# Ecopro

Broad-Spectrum and Systemic Disease Control for Turf and Ornamentals and A Flare Root-Injected\* Systemic Fungicide for Control of Selected Diseases in Trees.

\*Flare Root-Injected uses are not registered for use in California.

ACTIVE INGREDIENT:	/T. BY %
Propiconazole: 1-[[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-yl]Methyl]-1h-1,2,4-triazole	14.3%
OTHER INGREDIENTS:	85.7%
TOTAL:	100.0%
Contains 1.3 pounds active ingredient per gallon.	

# 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 this label, find someone to explain it to you in detail.)

> See label booklet for complete First Aid, Precautionary Statements, Directions For Use, and Storage and Disposal.

**Manufactured For:** 

Sharda USA LLC S U

7217 Lancaster Pike, Suite A Hockessin, Delaware 19707 EPA Reg. No. 83529-135

EPA Est. No. MA 83411-MN-001; TX 07401-TX-001;

HP 44616-M0-002; CS 70815-GA-001

The EPA Establishment Number is identified by the circled letters above that match the first two letters in the batch number.

**Net Contents: 1 Gallon** 

	FIRST AID				
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.				
IF ON SKIN OR CLOTHING:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. 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 mouto-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.				
HOTLINE NUMBER					
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at 1-800-222-1222.					
NOTE TO PHYSICIAN					

# PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing mist or vapor.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

# Applicators and other handlers must wear:

If ingested, induce emesis or lavage stomach. Treat symptomatically.

- · Protective eyewear
- . Long-sleeved shirt and long pants
- Chemical-resistant gloves, including barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC), or Viton
- · Shoes plus socks

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

#### ENGINEERING CONTROLS

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 160.240(d)(6)]. 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:

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

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to fish and shrimp. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

# 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.

Failure to follow the directions for use and precautions on this label may result in plant injury or poor disease control.

#### AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 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, including plants, soil, or water, is:

- · Protective evewear
- Coveralls
- Chemical-resistant gloves, including barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride (PVC), or Viton
- Shoes plus socks

#### 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.

#### PRODUCT INFORMATION

Ecopro is a systemic fungicide for use on turfgrasses for the control of: Anthracnose (Colletotrichum graminicola), Brown patch (Rhizoctonia solani), Dollar spot (Sclerotinia homoeocarpa), Fusarium patch (Fusarium nivale), Gray leaf spot (Pyricularia grisea), Gray snow mold (Typhula spp.), Leaf spot (Bipolaris spp., Drechslera spp.), Necrotic ring spot (Leptosphaeria korrae), Pink patch (Limonomyces roseipellis), Pink snow mold (Microdochium nivale), Powdery mildew (Erysiphe graminis), Red thread (Leatisaria fuciformis), Rust (Puccinia graminis), Spring dead spot (Leptosphaeria korrae, Leptosphaeria narmari, Ophiosphaerella herpotricha, Gaeumannomyces graminis), Stripe smut (Ustilago striiformis and Urocystis agropyri), Summer patch (Magnaporthe poae), Take-all patch (Gaeumannomyces graminis), Yellow patch (Rhizoctonia cerealis), and Zoysia patch (Rhizoctonia solani).

**Ecopro** also controls numerous diseases on ornamentals and other landscape and nursery plantings such as powdery mildews, rusts, leaf spots, scabs, and blights. Refer to the appropriate section of this label for specified diseases and plants.

#### Restrictions:

- Do not apply more than 1.79 lbs. a.i./A (equivalent to 1.4 gals. of product/A or 4 fl. oz./1,000 sq. ft.) per application.
- Do not apply more than 7.2 lbs. a.i./A (equivalent to 5.5 gals. of product/A or 16 fl. oz./1,000 sq. ft.) per calendar year.
- . Do not graze animals on treated areas.
- . Do not feed clippings from treated areas to livestock or poultry.
- Do not apply this product through any type of irrigation system.
- Bermudagrass can be sensitive to this product. Do not exceed 4 fl. oz./1,000 sq. ft. every 30 days on any variety of bermudagrass to reduce the potential for injury. In Florida, do not apply this product to bermudagrass golf course greens when temperatures exceed 90°F to reduce the risk of bermudagrass injury.
- . Do not use this product in greenhouses.
- For outdoor uses, do not apply more than 5.4 gallons of Ecopro per acre per calendar year on turf, nurseries (field), and land-scape plantings.

