

# WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Control Solutions, Inc. c/o Jane Miller Biologic Consulting, Inc. 115 Obtuse Hill Road Brookfield, CT 06804

JUN 24 2014

Product Name:

Azoxystrobin 50 WG

EPA Reg. No.:

53883-343

Subject:

Revised master label to include agricultural use requirements

EPA Decision Number: 491588

Dear Ms. Miller:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. A stamped copy of your label is enclosed for your records. This label supersedes all previously accepted labels.

You must submit one (1) copy of the final printed label before you release the product for shipment. Products released for shipment after eighteen (18) months from the date of this letter must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). You release for shipment of the product constitutes acceptance of these conditions. A stamped copy is enclosed for your records.

If you have any questions, please contact Erin Malone by phone at (703) 347-0253 or via email at malone.erin@epa.gov.

Sincerely

Product Manager (20)

Fungicide Branch

Registration Division (7504P)

# **ACCEPTED**

JUN 2 4 2014 Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under:

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Master Label

Group 11 Fungicide

# 53883-343 YYSTROBIN 50 WG

Broad Spectrum Fungicide for Control of Plant Diseases in Turf and Ornamentals [Alternate Brand Name: STROBE<sup>™</sup> 50WG]

Optional Marketing Language		
[Broad Spectrum Fungicide for Control of Plant Diseases in Turf and Ornam		
[Azoxystrobin 50 WG][alternate brand name] is [For the treatment of brown   diseases].]	oatch [and other	fungal
[Azoxystrobin 50 WG][alternate brand name] affects every stage of the spec	ified fungal disea	ase
development]	_	
[Azoxystrobin 50 WG][alternate brand name] is absorbed through a plant's le [Azoxystrobin 50 WG][alternate brand name] controls a broad range of turfgr [Anthracnose,] [Brown Patch,] [Cool Weather Brown Patch,] [Yellow Patch,]	ass diseases [in	cluding
Patch,] [Gray Leaf Spot,] [Gray Snow Mold,] [Leaf Rust,] [Stem Rust,] [Stripe		
[Melting Out,] [Necrotic Ring Spot,] [Pink Patch,] [Pink Snow Mold,] [Powder [Pythium Root Rot,] [Red Thread,] [Rhizoctonia Large Patch,] [Southern Blig [Summer Patch,] [Take-All Patch] [and] [Zoysia Patch].]]		
[Azoxystrobin 50 WG][alternate brand name] controls a broad spectrum of tu	rforass and orna	amental
[plant]-diseases:]		
[Azoxystrobin 50 WG][alternate brand name] can be used to both prevent an [Azoxystrobin 50 WG][alternate brand name] is an excellent solution for resis		
programs.]	stance managen	ilent
[Azoxystrobin 50 WG][alternate brand name] may be used as part of a resist	ance manageme	ent
program.]		
ACTIVE INGREDIENT:		% BY WT.
Azoxystrobin: methyl (2E)-2-(2-{[6-(2-cyanophenoxy)pyrimidin-4-yl]o	xy}phenyl)	
-3-methoxyacrylate*		
OTHER INGREDIENTS:		
Contains 0.5 lb. active ingredient per pound of product.	TOTAL	100.0%
*IUPAC		
KEEP OUT OF REACH OF CHILDREN		
CAUTION		
See additional Precautionary Statements and Directions for Use Inside	e booklet	
Manufactured for:		
Control Solutions, Inc.		
5000 O D IDI ((		
5903 Genoa Red Bluff		
Pasadena, TX 77507		
	EPA Est. No.	

NET CONTENTS: \_\_\_\_\_

**Pounds** 



	FIRST AID					
IF CMALL CMED.	Call a poison control center or doctor immediately for treatment advice.					
SWALLOWED:	Have person sip a glass of water if able to swallow.					
	<ul> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> </ul>					
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>					
IF ON SKIN OR	Take off contaminated clothing.					
CLOTHING:	Rinse skin immediately with plenty of water for 15 to 20 minutes.					
	Call a poison control center or doctor for treatment advice.					
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> </ul>					
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eye.</li> </ul>					
	Call a poison control center or doctor for treatment advice.					
	Have the product container or label with you when calling a poison control center or					
	doctor or going for treatment. You may also contact SafetyCall® International for					
emergency medic	cal treatment at (866) 897-8050.					

# PRECAUTIONARY STATEMENTS HAZARDS-TO-HUMANS-AND-DOMESTIC-ANIMALS-

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

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical resistance category selection chart.

# Applicators and other handlers must wear:

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

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **ENGINEERING CONTROLS STATEMENT**

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

	USER SAFETY RECOMMENDATIONS	
Users should:		

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# Master Label

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

Azoxystrobin 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. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwater or rinsate.

#### **GROUND WATER ADVISORY:**

Azoxystrobin and a degradate of azoxystrobin are known to leach through soil to ground water under certain conditions as a result of label use. This chemical may leach into ground water 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 runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff 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 runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

Notify state and/or federal authorities immediately if you observe any adverse environmental effects due to the use of this product.

### PHYSICAL AND CHEMICAL HAZARDS

Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

### **DIRECTIONS FOR USE**

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

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

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### AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during restricted-entry interval (REI) of 4 hours.

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

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

The Non-Agricultural Use Requirements box applies when this product is used to control diseases on turf and ornamentals on golf courses, lawns, and landscape areas around residential, institutional, public, commercial, and industrial buildings, parks, recreational areas, and athletic fields.

### 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 some states may require a more restrictive re-entry interval, consult your State Department of Agriculture for further information.

Do not allow entry into treatment area until area that was treated is dry.

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

#### PRODUCT INFORMATION

Azoxystrobin 50 WG is a broad spectrum preventative fungicide with systemic and curative properties and can be used for the control of many important plant diseases.

Azoxystrobin 50 WG may be applied as a foliar spray, in alternating spray programs, or in tank mixes with other registered pesticides. All applications must be made according to the use directions found on this label and the labels of tank mix products.

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Do not graze or feed clippings from treated turf areas to animals.

# SPRAY DRIFT PRECAUTIONS AND PHYTOTOXICITY NOTICE Attention:

- AVOID SPRAY DRIFT. Extreme care must be used to prevent injury to apple trees and apple fruit, as Azoxystrobin 50 WG is extremely phytotoxic to certain apple varieties.
- Do not spray Azoxystrobin 50 WG where spray drift will reach apple trees.
- Do not spray when conditions favor drift beyond area intended for application. Conditions which may contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations, spray droplet size, etc. Contact your state extension agent for spray drift prevention guidelines in your area.
- Do not use spray equipment which has been previously used to apply Azoxystrobin 50
   WG to spray apple trees. Even trace amounts can cause unacceptable phytotoxicity.
- Avoiding spray drift is the responsibility of the applicator.

Azoxystrobin 50 WG has demonstrated some phytotoxic effects when mixed with products that are formulated as emulsifiable concentrates (ECs). These effects are enhanced if applications are made under cool, cloudy conditions, and these conditions remain for several days following application. In addition, adjuvants that contain some form of silicone have also contributed to phytotoxicity.

# INTEGRATED PEST MANAGEMENT (IPM)/DISEASE MANAGEMENT

Integrate Azoxystrobin 50 WG into an overall disease and pest management strategy whenever the use of a fungicide is required. Follow cultural practices that are known to reduce disease development. Consult your local authorities for additional treatment programs that are compatible with the principles of Integrated Pest Management (IPM), which include the use of disease-resistant turf varieties, cultural practices, pest scouting, disease forecasting systems, etc.

