide** combines a microbial biopesticide, *Pseudomonas chlororaphis* strain AFS009, with the broad spectrum, systemic fungicide, azoxystrobin.

**Esendo Fungicide** contains active ingredients that improve plant health in addition to disease control. Overall increased plant health may improve crop vigor, yield, and quality, especially under stressful conditions. Improved plant health may help the treated plant tolerate environmental stresses such as drought, heat and cold temperatures, and ozone damage.

The level of disease control is dependent on various environmental factors, host factors, disease pressure, and coverage of the target host.

- Apply **Esendo Fungicide** as a foliar spray alone, in alternating spray programs, or in tank mixes with other registered crop protection products.
- Apply Esendo Fungicide with spray equipment commonly used for making ground, soil, and chemigation applications.
- Adjust spray intervals and dose rates of Esendo Fungicide according to the application instructions depending upon disease pressure. Heavy rainfall or irrigation shortly after application may require retreatment.
- To enhance performance, add a surfactant that is known to be safe to the target crop to the spray tank to improve penetration and coverage of above-ground portions of the plant.
- **Esendo Fungicide** is most effectively used in a preventative disease management program.

#### **USE RESTRICTIONS:**

- **DO NOT** apply more than 87 pounds of **Esendo Fungicide** (5 lbs. azoxystrobin a.i./A) per year to outdoor-grown crops.
- **DO NOT** apply more than 9.5 pounds of **Esendo Fungicide** (0.55 lbs. azoxystrobin a.i./A) per acre per application.
- **DO NOT** feed clippings or graze animals to turf areas that have been treated with this product.
- DO NOT spray if conditions may cause drift outside of the application area. Conditions
  that may cause spray drift: wind speed and direction, thermal inversions, spray droplet
  size and prayer/nozzle pressure combinations. A State extension agent will have
  information on how to avoid spray drift in your specific area.
- **DO NOT** spray if weather conditions promote drift from target area to non-target habitat areas.
- Avoid spray drift of this product. Avoiding spray drift is the responsibility of the applicator
- **DO NOT** spray if weather conditions promote drift from the target area to apple, crab apple, or flowering cherry trees
- Severe injury may result in apple and crabapple trees or fruit, or to flowering cherry trees if product is allowed to drift.
- **DO NOT** spray apple or crabapple trees, or flowering cherry trees with equipment that has previously been used to apply this product as adverse crop response may result.

#### **USE PRECAUTIONS:**

- Extreme care must be used in apple, crabapple or flowering cherry trees because even trace amounts of this product may cause adverse crop response to certain varieties.
- Plant tolerance has been found to be acceptable for all crops on the label, however, it is
  not possible to test all tank-mix combinations under all conditions. It is required to test
  planned combinations on a small portion of the crop to ensure that adverse crop
  response will not occur as a result of application. See also specific information on
  adverse crop response for apple, crabapple, or apple varieties or flowering cherry trees.
- Use of Esendo™ Fungicide may cause adverse crop response on crabapple trees, however it has been found that there are tolerant varieties. Refer to the Ornamental Crabapple Species Varieties Tolerant to Esendo Fungicide (Genus Malus) table in this label. It is not possible to test every crabapple species or variety for tolerance to Esendo Fungicide due to the large number of species and varieties. Prior to full commercial use on plant species and varieties, the user must conduct small-scale testing to ensure plant safety.
- Adverse crop response may occur if this product is mixed with adjuvants containing silicone.
- Esendo Fungicide may show some adverse crop response when mixed with products that are formulated as EC's. These effects may be enhanced if applications are made under cloudy, cool conditions and these conditions remain for several days following application.
- **Esendo Fungicide** has been evaluated on a number of crops under various normal growing conditions. However, testing of all crop varieties in all mixtures and combinations is not feasible. Prior to treating an entire crop area, test a small portion of the crop for phytotoxicity.

# FUNGICIDE RESISTANCE MANAGEMENT AND INTEGRATED PEST MANAGEMENT (PM)

Integrate **Esendo Fungicide** into an overall disease and pest management strategy. Follow practices known to reduce disease development. Consult local agricultural authorities for specific IPM strategies developed for your location and crop(s).

**Esendo Fungicide** combines two active ingredients with different modes of action to support resistance management. *Pseudomonas chlororaphis strain* AFS009 is classified in FRAC group BM02 microbial biopesticide with multiple modes of action and is considered of low risk for resistance development. Azoxystrobin is classified in FRAC group 11. The combination of azoxystrobin with *Pseudomonas chlororaphis strain* AFS009 supports resistance management programs.

**Esendo Fungicide** contains the active ingredient, azoxystrobin, which is classified as FRAC group 11. Users should follow FRAC resistance management guidelines for fungicides containing a Group 11 mode of action fungicide. Fungal populations may naturally contain individuals that are resistant to Group 11 fungicides. Over time, this may result in a gradual, or complete loss of effectiveness to this group of fungicides, especially after repeated use in the same fields. Follow specific use recommendations for each crop. Consult local or State agricultural experts for additional and complementary resistance management practices.

To delay fungicide/bactericide resistance, take one or more of the following sustainable resistance management practices. Follow use instructions on this label and the following resistance management practices:

- Rotate with fungicides that are not assigned to FRAC group 11 (solo or combination products) that are effective against target pathogens.
- Tank mixtures with non-Group 11 fungicides that are effective against target diseases is also encouraged – refer to instructions on this label for tank mixtures. Use at least the minimum labeled dose of each fungicide.
- Utilize integrated pest management practices that includes scouting, pesticide use tracking, and crop rotation as well as host resistance and cultural practices known to contribute to disease management.
- Always use this product in preventative disease management programs.
- Monitor product performance and consult local experts for any additional resistance management and IPM recommendations. Further information on resistance management can be found on the FRAC (Fungicide Resistance Action Committee); website: <a href="https://www.frac.info">www.frac.info</a>, or the North American FRAC committee; website: <a href="https://www.frac.info/contacts/frac-regional/na-frac">www.frac.info/contacts/frac-regional/na-frac</a>
- Limit the number of applications of this product per season for resistance management purposes according to the following table:

If the <i>total</i> planned number of applications per crop is:	1	2	3	4	5	6	7	8	9	10	11	12
Maximum number of applications of this product is:	1	2	2	2	2	3	3	4	4	5	5	6

- In crops where two sequential applications of this product are made, alternate with at least 2 sequential applications of fungicides that do not contain a Group 11 fungicide.
- If more than 12 applications per crop per season are planned, limit the number of Group 11 containing fungicides to ½ (50%) of the total number of applications per season.
- If a Group 11 containing fungicide is applied to seed or soil, DO NOT apply another Group 11 containing fungicide for at least three weeks. Contact your local extension specialist or certified crop advisor for any additional pesticide resistance management and/or IPM recommendations for specific crops and pathogens.
- Contact your pesticide distributor or university extension specialist to report suspected resistance.

# SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Consult the local Cooperative Extension for additional information. Avoiding spray drift is the responsibility of the applicator.

#### **Sensitive Areas**

When applying adjacent to residential areas, bodies of water, habitats known to have threatened or endangered species or non-target crops, drift can be minimized to these areas by making the application when the wind direction is away from these areas.

# **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.

#### **SPRAY DRIFT ADVISORIES**

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

# IMPORTANCE OF DROPLET SIZE

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

# Controlling Droplet Size — Ground Boom

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

#### Controlling Droplet Size — Aircraft

• Adjust Nozzles - Follow nozzle 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

# **GENERAL APPLICATION INSTRUCTIONS**

**Esendo™ Fungicide** can be applied as a foliar spray. **Esendo Fungicide** can also be applied through various types of chemigation application as described in the Chemigation section of this label.

Mix and apply **Esendo Fungicide** in a sufficient volume of water to ensure uniform dispersion of product in the tank. Constant agitation during mixing and application is necessary to maintain uniform suspension.

**Esendo Fungicide** should be used in a protectant disease control program, good coverage of the foliage is needed to ensure performance. Apply in sufficient volume and pressure to ensure canopy penetration and complete coverage of the foliage.

Refer to the Crop-Specific Directions for Use tables of the label for proper application instructions for each crop/disease combination. Repeat applications at the intervals specified in the label and use an appropriate resistance management program. Under light disease pressure, use lower rates and longer intervals. When conditions are conducive to severe disease pressure, use higher rates and shorter intervals. Repeat applications at the intervals specified in the label and use an appropriate Integrated Pest Management program.

**Esendo™ Fungicide** has not been tested with all possible tank mixtures. Before using any tank mix, test the combination on a small portion of the crop to ensure that the tank mixture is not phytotoxic to the crop. It is the responsibility of the user to ensure all components of the tank mixture are registered for use on the crop. When applying a tank mixture, the user must follow the instructions of the product with the most restrictive label.

