

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

February 3, 2016

Adora Clark Sr. Regulatory Product Manager Syngenta Crop Protection, LLC P.O. Box 18300 Greensboro, NC 27419

Subject: PRIA Label Amendment – Expansion of the existing crop group commodity uses

to Stone Fruit Group 12-12 and Tree Nut Group 14-12, and adding new uses on Dill, seed, Dill, fresh, Dill, dried, Leafy Brassica greens (5B), Radish, tops, Radish, roots, Ti palm, leaves, Ti palm, roots, Quinoa, grain and Watercress.

Product Name: Tilt

EPA Registration Number: 100-617 Application Date: October 1, 2014 Decision Number: 496167, 496168

Dear Ms. Clark:

The application referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable under FIFRA Section 3(c)(7)(B), subject to the following conditions:

- 1. You must submit and/or cite all data required for registration/registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.
- Be aware that proposed data requirements have been identified in a Work Plan. For more information on these proposed data requirements, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <a href="http://www.epa.gov/oppsrrd1/contacts\_prd.htm">http://www.epa.gov/oppsrrd1/contacts\_prd.htm</a>

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide

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Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). If you have any questions, please contact Aswathy Balan by phone at 703-347-0510, or via email at balan.aswathy@epa.gov.

Rachel C. Holloman, Chief

Fungicide and Herbicide Branch,

Rachel C. Holloman

Registration Division,

Office of Pesticide Programs



Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-617

#### **MASTER**

Group	3	Fungicide

**Tilt®** 

# **Fungicide**

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

Active Ingredient:

Propiconazole*:	41.8%
Other Ingredients**:	58.2%
Total:	100.0%

<sup>\*</sup>CAS No. 60207-90-1

Tilt formulation is an emulsifiable concentrate (EC)

Contains 3.6 lb of propiconazole per gallon.

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.

EPA Reg. No.	100-617
Net Contents:	

<sup>\*\*</sup>Contains petroleum distillates

	FIRST AID					
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then</li> </ul>					
	continue rinsing eye.  • Call a poison control center or doctor for treatment advice.					
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>					
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Do not give any liquid to the person.</li> <li>Do not induce vomiting unless told to by the poison control center or doctor.</li> <li>Do not give anything by mouthto an unconscious person.</li> </ul>					
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably 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 distillates - vomiting may cause aspiration pneumonia.  Have the product container or label with you when calling a poison control center or doctor, or going for treatment.						
HOT LINE NUMBER  For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call 1-800-888-8372						

# PRECAUTIONARY STATEMENTS

#### **Hazards to Humans and Domestic Animals**

# WARNING/AVISO

Causes substantial but temporary eye injury. Do not get in eyes, on skin, or on clothing. Harmful if swallowed, inhaled, or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid breathing spray mist. This product may cause skin sensitization reactions in certain individuals.

# **Personal Protective Equipment (PPE)**

# Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or Viton®
- Shoes and socks

# All handlers using propiconazole as a seed piece treatment must wear:

- Chemical-resistant gloves
- A chemical-resistant apron

#### **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 Controls**

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

# User Safety Recommendations Users should:

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

#### **Environmental Hazards**

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 disposing of equipment washwater or rinsate.

# **Physical or Chemical Hazards**

Do not use, pour, spill, or store near heat or open flame.

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

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

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

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

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

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

### **DIRECTIONS FOR USE**

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

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:

- Coveralls
- Chemical-resistant gloves, such as barrier laminate or Viton
- Shoes plus socks
- Protective eyewear

#### PRODUCT INFORMATION

Tilt is a broad spectrum fungicide recommended for the control of many important plant diseases.

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

#### PRODUCT USE PRECAUTIONS

**Important:** Do not use Tilt in greenhouses or as a tree injection.

### **Rotational Crops**

To avoid possible illegal residues, do not plant any other crop intended for food, grazing, or any component of animal feed within 105 days of Tilt application to the preceding crop, unless the second crop appears on this label. Alfalfa can be planted 75 days after the last Tilt application if the total application of propiconazole has not exceeded 0.22 lb ai/A during the previous year.

### **Integrated Pest Management**

Tilt 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. Tilt 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

Tilt is in the Group 3 class fungicides. The mode of action of Tilt is as a demethylation inhibitor of sterol biosynthesis (DMI) which disrupts membrane synthesis by blocking demethylation. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include rotating and/or tank mixing with products having different modes of action or limiting the total number of applications per season. Syngenta Crop Protection encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label. Tilt should not be alternated or tank mixed with any fungicide to which resistance has already developed.

#### **SPRAY EQUIPMENT**

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, 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 Inversion

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 drif requirements regarding application of propiconazole. 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.

Additional requirements for aerial applications:

- 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 upward.

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 Tilt 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 manufacturer's 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.

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

**Tilt + Tank Mixtures:** Tilt is usually compatible with all tank mix partners listed on this label. To determine the physical compatibility of Tilt 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 ½-¾ 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 Tilt to the spray tank. Allow the Tilt to completely disperse. Spray the mixture with the agitator running.

If using Tilt in a tank mixture, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix product label. No label dosage rate may be exceeded, and the most restrictive label precautions and limitations must be followed. This product may not be mixed with any product which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are registered.

Do not mix Tilt 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 per acre 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 Tilt 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.

Tilt, 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 Tilt at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 10 parts water to 1 part Tilt. Tilt 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**

- The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent watersource contamination from backflow.
- 2. The pesticide injection pipeline must contain a functional, automatic, quickclosing 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 Tilt through center pivot systems because of non-uniform application.

Determine the size of the area to be treated.

- Determine the time required to apply \$^1/8-1/2\$ 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 Tilt 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 Tilt required to treat the area covered by the irrigation system.
- Add the required amount of Tilt 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 Tilt 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 Tilt 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 Tilt through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of Tilt required to treat the area covered by the irrigation system.
- Add the required amount of Tilt 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 Tilt solution has cleared the last sprinkler head.

# SPECIFIC DIRECTIONS FOR USE

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Almonds	Brown Rot Blossom Blight ( <i>Monilinia laxa</i> , <i>M. fructicola</i> )	4-8	Apply Tilt at 5-10% bloom and 50-100% bloom. Under severe disease conditions, use the highest rate. Minimum retreatment interval is 7 days.
	Anthracnose (Collectotrichum acutatum)	8	Apply Tilt beginning at bud break on a 7-14 day interval.

