

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7504P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. 42750-252

Date of Issuance:

SEP 1 0 1013

#### NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance: **Unconditional** 

Name of Pesticide Product: **Propiconazole 1.3 ME** 

## Name and Address of Registrant (include ZIP Code):

Mr. Morris Gaskins Albaugh, Inc P.O Box 2127 Valdosta, GA 31604

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

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

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

Signature of Approving Official:

Shaja B. Joyner

Product Manager 20

Fungicide Branch

Registration Division (7504P)

Date:

SEP 1 0 2013

EPA Form 8570-6

2/10

Notice of Pesticide Registration Product Name Propiconazole 1.3 ME EPA Reg. No. 42750-252 Page 2 of 2

- 2. Make the following change to the label:
  - a. Change the product registration number to "EPA Reg. No. 42750-252"
- 3. Submit a one year storage stability and corrosion characteristics studies.
- 4. The following statement must be added to the label statement: "Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur."
- 5. Submit one copy of the revised final printed label before the product is released for shipment

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A copy of the label stamped "Accepted with comments" is enclosed for your records.

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

#### Enclosures:

Label stamped "Accepted with comments" Product Chemistry Review Similarity Clinic Review

# PROPICONAZOLE 1.3 ME

Broad spectrum and systemic disease control for turf and ornamentals

Active Ingredient:	
Propiconazole: (CAS No. 60207-90-1)	. 14.3%
Other Ingredients*	85.7%
Total:	100.0%

PROPICONAZOLE 1.3 ME contains a nominal 1.3 pounds of active ingredient per gallon. \*Contains xylene-range aromatic solvent

## KEEP OUT OF REACH OF CHILDREN

## CAUTION

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

See additional precautionary statements and directions for use inside booklet.				
	FIRST AID			
IF	Immediately call a poison control center or doctor.			
SWALLOWED	Have person sip a glass of water if able to swallow.			
	Do not induce vomiting unless told to do so by the poison control center or doctor.			
	Do not give anything by mouth to an unconscious person.			
IF ON SKIN	Take off contaminated clothing.			
OR	Rinse skin immediately with plenty of water for 15-20 minutes.			
CLOTHING	Call a poison control center or doctor for treatment advice.			
IF INHALED	Move person to fresh air.			
	If person is not breathing, call 911 or an ambulance, then give artificial respiration,			
	preferably by mouth-to-mouth, if possible.			
	Call a poison control center or doctor for further treatment advice.			
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes.			
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing			
	eye.			
	Call a poison control center or doctor for treatment advice.			
	SICIAN: Contains xylene-range aromatic solvent. Vomiting may cause aspiration			
pneumonia. If ingested, lavage stomach to avoid aspiration. A slurry of activated charcoal in water can				
be left in the stomach. Give a saline laxativé and supportive therapy.				
HOT LINE NUMBER				
In case of a medical or transport emergency call CHEMTREC toll free at 1-800-424-9300.				
Have the product container or label with you when calling a poison control center or, doctor, or going				

EPA Reg. No. 42750-ELE

EPA Est. No. xxxxxx-xx-xxx

Net Contents:	
---------------	--

for treatment.

Manufactured For: Albaugh, Inc. Ankeny, IA 50021

Under the Federal Insecticide, Fungicide, and Rodsaticide Act as amended, for the pesticide

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if swallowed. Harmful if inhaled or absorbed through the skin. Avoid contact with eyes. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

All handlers must wear:

- · Long sleeved shirt and long pants
- Water proof gloves
- Shoes plus socks

In addition, all handlers (mixers, loaders, and applicators, or individuals performing one or more of these tasks), who are applying this pesticide using hand held equipment must wear:

- Long sleeved shirt and long pants,
- Shoes and socks, and
- Chemical-resistant gloves
- A chemical-resistant apron

#### USER SAFETY REQUIREMENTS

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

#### **ENGINEERING CONTROL STATEMENTS**

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

#### **USER SAFETY RECOMMENDATIONS**

Users should:

- 1. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 2. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 3. 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. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

#### PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

#### CHEMIGATION

Do not apply this product through any type of irrigation system.

#### **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.

NOTE: Do not apply more than 5.4 gallons of PROPICONAZOLE 1.3 ME/A/calendar year.