#### RESISTANCE MANAGEMENT

For resistance management, Ecopro contains a Group 3 fungicide/bactericide. Any fungal/bacterial population may contain individuals naturally resistant to Ecopro and other Group 3 fungicides/bactericides. A gradual or total loss of pest control may occur over time if these fungicides/bactericides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay fungicide/bactericide resistance, take one or more of the following steps:

- Rotate the use of Ecopro or other Group 3 fungicides/bactericides within a growing season sequence with different groups that control the same pathogens.
- Use tank mixtures with fungicide/bactericides from a different group that are equally effective on the target pest when such
  use is permitted. Use at least the minimum application rate as labeled by the manufacturer.

- Adopt an integrated disease management program for fungicide/bactericide use that includes scouting, uses historical information related to pesticide use and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide/bactericide applications. Note that using
  predictive models alone is not sufficient to manage resistance.
- Monitor treated fungal/bacterial populations for resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information or to report suspected resistance, contact Sharda USA LLC. You can also contact your pesticide distributor or university extension specialist to report resistance.

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

#### Other State and Local Requirements

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

### Additional Requirement for Groundboom Application:

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

#### MIXING INSTRUCTIONS

Fill the spray tank 1/2 - 3/4 full with water. Add the proper amount of **Ecopro**, then add the remaining water. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

If **Ecopro** is tank mixed with other products, use the following sequence:

- Always check the compatibility of the tank mix using a jar test with proportionate amounts of this product, 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. Premixing the product in water before adding to the tank will hasten the process.
- 5. Add flowables or suspensions next.
- Add the proper amount of Ecopro.
- 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

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

Ecopro can be tank mixed with other fungicides for broader spectrum control. This product 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 for tank mixes under MIXING INSTRUCTIONS. 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

#### **Application Information**

- Use **Ecopro** in a preventative disease control program.
- Apply after mowing OR allow sprayed area to completely dry before mowing.
- For control of soil-borne diseases, this product can be watered in after application.
- For control of foliar diseases, allow sprayed area to completely dry before irrigation.
- For optimum turf quality and disease control, use Ecopro in conjunction with turf management practices that promote good plant health and optimum disease control.
- Proper diagnosis of the organism causing the disease is important prior to using any fungicide. Use of diagnostic kits or other means of identification of the disease organism is essential to determine the best control measures.
- . Apply in sufficient water to ensure thorough coverage.
- . Under conditions optimum for high disease pressure, use the higher rate and the shorter application interval.
- · Evaluate spray additives prior to use. Label directions are based on data obtained with no additives.
- . Bermudagrass can be sensitive to this product.

#### Restrictions:

- Do not apply more than 1.79 lbs. a.i./A (equivalent to 1.4 gals. of product/A or 4 fl. oz./1,000 sq. ft.) per application.
- Do not apply more than 7.2 lbs. a.i./A (equivalent to 5.5 gals. of product/A or 16 fl. oz./1,000 sq. ft.) per calendar year.
- . Do not graze animals on treated areas
- . Do not feed clippings from treated areas to livestock or poultry.
- Do not apply this product through any type of irrigation system.
- Do not exceed 4 fi. oz./1,000 sq. ft. every 30 days on any variety of bermudagrass to reduce the potential for injury. In Florida, do not apply this product to bermudagrass golf course greens when temperatures exceed 90°F to reduce the risk of bermudagrass injury.

# **Turfgrass Disease Control**

Disease	Fl. Oz. per 1,000 Sq. Ft.	Fl. Oz. per Acre	Application Interval/Timing	Application Instructions
Dollar Spot (Sclerotinia homoeocarpa)	0.5	22	14 days	Apply when conditions are favorable for disease development.
	0.5	22	14 days	Tank mix with low label rate of a product containing chlorothalonil.
	1	44	21 - 28 days	Tank mix with low label rate of a product containing chlorothalonil or iprodione.
	1 - 2	44 - 88	14 - 28 days	If using the 1 - 2 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)	1 - 2	44 - 88	14 - 28 days	Apply when conditions are favorable for disease development. Use higher rates of <b>Ecopro</b> and shorter intervals when disease pressure is high. For broad-spectrum control, tank mix with an EPA-registered contact fungicide at the label rate. If disease is present, mix 2 fl. oz. of <b>Ecopro</b> per 1,000 sq. ft. with the label rate of the above-mentioned contact fungicides.