**Application:** Tilt 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. Tilt may be applied by either ground or aerial application (a minimum of 15 gal/A).

- 1) Do not apply more than 32 fl oz/A / season of Tilt.
- 2) Do not apply more than 0.90 lb ai propiconazole-containing product/A/season.
- 3) Do not apply within 60 days of harvest.
- 4) Do not graze livestock in treated areas or cut treated cover crop for feed.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Banana and Plantains	Black Sigatoka (Mycosphaerella fijiensis)	3	Apply Tilt before disease symptoms appear at the onset of the rainy season. Apply 3 fl oz of Tilt/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. If possible, it is recommended to have at least 2 consecutive months 'triazole free' during the period of lower disease pressure.
	Mixing Procedures  Oil-in-Water Emulsion  1. Add the crop oil to th  2. Add the emulsifier (0)	ne spray tank.	and Tilt to the spray tank and mix thoroughly for 5 minutes.

# Oil Alone

- 1. Add crop oil to the spray tank.
- 2. Add the Tilt to the spray tank and mix thoroughly for 5 minutes.

3. Add water to the spray tank and mix thoroughly for 15 minutes.

#### Maintain agitation.

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

		Use Rate	
		fl oz	
Crop	Target Diseases	product/A	Remarks
Beans, Dry and	Bean rust	4	Apply when conditions are conducive for disease.
Succulent	(Uromyces		Up to three applications may be made on a 7 - 14
	appendiculatus)		day interval.
Bean	Anthracnose		
(Cicer arietinum)	(Colletotrichum		NOTE: On certain bean varieties, Tilt application
(Lupinus spp.)	lindemuthianum)		may cause crinkled and/or greener leaves. Yields of
(Phaseolus spp.)	Alternaria leaf spot		beans displaying these characteristics have not
( <i>Vigna</i> spp.)	(Alternaria alternata)		been reduced.
(Vicia faba)	Ascochyta leaf spot		
	(Ascochyta		
See below for	phaseolorum)		
complete list of dry	Rust		
and succulent	( <i>Phakopsora</i> spp.)		
beans.	Southern blight		
	(Sclerotium rolfsii)		
	Web blight		
	(Rhizoctonia solani)		
	Ascochyta blight		
	(Mycosphaerella		
	pinodes)		
	Ascochyta leaf and pod		
	spot		
	(Ascochyta spp.)		
	Alternaria blight		
	(Alternaria spp.)		

Dry and Succulent Beans: Cicer arietinum (chickpea, garbanzo bean); Lupinus spp. (including sweet lupine, white sweet lupine, white lupine, and grain lupine), Phaseolus spp. (including kidney bean, lima bean, mung bean, navy bean, pinto bean, snap bean, and wax bean); Vicia faba (broad bean, fava bean); Vigna spp. (including asparagus bean, blackeyed pea and cowpea)

Application Instructions: Tilt may be applied by ground or by air.

- Do not apply more than 12 oz of Tilt /crop/A.
- Do not apply more than 0.34 lb ai of propiconazole-containing products.
- Do not apply within 7 days of harvest (7-day PHI).
- Not for use on cowpea cultivars intended for livestock feeding only.

		Use Rate fl oz	
Crop	Target Diseases	product/A	Remarks
Berry, Caneberry Subgroup 13- 07A	Mummyberry Disease (Monilinia vaccinicorymbosi)	6	Make first application of Tilt 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.
Blackberry Loganberry Red and Black Raspberry Wild Raspberry	Leaf Spot and Stem Canker (Septoria albopuncatata)  Rust (Pucciniastrum vaccinii)	6	Apply when conditions favor disease development. Repeat applications on a 4-week spray interval.
Cultivars, varieties, and/or hybrids	Leaf and Cane Spot (Septoria rubi)	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.
of these. See additional crops below.	Powdery Mildew (Microsphaera vaccinii)	6	Apply Tilt at 5-10% bloom. Repeat this application at full bloom and on a 14 day interval while conditions are favorable for disease development.
Berry, Bushberry Subgroup 13- 07B Highbush Blueberry Lowbush Blueberry Highbush Cranberry Black Currant Red Currant Elderberry Gooseberry Lingonberry Native Currant Cultivars, varieties, and/or hybrids of these. See additional crops below.  Low Growing Berries (See Strawberry section)	Leaf Spot (Septoria spp.)	6	Make first application any time prior to bloom and again after petal fall. If needed, repeat application just after harvest.

Additional Caneberries: Bingleberry, Boysenberry, Dewberry, Lowberry, Marionberry, Olallieberry, Youngberry
Additional Bushberries: Aronia Berry, Buffalo Currant, Chilean Guava, European Barberry, Edible Honeysuckle,
Huckleberry, Jostaberry, Juneberry (Saskatoon Berry), Salal, Sea Buckthorn

Application: Tilt is most effective when applied and allowed to dry before a rainfall. For best results, sufficient water

**Application:** Tilt 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. Tilt may be applied by either ground (a minimum of 5 gal/A) or aerial application (a minimum of 15 gal/A).

- 1) Do not apply more than 30 fl oz/A /season of Tilt.
- 2) Do not apply within 30 days of harvest.
- 3) Do not apply more than 0.84 lb ai propiconazole-containing product/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Brassica, Leafy greens (sub-Group 5B)	Leaf Spot (Cercospora spp) Powdery Mildew (Erysiphe	3 - 4	Begin applications at first sign of disease. Repeat on a 7-10-day interval.  If disease levels continue to increase, immediately switch
Cabbage, Chinese (bok choy)	polygoni)		to a fungicide with a different mode of action.
Collards			
Kale			
Mustard greens			
(See additional crops below)			

**Brassica Leafy greens (sub-Group 5B**): Broccoli raab; Cabbage, Chinese (bok choy); Collards, Kale, Mizuna, Mustard greens; Mustard spinach; Rape greens

**Application:** Tilt 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. Tilt may be applied by ground, air, or chemigation.

