5/19/2014

1/46



## U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Chemical Safety and Pollution Prevention
Office of Pesticide Programs
Registration Division (7504P)
1200 Pennsylvania Ave., N.W.
Washington, DC 20460

Date of Issuance:

100-1537

EPA Reg. Number:

MAY 1 9 2014

Term of Issuance: Conditional

Name of Pesticide Product:

Mika WG

#### **NOTICE OF PESTICIDE:**

X Registration

\_ Reregistration
Under FIFRA, as amended

Name and Address of Registrant (include ZIP Code):

Syngenta Crop Protection, LLC 410 Swing Road Greensboro, NC 18300

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

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

The application referred to above, submitted under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable under FIFRA sec. 3(c)(7)(A) subject to the following conditions:

- You must submit and/or cite all data required for registration/reregistration/ registration review of your product when the Agency requires all registrants of similar products to submit such data.
- 2. You are required to comply with the azoxystrobin Data Call-In identified below in a timely and adequate manner and submit your responses to Kelly Ballard. DCI#

Page 1 of 2

Signature of Approving Official:

Date:

Shaja B. Joyner, Product Manager (20)

MAY 1 9 2014

Fungicide Branch/Registration Division/OPP/OCSPP (7504P)

EPA Form 8570-6

GDCI-128810-892, issued on 11/9/2011. A copy of the DCI is attached.

- 3. You must comply with all of the data requirements in the referenced order within the deadlines established by the order. In the case of this DCI, those deadlines are measured from 11/9/2011. If you fail to satisfy the requirements in this Order, EPA will consider appropriate regulatory action, including, among other things, cancellation under FIFRA section 6(e).
- 4. Make the following change to the label:
  - a. Change the product registration number to "EPA Reg. No. 100-1537"
- 5. Submit one copy of the revised final printed label for the record before the product is released for shipment.

Note: Submit the following data before the due date of 11/19/2015:

a. Corrosion Characteristics (830.6320) study

The basic and alternate Confidential Statements of Formula (CSF) dated 10/7/2013 are acceptable.

If these requirements are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A copy of your label stamped "Accepted" is enclosed for your records.

Shaja B. Joyner Product Manager (20) Fungicide Branch Registration Division (7504P)

#### **Enclosures:**

Label stamped "Accepted"
Product Chemistry Review dated 4/9/2014 {DP419104}
Acute Toxicity Review dated 1/15/2014 {DP417408}

## [MASTER]

# GROUP 11 FUNGICIDE

## Mika™ WG

Broad-spectrum fungicide for control of plant diseases on turfgrass and ornamental plants.

Active Ingredient

Azoxystrobin: methyl (E)-2-{2-[6-(2-cyanophenoxy)

pyrimidin-4-yloxy phenyl}-3-methoxyacrylate*	50%
Other Ingredients:	50%
Total:	100%

Contains 0.5 lb ai/lb product \*IUPAC

#### KEEP OUT OF REACH OF CHILDREN.

# CAUTION

See additional precautionary statements and directions for use inside booklet.

Reformulation is prohibited. See individual container labels for repackaging limitations.

EPA Reg No. 100-XXXX

EPA Est.

4 oz

1 lb

6 lb

Net Weight

ACCEPTED MAY 1 9 2014

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

EPA. Reg. No: 160-1537

	FIRST AID					
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 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> </ul>					
	Call a poison control center or doctor for treatment advice.					
Have the produ doctor, or going	ct container or label with you when calling a poison control center or for treatment.					
	HOT LINE NUMBER					
For 2	4-Hour Medical Emergency Assistance (Human or Animal) or					
	Chemical Emergency Assistance (Spill, Leak, Fire, or Accident),					
•	Call					
	1-800-888-8372					

## PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

#### CAUTION

HARMFUL IF 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. Remove and wash contaminated clothing before reuse.

## Personal Protective Equipment (PPE)

Some materials that are chemically 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

## **User Safety Requirements**

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**

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

# User Safety Recommendations Users should:

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

#### **Environmental Hazards**

This pesticide is toxic to freshwater and estuarine/marine fish and aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

## **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 rain water. 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

6/46

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.

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

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

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

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

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

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

## OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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

#### **DIRECTIONS FOR USE**

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

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

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

#### **AGRICULTURAL USES**

#### AGRICULTURAL USE REQUIREMENTS

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

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

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

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

#### **NON-AGRICULTURAL USES**

For use 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 certain states may require more restrictive reentry intervals, consult your State Department of Agriculture for further information.

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

#### PRODUCT INFORMATION

Mika WG is a broad-spectrum, preventative fungicide with systemic and curative properties recommended for the control of many important plant diseases. Mika WG may be applied as a foliar spray in alternating spray programs or in tank mixes with other registered crop protection products. All applications must be made according to the use directions that follow.

#### **USE PRECAUTIONS AND RESTRICTIONS**

Adjuvants: When an adjuvant is to be used with this product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

DO NOT graze or feed clippings from treated turf areas to animals.

DO NOT plant the following crops for a period of 12 months (unless an azoxystrobin product is registered for use on that crop): sorghum, barley, buckwheat, millet, oats, rye, wild rice, non-grass animal feeds (alfalfa, clover), sugarcane, triticale and wheat. A plantback interval (PBI) of 36 days is required for Leafy Vegetables (except Brassica) group; Brassica, Leafy Greens subgroup; Vegetables, Root subgroup; Vegetable (Tuberous and Corm) subgroup; and Vegetables, Leaves of Root and Tuber group.

Azoxystrobin is registered for use on all other rotated crops and all other crops may be planted immediately after the last treatment.

#### **PHYTOTOXICITY**

Mika WG is extremely phytotoxic to certain apple varieties.

AVOID SPRAY DRIFT. Extreme care must be used to prevent injury to apple trees (and apple fruit).

DO NOT spray Mika WG where spray drift may reach apple trees.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

DO NOT use spray equipment which has been previously used to apply Mika WG to spray apple trees. Even trace amounts can cause unacceptable phytotoxicity.

Mika WG has demonstrated some phytotoxic effects when mixed with products that are formulated as EC's. 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 (DISEASE) MANAGEMENT

Mika WG should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. DIRECTIONS FOR USE section in this label identifies specific IPM recommendations for each crop. Consult your local agricultural, turf and ornamental authorities for additional IPM strategies established for your area. Mika WG may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

#### RESISTANCE MANAGEMENT

## GROUP 11 FUNGICIDE

Miká WG (azoxystrobin) is a Group 11 fungicide. The mode of action for Mika WG 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 cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance

management strategies may include alternating and/or tank-mixing with products having different modes of action or limiting the total number of applications per season. Syngenta Crop Protection encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label.