(continued)

# Turfgrass Disease Control (continued)

Disease	Fl. Oz. per 1,000 Sq. Ft.	Fl. Oz. per Acre	Application Interval/Timing	Application Instructions
Brown Patch (Rhizoctonia solani)	1 - 2	44 - 88	14 - 21 days	Tank mix with an EPA-registered contact fungicide labeled for brown patch control at the label rate. Begin applications in May or June before the disease is present. Use the higher rates of <b>Ecopro</b> and shorter intervals under conditions of high temperatures and high humidity.
Powdery Mildew (Erysiphe graminis) Rust (Puccinia graminis)	1 - 2	44 - 88	14 - 28 days	Make applications when conditions are favorable for disease development. If disease is present, use 2 fl. oz. of <b>Ecopro</b> per 1,000 sq. ft.
Pink Patch (Limonomyces roseipellis) Red Thread (Laetisaria fuciformis)	2	88	14 - 21 days	Apply when conditions are favorable for disease development.
Stripe Smut (Ustilago striiformis) (Urocystis agropyri)	1 - 2	44 - 88	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)	1 - 2	44 - 88	14 days	Make applications when conditions are favorable for disease development. If using the 1 fl. oz./1,000 sq. ft. rate, tank mix with an EPA-registered contact fungicide at the label rate.

(continued)

# Turfgrass Disease Control (continued)

Disease	Fl. Oz. per 1,000 Sq. Ft.	Fl. Oz. per Acre	Application Interval/Timing	Application Instructions
Melting Out, Leaf Spot (Bipolaris spp.) (Drechslera spp.)	1-2	44 - 176	14 days	Under light to moderate pressure, apply <b>Ecopro</b> to reduce the severity of leaf spot and melting out caused by Helminthosporium-type pathogens. For broad-spectrum disease control, tank mix the 1 fl. oz. product rate with an EPA-registered contact fungicide at the label rate. Tank mix the 1 - 2 fl. oz./1,000 sq. ft. product rate with a registered contact fungicide at the labeler
Summer Patch, Poa Patch	2	88	14 days	Apply <b>Ecopro</b> beginning in April. Use the
(Magnaporthe poae)	4	176	28 days	2 fl. oz./1,000 sq. ft. rate on a 14-day schedule and the 4 fl. oz./1,000 sq. ft. rate on a 28-day schedule.
Take-All Patch (Gaeumannomyces graminis)	2 - 4	88 - 176	Spring and Fall	Apply <b>Ecopro</b> to reduce the severity of take-all patch. 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 specifications.
Spring Dead Spot (Leptosphaeria korrae, Leptosphaeria narmari, Ophiosphaerella herpotricha, Gaeumannomyces graminis)	4	176	30 days	Make 1 - 3 applications of <b>Ecopro</b> . For 1 application, apply in September or October. For multiple applications, begin sprays in August.
Necrotic Ring Spot (Leptosphaeria korrae)	4	176	Fall or Spring	Apply in the Fall and/or the early Spring depending on local specifications.
Gray Snow Mold (Typhula spp.) Pink Snow Mold (Microdochium nivale)	2 - 4	88 - 176	Late Fall	Make 1 application of <b>Ecopro</b> in the late Fall before snow cover. Do not apply on top of snow. For optimum disease control, tank mix the 2 and 3 fl. oz. product rates with either PCNB or chlorothalonil at label rates.

