

**Topaz®**  
Fungicide

Broad spectrum fungicide for control of plant, turf and ornamental diseases

**Active Ingredient:**

Propiconazole (CAS No. 60207-90-1). . . . .	41.8%
Other Ingredients*: . . . . .	58.2%
Total: . . . . .	100.0%

Contains 3.6 lbs. of propiconazole per gallon.

\*Contains petroleum distillates

**KEEP OUT OF REACH OF CHILDREN.**

## WARNING/AVISO

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

See additional precautionary statements and directions for use inside booklet.

FIRST AID	
IF IN EYES	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF SWALLOWED	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF INHALED	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
NOTE TO PHYSICIAN: Contains petroleum distillate - vomiting may cause aspiration pneumonia.	
HOT LINE NUMBER	
In case of a medical or transport emergency call CHEMTREC toll free at 1-800-424-9300. Have the product container or label with you when calling a poison control center or, doctor, or going for treatment.	

EPA Reg. No. 42750-211-1381

Net Contents: \_\_\_\_\_

EPA Est. No. xxxxxx-xx-xxx

Distributed By:  
Winfield Solutions, LLC  
P.O. Box 64589  
St Paul, MN 55164-0589

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## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### WARNING/AVISO

Causes substantial but temporary eye injury. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wash hands 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.

All handlers must wear:

- Protective eyewear such as goggles or face shield
- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or viton
- Shoes plus socks

#### USER SAFETY REQUIREMENTS

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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 CONTROL STATEMENTS

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:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and shrimp. 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. Do not contaminate water when cleaning equipment or disposing of equipment wash water.

**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.

## 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.

### AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Protective eyewear such as goggles and face shield
- Coveralls
- Chemical-resistant gloves, such as barrier laminate or viton
- Shoes plus socks

### SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, and relative humidity) and method of application can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

**Wind Speed:** Do not apply at wind speeds greater than 15 mph.

**Droplet Size:** Apply as a medium or coarser spray (ASAE Standard 572).

**Temperature Inversions:** If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

**Other State and Local Requirements:** Applicators must follow all state and local pesticide drift requirements regarding application of TOPAZ® FUNGICIDE. Where states have more stringent regulations, they must be observed.

**Equipment:** All application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

#### **Aerial Application:**

1. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

2. Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
3. When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

#### **Groundboom Application:**

1. Do not apply with a nozzle height greater than 4 feet above the crop canopy.

### **PRODUCT INFORMATION**

TOPAZ® FUNGICIDE is a broad spectrum fungicide labeled for the control of many diseases.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, OR ILLEGAL RESIDUES.

### **PRODUCT USE RESTRICTIONS**

**Do not use TOPAZ® FUNGICIDE in greenhouses or as a tree injection.**

#### **Integrated Pest Management**

TOPAZ® FUNGICIDE should be integrated into an overall disease and pest management strategy (IPM) whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. Consult your local agricultural authorities for additional IPM strategies established for your area. TOPAZ® FUNGICIDE 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	3	Fungicide
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TOPAZ® FUNGICIDE is in the Group 3 class fungicides. TOPAZ® FUNGICIDE acts as a demethylation inhibitor of sterol biosynthesis (DMI) which disrupts membrane synthesis by blocking demethylation.

Because resistance development cannot be predicted, the use of this product should follow appropriate resistance-management strategies. To delay fungicide resistance, use should be based on an IPM program that includes the following steps:

- Rotate the use of TOPAZ® FUNGICIDE or other Group 3 fungicides within a growing season sequence with different groups that control the same pathogens. Avoid application of more than 3 and consecutive sprays of TOPAZ® FUNGICIDE or other fungicides in the same group in a season.
- Use tank mixtures with fungicide from a different group that are equally effective on the target pest when such use is permitted. Use at least the minimum application rate as labeled by the manufacturer.
- Adopt an integrated disease management program for fungicide use that includes scouting, uses historical information related to pesticide use, and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications. Note that using predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.

- For further information or to report suspected resistance contact your local Winfield Solutions, LLC representative. You can also contact your pesticide distributor or university extension specialist to report resistance.

#### ROTATIONAL CROP INTERVALS

Rotational Crops	Planting Time From Last TOPAZ® FUNGICIDE Application
Beans, Dry and Succulent Brassica, Leafy greens (Subgroup 58) Bulb Vegetables Carrots Celery and Leaf Petioles, Subgroup 4B Cereals (wheat, barley, rye, triticale, oats) Cilantro (Coriander) Leaves Corn (field, seed, pop, and sweet) Dill Garden Beets Grasses grown for seed (Cool season grasses only) Mint Parsley, Fresh and Dried leaves Peanuts Quinoa Radish Rapeseed (Canola), Subgroup 20A Rice (including Wild Rice) Sorghum Soybeans Strawberry and other Low-Growing Berry, Subgroup 13-07G Sugar Beets Sugarcane Watercress	0 days
Buckwheat Millet	12 Months
Alfalfa (if propiconazole rate does not exceed 0.22 lb ai/acre/year)	75 days
All Other Crops Intended for Food, Grazing, or Feed	105 days

Any crop listed and approved for use on this label has a 0 day plant back interval.

#### SPRAY EQUIPMENT

Thorough coverage is necessary to provide good disease control.

To avoid spray drift, do not apply when conditions favor drift beyond the target area. Avoid spray overlap, as crop injury may occur.

Air assisted or air blast sprayers move spray droplets into the canopy using a forced air stream. Set up the fan to deliver only enough air volume to penetrate the canopy and provide good coverage. Adjust deflectors or other aiming devices to direct spray only to the target area.

Equip sprayers with nozzles that provide accurate and uniform application. Be certain that nozzles are the same size and uniformly spaced across the boom. Calibrate sprayer before use.

Use a pump with capacity to: (1) maintain 35-40 psi at nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension - this requires recirculation of 10% of tank volume per minute. Use a jet agitator or liquid sparge tube for agitation. Do not air sparge.

Although TOPAZ® FUNGICIDE is an emulsifiable concentrate, it is suggested that screens be used to protect the pump and to prevent nozzles from clogging. Screens placed on suction side of pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles. Check nozzle manufacturer's recommendations.

For more information on spray equipment and calibration, consult sprayer manufacturers and state recommendations. For specific local directions and spray schedules, consult the current state agricultural recommendations.

### MIXING INSTRUCTIONS

Prepare no more spray mixture than is required for the immediate operation. Thoroughly clean spray equipment before using this product. Agitate the spray solution before and during application. Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.

**TOPAZ® FUNGICIDE Alone:** Add ½ -⅔ of the required amount of water to the spray or mixing tank. With the agitator running, add the TOPAZ® FUNGICIDE to the tank. Continue agitation while adding the remainder of the water. Begin application of the spray solution after the TOPAZ® FUNGICIDE has completely dispersed into the mix water. Maintain agitation until all of the mixture has been sprayed.

**TOPAZ® FUNGICIDE + Tank Mixtures:** TOPAZ® FUNGICIDE is usually compatible with all tank mix partners listed on this label. To determine the physical compatibility of TOPAZ® FUNGICIDE with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

Add ½ -⅔ of the required amount of water to the spray or mixing tank. With the agitator running, add the tank mix partner into the tank. Allow the material to completely dissolve and disperse into the mix water. Continue agitation while adding the remainder of the water and the TOPAZ® FUNGICIDE to the spray tank. Allow the TOPAZ® FUNGICIDE to completely disperse. Spray the mixture with the agitator running.

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

**PRECAUTION:** Do not mix TOPAZ® FUNGICIDE with Syllit® or crop injury may occur.

### APPLICATION INSTRUCTIONS

Avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur. Do not apply in a manner that will result in exposure to humans or animals.

Ground Application: For tree crops, apply in a minimum of 50 gallons of water per acre unless specified otherwise. For other crops, apply in a minimum of 10 gallons of water per acre unless specified otherwise.

Aerial Application: For tree crops, apply in a minimum of 10 gallons of water/A unless specified otherwise. For other crops, apply in a minimum of 2 gallons of water per acre unless specified otherwise.

Application Through Irrigation Systems (Chemigation) – Apply Topaz ® through irrigation equipment only to crops for which chemigation is specified on this label.

For chemigation, apply in 0.1- 0.25 inches of water. Chemigation with excessive water may lead to a decrease in efficacy.

TOPAZ® FUNGICIDE, alone or in combination with other pesticides which are registered for application through irrigation systems, may be applied through irrigation systems. Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Notes: Do not inject TOPAZ® FUNGICIDE at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 10 parts water to 1 part TOPAZ® FUNGICIDE. TOPAZ® FUNGICIDE is corrosive to many seal materials. Leather seals are best. EPDM or silicone rubber seals can be used but should be replaced once a year. Do not use Viton, Buna-N, Neoprene, or PVC seals.

#### Operating Instructions

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
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.

#### Center Pivot Irrigation Equipment

Notes: (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating TOPAZ® FUNGICIDE through center pivot systems because of non-uniform application.

- Determine the size of the area to be treated.

- Determine the time required to apply  $\frac{1}{8}$  -  $\frac{1}{2}$  inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. When applying TOPAZ® FUNGICIDE through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution. Run the system at 80-95% of the manufacturer's rated capacity.
- Using water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of TOPAZ® FUNGICIDE required to treat the area covered by the irrigation system.
- Add the required amount of TOPAZ® FUNGICIDE and sufficient water to meet the injection time requirements to the solution tank.
- Make sure the system is fully charged with water before starting injection of the TOPAZ® FUNGICIDE solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- Maintain constant solution tank agitation during the injection period.
- Continue to operate the system until the TOPAZ® FUNGICIDE solution has cleared the sprinkler head.

#### Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

- Determine the acreage covered by the sprinklers.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20 to 30-minute interval. When applying TOPAZ® FUNGICIDE through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of TOPAZ® FUNGICIDE required to treat the area covered by the irrigation system.
- Add the required amount of TOPAZ® FUNGICIDE into the same quantity of water used to calibrate the injection period.
- Operate the system at the same pressure and time interval established during the calibration.
- Stop injection equipment after treatment is completed. Continue to operate the system until the TOPAZ® FUNGICIDE solution has cleared the last sprinkler head.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Almonds	Brown Rot Blossom Blight ( <i>Monilinia laxa</i> , <i>M. fructicola</i> )	4-8	Apply TOPAZ® FUNGICIDE at 5-10% bloom and 50-100% bloom. Under severe disease conditions, use the highest rate. Minimum retreatment interval is 7 days.
	Anthracnose ( <i>Collectotrichum acutatum</i> )	8	Apply TOPAZ® FUNGICIDE beginning at bud break on a 7-14 day interval.
Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water volume should be used to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground or aerial application (a minimum of 15 gal/A).			



CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
<b>Specific Use Restrictions:</b> 1) Do not apply more than 32 fl oz/A/year of TOPAZ® FUNGICIDE. 2) Do not apply more than 8 fl oz/A/application of TOPAZ® FUNGICIDE. 3) Do not apply more than 0.9 lb ai propiconazole-containing product/A/year. 4) Do not exceed 4 applications per year when applying at the highest rate (8 fl oz/A) or 8 applications per year when applying at the lowest rate (4 fl oz/A). 5) Do not apply within 60 days of harvest (60-day PHI). 6) Do not graze livestock in treated areas or cut treated cover crop for feed			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Banana and Plantains	Black Sigatoka (Mycosphaerella fijiensis)	3	Apply TOPAZ® FUNGICIDE before disease symptoms appear at the onset of the rainy season. Apply 3 fl. oz. of TOPAZ® FUNGICIDE/A in 10-20 gallons of water/A. Apply no more than 2 consecutive applications on a 21-25 day schedule before rotating to another labeled product with a different mode of action for at least 2 sprays. A maximum of 8 applications can be made for mist sprayer. A maximum of 4 applications for all other application types. Two consecutive months of "triazole free" is required during the period of lower disease pressure.
	Mixing Procedure  Oil-in-Water Emulsion 1. Add the orchard oil to the spray tank. 2. Add the emulsifier (0.6 fl. oz./gal. of oil) and TOPAZ® FUNGICIDE to the spray tank and mix thoroughly for 5 minutes. 3. Add water to the spray tank and mix thoroughly for 15 minutes.  Oil Alone 1. Add orchard oil to the spray tank. 2. Add the TOPAZ® FUNGICIDE to the spray tank and mix thoroughly for 5 minutes.  Maintain agitation.		

**Specific Use Restrictions:**

- 1) Do not apply more than 24 fl oz of TOPAZ® FUNGICIDE during each growing season (this includes any pre-harvest sprays).
- 2) Do not apply more than 3 fl oz/A/application of TOPAZ® FUNGICIDE.
- 3) Do not apply more than 0.67 lb ai propiconazole-containing product/A/year.
- 4) Do not exceed 8 applications per year.
- 5) Do not apply TOPAZ® FUNGICIDE within 100 yards of non-bagged bananas.
- 6) Do not apply TOPAZ® FUNGICIDE on bananas unless they are protected by polyethylene bags.
- 7) Do not apply TOPAZ® FUNGICIDE on plantains if the fruit present are not protected with polyethylene bags.
- 8) Do not feed whole bananas and plantains to animals.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Beets, garden	Leaf Spot ( <i>Cercospora beticola</i> ) Powdery Mildew ( <i>Erysiphe polygoni</i> )	3-4	Begin applications at first sign of disease. Repeat on a 14-day interval. Make no more than 2 consecutive applications before rotating to another registered fungicide with a different mode of action.  If disease levels continue to increase, immediately switch to a fungicide with a different mode of action.
Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground or aerial application (a minimum of 15 gal/A).			
<b>Specific Use Restrictions:</b> 1) Do not apply more than 16 fl oz/A/year of TOPAZ® FUNGICIDE. 2) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE. 3) Do not apply more than 0.45 lb ai propiconazole-containing product/A/year. 4) Do not exceed 4 applications per year when applying at the highest rate (4 fl oz/A) or 5 applications per year when applying at the lowest rate (3 fl oz/A). 5) Do not apply within 14 days of harvest (14-day PHI).			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Berry, Caneberry Subgroup 13-07A Blackberry Loganberry Red and Black Raspberry Wild Raspberry Cultivars, varieties, and/or hybrids of these. See additional crops below.  Berry, Bushberry Subgroup 13-07B Highbush Blueberry Lowbush Blueberry Highbush Cranberry Black Currant Red Currant Elderberry Gooseberry Lingonberry Native Currant Cultivars,	Mummyberry Disease ( <i>Monilinia vaccinocorymbosi</i> )	6	Make first application of TOPAZ® FUNGICIDE beginning at green tip and repeat in 7-10 days. If conditions are favorable for disease development, additional applications may need to be made at pink bud and repeating every 7-10 days through petal fall.
	Leaf Spot and Stem Canker ( <i>Septoria albopunctata</i> )  Rust ( <i>Pucciniastrum vaccinii</i> )	6	Apply when conditions favor disease development. Repeat applications on a 4-week spray interval.
	Leaf and Cane Spot ( <i>Septoria rubi</i> )	6	Apply as a delayed dormant spray after training in the spring. Repeat this application in the late spring, again at bud break, and again once flowering has begun.
	Powdery Mildew ( <i>Microsphaera vaccinii</i> )	6	Apply TOPAZ® FUNGICIDE at 5-10% bloom Repeat this application at full bloom and on a 14 day interval while conditions are favorable for disease development.
	Leaf Spot ( <i>Septoria spp.</i> )	6	Make first application any time prior to bloom and again after petal fall. If needed, repeat application just after harvest.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
varieties, and/or hybrids of these. See additional crops below.  Low Growing Berries (See Strawberry section)			
Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground (a minimum of 5 gal/A) or aerial application (a minimum of 15 gal/A).			
<p><b>Note:</b> TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, sufficient water volume should be used to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground (a minimum of 15 gal/A) or aerial application (a minimum of 5 gal/A).</p> <p><b>Specific Use Restrictions:</b></p> <ol style="list-style-type: none"> <li>1) Do not apply more than 30 fl oz/A/year of TOPAZ® FUNGICIDE.</li> <li>2) Do not apply more than 6 fl oz/A/application of TOPAZ® FUNGICIDE.</li> <li>3) Do not apply more than 0.84 lb ai propiconazole-containing product/A/year.</li> <li>4) Do not exceed 5 applications per year.</li> <li>5) Do not apply within 30 days of harvest (30-day PHI).</li> </ol>			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Carrots	Leaf Blights ( <i>Cercospora carotae</i> ) (suppression of <i>Alternaria dauci</i> )	4	Apply 4 oz. of TOPAZ® FUNGICIDE when conditions favor disease development. Continue applications on a 7-10 day interval, using the shorter interval when disease conditions are severe. If desired, a spreader-sticker may be used.
	Powdery Mildew ( <i>Erysiphe polygoni</i> )	TOPAZ® FUNGICIDE plus chlorothalonil  2	Apply 2 oz. of TOPAZ® FUNGICIDE with 0.75 lb a.i. of chlorothalonil/A. Begin applications when conditions favor disease development. Continue applications on a 7-10 day interval.
Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground (a minimum of 15 gal/A) or aerial application (a minimum of 5 gal/A).			
<p><b>Specific Use Restrictions:</b></p> <ol style="list-style-type: none"> <li>1) Do not apply more than 16 fl oz/A/year of TOPAZ® FUNGICIDE.</li> <li>2) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE.</li> <li>3) Do not apply more than 0.45 lb ai propiconazole-containing product/A/year.</li> <li>4) Do not exceed 4 applications per year when applying at the highest rate (4 fl oz/A) or 8 applications per year when applying at the lowest rate (2 fl oz/A).</li> <li>5) Do not apply within 14 days of harvest (14-day PHI).</li> </ol>			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Celery and Leaf Petioles subgroup  Celery Celery, Chinese Cardoon Celtuce Fennel, Florence Rhubarb Swiss Chard	Early Blight (Cercospora apii) Late Blight (Septoria apicola)	4	Apply TOPAZ® FUNGICIDE on a 7 day schedule, either by ground or aerial application. If desired, TOPAZ® FUNGICIDE may be mixed with appropriate spreader-sticker.
Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground (a minimum of 10 gal/A) or aerial application (a minimum of 5 gal/A).			
<b>Specific Use Restrictions:</b> 1) Do not apply more than 16 fl oz/A/year of TOPAZ® FUNGICIDE. 2) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE. 3) Do not apply more than 0.45 lb ai propiconazole-containing product/A/year. 4) Do not exceed 4 applications per year. 5) Do not apply within 14 days of harvest (14-day PHI).			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Cereals Wheat  See next section for other cereals.	Early Season Suppression of: Powdery Mildew (Blumeria spp., Erysiphe spp.) Leaf Blight (Septoria tritici) Glume Blotch (Stagonospora nordorum) Tan Spot (Pyrenophora tritici- repentis)	2-4	Apply TOPAZ® FUNGICIDE in the spring. Follow up with a second application up to Feekes growth stage 10.5 for season long control.  Applications may be made not closer than a 14- day interval.  Apply to the emerging flag leaf, but do not apply after the legule of the flag leaf emerges (Feekes growth stage 9).
	Control of Leaf Diseases: Rust (Puccinia spp.) Powdery Mildew (Blumeria spp., Erysiphe spp.) Leaf Blight (Septoria tritici) Glume Blotch (Stagonospora nordorum) Tan Spot (Pyrenophora tritici- repentis) Helminthosporium Leaf Blight (Drechslera tritici- repentis) Spot Blotch (Bipolaris sorokiniana) Net Blotch (Pyrenophora teres)	4	Protecting the flag leaf is important for maximizing the potential yield. Highest yields are normally obtained when TOPAZ® FUNGICIDE is applied when the flag leaf is 50% to fully emerged.  Applications may be made no closer than a 14-day interval. The use of oil-based adjuvant may improve the spray coverage and canopy penetration.  TOPAZ® FUNGICIDE can be applied through full head emergence (Feekes growth stage 10.5). Do not apply after this stage to avoid possible illegal residues.
	Foot Rot (Pseudocercospora spp.)	4	Apply TOPAZ® FUNGICIDE plus half rates of other EPA registered fungicides such as Topsin® M. Apply at tillering, but before elongation has occurred.
	Fusarium Head Blight Suppression	4	Apply TOPAZ® FUNGICIDE at approximately 50% flowering. Addition of a penetrating type of adjuvant may increase Fusarium head blight suppression.
Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by ground, air or chemigation.			
<b>Specific Use Restrictions:</b> 1) Do not apply more than 8 fl oz/A/year of TOPAZ® FUNGICIDE. 2) Do not apply more than 4 fl oz/A/year of TOPAZ® FUNGICIDE if forage or hay will be harvested. 3) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE. 4) Do not apply more than 0.22 lb ai propiconazole-containing products/A/year. 5) Do not exceed 2 applications per year when applying at the highest rate (4 fl oz/A) or 4 applications per year when applying at the lowest rate (2 fl oz/A). 6) Do not apply within 7 days of harvest for forage or hay (7-day PHI). 7) Do not apply after Feekes 10.5.4.			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Cereals Barley Rye Triticale Oats	Early Season Suppression of: Powdery Mildew (Blumeria spp., Erysiphe spp.) Leaf Blight (Septoria tritici) Glume Blotch (Stagonospora nordorum) Tan Spot (Pyrenophora tritici-repentis)	2-4	Apply TOPAZ® FUNGICIDE in the spring. Follow up with a second application up to Feekes growth stage 10.5 for season long control.  Applications may be made not closer than a 14-day interval.
	Control of Leaf Diseases: Rust (Puccinia spp.) Powdery Mildew (Blumeria spp., Erysiphe spp.) Leaf Blight (Septoria tritici) Glume Blotch (Stagonospora nordorum) Tan Spot (Pyrenophora tritici-repentis) Helminthosporium Leaf Blight (Drechslera tritici-repentis) Spot Blotch (Bipolaris sorokiniana) Barley Scald (Rhynchosporium secalis) Barley Stripe (Pyrenophora graminea) Net Blotch (Pyrenophora teres)	4	Protecting the flag leaf is important for maximizing the potential yield. Highest yields are normally obtained when TOPAZ® FUNGICIDE is applied when the flag leaf is 50% to fully emerged.  Applications may be made no closer than a 14-day interval. The use of oil-based adjuvant may improve the spray coverage and canopy penetration.  TOPAZ® FUNGICIDE can be applied up to 45 days prior to harvest.
	Foot Rot (Pseudocercospora spp.)	4	Apply TOPAZ® FUNGICIDE plus half rates of other EPA registered fungicides such as Topsin® M. Apply at tillering, but before elongation has occurred.
	Fusarium Head Blight Suppression	4	Apply TOPAZ® FUNGICIDE at approximately 50% flowering. Addition of a penetrating type of adjuvant may increase Fusarium head blight suppression.

Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by ground, air or chemigation.

**Specific Use Restrictions:**

- 1) Do not apply more than 8 fl oz/A/year of TOPAZ® FUNGICIDE.
- 2) Do not apply more than 4 fl oz/A/year of TOPAZ® FUNGICIDE if forage or hay will be harvested.
- 3) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE.
- 4) Do not apply more than 0.22 lb ai propiconazole-containing products/A/year.
- 5) Do not exceed 2 applications per year when applying at the highest rate (4 fl oz/A) or 4 applications per year when applying at the lowest rate (2 fl oz/A).
- 6) Do not apply within 7 days of harvest for forage or hay (7-day PHI).
- 7) Do not apply after Feekes 10.5.4.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Citrus (non-bearing) Calamondin Citron Citrus hybrids Grapefruit Kumquat Lemon Lime Mandarin Orange (sour and sweet) Pummelo Satsuma Mandarin Tangerine Including all cultivars and/or hybrids of these.	Greasy Spot ( <i>Mycosphaerella citri</i> )	6-8	Begin applications in June. Apply on 30 day interval through August.

Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by ground or aerial application (a minimum of 15 gal/A).

**Specific Use Restrictions:**

- 1) Do not apply more than 24 fl oz/A/year of TOPAZ® FUNGICIDE.
- 2) Do not apply more than 8 fl oz/A/application of TOPAZ® FUNGICIDE.
- 3) Do not apply more than 0.67 lb ai propiconazole-containing product/A/year.
- 4) Do not exceed 3 applications per year when applying at the highest rate (8 fl oz/A) or 4 applications per year when applying at the lowest rate (6 fl oz/A).
- 5) Do not apply to citrus that will bear harvestable fruit within 12 months.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Corn Field Seed Popcorn  Sweet Corn	Northern Corn Leaf Blight ( <i>Setosphaeria turcica</i> ) Northern Corn Leaf Spot ( <i>Cochliobolus carbonum</i> ) Southern Corn Leaf Blight ( <i>Cochliobolus heterostrophus</i> )  Also known as Helminthosporium Leaf Blights ( <i>H. maydis</i> , <i>H. turcicum</i> , <i>H. carbonum</i> )	2-4	For leaf blights apply TOPAZ® FUNGICIDE when disease first appears. Continue on a 7-14 day schedule. Use the low rate when disease pressure is low. Under heavy disease pressure or if conditions are favorable for disease, apply the high rate.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
	Rusts (Puccinia spp.) Gray Leaf Spot (Cercospora zeae-maydis) Eye Spot (Aureobasidium zeae)	4	Apply TOPAZ® FUNGICIDE when disease first appears. If conditions favorable for disease persist, continue to apply on a 7-14 day schedule. For best disease control, early applications (at initial disease onset) perform better.
<p>Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by ground, air or chemigation.</p> <p><b>Specific Use Restrictions:</b>  <b>For Field Corn, Field Corn Grown for Seed, and Popcorn</b>  1) Do not apply more than 16 fl oz/A/year of TOPAZ® FUNGICIDE.  2) Do not apply more than 8 fl oz/A/year of TOPAZ® FUNGICIDE on field corn harvested for forage.  3) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE.  4) Do not apply more than 0.45 lb ai propiconazole-containing products/A/year.  5) Do not exceed 4 applications per year when applying at the highest rate (4 fl oz/A) or 8 applications per year when applying at the lowest rate (2 fl oz/A).  6) Do not apply within 30 days of harvest for forage, grain and stover (30-day PHI).  <b>For Sweet Corn:</b>  1) Do not apply within 14 days of harvest for ears (14-day PHI).  2) Do not apply within 14 days of harvest for forage (14-day PHI).</p>			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Cranberries	Cottonball (Monilinia oxycocci)	4-6	Make the first application at leaf bud break and repeat in 14 days. Make the third application at early bloom and repeat in 4 days. Under severe pressure, use the higher rate for control.
<p>Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground or aerial application (a minimum of 20 gal/A).</p> <p><b>Specific Use Restrictions:</b>  <b>1) For use only in Oregon, Washington, and Wisconsin.</b>  2) Do not apply more than 24 fl oz/A/year of TOPAZ® FUNGICIDE.  3) Do not apply more than 6 fl oz/A/application of TOPAZ® FUNGICIDE.  4) Do not apply more than 0.67 lb ai propiconazole-containing product/A/year.  5) Do not exceed 4 applications per year when applying at the highest rate (6 fl oz/A) or 6 applications per year when applying at the lowest rate (4 fl oz/A).  6) Do not apply within 45 days of harvest for cranberries (45-day PHI).  7) Do not allow release of irrigation or flood water to non-target aquatic habitat for at least 14 days after the last application.  8) Do not use cranberry fields used for aquaculture of fish and crustaceans.  9) Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat. Applicators should use care in making applications near non-target aquatic habitats.  10) Do not apply to flooded crop.</p>			



CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Filberts (Hazelnuts)	Eastern Filbert Blight (Anisogramma anomala)	5-8	Begin applications when green leaf tissue becomes visible and continue on 14-21 days interval. Under severe disease conditions, use the higher rate and shorter interval.  NOTE: On certain varieties. TOPAZ® FUNGICIDE applications may cause smaller and/or greener leaves. Yields of filberts displaying these characteristics have not been reduced due to TOPAZ® FUNGICIDE treatments.
Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground or aerial application (a minimum of 15 gal/A).			
<b>Specific Use Restrictions:</b> 1) Do not apply more than 32 fl oz/A/year of TOPAZ® FUNGICIDE. 2) Do not apply more than 8 fl oz/A/application of TOPAZ® FUNGICIDE. 3) Do not apply more than 0.9 lb ai propiconazole-containing product/A/year. 4) Do not exceed 4 applications per year when applying at the highest rate (8 fl oz/A) or 6 applications per year when applying at the lowest rate (5 fl oz/A). 5) Do not apply within 60 days of harvest (60-day PHI). 6) Do not graze livestock in treated areas or cut treated cover crop for feed.			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Grasses Grown for Seed	Rusts (Puccinia spp) Powdery Mildew (Erysiphe graminis) Selenophoma Stern Eyespot (Selenophoma spp.) Ergot Stem Diseases	4-8	Apply TOPAZ® FUNGICIDE when powdery mildew infections. Selenophoma infections, and/or rust pustules are noticeable and increasing in number in late spring or early summer. Apply on a 14-21 days interval. To maximize control of severe rust pressure, apply 8 fl. oz/A and make applications at 14-day intervals until the seed is mature. Make the last application at least 20 days before seed matures. For bluegrass, it is important to begin application early in the growing season.
Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground, air (a minimum of 10 gal/A), or chemigation.			
<b>Specific Use Restrictions:</b> <b>1) For use only in Idaho, Minnesota, Nebraska, Oregon, and Washington.</b> 2) Do not apply more than 32 fl oz/A/year of TOPAZ® FUNGICIDE. 3) Do not apply more than 8 fl oz/A/application of TOPAZ® FUNGICIDE. 4) Do not apply more than 0.90 lb ai propiconazole-containing products/A/year. 5) Do not exceed 4 applications per year when applying at the highest rate (8 fl oz/A) or 8 applications per year when applying at the lowest rate (4 fl oz/A). 6) Do not apply within 20 days of harvest (20-PHI) of seed. 7) Do not feed hay cut within 20 days of the last application. 8) Do not graze treated areas within 140 days of the last application. 9) Do not apply to bermudagrass grown for seed.			

**Note:** TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, sufficient water volume should be used to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by ground in a minimum of 20 gal/A or by aerial in a minimum of 2 gal/A.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Mint Peppermint Spearmint	Rust (Puccinia menthae)	4	Begin applications when the plants are 2-4 inches high or when conditions become favorable for disease development. Make a second application 14 days after the first application.

Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground in a minimum of 20 gal/A or by aerial in a minimum of 2 gal./Acre.

**Specific Use Restrictions:**

- 1) Do not exceed 12 fl oz of product/A/year.
- 2) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE.
- 3) Do not apply more than 0.34 lb ai propiconazole-containing product/A/year.
- 4) Do not exceed 3 applications per year.
- 5) Do not apply within 7 days of harvest (7-day PHI).

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Onions (Dry Bulbs) Garlic Onions (Dry Bulb) Shallots (Dry Bulb)	Purple Blotch (Alternaria porri)	TOPAZ® FUNGICIDE solo  4-8	Begin applications when conditions favor disease development and continue on a 7-10 day interval. Use the higher rate and shorter interval when disease conditions are severe.
Onions (Green) Green Onions Green Shallots Green Eschalots Japanese Bunching Onions Leeks Spring Onions Scallions  And/or cultivars or hybrids of these.	Suppression of Botrytis Leaf Blight (Botrytis squamosa)	TOPAZ® FUNGICIDE plus tank mix partner  2-4	Apply 2-4 oz. of TOPAZ® FUNGICIDE in combination with another fungicide registered for control of botrytis leaf blight or purple blotch. Begin applications when conditions favor disease development and continue on 7-day interval or according to the tank mix partner label. Use the higher rate when disease conditions are severe. To achieve optimum disease control use a wetting agent or spreader-sticker.

Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground (a minimum of 15 gal/A) or aerial application (a minimum of 5 gal/A).

**Specific Use Restrictions:**

- 1) Do not apply more than 16 fl oz/A/year of TOPAZ® FUNGICIDE.
- 2) Do not apply more than 8 fl oz/A/application of TOPAZ® FUNGICIDE.
- 3) Do not apply more than 0.45 lb ai propiconazole-containing product/A/year.
- 4) Do not exceed 2 applications per year when applying at the highest rate (8 fl oz/A) or 8 applications per year when applying at the lowest rate (2 fl oz/A). When applying 4 fl oz/A, do not exceed 4 applications per year.
- 5) Do not apply within 14 days of harvest on bulb onion types (14-day PHI).

6) TOPAZ® FUNGICIDE may be applied the day of harvest (0-day PHI) for green onion types.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Parsley, fresh and dried leaves  Cilantro (Coriander), leaves	Leaf Spot (Cercospora spp.) Leaf Spot (Alternaria spp.) Powdery Mildew (erysiphe spp.)	3-4	Begin applications at first sign of disease. Repeat on a 14-day interval. Make no more than 2 consecutive applications before rotating to another registered fungicide with a different mode of action.  If disease levels continue to increase, immediately switch to a fungicide with a different mode of action.
Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by ground, air, or chemigation.			
<b>Specific Use Restrictions:</b> 1) Do not apply more than 16 fl oz/A/year of TOPAZ® FUNGICIDE. 2) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE. 3) Do not apply more than 0.45 lb ai propiconazole-containing product/A/year. 4) Do not exceed 4 applications per year when applying at the highest rate (4 fl oz/A) or 5 applications per year when applying at the lowest rate (3 fl oz/A). 5) Do not apply within 14 days of harvest (14-day PHI)			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Peanuts	Early Leaf Spot ( <i>Cercospora arachidicola</i> )	2.5-4	Apply TOPAZ® FUNGICIDE beginning 35-40 days after planting or at the first appearance of disease. Continue applications on a 10-14 day schedule. Under heavy disease pressure use higher application rates. TOPAZ® FUNGICIDE also may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.
	Late Leaf Spot ( <i>Cercosporidium personatum</i> )	4	
	Rust ( <i>Puccinia arachidis</i> )	4	
	Web Blotch ( <i>Phoma arachidicola</i> )	4	
	Southern Stem Rot ( <i>Sclerotium rolfsii</i> )		<p>TOPAZ® FUNGICIDE may be applied by ground, air or chemigation.</p> <p>Apply TOPAZ® FUNGICIDE using one of the following schedules:</p> <p>A. Apply 4 fl. oz./A of TOPAZ® FUNGICIDE to the crown and pegging zones of the plant using chemigation or directed ground application. Begin applications 45 days after planting, or at the first appearance of disease.</p> <p>Repeat on a 14 day interval.</p> <p>B. Apply 8 fl. oz./A of TOPAZ® FUNGICIDE to the crown and pegging zones of the plant using chemigation or directed ground application. Make 2 applications: the first at pegging (approximately 60 days after planting) or at the first appearance of disease, and the second application 3-4 weeks later.</p> <p>Irrigation: When applying TOPAZ® FUNGICIDE in irrigation water for Southern Stem Rot control, use a minimum of 0.25 – 0.5 inches of irrigation water/A. Use enough water so that the fungicide penetrates the peanut canopy and reaches the crown of the plant where Southern Stem Rot is most active.</p> <p>When applying TOPAZ® FUNGICIDE via irrigation or as a directed ground application, additional methods should be employed for leaf spot control.</p>
<p><b>Specific Use Restrictions:</b></p> <p>1) Do not apply more than 16 fl oz/A/year of TOPAZ® FUNGICIDE.</p> <p>2) Do not apply more than 8 fl oz/A/application of TOPAZ® FUNGICIDE.</p> <p>3) Do not apply more than 0.45 lb ai propiconazole-containing products/A/year.</p> <p>4) Do not exceed 2 applications per year when applying at the highest rate (8 fl oz/A) or 6 applications per year when applying at the lowest rate (2.5 fl oz/A). When applying 4 fl oz/A do not exceed 4 applications per year.</p> <p>5) Do not feed hay from treated fields to livestock if used high rate (8 fl oz/A).</p> <p>6) Do not apply within 14 days of harvest (14-day PHI) with low use rate (4 fl oz/A).</p> <p>7) Do not apply within 21 days of harvest (21-day PHI) if used high use rate (8 fl oz/A).</p>			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Pecans	Pecan Scab (Cladosporium caryigenum) Downy Spot (Mycosphaerella caryigena) Liver Spot (Gnomonia caryae pv pecanae) Vein Spot (Gnomonia nerviseda) Zonate Leaf Spot (Cristulariella moricola) Powdery Mildew (Microsphaera penicillata)	4-8	Pecan scab: Apply 4-8 fl. oz./A on a 14 day schedule during bud break and pre-pollination sprays. Apply 6-8 fl. oz./A during nut formation and cover sprays. Use higher rates when disease pressure is heavier.  Other listed foliar diseases: Apply 4 fl. oz./A with other registered pecan products labeled for these mid to late season foliar diseases. Observe all directions, precautions, and limitations for the other products.

Application: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground or aerial application (a minimum of 20 gal/A).

The active ingredient(s) in this product may have effects on federally listed threatened and endangered species or critical habitat in some counties. When using this product, you must follow the measures contained in the County Bulletin for the county in which you are applying the pesticide. To determine whether your County has a Bulletin, consult <http://www.epa.gov/espp/bulletins.htm>. Bulletins also may be available from local pesticide dealers, extension offices, or State pesticide agencies.

**Specific Use Restrictions:**

- 1) Do not apply more than 32 fl oz/A/year of TOPAZ® FUNGICIDE.
- 2) Do not apply more than 8 fl oz/A/application of TOPAZ® FUNGICIDE.
- 3) Do not apply more than 0.9 lb ai propiconazole-containing products/A/year.
- 4) Do not exceed 4 applications per year when applying at the highest rate (8 fl oz/A) or 8 applications per year when applying at the lowest rate (4 fl oz/A).
- 5) Do not apply after shuck split or within 45 days of harvest, whichever comes first.
- 6) Do not graze livestock in treated areas or cut treated cover crop for feed.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Pineapple (Hawaii only)	Butt rot (Ceratocystis paradoxa)	0.75 fl. oz./100 gal of water (1:17,000)	Treatments can be made in either a cold or hot water dip.  Cold Water Dip: Immerse crowns to give thorough wetting, remove, and allow to drain.  Hot Water Dip: Maintain water temperature at 125°F (52°C). Soak crown for 20-30 minutes, remove, and allow to drain.