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

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

**TABLE 1: Resistance Management Program** 

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

In situations requiring multiple sprays, develop season-long spray programs for Group 11 (QoI) fungicides. In crops 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 QoI 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 QoI mixes in programs in which tank mixes or pre mixes of QoI with mixing partners of a different mode of action are utilized, the number of QoI-containing applications should be no more than ½ (50%) of the total number of fungicide application 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 to the seed or soil, do not make another application with a Group 11 fungicide for at least 3 weeks.

## SPRAYING/MIXING INSTRUCTIONS

Mika WG may be applied with all types of spray equipment commonly used for making ground and aerial applications. Do not apply Mika WG 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 conducive to disease exist.

For ground applications, apply Mika WG in sufficient water volume for adequate coverage and canopy penetration. For aerial applications to non-orchard crops, apply Mika WG in a minimum of two gallons of water per acre. For aerial applications in orchard crops, apply Mika WG in a minimum of ten gallons of water per acre. Where feasible, ground application should be used because it provides better canopy penetration and coverage.

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

Mika 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 your local or state agricultural or turf authorities for compatibility information.

Mika WG is incompatible with many fertilizers when low water volumes are used for infurrow applications. Cold temperatures and water quality exacerbate these compatibility problems. Conduct a physical compatibility test as described in the paragraph below before making a field application.

Do not combine Mika 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, the following procedure should be followed: Pour the recommended proportions of the products into a suitable container of water, mix thoroughly and allow to stand at least twenty (20) minutes. If the combination remains

mixed or can be re-mixed readily, the mixture is considered physically compatible.

#### **SPRAY DRIFT MANAGEMENT**

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.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

DO NOT apply when weather conditions favor drift from treated areas to non-target aquatic habitat.

## **APPLICATION INSTRUCTIONS**

Apply Mika WG at rates and timings as described in this label.

Directions for Use through Sprinkler and Drip Chemigation Systems

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

Use Precautions for Sprinkler and Drip Irrigation Applications:

**Drip Irrigation:** Mika 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 ai/A) Mika WG per acre as a preventative disease application. The soil or potting media should 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, subsequent irrigation (water only) should be delayed for at least for 24 hours following drip application.

**Sprinkler Irrigation:** Apply this product through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move 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  $\frac{1}{2}$  acre-inch or less during treatment. In general, use the least amount of water required for proper distribution and coverage. If stationary systems (solid set, handlines or wheel lines other than continuous-move) are used, this product should be injected 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. Good agitation should be maintained during the entire application period.

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

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, 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.

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 unless the pesticide label-prescribed safety devices for public water systems are in place.

## Specific Instructions for Public Water Systems

 Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

- 2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 7. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### SOILBORNE/SEEDLING DISEASE CONTROL

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

The use of either type of application depends on the cultural practices in the region. In some locations, one type of application may provide better disease control than the other, depending on the timing of the disease epidemic. Seedling diseases are generally controlled by in-furrow applications while banded applications are more



effective against soilborne diseases that develop later in the season. Consult your local expert to get some guidance regarding application type.

For banded applications, apply Mika WG prior to infection as a directed spray to the soil, using single or multiple nozzles, adjusted to provide thorough coverage of the lower stems and the soil surface surrounding the plants. Band width should be limited to 7 inches or less. Apply Mika WG at a rate of 0.2-0.4 oz product (0.1-0.2 oz ai)/1000 row feet (for banded applications on 22-inch rows the maximum application rate is 0.35 oz/1000 row feet). These applications come into contact with the foliage and are counted as foliar applications when considering resistance management. They may be applied during cultivation or hilling operations to provide soil incorporation.

For in-furrow applications, apply Mika WG as an in-furrow spray in 3-15 gallons of water at planting. Mount the spray nozzle so the spray is directed into the furrow just before the seed are covered. Use the higher rate when the weather conditions are expected to be conducive for disease development, if the field has a history of Pythium problems, or if minimum/low till programs are in place.

**TABLE 2: In-Furrow Application Rates** 

RATE PER FEI		PRODUCT PER ACRE (oz)						
oz product.	oz ai	22" rows	30" rows	32" rows	34" rows	36" rows	38" rows	40" rows
0.2	0.1	4.75	3.5	3.3	3.1	2.9	2.8	2.6
0.3	0.15	7.1	5.2	4.9	4.6	4.4	4.1	3.9

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

## TURF:

Mika WG is recommended 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. Mika WG may be used 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.

Resistance Management: Some turf disease pathogens are known to have developed resistance to products used repeatedly for their control. Mika WG should be applied 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 Mika WG is a strobilurin fungicide, avoid alternation with other strobilurins. Do not apply more than two sequential Mika 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 Mika WG.

<u>Application Directions</u>: Mika WG should be applied prior to disease development. Mix Mika 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 Mika WG per 1 to 2 gallons of water.

DO NOT apply more than 10 lb product/acre/year (3.7 oz product/1000 square feet/year). Applications must be made by ground only.

## For use with soil injection applications:

Mika WG may be applied through a liquid fungicide injector for the control of ectrotrophic root diseases such as summer patch and take-all patch. Use Mika WG only in liquid injection equipment specifically designated for pesticide use.

Apply Mika WG at 0.2 to 0.4 oz per 1000 sq ft. Spray carrier volume should fall within 30-150 gallons of water per 1000 sq ft. Injection hole spacing of 1 inch by 1 inch is recommended for optimum control. Injection depth should be no greater than 2 inches. One inch depth is recommended for optimum results. 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:

Mika WG may be used for control of certain turfgrass diseases associated with turfgrass establishment from seed. Mika WG may also be used during overseeding of dormant turfgrass.

Mika 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.

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

<u>Dollar Spot</u>: Mika WG does not control Dollar Spot. During periods of Dollar Spot pressure, always mix Mika WG with Daconil<sup>®</sup> or other Dollar Spot control fungicide. Mika WG is compatible in tank mixes with many other fungicides that control Dollar Spot. Follow directions under SPRAYING/MIXING INSTRUCTIONS above.

TABLE 3: Directions for Application for Turf Diseases

Target Diseases	Use Rate (oz product per 1000 sq ft)	Application Interval (days)	Remarks*
Anthracnose (Colletotrichum graminicola)	0.2-0.4	14-28	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Brown Patch (Rhizoctonia solani)	0.2-0.4	14-28	Apply when conditions are favorable for disease development.
Cool Weather Brown Patch Yellow Patch (Rhizoctonia cerealis)	0.2-0.4	14-28	Make one or two applications in fall or when conditions are favorable for disease development.
Fairy Ring (Lycoperdon spp., Agrocybe pediades, and Bovistra plumbea)	0.4	28	Apply as soon as possible after fairy ring symptoms develop. Apply only in 4 gallons water per 1000 square feet (174 gallons/acre). Add the 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 ( <i>Microdochium</i> <i>nivale</i> )	0.2-0.4	14-28	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Gray Leaf Spot (Pyricularia grisea)	0.2-0.4	14-28	Begin applications before disease is present and continue applications while conditions are favorable for disease development.