(continued)

# Turfgrass Disease Control (continued)

Disease	Fl. Oz. per 1,000 Sq. Ft.	FI. Oz. per Acre	Application Interval/Timing	Application Instructions
Fusarium Patch (Fusarium nivale)	2 - 4	88 - 176	Fall - Early Spring	Apply when conditions are favorable for disease development.
Yellow Patch (Rhizoctonia cerealis)	3 - 4	130 - 176	Late Fall	Make 1 application of <b>Ecopro</b> in the late Fall before snow cover. Do not apply on top of snow. If using a 3 fl. oz./1,000 sq. ft. rate, tank mix with an EPA-registered contact fungicide at the label rate.
Zoysia Patch, Large Patch of Zoysia (Rhizoctonia solani)	3 - 4	130 - 176	Early Fall	Make 1 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 Disease Control

Disease	Fl. Oz. per 1,000 Sq. Ft.	Fl. Oz. per Acre	Application Interval/Timing	Application Instructions
Dichondra Rust (Puccinia dichondrae)	2	88	14 - 21 days	Apply when conditions are favorable for disease development.

# **Establishment of Cool Season Turfgrass**

The primary use of **Ecopro** is as a fungicide for use against the diseases listed on this label. As an additional benefit, **Ecopro** will improve the establishment rate 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.

#### ORNAMENTALS AND NON-BEARING FRUIT AND NUT TREES IN NURSERIES (FIELD) AND LANDSCAPE PLANTINGS

#### Disease Control:

- Use Ecopro 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/letter in parentheses following the plant species refers you to the disease(s) controlled in Table 2. Find the disease in Table 2. The number 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 Ecopro is obtained when used in conjunction with sound disease management practices.

#### Application Instructions:

- Use Ecopro at rates of 2 24 fl. oz./100 gals. of water for control of diseases of ornamental plant species (see Tables 1, 2, and 3).
- For disease control in landscape plantings, apply 6 8 fl. oz./100 gals. of water every 21 days. For best control, begin applications
  of Ecopro before disease development.

#### Restrictions:

- Do not apply more than 1.79 lbs. a.i./A (equivalent to 1.4 gals. of product/A or 4 fl. oz./1,000 sq. ft.) per application.
- Do not apply more than 7.2 lbs. a.i./A (equivalent to 5.5 gals, of product/A or 16 fl. oz./1.000 sq. ft.) per calendar year.
- Do not apply this product through any type of irrigation system.
- Do not apply to apple, cherry, citrus, nectarine, peach, pear, pecan, plum, or walnut trees that will bear harvestable fruit within 12 months.
- . Do not apply this product to African violets, begonias, Boston fern, or geraniums.

Note on Plant Tolerance: Plant tolerance to Ecopro has been found to be acceptable for the specific genera and species of plants listed on this label. Other plant species may be sensitive to this product. Before full-scale use of this product, evaluate for phytotoxicity and disease control on a small-scale basis.

Table 1. Ornamentals - Plant Species

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

Herbaceous Ornamental	Woody Ornamental	Nonbearing Fruits and Nuts (Nurseries and Landscape Plantings)
*Ajuga (6) Calendula (4a) Carnation (5f) Chrysanthemum (2a) Delphinium (4a) English Ivy (3e) *German Statice (6) Gomphrena (3a) *Hollyhock (6) Impatiens (3a, 3b, 4a) Iris (5d) *Liriope (6) Marigold (3a) Monarda (4c) *Peony (6) Phlox (4c) Snapdragon (5d) Sweet William (Dianthus barbatus) (3k) *Vinca (6) Zinnia (4c)	Amelanchier (4d) Ash (4c) Ash (4c) Azalea (2c, 4b) Bayberry (3n) Camellia (3e) Candytuft (6) 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) Magnolia (3e, 4b) Maple (3e, 4f) Oaks (3p) Pines (1b, 1c) Poplars (5b) Privet (6) Pyracantha (3o) Redbud (6) Red Tip Photinia (3i) Rhododendron (2c, 3n) Roses (3g, 4e, 5c) (Outdoor use only) Shasta Fir (5e) Sweet Gum (3b, 3c, 3n) Sycamore (3e) Tulip Tree (3e, 4a) Wax Myrtle (3n)	Apple (3g, 4d, 5a) Bartlett pear (3d, 4c, 5a) Cherry (2b, 3d) Citrus (3m) Nectarine (2b) Peach (2b) Pecan (3b, 3c, 3f, 3l, 3n, 4e) Plum (2b) Walnut (3j)

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

# Table 2. Diseases

Numbers in brackets refer to application regimes. Refer to Table 3.