**Specific Use Restrictions:**

- 1) Do not use treated crowns for food or feed.
- 2) Do not graze while plant is growing.
- 3) Do not graze tops until fruit is harvested.
- 4) Dispose of used dip solution according to local, state, and federal regulations.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Pistachios	Botryosphaeria Panicle and Shoot Blight (Botryosphaeria dothidea)	5-8	<p>Begin applications when green leaf tissue becomes visible and continue on a 14-21 days interval. Under severe disease conditions, use the higher rate and the shorter interval.</p> <p>NOTE: Under certain conditions TOPAZ® FUNGICIDE applications may cause smaller and/or greener leaves. Yields of pistachios displaying these characteristics have not been reduced due to TOPAZ® FUNGICIDE treatments.</p>
<p>Applications: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground or aerial application (a minimum of 15 gal/A).</p>			
<p><b>Specific Use Restrictions:</b></p> <ol style="list-style-type: none"> <li>1) Do not apply more than 32 fl oz/A/year of TOPAZ® FUNGICIDE.</li> <li>2) Do not apply more than 8 fl oz/A/application of TOPAZ® FUNGICIDE.</li> <li>3) Do not apply more than 0.9 lb ai propiconazole-containing product/A/year.</li> <li>4) Do not exceed 4 applications per year when applying at the highest rate (8 fl oz/A) or 6 applications per year when applying at the lowest rate (5 fl oz/A).</li> <li>5) Do not apply within 60 days of harvest (60-day PHI).</li> <li>6) Do not graze livestock in treated areas or cut treated cover crop for feed.</li> </ol>			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Rice	<p>Sheath Blight (Rhizoctonia solani)</p> <p>Brown Leaf Spot (Helminthosporium oryzae)</p> <p>Narrow Brown Leaf Spot (Cercospora oryzae)</p> <p>Leaf Smut (Entyloma oryzae)</p> <p>Sheath Spot (Rhizoctonia oryzae)</p> <p>Kernel Smut (Tilletia barclayana)</p> <p>Aggregate Sheath Spot (Rhizoctonia oryzae-sativa)</p> <p>Black Sheath Rot (Gaeumannomyces graminis)</p> <p>For disease suppression of:</p> <p>False Smut (Ustilagoidea virens)</p> <p>Stem Rot (Sclerotium oryzae)</p>	6 - 10	<p>Timing of TOPAZ® FUNGICIDE application will depend on disease severity, disease complex and rice variety/growth stage. Consult local extension experts for local economic thresholds established for various rice varieties and diseases.</p> <p>TOPAZ® FUNGICIDE should be applied on either of the following schedules as an aerial spray in 5-10 gal. of water/A.</p> <p>A. 6 fl. oz. at first inter-node elongation (up to 2-inch panicle) and repeat at swollen boot. Make the second application 14 days after the first application, but before the boot splits and head emerges. TOPAZ® FUNGICIDE provides best control of sheath blight when the first application is applied at disease appearance in the field. The first application is advised when 5% or fewer of the tillers are infected.</p> <p>B. 10 fl. oz./A at first inter-node elongation (up to 2-inch panicle). The 10 oz. rate is advised if greater than 10% of the tillers are infected with sheath blight. If disease reappears, use another registered fungicide for the second application.</p>

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
			Tank mix option: Apply 6 fl. oz./A of TOPAZ® FUNGICIDE in a tank mix with Quadris or other fungicides for control of rice diseases.
Wild Rice (MN only)	Helminthosporium Leaf Blight (Helminthosporium sp.) Brown Spot (Bipolaris spp.)	6-8	Apply 6 fl. oz./A of TOPAZ® FUNGICIDE at both booting and heading, or make a single application of 8 fl. oz./A at booting.  Minimum re-application interval is 10 days.
Applications: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by air.			
<p>The active ingredient(s) in this product may have effects on federally listed threatened and endangered species or critical habitat in some counties. When using this product, you must follow the measures contained in the County Bulletin for the county in which you are applying the pesticide. To determine whether your County has a Bulletin, consult <a href="http://www.epa.gov/espp/bulletins.htm">www.epa.gov/espp/bulletins.htm</a>. Bulletins also may be available from local pesticide dealers, extension offices, or State pesticide agencies.</p> <p><b>Specific Use Restrictions:</b></p> <ol style="list-style-type: none"> <li>1) Do not apply more than 12 fl oz/A/year of TOPAZ® FUNGICIDE.</li> <li>2) Do not apply more than 10 fl oz/A/application of TOPAZ® FUNGICIDE.</li> <li>3) Do not apply more than 0.34 lb ai propiconazole-containing products/A/year.</li> <li>4) Do not exceed 1 application per year when applying at the highest rate (10 fl oz/A) or 2 applications per year when applying at the lowest rate (6 fl oz/A).</li> <li>5) Do not apply within 35 days of harvest (35-day PHI).</li> <li>6) Do not release flood water within 7 days of an application.</li> <li>7) Do not apply to stubble or ratoon crop rice.</li> <li>8) Do not use in rice fields where commercial farming of crayfish will be practiced.</li> <li>9) Do not drain water from treated rice fields into ponds used for commercial fish farming.</li> <li>10) Do not use water drained from treated fields to irrigate other crops.</li> </ol>			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Sorghum	Ergot (Claviceps sorghi)	3-4	Make the first application at or just prior to flowering. Repeat on a 5-7 day interval. Apply up to 4 times.
Applications: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground (a minimum of 15 gal./A) or aerial application (a minimum of 10 gal/A).			
<p><b>Specific Use Restrictions:</b></p> <ol style="list-style-type: none"> <li>1) Do not apply more than 16 fl oz/A/year of TOPAZ® FUNGICIDE.</li> <li>2) Do not apply more than 8 fl oz of TOPAZ® FUNGICIDE (0.22 lb ai propiconazole) on sorghum harvested for forage.</li> <li>3) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE.</li> <li>4) Do not apply more than 0.45 lb ai propiconazole-containing product/A/year.</li> <li>5) Do not exceed 4 applications per year.</li> <li>6) Do not apply within 30 days of harvest (30-day PHI) for forage.</li> <li>7) Do not apply within 21 days of harvest (21-day PHI) for grain and stover.</li> <li>8) Do not graze livestock or cut for green chop or silage within 30 days of application.</li> </ol>			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Soybeans	Aerial Web Blight ( <i>Rhizoctonia solani</i> )  Anthracnose ( <i>Colletotrichum truncatum</i> )  Brown Spot ( <i>Septoria glycines</i> )  Frogeye Leaf Spot ( <i>Cercospora sojina</i> )  Soybean Rust ( <i>Phakopsora pachyrhizi</i> )	4-6	<p>Aerial Web Blight: Apply 5-6 fl. oz./A at the first appearance of disease and repeat the application 14-21 days later. Under severe disease conditions use the higher rate and shorter interval.</p> <p>Other foliar diseases: Apply 6 fl. oz./A at growth stage R3 (early pod set when pods are 1/8-1/4 inch long) and 14-21 days later at growth stage R5 (pod fill).</p> <p>Soybean rust: Apply 4-6 fl. oz./A at first indication that disease is in the area. For best control, prevention applications work best. Repeat on 14-21 day interval. Use higher rate and shorter interval when disease is present in field and incidence is less than 2% (2 plants in 100 are infected). If incidence is greater than this or if disease and/or being aware of the proximity of the disease via monitoring systems will aid in the proper timing to maximize the effectiveness of the fungicide applications.</p> <p>On certain varieties, TOPAZ® FUNGICIDE applications may cause crinkled, smaller and/or greener leaves. Yields of dry beans displaying these characteristics have not been reduced due to TOPAZ® FUNGICIDE treatments.</p>
<p>Applications: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground or aerial application. Addition of an oil-based additive is noted for improved coverage and penetration when applying by air.</p>			
<p><b>Specific Use Restrictions:</b></p> <ol style="list-style-type: none"> <li>1) Do not apply more than 12 fl oz/A/year of TOPAZ® FUNGICIDE.</li> <li>2) Do not apply more than 6 fl oz/A/application of TOPAZ® FUNGICIDE.</li> <li>3) Do not apply more than 0.34 lb ai propiconazole-containing product/A/year.</li> <li>4) Do not exceed 2 applications per year when applying at the highest rate (6 fl oz/A) or 3 applications per year when applying at the lowest rate (4 fl oz/A).</li> <li>5) Apply up to Stage R6.</li> </ol>			



CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Stone Fruit Crop Group 12-12  Apricots Cherries, Sweet Cherries, Tart Nectarines Peaches Plums Plumcot Prunes  And cultivars and/or hybrids of these.	Brown Rot Blossom Blight (Monilinia spp.)	4	Apply TOPAZ® FUNGICIDE at early bloom stage. If disease pressure is low, a second application may be made as needed through petal fall. Under conditions of high disease pressure and/or very susceptible varieties, make a second application from 75-100% bloom and a third application at petal fall.
	Fruit Brown Rot (Monilinia spp.)	4	Apply as needed a maximum of 2 sprays during the preharvest period up to the day of harvest (0 day PHI). If high inoculum and severe disease conditions persist, apply another registered fungicide after the 2 TOPAZ® FUNGICIDE applications.
	Powdery Mildew (Podosphaera spp.) Cherry Leaf Spot (Blumeriella jaapil) Rust (Tranzschelia discolor)	4	Follow the Brown Rot Blossom Blight schedule. Make up to 2 additional applications on a 10-14 day interval from the end of petal fall to harvest.
<p>Applications: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. Stone fruit diseases are most effectively controlled by ground applications. TOPAZ® FUNGICIDE may be applied by ground or air (a minimum of 15 gal/A).</p> <p>Precaution: Applications of TOPAZ® FUNGICIDE during bloom to Stanley plums have occasionally caused fruit to be less oval in shape and smaller in size at harvest. To avoid this, do not apply TOPAZ® FUNGICIDE to Stanley plums earlier than 21 days prior to harvest.</p> <p><b>Specific Use Restrictions:</b></p> <ol style="list-style-type: none"> <li>1) Do not apply more than 20 fl oz/A/year of TOPAZ® FUNGICIDE.</li> <li>2) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE.</li> <li>3) Do not apply more than 0.56 lb ai propiconazole-containing product/A/year.</li> <li>4) Do not exceed 5 applications per year.</li> <li>5) TOPAZ® FUNGICIDE may be applied the day of harvest (0-day PHI).</li> </ol>			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Strawberry and other Low growing Berry Subgroup 13-07G, except cranberry	Anthracnose (Colletotrichum acutatum) Leaf Spot (Cercospora fragariae) Powdery Mildew (Sphaerotheca macularis) Leaf Rust (Phragmidium potentillae)	4	Begin applications when disease levels are no more than 5%. Apply 4 fl. oz./A of TOPAZ® FUNGICIDE up to 4 times on a 7-day interval. Make no more than 2 consecutive applications before rotating to another registered fungicide with a different mode of action.
<p>Applications: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground (a minimum of 20 gal./A) or aerial application (a minimum of 15 gal./A).</p>			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
<b>Specific Use Restrictions:</b> 1) Do not apply more than 16 fl oz/A/year of TOPAZ® FUNGICIDE. 2) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE. 3) Do not apply more than 0.45 lb ai propiconazole-containing product/A/year. 4) Do not exceed 4 applications per year. 5) TOPAZ® FUNGICIDE may be applied the day of harvest (0-day PHI).			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Sugar Beets	Leaf Spot (Cercospora beticola) Powdery Mildew (Erysiphe polygoni)	4	Begin applications at first sign of disease. Repeat on a 10-14 day interval. Make no more than 2 consecutive applications before rotating to another registered fungicide with a different mode of action.  If disease levels continue to increase, immediately switch to a fungicide with a different mode of action.
Applications: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground, air or chemigation.			
<b>Specific Use Restrictions:</b> 1) Do not apply more than 12 fl oz/A/year of TOPAZ® FUNGICIDE. 2) Do not apply more than 4 fl oz/A/application of TOPAZ® FUNGICIDE. 3) Do not apply more than 0.34 lb ai propiconazole-containing product/A/year. 4) Do not exceed 3 applications per year. 5) Do not apply within 21 days of harvest (21-day PHI).			

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
Sugarcane	Pineapple disease (Ceratocystic paradoxa)	0.75 fl. oz./100 gal. of water  (1:17,000)	Apply TOPAZ® FUNGICIDE to cut seed pieces using one of following methods:  Cold Water Dip: Immerse seed pieces to give thorough wetting, remove, and allow to drain.  Hot Water Dip: Maintain water temperature at 125°F (52°C). Soak the seed pieces for 20-30 minutes, remove, and allow to drain.  Conveyer Belt Treatment: Treat seed pieces with TOPAZ® FUNGICIDE/water solution using inline directed spray sufficient to wet cut ends.
	Brown Rust (Puccinia melanocephala)  Orange Rust (Puccinia kuehnii)	4-6	Apply TOPAZ® FUNGICIDE as a foliar application prior to rust development and continue throughout the season every 14-28 days.  Optional language if label has a rate range: If disease pressure is high, use the highest rate.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
			<p>Optional language if label has a single rate and interval range: If disease pressure is high, use the shortest interval.</p> <p>Optional language if label has a rate range and interval range: If disease pressure is high, use the shortest interval and highest rate.</p> <p>TOPAZ® FUNGICIDE may be applied by ground, air or Chemigation.</p>

**Specific Use Restrictions:**

- 1) Do not apply more than 24 fl oz/A/year of TOPAZ® FUNGICIDE.
- 2) Do not apply more than 6 fl oz/A/application of TOPAZ® FUNGICIDE.
- 3) Do not apply more than 0.67 lb ai propiconazole-containing product/A/year.
- 4) Do not exceed 4 applications per year when applying at the highest rate (6 fl oz/A) or 6 applications per year when applying at the lowest rate (4 fl oz/A).
- 5) TOPAZ® FUNGICIDE may be applied within 30 days of harvest (30-day PHI).
- 6) Dispose of used dip solution according to local, state, and federal regulations.
- 7) Do not use treated seed pieces for food or feed.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
<p>Tree Nuts Crop Group 14-12</p> <p>Almond (see specific directions)</p> <p>Beechnut</p> <p>Brazil Nut</p> <p>Butternut</p> <p>Cashew</p> <p>Chestnut</p> <p>Chinquapin</p> <p>Filbert (see specific directions)</p> <p>Hickory</p> <p>Macadamia</p> <p>Pecan (see specific directions)</p> <p>Walnut</p> <p>Pistachios (see specific directions)</p>	Foliar Diseases	4-8	Apply TOPAZ® FUNGICIDE at first sign of disease. Repeat on a 7-14 days interval.

Applications: TOPAZ® FUNGICIDE is most effective when applied and allowed to dry before a rainfall. For best results, use sufficient water to provide thorough coverage. TOPAZ® FUNGICIDE may be applied by either ground, aerial application (a minimum of 15 gal/A). Use ground application for best control of tree nut diseases.

**Specific Use Restrictions:**

- 1) Do not apply more than 32 fl oz/A/year of TOPAZ® FUNGICIDE.

CROP	TARGET DISEASES	USE RATE FL. OZ. PRODUCT/A	APPLICATION INSTRUCTIONS
2) Do not apply more than 8 fl oz/A/application of TOPAZ® FUNGICIDE. 3) Do not apply more than 0.9 lb ai propiconazole-containing product/A/year. 4) Do not exceed 4 applications per year when applying at the highest rate (8 fl oz/A) or 8 applications per year when applying at the lowest rate (4 fl oz/A). 5) Do not apply within 60 days of harvest (60-day PHI) except for pecans (see specific directions). 6) Do not graze livestock in treated areas or cut treated cover crop for feed.			

Fl. Oz. of TOPAZ® FUNGICIDE/Acre	Lb. A.I./Acre	Acres Treated Per 1 Gallon TOPAZ® FUNGICIDE
2	0.056	64
4	0.1125	32
6	0.169	21.3
8	0.225	16
10	0.28	12.8
12	0.34	10.7
16	0.45	8
20	0.56	6.4
24	0.67	5.3
30	0.84	4.3
32	0.90	4

## TURF AND ORNAMENTAL USES

### PRODUCT INFORMATION

TOPAZ® FUNGICIDE is a systemic fungicide for use on turfgrasses for the control of dollar spot (*Sclerotinia homoeocarpa*), brown patch (*Rhizoctonia solani*), anthracnose (*Colletotrichum graminicola*), red thread (*Laetisaria fuciformis*), pink patch (*Limonomyces roseipellis*), rust (*Puccinia graminis*), powdery mildew (*Erysiphe graminis*), stripe smut (*Ustilago striiformis* and *Urocystis agropyri*), summer patch (*Magnaporthe poae*), necrotic ring spot (*Leptosphaeria korrae*), spring dead spot (*Leptosphaeria korrae*, *Leptosphaeria narmari*, *Ophiosphaerella herpotricha*, *Gaeumannomyces graminis*), take-all patch (*Gaeumannomyces graminis*), leaf spot (*Bipolaris* spp., *Drechslera* spp.), gray leaf spot (*Pyricularia grisea*), pink snowmold (*Microdochium nivale*), Fusarium patch (*Fusarium nivale*), gray snowmold (*Typhula* spp.), yellow patch (*Rhizoctonia cerealis*), and zoysia patch (*Rhizoctonia solani*).

TOPAZ® FUNGICIDE also controls numerous diseases on ornamentals and other landscape and nursery plantings. It controls powdery mildews, rusts, leaf spots, scabs, and blights. Refer to the appropriate section for specified diseases and plants.

#### Turf and Ornamental Restrictions:

- Do not apply more than 5.4 gallons per acre (16 fl. oz. per 1000 sq. ft.) of TOPAZ® FUNGICIDE.
- Do not apply more than 1.79 lbs. propiconazole a.i. of TOPAZ® FUNGICIDE per acre per application
- Do not apply more than a maximum of 7.2 lbs. per year of TOPAZ® FUNGICIDE.
- Bermudagrass can be sensitive to TOPAZ® FUNGICIDE. Do not exceed 1.44 fl. oz./1,000 sq. ft. every 30 days on any variety of bermudagrass. In Florida, do not apply TOPAZ® FUNGICIDE to bermudagrass golf course greens when temperatures exceed 90°F.
- For turf and ornamental uses, do not apply the product through any type of irrigation system.
- Do not use TOPAZ® FUNGICIDE in greenhouses or as a tree injection.
- Do not graze animals on treated areas.
- Do not feed clippings from treated areas to livestock or poultry.