# **RESISTANCE MANAGEMENT**

Azoxystrobin 50 WG is a Group 11 fungicide. The mode of action is the inhibition of the Qo (quinone outside) site within the electron transport system, as well as disruption of membrane synthesis by blocking demethylation [Group 11]. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development can't be predicted, use of this product should conform to resistance management strategies established for turf and its use area. Consult your local or state agricultural authorities for resistance management strategies that are complimentary to those in this label. Resistance management strategies include alternating and/or tank mixing with products having different modes of action or limiting the total number of applications per season.

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

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

In situations requiring multiple sprays, develop season-long spray programs for Group 11 (Qol) Fungicides. In turf where two sequential Group 11 Fungicide applications are made, they should be alternated with two or more applications of a fungicide that is not in Group 11. If more than 12 applications are made, observe the following guidelines:

- When using a Qol Fungicide as a solo product, the number of applications should be no more than 1/3 (33%) of the total number of fungicide applications per season.
- For Qol mixes in programs in which tank mixes or premixes of Qol with mixing partners of a different modes of action are utilized, the number of Qol-containing applications should be no more than ½ (50%) of the total number of fungicide applications per season.
- In programs in which applications of QoI are made with both solo products and mixtures, the number of QoI-containing applications should be no more than ½ (50%) of the total number of fungicide applied per season.

If a Group 11 Fungicide is applied, do not make another application with a Group 11 Fungicide for at least 3 weeks.

### **SPRAYING AND MIXING**

Azoxystrobin-50-WG-may-be-applied-with-all-types of spray equipment commonly used for making ground applications. Do not apply through any type of ultra-low volume (ULV) spray system. Proper adjustments and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when environmental conditions conductive to disease exist.

Apply Azoxystrobin 50 WG in sufficient water volume for adequate coverage and canopy penetration.

# **Spray Solution Preparation**

To prepare spray solution, partially fill the spray tank with clean water and begin agitation. Add the specified amount of Azoxystrobin 50 WG to the tank, allowing time for good dispersion, then add an adjuvant if suggested. If tank mixes are required, add products to the spray tank in the following order: Azoxystrobin 50 WP, then other WG or dry flowable formulations, then wettable powders and flowable (aqueous suspensions) last. Finish filling the tank to the desired volume to obtain the proper spray concentration. Maintain agitation throughout the entire spraying operation. Do not allow the spray mixture to stand overnight or for prolonged periods. Make up only the amount of spray required for immediate use. Thoroughly clean sprayers immediately after application.

Azoxystrobin 50 WG is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides, and biological control products. If tank mixes are desired, observe all directions, precautions, and limitations on labeling of all products used. Consult compatibility charts or other authorities for compatibility information.

Azoxystrobin 50 WG is incompatible with many fertilizers when low water volumes are used for in-furrow applications. Cold temperatures and water quality exacerbate these compatibility problems. Conduct a physical compatibility test as described below.

Do not combine Azoxystrobin 50 WG in the spray tank with pesticides, surfactants, or fertilizers unless compatibility charts or your own prior use has shown that the combination is physically compatible, effective, and non-injurious under your conditions of use. If physical compatibility is unknown, follow the procedure outlined in the **Physical Compatibility Test** section of the label below.

Physical Compatibility Test: Use a suitable container (1 pint) and mix a small amount of spray solution by adding each component in the order and ratio as required for making large amounts of the tank mix solution. Stir the contents and allow them to settle for 20 minutes. Solutions that stay in suspension or can be remixed readily are considered physically compatible. Increased compatibility may result if a buffering agent is used.

# CHEMIGATION INSTRUCTIONS Applications Through Sprinkler and Drip Chemigation Systems

**Spray Preparation:** Chemical tank and injector system must be thoroughly cleaned. Flush system with clean water.

Use Precautions for Sprinkler and Drip Irrigation Applications

**Drip Irrigation:** Azoxystrobin 50 WG may be applied through drip irrigation systems to potted ornamentals or to bedded, field-grown ornamentals for soil-borne disease control. Apply 2-16 oz. (0.0625-0.5 lb. a.i./A) Azoxystrobin 50 WG per acre as a preventative disease application. Ensure that the soil or potting media has adequate moisture capacity prior to drip application.

Terminate drip irrigation at fungicide depletion from the main feed supply tank or after 6 hours from start, whichever is shorter. For maximum efficacy, delay subsequent irrigation (water only) for at least for 24 hours following a drip application.

**Sprinkler Irrigation:** Apply this product through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system except as specified on this label.

Apply with center pivot or continuous-move equipment distributing 1/2 acre-inch or less during treatment. In general, use the least amount of water required for proper distribution and coverage. If stationary systems (solid set, handlines or wheellines other than continuous-move) are used, inject this product into no more than the last 20-30 minutes of the set. Do not apply when winds are greater than 10-15 mph to avoid drift or wind skips. Do not apply when wind speed favors drift beyond the area intended for treatment.

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

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

### **System Requirements**

- The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- 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, solenoidoperated 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.
- 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.
- Allow\_sufficient\_time\_for\_pesticide\_to\_be\_flushed\_through\_all\_lines\_and\_all\_nozzles\_before turning off irrigation water.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system. 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.

## **TURF**

Azoxystrobin 50 WG can be used for control of certain pathogens causing foliar, stem, and root diseases including leaf and stem blights, leaf spots, patch diseases, mildew, molds and rusts of turfgrass plants. Use Azoxystrobin 50 WG to control certain diseases on golf courses, lawns and landscape areas around residential, institutional, public, commercial, and industrial buildings, parks, recreational areas and athletic fields.

Integrated Pest (Disease) Management (IPM): Sound turf management resulting in healthy, vigorous turf is the foundation of a good IPM program. Cultural practices such as proper choice of turf variety, nutrient management, proper cutting height, thatch management, and proper watering, drainage, and moisture stress management should be integrated with the use of fungicides to increase turf vigor and reduce the susceptibility to disease. Immunoassay detection kits and extension service diagnostic services can assist in the early and accurate identification of causal organisms and corresponding selection of the proper fungicide when required.

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#### Master Label

Resistance Management: Some turf disease pathogens are known to have developed resistance to products used repeatedly for their control. Apply Azoxystrobin 50 WG in a tank mix or alternation program with other registered fungicides that have a different mode of action and to which pathogen resistance has not developed. Since Azoxystrobin 50 WG is a strobilurin fungicide, avoid alternation with other strobilurins. Do not apply more than two sequential Azoxystrobin 50 WG applications for Gray leaf spot and *Pythium* spp. control. For all other diseases when Gray leaf spot and *Pythium* spp. are not present, do not apply more than three sequential applications of Azoxystrobin 50 WG.

**Application Directions:** Apply Azoxystrobin 50 WG prior to disease development. Mix Azoxystrobin 50 WG with the required amount of water and apply as a dilute spray application in 2-4 gallons of water per 1000 square feet (87-174 gallons per acre). Repeat applications at specified intervals for as long as required. For spot treatments, use 0.2 oz. Azoxystrobin 50 WG per 1 to 2 gallons of water. Do not apply more than 10 lbs. product/acre/year (3.7 oz. product/1000 square feet/year). Make applications by ground only.

For use with soil injection applications: Apply Azoxystrobin 50 WG through a liquid fungicide injector for the control of ectrotrophic root diseases such as summer patch and takeall patch. Use Azoxystrobin 50 WG only in liquid injection equipment specifically designated for pesticide use.