- 1) Do not apply more than 12 fl oz/A/season of Tilt.
- 2) Do not apply more than 0.34 lb ai propiconazole-containing product/A/season.
- 3) Do not apply within 7 days of harvest (7 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Bulb	Purple Blotch	Tilt solo	Begin applications when conditions favor disease
Vegetables	(Alternaria porri)	4-8	development and continue on a 7-10 day interval.
	( memana pem)		Use the higher rate and shorter interval when
<b>Bulb Onions</b>	Suppression of Botrytis		disease conditions are severe.
Subgroup 3-	Leaf Blight	Tilt plus tank mix	Apply 2-4 oz of Tilt in combination with another
07A	(Botrytis squamosa)	partner	fungicide registered for control of botrytis leaf
Garlic Bulb		2-4	blight or purple blotch. Begin applications when conditions favor disease development and
Onions Bulb			continue on 7-day interval or according to the
Shallot Bulb			tank mix partner label. Use the higher rate when
			disease conditions are severe. To achieve
Cultivars,			optimum disease control, use a wetting agent or
varieties, and/or hybrids of			spreader-sticker.
these.			
See additional			
crops below.			
Green Onions			
Subgroup 3-			
07B			
Leek			
Fresh Onion Green Onion			
Fresh Shallot			
Leaves			
0.111			
Cultivars,			
varieties, and/or hybrids of these.			
See additional			
crops below.			

Additional Bulb Onions: Daylily, Fritillaria, Great-headed Garlic, Serpent Garlic, Lily, Chinese Onion, Pearl Onion, Potato Onion

Additional Green Onions: Fresh Chive Leaves, Fresh Chinese Chive Leaves, Hosta Elegans, Fritillaria Leaves, Kurrat, Lady's Leek, Wild Leek, Beltsville Bunching Onion, Macrostem Onion, Tree Tops Onion, Welsh Onion Tops

Application: Tilt 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. Tilt may be applied by either ground (a minimum of 15 gal/A) or aerial application (a minimum of 5 gal/A).

- 1) Do not apply more than 16 fl oz/A/season of Tilt.
- 2) Do not apply within 14 days of harvest on bulb onion types.
- 3) Tilt may be applied at 0-day PHI (day of harvest) for green onion types.
- 4) Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Carrots	Leaf Blights (Cercospora carotae) (suppression of	4	Apply 4 oz of Tilt 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.
	Alternaria dauci)  Powdery Mildew (Erysiphe polygoni)	Tilt plus chlorothalonil 2	Apply 2 oz of Tilt with 0.75 lb ai of chlorothalonil/A (1 pint Bravo WeatherStik). Begin applications when conditions favor disease development. Continue applications on a 7-10 day interval.

**Application:** Tilt 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. Tilt may be applied by either ground (a minimum of 15 gal/A) or aerial application (a minimum of 5 gal/A), or chemigation.

- Do not apply more than 16 fl oz/A/season of Tilt.
   Do not apply within 14 days of harvest.
- Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Celery and Leaf Petioles Subgroup 4B	Early Blight (Cercospora apii) Late Blight (Septoria apicola)	4	Apply Tilt on a 7 day schedule, either by ground or aerial application. If desired, Tilt may be mixed with appropriate spreader-sticker.
Celery Celery, Chinese Cardoon Celtuce Fennel, Florence Rhubarb Swiss Chard			

**Application:** Tilt 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. Tilt may be applied by either ground (a minimum of 10 gal/A) or aerial application (a minimum of 5 gal/A).

- 1) Do not apply more than 16 fl oz/A/season of Tilt.
- 2) Do not apply within 14 days of harvest.
- 3) Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.

		Use Rate	
Crop	Target Diseases	fl oz product/A	Remarks
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 Tilt in the spring. Follow up with a second application up to Feekes growth stage 10.5 for season long control.  Applications may be made no 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 triticirepentis) 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 Tilt 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-base adjuvant may improve the spray coverage and canopy penetration.  Tilt 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 (Pseudocercosporella spp.)	4	Apply Tilt 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 Tilt at approximately 50% flowering. Addition of a penetrating type of adjuvant may increase Fusarium head blight suppression.

Application: Tilt 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. Tilt may be applied by ground, air, or chemigation.

- Do not apply within 7 days of harvest for forage or hay.
   Do not apply more than 8 fl oz/A/season of Tilt.
- Do not apply more than 4 fl oz/A/season of Tilt if forage or hay will be harvested.
   Do not apply more than 0.22 lb ai propiconazole-containing products/A/season.
   Do not apply after Feekes 10.54 in wheat.

		Use Rate	
Crop	Target Diseases	fl oz product/A	Remarks
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 Tilt in the spring. Follow up with a second application up to Feekes growth stage 10.5 for season long control.  Applications may be made no 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 triticirepentis) Helminthosporium Leaf Blight (Drechslera triticirepentis) 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 Tilt 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-base adjuvant may improve the spray coverage and canopy penetration.  Tilt can be applied up to 45 days prior to harvest.
	Foot Rot (Pseudocercosporella spp.)	4	Apply Tilt 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 Tilt at approximately 50% flowering. Addition of a penetrating type of adjuvant may increase Fusarium head blight suppression.

**Application:** Tilt 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. Tilt may be applied by ground, air, or chemigation.

- Do not apply within 7 days of harvest for forage or hay.
   Do not apply more than 8 fl oz/A/season of Tilt.
   Do not apply more than 4 fl oz/A/season of Tilt if forage or hay will be harvested.
- 4) Do not apply more than 0.22 lb ai propiconazole-containing products/A/season.
- 5) Do not apply after Feekes 10.54.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
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 (Mycosphaerella citri)	6-8	Begin applications in June. Apply on 30 day interval through August.

Application: Tilt 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. Tilt may be applied by either ground or aerial application (a minimum of 15 gal/A).

Specific Use Restrictions:

- Do not apply more than 24 fl oz/A/season of Tilt.
   Do not apply to citrus that will bear harvestable fruit within 12 months.
- Do not apply more than 0.67 lb ai propiconazole-containing product/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Corn Field Seed Popcorn Sweet Corn	Northern Corn Leaf Blight (Setosphaeria turcica) Northern Corn Leaf Spot (Cochiliobolus carbonum) Southern Corn Leaf Blight (Cochliobolus	2-4	For leaf blights apply Tilt 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.
owest som	heterostrophus)  also known as Helminthosporium Leaf Blights (H. maydis, H. turcicum, H. carbonum)		
	Rusts (Puccinia spp.) Gray Leaf Spot (Cercospora zeae- maydis) Eye Spot (Aureobasidium zeae)	4	Apply Tilt 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.