Gray Snow Mold Typhula blight (Typhula	0.7	single application	Make a single application of 0.7 oz or two applications of 0.4 oz spaced 10-28 days apart in late fall just
incarnata, T. ishikariensis)	0.4	10-28	before snow cover. Tank mixing with another snow mold fungicide, such as Daconil, may enhance
			control under severe disease pressure.
Leaf Rust Stem Rust Stripe Rust (Puccinia spp.)	0.2-0.4	14 to 28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Leaf Spot (Bipolaris sorokiniana)	0.2-0.4	14-21	Apply when conditions are favorable for disease development.
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	single application	Make a single application of 0.7 oz or two applications of 0.4 oz spaced 10-28 days apart in late fall just
	0.4	10-28	before snow cover. Tank mixing with another snow mold fungicide, such as Daconil 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.
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 (Gaeumannomyce s graminis var. graminis) or (Ophiosphaerella herpotricha)	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 application is recommended. 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 (Gaeumannomyce s 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 Mika 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 Mika WG.

**TABLE 4: Mika WG Rate Conversion Chart for Turf** 

Ounces Product Per 1000 sq ft	Ounces ai 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

TABLE 5: Amount of Mika WG to Mix 100 Gallons for Turf Applications

	Spray Volume (gallons/1000 square feet)					
Mika WG Use Rate	2.0 gallons	3.0 gallons	4.0 gallons			
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**

Mika WG is recommended 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. Mika 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: Mika 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 debris 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.

<u>Resistance Management</u>: Some ornamental disease pathogens are known to have developed resistance to fungicides used repeatedly for their control. Mika WG should be applied 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 Mika WG before alternating with a fungicide of a different mode of action. A sound resistance management program would include blocks of three Mika WG applications separated by blocks of two alternate fungicide applications. Do not alternate Mika WG with other strobilurin fungicides.

Application Directions: Apply Mika 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. Applications must be made by ground only.

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

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

Apply Mika 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- to 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 a 7- to 14-day interval or the higher rates (3-4 oz/100 gallons or 1.5-2 oz/50 gallons) on a 14- to 28-day interval.

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 a 7- to 14-day interval.

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

Do not exceed 10 lb 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.

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

**Drench Application:** Mika WG may be applied to control soilborne, seedling, and crown diseases of production ornamentals (greenhouse, shadehouse, and container grown) as a preventative, drench treatment prior to infection. Good coverage of the preinfection area (root zone, root ball, crown, etc.) is necessary for satisfactory control. Mika 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 a 7- to 28-day interval. 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 sequential drench applications of Mika WG before alternating with a fungicide of a different mode of action.

Caution should be taken before making application of Mika WG as a drench to small bedding plants in the seedling/plug stage due to possible phytotoxicity. A limited quantity of plants should be tested prior to full-scale application.

**Drip Irrigation:** Mika 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 Mika WG per acre as a preventative disease application. The soil or potting media should 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, subsequent irrigation (water only) should be delayed for at least for 24 hours following drip application.

#### **Use Restrictions and Precautions**

DO NOT apply Mika WG to apple or cherry trees (Flowering, Yoshina variety) due to possible phytotoxicity. Further, do not use spray equipment that has applied Mika WG for use in these sensitive crops due to possible phytotoxicity from residue remaining in the sprayer.

Mika WG may be applied to certain varieties of crabapple for control of apple scab. Mika WG has been shown to be safer when applied to the species and varieties of crabapple listed in Table 9. However, due to the large number of species and varieties of crabapple, it is impossible to test every one for tolerance to Mika WG. The professional user should conduct small scale testing to insure plant safety prior to broadscale commercial use on crabapple varieties and species not listed on this label.

**TABLE 6:** <u>Diseases Controlled:</u> When used in accordance with the label directions, Mika WG will provide control of the following diseases of ornamental plants:

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

	Use Rates and Remarks				
DISEASE (Pathogen)	8 oz and larger containers (oz product per 100 gallons)	4 oz containers (oz product per 50 gallons)			
g. Rose Blackspot ( <i>Diplocarpon rosea</i> )	Apply 4-8 oz every 7-14 days. Apply Mika WG on a 7-day interval unless disease pressure is light. Under severe disease conditions or if disease is already present, Mika WG may be tank mixed with another rose blackspot fungicide. Do not exceed 24 oz/acre/application.	Apply 2-4 oz every 7-14 days. Apply Mika WG on a 7-day interval unless disease pressure is light. Under severe disease conditions or if disease is already present, Mika WG may be tank mixed with another rose blackspot fungicide. Do not exceed 24 oz/acre/application.			
h. Myrothecium Leaf Spot ( <i>Myrothecium</i> spp.)	Apply 2-4 oz every 7-21 days.	Apply 1-2 oz every 7-21 days.			
i. Downy Mildew of Bedding Plants ( <i>Peronospora</i> spp.)	Apply 1-4 oz every 7-28 days.	Apply 0.5-2 oz every 7-28 days.			
j. Scab (Venturia inaequalis)	Apply 1-4 oz every 10-28 days. Do not apply to apple trees. For crabapples only, see Table 9 for tolerant species.	Apply 0.5-2 oz every 10-28 days. Do not apply to apple trees. For crabapples only, see Table 9 for tolerant species.			
k. Marrsonina Leaf Spot ( <i>Marsonina</i> spp.)	Apply 1-4 oz/100 gal every 14-28 days.	Apply 0.5-2 oz every 14-28 days.			
I. Cercospora Leaf Spot	Apply 1- 4 oz/100 gal every 7- 28 days.	Apply 0.5-2 oz every 7-28 days.			
3. POWDERY MILDEW	Preventative applications only. Do not make more than 2 sequential applications before rotating to another class of fungicide.	Preventative applications only. Do not make more than 2 sequential applications before rotating to another class of fungicide.			
a. Erysiphe pannosa, E. spp.	Apply 1-4 oz every 7-28 days.	Apply 0.5-2 oz every 7-28 days.			
b. Microsphaera azaleae	Apply 1-4 oz every 7-28 days.	Apply 0.5-2 oz every 7-28 days.			
c. Sphaerotheca pannosa	Apply 1-4 oz every 7-28 days.	Apply 0.5-2 oz every 7-28 days.			