Apply Azoxystrobin 50 WG at 0.2 to 0.4 oz. per 1000 sq. ft. Spray carrier volume should fall within 30-150 gal. of water per 1000 sq. ft. Use injection hole spacing of 1 inch by 1 inch for optimum control. Injection depth should be no greater than 2 inches. Optimum results occur at one inch depth. Application timing should follow disease control strategies used for normal broadcast spray programs.

For use in the establishment of turfgrass from seed or in overseeding of dormant turfgrass: Use Azoxystrobin 50 WG for control of certain turfgrass diseases associated with turfgrass establishment from seed. Azoxystrobin 50 WG may also be used during overseeding of dormant turfgrass.

Azoxystrobin 50 WG may be safely applied before or after seeding or at seedling germination and emergence to ryegrass, bentgrass, bluegrass, and fescue turfgrass types. Optimum application timing is during seeding. See **Application Directions** section above.

Rate Ranges: Use the shorter specified application interval and/or use the higher specified rate when prolonged favorable disease conditions exist.

**Dollar Spot:** Azoxystrobin 50 WG does not control dollar spot. During periods of dollar spot pressure, always mix Azoxystrobin 50 WG with a product containing chlorothalonil or other dollar spot control fungicides. Azoxystrobin 50 WG is compatible in tank mixes with many other fungicides that control dollar spot. Follow directions found under **SPRAYING AND MIXING** section of this label.

Target Diseases	Use Rate	Application Interval	Remarks*
	(oz. product per 1000 sq. ft.)	(days)	
Anthracnose	0.2-0.4	14-28	Use preventatively. Begin
(Colletotrichum			applications when conditions are
graminicola)			favorable for disease infection, prior
			to disease symptom development.
Brown Patch	0.2-0.4	14-28	Apply when conditions are favorable
(Rhizoctonia solani)			for disease development.
Cool Weather Brown	0.2-0.4	14-28	Make one or two applications in fall or
Patch			when conditions are favorable for
Yellow Patch			disease development.
(Rhizoctonia cerealis)	0.4	20	A
Fairy Ring	0.4	28	Apply as soon as possible after fairy
(Lycoperdon spp.,			ring symptoms develop. Apply only in
Agrocybe pediades,			4 gallons water per 1000 square feet
and Bovistra			(174 gallons/acre). Add the
plumbea)			recommended rate of a wetting agent
			to the final spray. Severely damaged or thin turf may require reseeding.
			Fairy ring symptoms may take 2 to 3
			weeks to-disappear following
			application. Reapplication after 28
			days may be required in some cases.
Fusarium Patch	0.2-0.4	14-28	Use preventatively. Begin
(Microdochium nivale)	0.2 0	0	applications when conditions are
(			favorable for disease infection, prior
			to disease symptom development.
Gray Leaf Spot	0.2-0.4	14-28	Begin applications before disease is
(Pyricularia grisea)			present and continue applications
			while conditions are favorable for
			disease development.
Gray Snow Mold	0.7 (when	single	Make a single application of 0.7 oz. or
Typhula blight	making a single	application	two applications of 0.4 oz. spaced 10-
(Typhula incarnata)	application)	10-28	28 days apart in late fall just before
			snow cover. Tank mixing with another
	0.4 (when	•	snow mold fungicide, such as a
	making two		product containing chlorothalonil, may
	applications)		enhance control under severe
			disease pressure.
Leaf Rust	0.2-0.4	14-28	Begin applications when conditions
Stem Rust			are favorable for disease infection,
Stripe Rust			prior to disease symptom
(Puccinia spp.)			development.
Leaf spot	0.2-0.4	14-21	Apply when conditions are favorable
(Bipolaris			for disease development.
sorokiniana)			
Target Diseases	Use Rate	Application	Remarks*

	(oz. product per 1000 sq. ft.)	Interval (days)	
Melting Out (Drechslera poae)	0.2-0.4	14-21	Apply when conditions are favorable for disease development.
Necrotic Ring Spot (Leptosphaeria korrae)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Pink Patch (Limonomyses roseipellis)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Pink Snow Mold (Microdochium nivale)	0.7 (when making a single application)  0.4 (when making two applications)	single application 10-28	Make a single application of 0.7 oz. or two applications of 0.4 oz. spaced 10-28 days apart in late fall just before snow cover. Tank mixing with another snow mold fungicide, such as a product containing chlorothalonil, may enhance control under severe disease pressure.
Powdery Mildew (Erysiphe graminis)	0.2-0.4	14-28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.

Target Diseases	Use Rate (oz. product per 1000 sq. ft.)	Application Interval (days)	Remarks*
Pythium Blight Pythium Root Rot (Pythium aphanidermatum, Pythium spp.)	0.2-0.4	10-14	Use preventatively. Begin applications before disease is present. During periods of prolonged favorable conditions, treat on the 10-day application interval. For use on newly seeded as well as established turf.
Red Thread (Laetisaria fuciformis)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Rhizoctonia Large Patch (Rhizoctonia solani)	0.2-0.4	14-28	Make one or two applications in fall or when conditions are favorable for disease development.
Southern Blight (Sclerotium rolfsii)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Spring Dead Spot (Leptosphaeria korrae) or (Gaeumannomyces	0.2-0.4	14-28	Apply 1 or 2 applications approximately one month prior to bermudagrass dormancy. 1/4" to 1/2" of irrigation directly after
graminis var. graminis) or (Ophiosphaerella herpotricha)			application is suggested. Reapply 14 to 28 days later.
Summer Patch (Magnaporthe poae)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Take-all patch (Gaeumannomyces graminis var. avenae)	0.2-0.4	28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development. Make two applications (28 days apart) in the spring and two applications (28 days apart) in the fall.
Zoysia Patch (Rhizoctonia solani and/or Gaeumannomyces incrustana)	0.2-0.4	14-28	Apply 1 or 2 applications approximately one month prior to zoyiagrass dormancy. Reapply 14 to 28 days later.

<sup>\*</sup>Do not apply more than two sequential applications of Azoxystrobin 50 WG for control of Gray leaf spot and *Pythium* spp. For all other diseases when Gray leaf spot and *Pythium* spp. are not present, do not apply more than three sequential applications of Azoxystrobin 50 WG.

Azoxystrobin 50 WG Rate Conversion Chart for Turf

Ounces Product Per 1000 Sq. Ft.	Ounces A.I. Per 1000 Sq. Ft.	Ounces Product Per Acre	Pounds Product Per Acre
0.20	0.10	8.7	0.5
0.30	0.15	13.1	0.8
0.40	0.20	17.4	1.1
0.70	0.35	30.5	1.9

Amount of Azoxystrobin 50 WG to Mix 100 Gallons for Turf Applications

Use Rate	Spray Volume (gallons/1000 square feet)					
	2.0 gals.	3.0 gals.	4.0 gals.			
0.2 oz.	10 oz.	6.7 oz.	5 oz.			
0.4 oz.	20 oz.	13.3 oz.	10 oz.			
0.7 oz.	35 oz.	23.3 oz.	17.5 oz.			

# **ORNAMENTALS**

Azoxystrobin 50 WG is used for control of certain pathogens causing foliar, aerial, and root diseases, including leaf, tip, and flower blights, leaf spots, downy mildew, powdery mildew, anthracnose, and rusts of ornamental plants. Azoxystrobin 50 WG may be used to control certain diseases of container, bench, flat, plug, bed or field-grown ornamentals in greenhouses, shade houses, outdoor nurseries, retail nurseries, and other landscape areas.