#### FOLIAR APPLICATION DIRECTIONS

**Ground:** This product can be applied by commonly used ground equipment. Consult spray nozzle and accessory documentation for specific information on proper equipment calibration. Maintain agitation during mixing and application to assure uniform product suspension. Thorough coverage of all foliage and/or soil surfaces is essential for effective disease control or suppression. Use the application rate indicated for the crop in the Crop-Specific Directions for Use tables of this label in sufficient water to achieve thorough coverage. Overall, to achieve good coverage, use proper spray pressure, gallonage per acre, nozzles, nozzle spacing and ground speed.

**Chemigation:** This product can be applied through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, big gun or hand move irrigation systems. Application through drip-type and micro-jet irrigation systems is permitted. Refer to the Chemigation section of this label for additional directions and precautions. Maintain agitation during mixing and application to ensure uniform product suspension. Use the appropriate application rate as indicated for the crop in the Application Rates tables of this label. Use sufficient water to achieve thorough coverage.

# **General Foliar Application Use Restrictions:**

- DO NOT apply when wind speed favors drift beyond the area intended for treatment.
- Remove scale, pesticide residues and other foreign matter from the chemical supply tank and entire injector system. Flush with clean water. Failure to provide a clean tank that is void of scale or residues may cause **Esendo Fungicide** to lose effectiveness or strength.
- DO NOT combine Esendo Fungicide with pesticides, surfactants or fertilizers for application through chemigation equipment unless prior experience has shown the combination to be physically compatible, effective and non-injurious under conditions of use. Esendo Fungicide has not been fully evaluated for compatibility with all agricultural products.
- Conduct a spray compatibility test if tank mixing with other pesticides, surfactants or fertilizers is planned.

#### CHEMIGATION APPLICATION DIRECTIONS

# **Types of Irrigation Systems**

Apply this product only through the following types of equipment:

- Sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, big gun or hand move.
- Drip-type and micro-iet irrigation systems are also allowed.

**DO NOT** apply this product through any other type of irrigation system.

Maintain agitation during mixing and application to ensure uniform product suspension. Use the application rate indicated in Crop-Specific Directions for Use tables of this label. Use sufficient water to achieve thorough coverage.

#### **Uniform Water Distribution and System Calibration**

The chemigation system must provide uniform distribution of treated water. Crop injury or lack of effectiveness can result from non-uniform distribution of treated water. The chemigation system must be calibrated to uniformly apply the rates specified in the crop-specific label sections. If you have questions about calibration, you should contact local State Extension Service specialists, equipment manufacturers or other experts.

#### **Chemigation Monitoring**

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person shall shut the system down and make necessary adjustments should the need arise.

### **Required System Safety Devices**

- The system must contain a functional check valve, a vacuum relief valve and a low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 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.
- 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.

# **Using Water from Public Water Systems**

**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.

- 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.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone (RPZ) backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ the water from the public waste system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 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.
- 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.

- 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.
- **DO NOT** apply when windspeed favors drift beyond the area intended for treatment.

# Injection for Chemigation

Inject the specified dosage of **Esendo™ Fungicide** into the irrigation main water stream: (1) through a constant flow meter device; (2) into the center of the main line flow via a pivot tube or equivalent; (3) at a point ahead of at least one right-angle turn in the mainstream flow such that thorough mixing with the irrigation water is ensured.

# Center Pivot, Lateral Move, End Tow, Big Gun and Traveler Irrigation Equipment (Use only with electric or oil hydraulic drive systems that provide a uniform water distribution)

- Determine the size of area to be treated.
- Determine the time required to apply no more than ¼ inch of water (6,750 gallons water per acre) over the area to be treated when the system and injection equipment are operated at normal pressures specified by the equipment manufacturer. Run system at 80 to 95% of manufacturer's rated capacity.
- Using only water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of **Esendo Fungicide** required to treat area.
- Add required amount of **Esendo Fungicide** and sufficient water to meet the injection time requirements of the solution tank.
- Maintain constant solution tank agitation during the injection period.
- Stop injection equipment after treatment is completed. Continue to operate the system until **Esendo Fungicide** solution has cleared the sprinkler head.

# Solid Set, Side (Wheel) Roll and Hand Move Irrigation Equipment

- Determined acreage covered by sprinkler.
- Fill injector solution tank with water and adjust flow rate to use contents over a 10-to-30-minute interval.
- Determine the amount of Esendo Fungicide required to treat area.
- Add the required amount of Esendo Fungicide into the same quantity of water used to calibrate the injection equipment.
- Maintain constant solution tank agitation during the injection period.
- Operate system at normal pressures specified by the manufacturer of the injection equipment and used for the time interval established during calibration.
- Inject **Esendo™ Fungicide** at the end of the irrigation cycle or as a separate application to maximize foliar fungicide retention.
- Stop injection equipment after treatment is completed. Continue to operate the system until **Esendo Fungicide** solution has cleared the last sprinkler head.

# Flushing and Cleaning the Chemical Injection System

At the end of the application period, allow time for all lines to flush the pesticide through all nozzles or emitters before turning off irrigation water. To ensure the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

To apply pesticides accurately, the chemical injection system must be kept clean and free of chemical or fertilizer residues and sediments. Refer to your owner's manual or ask your equipment supplier for the cleaning procedure for your injection system.

### COMPATIBILITY TESTING AND TANK MIX PARTNERS

# **Compatibility and Order of Mixing**

**Esendo Fungicide** is physically and biologically compatible with many commonly used pesticides, fertilizers, adjuvants, and surfactants but has not been fully evaluated with all products. To ensure compatibility of tank-mix combinations evaluate them prior to use as follows: Using a suitable container, add proportional amounts of product to water. Add wettable powders first, followed by water dispersible granules, then by liquid flowables and lastly, emulsifiable concentrates. Mix thoroughly and let stand for at least five minutes. If the combination stays mixed or can be remixed, it is physically compatible. Test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response does not occur as a result of application.

**DO NOT** combine **Esendo Fungicide** with pesticides, surfactants or fertilizers where there has been no previous experience or use demonstrating they are physically compatible, effective, and non-injurious under your specific use conditions.

**Esendo Fungicide** may be tank-mixed with other registered pesticides to enhance plant disease control or suppression. This product cannot be mixed with any product with a prohibition against such mixing. When tank-mixing **Esendo Fungicide** with other registered pesticides, always read and follow all use directions, restrictions and precautions of both **Esendo Fungicide** and the tank-mix partner(s). Use of the resulting tank mix must be in accordance with the more restrictive label limitations and precautions. **DO NOT** exceed label dosage rates.

# **Product Mixing Instructions**

Be sure to clean all spray equipment thoroughly prior to mixing. Only prepare the amount of spray mixture needed for the application. After the application is finished, thoroughly rinse the tank with clean water. Dispose of the rinsate by applying to an area that has already been treated.

# **ESENDO™ FUNGICIDE APPLICATIONS**

- 1. Fill the spray tank with approximately ½ the total amount of clean water to be used and begin agitation.
- 2. Add the specified amount of **Esendo Fungicide** and allow time for the product to mix.
- 3. Add other appropriately labeled agricultural products if tank mixing.
- 4. If desired or required, add an adjuvant.
- 5. While maintaining agitation, finish filling the tank to the volume necessary to obtain the proper spray concentration.
- 6. **DO NOT** leave the mixture in the tank overnight or for extended periods of time.

It is critical that the spray solution be agitated during mixing and application to assure a uniform suspension. DO NOT allow spray mixture to stand overnight or for prolonged periods of time. Maintain a spray solution pH between 4.5 and 8.5.

# **RESTRICTIONS AND LIMITATIONS**

- Crop Rotation Restriction None
- Re-entry Interval (REI) 4 hours

# **Crop-Specific Directions for Use**

FRUIT AND NUTS: NON-BEARING

**Esendo Fungicide** may be applied to non-bearing fruit and nut plants grown for transplant. **DO NOT** harvest within 12 months of application. **Note:** plants are considered non-bearing if they do not produce fruit or nuts that is able to be harvested for one year after application.