	Use Rates and Remarks					
DISEASE (Pathogen)	8 oz and larger containers (oz product per 100 gallons)	4 oz containers (oz product per 50 gallons)				
4. RUSTS						
a. Needle Rust (Melampsora occidentalis)	Apply 1-4 oz every 7-28 days.	Apply 0.5-2 oz every 7-28 days.				
b. Phragmidium spp.	Apply 1-4 oz every 7-28 days.	Apply 0.5-2 oz every 7-28 days.				
c. Puccinia spp.	Apply 1-4 oz every 7-28 days.	Apply 0.5-2 oz every 7-28 days.				
d. Gymnosporagium spp.	Apply 1-4 oz every 7-28 days.	Apply 0.5-2 oz every 7-28 days.				
5. FLOWER BLIGHTS						
a. Anthracnose (Collectotrichum spp., Elsinoe spp.)	Apply 1-4 oz every 7-28 days.	Apply 0.5-2 oz every 7-28 days.				
b. Botrytis Blight ( <i>Botrytis cinerea</i> )	Apply 4-8 oz every 7-21 days. For suppression only. Do not exceed 24 oz/acre.	Apply 2-4 oz every 7-21 days. For suppression only. Do not exceed 24 oz/acre.				
6. SHOOT/STEM DISEASES						
a. Aerial/Shoot Blight ( <i>Phytophthora</i> spp.)	Apply 1-2 oz every 7-28 days.	Apply 0.5-1 oz every 7-28 days.				
7. SOILBORNE DISEASES (Directed Spray)	For directed spray applications, utilize the following rates below.	For directed spray applications, utilize the following rates below.				
a. Rhizoctonia solani	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 days.	Apply 0.5-2 oz every 7-21 days.				
8. SOILBORNE DISEASES (Drench)	See Ornamentals Section for additional drench directions.	See Ornamentals Section for additional drench directions.				
a. Rhizoctonia solani	Apply 0.2-0.9 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days.	Apply 0.1-0.5 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days.				
b. Sclerotium rolfsii	Apply 0.2-0.9 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days.	Apply 0.1-0.5 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days.				

	Use Rates and Remarks			
DISEASE (Pathogen)	8 oz and larger containers 4 oz containers (oz product per 100 gallons) (oz product per 50 gallons)			
c. Fusarium spp.	Apply 0.2-0.9 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days.	Apply 0.1-0.5 oz, 1-2 pints of the solution per square foot surface area, every 7-28 days.		

**PLANT SAFETY:** Mika WG has been shown to be safe when applied to the ornamental plants listed in Tables 7, 8, and 9.

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

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

**Tolerant Ornamental Plants:** Mika WG has been found to be safe when applied to the plants listed in Tables 7, 8, and 9 when applied according to specified application methods, rates, and timings:

**TABLE 7: 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 Laurel	7
Begonia spp. (except Rieger begonia)	Begonia	2, 3

BOTANICAL NAME	COMMON NAME	DISEASES
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, Snowball	3
Cedrus atlantica	Atlas Cedar	2, 4
Cedrus spp.	White Cedar	2, 4
Cercis occidentalis	Western Redbud	2
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, Flowering Dogwood	2b, 3
Cornus florida	Dogwood	2b, 3
Cortaderia selloana	Pampas Grass	3
Cotoneaster adpressus	Creeping Cotoneaster	7
Cotoneaster horizontalis	Cotoneaster - Variegated Rockspray	7
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

BOTANICAL NAME	COMMON NAME	DISEASES
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
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	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 9 for variety list)	2j
Nandina domestica	Nandina	2
Nerium oleander	Oleander, Rose-Bay	2

BOTANICAL NAME	COMMON NAME	DISEASES
Pelargonium spp.	Geranium	3, 4, 5b
Pennisetum	Grass	2
alopecuroides	·	
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, 4
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 trichocarpa	Poplar	4
Populus spp.	Aspen Trees	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
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

BOTANICAL NAME	COMMON NAME	DISEASES
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 budalda	Spirea	3
Spirea japonica	Spirea	3
Syagrus romanzoffianum	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>&</sup>lt;sup>1</sup> Do not exceed 2 oz/100 gallons on these species.