Conifer Blights     A. Phomopsis Juniperovora (Phomopsis Blight) [2]     b. Sirococcus strobilinus (Tip Blight) [4]     c. Sphaeropsis sapinea (Diplodia Tip Blight) [2]	4. Powdery Mildew a. Erysiphe spp. [2] b. Microsphaera spp. [3] c. Oidium spp. [2] d. Podosphaera spp. [2] e. Sphaerotheca pannosa [2] f. Phyllactinia spp. * [2]
Flower Blight     A. Ascochyta chrysanthemi (Ray Blight) [3]     Monilinia spp. [1]     C. Ovulinia spp. [2]	5. Rust a. Gymnosporangium juniperi-virginianae [1] b. Melampsora occidentalis [4] c. Phragmidium spp. [2] d. Puccinia spp. [2] e. Pucciniastrum goeppertianum [4] f. Uromyces dianthi [2]
3. Leaf Blights/Spots a. Alternaria spp. [2] b. Cercospora spp. (Brown Leaf Spot) [3] c. Cladosporium spp. (Scab) [3] d. Coccomyces hiemalis [1] e. Colletotrichum spp. [2] f. Cristulariella spp. (Zonate Leaf Spot) [3] g. Diplocarpon rosae (Black Spot) [2] h. Discula spp. (Anthracnose) [1] i. Fabraea maculata (syn. Entomosporium maculata) [2] j. Gnomonia leptostyla (Anthracnose) [3] k. Heterosporium echinulatum [2] i. Mycosphaerella caryigena (Downy Spot) [3] m. Mycosphaerella fructicola (Greasy Spot) [5] n. Septoria spp. (Leaf Scorch) [3] o. Spilocaea pyracanthae [2] p. Tubakia dryina [4] q. Venturia inaequalis (Scab) [1] r. Rhizoctonia web blight* [2]	6. Rust, Powdery Mildew, etc. [6]

# **Table 3. Application Regimes**

[1]	Mix 2 - 4 fl. oz. of <b>Ecopro</b> 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 <b>Ecopro</b> 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 <b>Ecopro</b> every 28 days.
[2]	Mix 5-8 fl. oz. of <b>Ecopro</b> in 100 gals. of water and apply as a full coverage spray to the point of drip. Begin applying when conditions are favorable for disease development and apply as necessary. For black spot, apply with an EPA-registered contact fungicide labeled for black spot. 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 the first application as soon as junipers start to grow, and repeat the applications every 14 - 21 days during periods of active growth.
[3]	Mix 8 - 12 fl. oz. of <b>Ecopro</b> 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 the disease development. For pecans, apply the 12 fl. oz. rate beginning at bud break. Apply 3 times at 14-day intervals. For walnuts, apply 8.5 fl. oz. at 14- to 21-day intervals. For ray blight, apply 12 fl. oz. at 7-day intervals or 20 fl. oz. at 14-day intervals. For impatiens, bayberry, linden, magnolia, sweetgum, and wax myrtle, the maximum use rate is 8 fl. oz.
[4]	Mix 16 fl. oz. of <b>Ecopro</b> 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, start applications in mid-late Winter and apply 3 times at 2-month intervals.
[5]	Mix 20 - 24 fl. oz. of <b>Ecopro</b> in 100 gals. of water and apply as a full coverage spray to the point of drip. Apply during June to August time period.
[6]	Apply 6-8 fl. oz. per 100 gals. Crop tolerance has been demonstrated on these ornamental plants at this rate, however, you must follow the <b>Note on Plant Tolerance</b> section of this label above for phytotoxicity and disease control precautions.

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

Ecopro is a systemic fungicide for use as a flare root injection for prevention and treatment of: 0ak wilt (Ceratocystis fagacearum) of oaks (Quercus spp.), Dutch elm disease (Ophiostoma ulmi) of elms (Ulmus spp.), Sycamore anthracnose (Apiognomonia veneta), and Leaf diseases (i.e., Venturia inaequalis, Gymnosporangium juniperi-virginianae, Pucciniastrum goeppertianum, etc.) of crabapple (Malus spp.) and laurel wilt, redbay, and other Lauraceae species (excluding avocado).

