

# **TURFGRASS - COPPER SPOT**

## General Information

### DIRECTIONS FOR USE

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.

### RESTRICTIONS

Rotational Crops: 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 an application of TALARIS XL to the preceding crop unless the second crop appears on this label. Alfalfa may be planted 75 days after the last application of TALARIS XL if the total application of propiconazole has not exceeded 0.22 pound active ingredient per acre during the previous year.

### PRODUCT INFORMATION

TALARIS XL is a broad-spectrum fungicide for the control of certain diseases in Almonds, Peanuts, Pecans, Soybeans, Stone Fruits, Strawberries, Sugar Beets, Wheat, Turf and Ornamentals. Failure to follow directions and precautions on this label may result in crop injury, poor disease control, and/or illegal residues.

Restriction: Do not use in greenhouses or as a tree injection.

### INTEGRATED PEST MANAGEMENT

TALARIS XL should be integrated into an overall disease and pest management (IPM) strategy 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. This product may be used in state agricultural extension advisory (disease forecasting) programs using the specified application timing based upon environmental factors favorable for disease development.

### FUNGICIDE RESISTANCE MANAGEMENT

Propiconazole belongs to the sterol demethylation inhibitor (DMI) class of fungicides

and is classified as a Group 3 Fungicide. Thiophanate-methyl belongs to the Methyl Benzimidazole Carbamates (MBC) class of fungicides and is classified as a Group 1 Fungicide. Since certain fungi can develop resistance to these classes of products, the use of TALARIS XL should be part of a resistance management strategy that includes alternation and/or tank mixing with another fungicide mode of action. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Rotate to a product that is effective on the target pathogen and has a mode of action different from this product. Apply the alternate products within the intervals specified on this product's label. Do not apply this product at rates below those specified on the label. If tank mixing, use the full label rate of this product with the full label rates of the other products effective on the target pest. Consult your local or state agricultural authorities for resistance management strategies that are appropriate for your disease management program. This product 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 the sprayer before use. Use a pump with sufficient capacity to maintain 35 to 40 PSI at nozzles and 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 sparger tube for agitation. Do not use air sparging. Although TALARIS XL is an emulsifiable concentrate, it is suggested that screens be used to protect the pump and to prevent nozzles from clogging. For screens placed on suction side of pump use 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 directions. For more information on spray equipment and calibration, consult sprayer manufacturers and state directions. For specific local directions and spray schedules, consult the current state agricultural

experiment station directions.

## APPLICATION INSTRUCTIONS

TALARIS XL is most effective when applied and allowed to dry before a rainfall. Avoid applying this product under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur. Do not apply in a manner which results in exposure to humans or animals.

### 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 coarse spray (ASABE 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. 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.

### Aerial Application

1. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
2. 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 down-wind. The applicator must compensate for this displacement at the up and down-wind edge of the application area by adjusting the path of the aircraft upwind.

#### Ground Application

- For tree crops, apply this product in a minimum of 50.0 gallons of water per acre.
- For all other crops, apply this product in a minimum of 10.0 gallons of water per acre.

#### Aerial Application

- For tree crops, apply this product in a minimum of 10.0 gallons of water per acre.
- For all other crops, apply this product in a minimum of 2.0 gallons of water per acre.

#### Chemigation Application (Chemigation is prohibited in California)

This product may be applied through properly equipped chemigation systems for disease control in the labeled crops. Refer to crop-specific use directions for application rates, timing and frequency of application. Do not apply TALARIS XL by chemigation to other labeled crops except as specified in Atticus, LLC supplemental labeling or product bulletins. When applying this product by chemigation, do not exceed labeled rates or apply more frequently than directed for conventional application methods. This product may be applied through irrigation systems alone or in combination with other pesticides that are registered for application through irrigation systems. For chemigation application to labeled crops, apply in 0.1 to 0.25 inches of water. Chemigation with excessive water may lead to a decrease in efficacy.

#### Chemigation Precautions

- 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, 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.
- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone (RPZ) backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Note: Do not inject this product at full strength or deterioration of valves and seals may occur. Use a dilution ratio of at least 10 parts water to 1 part TALARIS XL. This product is corrosive to many seal materials. Leather seals are best. EPDM or silicone rubber seals can be used but must be replaced once a year. Do not use Viton, Buna-N, Neoprene, or PVC seals.

#### Specific Equipment Requirements

- 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.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
- 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.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point

where pesticide distribution is adversely affected.