#### 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 24 hours.

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

- Coveralis
- Shoes and socks, and
- Chemical-resistant gloves made of any waterproof material

#### NON-AGRICULTURAL USE REQUIREMENTS

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

Do not enter treated areas without protective clothing until sprays have dried.

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

#### 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 are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of federal law. If these wastes cannot be used according to label instructions, contact your local State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Offer for recycling

if available. Triple rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or 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 rinsates into application equipment or mix tank or store rinsates 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 if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### PRODUCT INFORMATION

PROPICONAZOLE 1.3 ME 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 leafspot (Pyricularia grisea), pink snowmold (Microdochium nivale), Fusarium patch (Fusarium nivale), gray snowmold (Typhula spp.), yellow patch (Rhizoctonia cerealis), and zoysia patch (Rhizoctonia solani).

PROPICONAZOLE 1.3 ME also controls numerous diseases on ornamentals and other landscape and nursery plantings. It controls powdery mildews, rusts, leafspots, scabs, and blights. Refer to the appropriate section for specified diseases and plants.

Do not apply by air.

#### SPRAY DRIFT MANAGEMENT

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

Other State and Local Requirements – Applicators must follow all state and local pesticide drift requirements regarding application of 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.

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

#### MIXING INSTRUCTIONS

Fill the spray tank ½ - ¾ full with water. Add the proper amount of PROPICONAZOLE 1.3 ME, and then add the rest of the water. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

If PROPICONAZOLE 1.3 ME 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 PROPICONAZOLE 1.3 ME, 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 1/2 full of clean water.
- 4. Add wettable powders to the tank first, allowing them to completely suspend in the tank before proceeding. This process can be hastened by premixing the product in water before adding to the tank.
- 5. Add flowables or suspensions next,
- 6. Add PROPICONAZOLE 1.3 ME 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, PROPICONAZOLE 1.3 ME can be tank mixed with other fungicides. For example, Subdue® may be tank mixed with PROPICONAZOLE 1.3 ME or used alone when conditions are favorable for Pythium blight: PROPICONAZOLE 1.3 ME is also compatible with numerous herbicides and insecticides. Check compatibility before tank mixing. Add Unite® (3 pts. /100 gals.) to tank mixes which are incompatible. Follow the directions under Mixing instructions for tank mixes. When tank mixing this product with other pesticides observe the more restrictive label limitations and precautions. No label dosage rates should be exceeded.

This product cannot be mixed with any product containing a label prohibition against such missing. Do not combine PROPICONAZOLE 1.3 ME in a sprayer tank with pesticides, surfactants or fertilizers, unless your prior use has shown the combination to be physically compatible, effective and non-injurious under your conditions of use.

#### TURFGRASS AND DICHONDRA DISEASE CONTROL

- 1. USE PROPICONAZOLE: 1.3 ME IN A PREVENTIVE DISEASE CONTROL PROGRAM.
- 2. Apply in sufficient water to ensure thorough coverage.
- 3. Apply after moving OR allow sprayed area to completely dry before moving.
- 4. For control of foliar diseases, allow sprayed area to completely dry before irrigation.
- 5. For control of soil-borne diseases, PROPICONAZOLE 1.3 ME 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 PROPICONAZOLE 1.3 ME 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 16 fl. oz. PROPICONAZOLE 1.3 ME/1,000 sq. ft. per calendar year (5.4 gal PROPICONAZOLE 1.3 ME/acre per calendar year).

IMPORTANT: Bermudagrass can be sensitive to PROPICONAZOLE 1.3 ME. Do not exceed 4 fl. oz. product /1,000 sq. ft. every 30 days on any variety of bermudagrass. In FL, do not apply PROPICONAZOLE 1.3 ME 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

