

# **GRAPES - POWDERY MILDEW**

## General Information

### GENERAL INFORMATION

Agri Star Sonoma 20EW AG fungicide is a systemic, protectant and curative fungicide for disease control in the commercial production of almonds, apples, soybeans, stone fruits, grapes, and cotton seed treatment. Optimum disease control is achieved when the fungicide is applied in a regularly scheduled preventative spray program.

### USE RATE DETERMINATION

Carefully read and follow label directions, including recommended use rates and restrictions. For proper application, determine the size of the area to be treated, the recommended label application rate and the required gallonage for the area to be treated. Prepare only the amount of spray solution needed for the treatment area. Careful calibration of spray equipment is recommended prior to use.

### APPLICATION

**GROUND:** Thorough coverage sprays generally result in optimum disease control. To achieve good coverage use proper spray pressure, gallonage per acre, nozzles, nozzle spacing and tractor speed. Consult manufacturer's spray nozzle and accessory catalogues for specific information on proper equipment calibration.

**AERIAL:** Apply in a minimum of 10 gallons of water per acre. Avoid application under conditions when uniform coverage cannot be obtained or when spray drift may occur.

**HAND-PRESSURIZED SPRAYERS:** For best control of labeled diseases, achieve thorough coverage of all plant parts on a protectant application schedule.

**SPRINKLER IRRIGATION:** Agri Star Sonoma 20EW AG must be applied on a regular protectant fungicide schedule, not an irrigation schedule. Apply only through solid set or hand-move sprinkler irrigation systems. Do not apply product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal residues

in the crop can result from non-uniform distribution of treated water. Greatest efficacy is achieved when the application of treated water does not exceed 1/4 inch per acre per application. If you have questions about calibration, you should contact State Extension Service specialists or equipment manufacturers.

Do not connect an irrigation system 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. Before applying Agri Star Sonoma 20EW AG through sprinkler irrigation equipment, the chemigation system must meet the following specifications:

- Public water system means a system for the provision to the public of piped water for human consumption is such system that 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 outlet end of the pipe fill and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- Systems not connected to a public water supply must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located in the irrigation pipeline to prevent water source contamination from back flow.
- 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, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 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.
- 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.
- 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 back flow.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

#### Specific Instructions for Solid-Set and Hand Move Irrigation Equipment:

- Determine area covered by sprinkler.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 10- to 30-minute interval.
- Determine the amount of Agri Star Sonoma 20EW AG required for area to be treated.
- Add the required amount of Agri Star Sonoma 20EW AG into the same quantity of water used to calibrate the injection equipment.
- Maintain constant solution tank agitation during the injection period.
- Operate system at normal pressures recommended by the manufacturer of the injection equipment and used for the time interval established during calibration.

- Inject Agri Star Sonoma 20EW AG at the end of an irrigation cycle or as a separate application to maximize foliar absorption and retention.
- Stop injection equipment after treatment is completed. Continue to operate the system until the mixture of Agri Star Sonoma 20EW AG has cleared the last sprinkler head.

## GENERAL USE DIRECTIONS

Best control of labeled diseases is achieved when Agri Star Sonoma 20EW AG fungicide is applied on a 7- to 10-day application schedule. Agri Star Sonoma 20EW AG is a systemic fungicide having protectant and curative properties that will translocate into new growth. For optimum control of listed diseases, application equipment spray nozzles should be adjusted to apply a uniform spray<sup>3</sup> throughout the entire tree canopy.

The use recommendations are to be used as guidance in determining the amount of Agri Star Sonoma 20EW AG fungicide to be used per 100 gallons spray or per acre. Refer to label for specific tree fruit use directions to determine actual use rates for the control of labeled diseases.

## CONCENTRATE SPRAY APPLICATIONS

Agri Star Sonoma 20EW AG fungicide should be used at the recommended use rate per acre in either dilute or concentrate sprays.

## DILUTE, THOROUGH COVERAGE APPLICATION

Dilute thorough coverage applications are based on the amount of spray solution required to thoroughly wet trees until spray run-off. The following specific use directions for apples utilizes a 400 gallon per acre dilute basis and the specific use directions for stone fruits utilize a 250 gallon per acre dilute basis.

## Limitations, Restrictions, and Exceptions

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Thorough spray coverage is essential for good disease control. Apply Agri Star Sonoma 20EW AG in sufficient spray volume to ensure complete and uniform coverage.

### Specific Use Instructions

- Begin application at prebloom (12-to 18-inch shoots) and do not extend applications beyond a 21-day interval. Use higher rate in rate range or shorter spray interval on susceptible varieties or under heavy disease pressure.

### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

### Pre-Harvest Interval

14 days

### Rates

[field\\_rates 0](#)

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### Restricted Entry Interval

24 hours

### Timings

[Prebloom \(12- to 18-inch shoots\).](#)