# FRUIT AND NUTS: BEARING

**Crop-Specific Directions for Use** 

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Almonds	Foliar Diseases Alternaria leaf and fruit spot{*} (Alternaria spp.)  Anthracnose{*} (Colletotrichum spp.)  Botryosphaeria blight{*} (Botryosphaeria spp.)  Late blight{*} (Alternaria spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Begin applications prior to infection and continue on a 7-10 day interval as needed.  For applications made by air: apply at growth stages prior to and including 5 weeks after petal fall only.  For aerial applications apply at a minimum of 15 gallons of water per acre.
	Leaf blight{*} (Semiatosporium spp.)  Leaf rust{*} (Tranzschelia spp.)  Scab{*} (Cladosporium spp.)  Shothole{*} (Wilsonomyces spp.)  Brown Rot Blossom Blight{*} (Monilinia spp.)	Field Applications 1.4 – 4 lbs./A (0.08 – 0.23)	Make initial applications at early bloom and continue

# Restrictions

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
- **3. Maximum Number of Applications per Year: DO NOT** apply more than 5 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 7 days
- 5. Pre-harvest Interval (PHI): 28 day

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Berries and small fruit subgroups  Bushberry subgroup Blueberry (highbush and low bush) Currant Elderberry Gooseberry Huckleberry  Caneberry subgroup Blackberry Loganberry Raspberry Wild raspberry Wild raspberry Subgroup (except strawberry) Bearberry Bilberry Cloudberry Lingonberry Muntries Partridgeberry  Small fruit vine climbing subgroup (except fuzzy kiwifruit and grape) Amur river grape Gooseberry Kiwifruit Maypop Schisandra berry	Foliar Diseases Alternaria leaf and fruit rot{*} (Alternaria spp.)  Anthracnose{*} (Colletotrichum spp.)  Botryosphaeria canker{*} (Botryosphaeria spp.)  Botrytis Blight{*} (Botrytis spp.)  Colletotrichum fruit rot{*} (Colletotrichum spp.)  Downy mildew (suppression){*} (Peronospora spp.)  Leaf spot{*} (Septoria spp.)  Mummy berry {*} (Monilinia spp.)  Phomopsis stem canker{*} (Phomopsis spp.)  Powdery mildew{*} (Sphaerotheca spp. Microsphaera spp. Podosphaera spp.)  Rosette or double blossom of blackberries{*} (Cercospora)  Spur blight{*} (Didymella spp.)  Rust{*} (Pucciniastrum spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Alternaria fruit rot, Anthracnose, Botrytis blight and Powdery mildew: begin applications prior to infection and continue on a 7-10 day interval as needed.  Mummy berry: begin applications at bud break and continue on a 7-10 day interval as needed.

#### Restrictions

- Bushberry Subgroup:
  - 1. **Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
  - 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 13 lbs. product/A per year (equivalent to 0.75 lbs. azoxystrobin/A per year)
  - **3. Maximum Number of Applications per Year: DO NOT** make more than 3 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
  - 4. Minimum Retreatment Interval: 7 days
  - 5. Pre-harvest Interval (PHI): 0 day
- Caneberry Subgroup:
  - **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
  - 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
  - **3. Maximum Number of Applications per Year: DO NOT** make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
  - 4. Minimum Retreatment Interval: 7 days
  - 5. Pre-harvest Interval (PHI): 0 day

Crop	Target Diseases	Product Use Rate	Application
		(lbs. azoxystrobin/A)	Ilistructions
	Target Diseases  Foliar Diseases Albinism{*} (Sphaceloma, Elsinoe spp.)  Alternaria leaf and fruit spot{*} (Alternaria spp.)  Anthracnose{*} (Colletotrichum spp.)  Botryosphaeria canker{*} (Botryosphaeria spp.)  Gray mold{*} (Botrytis spp.)  Cercospora leaf spot{*} (Cercospora spp.)  Diplodia stem-end rot{*} (Diplodia spp.)  Greasy spot{*} (Mycosphaerella spp.)  Melanose{*} (Diaporthe spp.)  Leaf spot{*} (Septoria, Sphaerulina spp.)  Penicillium decays, Green mold, Whisker mold, suppression of Blue mold{*} (Penicillium spp.)  Phomopsis stem- end rot{*} (Phomopsis spp.)  Post bloom fruit drop{*} (Colletotrichum spp.)	per Application	Application Instructions  Begin applications prior to infection and continue on a 7-14 day interval as needed.
	Powdery mildew{*} (Erysiphe spp.)  Scab{*} (Elsinoe spp.)		
	Sour rot{*} (Geotrichum spp.)		

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
- 3. Maximum Number of Applications per Year: DO NOT make more than 4 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 10 days
- 5. Pre-harvest Interval (PHI): 0 day

<sup>{\*}</sup>Not registered for use in California

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Grapes	Foliar Diseases Black rot{*} (Guignardia spp.)  Downy mildew{*} (Plasmopora spp.)  Gray mold{*} (Botrytis spp.)  Phomopsis cane blight{*} (Phomopsis spp.)  Powdery mildew{*} (Uncinula spp.)  Sour rot complex (Disease complex) (suppression){*}	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Begin applications prior to infection and continue on a 10-14 day interval as needed.  ATTENTION: Esendo™ Fungicide causes adverse crop response to certain apple varieties. DO NOT spray this product where spray may reach apple trees. See additional information in this label for other adverse crop response information.  AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 20 lbs. product/A per year (equivalent to 1.15 lbs. azoxystrobin/A per year)
- **3. Maximum Number of Applications per Year: DO NOT** make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 10 days
- 5. Pre-harvest Interval (PHI): 14 day

<sup>{\*}</sup>Not registered for use in California

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Pecans	Foliar Diseases Anthracnose{*} (Glomerella spp.) Scab{*} (Cladosporium spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Begin applications prior to infection and continue on a 7-10 day interval as needed.

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 20 lbs. product/A per year (equivalent to 1.15 lbs. azoxystrobin/A per year)
- **3. Maximum Number of Applications per Year: DO NOT** make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 7 days
- 5. Pre-harvest Interval (PHI): 45 day

<sup>{\*}</sup>Not registered for use in California

**Crop-Specific Directions (continued)** 

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Pistachios	Foliar Diseases Alternaria Late Blight{*} (Alternaria spp.)  Botryosphaeria panicle and shoot blight{*} (Botryosphaeria spp.)  Botrytis blossom and shoot blight{*} (Botrytis spp.)  Septoria leaf spot{*} (Septoria spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Begin applications prior to infection and continue on a 7-10 day interval as needed.

#### Restrictions

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
- **3. Maximum Number of Applications per Year: DO NOT** make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 7 days
- 5. Pre-harvest Interval (PHI): 7 day

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Apricot Cherry (sweet and tart) Nectarine Peach Plum (all varieties) Plumcot Prune	Foliar Diseases Alternaria spot/Fruit rot{*} (Alternaria spp.)  Anthracnose{*} (Colletotricum spp.)  Botrytis gray mold{*} (Botrytis spp.)  Cherry leaf spot{*} (Blumeriella spp.)  Leaf rust{*} (Tranzschella spp.)  Powdery mildew{*} (Sphaerotheca spp., Podosphaera spp.)  Rusty spot{*} (Podosphaera spp.)  Scab{*} (Cladosporium spp.)  Shot hole{*} (Wilsonomyces spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Begin applications prior to infection and continue on a 7-10 day interval as needed.
	Brown rot/blossom blight/fruit rot{*} (Monilinia spp.)	Field Applications 4.0 lbs./A (0.23)	Applications for blossom blight: begin applications at early bloom and continue through petal fall.  Applications for brown rot on fruit may be made up to the day of harvest.

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
- 3. Maximum Number of Applications per Year: DO NOT make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 7 days
- 5. Pre-harvest Interval (PHI): 0 day

<sup>\*</sup>Not registered for use in California

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Strawberry	Foliar Diseases Alternaria fruit rot/black leaf spot{*} (Alternaria spp.)  Anthracnose{*} (Colletotrichum spp.)  Botrytis gray mold{*} (Botrytis spp.)  Common leaf spot{*} (Mycosphaerella spp.)  Downy mildew{*} (Peronospora spp.)  Pestalotiopsis leaf spot, root and crown rot{*} (Neopestalotiopsis spp.)  Powdery mildew{*} (Sphaerotheca, Erysiphe spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse and Dip Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Begin applications prior to infection and continue on a 7-10 day schedule as needed

#### Restrictions

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 17 lbs. product/A per year (equivalent to 1 lb. azoxystrobin/A per year)
- 3. Maximum Number of Applications per Year: DO NOT make more than 4 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 7 days
- 5. Pre-harvest Interval (PHI): 0 day

Сгор	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Tree Nuts**  Beechnut Butternut Cashew Chestnut Chinquapin Filbert (Hazelnut) Hickory Macademia Walnut  (see separate Crop-Specific Directions for Use tables for Almond, Pecan, Pistachio)	Foliar Diseases Alternaria leaf and fruit spot{*} (Alternaria spp.)  Anthracnose{*} (Colletotrichum spp.)  Botryosphaeria blight{*} (Botryosphaeria spp.)  Botrytis gray mold{*} (Botrytis spp.)  Eastern filbert blight{*} (Anisogramma spp.)  Late blight{*} (Alternaria spp.)  Scab{*} (Elsinoe spp.)  Septoria leaf spot{*} (Septoria spp.)  Shot hole{*} (Wilsonomyces spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Begin applications prior to infection and continue on a 7-10 day interval as needed.
	Brown rot/blossom blight/fruit rot{*} ( <i>Monilinia</i> spp.)	Field Applications 4.0 lbs./A (0.23)	Applications for blossom blight: begin applications at early bloom and continue through petal fall.  Applications for brown rot on fruit may be made up to the day of harvest.