	,		<del>,</del>	
	Fl. Oz.	Fl. Oz.	Application	
DISEASE	Propiconazole	Propiconazole	Interval/	INSTRUCTIONS
DISEASE	1.3 ME Per	1.3 ME Per	Timing	INSTRUCTIONS
'	1,000 Sq. Ft.	Acre	Tilling	
Dollar Spot	0.5	22	7 days	Apply when conditions are favorable
(Sclerotinia		·		for disease development
homoeocarpa)	0.5	22	14 days	Tank mix with low label rate of a
11011100000.150)			, augo	chlorothalonil product EPA-registered
,	1	44	21 - 28	for use on turf grass.
	'	<del></del>	days	ioi use on tan grass.
	4 0:	44 - 88	14 - 28	If we in a 4 ho 4 0 ft and 44 000 and 4
	1-2	44 - 00		If using the 1-2 fl. oz: /1,000 sq. ft.
			days	rate without tank mixing, make no
				more than 3 consecutive applications
•				for dollar spot control before rotating.
		•		to an alternate EPA registered
	İ	, ,		fungicide having a different mode of
				action.
Anthracnose	1-2	44 - 88	14 - 28	Apply when conditions are favorable
(Colletotrichum		* .	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	for disease development. When
graminicola)	A 1997 A 1997	•	1000	disease pressure is high, use higher
		*	'	rates of PROPICONAZOLE 1.3 ME
		4 1		and shorter intervals. For broad
• .	•			spectrum control, tank mix with a
				registered contact fungicide at the
			1	label rate.
	·			If disease is present, mix 2 fl. oz. of
			1. 1	PROPICONAZOLE 1.3 ME per 1,000
				sq. ft. with the label rate of the above
				mentioned contact fungicides.
Brown Patch	1-2	44 - 88	14 - 21	Begin applications in May or June
(Rhizoctonia			days	before disease is present. Tank mix
solani)	·			with a registered contact fungicide
		,		labeled for brown patch control at the
				label rate.
				nabol rato.
				Under conditions of high
		e e		temperatures and high-humidity, use
		,		the higher rates of
				PROPICONAZOLE 1.3 ME and
Daniel and Milabara	1-2	44 - 88	14 - 28	shorter intervals.
Powdery Mildew	1-2	44 - 00		Apply when conditions are favorable
(Erysiphe		• •	days	for disease development. If disease is
graminis)				present, use 2 fl. oz. of
Rust ( <i>Puccinia</i>	· · · · · · · · · · · · · · · · · · ·	• •		PROPICONAZOLE 1.3 ME per 1,000
graminis)				sq. ft. See No. 20 See See See See See See See See See Se
Red Thread	2	88	14 - 21	Apply when conditions are favorable
(Laetisaria		·	days	for disease development.
fuciformis)		:	2.00	and the second of the second the second
Pink Patch		•		
(Limonomyces				
roseipellis)				
Stripe Smut	1-2	44 - 88	Fall or	Apply once in the fall after grass
(Ustillago			Spring	becomes dormant or in the early
striiformis)	٠.,		'	spring before grass starts to grow.
(Urocystis			·	J. J
agropyri)				
Gray Leafspot	1-2	44 - 88	14 days	Apply when conditions are favorable
Cital Ecalopor	1 -			