**TABLE 8: Tolerant Plants Listed by Common Name:** 

Andromeda, Japanese Arborvitae Arborvitae Arborvitae Arborvitae Arborvitae Aspen Trees Aster Aster spp. Aucuba, Japanese Aucuba, Glacier Azaleas Balsam Barberry Berberis thunbergii Begonia (except Rieger Begonia) Birch, River Bougainvillea Blanket-Flower Bougainvillea Buddeia Buddeia Buddeia Buddeia Buring Bush Burlerg Bush Butlerfly Bush Cactus, Holiday Caladium Carnation Ceanothus Cedar, Atlas Cedar, Walte Cherry Prunus pumila Cinquefoil Aucuba japonica Aster spp. Aster spp. Aster spp. Aster spp. Aster spp. Alser spp. Beponica Arbodendron spp. Berberis thunbergii Begonia spp. Berberis thunbergii Begonia spp. Berberis thunbergii Begonia spp. Betula nigra Betu	COMMON NAME	BOTANICAL NAME
Arborvitae Thujopsis spp. Aspen Trees Populus spp. Aster Aster spp. Aucuba, Japanese Aucuba japonica Azalea, Glacier Rhododendron spp. Azaleas Rhododendron spp. Balsam Impatiens spp. Barberry Berberis thunbergii Begonia (except Rieger Begonia) Begonia spp. Birch, River Betula nigra Black-Eyed-Susan Rudbeckia hirta Blanket-Flower Gaillardia spp. Bougainvillea Bougainvillea spp. Bougainvillea Buddeia davidii Bugle Ajuga reptans Burning Bush Euonymus alatus Burterfly Bush Buddeia davidii Cactus, Holiday Schlumbergera Caladium Caladium spp. Camellia Carnation Dianthus caryophyllus Ceanothus Ceanothus Spp. Cedar, Atlas Cedrus atlantica Cedar, Western Red Thuja plicata Chrysanthemum Chrysanthemum spp. Christmas Trees See Fraser Fir, Scotch Pine and Douglas Fir Chrysanthemum Chrysanthemum spp.	Abelia	Abelia spp.
Aspen Trees Aster Aster Aster Aster spp. Aucuba Japanese Azalea, Glacier Azaleas Balsam Barberry Begonia (except Rieger Begonia) Birch, River Black-Eyed-Susan Blanket-Flower Bougainvillea Bougainvillea Budleia Budleia Budleia Budleia Budleia Bulge Ajuga reptans Butterfly Bush Cactus, Holiday Carnation Carention Carention Ceanothus Cedar, Atlas Cedar, Red Cedar, White Christmas Trees Chrysanthemum Cinquefoil Azalea Rhododendron spp. Altodendaron spp. Berberis thunbergii Begonia (except Rieger Begonia) Begonia spp. Begonia spp. Begonia spp. Begonia spp. Begunia spp. Begunia spp. Bedula nigra Begunia spp. Bedula nigra Begunia spp. Bedula davidii Bugle Ajuga reptans Buxus sempervirens Budleia davidii Bugle ajuga reptans Budleia davidii Cactus, Holiday Caladium spp. Camellia japonica Carnation Carnat	Andromeda, Japanese	Pieris japonica
Aspen Trees Aster Aster Aster Aster spp. Aucuba Japanese Azalea, Glacier Azaleas Balsam Barberry Begonia (except Rieger Begonia) Birch, River Black-Eyed-Susan Blanket-Flower Bougainvillea Bougainvillea Budleia Budleia Budleia Budleia Budleia Bulge Ajuga reptans Butterfly Bush Cactus, Holiday Carnation Carention Carention Ceanothus Cedar, Atlas Cedar, Red Cedar, White Christmas Trees Chrysanthemum Cinquefoil Azalea Rhododendron spp. Altodendaron spp. Berberis thunbergii Begonia (except Rieger Begonia) Begonia spp. Begonia spp. Begonia spp. Begonia spp. Begunia spp. Begunia spp. Bedula nigra Begunia spp. Bedula nigra Begunia spp. Bedula davidii Bugle Ajuga reptans Buxus sempervirens Budleia davidii Bugle ajuga reptans Budleia davidii Cactus, Holiday Caladium spp. Camellia japonica Carnation Carnat	Arborvitae	Thujopsis spp.
Aucuba, Japanese Azalea, Glacier Azaleas Balsam Barberry Berberis thunbergii Begonia (except Rieger Begonia) Birch, River Black-Eyed-Susan Blanket-Flower Bougainvillea Bougainvillea Budleia Bugle Bugle Burling Bush Butterfly Bush Cactus, Holiday Carnation Carnation Cedar, Atlas Cedar, Red Cherry Christmas Trees Eaglas Rhododendron spp. Beberberis thunbergii Beperberis thunbergii Begonia spp. Betula nigra Betula nigra Betula nigra Betula nigra Betula nigra Betula nigra Bougainvillea spp. Bougainvillea spp. Buddleia davidii Bugle Ajuga reptans Butderila davidii Cactus, Holiday Caladium Caladium spp. Caladium Camellia japonica Carnation Ceanothus ceryophyllus Ceanothus Ceanothus Cedrus atlantica Cedrus atlantica Cedrus spp. Cherry Prunus pumilla Christmas Trees See Fraser Fir, Scotch Pine and Douglas Fir Chrysanthemum Chrysanthemum spp.	Aspen Trees	Populus spp.
Azalea, Glacier  Azaleas  Rhododendron spp.  Rhododendron spp.  Rhododendron spp.  Rhododendron spp.  Rhododendron spp.  Rhododendron spp.  Barberry  Berberis thunbergii  Begonia (except Rieger Begonia)  Birch, River  Betula nigra  Black-Eyed-Susan  Rudbeckia hirta  Blanket-Flower  Beugainvillea spp.  Bougainvillea spp.  Bougainvillea spp.  Bougainvillea Buddleia davidii  Rugle Ajuga reptans  Burling Bush  Butterfly Bush  Cactus, Holiday  Caladium  Caladium  Caladium  Caladium  Cannellia  Camellia  Camellia  Camellia japonica  Cannation  Dianthus caryophyllus  Ceanothus  Cedar, Atlas  Cedar, Red  Cedar, Red  Cedar, Western Red  Cedar, Western Red  Christmas Trees  Chrysanthemum  Chrysanthemum  Chrysanthemum spp.  Cinquefoil  Potentilla spp.	Aster	Aster spp.
Azaleas Rhododendron spp. Balsam Impatiens spp. Berberry Berberis thunbergii Begonia (except Rieger Begonia) Begonia spp. Birch, River Betula nigra Black-Eyed-Susan Rudbeckia hirta Blanket-Flower Gaillardia spp. Bougainvillea Bougainvillea spp. Boxwood Buxus sempervirens Buddleia Buddleia davidii Bugle 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, Western Red Juniperus virginiana Cedar, White Cedrus spp. Cherry Prunus pumila Chrysanthemum Chrysanthemum spp. Cinquefoil Potentilla spp.	Aucuba, Japanese	Aucuba japonica
Balsam   Impatiens spp.   Berberry   Berberis thunbergii   Begonia (except Rieger Begonia)   Begonia spp.   Betula nigra   Bunket-Flower   Gaillardia spp.   Bougainvillea   Bougainvillea spp.   Bougainvillea   Bougainvillea spp.   Boxwood   Buxus sempervirens   Buddleia davidii   Bugle   Ajuga reptans   Buddleia davidii   Bugle   Ajuga reptans   Burning Bush   Buddleia davidii   Butterfly Bush   Buddleia davidii   Cactus, Holiday   Schlumbergera   Caladium   Caladium spp.   Camellia   Camellia japonica   Carnation   Dianthus caryophyllus   Ceanothus   Ceanothus caryophyllus   Ceanothus   Ceanothus spp.   Cedur, Atlas   Cedrus atlantica   Cedrus atlantica   Cedar, Red   Juniperus virginiana   Cedar, Western Red   Thuja plicata   Cedrus spp.   Cherry   Prunus pumila   Chrysanthemum	Azalea, Glacier	Rhododendron spp.
Barberry Begonia (except Rieger Begonia) Birch, River Betula nigra Black-Eyed-Susan Rudbeckia hirta Blanket-Flower Gaillardia spp. Bougainvillea Bougainvillea spp. Bougainvillea Buxus sempervirens Buddleia Buddleia davidii Bugle Ajuga reptans Burning Bush Euonymus alatus Butterfly Bush Buddleia davidii Cactus, Holiday Schlumbergera Caladium Camellia japonica Carnation Dianthus caryophyllus Ceanothus Ceanothus Cedar, Red Juniperus virginiana Cedar, Western Red Cherry Prunus pumila Chrysanthemum Cinquefoil Potentilla spp. Cinquefoil Potentilla spp. Cinquefoil Potentilla spp.	Azaleas	Rhododendron spp.
Begonia (except Rieger Begonia)  Birch, River  Black-Eyed-Susan  Blanket-Flower  Bougainvillea  Bougainvillea  Bougainvillea  Bougainvillea  Buddleia  Buddleia davidii  Bugle  Ajuga reptans  Burning Bush  Butterfly Bush  Cactus, Holiday  Caladium  Camellia  Carnation  Carnation  Ceanothus  Ceanothus  Cedar, Atlas  Cedar, Red  Cedar, Western Red  Christmas Trees  Chrysanthemum  Cinquefoil  Biudeckia hirta  Begonia spp.  Begula nigra  Buddlecia spp.  Bougainvillea spp.  Bougainvillea spp.  Bougainvillea davidii  Buddleia davidii  Carmellia davidii  Camellia japonica  Camellia japonica  Ceanothus  Ceanothus  Ceanothus caryophyllus  Ceanothus  Cedrus atlantica  Juniperus virginiana  Thuja plicata  Cedrus spp.  Chrysanthemum spp.  Chrysanthemum spp.  Chrysanthemum spp.  Chentylla spp.	Balsam	Impatiens spp.