Integrated Pest (Disease) Management: Azoxystrobin 50 WG should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, winter and/or spring pruning, plant residue management, and proper timing and placement of irrigation. Immunoassay detection kits and diagnostic services can assist in the early and accurate identification of causal organisms and corresponding selection of the proper fungicide when required.

Resistance Management: Some ornamental disease pathogens are known to have developed resistance to fungicides used repeatedly for their control. Apply Azoxystrobin 50 WG in an alternation or tank mix program with other registered fungicides that have a different mode of action and to which pathogen resistance has not developed. Do not make more than three (3) sequential applications of Azoxystrobin 50 WG before alternating with a fungicide of a different mode of action. A sound resistance management program would include blocks of three Azoxystrobin 50 WG applications separated by blocks of two alternate fungicide applications. Do not alternate Azoxystrobin 50 WG with other strobilurin fungicides.

**Application Directions:** Apply Azoxystrobin 50 WG as a broadcast or banded spray targeted at the foliage or crown of the plant. Apply to runoff in sufficient water to ensure complete coverage of the target plant. Good coverage and wetting of foliage is necessary for best control. Refer to the label for specific use directions for control of certain diseases. Repeat applications at specified intervals (plus alternations for resistance management) for as long as required. Make applications by ground only.

Azoxystrobin 50 WG applications should begin prior to disease development and continue throughout the season at specified intervals following resistance management guidelines. Azoxystrobin 50 WG works best when used as part of a preventative disease management program.

# 15/3=

# Master Label

Use only surfactants approved for ornamental plants in combination with Azoxystrobin 50 WG. Do not use silicone-based products with Azoxystrobin 50 WG due to possible phytotoxicity. Always test tank mixes on a small group of representative plants prior to broadscale use.

Apply Azoxystrobin 50 WG at use rates of 1-4 oz./100 gallons (0.5-2 oz./50 gallons) and every 7-28 days (or as otherwise specified for a specific plant or disease). The addition of a non-silicone based wetter-sticker at the recommended use rate may enhance coverage on hard-to-wet plant foliage.

Under most conditions and for most diseases, apply 2-4 oz./100 gallons (1-2 oz./50 gallons) on a 7-14 day interval.

Under light to moderate disease pressure, use the lower rates (1-2 oz./100 gallons or 0.5-1 oz./50 gallons) on intervals of 7-14 days or the higher rates (3-4 oz./100 gallons or 1.5-2 oz./50 gallons) on intervals of 14-28 days.

Under environmental conditions which promote severe disease development, use the higher rates (3-4 oz./100 gallons or 1.5-2 oz./50 gallons) on intervals of 7-14 days.

Use of Azoxystrobin 50 WG as a "rescue" (late curative or eradicant) treatment may not always result in satisfactory disease control.

### **Ornamental Use Precautions**

Azoxystrobin 50 WG may be applied to certain varieties of crabapple for control of apple scab. Azoxystrobin 50 WG has been shown to be safer when applied to the species and varieties listed in Table 4. However, due to the large number of genera, species, and varieties of crabapple, it is impossible to test every one for tolerance to Azoxystrobin 50 WG. The professional user should conduct small scale testing to ensure plant safety prior to broadscale commercial use on plant genera and species not listed on this label.

#### **Ornamental Use Restrictions**

- Do not apply Azoxystrobin 50 WG to apple or cherry trees (flowering, Yoshino variety) due to possible phytotoxicity.
- Do not use spray equipment that has applied Azoxystrobin 50 WG for use in these sensitive crops due to possible phytotoxicity from residue remaining in the sprayer.
- Do not exceed 10 lbs. product/crop acre/year or 8 applications/crop/year.
- Do not exceed 600 gallons spray volume per acre for foliar applications. For drench and crown applications, do not exceed 2 pints volume per square foot.
- Do not tank mix Azoxystrobin 50 WG with other fungicides, insecticides, herbicides, fertilizers, adjuvants, etc., unless local experience indicates that the tank mix is safe to ornamental plants.

**Drench Application:** Azoxystrobin 50 WG may be applied to control soil-borne, seedling, and crown diseases of production ornamentals (greenhouse, shade house, and container grown) as a preventative, drench treatment prior to infection. Good coverage of the pre-infection area (root zone, root ball, crown, etc.) is necessary for satisfactory control. Azoxystrobin 50 WG may be drench applied to container grown ornamentals using 0.2-0.9 oz./100 gallons of water. Apply 1-2 pints of the solution per square foot surface area on an interval of 7-28 days. Apply drench prior to infection as healthy roots are necessary to optimize product uptake, systemic translocation, and disease protection.

For resistance management, do not make more than three (3) sequential drench applications of Azoxystrobin 50 WG before alternating with a fungicide of a different mode of action.

Use care before making application of Azoxystrobin 50 WG as a drench to small bedding plants in the seedling/plug stage due to possible phytotoxicity. Test a limited quantity of plants prior to full-scale application.

**Drip Irrigation:** Azoxystrobin 50 WG may be applied through drip irrigation systems to potted ornamentals or to bedded, field-grown ornamentals for soil-borne disease control. Apply 2-16 oz. Azoxystrobin 50 WG per acre as a preventative disease application. The soil or potting media must have adequate moisture capacity prior to drip application.

Terminate drip irrigation at fungicide depletion from the main feed supply tank or after 6 hours from start, whichever is shorter. For maximum efficacy, delay subsequent irrigation (water only) for at least for 24 hours following drip application.

# TABLE 1 Diseases Controlled

When used in accordance with the label directions, Azoxystrobin 50 WG will provide control of the following diseases of ornamental plants:

DISEASE (Pathogen)	Use Rates	and Remarks
	8 oz. and larger containers	4 oz. containers
	(oz. product per 100 gallons)	(oz. product per 50 gallons)
1. CONIFER BLIGHTS		
a. Phomopsis Blight	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28
(Phomopsis juniperovora)	days.	days.
b. Tip Blight	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28
(Sirococcus strobilinus)	days.	days.
2. LEAF BLIGHTS/LEAF SPC	DTS	
a. Alternaria Leaf Spot	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28
(Alternaria spp.)	days.	days.
b. Anthracnose	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28
(Colletotrichum spp.,	days.	days.
Elsinoe spp.)		
c. Downy Mildew of Rose	Apply 2-4 oz. every 7-21 days	Apply 1-2 oz. every 7-21 days
(Peronospora sparsa)	during periods of active plant	during periods of active plant
	growth and prior to dormancy	growth and prior to dormancy or
	or severe infection.	severe infection.
d. Entomosporium Leaf Spot	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28
(Entomosporium mespili)	days.	days.
e. Iris Leaf Spot	Apply 2-4 oz. every 7-21	Apply 1-2 oz. every 7-21 days.
(Mycosphaerella	days.	
macrospora)		
f. Leaf spot	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28
(Cladosporium echinulatum)	days.	days.
		,