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 20 lbs. product/A per year (equivalent to 1.15 lb. azoxystrobin/A per year)
- **3. Maximum Number of Applications per Year: DO NOT** make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 7 days
- 5. Pre-harvest Interval (PHI): 45 day

# **VEGETABLE AND HERB PLANTS**

**Crop-Specific Directions for Use (continued)** 

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Asparagus	Foliar Diseases Stemphylium Purple Spot{*} (Stemphylium vesicarium)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Begin applications prior to infection and continue on a 7-10 day interval as needed.

#### Restrictions

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
- **3. Maximum Number of Applications per Year: DO NOT** make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 7 days
- 5. Pre-harvest Interval (PHI): 100 days

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Brassica (cole) leafy vegetables	Foliar Diseases Alternaria leaf spot{*} (Alternaria spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)	Begin applications prior to infection and continue on a 7-10 day interval as needed.
Head and Stem Broccoli Brussel sprouts Cabbage Cauliflower Cavalo broccoli Kohlrabi  Leafy Greens Broccoli raab Chinese cabbage (bok choy) Collards Kale Mizuna Mustard greens Mustard spinach Rape greens	Alternaria black spot{*} (Alternaria spp.)  Anthracnose{*} (Colletotrichum spp.)  Bacterial leaf spot and bacterial blight{*} (Pseudomonas spp.) (suppression)  Black rot{*} (Xanthomonas spp.) (suppression)  Cercospora leaf spot{*} (Cercospora spp.)  Pin rot{*} (Alternaria spp.)  Downy mildew{*} (Peronospora spp.)  Powdery mildew{*} (Erysiphe spp.)  Southern blight (suppression){*} (Sclerotium spp.)  White rust{*} (Albugo spp.)  Xanthomonas leaf spot {*} (Xanthomonas spp.) (suppression) (suppression)	Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	

# Restrictions

- Head and Stem Subgroup:
  - **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
  - 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
  - **3. Maximum Number of Applications per Year: DO NOT** make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
  - 4. Minimum Retreatment Interval: 7 days
  - 5. Pre-harvest Interval (PHI): 0 day
- Leafy Greens Subgroup:
  - **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
  - 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 13 lbs. product/A per year (equivalent to 0.75 lbs. azoxystrobin/A per year)
  - **3. Maximum Number of Applications per Year: DO NOT** make more than 3 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
  - 4. Minimum Retreatment Interval: 7 days
  - 5. Pre-harvest Interval (PHI): 0 day

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Bulb vegetables  Chives Daylily Elegans hosta Fritillaria (bulb and leaves) Garlic Kurrat Leek Onion (bulb and green) Shallot (bulb and leaves)	Foliar Diseases Botrytis neck rot{*} (Botrytis spp.)  Botrytis leaf blight{*} (Botrytis spp.)  Cladosporium leaf blotch{*} (Cladosporium spp.)  Downy mildew{*} (Peronospora spp.)  Powdery mildew{*} (Erysiphe spp.)  Purple blotch{*} (Alternaria spp.)  Rust{*} (Puccinia spp.)  Stemphylium blight{*} (Stemphylium spp.)  White rot{*} (Sclerotium spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Make preventative applications on a 5-7 day interval for downy mildew. For all other diseases make initial application before disease develops and continue throughout plant production at 7-14 day intervals as needed.  Precaution: Adverse crop response may result with silicone-based adjuvants. Before using mixtures with silicone adjuvants conduct a crop safety test.

# Restrictions

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
- 3. Maximum Number of Applications per Year: DO NOT make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 5 days
- 5. Pre-harvest Interval (PHI): 0 day

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Celery	Foliar Diseases Early blight(*) (Cercospora spp.)  Late blight(*) (Septoria spp.)  Additional diseases: See Brassica (Cole) and Leafy Vegetables for additional foliar diseases	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Begin applications prior to infection and continue on a 7-10 day interval as needed.

# Restrictions

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 l bs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
- **3. Maximum Number of Applications per Year: DO NOT** make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 7 days
- 5. Pre-harvest Interval (PHI): 0 day

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Cucurbit vegetables Cucumbers Squash (all types) Cantaloupe Muskmelon Pumpkin Watermelon	Foliar Diseases Alternaria leaf spot, rot{*} (Alternaria spp.)  Anthracnose{*} Colletotrichum spp.)  Belly rot{*} (Rhizoctonia spp.)  Downy mildew (suppression){*} (Pseudoperonospora spp.)  Gray mold{*} (Botrytis spp.)  Gummy stem blight{*} (Didymella spp.)  Early blight and leaf spots{*} (Alternaria, Cercospora spp.)  Powdery mildew{*} (suppression) (Erysiphe, Sphaerotheca spp.)  Target spot{*} (Corynespora spp.)  Ulocladium Leaf Spot{*}	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Downy and Powdery mildew: Make preventative applications at 5-7 day intervals.  Belly rot: Make the initial application at the 1-3 crop leaf stage. Follow with a second application just before vine tip-over or 10-14 days after the first application, whichever comes first.  For all other listed diseases: Make initial prior to infection. Continue applications at 7-10 day intervals.  DO NOT tank mix Esendo Fungicide with crop oil concentrates, methylated spray oil (MSO) or silicone adjuvants, as adverse crop response may occur.  DO NOT tank mix Esendo Fungicide with Matlation, Methomyl, potassium salts of fatty acids or 2, 6-dichloro-4- nitroaniline.
	( <i>Ulocladium</i> spp.)		

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
- **3. Maximum Number of Applications per Year: DO NOT** make more than 4 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 5 days
- 5. Pre-harvest Interval (PHI): Pre-harvest interval (PHI): 1 day

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Fruiting vegetables  Eggplant Groundcherry Pepino Pepper (all varieties) Tomatillo Tomato	Foliar Diseases Anthracnose{*} (Colletotrichum spp.)  Bacterial speck{*} (Pseudomonas spp.) (suppression)  Brown spot and Black pit{*} (Alternaria spp. Buckeye rot{*} (Phytophthora spp.)  Cercospora leaf spot{*} (Cercospora spp.)  Downy mildew{*} (Peronospora spp.)  Early blight{*} (Alternaria spp.)  Gray mold{*} (Botrytis spp.)  Powdery mildew{*} (Spaerotheca, Leveillula spp.)  Septoria leaf spot{*} (Septoria spp.)  Southern blight{*} (Sclerotium spp.)  Target spot{*} (Corynespora spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Begin applications prior to infection and continue on a 7-10 day interval as needed.  Powdery and Downy mildew – apply on a 7-10 day interval.  Precautions for Tomato: Under certain conditions (e.g. high temperatures)  Esendo™ Fungicide mixed with high rates of silicone-containing or oil-containing (petroleum or crop) adjuvants or additives may cause adverse crop response. Contact an AgBiome representative for additional information on adjuvants or additives.  Tomatoes, all types  DO NOT apply until 35 days after seeding or 21 days after transplanting plugs into larger pots or containers.  DO NOT exceed 0.125%(v/v) of adjuvant.  DO NOT use adjuvants or tank mix Esendo Fungicide with any EC (emulsifiable concentrate) formulations.

#### Restrictions

- Tomato
  - **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
  - 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 10 lbs. product/A per year (equivalent to 0.6 lbs. azoxystrobin/A per year)
  - **3. Maximum Number of Applications per Year: DO NOT** make more than 2 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
  - 4. Minimum Retreatment Interval: 7 days
  - 5. Pre-harvest Interval (PHI): 0 day
- Peppers and other fruiting vegetables (Except Cucurbits):
  - **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
  - 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 17 lbs. product/A per year (equivalent to 1 lb. azoxystrobin/A per year)
  - 3. Maximum Number of Applications per Year: DO NOT make more than 4 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
  - 4. Minimum Retreatment Interval: 7 days
  - 5. Pre-harvest Interval (PHI): 0 day

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Herbs and Spices (Except Basil)	Foliar Diseases Alternaria leaf spot{*} (Alternaria spp.)  Anthracnose{*} (Colletotrichum spp.)  Corenespora blight{*} (Corenespora spp.)  Dill blight{*} (Cercosporidium spp.)  Downy mildew{*} (Except Basil) (Plasmopara, Peronospora spp.)  Gray mold{*} (Botrytis spp.)  Phoma blight{*} (Passalara spp.)  Powdery mildew{*} (Erysiphae, Sphaerotheca spp.)	Field Applications 1.4 - 4.0 lbs./A (0.08 - 0.23)  Greenhouse Applications 1.4 - 4.0 lbs./100 gallons water (0.08 - 0.23)	Begin applications prior to infection and continue on a 7-10 day interval as needed.  Apply at a minimum of 30 gallons of water/acre.