**Application:** Tilt 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. Tilt may be applied by ground, air, or chemigation.

#### **Specific Use Restrictions:**

#### For Field Corn, Field Corn Grown for Seed, and Popcorn

- 1) Do not apply more than 16 fl oz/A/season of Tilt.
- 2) Do not apply within 30 days of harvest for forage, grain and stover.
- 3) Do not apply more than 8 floz/A/season of Tilt. on field corn harvested for forage.
- 4) Do not apply more than 0.45 lb ai propiconazole-containing products/A/season.

#### For Sweet Corn:

- 1) Do not apply within 14 days of harvest for ears.
- 2) Do not apply within 14 days of harvest for forage.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Cranberries	Cottonball ( <i>Monilinia oxycocci</i> )	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 14 days. Under severe pressure, use the higher rate for control

Application: Tilt 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. Tilt may be applied by either ground or aerial application (a minimum of 20 gal/A).

- 1) Do not apply more than 24 fl oz/A/season of Tilt.
- Do not apply within 45 days of harvest for cranberries.
   Do not apply more than 0.67 lb ai propiconazole-containing product/A/season.
   Use is limited to OR, WA and WI.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Dill	Cercospora Leaf Blight (Cercosporidium punctum)  Powdery Mildew (Erysiphe heraclei)	3 - 4	Begin applications at first sign of disease. Repeat on a 7-10 day interval.  If disease levels continue to increase, immediately switch to a fungicide with a different mode of action.

Application: Tilt 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. Tilt may be applied by ground, air, or chemigation.

- Do not apply more than 12 fl oz/A/season of Tilt.

  Do not apply more than 0.34 lb ai propiconazole-containing product/A/season.

  Do not apply within 7 days of harvest (7 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Filberts (Hazelnuts)	Eastern Filbert Blight (Anisogramma anomala)	5-8	Begin applications when green leaf tissue becomes visible and continue on 14-21 day interval. Under severe disease conditions, use the higher rate and shorter interval.  NOTE: On certain varieties, Tilt applications may cause smaller and/or greener leaves. Yields of filberts displaying these characteristics have not been reduced due to Tilt treatments.

Application: Tilt 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. Tilt may be applied by either ground or aerial application (a minimum of 15 gal/A).

- Do not apply more than 32 fl oz/A/season of Tilt.

  Do not apply more than 0.90 lb ai propiconazole-containing product/A/season.

  Do not apply within 60 days of harvest.
- 3)
- Do not graze livestock in treated areas or cut treated cover crop for feed 4)

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Garden Beets	Leaf Spot (Cercospora beticola) Powdery Mildew (Erysiphe polygoni)	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: Tilt 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. Tilt may be applied by ground, air, or chemigation.

Specific Use Restrictions:

- Do not apply more than 16 fl oz/A/season of Tilt.
   Do not apply within 14 days of harvest.
- 3) Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Grasses Grown for Seed	Rusts (Puccinia spp.) Powdery Mildew (Erysiphe graminis) Selenophoma Stem Eyespot (Selenophoma spp.) Ergot Stem Diseases	4-8	Apply Tilt when powdery mildew infections, <i>Seleophoma</i> infections, and/or rust pustules are noticeable and increasing in number in late spring or early summer. Apply on a 14-21 day 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: Tilt 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. Tilt may be applied by ground, air (a minimum of 10 gal/A), or chemigation.

- Do not feed hay cut within 20 days of the last application.
   Do not graze treated areas within 140 days of the last application.
- Do not apply more than 32 fl oz/A/season of Tilt.
- 4) Do not apply more than 0.90 lb ai propiconazole-containing products/A/season.
- Use is limited to ID, MN, NE, OR and WA.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
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. Continue on a 14-day interval as conditions warrant.

Application: Tilt 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. Tilt may be applied by ground in a minimum of 20 gal/A. **Specific Use Restrictions:** 

- 1) Do not apply within 7 days of harvest.
- Do not exceed 12 fl oz of product/A/season.

  Do not apply more than 0.338 lb ai propiconazole-containing product/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Parsley, Fresh and Dried Leaves	Leaf Spot (Cercospora spp.) Leaf Spot (Alternaria 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
Cilantro (Coriander), Leaves	Powdery Mildew (Erysiphe spp.)		mode of action.  If disease levels continue to increase, immediately switch to a fungicide with a different
			mode of action.

**Application:** Tilt 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. Tilt may be applied by ground, air, or chemigation.

- Do not apply more than 16 fl oz/A/season of Tilt.
   Do not apply within 14 days of harvest.
   Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.

		Use Rate	
Crop	Target Diseases	fl oz product/A	Remarks
Peanuts	Early Leaf Spot (Cercospora	2.5-4	Apply Tilt beginning 35-40 days after planting or at the first appearance of disease. Continue
	arachidicola)	4	applications on a 10-14 day schedule. Under
	Late Leaf Spot (Cercosporidium	4	heavy disease pressure use higher recommended application rates. Tilt also may be used in State
	personatum) Rust	4	Agricultural Extension advisory (disease forecasting) programs which recommend
	( <i>Puccinia arachidis</i> ) Web Blotch		application timing based on environmental factors favorable for disease development.
	(Phoma arachidicola)		Tilt may be applied by ground, air or chemigation.
	Southern Stem Rot (Sclerotium rolfsii)		Apply Tilt using one of following schedules:
	(Constitution)		A. Apply 4 fl oz/A of Tilt 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. Repeat on a 14 day interval.
			B. Apply 8 fl oz/A of Tilt 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.
			Irrigation: When applying Tilt 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.
Spacific Usa			When applying Tilt via irrigation or as a directed ground application, additional methods should be employed for leaf spot control.

