GARDENER'S SUPPLY COMPANY

PRODUCT BULLETIN

Grub Guard

Grub Guard contains living nematodes and should be applied when soil temperatures are between 35 to 85 degrees F. If you are not able to apply Grub Guard right away, you may store the sponge up to 1 month in the refrigerator (40 to 50 degrees F), but it must be kept damp! Add a few drops of room temperature water to the sponge to keep it moist.

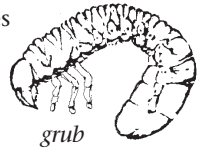
The use of parasitic nematodes for pest control is an exciting breakthrough for organic gardeners. Until now, the controls for soil pests were limited to crop rotation, soil fumigation, or milky spore. These active nematodes invade the bodies of harmful grubs or larvae and release a deadly bacteria. Once the nematode attacks its host, death occurs within 24 to72 hours. Beneficial nematodes continue to reproduce and are effective during the entire growing season, providing the soil is kept moist, and can survive mild winters. For best results, apply Grub Guard in early spring after the frost is out of the ground and soil temperatures are between 35 to 85 degrees F. Apply Grub Guard again in late summer or early fall while ground temperatures are still warm to catch any insect pests beginning winter hibernation.

cutworm

Grub Guard is a mix of two aggressive strains of nematodes called *Steinernema carpocapsae (SC)*, and *Heterorhabditis bacteriophora (HB)*. SC are shallow soil dwellers occupying the top 1 to 3" of the soil. The HB strain burrow as deep as 5 to 6" and offer a secondary barrier to grubs that are emerging from or returning to winter soil depths. These nematodes will not harm people, pets, plants, fish, beneficial insects or earthworms. Children and pets can play in the yard immediately after treatment, and Grub Guard will not affect drinking water supplies.

The nematodes in Grub Guard will control the following larvae:

- Japanese beetles
- European/masked chafers
- sod webworms
- June beetles
- army worms
- Colorado potato beetles
- strawberry root weevils
- Asiatic beetles
- chinch bugs
- May beetles
- fungus gnats
- cucumber beetles
- onion maggots
- mole crickets
- bill bugs
- thrips
- cutworms



grub

Nematodes are microscopic in size. They can't be seen with the naked eye, but you can see them through a microscope. If you've delayed application and you're not sure if the nematodes are still active, here's an easy way to check. (NOTE: *Since nematodes could suffocate and perish if they are left in a small amount of water, you should per-*

form this test just prior to application! Be sure to have all other supplies ready before you begin.) Place the sponge in a clear glass filled with water that has been allowed to reach **room temperature**, swish it around, and wait several minutes. If you watch closely, the water should move slightly with nematode activity. **Immediately after** you've noticed their movement, mix them into a gallon of room temperature water.

For Best Results

Nematodes can be applied with a hose-end sprayer or watering can. A package of one million treats 2,000 sq ft. Six million treats about 12,000 sq ft, or a little more than a 1/4 acre. For best results, please read these helpful hints:

• Apply the nematodes at dusk or on a warm, rainy day. Full sunlight can kill nematodes before they are able to tunnel under the soil.

• Check to be sure the soil is moist. Nematodes require moisture for their survival. If you have been experiencing a dry growing season, it is essential to water the soil thoroughly *before* applying the nematodes.

• When mixing the nematodes in water, do not allow the container to sit for more than 2 hours or the nematodes may drown. Stirring the nematode solution frequently during application will prevent the nematodes from settling to the bottom and ensure an even distribution.

Making the Concentrate

1. Whether you purchased 1 million or 6 million nematodes, making the concentrate is the same. Remove the sponge from the package and rinse it as completely as possible into one gallon of room temperature water. The bag containing the sponge may have nematodes inside, so rinse it into the container as well. This is your concentrate.

2. You now have a concentrate which can be put through an injector system or diluted and applied with a conventional sprayer, watering can or pail. If you're using a hose-end sprayer, test it first with plain water to see how much area you cover at a steady pace. Make any adjustments before adding the nematode concentrate.

   If you are using a watering can for application, pour a small amount of the concentrate into the can and dilute it with water. Dilute and spray, or drench to evenly cover your lawn. Repeat until the desired area is treated.

3. **Important:** The nematodes must be watered into the ground. A rinse of plain water after they have been applied will help ensure that they have been carried into the soil. Keep the area moist for the next couple of days to help the nematodes become established in the soil. You can expect results within a few weeks in the treated areas only.

Ordering Information

#05-292 . . . . . .Grub Guard, 1 million
#05-298 . . . . . .Grub Guard, 6 million
#30-719 . . . . . .GSC Sprayer

To place an order, call or see our web site for current prices.