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
- **3. Maximum Number of Applications per Year: DO NOT** make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 7 days
- 5. Pre-harvest Interval (PHI): 0 day

<sup>{\*}</sup>Not registered for use in California

**Crop-Specific Directions for Use (continued)** 

Crop	Target Diseases	Product Use Rate per Application (lbs.azoxystrobin/A)	Application Instructions
Leafy vegetables (except Brassica) Arugula Endive Fennel Lettuce (head and leaf) Parsley Radicchio Rhubarb Spinach Swiss chard	Foliar Diseases Alternaria leaf spot{*} (Alternaria spp.)  Anthracnose{*} (Colletotrichum spp.)  Botrytis gray mold{*} (Botrytis spp.)  Cercospora leaf spot{*} (Cercospora spp.)  Downy mildew {*} (Bremia lactucae, Peronospora spp.)  Late blight{*} (Septoria spp.)  Powdery mildew {*} (Erysiphe spp.)  Sclerotinia head and leaf drop/Pink rot{*} (Sclerotinia spp.)  Septoria leaf spot{*} (Septoria spp.)  White rust{*} (Albugo spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Powdery and Downy Mildew: Begin applications prior to infection and continue on a 5-7 day interval as needed.  Alternaria leaf spot and Anthracnose: Begin applications prior to infection and continue on a 7-10 day interval as needed.  Sclerotinia head and leaf drop and Pink rot: Apply before emergence as a banded spray 4-6 inches wide. Apply again at thinning or cultivation and continue on a 7-10 day interval as needed.  Precautions: Applications of Esendo™ Fungicide to the foliage of leafy vegetables has contributed to adverse crop response under certain conditions. Proceed with caution with regard to tank mixes and adjuvants when treating all leafy vegetable with Esendo™ Fungicide. Conduct a crop safety test prior to the use of this product and when tank-mixed with other products prior to full scale production.  DO NOT tank mix Esende Fungicide with Aluminum tris (O-ethyl phosphonate)

Сгор	Target Diseases	Product Use Rate per Application (lbs.azoxystrobin/A)	Application Instructions
			Lambda-cyhalothrin or other products that may increase penetration of this product into leaf surfaces including, but not limited to, silicone wetters.

#### Restrictions

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 26 lbs. product/A per year (equivalent to 1.5 lbs. azoxystrobin/A per year)
- 3. Maximum Number of Applications per Year: DO NOT make more than 6 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 5 days
- 5. Pre-harvest Interval (PHI): 0 day

{\*}Not registered for use in California

**Crop-Specific Directions for Use (continued)** 

Crop	Target Diseases	Product Use Rate per Application (lbs. azoxystrobin/A)	Application Instructions
Mint (fresh)	Foliar Diseases Powdery mildew{*} (Suppression only) (Erysiphe spp.)  Rust{*} (Puccinia spp.)	Field Applications 1.4 – 4.0 lbs./A (0.08 – 0.23)  Greenhouse Applications 1.4 – 4.0 lbs./100 gallons water (0.08 – 0.23)	Begin applications prior to infection and continue on a 7-10 day interval as needed.

#### Restrictions

- **1. Maximum Single Application Rate: DO NOT** apply more than 4.0 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) in a single application.
- 2. Maximum Yearly Use Rate: DO NOT apply a total of more than 13 lbs. product/A per year (equivalent to 0.75 lbs. azoxystrobin/A per year)
- **3. Maximum Number of Applications per Year: DO NOT** make more than 3 applications at the highest rate 4 lbs. product/A (equivalent to 0.23 lbs. azoxystrobin/A) per year.
- 4. Minimum Retreatment Interval: 7 days
- 5. Pre-harvest Interval (PHI): 0 day

{\*}Not registered for use in California

#### TURF AND TURF PRODUCTION APPLICATIONS:

Apply **Esendo™ Fungicide** on all warm and cool season turfgrass species including Bentgrass, Bermudagrass, Bluegrass, Centipedegrass, Fescue, Ryegrass, Saint Augustinegrass, Zoysia grass, Seashore Paspalum and *Poa annua*. **Esendo Fungicide** may be applied on the following turf: golf courses, lawns and landscape areas around athletic fields, parks, recreational areas, residential, institutional, public, commercial and industrial buildings, sod farms, seed production grasses and all ornamental grass species.

#### **Integrated Pest Management (IPM):**

Implementing effective turf management practices that provide for healthy and vigorous turf is the goal and the basis of an effective IPM program. Using techniques, such as cultural practices (choosing a turf variety suited for region/climate; proper nutrient management; cutting height, thatch management, and moisture/water management) along with an effective fungicide spray program can result in promoting good plant health and vigor subsequently reducing the plant's susceptibility to disease. Proper identification and early detection of disease are also keys in best management practices. Diagnostic kits are available commercially or consult services at your local extension office to help in identifying disease for early treatment. **Esendo Fungicide** must be included in an overall integrated disease management plan.

#### **Resistance Management:**

**DO NOT** make more than two sequential applications of **Esendo Fungicide** for the control of gray leaf spot or *Pythium* spp. For all other diseases when Gray Leaf Spot and *Pythium* spp. are not present, **DO NOT** make more than three sequential applications of **Esendo Fungicide**.

#### **Application Directions:**

Apply **Esendo Fungicide** before signs of disease are present. Make application, using specified amount of **Esendo Fungicide** in 2 to 4 gallons of water per 1,000 ft.<sup>2</sup> (87 to 174 gallons/A). Refer to use tables for specific application intervals. Use 1.5 ounces of **Esendo Fungicide** per 1 to 2 gallons of water for spot treatments.

#### **Use Restriction for Turfgrass:**

**DO NOT** make aerial applications.

### **Use Restriction for Sod:**

Aerial and / or chemigation application to sod is prohibited.

#### **Soil Injection Application**

For the control of ectotrophic root diseases (including summer patch and take-all patch), **Esendo Fungicide** may be applied through liquid fertilizer injector systems specifically listed for use with pesticides. Make applications at 1.5 to 3.4 ounces of product in 30 to 150 gallons of water per 1,000 ft<sup>2</sup>. For optimum control, injection hole spacing must be 1-inch x 1-inch, with a one-inch injection depth for optimum results. **DO NOT** inject at depths greater than 2 inches. Make applications according to typical disease control broadcast spray program timings.

#### Establishing Turfgrass from Seed or in Overseeding of Dormant Turfgrass:

Applications of **Esendo Fungicide** may be used for control of diseases in turfgrass established from seed or in overseeding of dormant turfgrass. This product may be used before or after seeding or at seedling germination or emergence in the following turfgrasses: bentgrass, bluegrass (including *Poa trivialis*), fescue, and ryegrass. For optimum results, make application during seeding.

## **TURF-SPECIFIC DIRECTIONS**

TURF-SPECIFIC DIRECTIONS			
Target Diseases{*}	Product Use Rate per Application	Application Interval (Days)	Application Instructions**
Anthracnose{*} (Colletotrichum spp.)	1.5 – 3.4 oz/1000 sq. ft.	14-21	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Bermudagrass Decline{*} (Gaeumannomyces graminis)	3.4 oz/1000 sq. ft.	28	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Brown Patch{*} ( <i>Rhizoctonia</i> spp.) Brown Ring Patch ( <i>Waitea</i> <i>circinata</i> )	1.5 – 3.4 oz/1000 sq. ft.	14-21	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Cool Weather Brown Patch Yellow Patch{*} (Rhizoctonia cerealis)	1.5 – 3.4 oz/1000 sq. ft.	14-21	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Fairy Ring{*} (Lycoperdon spp., Agrocybe pediades, Arachnion spp., Bovista spp., and Vascellum spp.)	3.4 oz/1000 sq. ft.	28	Apply as a preventative application or upon immediate signs of fairy reign symptoms. Include a wetting agent at the specified rate. Follow application immediately with ½ - ¼ inches of irrigation. Symptoms may take 14-21 days to disappear. If necessary, repeat application after 28 days. Reseeding may be necessary where turf is thin or severe damage has occurred.
Fusarium Patch{*} (Microdochium nivale)	1.5 – 3.4 oz/1000 sq. ft.	14-28	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Gray Leaf Spot{*} (Pyricularia grisea)	1.5 – 3.4 oz/1000 sq. ft.	14-28	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.

