

GUIDELINES FOR SOILGARD APPLICATION IN GREENHOUSES, NURSERIES, INTERIORSCAPES AND PLANTING BEDS



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.

Dispose of any unused carrier or rinsate left in mixing containers according to applicable state and local regulations.

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. Dry product can be incorporated directly into potting media or planting beds before planting or transplanting or mixed with water and applied as a drench before, during or after planting or transplanting. Roots can also be dipped into a slurry of SoilGard in water just before transplanting. 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 transplanted crops in the greenhouse or nursery prior to transplanting into the field (see details below).
- Applications to planting beds can occur immediately before or during planting or transplanting. However, SoilGard should not be applied to planting beds more than 1 week prior to planting or transplanting. SoilGard can be applied any time after planting or transplanting.

- 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.

Incorporation Into Planting Media in Greenhouse Flats, Plug Trays or Pots:

- Mix 1 to 1.5 lbs. of SoilGard per cubic yard of potting soil or other plant-growing medium. The product should be distributed uniformly throughout the medium.
- If the potting medium has been heat sterilized, allow it to cool to 110° F or lower before adding SoilGard.
- Allow at least 24 hours after incorporation of SoilGard before planting seeds, cuttings or other non-rooted plant material into the treated medium. Plants with established roots can be transplanted into treated soil immediately after mixing with SoilGard.
- Avoid using SoilGard in media totally devoid of organic matter (such as sand), since it requires organic matter to grow and work.

Incorporation into Seeding and Planting Beds (Indoors and Outdoors):

- Thoroughly till the soil in the planting bed prior to addition of SoilGard.
- Incorporate SoilGard uniformly within the plant root zone at the rate of 1 to 1.5 lbs. per cubic yard of soil. Table 1 can be used to determine how much SoilGard to use depending on planting or rooting depth and area to be treated.

Planting Depth (Inches)	Pounds of SoilGard per 100 sq. ft.	Sq. ft. Treated per Pound of SoilGard
2	½–1	108–162
4	1¼–2	54– 81
6	2–2¾	36– 54
8	2½–3¾	27– 41
10	3–4½	22– 32
12	3¾–5½	18–27

Table 1. SoilGard Application rates for seeding and plant beds based on planting or root depth. SoilGard should be uniformly mixed into the soil or planting medium to the indicated depth.

- SoilGard is unlikely to completely eliminate disease from soil already severely infested with pathogenic fungi. For best results, SoilGard should be used in the greenhouse at the time of planting, so that it has already colonized the root ball of the transplant.

Drench Application to Soil or Planting Media in Pots, Flats, Trays, Containers or Planting Beds (Indoors or Outdoors):

Greenhouse or nursery flats, plug trays or pots (prior to planting):

- Mix SoilGard in water at a rate of 2 to 4 ozs. per 100 gals.
- Use this mixture to drench flats, trays or pots at the rate of 50 to 100 gals. per 800 sq. ft. (if 4-inches deep or less) or 100 gals. per 400 sq. ft. (if more than 4-inches deep).
- Do not water the treated area for 12 hours after application to avoid leaching the spores from the media before they have germinated.
- Allow at least 24 hours between drench application and planting of seeds or non-rooted cuttings. Plants with established roots can be transplanted immediately into treated pots.

Vegetables and Other Transplanted Crops:

- Apply no later than 1 week before transplanting into the field.
- Mix SoilGard in water at the rate of 0.5 to 2 lbs. per 100 gals.
- Drench flats, unit trays or pots with this mixture at a rate of 4 fl. ozs. per plant.
- For densely seeded trays or flats, apply 100 gals. of finished drench per 800 sq. ft.
- SoilGard can also be applied to field soils before, during or after transplanting using a variety of methods which are described in separate application guides.

Plants With Established Roots Such as Potted or Container Plants:

- Mix SoilGard in water at a rate of 2 to 8 ozs. per 100 gals.

- Apply the finished drench at the base of each plant at a rate of 4 fl. ozs. per plant for pots less than 4-inches deep or plants less than 6-inches tall.
- For taller plants and/or deeper pots, drench at 8 to 16 fl. ozs. per pot.
- Application may be repeated every 1 to 4 weeks if needed.

For Indoor or Outdoor Planting Beds (Prior to Planting):

- Thoroughly till the soil in the bed prior to SoilGard application.
- Do not apply SoilGard to beds more than 1 week before planting.
- Mix SoilGard in water at a rate of 2 to 4 ozs. per 100 gals.
- Apply 50 to 100 gals. of the finished drench per 800 sq. ft. (if 4-inches deep or less) or 100 gals. per 400 sq. ft. (if more than 4-inches deep).
- Do not water the treated area for 12 hours after application.
- Wait 24 hours after application before planting seeds or non-rooted cuttings. Plants with established roots can be transplanted immediately into treated soil.

Applying SoilGard as a Root Dip or Coating:

- Mix a concentrated slurry of 1 to 2 lbs. of SoilGard per gallon of water.
- Dip or immerse bare roots or root ball into the slurry immediately before planting or transplanting.
- Bare roots or planting sets can also be treated by shaking them inside a sealed plastic bag containing the SoilGard slurry or by moistening with water and shaking in a bag containing dry SoilGard to coat the roots.
- Do not apply SoilGard directly to fresh (non-rooted) cuttings.