Administer this product by trained arborists or others trained in injection techniques and in the identification of tree diseases.

**Notes:** The active ingredient in **Ecopro** has been shown to be safe on a wide range of plant species. Before using this product on ornamental trees, conduct a small-scale test and evaluate for phytotoxicity and disease control prior to full-scale use.

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

#### Restrictions:

- Do not exceed 0.0069 lb. a.i./DBH.
- . Do not exceed 1 application per year.
- Do not use fruit from treated trees for food or feed purposes.

#### Correct Location for Injector Placement

The flare root area is the transitional zone between the trunk and the root system. Uptake and distribution of **Ecopro** 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

- Carefully shave heavy, thick, or loose outer bark 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" 4" 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. Ensure that the drill hole diameter is adequate to allow insertion of injection tees and formation of airtight contact between active xylem and the delivery point of the injection tees. A drill hole diameter of 7/32 5/16 inch for elms, sycamores, and crabapples, and 5/16 inch for oaks is normally appropriate. Follow manufacturer's instructions for the particular injection device used in the treatment. Drill hole depth must be adequate to deliver the product into active xylem tissue. In most cases, 3/4" depth is appropriate, but trees with thick bark require increased drill hole depth to reach the active xylem layer. Space injectors 3" 6" 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.
- Disinfect the drill bit between trees with household bleach (20% solution), ethanol, or other disinfectant. Rinse bit with clean water after disinfecting.
- Insert into the drilled holes the injection ports ("tees"), which are connected to plastic tubing. The tubing must have inlet and outlet valves.
- 6. Mix the specified amount of **Ecopro** 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 4.5 ft. 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 **Ecopro** in up to 1 liter of water per inch DBH. Refer to the following table as an example of the amounts of **Ecopro** and water to use:

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	30
35	350	35
40	400	40

#### 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. Replace soil 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; refer to manufacturer's instructions when using other types of tree injection systems.

#### Retreatment Information

At the initial injection of **Ecopro**, 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 this product. Consider preventive applications 12 - 36 months after the initial injection. Evaluate trees in high disease risk areas or high value trees 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 OF OAKS

# **Preventive and Therapeutic Treatment**

Use 10 mL of **Ecopro** in up to 1 liter of water per inch DBH. For very high disease pressure, use 20 mL of **Ecopro** per inch DBH. In the upper Midwest, treat oaks after June 15<sup>th</sup>. Wounds in oaks in the upper Midwest between May 15<sup>th</sup> and June 15<sup>th</sup> 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 the treatment. Preventive application is more effective than therapeutic treatment. Response to treatment will vary with trees in advanced stages of disease development.

Uninfected trees normally absorb the full amount of product/water solution within 2 hours when injected under pressure. Consider trees exhibiting specific symptoms or those symptomless trees immediately adjacent to a diseased tree to be infected. Symptomless trees separated by a primary plow line from diseased trees will 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 product/water solution is not absorbed within 24 hours, the tree is considered high risk and has a poor chance of survival.

Refer to the above Retreatment Information section for details on retreatment.

#### **DUTCH ELM DISEASE OF ELMS**

#### **Preventive and Therapeutic Treatment**

Use 6 - 10 mL of **Ecopro** in up to 1 liter of water per inch DBH. For very high disease pressure, use 20 mL of product per inch DBH. **Notes:** 

- Accurate diagnosis of Dutch elm disease is important since this product only provides control of Dutch elm disease in elms.
- Ecopro will be most effective when used in conjunction with other cultural practices specified for management of Dutch elm disease (removal of dead elm trees, pruning of diseased tree limbs and branches, control of bark beetles, etc.).
- Preventive applications can be made at 6 10 mL per inch DBH. The 6 ml rate provides 24 months control and the 10 mL rate provides 36 months control.
- Make therapeutic treatment in trees showing disease symptoms at 10 20 mL per inch DBH. Retreat every 12 36 months, if needed. Response to treatment will vary with trees in advanced stages of disease development.

For further information on the proper diagnosis and control of Dutch elm disease, consult your local extension agent.