- Do not apply more than 16 fl oz/A/season of Tilt.
   Do not apply within 14 days of harvest with low use rate (4 fl oz/A).
   Do not apply within 21 days of harvest if used high use rate (8 fl oz/A).
   Do not feed hay from treated fields to livestock if used high rate (8 fl oz/A).
   Do not apply more than 0.45 lb ai propiconazole-containing products/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Pecans	Pecan Scab (Cladosporium caryigenum) Downy Spot (Mycosphaerella caryigena) Liver Spot (Gnomonia caryae pv pecanae) Vein Spot (Gnomomia 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:** Tilt 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. Tilt may be applied by either ground or by aerial application (a minimum amount 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 <a href="http://www.epa.gov/espp/bulletins.htm">http://www.epa.gov/espp/bulletins.htm</a>. Bulletins also may be available from local pesticide dealers, extension offices, or State pesticide agencies.

- 1) Do not apply more than 32 fl oz/A/season of Tilt.
- 2) Do not apply after shuck split.
- 3) Do not apply more than 0.90 lb ai propiconazole-containing products/A/season.
- 4) Do not graze livestock in treated areas or cut treated cover crop for feed.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
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.

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

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Pistachios	Botrysphaeria Panicle and Shoot Blight ( <i>Botryosphaeria</i> dothidea)	5-8	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.  NOTE: Under certain conditions Tilt applications may cause smaller and/or greener leaves. Yields of pistachios displaying these characteristics have not been reduced due to Tilt treatments.

Application: Tilt 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. Tilt may be applied by either ground or aerial application (a minimum of 15 gal/A).

- 1) Do not apply more than 32 fl oz/A /season of Tilt.
- Do not apply within 60 days of harvest.

  Do not apply more than 0.90 lb ai propiconazole-containing product/A/season.

  Do not graze livestock in treated areas or cut treated cover crop for feed.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Quinoa	Leaf Spot	4	Apply prior to disease development.
	(Ascochyta hyalospora)		
	Stalk Rot		An adjuvant may be added at recommended rates.
	(Phoma exigua)		

**Application Directions:** Tilt can be applied by either ground, chemigation, or aerial application.

- 1) Do not apply within 7 days of harvest for forage or hay.
- Do not apply more than 8 fl oz/A/season of Tilt.
- 3) Do not apply more than 4 fl oz/A/season of Tilt if forage or hay will be harvested.
- 4) Do not apply more than 0.22 lb ai propiconazole-containing products/A/season.
- 5) Do not apply within 30 days of harvest (30-day PHI).

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Radish	Cercospora Leaf spot (Cercospora spp.)	3 - 4	Begin applications at first sign of disease. Repeat on a 7-10 day interval.  If disease levels continue to increase, immediately switch to a fungicide with a different mode of action.

- Do not apply more than 16 fl oz/A/season of Tilt.
- Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.
   Do not apply within 14 days of harvest (14 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Rapeseed	Alternaria black spot	2.6-4	For Phoma control, apply during the rosette stage
Subgroup	(Alternaria brassicae)	(0.07-0.113)	between 2nd true leaf and bolting.
20A	Black leg/Phoma (Leptosphaeria		For Alternaria, make an application at the end of
Canola	maculans) Cercospora leafspot		flowering/early pod set. For other foliar diseases, apply at first sign of disease.
	(C. brassicicola)		
including cultivars,	Head rot (Rhizoctonia solani)		For head rot, apply at 50% flowering.
varieties, and/or hybrids of these and	Powdery mildew (Erysiphe polygoni)		Make no more than one Tilt application per season.
others in this group (see below)			Optional language if label has a rate range: If disease pressure is high, use the highest rate.

**Application:** For best results, sufficient water volume must be used to provide thorough coverage. Tilt can be applied by ground, air, or chemigation. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.

Complete list of Rapeseed subgroup 20A: Borage, crambe, cuphea, echium, flax seed, gold of pleasure, hare's ear mustard, lesquerella, lunaria, meadowfoam, milkweed, mustard seed, oil radish, poppy seed, rapeseed, sesame, sweet rocket and cultivars and/or hybrids of theses

- 1) Do not apply more than 4 ozs./A of Tilt per crop.
- 2) Do not apply more than 0.113 lbs ai/A per crop of propiconazole-containing products.
- 3) Do not apply within 30 days of harvest (30 day PHI).

		Use Rate	
Crop	Target Diseases	fl oz Product/A	Remarks
Rice	Sheath Blight (Rhizoctonia solani) Brown Leaf Spot (Helminthosporium oryzae) Narrow Brown Leaf Spot (Cercospora oryzae) Leaf Smut (Entyloma oryzae) Sheath Spot (Rhizoctonia oryzae) Kernel Smut (Tilletia barclayana) Aggregate Sheath Spot (Rhizoctonia oryzae-sativa) Black Sheath Rot (Gaeumannomyces graminis)  For disease suppression of: False Smut (Ustilaginoidea virens) Stem Rot (Sclerotium oryzae)	6-10	Timing of Tilt 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.  Tilt should be applied on either of the following schedules as an aerial spray in 5-10 gal of water/A.  A. 6 fl oz at first internode 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. Tilt provides best control of sheath blight when the first application is applied at disease appearance in the field. The first application is recommended when 5% or fewer of the tillers are infected.  B. 10 fl oz/A at first internode elongation (up to 2-inch panicle). The 10 oz rate is recommended if greater than 10% of the tillers are infected with sheath blight. If disease reappears, use another registered fungicide for the second application.  Tank mix option: Apply 6 fl oz/A of Tilt in a tank mix with Quadris or other fungicides for control of
			rice diseases.
Wild Rice (MN only)	Helminthosporium Leaf Blight (Helminthosporium sp.)	6-8	Apply 6 fl oz/A of Tilt at both booting and heading, or make a single application of 8 fl oz/A at booting.
	Brown Spot ( <i>Bipolari</i> s spp.)		Minimum re-application interval is 10 days.

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">http://www.epa.gov/espp/bulletins.htm</a>. Bulletins also may be available from local pesticide dealers, extension offices, or State pesticide agencies.

- 1) Do not apply to stubble or ratoon crop rice.
- 2) Do not use in rice fields where commercial farming of crayfish will be practiced.
- 3) Do not drain water from treated rice fields into ponds used for commercial fish farming.
- 4) Do not use water drained from treated fields to irrigate other crops.
- 5) Do not apply more than 12 fl oz/A/season of Tilt.
- 6) Do not apply within 35 days of harvest.
- 7) Do not apply more than 0.34 lb ai propiconazole-containing products/A/season.
- 8) Do not release flood water within 7 days of an application.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
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.