	Fl. Oz.	FL O-	Τ	T
	1	Fl. Oz.	Application	
DISEASE	Propiconazole	Propiconazole	Interval/	INSTRUCTIONS
	1.3 ME Per	1.3 ME Per	Timing	
<u> </u>	1,000 Sq. Ft.	Acre .	11131119	
(Pyricularia				for disease development If using the
grisea)	· .		i	1 fl. oz. /1,000 sq. ft. rate, tank mix
1				with a registered contact fungicide at
		,		the label rate.
Melting Out	1-2	44 - 176	14 days	Under light to moderate pressure,
Leaf Spot		11 110	14 days	apply PROPICONAZOLE 1.3 ME to
			·	
(Bipolaris spp.)				reduce the severity of leaf spot and
(Drechšlera spp.)				melting out caused by
				Helminthosporium-type pathogens.
· ·	• 1			For broad spectrum disease control
,				tank mix the 1-4 fl.oz/1000 sq.ft.
			·	PROPICONAZOLE 1.3 ME rate with
				a registered contact fungicide at the
1.1				label rate.
Summer Patch	2	88	14 days	Apply PROPICONAZOLE 1.3 ME
Poa Patch			,	beginning in April. Use the 4 fl. oz.
(Magnaporthe	4	176	28 days	/1,000 sq. ft. rate on a 28-day
poae)				schedule and the 2 fl. oz. /1,000 sq.
			,	ft. rate on a 14-day schedule.
Take-All Patch	2-4	88-176	Spring and	Apply PROPICONAZOLE 1.3 ME to
(Gaeumannomyc	2-4	00-170	Fall	reduce the severity of take-all patch.
			Fall	
es graminis)				Make 1-2 Fall applications in
				September and October or when
				night temperatures drop to 55°F, and
		·		1-2 spring applications in April and
				May, depending on local
				recommendations.
Spring Dead Spot	4	176	30 days	Make 1-3 applications. For one
(Leptosphaeria			7 - 1	application, apply in September or
korrae,				October. For multiple applications,
Leptosphaeria				begin sprays in August.
narmari,				
Ophiosphaerella				
herpotricha,				
Gaeumannomyce				
s graminis)	A .	470	T-11	Apply in the fell and/article and
Necrotic Ring	4	176	Fall or	Apply in the fall and/or the early
Spot			Spring	spring depending on local
(Leptosphaeria				recommendations.
korrae)				
Snowmold	2 - 4	88 - 176	Late Fall	Apply one application in the late fall
				before snow cover. Do not apply on
Gray				top of snow. For optimum disease
( <i>Typhula</i> spp.)				control, the 2 and 3 fl. oz.
Pink		•		PROPICONAZOLE 1.3 ME rates
(Microdochium				should be tank mixed with
nivale)				chlorothalonil at label rates.
	2 - 4	00 470	Coll Co-l	
Fusarium patch	2-4	88 - 176	Fall - Early	Apply when conditions are favorable
(Fusarium nivale)		ļ	Spring	for disease development.
	·	,		
Yellow patch	3 - 4	130 - 176	Late Fall	Apply one application in the late fall
(Rhizoctonia	<u> </u>			before snow cover. Do not apply on

DISEASE	FI. Oz. Propiconazole 1.3 ME Per 1,000 Sq. Ft.	Fl. Oz. Propiconazole 1.3 ME Per Acre	Application Interval/ Timing	INSTRUCTIONS
cerealis)				top of snow. If using a 3 fl. oz. /1,000 sq. ft. rate, tank mix with a registered contract fungicide at the label rate.
Zoysia patch large patch of zoysia (Rhizoctonia solani)	3 - 4	130 - 176	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 Rust (Puccinia dichondrae)	2	88	14 - 21 days	Apply when conditions are favorable for disease development.

#### ESTABLISHMENT OF COOL SEASON TURFGRASS

PROPICONAZOLE 1.3 ME 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, PROPICONAZOLE 1.3 ME will improve the rate of establishment when it is applied to cool season grass seedlings or sod.

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

Sod: Apply 1 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

USE PROPICONAZOLE 1.3 ME IN A PREVENTIVE 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.

Allow spray to dry before overhead irrigation is applied.

Optimum benefit of PROPICONAZOLE 1.3 ME is obtained when used in conjunction with sound disease management practices.

#### SPRAY APPLICATION INSTRUCTIONS

PROPICONAZOLE 1.3 ME may be used at rates of 2 - 24 fl. oz, product/100 gals, water for control of diseases of ornamental plant species (see Tables 1, 2, and 3).

NOTE: For outdoor uses, you can apply up to 5.4 gallons of PROPICONAZOLE 1.3 ME/acre/crop/calendar year.

For general disease control in landscapes, apply 6-8 fl. oz. product/100 gals, water every 21 days. For best control, begin PROPICONAZOLE 1.3 ME applications before disease development.

NOTE: The specific genera and species of plants listed under the Directions for Use have been shown to tolerate applications of PROPICONAZOLE 1.3 ME. In addition, the following ornamental plants have been shown to tolerate PROPICONAZOLE 1.3 ME (at a rate of 6-8 fl. oz./100 gals.): ajuga, Bartlett pear, bayberry, camellia, candy tuft, cotoneaster, elm, English ivy, euonymus, German statice, holly, hollyhock,

impatiens, linden, liriope, magnolia, maples, peony, privet, raphiolepis, redbud, sweetgum, sycamore, tulip tree, vinca, and wax myrtle. Other plant species may be sensitive to PROPICONAZOLE 1.3 ME and diseases other than those listed may not be controlled. Before using PROPICONAZOLE 1.3 ME on plants or for diseases that are not listed in the Directions for Use, test PROPICONAZOLE 1.3 ME on a small scale basis first. Do not apply PROPICONAZOLE 1.3 ME 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.