DISEASE (Pathogen)	Use Rates and Remarks		
	8 oz. and larger containers	4 oz. containers	
	(oz. product per 100 gallons)	(oz. product per 50 gallons)	
g. Rose Blackspot	Apply 4-8 oz. every 7-14	Apply 2-4 oz. every 7-14 days.	
(Diplocarpon rosea)	days. Apply Azoxystrobin 50	Azoxystrobin 50 WG on a 7-day	
,	WG on a 7-day interval	interval unless disease	
	unless disease pressure is	pressure is light. Under severe	
•	light. Under severe disease	disease conditions or if disease	
	conditions or if disease is	is already present, Azoxystrobin	
	already present, Azoxystrobin	50 WG may be tank mixed with	
	50 WG may be tank mixed	another rose blackspot	
	with another rose blackspot	fungicide. Do not exceed 24	
	fungicide. Do not exceed 24	oz./acre/application.	
	oz./acre/application.		
h. Myrothecium leaf spot	Apply 2-4 oz. every 7-21	Apply 1-2 oz. every 7-21 days.	
(Myrothecium spp.)	days.		
i. Downy Mildew of bedding	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28	
plants (Peronospora spp.)	days.	days.	
j. Scab (Venturia inaequalis)	Apply 1-4 oz. every 10-28	Apply 0.5-2 oz. every 10-28	
	days. Do not apply to apple	days. Do not apply to apple	
	_trees. For crabapples_only, = see Table 4 for tolerant	trees. For crabapples only, see Table 4 for tolerant species.	
	species.	•	
k. Marrsonina Leaf Spot	Apply 1-4 oz. every 14-28	Apply 0.5-2 oz. every 14-28	
(Marsonina spp.)	days.	days.	
I. Cercospora Leaf Spot	Apply 1- 4 oz. every 7-28 days.	Apply 0.5-2 oz. every 7-28 days.	
3. POWDERY MILDEW			
	v. Do not make more than 2 sequ	ential applications before	
rotating to another class of fur			
a. Erysiphe pannosa, E.	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28	
spp.	days.	days.	
b. Microsphaera azaleae	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28	
0-1	days.	days.	
c. Sphaerotheca pannosa	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28	
4 DUCTS	days.	days.	
4. RUSTS	Apply 1-4 oz. every 7-28	Apply 0.5.2 oz. oven, 7.20	
a. Needle Rust	•••	Apply 0.5-2 oz. every 7-28	
(Melampsora occidentalis) b. Phragmidium spp.	days. Apply 1-4 oz. every 7-28	days. Apply 0.5-2 oz. every 7-28	
b. Emaginididin spp.	days.	days.	
c. Puccinia spp.	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28	
o., acomina opp.	days.	days.	
d. Gymnosporagium spp.	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28	
a. cymmosporagiam opp.	days.	days.	

DISEASE (Pathogen)	Use Rates and Remarks		
	8 oz. and larger containers	4 oz. containers	
	(oz. product per 100 gallons)	(oz. product per 50 gallons)	
5. FLOWER BLIGHTS			
a. Anthracnose	Apply 1-4 oz. every 7-28	Apply 0.5-2 oz. every 7-28	
(Collectotrichum spp., Elsinoe spp.)	days.	days.	
b. Botrytis Blight	Apply 4-8 oz. every 7-21	Apply 2-4 oz. every 7-21 days.	
(Botrytis cinerea)	days. For suppression only.	For suppression only. Do not	
0.0000000000000000000000000000000000000	Do not exceed 24 oz./acre.	exceed 24 oz./acre.	
6. SHOOT/STEM DISEASES		7.00	
a. Aerial/Shoot Blight	Apply 1-2 oz every 7-28 days.	Apply 0.5-1 oz. every 7-28	
(Phytophthora spp.)	(Diseased Course)	days.	
	(Directed Spray). For directed sp	ray applications, utilize	
the following rates below.  a. Rhizoctonia solani	Apply 1 4 27 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Apply 0.5.2 as ayang 7.21	
	Apply 1-4 oz. every 7-21 days.	Apply 0.5-2 oz. every 7-21 days.	
b. Sclerotium rolfsii	Apply 1-4 oz. every 7-21 days.	Apply 0.5-2 oz. every 7-21 days.	
c. <i>Fusarium</i> spp.	Apply 1-4 oz. every 7-21	Apply 0.5-2 oz. every 7-21	
	days.	days.	
8. SOIL-BORNE DISEASES (Drench). See <b>ORNAMENTALS</b> section for additional drench directions.			
a. Rhizoctonia solani	Apply 0.2-0.9 oz/100 gal of	Apply 0.1-0.5 oz./100 gal of	
	water as a drench OR 1-2	water as a drench OR 1-2 pints	
	pts/sq ft as a spray solution	per square foot surface area,	
	every 7-28 days.	every 7-28 days.	
b. Sclerotium rolfsii	Apply 0.2-0.9 oz/100 gal of	Apply 0.1-0.5 oz./100 gal of	
	water as a drench OR 1-2	water as a drench OR 1-2 pints	
	pts/sq ft as a spray solution	per square foot surface area,	
	every 7-28 days.	every 7-28 days.	
c. <i>Fusarium</i> spp.	Apply 0.2-0.9 oz/100 gal of	Apply 0.1-0.5 oz./100 gal of	
	water as a drench OR 1-2	water as a drench OR 1-2 pints	
	pts/sq ft as a spray solution	per square foot surface area,	
	every 7-28 days.	every 7-28 days.	

PLANT SAFETY: Azoxystrobin 50 WG has been shown to be safe when applied to the ornamental plants listed in Tables 2, 3, and 4. However, due to the large number of genera, species, and varieties of ornamental and nursery plants, it is impossible to test every one for tolerance to Azoxystrobin 50 WG. Neither the manufacturer nor the seller has determined whether or not Azoxystrobin 50 WG can be used safely on genera, species, or varieties of ornamental and nursery plants not specified on this label. The professional user should conduct small scale testing to ensure plant safety prior to broad-scale commercial use on plant genera and species not listed in this label.

In addition, do not tank mix Azoxystrobin 50 WG with other fungicides, insecticides, herbicides, fertilizers, adjuvants, etc, unless local experience indicates that the tank mix is safe to ornamental plants.

Do not apply Azoxystrobin 50 WG to certain apple, crabapple, or cherry trees due to possible phytotoxicity. Further, do not use spray equipment that has applied Azoxystrobin 50 WG for use in these sensitive crops due to possible phytotoxicity from residue remaining in the sprayer.

**Tolerant Ornamental Plants:** Azoxystrobin 50 WG has been found to be safe when applied to the plants listed in Tables 2, 3, and 4 when applied according to labeled application methods, rates, and timings.

TABLE 2
Tolerant Plants Listed by Botanical Name

BOTANICAL NAME	COMMON NAME	DISEASES
Abelia spp.	Abelia	2
Abies fraseri	Fraser fir	1, 4
Abies procera	Noble fir	1, 4
Acer palmatum	Japanese maple	2
Acer saccharum	Sugar maple	2
Ageratum spp.	Floss Flower	3, 4
Ageratum spp.	Pussy's-Foot	3, 4
-Aglaonema-spp:	Chinese evergreen	2, 4
Ajuga reptans	Bugle, Bugleweed	3
Antirrhinum spp.	Snap Dragon	2i, 3, 4
Aphelandra spp.	Zebra Plant	2
Artemisia spp.	Mugwort, Sagebrush	2
Artemisia spp.	Wormwood	2
Aster spp.	Aster, Starwort	4
Aucuba japonica	Japanese aucuba, Japanese	7
	laurel	
Begonia spp. (except Rieger	Begonia	2, 3
begonia)		
Berberis thunbergii	Barberry	3, 4
Betula nigra	River birch	3, 4
Bougainvillea spp.	Bougainvillea	2
Brassaia actinophylla	Rubber tree, Umbrella tree	2, 7
Buddleia davidii	Buddleia, Butterfly bush	2
Buxus sempervirens	Boxwood	2, 7a
Caladium spp.	Caladium	7
Camellia japonica	Camellia	2
Caryota urens	Sago Palm	2, 7
Catharanthus roseus	Vinca	2
Ceanothus sanguineus	Wild lilac	3
Ceanothus spp.	Ceanothus, California lilac,	3
	Snowball	
Cedrus atlantica	Atlas cedar	2, 4
Cedrus spp.	White cedar	2, 4
Cercis occidentalis	Western redbud	2