Gray Snow Mold Typhula Blight{*} (Typhula incamata, T. ishikariensis)	3.4 oz/1000 sq. ft.	10-28	Apply two applications 10-28 days apart just before snow cover in late fall. Under heavy disease pressure, tank mix with another snow mold fungicide may improve control.
Leaf and Sheath Spot{*} (Rhizoctonia zeae)	3.4 oz/1000 sq. ft.	10-28	Apply as a preventative application. Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Leaf Rust, Stem Rust, Stripe Rust{*} ( <i>Puccinia</i> spp.)	1.5 – 3.4 oz/1000 sq. ft.	14-28	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Leaf Spot{*} ( <i>Bipolaris</i> spp.)	1.5 – 3.4 oz/1000 sq. ft.	14-28	Apply as a preventative application. Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Melting Out{*} (Drechslera poae)	1.5 – 3.4 oz/1000 sq. ft.	14-28	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Necrotic Ring Spot{*} (Leptosphaeria korrae)	1.5 – 3.4 oz/1000 sq. ft.	14-28	Apply as a preventative application. Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Pink Patch{*} (Limonomyces roseipellis)	1.5 – 3.4 oz/1000 sq. ft.	14-28	Apply as a preventative application. Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Pink Snow Mold{*} (Microdochium nivale)	3.4 oz/1000 sq. ft.	14-28	Apply two applications 10-28 days apart just before snow cover in late fall.  Under heavy disease pressure, tank mix with another snow mold fungicide may improve control.
Powdery Mildew{*} (Erysiphe graminis)	1.5 – 3.4 oz/1000 sq. ft.	14-28	Apply as a preventative application. Make initial application when conditions are conducive to development for the disease, before signs of disease are present.

Pythium Blight, Pythium Root Rot{*} (Pythium aphanidermatum, Pythium spp.)	1.5 – 3.4 oz/1000 sq. ft.	14-28	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Pythium Root{*} Dysfunction (Pythium volutum)	3.4 oz/1000 sq. ft.	21-28	Apply as a preventative application when average daily soil moistures are between 55 F t- 70 F. To facilitate movement of the application into the root zone, irrigate with 0.1-0.2 inches of water within 24 hours after treatment.
Red Thread{*} (Laetisaria fuciformis)	1.5 – 3.4 oz/ 1000 sq. ft.	14-21	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Rhizoctonia Large Patch(*) (Rhizoctonia solani)	1.5 – 3.4 oz/ 1000 sq. ft.	14-21	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Southern Blight{*} (Sclerotium rolfsii)	1.5 – 3.4 oz/ 1000 sq. ft.	14-21	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Summer Patch{*} (Magnaporthe poae)	1.5 – 3.4 oz/ 1000 sq. ft.	14-21	Apply as a preventative application.  Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Take-All Patch{*} (Gaeumannomyces graminis)	1.5 – 3.4 oz/ 1000 sq. ft.	14-21	Apply as a preventative application. Make initial application when conditions are conducive to development for the disease, before signs of disease are present.
Zoysia Patch{*} (Rhizoctonia solani, Gaeumannomyce s incrustans)	1.5 – 3.4 oz/ 1000 sq. ft.	14-21	Apply as a preventative application. Make initial application when conditions are conducive to development for the disease, before signs of disease are present.

<sup>{\*}</sup>Not registered for use in California

\*\* Do not make more than two sequential applications of **Esendo™ Fungicide** for the control of grey leaf spot or 
Pythium spp.. For all other diseases when grey leaf spot and Pythium spp. are not present, do not make more than three sequential applications of **Esendo Fungicide**.

## **Rate Conversion Chart for Turf for Esendo**

	1.5 Oz. Product/1,000 Ft. <sup>2</sup>	3.4 Oz. Product/1,000 Ft. <sup>2</sup>
Ounces of Azoxystrobin Al/1,000 Ft. <sup>2</sup>	0.08	0.2
Ounces of Product/Acre	65	148
Pound of Product/Acre	4	9.25

## Amount of Esendo to add to 100 Gallons of water for Turf Applications

Spray Volume (Gallons/1,000Ft.²)	Esendo Use Rate	
	1.5 Ounces	3.4 Ounces
2.0	75 oz. of product	170 oz. of product
3.0	50 oz. of product	113 oz. of product
4.0	37.5 oz. of product	85 oz. of product

#### ORNAMENTAL-SPECIFIC DIRECTIONS

**Esendo™ Fungicide** may be used to control the following diseases of ornamental plants - leaf, tip and flower blights; leaf spots; downy and powdery mildew; anthracnose; and rusts that cause aerial, foliar and root diseases. This product may also be used in bench, container, flat, plug, bed or field-grown ornamentals in greenhouses, interior landscapes, shade or lath houses, outdoor nurseries, retail nurseries, residential areas or other landscape areas.

#### **Integrated Pest Management (IPM):**

Implementing effective management practices that provide for healthy and vigorous plants is the goal and the basis of an effective IPM program. Using techniques, such as cultural practices (choosing a disease resistant varieties and varieties suited for region/climate; proper nutrient management; plant population, pruning, plant debris management and moisture/water management) along with an effective fungicide spray program can result in promoting good plant health and vigor subsequently reducing the plant's susceptibility to disease. Proper identification and early detection of disease are also keys in best management practices. Diagnostic kits are available commercially or consult services at your local extension office to help in identifying disease for early treatment. **Esendo Fungicide** must be included in an over-all integrated disease management plan.

#### **Resistance Management:**

Alternate with a different non-Group 11 fungicide after three sequential applications of **Esendo Fungicide** to help prevent resistance. For Example: A spray program with three sequential **Esendo Fungicide** applications followed by two non-Group 11 fungicide applications. **DO NOT** rotate **Esendo Fungicide** with any Group 11 fungicide.

#### **Application Directions:**

**Esendo Fungicide** may be applied to the foliage or soil as a banded spray (targeted at the foliage or crown of plant), a drench, or a soil broadcast. Applications must be made to run-off for thorough and uniform coverage and optimum control. Always read and follow label directions. Applications may be repeated at intervals listed following resistance management practices in your area. Unless otherwise restricted, the use of an adjuvant at specified label rates may improve coverage. For heavy disease pressure or under environmental conditions that favor development of disease, use the higher use rates listed and shorter retreatment interval. Adequate disease control may not be exhibited, if using **Esendo Fungicide** when signs of disease are already present or as a rescue treatment.

#### **Use Precaution for Ornamentals:**

Use of Esendo Fungicide may cause adverse crop response on crabapple trees, however
it has been found that there are tolerant varieties, refer to the Ornamental Crabapple
Species - Varieties Tolerant to Esendo Fungicide (Genus Malus) table in this label. It is
not possible to test every crabapple species or variety for tolerance to Esendo Fungicide
due to the large number of species and varieties. Prior to full commercial use on plant
species and varieties, the user must conduct small-scale testing to ensure plant safety.

#### **Use Restrictions for Ornamentals**

- **DO NOT** apply more than 600 gallons spray volume per acre for foliar applications.
- **DO NOT** apply more than 2 pints of spray solution per square foot for crown and drench applications.

- **DO NOT** mix **Esendo™ Fungicide** with adjuvants, fertilizers, fungicides, herbicides, or insecticides unless local information and experience is available to confirm that tank mixture combination will not cause adverse crop response to ornamental plants.
- DO NOT make applications of Esendo Fungicide to apple or cherry trees (including flowering and ornamental varieties, such as Yoshino) due to possible adverse crop response. (See the "Plants Sensitive to Esendo Fungicide" table for complete list.)
- **DO NOT** spray apple or crabapple trees, or flowering cherry trees with equipment that was previously used to apply this product due to potential adverse crop response.
- **DO NOT** spray if weather conditions promote drift from target area to apple, crabapple, or varieties or flowering cherry trees.

#### **Drench Application:**

**Esendo Fungicide** may be used as a preventative drench treatment for the control of soilborne crown diseases and seedling diseases of ornamental plants (including container-grown) before signs of disease are present. Thorough and uniform coverage of the crown, root ball and root zone is essential for good control. Apply as a drench application before disease develops so that roots are healthy and can optimize performance through product uptake and systemic translocation of product. **Esendo Fungicide** has been seen to provide suppression in some foliar diseases on plants treated with drench applications because of the systemic nature of the product. Caution must be exercised when making drench applications of **Esendo Fungicide** to small bedding plants, as adverse crop response can result. It is advisable to test a small quantity of plants to confirm safety.

#### **Use through Sprinkler and Drip Irrigation Systems:**

**Esendo Fungicide** may be used as a preventative treatment for soilborne disease control in bedded, field-grown ornamental or potted ornamentals applied through drip, sprinkler or other micro irrigation systems. Before the drip application, ensure the potting media or soil have adequate moisture capacity. Shut off the drip irrigation system after 6 hours from initiation of application, or once the fungicide mixture is depleted, whatever comes first. In order to maximize efficacy, delay any scheduled irrigation for at least 24 hours after a drip application with this product.