Numbers in parentheses refer to diseases controlled. See Table 2.			
Herbaceous Ornamental	Woody Ornamental	Non-bearing Fruits and Nuts (Nurseries and Landscape Planting)	
Calendula (4a)	Amelanchier (4d)	Apple (3q, 4d, 5a)	
Carnation (5f)	Ash (4c)	Cherry (2b, 3d)	
Chrysanthemum (2a)	Azalea (2c, 4b)	Citrus (3m)	
Delphinium (4a)	Crabapple (3c, 3q, 4c, 5a)	Nectarine (2b)	
Gomphrena (3a)	Crape Myrtle (4a)	Peach (2b)	
Iris (5d)	Dogwood (3h, 4c)	Pecan (3b, 3c, 3f, 3l, 3n, 4e)	
Marigold (3a)	Douglas Fir (5b)	Plum (2b)	
Monarda (4c)	Hawthorn (5a)	Walnut (3j)	
Phlox (4c)	Juniper (1a)	1	
Snapdragon (5d)	Lilac (4c)		
Sweet William (3k)	Oaks (3p)		
(Dianthus barbatus)	Pines (1b, 1c)		
Zinnia (4c)	Poplars (5b)	* .	
	Pyracantha (3o)	· · · · · · · · · · · · · · · · · · ·	
	Red Tip Photinia (3i)		
	Rhododendron (2c, 3n)		
	Roses (3g, 4e, 5c)		
	(Outdoor Use Only)		
	Shasta Fir (5e)		

#### 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. Collectotrichum spp. [B]
  - f. Cristulariella spp. (Zonate leafspot) [C]
  - g. Diplocarpon rosae (Blackspot) [B]
  - h. Discula spp. (Anthracnose) [A]
  - i. Fabraea maculate (syn. Entomosporium maculate) [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]

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

#### Table 3. Application Regimes

- [A] Mix 2-4 fl. oz. of PROPICONAZOLE 1.3 ME in 100 gals, of water and apply as a full coverage spray to the point of drip. Apply every 14-21 days during the period of primary infection. If disease is present, tank mix with an EPA-registered contact fungicide. For flower blight, apply PROPICONAZOLE 1.3 ME when there is 5-10% bloom and again at 70-100% bloom. For dogwoods, apply the 2-4 fl. oz. rate every 14 days, or apply 8 fl. oz. of PROPICONAZOLE 1.3 ME every 28 days.
- [B] Mix 5-8 fl. oz. of PROPICONAZOLE 1.3 ME in 100 gals, of water and apply as a full coverage spray to the point of drip. Apply as needed, beginning when conditions are favorable for disease development. For blackspot, apply with a registered contact fungicide labeled for blackspot. For Calendula, apply every 30 days. For diplodia tip blight, make 3 applications every 14 days prior to major period of infection. For juniper phomopsis blight, make first application as soon as junipers start to grow, and repeat the applications every 14-21 days during periods of active growth.
- [C] Mix 8-12 fl. oz. of PROPICONAZOLE 1.3 ME in 100 gals, of water and apply as a full coverage spray to the point of drip. Apply every 30 days, beginning when conditions are favorable for disease development. For pecans, apply the 12 fl. oz. rate beginning at bud break. Apply 3 times on 14-day intervals. For walnuts, apply 8.5 fl. oz. at 14-21 day intervals. For ray blight, apply 12 fl. oz. at 7-day intervals or 20 fl. oz. at 14-day intervals.
- [D] Mix 16 fl. oz. of PROPICONAZOLE 1.3 ME in 100 gals, of water and apply as a full coverage spray to the point of drip. Apply every 14-28 days, beginning when conditions are favorable for disease development. For Douglas fir needle rust, apply once in May. For tip blight, initial application is in mid-late winter, and apply 3 times at 2-month intervals.
- [E] Mix 20-24 fl. oz. of PROPICONAZOLE 1.3 ME in 100 gals, of water and apply as a full coverage spray to the point of drip. Apply during June to August time period.