- Systems must use a metering pump, including 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

#### Center Pivot Irrigation Equipment

- Use only with drive systems that provide uniform water distribution.
- Do not use end guns when applying TALARIS XL through center pivot systems because of nonuniform application.
- Determine size of area to be treated.
- Determine the time required to apply 1/8 to 1/2 inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as specified by the equipment manufacturer. When applying TALARIS XL through irrigation equipment, use the lowest obtainable water volume while maintaining uniform distribution. Run the system at 80% to 95% of the manufacturer's rated capacity.
- Using only water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of TALARIS XL required to treat the area covered by the irrigation system.
- Add the required amount of TALARIS XL and sufficient water to meet the injection time requirements of the solution tank.
- Make sure the system is fully charged with water before starting injection of TALARIS XL. 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.
- Stop injection equipment after treatment is completed. Continue to operate the system until the solution of TALARIS XL has cleared the sprinkler head.

#### Solid-Set, Hand Move, and Moving Wheel Irrigation Equipment

- Determine the acreage covered by the sprinkler.
- Fill the injector solution tank with water and adjust flow rate to use the contents over a 20- to 30-minute interval. When applying TALARIS XL through irrigation equipment, use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of TALARIS XL required to treat the area covered by the

irrigation system.

- Add the required amount of TALARIS XL into the same quantity of water used to calibrate the injection equipment.
- Maintain constant solution tank agitation during the injection period.
- Operate the system at normal pressures specified by the manufacturer of the injection equipment and used for the time interval established during the calibration.
- Inject TALARIS XL at the end of the irrigation cycle or as a separate application to maximize foliar fungicide retention.
- Stop injection equipment after treatment is completed. Continue to operate the system until the solution of TALARIS XL has cleared the last sprinkler head.

Limitations, Restrictions, and Exceptions

## TURFGRASS AND ORNAMENTAL INSTRUCTIONS

### Product Information

TALARIS XL is a systemic fungicide for use on turfgrass for the control of the diseases listed. TALARIS XL also controls numerous diseases on ornamentals and other landscape and nursery plantings, including powdery mildews, rusts, leaf spots, scabs, and blights. Refer to the appropriate section for specified diseases and plants.

### Use Restrictions

- Do not use this product as a tree injection treatment.
- Do not use this product in greenhouses.
- Do not apply more than 1.93 pints of this product per 1000 square feet per calendar year.
- Chemigation: Do not apply this product through any type of irrigation system.
- Do not apply to residential landscape plants unless you are a certified or licensed applicator in the state of use.
- For use only by certified applicators or those under their immediate supervision.
- Do not apply with fixed wing or rotary aircraft.
- Not for use on turf being grown for sale or other commercial use as sod.
- Do not apply to home orchards/backyard fruit trees after fruit set.

## Use Precautions

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

## Tank Mixes of TALARIS XL for Turfgrass and Ornamental Applications See Mixing Instructions Section

Add E-Z Mix compatibility agent (3.0 pints per 100 gallons) to tank mixes if necessary. 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. Tank mixes or other applications of products referenced on this label are permitted only in those states where referenced products are registered.

## USE INSTRUCTIONS

### TURFGRASS

- Use TALARIS XL in a preventative disease control program.
- Apply in sufficient water to ensure thorough coverage.
- Apply after mowing or allow sprayed area to dry completely before mowing.
- For control of foliar diseases, allow sprayed area to dry completely before irrigation.
- For control of soilborne diseases, water in immediately after application.
- Under conditions that are optimum for high disease pressure, use the higher rate and shorter interval.
- For optimum turfgrass quality and disease control, use TALARIS XL in conjunction with turf management practices that promote good plant health and optimum disease control.
- Evaluate spray additives prior to use. Label directions are based upon data obtained with no additives.
- Before using any fungicide, proper diagnosis of the organism causing the disease is important. Using diagnostic kits or other means of identification of the disease organism is essential to determine the best control measures.

### Use Restrictions

- Maximum amount of TALARIS XL allowed per year: refer to table in the label for



maximum application rates on specific turf sites.

- Maximum amount of thiophanate-methyl and propiconazole allowed per year: refer to table in the label for maximum application rates on specific turf sites.
- Do not graze animals on treated areas.
- Do not feed clippings from treated areas-to livestock or poultry.

#### Use Precautions

- Important: Bermudagrass can be sensitive to TALARIS XL.
- Do not exceed 1.0 fluid ounce per 1000 square feet every 30 days on any variety of bermudagrass.
- In Florida, do not apply TALARIS XL to bermudagrass golf course greens when temperatures exceed 90°F.

#### TALARIS XL Specific Disease Application Instructions

- Observe site specific maximum individual and annual application rates in the Maximum Application Rates table in the label.

#### Specific Use Instructions

- Apply when disease first appears, make applications at 14-day intervals or as needed.

Application Interval (Days): 14

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

#### Timings

[When disease first appears.](#)