**Application:** Tilt 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. Tilt may be applied by either ground (a minimum of 15 gal/A) or aerial application (a minimum of 10 gal/A).

- 1) Do not apply more than 16 fl oz/A/season of Tilt.
- 2) Do not apply within 30 days of harvest for forage.
- 3) Do not apply within 21 days of harvest for grain and stover.
- 4) Do not graze livestock or cut for green chop or silage within 30 days of application.
- 5) Do not apply more than 8 fl oz of Tilt (0.22 lb ai propiconazole) on sorghum harvested for forage.
- 6) Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Crop Soybeans	Aerial Web Blight (Rhizoctonia solani)  Anthracnose (Colletotrichum truncatum)  Brown Spot (Septoria glycines)  Frogeye Leaf Spot (Cercospora sojina)  Soybean Rust	fl oz product/A 4-6	Remarks  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.  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).  Soybean rust: Apply 4-6 fl oz/A at first indication that disease is in the area. For best control, preventive applications work best. Repeat on 14-
	(Phakopsora pachyrhizi)		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 is in mid canopy, control will not be acceptable. Scouting for the 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.  On certain varieties, Tilt applications may cause crinkled, smaller and/or greener leaves. Yields of dry beans displaying these characteristics have not been reduced due to Tilt treatments.

**Application:** Tilt 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. Tilt may be applied by either ground or aerial application. Addition of an oil-based additive is recommended for improved coverage and penetration when applying by air.

- 1) Do not apply more than 12 fl oz/A/season of Tilt.
- 2) Apply up to Stage R6.
- 3) Do not apply more than 0.34 lb ai propiconazole-containing product/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Stone Fruits Crop Group 12-12 Apricots Cherries, Sweet	Brown Rot Blossom Blight ( <i>Monilinia</i> spp.)	4	Apply Tilt 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.
Cherries, Tart Nectarines Peaches Plums Plumcot	Fruit Brown Rot ( <i>Monilinia</i> 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 Tilt applications.
Prunes	Powdery Mildew (Podosphaera spp.) Cherry Leaf Spot (Blumeriella jaapii) 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.

**Application:** Tilt 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. Stone fruit diseases are most effectively controlled by ground applications. Tilt may be applied by ground or air (a minimum of 15 gal/A).

Complete List of Stone Fruit Crops: Apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; cherry, sweet; cherry, tart; Jujube, Chinese; nectarine; peach; plum; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plum, prune; plumcot; sloe; cultivars, varieties, and/or hybrids of these.

**Precaution:** Applications of Tilt 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 Tilt to Stanley plums earlier than 21 days prior to harvest.

- 1) Do not apply more than 20 fl oz/A/season of Tilt.
- 2) Tilt may be applied at 0-day PHI (day of harvest).
- 3) Do not apply more than 0.56 lb ai propiconazole-containing product/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Strawberry and other Low Growing Berry Subgroup 13- 07G (except Cranberry)	Anthracnose (Colletotrichum acutatum) Leaf Spot (Cercospora fragariae) Powdery Mildew	4	Begin applications when disease levels are no more than 5%. Apply 4 fl oz/A of Tilt 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.
See additional crops below.	(Sphaerotheca macularis) Leaf Rust (Phragmidium potentillae)		

**Additional Low Growing Berries:** Bearberry, Bilberry, Cloudberry, Muntries, Partridgeberry

Application: Tilt 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. Tilt may be applied by either ground (a minimum of 20 gal/A) or aerial application (a minimum of 15 gal/A).

- Do not apply more than 16 fl oz/A/season of Tilt.
   Tilt may be applied at 0-day PHI (day of harvest).
- Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
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.

- 1) Do not apply more than 12 fl oz/A/season of Tilt.
- 2) Do not apply within 21 days of harvest.3) Do not apply more than 0.34 lb ai propiconazole-containing product/A/season.

		Use Rate	
Crop	Target Diseases	fl oz product/A	Remarks
Sugarcane	Pineapple disease (Ceratocystic paradoxa)	0.75 fl oz/ 100 gal of water (1:17,000)	Apply Tilt 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 Tilt/water solution using in-line directed spray sufficient to wet cut ends.
Considia Han D	Brown Rust (Puccinia melanocephela) Orange Rust (Puccinia kuehnii)	4-6	Apply Tilt 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.  Optional language if label has a single rate and interval range: If disease pressure is high, use the shortest interval.  Optional language if label has a rate range and interval range: If disease pressure is high, use the shortest interval and highest rate.  Tilt may be applied by ground, air or chemigation.

- 1) Dispose of used dip solution according to local, state, and federal regulations.
- 2) Do not use treated seed pieces for food or feed.
- Do not apply more than 24 fl oz/A/season of Tilt. Tilt may be applied within 30 days of harvest. 3)
- 4)
- Do not apply more than 0.675 lb ai propiconazole-containing product/A/season.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Ti palm	Cercospora Leaf spot (Cercospora spp.)  Phyllosticta leafspot	3 - 4	Begin applications at first sign of disease. Repeat on a 7-10 day interval.  If disease levels continue to increase, immediately switch to a fungicide with a different mode of action.

- 1) Do not apply more than 16 fl oz/A/season of Tilt.
- 2) Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.
- 3) Do not apply within 7 days of harvest (7 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Tree Nuts Crop Group 14- 12	Foliar Diseases	4-8	Apply Tilt at first sign of disease. Repeat on a 7-14 day interval.
See list below for tree nuts			
See specific directions for Almond Filbert Pecan Pistachios			

**Application:** Tilt 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. Tilt may be applied by either ground or aerial application (a minimum of 15 gal/A). For best control of tree nut diseases, ground applications are recommended.

Complete List of Tree Nut Crops: African nut-tree; almond; beechnut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; Cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; ginkgo; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; macadamia nut; mongongo nut; monkeypot; monkey puzzle nut; Okari nut; Pachira nut; peach palm nut; pecan; pequi; Pili nut; pine nut; pistachio; Sapucaia nut; tropical almond; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these.