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

# A FLARE ROOT-INJECTED SYSTEMIC FUNGICIDE FOR CONTROL OF SELECTED DISEASES IN TREES

#### Product Information

PROPICONAZOLE 1.3 ME is a systemic fungicide for use as a flare root injection for prevention and treatment of (1) oak wilt (Ceratocystis fagacearum) of oaks (Ouercus spp.), (2) Dutch elm disease (Ophiostroma ulmi) of elms Ulmus spp.), (3) sycamore anthracnose (Apiognomonia veneta), and (4) leaf diseases (i.e., Venturia inaequalis, Gymnosporangium juniperi-virginianae, Pucciniastrum goeppertianum, etc.) of crabapple (Malus spp.). It is recommended that PROPICONAZOLE 1.3 ME be administered by trained arborists or others trained in injection techniques and in the identification of tree diseases.

#### Correct Location for Injector Placement

The flare root area is the transitional zone between the trunk and the root system. Uptake and distribution of PROPICONAZOLE 1.3 ME is more effective when injections are made into the flare roots. In addition wounds created in the flare root area close more rapidly in comparison to wounds above the flare root area.

#### Tree Preparation

- 1. Heavy, thick, or loose outer bark may be carefully shaved to form a smoother injection point and to ensure the operator that the drill hole penetrates through the bark to the xylem.
- 2. If the flare roots are not clearly exposed, carefully remove 2 to 4 inches of soil from the base of the tree to uncover the top of the flare roots. Brush away loose soil.
- 3. Drill holes through the bark, into sapwood using a clean sharp drill bit Drill hole diameter should be adequate to allow insertion of injection tees and formation of airtight contact between active xylem and the delivery point of the injection tees. Generally, a drill hole diameter of 7/32 5/16 inch for elms, sycamores, and crabapples, and 5/16 inch for oaks is appropriate. Follow manufacturer's instructions for the particular injection device used in the treatment Drill hole depth should be adequate to deliver the product into active xylem tissue. Generally, 3/4 inch depth is appropriate, but trees with thick bark may require increased drill hole depth to reach the active xylem layer. Space injectors 3-6 inches apart around the base of the tree. Do not drill in the valleys between the flare roots or into cankered areas. Drill above these areas into the trunk, and then continue again into sound sapwood on the flares.
- 4. Disinfect the drill bit between trees with household bleach (20% solution), ethanol, or other disinfectant. Rinse bit with clean water after disinfecting.
- 5. Insert into the drilled holes the injection ports ("tees"), which are connected to plastic tubing. The tubing should have inlet and outlet valves.
- 6. Mix the specified amount of PROPICONAZOLE 1.3 ME and water thoroughly in the tank before beginning the injection treatment

#### Tree Measurement

Measure the diameter of the tree using a tree diameter-tape (D-tape) at 4-1/2 feet above the ground. This is the diameter at breast height (DBH). If only a regular tape is available, measure the tree circumference and divide that number by 3.14. For crabapples, measure the diameter at the point where the tree begins to branch

#### Preparation of Injection Solution

Dilute 10 mL of PROPICONAZOLE 1.3 ME in up to 1 liter of water per inch DBH. Refer to the following table as an example of the amounts of PROPICONAZOLE 1.3 ME and water to use. Use up to the amount indicated:

DBH inches	Treatment Level (mL)	Water Volume. (liters)
5	50 .	5
10	100	10
15	150	15
20	200	20
25	250	25
30	300	151 5 H . V 30 M 15 1 15 15
35	350	35
40	400	40

(Use up the amount indicated)

#### Injection

For pressurized injections, with the outlet valve open, connect the tank to the inlet valve and begin pumping solution until all air bubbles come out of the outlet valve. Direct the solution into a container and return the solution to the tank. Shut off the outlet valve. Pressurize tank to 20-30 psi. Check for leaks and gently tap in tees if necessary. Maintain continuous pressure on the injection system until the full amount of solution is in the tree.

After injection is complete, remove injection tees and leave drill holes unplugged. A water flush to cleanse the hole will assist with wound closure. Soil should be replaced around the tree. It is not necessary to treat the drill holes with wound paint or other sealing compounds.

Contact your local extension agent for more details on tree injection. The injection system described is meant as an example; please refer to manufacturer's instructions when using other types of tree injection systems.

