

# **CEREALS (BARLEY, OATS, ETC.) - CONTROL OF LEAF DISEASES (BARLEY SCALD AND STRIP, GLUME BLOTCH, ETC.)**

General Information

## **PRODUCT INFORMATION**

Willowood AzoxyProp Xtra is a broad spectrum, preventative fungicide with systemic and curative properties recommended for the control of many important plant diseases. Willowood AzoxyProp Xtra may improve the yield and/ or quality of the crop. These additional benefits are due to positive effects on plant physiology. The effects may vary according to other factors such as crop, crop hybrid, or environment. Willowood AzoxyProp Xtra may be applied as a foliar spray in alternating spray programs or in tank mixes with other crop protection products. All applications should be made according to the use directions that follow.

## **USE PRECAUTIONS**

Do not use in nurseries, greenhouses or landscape plantings.

## **PRODUCT USE INSTRUCTIONS**

**Application:** Thorough coverage is necessary to provide good disease control. Make up no more spray solution than is needed for application. Avoid spray overlap, as crop injury may occur.

**Adjuvants:** For some uses on the label, a spreading/penetrating type adjuvant such as a non-ionic surfactant, crop oil concentrate, or blend may be added at the manufacturer's recommended rates. Adjuvants that contain some form of silicone can contribute to phytotoxicity. When an adjuvant is used with the product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is recommended.

**Crop Tolerance/Phytotoxicity:** Willowood AzoxyProp Xtra demonstrates some phytotoxic effects when mixed with products that are formulated as EC's. These effects are enhanced if applications are made under cool, cloudy conditions and these conditions remain for several days following application. In addition, adjuvants that contain some form of silicone can contribute to phytotoxicity. Under

certain environmental conditions, tank mixes of Willowood AzoxyProp Xtra plus herbicides and/or fertilizers may cause crop injury in barley, triticale and wheat.

**Efficacy:** Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if maximum amount of Willowood AzoxyProp Xtra has been used. If resistant isolates to Group 3 or Group 11 fungicides are present, efficacy can be reduced. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when environmental conditions conducive to disease exist.

**Integrated Pest Management:** Willowood AzoxyProp Xtra should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. The “Specific Directions for Use section” in the label identifies specific IPM recommendations for each crop. Consult your local agricultural authorities for additional IPM strategies established for your area. Willowood AzoxyProp Xtra 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 AzoxyProp Xtra is a mixture of Group 3 (propiconazole) and Group 11 (azoxystrobin) fungicides. Willowood AzoxyProp Xtra has two modes of action: Group 3: DMI (Demethylation Inhibitor) of sterol biosynthesis which disrupts membrane synthesis, and Group 11: inhibitor of the Qo (quinone outside) site within the electron transport system which disrupts fungal respiration. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of the 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 the 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 the label.

Follow the specific crop recommendations that limit the total number of sprays on a crop and the required alternations with fungicides from other resistance management groups. In situations requiring multiple sprays, develop season-long spray programs for Group 11 (quinone outside inhibiting) fungicides. The program should meet the goal of no more than 1/3 of the total sprays per season, when a Group 11 fungicide is used as a solo product, or 1/2 the total sprays when a Group 11 fungicide is used in a mixture. Programs that include both solo Group 11 products and/or mixes containing Group 11 products should be no more than 1/2 the total sprays.

Willowood AzoxyProp Xtra should not be alternated or tank mixed with any fungicide to which resistance has already developed.

#### ATTENTION

Willowood AzoxyProp Xtra is extremely phytotoxic to certain apple varieties.

AVOID SPRAY DRIFT. Extreme care must be used to prevent injury to apple trees (and apple fruit).

DO NOT spray Willowood AzoxyProp Xtra where spray drift may reach apple trees.

DO NOT spray when conditions favor drift beyond area intended for application. Conditions which may contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations, spray droplet size, etc.

Contact your State extension agent for spray drift prevention guidelines in your area.

DO NOT use spray equipment which has been previously used to apply Willowood AzoxyProp Xtra to spray apple trees.

Even trace amounts can cause unacceptable phytotoxicity to certain apple and crabapple varieties.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

#### APPLICATION INSTRUCTIONS

Avoid application under conditions when uniform coverage cannot be obtained or

when excessive spray drift may occur.

Do not apply in manner that will result in exposure to humans or animals.

#### Ground Application:

- For field crops (non-trees), apply in a minimum of 10 gallons of water per acre unless specified otherwise.
- For tree crops, apply in a minimum of 50 gallons of water per acre unless specified otherwise.
- Thorough coverage is necessary to provide good disease control.

#### Aerial Application:

- Use only on crops where aerial applications are indicated.
- For field crops (non-trees), apply in a minimum spray volume of 2 gallons per acre unless specified otherwise.
- For ULV applications (corn), apply in a minimum spray volume of 1 gallon per acre. For ULV applications, thorough coverage is necessary to provide good results. Please refer to the Application instructions section for details regarding best practices to achieve good coverage. ULV applications are not approved in California.
- For tree crops, apply in a minimum of 10 gallons of water per acre unless specified otherwise.
- Thorough coverage is necessary to provide good disease control.
- Willowood AzoxyProp Xtra is extremely phytotoxic to certain apple varieties.
- AVOID SPRAY DRIFT. Extreme care must be used to prevent injury to apple trees (and apple fruit).
- DO NOT spray Willowood AzoxyProp Xtra where spray drift may reach apple trees.

#### Limitations, Restrictions, and Exceptions

CEREALS (BARLEY, OATS, ETC.)

## Remarks:

- Protecting the flag leaf is important for maximizing the potential yield. Highest yields are normally obtained when Willowood AzoxyProp Xtra is applied when the flag leaf is 50% to fully emerged.
- Applications may be made no closer than a 14-day interval.

## Application:

- Willowood AzoxyProp Xtra is most effective when applied and allowed to dry before a rainfall. For best results, sufficient coverage is very important. Use a higher water volume for aerial application (greater than 2 GPA) if equipment and/or conditions would not provide good coverage. Willowood AzoxyProp Xtra may be applied by ground, air, or chemigation.

## Specific Use Restrictions:

- Do not apply after Feekes 10.54
- Do not apply more than 0.22 lb. a.i. of propiconazole-containing products/A/season.
- Do not apply more than 0.40 lb. a.i. of azoxystrobin-containing products/A/season.
- Under certain environmental conditions, tank mixes of Willowood AzoxyProp Xtra plus herbicides and/or fertilizers may cause crop injury.
- Do not apply within 7 days of harvest (7-day PHI) for forage or hay.

## Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

## Pre-Harvest Interval

7 days

## Rates

[field rates 0](#)

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## Restricted Entry Interval

12 hours

Timings

When the flag leaf is 50% to fully emerged.