

# **CEREALS (BARLEY, TRITICALE) - FOOT ROT / EYESPOT**

## General Information

### GENERAL INFORMATION

AVARIS Fungicide is a broad spectrum, preventative fungicide with systemic and curative properties recommended for the control of many important plant diseases. AVARIS 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.

### GENERAL USE PRECAUTIONS

Do not use in nurseries, greenhouses or landscape plantings.

The active ingredient(s) in the product may have effects on federally listed threatened and endangered species or critical habitat in some counties. When using the product, you must follow the measures contained in the County Bulletin for the county in which you are applying the pesticide. Bulletins also may be available from local pesticide dealers, extension offices, or State pesticide agencies.

### GENERAL 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.

**Efficacy:** Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if maximum amount of AVARIS has been used. If resistant isolates to Group 3 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.

**Rotational Crops:** Soybeans may be planted as a double crop following a cereal crop which has been treated with AVARIS. Do not use hay, forage, or fodder from the soybean crop as any component of animal feed or bedding. Oats, rye and wild rice

may be planted 45 days after AVARIS application. To avoid possible illegal residues, do not plant any other crop intended for food, grazing, or any component of animal feed or bedding within 105 days of AVARIS application to the preceding crop, unless the second crop appears on the label.

Crop Tolerance/Phytotoxicity: AVARIS Fungicide 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 AVARIS plus herbicides and/or fertilizers may cause crop injury in barley, triticale and wheat.

#### ATTENTION

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

#### RESISTANCE MANAGEMENT

AVARIS Fungicide is a mixture of Group 3 (propiconazole) and Group 11 (azoxystrobin) fungicides. AVARIS has two modes of action: (1) DMI (Demethylation Inhibitor of sterol biosynthesis) [Group 3], and (2) inhibitor of the Qo (quinone outside) site within the electron transport system (QoI) as well as disrupting membrane synthesis by blocking demethylation [Group 11]. 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. Helena Chemical Company 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 (QoI) 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.

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

#### APPLICATION PROCEDURES

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 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.

##### 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 tree crops, apply in a minimum of 10 gallons of water per acre unless specified otherwise.
- Do not apply via ULV.

Note: Do not inject AVARIS at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 10 parts water to 1 part AVARIS. AVARIS 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.

#### Limitations, Restrictions, and Exceptions

##### CEREALS (BARLEY, TRITICALE)

- Apply full rate of AVARIS plus half the rate recommended of other EPA registered fungicides such as Topsin M.

Application Instructions: AVARIS 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. AVARIS may be applied by ground, air, or chemigation.

##### Specific Use Restrictions:

- Do not apply within 45 days of harvest.
- Do not harvest within 30 days for forage or hay.
- 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 AVARIS plus herbicides and/or fertilizers may cause crop injury.

##### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Pre-Harvest Interval

45 days

Rates

[field rates 0](#)

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Restricted Entry Interval

12 hours

Timings

[At tillering but before elongation has occurred.](#)