Birch, River Black-Eyed-Susan Rudbeckia hirta Blanket-Flower Bougainvillea Bougainvillea Bougainvillea Buxus sempervirens Buddleia Bugle Ajuga reptans Burning Bush Butterfly Bush Cactus, Holiday Camellia Carnation Canation Ceanothus Ceanothus Cedar, Red Cedar, Red Cedar, Western Red Chrysanthemum Cinquefoil Chrysanthemum Cinquefoil Biudbeckia hirta Rudbeckia Rudbeckia hirta Rudbeckia Rud	Barberry	Berberis thunbergii
Black-Eyed-Susan Blanket-Flower Bougainvillea Bougainvillea Boxwood Buxus sempervirens Buddleia Budleia davidii Bugle Burning Bush Burning Bush Butterfly Bush Cactus, Holiday Canation Carnation Carnation Cedar, Atlas Cedar, Red Cedar, Western Red Cedar, White Chrysanthemum Cinquefoil Blanket-Flower Bougainvillea spp. Buddleia spp. Buddleia davidii Cadium Schlumbergera Caladium Schlumbergera Canation Camellia japonica Carnation Ceanothus Spp. Cedar, Red Cedar, Red Cedar, Red Cedar, Western Red Chrysanthemum Chrysanthemum spp. Chrysanthemum Spp. Chrysanthemum Spp. Chrostone Chrysanthemum Spp. Chrysanthemum Spp. Chrysanthemum Spp. Chrysanthemum Spp.	Begonia (except Rieger Begonia)	Begonia spp.
Blanket-Flower Bougainvillea Bougainvillea spp. Bougainvillea spp. Bougainvillea spp. Boxwood Buxus sempervirens Buddleia Buddleia davidii Bugle Ajuga reptans Bugleweed Ajuga reptans Burning Bush Burning Bush Butterfly Bush Cactus, Holiday Caladium Caladium Spp. Camellia Carnation Dianthus caryophyllus Ceanothus Ceanothus Cedar, Atlas Cedar, Red Cedar, Western Red Cedar, White Cherry Christmas Trees Chrysanthemum Chrysanthemum Cinquefoil  Bougainvillea spp. Bougainvillea spp. Buddleia davidii Cactus, Holiday Caladium Caladium spp. Camellia japonica Carnation Dianthus caryophyllus Ceanothus ceanothus spp. Cedar, Atlas Cedrus atlantica Cedrus atlantica Cedrus spp. Cherry Christmas Trees See Fraser Fir, Scotch Pine and Douglas Fir Chrysanthemum spp. Cinquefoil	Birch, River	Betula nigra
Bougainvillea Bougainvillea spp. Boxwood Buxus sempervirens Buddleia Buddleia davidii Bugle Ajuga reptans Bugleweed Ajuga reptans Butterfly Bush Euonymus alatus Butterfly Bush Buddleia davidii Cactus, Holiday Schlumbergera Caladium Caladium spp. Camellia Camellia japonica Carnation Dianthus caryophyllus Ceanothus Ceanothus Spp. Cedar, Atlas 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.	Black-Eyed-Susan	Rudbeckia hirta
Boxyood Buxus sempervirens Buddleia Buddleia Bugle Ajuga reptans Bugleweed Ajuga reptans Burning Bush Butterfly Bush Buddleia davidii Cactus, Holiday Caladium Caladium Camellia Carnation Dianthus caryophyllus Ceanothus Cedar, Atlas Cedar, Red Cedar, Western Red Cedar, White Chrysanthemum Chrysanthemum Chrysanthemum Chrysanthemum Chrysanthemum Buddleia davidii Buddleia davidii Caunymus alatus Buddleia davidii Caunymus alatus Caunymus alatus Caladium Caladium Spp. Caladium spp. Caladium spp. Camellia japonica Cam	Blanket-Flower	Gaillardia spp.
Buddleia Buddleia davidii Bugle Ajuga reptans Bugleweed Ajuga reptans Burning Bush Euonymus alatus Butterfly Bush Buddleia davidii Cactus, Holiday Schlumbergera Caladium Camellia japonica Carnation Dianthus caryophyllus Ceanothus Ceanothus Spp. Cedar, Atlas 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.	Bougainvillea	Bougainvillea spp.
Bugle Ajuga reptans Bugleweed Ajuga reptans Burning Bush Euonymus alatus Butterfly Bush Buddleia davidii Cactus, Holiday Schlumbergera Caladium Caladium spp. 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.	Boxwood	Buxus sempervirens
Bugleweed Burning Bush Euonymus alatus Butterfly Bush Cactus, Holiday Caladium Caladium Camellia Carnation Ceanothus Cedar, Atlas Cedar, Red Cedar, Western Red Cedar, White Christmas Trees Chrysanthemum Cinquefoil Buddleia davidii Cunymus alatus Buddleia davidii Caladium spp. Caladium spp. Camellia japonica Cedaryohyllus Cedaryohylus Cedaryohyllus Cedaryohyllus Cedaryohyllus Cedaryohyllus Cedary	Buddleia	Buddleia davidii
Burning Bush Butterfly Bush Butterfly Bush Cactus, Holiday Caladium Caladium Camellia Carnation Ceanothus Ceanothus Cedar, Atlas Cedar, Red Cedar, Western Red Cedar, White Christmas Trees Chrysanthemum Cinquefoil Euonymus alatus Buddleia davidii Caladium Caladium spp. Caladium spp. Camellia japonica Cedar, Red Cedar, Atlas Cedar, Red Cedar, Red Cedar, Red Cedar, Red Cedar, See Fraser Fir, Scotch Pine and Douglas Fir	Bugle	Ajuga reptans
Butterfly Bush Cactus, Holiday Caladium Caladium Camellia Carnation Ceanothus Ceanothus Cedar, Atlas Cedar, Red Cedar, Western Red Cedar, White Cedar, White Christmas Trees Chrysanthemum Cinquefoil Cactus, Holiday Caladium spp. Camellia japonica Cedar, Vilus Cedar, Atlas Cedar, Atlas Cedar, Atlas Cedar, Red Cedrus atlantica Cedrus virginiana Cedar, White Cedrus spp. Cedrus pumila Cedar, White Ceda	Bugleweed	
Cactus, Holiday Caladium Caladium spp. Camellia Carnation Ceanothus Ceanothus Cedar, Atlas Cedar, Red Cedar, Western Red Cedar, White Christmas Trees Chrysanthemum Chrysanthemum Caladium spp. Camellia japonica Camellia japonica Camellia japonica Ceanothus spp. Cedantus spp. Cedarus spp. Cedrus atlantica Cedrus atlantica Cedrus virginiana Cedarus spp. Cedrus spp. Christmas Trees Chrysanthemum Chrysanthemum spp. Chrysanthemum spp. Conquefoil Camellia japonica Cedaryophyllus Cedary atlantica Cedrus atlantica Cedary Virginiana Cedary Virg	Burning Bush	Euonymus alatus
Caladium Spp. Camellia Camellia japonica Carnation Dianthus caryophyllus Ceanothus Ceanothus spp. Cedar, Atlas 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.	Butterfly Bush	Buddleia davidii
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.	Cactus, Holiday	Schlumbergera
Carnation  Dianthus caryophyllus  Ceanothus  Cedar, Atlas  Cedar, Red  Cedar, Western Red  Cedar, White  Cedar, White  Cherry  Christmas Trees  Chrysanthemum  Chrysanthemu	Caladium	Caladium spp.
CeanothusCeanothus spp.Cedar, AtlasCedrus atlanticaCedar, RedJuniperus virginianaCedar, Western RedThuja plicataCedar, WhiteCedrus spp.CherryPrunus pumilaChristmas TreesSee Fraser Fir, Scotch Pine and Douglas FirChrysanthemumChrysanthemum spp.CinquefoilPotentilla spp.	Camellia	Camellia japonica
Cedar, Atlas  Cedar, Red  Juniperus virginiana  Cedar, Western Red  Cedar, White  Cedar, White  Cedrus spp.  Cherry  Prunus pumila  Christmas Trees  See Fraser Fir, Scotch Pine and Douglas Fir  Chrysanthemum  Chrysanthemum spp.  Cinquefoil  Potentilla spp.	Carnation	Dianthus caryophyllus
Cedar, Red  Cedar, Western Red  Cedar, White  Cedrus spp.  Cherry  Christmas Trees  Chrysanthemum	Ceanothus	Ceanothus spp.
Cedar, Western RedThuja plicataCedar, WhiteCedrus spp.CherryPrunus pumilaChristmas TreesSee Fraser Fir, Scotch Pine and Douglas FirChrysanthemumChrysanthemum spp.CinquefoilPotentilla spp.	Cedar, Atlas	Cedrus atlantica
Cedar, White       Cedrus spp.         Cherry       Prunus pumila         Christmas Trees       See Fraser Fir, Scotch Pine and Douglas Fir         Chrysanthemum       Chrysanthemum spp.         Cinquefoil       Potentilla spp.	Cedar, Red	Juniperus virginiana
Cherry       Prunus pumila         Christmas Trees       See Fraser Fir, Scotch Pine and Douglas Fir         Chrysanthemum       Chrysanthemum spp.         Cinquefoil       Potentilla spp.	Cedar, Western Red	Thuja plicata
Christmas Trees See Fraser Fir, Scotch Pine and Douglas Fir Chrysanthemum Chrysanthemum spp. Cinquefoil Potentilla spp.	Cedar, White	Cedrus spp.
Fir Chrysanthemum Spp. Cinquefoil Potentilla Spp.	Cherry	Prunus pumila
Cinquefoil Potentilla spp.	Christmas Trees	-
	Chrysanthemum	Chrysanthemum spp.
	Cinquefoil	Potentilla spp.
Clethra alnifolia	Clethra	Clethra alnifolia