BOTANICAL NAME	COMMON NAME	DISEASES
Chamaecyparis spp.	Cypress, Leyland cypress	1 .
Chamaecyparis pisifera	Sawara cypress	1
Chamaedora elegans	Parlor palm	7
Chrysanthemum spp.	Chrysanthemums	2, 7c
Clethra alnifolia	Clethra, White alder	2
Cornus spp.	.Dogwood, Pink dogwood,	2b, 3
•	Flowering dogwood	
Cornus florida	Dogwood	2b, 3
Cortaderia selloana	Pampas grass	3 .
Cotoneaster adpressus	Creeping cotoneaster	7
Cotoneaster horizontalis	Cotoneaster - variegated	7
	rockspray	
Cyclamen spp.	Cyclamen	7c
Cyperus spp.	Cyperus	1
Delphinium spp.	Larkspur	2
Dianthus caryophyllus	Carnation	3, 4
Dianthus spp.	Pink	3, 4
Dieffenbachia spp.	Dumb Cane	2
Dietes-iridiodes	African iris, Butterfly iris	4c
Digitalis spp.	Foxglove	2, 3
Epipremnum spp.	Pothos	2
Erica dareyensis	Heather	2
Euonymus alata	Dwarf winged euonymus	2
Euonymus alatus	Burning bush	2
Euonymus japonicus	Evergreen euonymus	2
Euphorbia spp.	Poinsettia	2a
Fatsia japonica	Japanese fatsia, Paper plant	2
Ficus spp.	Fig	2
Forsythia viridissima	Forsythia	2
Gaillardia spp.	Blanket Flower	2
Gardenia jasminoides	Gardenia	3
Geranium spp.	Cranesbill	5b
Gerbera jamesonii	Gerber daisy, Transvaal daisy	3
Hedera algeriensis	Algerian ivy	2
Hedera helix	English ivy	2
Hibiscus moscheutos	Hibiscus	2, 3
Hibiscus rosa-sinensis	Hibiscus	2, 3
Hibiscus syriacus	Rose of Sharon	2, 3
Hosta spp.	Hosta	2
Hydrangea macrophylla	French hydrangea	2, 3
Hydrangea spp.	Hydrangea	2, 3
llex spp.	Holly, Winterberry, Yaupon	3
Impatiens spp.1	Balsam, Impatiens <sup>1</sup>	2a, 7a
Iris xiphium	Iris (bulbous, Spanish, Dutch)	2e

BOTANICAL NAME	COMMON NAME	DISEASES
Itea virginica	Virginia willow	3, 4
Juniperus procumbens	Juniper	1a, 4
Juniperus scopulorum	Juniper	1a, 4
Juniperus spp.	Juniper	1a, 4
Juniperus virginiana	Red cedar	1a, 4
Lagerstroemia indica	Crapemyrtle	2, 3
Laurus nobilis	Laurel	2, 3
Lilium spp.	Asiatic Lily	2
Liriope muscari	Lily turf	2
Lobularia maritima	Sweet alyssum	7
Magnolia grandiflora	Southern magnolia	2
Magnolia soulangiana	Saucer magnolia	2
Magnolia spp.	Magnolia	2
Malus spp.	Crabapple (See Table 4 for variety list)	2j
Nandina domestica	Nandina	2
Nerium oleander	Oleander, Rose bay	2
Pelargonium spp.	Geranium	3, 4, 5b
Pennisetum alopecuroides	Grass	2
Peperomia spp.	Baby rubber plant	2, 7
Petunia spp.	-Petunia	-6a
Phalaris spp.	Dwarf pampas grass	3
Philodendron spp.	Philodendron	2
Phlox spp.	Phlox	3
Phoenix dactylifera	Date palm	2, 7
Phoenix roebelenii	Roebelin's palm	2, 7
Photinia glabra	Red-tip photinia	2, 3, 4
Picea abies	Norway spruce	1
Picea glauca	White spruce	1
Picea pungens	Blue spruce	1
Pieris japonica	Japanese andromeda	2, 7
Pinus muhgo	Muhgo pine	1b, 4
Pinus nigra	Black pine	1b, 4
Pinus silvestris	Scotch pine	1
Pinus spp.	Pine	1b, 4
Pinus strobus	Eastern white pine	1b, 4
Pittosporum spp.	Australian laurel	3,4
Pittosporum tobira	Mock orange	3, 4
Plectranthus spp.	Swedish ivy, Coleus	2
Populus spp.	Aspen Tree	2
Potentilla spp.	Cinquefoil	2
Primula spp.	Primrose	2
Prunus pumila	Cherry	2, 5
Prunus spp.	Flowering plum, Purple leaf plum	2, 5
Pseudotsuga spp.	Douglas fir	1, 4

BOTANICAL NAME	COMMON NAME	DISEASES
Pyrus calleryana	Bradford's pear	3
Quercus falcata	Red oak	2, 3
Quercus palustris	Pin oak	2, 3
Rhaphiolepsis indica	Indian hawthorn	2, 3, 4
Rhododendron spp.	Azaleas, Rhododendron	2b, 3, 6, 7
Rhododendron spp.	Glacier Azalea	2b, 3, 6, 7
Rosa spp.	Rose	2a, 2c, 3c, 4b
Rosmarinus spp.	Rosemary (prostrate)	2
Rudbeckia hirta	Black-eyed susan	2
Salvia spp.	Sage	3, 4
Schlumbergera	Holiday cactus	2, 7
Sedum spp.	Orpine, Stonecrop	2
Sempervivum spp.	Live-forever, House Leek	2
Setaria spp.	Ribbon-grass	2, 3
Spathiphyllum floribundium	Peace lily	2, 7
Spirea bumalda	Spirea	3
Spirea japonica	Spirea	3
Syagrus romanzoffi anum	Queen palm	2
Tagetes spp.	Marigold	2a
Taxus baccata	Spreading yew	7
Thuja-plicata	Western-red-cedar	-4
Thujopsis spp.	Arborvitae	2
Thymus serphyllum	Creeping thyme	2
Tsuga heterophylla	Western hemlock	4
Tsuga spp.	Hemlock	4
Verbena spp.	Verbena, Vervain	3
Viburnum spp.	Viburnum	2, 3, 4
Vinca spp.	Periwinkle	2, 6a
Viola spp.1	Viola, Pansy <sup>1</sup>	2
Wiegela florida	Pink wiegela	2
Yucca spp.	Yucca	7
Zinnia spp.	Zinnia	2a, 3

<sup>1</sup>Do not exceed 2 oz./100 gallons on these species.

