

## **HERBACEOUS ORNAMENTALS - MONARDA, PHLOX, ZINNIA**

### General Information

#### PRODUCT INFORMATION

Willowood Propicon 3.6EC is a broad spectrum fungicide recommended for the control of many important plant diseases.

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

#### USE PRECAUTIONS

Important: Do not use Willowood Propicon 3.6EC 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 a Willowood Propicon 3.6EC application to the preceding crop, unless the second crop appears on this label. Alfalfa can be planted 75 days after the last Willowood Propicon 3.6EC application if the total application of propiconazole has not exceeded 0.22 lb a.i./A during the previous year.

#### Integrated Pest Management

Willowood Propicon 3.6EC 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. Willowood Propicon 3.6EC 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

Willowood Propicon 3.6EC is in the Group 3 class fungicides. The mode of action of

Willowood Propicon 3.6EC is as a demethylation inhibitor of sterol biosynthesis (DMI) which disrupts membrane synthesis by blocking demethylation. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include rotating and/or tank mixing with products having different modes of action or limiting the total number of applications per season. Willowood, LLC encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label. Willowood Propicon 3.6EC 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 areas. 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 Willowood Propicon 3.6EC is an emulsifiable concentrate, it is suggested that screens be used to protect the pump and to prevent nozzles from clogging. Screens placed on suction side of pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the

pump and boom, and where required, at the nozzles. Check nozzle manufacturer's recommendations.

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

## APPLICATIONS 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 a minimum of 10 gallons of water per acre unless specified otherwise.

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

**Application Through Irrigation Systems (Chemigation):** Apply Willowood Propicon 3.6EC through irrigation equipment only to crops for which chemigation is specified on this label.

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

Willowood Propicon 3.6EC, 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 nonuniform 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 green house 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 Willowood Propicon 3.6EC at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 10 parts water to 1 part Willowood Propicon 3.6EC. Willowood Propicon 3.6EC 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 Willowood Propicon 3.6EC 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 Willowood Propicon 3.6EC 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 Willowood Propicon 3.6EC required to treat the area covered by the irrigation system.
- Add the required amount of Willowood Propicon 3.6EC 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 Willowood Propicon 3.6EC 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 Willowood Propicon 3.6EC 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 Willowood Propicon 3.6EC through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of Willowood Propicon 3.6EC required to treat the area covered by the irrigation system.
- Add the required amount of Willowood Propicon 3.6EC 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 the injection equipment after treatment is completed. Continue to operate the system until the Willowood Propicon 3.6EC solution has cleared the last sprinkler head.

#### Limitations, Restrictions, and Exceptions

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

- Allow spray to dry before overhead irrigation is applied.
- Optimum benefit of Willowood Propicon 3.6EC is obtained when used in conjunction with sound disease management practices.

### Product Instructions

Willowood Propicon 3.6EC may be used at rates of 0.75-8.7 fl. oz./100 gals. water for control of diseases of ornamental plant species.

NOTE: For outdoor uses, you can apply up to 2.0 gallons of Willowood Propicon 3.6EC /acre/crop/calendar year.

For general disease control in landscapes, apply 2.2-3.0 fl. oz./100 gals. water every 21 days. For best control, begin Willowood Propicon 3.6EC applications before disease development.

Note: Plant tolerances to Willowood Propicon 3.6EC have been found acceptable for the specific genera and species of plants listed under the Directions for Use. Other plant species may be sensitive to Willowood Propicon 3.6EC and diseases other than those listed may not be controlled. Before using Willowood Propicon 3.6EC on plants or for diseases that are not listed in the Directions for Use, test Willowood Propicon 3.6EC on a small basis first. Do not apply Willowood Propicon 3.6EC 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.

### Application Regimes

Mix 1.8-3.0 fl. oz. of Willowood Propicon 3.6EC 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.

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

### Method

[Broadcast/Foliar Air](#)

## Broadcast/Foliar Ground

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

When conditions are favorable for disease development.