COMMON NAME	BOTANICAL NAME
Coleus	Plectranthus spp.
Cotoneaster, Creeping	Cotoneaster adpressus
Cotoneaster, Variegated Rockspray	Cotoneaster horizontalis
Crabapple (See Table 9 for variety list)	Malus spp.
Cranesbill	Geranium spp.
Crapemyrtle	Lagerstroemia indica
Cyclamen	Cyclamen spp.
Cyperus	Cyperus spp.
Cypress, Sawara	Chamaecyparis pisifera
Cypress, Leyland	Chamaecyparis spp.
Daisy, Gerber	Gerbera jamesonii
Daisy, Transvaal	Gerbera jamesonii
Dogwood	Cornus spp.
Dogwood	Cornus florida
Dogwood, Pink	Cornus spp.
Dumb-Cane	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
Fir, Noble	Abies procera
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

COMMON NAME	BOTANICAL NAME
Holly	llex spp.
Hosta	Hosta spp.
House-Leek	Sempervivum spp.
Hydrangea	Hydrangea spp.
Hydrangea, French	Hydrangea macrophylla
Impatiens <sup>1</sup>	Impatiens spp. <sup>1</sup>
Iris (Bulbous, Spanish, Dutch)	Iris xiphium
Iris, African	Dietes iridiodes
Iris, Butterfly	Dietes iridiodes
Ivy, Algerian	Hedera algeriensis
Ivy, English	Hedera helix
Ivy, Swedish	Plectranthus spp.
Juniper	Juniperus procumbens
Juniper	Juniperus scopulorum
Juniper	Juniperus spp.
Larkspur	Delphinium spp.
Laurel	Laurus nobilis
Laurel, Australian	Pittosporum spp.
Laurel, Japanese	Aucuba japonica
Lilac, California	Ceanothus spp.
Lilac, Wild	Ceanothus sanguineus
Lily, Asiatic	Lilium spp.
Lily, Peace	Spathiphyllum floribundium
Lily-Turf	Liriope muscari
Live-Forever	Sempervivum spp.
Magnolia	Magnolia spp.
Magnolia, Saucer	Magnolia soulangiana
Magnolia, Southern	Magnolia grandiflora
Maple, Japanese	Acer palmatum
Maple, Sugar	Acer saccharum
Marigold	Tagetes spp.
Mock-Orange	Pittosporum tobira
Mugwort	Artemisia spp.
Nandina	Nandina domestica
Oak, Pin	Quercus palustris
Oak, Red	Quercus falcata
Oleander	Nerium oleander
Orpine	Sedum spp.

COMMON NAME	BOTANICAL NAME
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's	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-Foot	Ageratum spp.
Redbud, Western	Cercis occidentalis
Rhododendron	Rhododendron spp.
Ribbon-Grass	Setaria spp.
Rose of Sharon	Hibiscus syriacus
Rose	Rosa spp.
Rose-Bay	Nerium oleander
Rosemary (Prostrate)	Rosmarinus spp.
Rubber-Plant, Baby	Peperomia spp.
Rubber-Tree	Brassaia actinophylla
Sage	Salvia spp.
Sagebrush	Artemisia spp.
Snap-Dragon	Antirrhinum spp.