TABLE 3
Tolerant Plants Listed by Common Name

COMMON NAME	BOTANICAL NAME
Abelia	Abelia spp.
Andromeda, Japanese	Pieris japonica
Arborvitae	
Aspen Trees	Thujopsis spp.
Aster	Populus spp.
	Aster spp.
Aucuba, Japanese	Aucuba japonica
Azalea, Glacier Azaleas	Rhododendron spp. Rhododendron spp.
Balsam	
	Impatiens spp.
Barberry	Berberis thunbergii
Begonia (except Rieger Begonia)	Begonia spp.
Block Fund Super	Betula nigra Rudbeckia hirta
Black-Eyed Susan Blanket Flower	
	Gaillardia spp.
Bougainvillea	Bougainvillea spp.
Boxwood	Buxus sempervirens Buddleia davidii
Buddleia	
Bugle	Ajuga reptans
Bugleweed	Ajuga reptans
Burning Bush	Euonymus alatus
Butterfly Bush	Buddleia davidii
Cactus, Holiday	Schlumbergera
Caladium	Caladium spp.
Camellia	Camellia japonica
Carnation	Dianthus caryophyllus
Ceanothus	Ceanothus spp.
Cedar, Atlas	Cedrus atlantica
Cedar, Red	Juniperus virginiana
Cedar, Western Red	Thuja plicata
Cedar, White	Cedrus spp.
Cherry	Prunus pumila
Christmas Trees (see Fraser fir, Scotch pine	
and Douglas fir)	
Chrysanthemum	Chrysanthemum spp.
Cinquefoil	Potentilla spp.
Clethra	Clethra alnifolia
Coleus	Plectranthus spp.
Cotoneaster, Creeping	Cotoneaster adpressus
Cotoneaster, Variegated Rockspray	Cotoneaster horizontalis
Crabapple (See Table 4 for variety list)	Malus spp.
Cranesbill	Geranium spp.
Crapemyrtle	Lagerstroemia indica
Cyclamen	Cyclamen spp.
Cyperus	Cyperus spp.

COMMON NAME	BOTANICAL NAME
Cypress, Sawara	Chamaecyparis pisifera
Cypress, Sawara Cypress, Leyland	
	Chamaecyparis spp. Gerbera jamesonii
Daisy, Gerber Daisy, Transvaal	Gerbera jamesonii
Dogwood	Cornus spp. Cornus florida
Dogwood Pink	
Dogwood, Pink	Cornus spp.
Dumbcane Duart Minarad	Dieffenbachia spp.
Euonymus, Dwarf Winged	Euonymus alata
Euonymus, Evergreen	Euonymus japonicus
Evergreen, Chinese	Aglaonema spp.
Fatsia, Japanese	Fatsia japonica
Fig	Ficus spp.
Fir, Douglas	Pseudotsuga spp.
Fir, Fraser	Abies fraseri
Floss Flower	Ageratum spp.
Forsythia	Forsythia viridissima
Foxglove	Digitalis spp.
Gardenia	Gardenia jasminoides
Geranium	Pelargonium spp.
-Grass	Pennisetum alopecuroides
Grass, Dwarf Pampas	Phalaris spp.
Grass, Pampas	Cortaderia selloana
Hawthorn, Indian	Rhaphiolepsis indica
Heather	Erica dareyensis
Hemlock	Tsuga spp.
Hemlock, Western	Tsuga heterophylla
Hibiscus	Hibiscus moscheutos
Hibiscus	Hibiscus rosa-sinensis
Holly	llex spp.
Hosta	Hosta spp.
House Leek	Sempervivum spp.
Hydrangea	Hydrangea spp.
Hydrangea, French	Hydrangea macrophylla
Impatiens <sup>1</sup>	Impatiens spp.1
Iris (bulbous, Spanish, Dutch)	Iris xiphium
Iris, African	Dietes iridiodes
Iris, Butterfly	Dietes iridiodes
lvy, Algerian	Hedera algeriensis
lvy, English	Hedera helix
Ivy, Swedish	Plectranthus spp.
Juniper	Juniperus procumbens
Juniper	Juniperus scopulorum
Juniper	Juniperus spp.
Larkspur	Delphinium spp. \
Laurel	Laurus nobilis

COMMON NAME	BOTANICAL NAME
Laurel, Australian	Pittosporum spp.
Laurel, Japanese	Aucuba japonica
Lilac, California	Ceanothus spp.
Lilac, Wild	Ceanothus sanguineus
Lily, Asiatic	Lilium spp.
Lily, Peace Lily Turf	Spathiphyllum floribundium  Liriope muscari
Live-Forever	Sempervivum spp.
<u></u>	Magnolia spp.
Magnolia Magnolia, Saucer	Magnolia soulangiana
Magnolia, Southern Maple, Japanese	Magnolia grandiflora Acer palmatum
Maple, Sugar	Acer saccharum
	Tagetes spp.
Marigold Mock Orange	Pittosporum tobira
Mugwort	Artemisia spp.
Nandina	Nandina domestica
Oak, Pin	Quercus palustris
Oak, Red	Quercus falcata
Oleander	Nerium oleander
Orpine	Sedum spp.
Palm, Date	Phoenix dactylifera
Palm, Parlor	Chamaedora elegans
Palm, Queen	Syagrus romanzoffianum
Palm, Roebelin's	Phoenix roebelenii
Palm, Sago	Caryota urens
Pansy <sup>1</sup>	Viola spp. 1
Paper Plant	Fatsia japonica
Pear, Bradford	Pyrus calleryana
Periwinkle	Vinca spp.
Petunia	Petunia spp.
Philodendron	Philodendron spp.
Phlox	Phlox spp.
Photinia, Red-Tip	Photinia glabra
Pine	Pinus spp.
Pine, Black	Pinus nigra
Pine, Eastern White	Pinus strobus
Pine, Muhgo	Pinus muhgo
Pine, Scotch	Pinus sylvestris
Pink	Dianthus spp.
Plum, Flowering	Prunus spp.
Plum, Purple Leaf	Prunus spp.
Poinsettia	Euphorbia spp.
Poplar	Populus trichocarpa
Pothos	Epipremnum spp.
Primrose	Primula spp.

Pussy's-FootAgeratum spp.Redbud, WesternCercis occidentalisRhododendronRhododendron spp.Ribbon-GrassSetaria spp.Rose of SharonHibiscus syriacusRoseRosa spp.Rose BayNerium oleander		
RhododendronRhododendron spp.Ribbon-GrassSetaria spp.Rose of SharonHibiscus syriacusRoseRosa spp.	1 Mostorn	
Ribbon-Grass Setaria spp. Rose of Sharon Hibiscus syriacus Rose Rosa spp.	a, vvesterri	Cercis occidentalis
Rose of Sharon Hibiscus syriacus Rose Rosa spp.	dendron	Rhododendron spp.
Rose of Sharon Hibiscus syriacus Rose Rosa spp.	-Grass	Setaria spp.
Rose Rosa spp.	f Sharon	
		Rosa spp.
	ay	Nerium oleander
Rosemary (Prostrate) Rosmarinus spp.	ary (Prostrate)	Rosmarinus spp.
Rubber Plant, Baby Peperomia spp.		
Rubber Tree Brassaia actinophylla		
Sage Salvia spp.		
Sagebrush Artemisia spp.	ush	Artemisia spp.
Snap Dragon Antirrhinum spp.		Antirrhinum spp.
Snowball Ceanothus spp.		Ceanothus spp.
Spirea Spirea bumalda		Spirea bumalda
Spirea Spirea japonica		Spirea japonica
Spruce, Blue Picea pungens	, Blue	Picea pungens
Spruce, Norway Picea abies		Picea abies
Spruce, White Picea glauca	, White	
Starwort Aster spp.	rt	Aster spp.
Stonecrop Sedum spp.	rop	Sedum spp.
Sweet Alyssum Lobularia maritime	Alyssum	Lobularia maritime
Thyme, Creeping Thymus serphyllum		
Umbrella Tree Brassaia actinophylla	la Tree	
Verbena spp.	a	
Vervain Verbena spp.	<u> </u>	Verbena spp.
Viburnum spp.	ım	
Vinca Catharanthus roseus		
Viola Spp.		Viola spp.
White Alder Clethora spp.	Alder	Clethora spp.
Wiegela, Pink Wiegela florida	a, Pink	
Willow, Virginia Itea virginica	Virginia	Itea virginica
Winterberry // // // // // // // // // // // // //	erry	llex spp.
Wormwood Artemisia spp.	ood	Artemisia spp.
Yaupon <i>llex</i> spp.	)	llex spp.
Yew, Spreading Taxus baccata		Taxus baccata
Yucca spp.		Yucca spp.
Zebra Plant Aphelandra spp.	Plant	
Zinnia Zinnia spp.		Zinnia spp.

