

## **BERRIES - LEAF SPOT**

### General Information

#### PRODUCT INFORMATION

PROPI-STAR EC is a broad-spectrum fungicide labeled for the control of many diseases.

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

#### PRODUCT USE PRECAUTIONS

Important: Do not use PROPI-STAR EC 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 PROPI-STAR EC application to the preceding crop, unless the second crop appears on this label. Alfalfa can be planted 75 days after the last PROPI-STAR EC application if the total application of propiconazole has not exceeded 0.22 lb. a.i./A during the previous year.

#### Integrated Pest Management

PROPI-STAR EC 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. PROPI-STAR EC 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

PROPI-STAR EC is in the Group 3 class fungicides. PROPI-STAR® EC acts 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. Albaugh Crop Protection encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label. PROPI-STAR EC should not be alternated or tank mixed with any fungicide to which resistance has already developed.

## SPRAY EQUIPMENT

Thorough coverage is necessary to provide good disease control.

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

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

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

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

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

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

## APPLICATION INSTRUCTIONS

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

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

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

Application Through Irrigation Systems (Chemigation): Apply PROPI-STAR® EC through irrigation equipment only to crops for which chemigation is specified on this label.

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

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

### Operating Instructions

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

7. Do not apply when wind speed favors drift beyond the area intended.

#### Center Pivot Irrigation Equipment

Notes: (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating PROPI-STAR EC 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 PROPI-STAR EC 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 PROPI-STAR EC required to treat the area covered by the irrigation system.
- Add the required amount of PROPI-STAR EC 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 PROPI-STAR EC 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 PROPI-STAR EC 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 PROPI-STAR EC through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of PROPI-STAR EC required to treat the area covered by the

irrigation system.

- Add the required amount of PROPI-STAREC 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 PROPI-STAR EC solution has cleared the last sprinkler head.

Limitations, Restrictions, and Exceptions

BERRIES

REMARKS

Make first application of PROPI-STAR EC 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.

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

Specific Use Restrictions:

- 1) Do not apply more than 30 fl. oz./A/season of PROPI-STAR EC.
- 2) Do not apply within 30 days of harvest.
- 3) Do not apply more than 0.84 lb. a.i. propiconazole-containing product/A/season.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Pre-Harvest Interval

30 days

Rates

[field rates 0](#)

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Restricted Entry Interval

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.

Timings

[Any time prior to bloom.](#)