### MIXING INSTRUCTIONS

Fill the spray tank  $\frac{1}{2}$  -  $\frac{3}{4}$  full with water. Add the proper amount of TOPAZ® FUNGICIDE and then add the rest of the water. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

If TOPAZ® FUNGICIDE is tank mixed with other products, use the following sequence:

1. Always check the compatibility of the tank mix using a jar test with proportionate amounts of TOPAZ® FUNGICIDE, other chemicals to be used, and the water, before mixing in the spray tank.
2. Provide sufficient jet or mechanical agitation during filling and application to keep the tank mix uniformly suspended.
3. Fill tank at least  $\frac{1}{2}$  full of clean water.
4. Add wettable powders to the tank first, allowing them to completely suspend in the tank before proceeding. This process can be hastened by premixing the product in water before adding to the tank.
5. Add flowables or suspensions next.
6. Add TOPAZ® FUNGICIDE next.
7. Add emulsifiable concentrates last.
8. Do not leave tank mix combinations in the spray tank for prolonged periods without agitation. Mix and apply them the same day.

#### Tank Mixes

For broader spectrum control, TOPAZ® FUNGICIDE can be tank mixed with other fungicides.

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

#### TURFGRASS AND DICHONDRA DISEASE CONTROL

1. USE TOPAZ® FUNGICIDE IN A PREVENTATIVE DISEASE CONTROL PROGRAM.
2. Apply in sufficient water to ensure thorough coverage.
3. Apply after mowing OR allow sprayed area to completely dry before mowing.
4. For control of foliar diseases, allow sprayed area to completely dry before irrigation.
5. For control of soil-borne diseases, TOPAZ® FUNGICIDE can be watered in after application.
6. Under conditions optimum for high disease pressure, use the higher rate and the shorter interval.
7. For optimum turf quality and disease control, use TOPAZ® FUNGICIDE in conjunction with turf management practices that promote good plant health and optimum disease control.
8. Evaluate spray additives prior to use. Label directions are based on data obtained with no additives.
9. Before use of any fungicide, proper diagnosis of the organism causing the disease is important. Use of diagnostic kits or other means of identification of the disease organism is essential to determine the best control measures.

#### Turfgrass - Specific Diseases, Rates, and Application Timing

DISEASE	FL. OZ. PER 1,000 SQ. FT.	FL. OZ. PER ACRE	APPLICATION INTERVAL/ TIMING	APPLICATION INSTRUCTIONS
Dollar Spot (Sclerotinia homoeocarpa)	0.18	8.0	14 days	Apply when conditions are favorable for disease development.
	0.18	8.0	14 days	Tank mix with low label rate of a chlorothalonil that is EPA-registered for use on turfgrass.
	0.37	16	21-28 days	
	0.34-0.73	16-32	14-28 days	If using the 0.35-0.75 fl. oz./1,000 sq. ft. rate without tank mixing, making no more than 3 consecutive applications for dollar spot control before rotating to an alternate EPA-registered fungicide having a different mode of action.
Anthracnose (Colletotrichum graminicola)	0.37-0.73	16-32	14-28 days	Apply when conditions are favorable for disease development. When disease pressure is high, use higher rates of TOPAZ® FUNGICIDE and shorter intervals. For broad spectrum control, tank mix with a

DISEASE	FL. OZ. PER 1,000 SQ. FT.	FL. OZ. PER ACRE	APPLICATION INTERVAL/ TIMING	APPLICATION INSTRUCTIONS
				registered contact fungicide at the label rate.  If disease is present, mix 0.75 fl. oz. of TOPAZ® FUNGICIDE per 1,000 sq. ft. with the label rate of the above mentioned contact fungicides.
Brown Patch (Rhizoctonia solani)	0.37-0.73	16-32	14-21 days	Begin applications in May or June before disease is present. Tank mix with a registered contact fungicide labeled for brown patch control at the label rate.  Under conditions of high temperatures and high humidity, use the higher rates of TOPAZ® FUNGICIDE and shorter intervals.
Powdery Mildew (Erysiphe graminis) Rust (Puccinia graminis)	0.37-0.73	16-32	14-28 days	Apply when conditions are favorable for disease development. If disease is present, use 0.75 fl. oz. of TOPAZ® FUNGICIDE per 1,000 sq. ft.
Red Thread (Laetisaria fuciformis) Pink Patch (Limonomyces roseipellis)	0.37	32	14-21 days	Apply when conditions are favorable for disease development.
Stripe Smut (Ustilago striiformis) (Urocystis agropyri)	0.37-0.73	16-32	Fall or Spring	Apply one in the fall after grass becomes dormant or in the early spring before grass starts to grow.
Gray Leaf Spot (Pyricularia grisea)	0.37-0.73	16-32	14 days	Apply when conditions are favorable for disease development. If using the 0.35 fl. oz./1,000 sq. ft. rate, tank mix with a registered contact fungicide at the label rate.
Melting Out Leaf Spot (Bipolaris spp.) (Drechslera spp.)	0.37-0.73	16-63	14 days	Under light to moderate pressure, apply TOPAZ® FUNGICIDE to reduce the severity of leaf spot and melting. For broad spectrum disease control, tank mix the 0.35 fl. oz. with a registered contact fungicide at the label rate.  Tank mix the 0.35-0.75 fl. oz./1,000 sq. ft. TOPAZ® FUNGICIDE rate with a registered contact fungicide at the label rate.
Summer Patch Poa Patch	0.73 1.45	32 63	14 days 28 days	Apply TOPAZ® FUNGICIDE beginning in April. Use the 1.5 fl.oz./1,000 sq. ft. rate on a 28-day

DISEASE	FL. OZ. PER 1,000 SQ. FT.	FL. OZ. PER ACRE	APPLICATION INTERVAL/ TIMING	APPLICATION INSTRUCTIONS
(Magnaporthe poae)				schedule and the 0.75 fl. oz./1,000 sq. ft. rate on a 14-day schedule.
Take-All Patch (Gaeumannomyces graminis)	0.73-1.45	32-63	Spring and Fall	Apply TOPAZ® FUNGICIDE to reduce the severity of take-all patch. Make 0.35-0.75 fall applications in September and October or when night temperatures drop to 55°F, and 0.35-0.75 spring applications in April and May, depending on local recommendations.
Spring Dead Spot (Leptosphaeria korrae, Leptosphaeria narmari, Ophiosphaerella herpotricha, Gaeumannomyces graminis)	1.45	63	30 days	Make 1-3 applications. For once application, apply in September or October. For multiple applications, begin sprays in August.
Necrotic Ring Spot (Leptosphaeria korrae)	1.45	63	Fall or Spring	Apply in the fall and/or the early spring depending on local recommendations.
Snowmold  Gray (Typhula spp.) Pink (Microdochium nivale)	0.73-1.45	32-63	Late Fall	Apply one application in the late fall before snow cover. Do not apply on top of snow. For optimum disease control, the 0.75 and 1.1 fl. oz. TOPAZ® FUNGICIDE rates should be tank mixed with either PCNB or chlorothalonil at label rates.
Fusarium patch (Fusarium nivale)	0.73-1.45	32-63	Fall-Early Spring	Apply when conditions are favorable for disease development.
Yellow patch (Rhizoctonia cerealis)	1.10-1.45	48-63	Late Fall	Apply one application in the late fall before snow cover. Do not apply on top of snow. If using a 1.1 fl. oz./1,000 sq. ft. rate, tank mix with a registered contact fungicide at the label rate.
Zoysia patch, Large patch of zoysia (Rhizoctonia solani)	1.10-1.45	48-63	Early Fall	Make one application in the early fall (mid-September to mid-October) prior to development of disease symptoms. Consult local turfgrass extension experts to determine the optimum application timing for your area.

#### Dichondra - Specific Diseases, Rates, and Application Timing

DISEASE	FL. OZ. PER	FL. OZ.	APPLICATION	APPLICATION INSTRUCTIONS
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	1,000 SQ. FT.	PER ACRE	INTERVAL/ TIMING	
Dichondra Rust (Puccinia dichondrae)	0.73	32	14-21 days	Apply when conditions are favorable for disease development.

#### Establishment of Cool Season Turfgrass

TOPAZ® FUNGICIDE provides control of many diseases of turf, and its primary use is as a fungicide for use against the diseases listed on this label. As an additional benefit, TOPAZ® FUNGICIDE will improve the rate of establishment when it is applied to cool season grass seedlings or sod.

New Seedlings: Apply 0.35 fl. oz./1,000 sq. ft. at the 2 to 3-leaf stage of growth for faster root development and top growth.

Sod: Apply 0.35 fl. oz./1,000 sq. ft. 2-6 weeks before cutting for increased sod knitting and faster establishment after laying. Observe a 7 day re-treatment interval between applications.

#### Disease Control in Nurseries (Field) and Landscape Plantings)

1. USE TOPAZ® FUNGICIDE IN A PREVENTATIVE DISEASE CONTROL PROGRAM. To determine the use directions for controlling a disease on an ornamental plant species, select the plant species in Table 1. The number in parenthesis following the plant species refers you to the disease(s) controlled in Table 2. Find the disease in Table 2. The letter in brackets following the disease refers you to the application regime in Table 3.
2. Allow spray to dry before overhead irrigation is applied.
3. Optimum benefit of TOPAZ® FUNGICIDE is obtained when used in conjunction with sound disease management practices.

#### PRODUCT INSTRUCTIONS

TOPAZ® FUNGICIDE may be used at rates of 0.75-8.7 fl. oz./100 gals. water for control of diseases of ornamental plant species (see Tables 1, 2, and 3).

NOTE: For outdoor uses, you can apply up to 2.0 gallons of TOPAZ® FUNGICIDE/acre/crop/calendar year.

For general disease control in landscapes, apply 2.2-3.0 fl. oz./100 gals. water every 21 days. For best control, begin TOPAZ® FUNGICIDE applications before disease development.