#### Retreatment

At the initial injection of PROPICONAZOLE 1.3 ME, take notes on the level of disease in each tree. Reevaluate disease level in trees at 12-month intervals after treatment for the potential need for retreatment with PROPICONAZOLE 1.3 ME. Preventive applications should be considered 12-36 months after the initial injection. Trees in high disease risk areas or high value trees should be evaluated for possible retreatment 12 months after each treatment

Follow application procedures described above for repeat injections; new drill holes will be needed for subsequent treatments.

#### OAK WILT: OAKS

#### Preventive and Therapeutic Treatment

Use 10 mL of PROPICONAZOLE 1.3 ME in up to 1 liter of water per inch DBH. For very high disease pressure, 20 mL of PROPICONAZOLE 1.3 ME per inch DBH may be used.

In the upper Midwest, treat oaks after June 15. Wounds in oaks in the upper Midwest between May 15 and June 15 attract insects that transmit the oak wilt pathogen.

Oak trees exhibiting less than 20% crown loss from oak wilt have the best chance of responding to treatment by PROPICONAZOLE 1.3 ME. Preventive application is more effective than therapeutic treatment Trees in advanced stages of disease development may not respond to treatment

Uninfected trees will generally absorb the full amount of PROPICONAZOLE 1.3 ME: water solution within 2 hours when injected under pressure. Trees exhibiting specific symptoms or those symptomless trees immediately adjacent to a diseased tree should be considered infected. Symptomless trees separated by a primary plow line from diseased trees may be at less risk of infection. Infected trees will absorb the material more slowly due to the vascular plugging caused by the disease. If the PROPICONAZOLE 1.3 ME: water solution is not absorbed within 24 hours, the tree is considered high risk and has a poor chance of survival.

Refer to the Product Information section for details on retreatment.

#### LEAF DISEASE: CRABAPPLES

#### Preventative Treatment

Use 10 mL of PROPICONAZOLE 1.3 ME in up to 1 liter of water per inch trunk diameter. For trees less than 10 inches trunk diameter, use 6 mL of PROPICONAZOLE 1.3 ME per inch trunk diameter. Make applications when the trees are in full leaf and actively growing for control of the next season's leaf disease development Disease symptoms may not be reduced the year of application.

Refer to the Product Information section for details on retreatment.

Note: Do not use fruit from treated trees for food or feed purposes.

#### ANTHRACNOSE: SYCAMORE

#### Preventive Treatment

Use 10 mL of PROPICONAZOLE 1.3 ME in up to 1 liter of water per inch DBH. For trees less than 10 inches DBH, use 6 ml of PROPICONAZOLE 1.3 ME per inch DBH. Make applications when the trees are in full leaf and actively growing for control of the next season's anthracnose development

Refer to the Product Information section for details on retreatment.

#### DUTCH ELM DISEASE IN ELMS

Preventive and Therapeutic Treatment

Use 6-10 mL of PROPICONAZOLE 1.3 ME in up to 1 liter of water per inch DBH. For very high disease pressure, 20 mL of PROPICONAZOLE 1.3 ME per inch DBH may be used

Notes: (1) Accurate diagnosis of Dutch Elm disease is important since PROPICONAZOLE 1.3 ME only provides control of Dutch elm disease in elms. (2) PROPICONAZOLE 1.3 ME will be most effective when used in conjunction with other cultural practices recommended for management of Dutch elm disease (removal of dead elm trees, pruning of diseased tree limbs and branches, control of bark beetles, etc.). (3) Preventive applications can be made at 6-10 mL/inch DBH. The 6 ml rate should provide 24 months control and the 10 mL rate should provide 36 months control. (4) Therapeutic treatment in trees showing disease symptoms should be made at 10-20 mL/inch DBH. Retreatment may be needed every 12-36 months. Trees in advanced stages of disease development may not respond to treatment. For further information on the proper diagnosis and control of Dutch Elm disease, consult your local extension agent Refer to the Product Information section for details on retreatment.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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 ALBAUGH, INC., Inc. or Seller. To the extent consistent with applicable law all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ALBAUGH, INC. and Seller harmless for any claims relating to such factors.

ALBAUGH, INC. 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. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ALBAUGH, INC., and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW ALBAUGH, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, in no event shall ALBAUGH, INC. or Seller 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 ALBAUGH, INC. 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 ALBAUGH, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.

To the extent consistent with applicable law, ALBAUGH, INC. 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 ALBAUGH, INC.