- 1) Do not apply more than 32 fl oz/A/season of Tilt.
- Do not apply within 60 days of harvest except for pecans (see specific directions).
- 3) Do not apply more than 0.90 lb ai propiconazole-containing product/A/season.
- 4) Do not graze livestock in treated areas or cut treated cover crop for feed.

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Watercress	Alternaria leafspot ( <i>Alternaria</i> spp.)	3 - 4	Begin applications at first sign of disease. Repeat on a 7-10 day interval. Make no more than 2 applications before harvesting leaves. Up to 4 applications can be made per season.
	Cercospora leafspot ( <i>C. nasturtii</i> )		If disease levels continue to increase, immediately switch to a fungicide with a different mode of action.

- 1) Do not apply more than 16 fl oz/A/season of Tilt.
- Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.
   Do not apply within 3 days of harvest (3 day PHI).

# **POST HARVEST USE**

Crop	Target Diseases	Use Rate fl oz product/100 gal	Remarks
Pineapple	Ceratocytis Butt Rot (C. paradoxa)	3 - 4 fl oz	Apply 3 to 4 fl oz in 100 gallons of water or wax water emulsion after harvest. Fruit should be dipped or sprayed for thorough coverage and allowed to drain. Limit dipping time to no more than 3 minutes. Dip solution should be replaced with fresh dip solution after 200,000 lb of fruit have been treated.  Fruit discarded from fresh fruit packing operations may be used for processing. Cannery wastes may be fed.

Specific Use Restrictions:

1) Do not apply more than 4 fl oz as a post harvest treatment.

FI Oz of Tilt/Acre	Lb Al/Acre	Acres Treated Per 1 Gallon Tilt
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

Tilt 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).

Tilt 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.

For turf and ornamental uses, do not apply the product through any type of irrigation system. Do not use Tilt in greenhouses or as a tree injection. Do not apply more than 5.8 fl oz/1,000 sq ft/calender year of Tilt.

#### MIXING INSTRUCTIONS

Fill the spray tank ½-¾ full with water. Add the proper amount of Tilt and then add the rest of the water. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

If Tilt 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 Tilt, 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 ½ 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 Tilt 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, Tilt can be tank mixed with other fungicides. For example, Subdue MAXX® may be tank mixed with Tilt or used alone when conditions are favorable for Pythium blight. Tilt is also compatible with numerous herbicides and insecticides. Check compatibility before tank mixing. Add Unite® (3 pt/100 gal) to tank mixes which are incompatible. Follow the directions under **Mixing Instructions** for tank mixes. Observe all directions, precautions, and limitations on labeling of all products used in tank mixes. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are registered.

#### TURFGRASS AND DICHONDRA DISEASE CONTROL

- USE TILT 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, Tilt 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 Tilt 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.
- 10. Do not apply more than 5.8 fl oz/1,000 sq ft/calendar year.
- 11. Do not apply more than 1.79 lb propiconazole ai/A/application.

**IMPORTANT:** Bermudagrass can be sensitive to Tilt. Do not exceed 1.44 fl oz/1,000 sq ft every 30 days on any variety of bermudagrass. In FL, do not apply Tilt to bermudagrass golf course greens when temperatures exceed 90°F.

**NOTE:** Do not graze animals on treated areas. Do not feed clippings from treated areas to livestock or poultry.

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

Disease	FI Oz per 1,000 Sq ft	FI Oz per Acre	Application Interval/ Timing	Instructions
Dollar Spot (Sclerotinia homoeocarpa)	0.18	8.0	7 days	Apply when conditions are favorable for disease development.
	0.18	8.0	14 days	Tank mix with low label rate of one of the following fungicides: Daconil Weather Stik® Daconil Ultrex®.
	0.37	16	21-28 days	Tank mix with low label rate of one of the following fungicides: Daconil Weather Stik Daconil Ultrex Chipco® 26019
	0.37-0.73	16-32	14-28 days	If using the 0.35-0.75 fl oz/1,000 sq ft rate without tank mixing, make 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 Tilt and shorter intervals. For broad spectrum control, tank mix with a registered contact fungicide at the label rate.  If disease is present, mix 0.75 fl
				oz of Tilt 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 Tilt and shorter intervals.

			Application	
Disease	FI Oz per 1,000 Sq ft	FI Oz per Acre	Interval/ Timing	Instructions
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 Tilt 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 once 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 Tilt to reduce the severity of leaf spot and melting. For broad spectrum disease control, tank mix the 0.35 fl oz Tilt with a registered contact fungicide at the label rate.
				Tank mix the 0.35-0.75 fl oz/1,000 sq ft Tilt rate with a registered contact fungicide at the label rate.
Summer Patch Poa Patch	0.73	32	14 days	Apply Tilt beginning in April. Use the 1.5 floz/1,000 sq ft rate
(Magnaporthe poae)	1.45	63	28 days	on a 28-day schedule and the 0.75 fl oz/1,000 sq ft rate on a 14-day schedule.

Disease	FI Oz per 1,000 Sq ft	FI Oz per Acre	Application Interval/ Timing	Instructions
Take-All Patch (Gaeumannomyces graminis)	0.73-1.45	32-63	Spring and Fall	Apply Tilt 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 one 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.
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 Tilt 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 Disease, Rate, and Application Timing

Disease	FI Oz per 1,000 Sq ft	FI Oz per Acre	Application Interval/ Timing	Instructions
Dichondra Rust	0.73	32	14-21 days	Apply when conditions are
(Puccinia				favorable for disease
dichondrae)				development.

# **Establishment of Cool Season Turfgrass**

Tilt 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, Tilt 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.

# Disease Control in Nurseries (Field) and Landscape Plantings

- 1. USE TILT 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 parentheses 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 Tilt is obtained when used in conjunction with sound disease management practices.

### **Product Recommendations**

Tilt may be used at rates of 0.75-8.7 fl oz/100 gal 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 Tilt/acre/crop/calendar year.

For disease control in landscapes, apply 2.2-3.0 fl oz/100 gal water every 21 days. For best control, begin Tilt applications before disease development.