Note: Plant tolerances to TOPAZ® FUNGICIDE have been found acceptable for the specific genera and species of plants listed under the Directions for Use. Other plant species may be sensitive to TOPAZ® FUNGICIDE and diseases other than those listed may not be controlled. Before using TOPAZ® FUNGICIDE on plants or for diseases, test TOPAZ® FUNGICIDE on a small scale basis first. Do not apply TOPAZ® FUNGICIDE to African violets, begonias, Boston fern, or geraniums. Apply the specified rates for a particular type of disease, i.e., rust, powdery mildew, etc., and evaluate for phytotoxicity and disease control prior to widespread use.

Table 1. Ornamentals - Plant Species

Numbers in parentheses refer to diseases controlled. See Table 2.

HERBACEOUS ORNAMENTAL	WOODY ORNAMENTAL	NON-BEARING FRUITS AND NUTS (NURSERIES AND LANDSCAPE PLANTINGS)
Calendula (4a) Carnation (5f)	Amelanchier (4d) Ash (4c)	Apple (3q, 4d, 5a) Barlett pear (3q, 4c, 5a)

Chrysanthemum (2a) Delphinium (4a) English Ivy (3e) Gomphrena (3a) Impatiens (3a, 3b, 4a) Iris (5d) Marigold (3a) Monarda (4c) Phlox (4c) Snapdragon (5d) Sweet William (3k) (Dianthus barbatus) Zinnia (4c)	Azalea (2c, 4b) Bayberry (3n) Camellia (3e) Cotoneaster (3i) Crabapple (3c, 3q, 4c, 5a) Crape Myrtle (4a) Dogwood (3h, 4c) Douglas Fir (5b) Elm (4c) Euonymus (3e, 4c) Hawthorn (5a) Holly (3r) Juniper (1a) Lilac (4c) Linden (3e, 3b, 4b) Magnolia (3e, 4b) Maple (3e, 4f) Oaks (3p) Pines (1b, 1c) Poplars (5b) Pyracantha (3o) Red Tip Photinia (3i) Raphiolepis (3e, 3i) Rhododendron (2c, 3n) Roses (3g, 4e, 5c) (Outdoor Use Only) Shasta Fir (5e) Sweetgum (3b, 3c, 3n) Sycamore (3e) Tulip Tree (3e, 4a) Wax Myrtle (3n)	Cherry (2b, 3d) Citrus (3m) Nectarine (2b) Peach (2b) Pecan (3b, 3c, 3f, 3l, 3n, 4e) Plum (2b) Walnut (3j)
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Table 2. Diseases

Letters in brackets refer to application regimes. See Table 3.

1. Conifer Blights
  - a. *Phomopsis juniperovora* (Phomopsis Blight) [B]
  - b. *Sirococcus strobolus* (Tip Blight) [D]
  - c. *Sphaeropsis sapinea* (Diplodia Tip Blight) [B]
2. Flower Blight
  - a. *Ascochyta chrysanthemi* (Ray Blight) [C]
  - b. *Monilinia* spp. [A]
  - c. *Ovulinia* spp. [B]
3. Leaf Blights/Spots
  - a. *Alternaria* spp. [B]
  - b. *Cercospora* spp. (Brown Leaf Spot) [C]
  - c. *Cladosporium* spp. (Scab) [C]
  - d. *Coccomyces hiemalis* [A]
  - e. *Collectrichum* spp. [B]
  - f. *Cristulariella* spp. (Zonate leaf spot) [C]
  - g. *Diplocarpon rosae* (Blackspot) [B]
  - h. *Discula* spp. (Anthracnose) [A]
  - i. *Fabraea maculata* (syn. *Entomosporium maculata*) [B]
  - j. *Gnomon/a leptostyla* (Anthracnose) [C]
  - k. *Heterosporium echinulatum* [B]
  - l. *Mycosphaerella caryigena* (Downy Spot) [C]
  - m. *Mycosphaerella fruticola* (Greasy Spot) [E]
  - n. *Septoria* spp. (Leaf Scorch) [C]
  - o. *Spilocaea pyracanthae* [B]

- p. *Tubakia dryina* [D]
  - q. *Venturia inaequalis* (Scab) [A]
  - r. *Rhizoctonia* web blight [B]
4. Powdery Mildew
    - a. *Erysiphe* spp. [B]
    - b. *Microsphaera* spp. [C]
    - c. *Oidium* spp. [B]
    - d. *Podosphaera* spp. [B]
    - e. *Sphaerotheca pannosa* [B]
    - f. *Phyllactinia* spp. [B]
  5. Rust
    - a. *Gymriosporangium juniperi-virginianae* [A]
    - b. *Melampsora occidentalis* [D]
    - c. *Phragmidium* spp. [B]
    - d. *Puccinia* spp. [B]
    - e. *Pucciniastrum goeppertianum* [D]
    - f. *Uromyces dianthi* [B]

Table 3. Application Regimes

1. Mix 0.75-1.5 fl. oz. of TOPAZ® FUNGICIDE in 100 gals, of water and apply as a full coverage spray to the point of drip. Apply every 14-21 days during the period of primary infection. If disease is present, tank mix with an EPA-registered contact fungicide. For flower blight, apply TOPAZ® FUNGICIDE when there is 5-10% bloom and again at 70-100% bloom. For dogwoods, apply the 0.75-1.5 fl. oz. rate every 14 days, or apply 3 fl. oz. of TOPAZ® FUNGICIDE every 28 days.
2. Mix 1.8-3.0 fl. oz. of TOPAZ® FUNGICIDE in 100 gals, of water and apply as a full coverage spray to the point of drip. Apply as needed, beginning when conditions are favorable for disease development. For blackspot, apply with a registered contact fungicide labeled for blackspot. For Calendula, apply every 30 days. For diplodia tip blight, make 3 applications every 14 days prior to major period of infection. For juniper phomopsis blight, make first application as soon as junipers start to grow, and repeat the applications every 14-21 days during periods of active growth.
3. Mix 3-4.5 fl. oz. of TOPAZ® FUNGICIDE in 100 gals, of water and apply as a full coverage spray to the point of drip. Apply every 30 days, beginning when conditions are favorable for disease development. For pecans, apply the 12 fl. oz. rate beginning at bud break. Apply 3 times on 14-day intervals. For walnuts, apply 3 fl. oz. at 14-21 day intervals. For ray blight, apply 4.5 fl. oz. at 7-day intervals or 7.5 fl. oz. at 14-day intervals. For impatiens, bayberry, linden, magnolia, sweetgum and wax myrtle, the maximum use rate is 8 fl. oz.
4. Mix 6 fl. oz. of TOPAZ® FUNGICIDE in 100 gals, of water and apply as a full coverage spray to the point of drip. Apply every 14-28 days, beginning when conditions are favorable for disease development. For Douglas fir needle rust, apply once in May. For tip blight, initial application is in mid-late winter, and apply 3 times at 2-month intervals.
5. Mix 7.5-8.7 fl. oz. of TOPAZ® FUNGICIDE in 100 gals, of water and apply as a full coverage spray to the point of drip. Apply during June to August time period.

Note: To avoid possible illegal residues, do not apply to apple, Bartlett pear, cherry, citrus, nectarine, peach, pecan, plum, or walnut trees that will bear harvestable fruit within 12 months.

## MUSHROOM INDUSTRY WOOD PRESERVATIVE

Use of TOPAZ® FUNGICIDE can prevent decay and wood rot, and will allow easy tip out of compost from timber benches and trays by controlling adhesion and penetration of mushroom mycelium.

USE SITE	CONTROLS	USE RATE/DILUTION RATE	APPLICATION INSTRUCTIONS
Mushroom Houses - Timber Trays and benches	Wood rot and decay  Adhesion and penetration of mushroom mycelium	10.4 fl. of product to 25 gallons water  [to achieve treatment concentration of 1500ppm]	SPRAY: Use a large droplet sprayer to apply propiconazole solution to trays and benches between each crop of mushrooms. Apply solution to the insides of trays, and side, end and bottom boards of benches. Apply 25 gallons of propiconazole solution to every 5000 sq. ft. of wood surface, and completely treat all corners, to insure complete wetting of wood surfaces.  DIP: Boards and trays should be completely immersed in propiconazole solution for up to 30 seconds. Remove benches and trays from solution and allow excess to drain back into drip tank.
Mixing Instructions: 1. Add half of the water to the propiconazole solution spray or dip tank 2. Follow with appropriate amount of TOPAZ® FUNGICIDE. 3. Add the rest of the water (to reach required volume) and stir gently to mix solution 4. If necessary, add a small amount of antifoam agent to minimize foaming			
Notes: 1. Trays or bench boards should be allowed to dry before adding compost 2. Trays or boards should dry in a well-ventilated, sheltered place			

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in the original container in cool place.

**PESTICIDE DISPOSAL:** Pesticide wastes may be toxic. 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 DISPOSAL:** Plastic Containers: Triple rinse: Clean the container as described in "Container Rinsing Instructions" below.

For Bulk and Mini-Bulk Containers: Clean the container as described in "Container Rinsing Instructions" below.

**Container Rinsing Instructions:** 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 rinsates into application equipment or rinsates collection system. Repeat this rinsing procedure two more times.

**CONTAINER PRECAUTIONS:** Before refilling, inspect thoroughly for damage, such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices.

Refill Only With TOPAZ® FUNGICIDE.

The contents of this container cannot be completely removed by cleaning. Refilling with materials other than TOPAZ® FUNGICIDE will result in contamination and may weaken container.

After filling and before transporting, check for leaks.

Do not refill or transport damaged or leaking container.

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

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