COMMON NAME	BOTANICAL NAME
Snowball	Ceanothus spp.
Spirea	Spirea budalda
Spirea	Spirea japonica
Spruce, Blue	Picea pungens
Spruce, Norway	Picea abies
Spruce, White	Picea glauca
Starwort	Aster spp.
Stonecrop	Sedum spp.
Sweet Alyssum	Lobularia maritima
Thyme, Creeping	Thymus serphyllum
Umbrella-Tree	Brassaia actinophylla
Verbena	Verbena spp.
Vervain	Verbena spp.
Viburnum	Viburnum spp.
Vinca	Catharanthus roseus
Viola	Viola spp.
White Alder	Clethora spp.
Wiegela, Pink	Wiegela florida
Willow, Virginia	Itea virginica
Winterberry	llex spp.
Wormwood	Artemisia spp.
Yaupon	llex spp.
Yew, Spreading	Taxus baccata
Yucca	Yucca spp.
Zebra-Plant	Aphelandra spp.
Zinnia	Zinnia spp.

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

TABLE 9: 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	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
		9	1

TABLE 10: Intolerant Plants (Do not apply Mika WG to these species or varieties)

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

## **Conifers Including Christmas Trees, Commercial Production Roses**

Mika WG may be used to control certain diseases on conifers in production (indoor and outdoor) and landscape situations.

Please see the Ornamental Section above for more detailed directions for use in landscape situations.

For 4 oz pack size: See Mika WG Rate conversion Chart below.

TABLE 11: Specific Use Directions for Commercial Conifer and Rose Production

season at 7- to 21-day intervals following the resistance management guidelines.  Apply by ground, aerial, or chemigation.  An adjuvant may be added at	Crop	Target Diseases	Use Rate oz product/A	Remarks
	including Christmas	(Diplodia pinea)  Lophodermium Needlecast (Lophodermium pinastri)  Swiss Needlecast (Phaeocrytopus	3.2-8.0 (0.10-	Management: Mika 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 Mika WG before alternating with a fungicide that is not in Group 11. Do not make more than eight applications of Mika WG per acre per year.  Application Directions: Mika WG applications should begin prior to disease development and continue throughout the season at 7- to 21-day intervals following the resistance management guidelines. Apply by ground, aerial, or chemigation.

Specific Use Restrictions: Do not apply more than 4.0 pounds product/acre/season (2.0 lb ai/A).

		Han Data	r
		Use Rate	·
Cuan	Tannat Diagram	OZ	Remarks
Crop	Target Diseases	product/A	Remarks
	5	(lb ai/A)	(total part (Diagram)
Roses	Downy Mildew	1.6-8.0	Integrated Pest (Disease )
(Commercial	(Peronospora	(0.05-	Management: Mika WG should be
Rose	sparsa)	0.25)	integrated into an overall disease
Production)	Powdery Mildew		management strategy that includes
	(Spherotheca	•	selection of varieties with disease
	pannosa)		tolerance, optimum plant populations,
	Rust		proper fertilization, winter and/or spring
	(Phragmidium		pruning, plant residue management and
	mucronatum, P.		proper timing and placement of irrigation.
	tuberculatum, and		Desistance Management: Desistance
	other		Resistance Management: Do not make
	Phragmidium		more than four sequential application of
	spp.)		Mika WG before alternating with a
	Septoria Leaf Spot		fungicide that is not in Group 11. Do not make more than eight applications per
	( <i>Septoria rosea</i> ) Alternaria Leaf Spot		acre per year.
	1 .		acie per year.
	(Alternaria alternata)		Application Directions: Mika WG application should begin prior to disease development and continue throughout the season on 7- to 21-day intervals following
			the resistance management guidelines. Apply by ground, aerial, or chemigation. An adjuvant may be added at recommended rates.
	,		<u>Plant Safety:</u> Mika 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 insure plant safety prior to large scale
			application. In addition, do not tank mix
			Mika WG with other fungicides,
			insecticides, herbicides, fertilizer, etc.
			unless local experience indicates that the
			tank mix is safe to roses.
Do not apply m	ore that 4.0 lb of produ	uct/acre/seas	son (2.0 lb ai/A).

TABLE 12: Mika WG Rate Conversion Chart (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, sweep and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

## **Pesticide Disposal**

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

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

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ½ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, orby other procedures approved by state and local authorities.

#### Container Handling [bags]

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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

Ambush<sup>®</sup>, Mika WG<sup>®</sup>, Warrior T<sup>®</sup>, Prelude<sup>®</sup>, the ALLIANCE FRAME the SYNGENTA Logo and the PURPOSE ICON are Trademarks of a Syngenta Group Company.

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42/40

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

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

Mika WG Page 41 43/ 146

## [NON-DETACHABLE CONTAINER LABEL]

## GROUP 11 FUNGICIDE

#### Mika™ WG

Broad-spectrum fungicide for control of plant diseases on turfgrass and ornamental plants.

Active Ingredient

Azoxystrobin: methyl (E)-2-{2-[6-(2-cyanophenoxy)

pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate*	50%
Other Ingredients:	50%
Total:	100%

Contains 0.5 lb ai/lb product \*IUPAC

EPA Reg No. 100-XXXX

EPA Est.

KEEP OUT OF REACH OF CHILDREN.

# CAUTION

See additional precautionary statements and directions for use inside booklet.

Reformulation is prohibited. See individual container labels for repackaging limitations.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

4 oz

1 lb

6 lb

Net Weight

FIRST AID		
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 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> </ul>	
Have the produ	Call a poison control center or doctor for treatment advice.  ct container or label with you when calling a poison control center or	
doctor, or going	· · · · · · · · · · · · · · · · · · ·	
<u> </u>	HOT LINE NUMBER	
For 2	4-Hour Medical Emergency Assistance (Human or Animal) or	
Che	mical Emergency Assistance (Spill, Leak, Fire, or Accident),	
	Call	
	1-800-888-8372	

#### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

#### CAUTION

HARMFUL IF 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. Remove and wash contaminated clothing before reuse.

#### **Environmental Hazards**

This pesticide is toxic to freshwater and estuarine/marine fish and aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

#### **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.

45/46

## **Surface Water Advisory**

This product may impact surface water quality due to run-off of rain water. 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.

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

#### STORAGE AND DISPOSAL

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

#### **Pesticide Storage**

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46/

# Container Handling [bags]

Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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

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

MIKA WG – NEW 05-12-14 Version C – dt 000100-XXXXXC.20131007.MIKA-WG-NEW-VERC.PDF