Do not exceed 2 oz/100 gallons on these species.

# TABLE 4 Tolerant Varieties of Crabapple Species (Genus *Malus*) Tolerant Varieties of *Malus*

Arkansas Black	Eleyi	Mary Potter	seiboldii
atrosanguinea	Enterprise	Molten Lava	Selkirk
baccata	Evereste	New Centennial	Sentinel
baccata var. jackii	Eyelynn	Ormiston Roy	Silver Moon
baccata var mandshurica floribunda	floribunda	Pink Satin	Silverdrift
Callaway	Gloriosa	Prairie Maid	Sinai Fire
Candymint Sargent	Golden Delicious	Prairifire	Spectablis
Christmas Holly	Golden Raindrops	Profusion	Sugar Tyme
coronaria	Нора	pumila	Van Eseltine
David	Indian Magic	Ralph Shay	White Angel
Dolgo	Island	Red Jade	Williams Pride
Donald Wyman	Katherine	Red Baron	Winter Gold
Dorothea	Lancelot	Sargent	Yellow Delicious
Doubloons	Louisa	sargentii	zumi Calocarpa

# TABLE 5 Intolerant Plants<sup>†</sup>

COMMON NAME	BOTANICAL NAME
Apple	Malus domestica
Crabapple - Flame variety	Malus spp.
Crabapple - Brandywine variety	Malus spp.
Crabapple - Novamac variety	Malus spp.
Cherry, Flowering-Yoshino variety	Prunus yedoensis
COMMON NAME	BOTANICAL NAME
Leatherleaf Fern	Rumohra adianformis and other species
Privet	Ligustrum spp.

<sup>&</sup>lt;sup>†</sup>Do not apply Azoxystrobin 50 WG to these species or varieties

# CONIFERS INCLUDING CHRISTMAS TREES, COMMERCIAL PRODUCTION ROSES Azoxystrobin 50 WG may be used to control certain diseases on conifers in production (indoor and outdoor) and landscape situations.

Please see the **ORNAMENTALS** section for more detailed directions for use in landscape situations.

For 4 oz. pack size: See Azoxystrobin 50 WG Rate Conversion Chart Specifically for 4 oz. Pack Size below.

Crop	Target Diseases	Use Rate oz. product/A (Ibs. a.i./A)	Remarks
Conifers including Christmas Trees	Diplodia tip blight (Diplodia pinea)  Lophodermium needlecast (Lophodermium pinastri)  Swiss needlecast (Phaeocrytopus gaumannii)	3.2-8.0 (0.10-0.25)	Integrated Pest (Disease) Management: Azoxystrobin 50 WG should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance and removal of plant debris in which inoculum may overwinter. Resistance Management: Do not apply more than four sequential applications of Azoxystrobin 50 WG before alternating with a fungicide that is not in Group 11. Do not make more than eight applications of Azoxystrobin 50 WG per acre per year. Application Directions: Azoxystrobin 50 WG applications should begin prior to disease development and continue throughout the season at intervals of 7-21 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at labeled rates.
Specific Use Restra.i./A).	ictions: Do not apply	y more than 4	.0 pounds product/acre/season (2.0 lbs.

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Crop `	Target Diseases	Use Rate oz. product/A (Ibs. a.i./A)	Remarks
Roses (Commercial Rose Production)  Specific Use Restri	Downy Mildew (Peronospora sparsa) Powdery Mildew (Sphaerotheca pannosa) Rust (Phragmidium mucronatum, P. tuberculatum, and other Phragmidium spp.) Septoria Leaf Spot (Septoria rosea) Alternaria Leaf Spot (Alternaria alternata)	1.6-8.0 (0.05-0.25)	Integrated Pest (Disease) Management: Azoxystrobin 50 WG should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, winter and/or spring pruning, plant residue management, and proper timing and placement of irrigation. Resistance Management: Do not make more than four (4) sequential applications of Azoxystrobin 50 WG before alternating with a fungicide that is not in Group 11. Do not make more than eight applications per acre per year. Application Directions: Azoxystrobin 50 WG application should begin prior to disease development and continue throughout the season at intervals of 7-21 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at labeled rates. Plant Safety: Azoxystrobin 50 WG has been shown to be safe when applied to roses. However, all varieties of roses have not been evaluated for safety. Small scale variety safety testing must be conducted to ensure plant safety prior to large scale application. In addition, do not tank mix Azoxystrobin 50 WG with other fungicides, insecticides, herbicides, fertilizer, etc. unless local experience indicates that the tank mix is safe to roses.

Azoxystrobin 50 WG Rate Conversion Chart

Oz. Product/A	Lb. a.i./A	Treated Acres/Lb. Product
0.9	0.03	17.8
1.6	0.05	10.0
2.0	0.06	8.0
2.2	0.07	7.3
2.5	0.08	6.4
3.0	0.09	5.3
3.2	0.10	5.0
3.5	0.11	4.6
4.0	0.13	4.0
4.3	0.135	3.7
4.5	0.14	3.6
5.1	0.16	3.1
5.5	0.17	2.9
6.0	0.19	2.7
6.4	0.20	2.5
7.0	0.22	2.3
7.5	0.23	2.1
8.0	0.25	2.0
8.5	0.27	1.9
-9.0	0.28	1.8
9.6	0.30	1.7
10.0	0.31	1.6
10.5	0.33	1.5
11.0	0.34	1.5
11.5	0.36	. 1.4
12.0	0.38	1.3
12.5	0.39	1.3
12.8	0.40	1.3

Azoxystrobin 50 WG Rate Conversion Chart Specifically for 4 oz. Pack Size (For use with 4 oz. package size only)

Oz. Product/A	Oz. Product/1000 sq. ft.	Treated Acres/4 oz. Product
1.0	0.025	4.0
1.5	0.035	2.7
2.0	0.05	2.0
2.5	0.06	1.6
3.0	0.07	1.3
3.5	0.08	1.1
4.0	0.09	1.0
4.5	0.1	0.9
5.0	0.11	0.8
5.5	0.13	0.73
6.0	0.14	0.67
6.5	0.15	0.62
7.0	0.16	0.57
7.5	0.17	0.53
8.0	0.18	0.5
8.7	0.2	0.46
13.1	0.3	0.31
17.4	0.4	0.23
26.1	0.6	0.15
30.5	0.7	0.13

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill on floor or paved surfaces, cover spill with moist sand, soil, or sawdust. Transfer to a container for disposal. Wash the spillage area with water. Washings must be prevented from entering surface water drains.

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

### **CONTAINER HANDLING:**

Nonrefillable Container (flexible-bag-all weights): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid-fifty lbs. or less): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container 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. Then offer for recycling or

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### Master Label

reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid-greater than fifty lbs.): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ½ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Refillable Container: Refillable container. Refill this container with aluminum tris 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 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

### LIMITATION OF WARRANTY AND LIABILITY

Read the entire direction for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following CONDITIONS, DISCLAIMER OF WARRANTIES, and LIMITATIONS OF LIABILITY.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risk associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Control Solutions, Inc. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

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LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Control Solutions, Inc. election, the replacement of product.