Refer to the above **Retreatment Information** section for details on retreatment.

#### SYCAMORE ANTHRACNOSE

#### Preventive Treatment

Use 10 mL of Ecopro in up to 1 liter of water per inch DBH. For trees less than 10" DBH, use 6 mL of product 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 above Retreatment Information section for details on retreatment.

#### LEAF DISEASES OF CRABAPPLES

#### Preventative Treatment

Use 10 mL of Ecopro in up to 1 liter of water per inch trunk diameter. For trees less than 10" trunk diameter, use 6 mL of Ecopro 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 have the potential for not being reduced the year of application.

Refer to the above Retreatment Information section for details on retreatment.

#### LAUREL WILD. RED BAY AND OTHER LAURACEAE SPECIES (EXCLUDING AVOCADO)

Do not apply **Ecopro** to any plant in the Lauraceae family that produces fruit or other plant parts that may be used for human consumption. Do not apply **Ecopro** to bearing or nonbearing avocados.

#### Preventative Treatment

Use 20 mL of Ecopro in up to 0.3 L of water per inch DBH. Make applications to healthy trees when the trees are in full leaf and actively growing and prior to disease symptoms. Ecopro will be most effective when used in conjunction with control of ambrosia beetle, the laurel will insect vector.

See the above Retreatment Information section of this label for details on re-treatment.

# STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container in a cool area out of the reach of children.

PESTICIDE DISPOSAL: Pesticide wastes are 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 at the nearest EPA Regional Office for guidance.

#### CONTAINER HANDLING:

Less Than or Equal to 5 Gallons: Nonrefillable 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 a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

#### 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. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC 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 Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC 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 this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, SHARDA USA LLC 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, neither Sharda USA LLC nor Seller shall 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 SHARDA USA LLC 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 SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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PROPICONAZOLE GROUP 3 FUNGICIDE

# **Ecopro**

Broad-Spectrum and Systemic Disease Control for Turf and Ornamentals and A Flare Root-Injected\* Systemic Fungicide for Control of Selected Diseases in Trees.

\*Flare Root-Injected uses are not registered for use in California.

ACTIVE INGREDIENT:

Propiconazole: 1-[[2-(2,4-dichlorophenyl)-4-propyl13-dioxolan-2-yilMethyl]-1h-1,2,4-triazole.

14.3%

OTHER INGREDIENTS: 85.7%
TOTAL: 100.0%

Contains 1.3 pounds active ingredient per gallon.

# CAUTION

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

See label booklet for complete Precautionary Statements

FIRST AID - IF SWALLOWED: . Call a poison control center or doctor immediately for treatment advice. . Do not induce vomiting unless told to do so by a poison control center or doctor. • Have person sip a glass of water if able to swallow. . Do not give anything by mouth to an unconscious person. IF ON SKIN OR CLOTHING: . Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. 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 eve 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. HOTLINE NUMBER - Have the product container or label with you when calling a poison control center or doctor or going for treatment, For emergency information concerning this product, call your poison control center at 1-800-222-1222, NOTE TO PHYSICIAN - If indested. induce emesis or layage stomach. Treat symptomatically.

PRECAUTIONARY STATEMENTS - HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION - Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing mist or vapor. ENVIRONMENTAL HAZARDS - This product is toxic to fish and shrimp. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate. 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. Failure to follow the directions for use and precautions on this label may result in olant injury or poor disease control.

# STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal, PESTICIDE STORAGE: Store in original container in a cool area out of the reach of children PESTICIDE DISPOSAL: Pesticide wastes are 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 at the nearest EPA Regional Office for guidance, CONTAINER HANDLING: Less Than or Equal to 5 Gallons: Nonrefillable 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 a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

#### Manufactured For:

Sharda USA LLC, 7217 Lancaster Pike, Suite A, Hockessin, Delaware 19707

EPA Reg. No. 83529-135 EPA Est. No. MA 83411-MN-001; TX 07401-TX-001; HP 44616-M0-002; CS 70815-GA-001

The EPA Establishment Number is identified by the circled letters above that match the first two letters in the batch number.

Net Contents: 1 Gallon

5/5/22 11:17 AM 83529-135-FPL-05May2022-Booklet