

# SoilGard®

MICROBIAL FUNGICIDE



## Guidelines for Applying SoilGard Through Drip Irrigation Systems

**Application Rate**  
2 to 10 lbs. per acre

### Reentry and Preharvest Intervals

SoilGard has a 0-hour REI and zero-day PHI.

### SoilGard Organics

SoilGard is NOP approved and OMRI listed for use in organic production.

*These guidelines are not a substitute for the product label. Read and follow all label instructions when using SoilGard.*

SoilGard® microbial fungicide contains live spores of a naturally occurring soil fungus known as *Gliocladium virens* (also known as *Trichoderma virens*) strain GL-21. SoilGard is effective against plant diseases caused by *Pythium*, *Rhizoctonia*, *Sclerotinia*, *Sclerotium*, *Fusarium*, *Phytophthora capsici* and other common soilborne plant pathogens.

Upon application to the soil, germinating GL-21 spores produce an antibiotic compound that kills disease-causing fungi in close proximity. SoilGard also attacks and consumes the mycelia of these fungi and competes with any survivors. Once established in the rhizosphere, SoilGard excludes pathogenic fungi from re-colonizing, protecting the young plant until it attains sufficient root mass to resist or tolerate infection.

SoilGard is a preventive, root-protecting biofungicide and, as such, must be delivered to the root environment to be successful. The following are some key tips to help you be successful with SoilGard in your operation.

### Keys to a Successful SoilGard Application:

- SoilGard can be applied to transplants at any time prior to transplanting. For information about this type of application, see the separate “Guidelines for SoilGard Application in Greenhouses, Nurseries, Interiorscapes and Planting Beds.”
- Field applications can occur immediately before or during planting or transplanting. However, SoilGard should not be applied in the field more than 1 week prior to planting or transplanting. SoilGard can be applied any time after planting or transplanting, up to the time of harvest.
- SoilGard works best in soil that has been thoroughly tilled and is free of large clumps allowing uniform distribution in the rooting zone.
- SoilGard is most active at soil temperatures between 45° and 90° F.
- Light, aerated soils with moderate organic matter provide oxygen and nutrients for the beneficial fungus in SoilGard as it grows and protects the plant roots.
- Excessively dry, waterlogged or compacted soils will reduce establishment of SoilGard in the root zone.

### For Drip (Trickle) Tube or Tape Applications

- Mix the required amount of SoilGard in at least 2 gals. of water per pound of product in a 50 gallon or larger nurse or mix tank (*See figure 1*) under continuous and vigorous agitation using a machine-driven paddle wheel or re-circulating motor.
- Use a hand paddle or shovel to disperse any large clumps in the tank.

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## Example of a SoilGard Program for Fresh Market Tomatoes or Peppers

- Drench transplants in the transplant house 1 to 2 weeks prior to transplanting at a rate of 1 lb. SoilGard per 100 gals. water.
- Two to three days before transplanting, apply SoilGard to the unplanted field at the rate of 5 lbs./acre through the drip irrigation system.
- Repeat the drip application 4 weeks after transplanting.
- Long-season crops (greater than 100 days) may be treated with a third application for additional protection later in the season. There is no pre-harvest interval with SoilGard, so it can be applied at any time during harvest periods.



Figure 1. Example of a large nurse tank for mixing SoilGard in water for injection into a drip irrigation system. Note the recirculating pump (lower left) for mixing to keep the product suspended in water.

- Stir or agitate the mixture for 10 minutes before injection. This will allow the spores to dislodge from the carrier and become suspended in the liquid. Do not allow the mix to stand for long periods of time (more than 2 hours) before application.
- Inject the SoilGard on the field side (downstream) of any filters or filtering system (See figure 2). If filters are used in the injection line system, it is important to use 50 mesh (or coarser) screens or to remove screens altogether. DO NOT allow SoilGard to enter any sand/silicate filtration system, which may trap spores and prevent their distribution in the field.



Figure 2. Injection point with hose coming from the nurse tank in Figure 1.

If SoilGard cannot be applied as instructed above, follow the **Alternative Mixing Instructions** that follow.

- After the lines have been fully charged with water, allow sufficient time (typically 30 to 60 minutes) for the SoilGard to be uniformly applied to the field zone being treated.
- Treated beds should be saturated to thoroughly infuse the bed volume for uniform coverage during application, but not to the point where water is running out of the beds into the middles between the rows.
- Dispose of any unused carrier or rinsate left in mix tanks according to appropriate state and local regulations.
- Applications of SoilGard can be repeated at 1- to 4-week intervals as needed.

### Alternative Mixing Instructions:

When delivery systems are used where screens cannot be removed, pressure is limited, or lower volumes are required, follow the steps below to prepare a finer suspension of spores in water.

- 1 Mix SoilGard in a minimum of 2 gals. of water per pound of product in a large bucket or other container of sufficient volume.
- 2 Stir or agitate for 10 minutes. The spores of the beneficial fungus in SoilGard will dislodge from the solid material and become suspended in the water.
- 3 Allow solid material to settle to the bottom of the bucket for another 10 minutes.
- 4 Pour or pump the water (now containing the spores) into the spray or mix tank, leaving solids behind in the bottom of the bucket.

Alternately, after SoilGard is mixed as in **Step 2** above, pour the unsettled mixture through cheesecloth or other filter material, or a 50 mesh or finer screen, allowing the liquid portion to go directly into spray, nurse or mix tank.

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