When used according to the label directions, **Esendo Fungicide** will provide control (or suppression as listed) of the below-listed ornamental plant diseases:

## **Ornamental Crop-Specific Directions for Use**

DISEASE	Use Rates and Instructions
	Pounds Product per 100 Gallons
CONIFER BLIGHTS	
Phomopsis Blight{*} (Phomopsis juniperovora)	Apply 0.5 – 2 lbs. at 7 to 28-day intervals.
Tip Blight{*} (Sirococcus strobilinus)	Apply 0.5 – 2 lbs. at 7 to 28-day intervals.
FLOWER BLIGHTS	

Anthracnose{*} (Colletotrichum spp., Elsinoë spp.)	Apply 0.5 – 2 lbs. at 7 to 28-day intervals.
Botrytis Blight{*} (Botrytis cinerea)	Apply 2 – 4 lbs. at 7 to 21-day intervals (suppression only). <b>DO NOT</b> apply more than 209 oz./acre.
LEAF BLIGHTS/LEAF SPOTS	
Alternaria Leaf Spot{*} (Alternaria spp.)	Apply 0.5 – 4 lbs. at 7 to 28-day intervals.
Anthracnose{*} (Colletotrichum spp., Elsinoë spp.)	Apply 0.5 – 4 lbs. at 7 to 28-day intervals.
Cercospora Leaf Spot{*} ( <i>Cercospora</i> spp.)	Apply 0.5 – 2 lbs. at 7 to 28-day intervals.
Downy Mildew{*} (including <i>Peronospora</i> spp., <i>Plasmopara</i> spp., <i>Bremiella</i> spp., <i>Bremia</i> spp.)	During periods of active plant growth and prior to dormancy or severe infection, apply 1 – 2 lbs. at 7 to 21-day intervals. For herbaceous seedlings, use lower use rates.
Entomosporium Leaf Spot{*} (Entomosporium spp.)	Apply 0.5 – 2 lbs. at 7 to 28-day intervals.
Iris Leaf Spot{*} ( <i>Mycosphaerella</i> spp.)	Apply 1 – 2 lbs. at 7 to 21-day intervals.
Leaf Spot{*} ( <i>Cladosporium</i> spp.)	Apply 0.5 – 2 lbs. at 7 to 28-day intervals.
Myrothecium Leaf Spot{*} ( <i>Myrothecium</i> spp.)	Apply 1 – 2 lbs. at 7 to 21-day intervals.
Scab{*} (Venturia inaequalis, Sphaceloma poinsettiae, Elsinoë australis)	Apply 0.5 – 2 lbs. at 10 to 28-day intervals. Do not make applications to apple trees. For applications to crabapples, see the "Tolerant Varieties of Ornamental Crabapple Species (Genus <i>Malus</i> )" table.
Marssonina Leaf Spot{*} (Marssonina spp.)	Apply 0.5 – 2 lbs. at 14 to 28-day intervals.
POWDERY MILDEW	
Erysiphe spp., Microsphaera spp., Sphaerotheca spp., Oidium spp., Podosphaera spp., Uncinula spp.	Apply 0.5 – 2 lbs. at 7 to 28-day intervals. Do not apply more than 2 sequential applications before rotating to a different class of fungicide.
RUSTS	

Needle Rust{*} (Melampsora occidentalis)	Apply 0.5 – 2 lbs. at 7 to 28-day intervals.
Other Rusts{*} (Phragmidium spp., Puccinia spp., Gymnosporangium spp., Coleosporium spp., Uromyces spp.)	Apply 0.5 – 2 lbs. at 7 to 28-day intervals.
SHOOT/STEM DISEASES	
Aerial/Shoot Blight{*} (Phytophthora spp.)	Apply 0.5 – 2 lbs. at 7 to 28-day intervals.

<sup>{\*}{</sup>Not registered for use in California}

#### Foliar and Soil Diseases – Drench and Drip Applications:

Disease/Pathogen Suppressed	Use Rate (Pounds Product/100 Gallons)	Application Instructions
Rusts{*} Powdery Mildew{*} Pythium spp.{*}	0.2 – 0.5 lbs.	Make application of 1 to 2 pints of solution/square foot surface area at 7 to 28-day intervals.

<sup>{\*}{</sup>Not registered for use in California}

#### **Plant Safety:**

Plant safety is expected when this product is applied according to listed application methods, rates, and timings to the plants listed in "Plants Tolerant to Esendo™ Fungicide Listed by Botanical Name" and "Ornamental Crabapple Species - Varieties Tolerant to Esendo Fungicide (Genus Malus)" tables. Due to the large number of species and varieties of ornamental and nursery plants, it is not possible to test every one for tolerance to Esendo Fungicide. The manufacturer or the seller have not determined whether Esendo Fungicide may be used safely on ornamental and nursery plants. User must conduct small-scale crop safety testing to ensure plant safety before making full-scale applications.

## Plants Tolerant to Esendo Fungicide Listed by Botanical Name:

BOTANICAL NAME	COMMON NAME
Abelia spp.	Abelia
Abies fraseri	Fir, Fraser
Abies procera	Fir, Noble
Acer palmatum	Maple, Japanese
Acer saccharum	Maple, Sugar
Ageratum spp.	Floss Flower

Ageratum spp.	Pussy's Foot
Aglaonema spp.	Evergreen, Chinese
Ajuga reptans	Bugle

Ajuga reptans	Bugleweed
Antirrhinum spp.	Snap-Dragon
Aphelandra spp.	Zebra Plant
Artemisia spp.	Mugwort
Artemisia spp.	Wormwood
Aster spp.	Aster
Aster spp.	Starwort
Aucuba japonica	Aucuba, Japanese
Aucuba japonica	Laurel, Japanese
Begonia spp.	Begonia (except Rieger begonia)
Berberis thunbergii	Barberry
Betula nigra	Birch, River
Bougainvillea spp.	Bougainvillea
Brassaia actinophylla	Rubber Tree
Brassaia actinophylla	Umbrella Tree
Buddleia davidii	Buddleia
Buddleia davidii	Butterfly Bush
Buxus sempervirens	Boxwood
Caladium spp.	Caladium
Camellia japonica	Camellia
Caryota urens	Palm, Sago
Catharanthus roseus	Vinca
Ceanothus sanguineus	Lilac, Wild
Ceanothus spp.	Ceanothus
Ceanothus spp.	Lilac, California

Ceanothus spp.	Snowball
Cedrus atlantica	Cedar, Atlas
Cedrus spp.	Cedar, White

Cercis occidentalis	Redbud, Western
Chamaecyparis pisifera	Cypress, Sawara
Chamaecyparis spp.	Cypress, Leyland
Chamaedorea elegans	Palm, Parlor
Chrysanthemum spp.	Chrysanthemum
Clethra alnifolia	Clethra
Clethra spp.	White Alder
Cornus florida	Dogwood
Cornus spp.	Dogwood
Cornus spp.	Dogwood, Pink
Cortaderia selloana	Grass, Pampas
Cotoneaster adpressus	Cotoneaster, Creeping
Cotoneaster horizontalis	Cotoneaster, Variegated Rockspray
Cyclamen spp.	Cyclamen
Cyperus spp.	Cyperus
Delphinium spp.	Larkspur
Dianthus caryophyllus	Carnation
Dianthus spp.	Pink
Dieffenbachia spp.	Dumb-Cane
Dietes iridoides	Iris, African
Dietes iridoides	Iris, Butterfly
Digitalis spp.	Foxglove
Epipremnum spp.	Pothos
Erica darleyensis	Heather

Euonymus alata	Euonymus, Dwarf Winged
Euonymus alatus	Burning Bush
Euonymus japonicus	Euonymus, Evergreen
Euphorbia spp.	Poinsettia

Fatsia japonica	Fatsia, Japanese
Fatsia japonica	Paper Plant
Ficus spp.	Fig
Forsythia viridissima	Forsythia
Gaillardia spp.	Blanket Flower
Gardenia jasminoides	Gardenia
Geranium spp.	Cranesbill
Gerbera jamesonii	Daisy, Gerber
Gerbera jamesonii	Daisy, Transvaal
Hedera algeriensis	Ivy, Algerian
Hedera helix	Ivy, English
Hibiscus moscheutos	Hibiscus
Hibiscus rosa-sinensis	Hibiscus
Hibiscus syriacus	Rose of Sharon
Hosta spp.	Hosta
Hydrangea macrophylla	Hydrangea, French
Hydrangea spp.	Hydrangea
llex spp.	Holly
llex spp.	Winterberry
Ilex spp.	Yaupon
Impatiens spp.	Balsam
Impatiens spp. <sup>1,2</sup>	Impatiens <sup>1,2</sup>
Iris xiphium	Iris (Bulbous, Spanish, Dutch)