**Note:** Plant tolerances to Tilt 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 Tilt and diseases other than those listed may not be controlled. Before using Tilt on plants or for diseases that are not listed in the **Directions for Use**, test Tilt on a small scale basis first. Do not apply Tilt to African violets, begonias, Boston fern, or geraniums. Apply the recommended 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)
Herbaceous Ornamental Calendula (4a) Carnation (5f) 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)	Woody Ornamental  Amelanchier (4d) Ash (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) Rhaphiolepsis (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)	
, ,	

#### Table 2. Diseases

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

- 1. Conifer Blights
  - a. Phomopsis juniperovora (Phomopsis Blight) [B]
  - b. Sirrococcus strobolinus (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. Gnomonia leptostyla (Anthracnose) [C]
  - k. Heterosporium echinulatum [B]
  - I. Mycosphaerella caryigena (Downy Spot) [C]
  - m. Mycosphaerella fructicola (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. Gymnosporangium 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**

- A. Mix 0.75-1.5 fl oz of Tilt in 100 gal 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 Tilt 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 Tilt every 28 days.
- B. Mix 1.8-3.0 fl oz of Tilt in 100 gal 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.
- C. Mix 3-4.5 fl oz of Tilt in 100 gal 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.
- D. Mix 6 fl oz of Tilt in 100 gal 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; apply 3 times at 2-month intervals.
- E. Mix 7.5-8.7 fl oz of Tilt in 100 gal 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.

#### 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 Handling [less than 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

# **Container Handling [Bulk/Mini-Bulk]**

Refillable container. Refill this container with pesticide only. Do not reuse the container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from container into application equipment or mix tank. Fill container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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

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

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

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#### SUPPLEMENTAL LABELING

Syngenta Crop Protection, LLC

P. O. Box 18300 Greensboro, North Carolina 27419-8300 **SCP** 

**Tilt®** 

ACCEPTED

Feb 03, 2016

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

EPA Reg. No. 100-617

#### **Fungicide**

This supplemental label expires on February 1, 2019 and must not be used or distributed after this date.

Active Ingredient:

Propiconazole*:	41.8%
Other Ingredients**:	58.2%
Total:	100.0%

<sup>\*</sup>CAS No. 60207-90-1

Tilt formulation is an emulsifiable concentrate (EC)

Contains 3.6 lb of propiconazole per gallon.

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.

EPA Reg. No. 100-617

All applicable directions, restrictions and precautions on the EPA-registered label are to be followed. Before using Tilt Fungicide as permitted according to this Supplemental Labeling, read and follow all applicable directions, restrictions, and precautions on the EPA-registered label on or attached to the pesticide product container. This Supplemental Labeling contains revised use instructions and/or restrictions that may be different from those that appear on the container label. This Supplemental Labeling must be in the possession of the user at the time of pesticide application. It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

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<sup>\*\*</sup>Contains petroleum distillates

#### SPECIFIC DIRECTIONS FOR USE

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Brassica, Leafy greens (sub-Group 5B)	Leaf Spot (Cercospora spp) Powdery Mildew	3 - 4	Begin applications at first sign of disease. Repeat on a 7-10-day interval.  If disease levels continue to increase, immediately
Cabbage, Chinese (bok choy)	(Erysiphe polygoni)		switch to a fungicide with a different mode of action.
Collards			
Kale			
Mustard greens			
(See additional crops below)			

**Brassica Leafy greens (sub-Group 5B)**: Broccoli raab; Cabbage, Chinese (bok choy); Collards, Kale, Mizuna, Mustard greens; Mustard spinach; Rape greens

**Application:** Tilt 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. Tilt may be applied by ground, air, or chemigation.

- 1) Do not apply more than 12 fl oz/A/season of Tilt.
- 2) Do not apply more than 0.34 lb ai propiconazole-containing product/A/season.
- 3) Do not apply within 7 days of harvest (7 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Dill	Cercospora Leaf Blight (Cercosporidium punctum)  Powdery Mildew (Erysiphe heraclei)	3 - 4	Begin applications at first sign of disease. Repeat on a 7- 10 day interval.  If disease levels continue to increase, immediately switch to a fungicide with a different mode of action.

- 1) Do not apply more than 12 fl oz/A/season of Tilt.
- 2) Do not apply more than 0.34 lb ai propiconazole-containing product/A/season.
- 3) Do not apply within 7 days of harvest (7 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Quinoa	Leaf Spot (Ascochyta hyalospora) Stalk Rot (Phoma exigua)	4	Apply prior to disease development.  An adjuvant may be added at recommended rates.

**Application Directions:** Tilt can be applied by either ground, chemigation, or aerial application.

- 1) Do not apply within 7 days of harvest for forage or hay.
- 2) Do not apply more than 8 fl oz/A/season of Tilt.
- 3) Do not apply more than 4 fl oz/A/season of Tilt if forage or hay will be harvested.
- 4) Do not apply more than 0.22 lb ai propiconazole-containing products/A/season.
- 5) Do not apply within 30 days of harvest (30-day PHI).

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Radish	Cercospora Leaf spot (Cercospora	3 - 4	Begin applications at first sign of disease. Repeat on a 7- 10 day interval.
	spp.)		If disease levels continue to increase, immediately switch to a fungicide with a different mode of action.

- 1) Do not apply more than 16 fl oz/A/season of Tilt.
- 2) Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.
- 3) Do not apply within 14 days of harvest (14 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Ti palm	Cercospora Leaf spot (Cercospora spp.)  Phyllosticta leafspot	3 - 4	Begin applications at first sign of disease. Repeat on a 7- 10 day interval.  If disease levels continue to increase, immediately switch to a fungicide with a different mode of action.

- 1) Do not apply more than 16 fl oz/A/season of Tilt.
- 2) Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.
- 3) Do not apply within 7 days of harvest (7 day PHI)

Crop	Target Diseases	Use Rate fl oz product/A	Remarks
Watercress	Alternaria leafspot (Alternaria spp.)  Cercospora leafspot (C. nasturtii)	3 - 4	Begin applications at first sign of disease. Repeat on a 7- 10 day interval. Make no more than 2 applications before harvesting leaves. Up to 4 applications can be made per season.  If disease levels continue to increase, immediately switch to a fungicide with a different mode of action.

#### **Specific Use Restrictions:**

- 1) Do not apply more than 16 fl oz/A/season of Tilt.
- 2) Do not apply more than 0.45 lb ai propiconazole-containing product/A/season.
- 3) Do not apply within 3 days of harvest (3 day PHI).

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