Itea virginica	Willow, Virginia
Juniperus procumbens	Juniper
Juniperus scopulorum	Juniper
Juniperus spp.	Juniper
Juniperus virginiana	Cedar, Red

Lagerstroemia indica	Crapemyrtle
Laurus nobilis	Laurel
Lilium spp.	Lily, Asiatic
Liriope muscari	Lily-Turf
Lobularia maritima	Sweet Alyssum
Magnolia grandiflora	Magnolia, Southern
Magnolia soulangiana	Magnolia, Saucer
Magnolia spp.	Magnolia
Malus spp.	Crabapple <sup>3</sup>
Nandina domestica	Nandina
Nerium oleander	Oleander
Nerium oleander	Rose-Bay
Pelargonium spp.	Geranium
Pennisetum alopecuroides	Grass
Peperomia spp.	Rubber Plant, Baby
Petunia spp.	Petunia <sup>2</sup>
Phalaris spp.	Grass, Dwarf Pampas
Philodendron spp.	Philodendron
Phlox spp.	Phlox
Phoenix dactylifera	Palm, Date
Phoenix roebelenii	Palm, Robellini
Photinia glabra	Photinia, Red-Tip

Picea abies	Spruce, Norway
Picea glauca	Spruce, White
Picea pungens	Spruce, Blue
Pieris japonica	Andromeda, Japanese
Pinus mugo	Pine, Mugo
Pinus nigra	Pine, Black

Pinus spp.	Pine
Pinus strobus	Pine, Eastern White
Pinus sylvestris	Pine, Scotch
Pittosporum spp.	Laurel, Australian
Pittosporum tobira	Japanese Pittosporum
Plectranthus spp.	Coleus
Plectranthus spp.	Ivy, Swedish
Populus spp.	Aspen Trees
Populus trichocarpa	Poplar
Potentilla spp.	Cinquefoil
Primula spp.	Primrose
Prunus pumila	Sand cherry
Prunus spp.	Plum, Flowering
Prunus spp.	Plum, Purple-Leaf
Pseudotsuga spp.	Fir, Douglas
Pyrus calleryana	Pear, Bradford's
Quercus falcata	Oak, Red
Quercus palustris	Oak, Pin
Rhaphiolepis indica	Hawthorn, Indian
Rhododendron spp.	Azalea, Glacier
Rhododendron spp.	Azaleas

Rhododendron spp.	Rhododendron
Rosa spp.	Rose
Rosmarinus spp.	Rosemary (Prostrate)
Rudbeckia hirta	Black-Eyed Susan
Salvia spp.	Sage
Schlumbergera	Cactus, Holiday
Sedum spp.	Orpine

Sedum spp.	Stonecrop	
See Fir, Douglas; Fir, Fraser; and Pine, Scotch	Christmas Trees	
Sempervivum spp.	House Leek	
Sempervivum spp.	Live-Forever	
Setaria spp.	Ribbon Grass	
Spathiphyllum floribundum	Lily, Peace	
Spiraea bumalda	Spirea	
Spiraea japonica	Spirea	
Syagrus romanzoffianum	Palm, Queen	
Tagetes spp.	Marigold	
Taxus baccata	Yew, Spreading	
Thuja plicata	Cedar, Western Red	
Thujopsis spp.	Arborvitae	
Thymus serphyllum	Thyme, Creeping	
Tsuga heterophylla	Hemlock, Western	
Tsuga spp.	Hemlock	
Verbena spp.	Verbena	
Verbena spp.	Vervain	
Viburnum spp.	Viburnum	
Vinca spp.	Periwinkle	

Viola spp.	Viola
Viola spp. <sup>1</sup>	Pansy <sup>1</sup>
Weigela florida	Weigela, Pink
Yucca spp.	Yucca
Zinnia spp.	Zinnia

<sup>1</sup> **DO NOT** apply more than 1 lb. product/100 gallons on these species.

<sup>2</sup> When applied directly to blooms of certain plant species, **Esendo™ Fungicide** may cause discoloration of flowers. All varieties and colors have not been evaluated.

<sup>3</sup> See the "Ornamental Crabapple Species - Varieties Tolerant to **Esendo Fungicide** (Genus *Malus*)" table.

# Ornamental Crabapple Species - Varieties Tolerant to Esendo™ Fungicide (Genus *Malus*):

marasj.				
Callaway	Golden Raindrops Mary Potter		Selkirk	
Carmine (M. atrosanguinea)	Нора	Molten Lava	Sentinel	
Candymint Sargent	Indian Magic	New Centennial	Silver Moon	
Christmas Holly	Island	Ormiston Roy	Silverdrift	
David	Jackii (M. baccata var. jackii)	Pink Satin	Sinai Fire	
Dolgo	Japanese Flowering Prairie Maid Crabapple (M. floribunda)		Sugar Tyme	
Donald Wyman	Katherine	Prairiefire	Van Eseltine	
Dorothea	Lancelot	Profusion	White Angel	
Doubloons	Louisa	Ralph Shay Wild crabapple (M. coronaria)		
Eleyi	Malus x zumi var. Calocarpa	Red Baron	Winter Gold	
Evereste	M. sargentii	Red Jade	de	
Evelynn	Manchurian (M. baccata var. mandshurica)	Sargent		

## Plants Sensitive to Esendo Fungicide

(DO NOT make applications of Esendo Fungicide to these varieties or species)

BOTANICAL NAME	COMMON NAME	
Ligustrum spp.	Privet	
Malus spp. 'Brandywine'	Crabapple – Brandywine variety	
Malus spp. 'Flame'	Crabapple – Flame variety	
Malus spp. 'Novamac'	Crabapple – Novamac variety	
Prunus x yedoensis	Cherry, Flowering – Yoshino variety	
Rumohra adiantiformis and other species	Leatherleaf Fern and other Ferns for cut foliage	

## COMMERCIAL PRODUCTION ROSES and CONIFERS INCLUDING CHRISTMAS TREES:

**Esendo™ Fungicide** may be applied to control listed diseases in conifers (including Christmas trees) and production roses grown commercially both outdoor and indoor production and in landscaping. See the **ORNAMENTALS DIRECTIONS FOR USE** section for additional information on use in landscapes.

## **Directions for Conifer and Commercial Rose Production:**

Сгор	Diseases	Use Rate Product/Acre (lbs. azoxystrobin/A)	Application Instructions
Conifers including Christmas Trees	Diplodia Tip Blight{*} (Diplodia pinea)  Lophodermium Needlecast{*} (Lophodermium pinastri)  Swiss Needlecast{*} (Phaeocryptopus gaeumannii)	1.4 – 4 lbs./A (0.08 – 0.23)	DO NOT make more than four sequential applications for Esendo fungicide before rotating with a fungicide that is not in Group 11. DO NOT apply more than eight applications per acre per year. Make application before signs of disease are present. Continue applications at 7 to 21-day intervals following the resistance management practices in your area.  Applications may be made by ground or chemigation. Add and adjuvant at specified rates, if desired.  Restrictions: DO NOT apply more than 34 pounds of Esendo Fungicide /acre (2.0 lbs. a.i./A) per year.
Roses (commercial Production only)	Downy Mildew{*} (Peronospora sparsa)  Powdery Mildew{*} (Sphaerotheca pannosa)  Rust{*} (Phragmidium mucronatum, P.	0.7 – 4 lbs./A (0.04 – 0.23)	DO NOT make more than four sequential applications for Esendo fungicide before rotating with a fungicide that is not in Group 11. DO NOT apply more than eight applications per acre per year. Make application before signs of disease are present. Continue applications at 7 to 21-day intervals following

tuberculatum, and the resistance management other *Phragmidium* practices in your area. spp.) Applications may be made by ground or chemigation. Add and Septoria Leaf adjuvant at specified rates, if Spot{\*} desired. (Septoria rosea) Restrictions: Alternaria Leaf **DO NOT** apply more than 34 Spot{\*} pounds of Esendo Fungicide (Alternaria alternata) /acre (2.0 lbs. a.i./A) per year.

#### STORAGE AND DISPOSAL

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

#### **Pesticide Storage**

Keep container tightly closed when not in use. Product can be stored at temperatures as low as -10°F. DO NOT store near seeds, fertilizers, or food stuffs. Keep away from heat and flame.

#### **Pesticide Disposal**

Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Thoroughly rinse the spray equipment after use. 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 as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

#### **Container Handling**

Non-refillable Containers (50 pounds or less): Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water 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. Non-refillable Containers (Greater than 50 pounds): Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

**Returnable/Refillable Containers:** 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 mix tank. Fill the container about 10 percent 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.

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

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

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

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#### **Optional Label Claims**

 Any or all listed target pests or crops may be represented graphically on Final Printed Labeling. The label will not contain a graphic representation of a pest or crop that is not claimed on the label.