



Tackling lawn grubs without pesticides

Get ahead of these pests by applying beneficial nematodes now

By Suzanne Bontempo of [Plant Harmony](#)

Spring has arrived and this is the time to prevent lawn grubs and other pests like Japanese beetles. An eco-friendly management solution is applying beneficial nematodes, a safe and effective solution for managing a variety of pests throughout the garden without the use of pesticides.

What are beneficial nematodes?

Beneficial nematodes are living microscopic worm-like organisms that naturally occur in the soil. They seek out soil-dwelling pests, such as lawn grubs, Japanese beetles, weevils, fleas, ticks, and more.

How nematodes manage pests

Four different nematode species are sold commercially, and each parasitizes a different range of pests. Nematodes are most effective when used during the early part of the spring season, when the daytime soil temperatures are above 45 degrees, typically in March or April, when the target pest is active. Nematodes move through moist soil looking for a pest to parasitize. Once located, the nematode penetrates the pest's body and releases a toxic bacterium, which kills the pest within 24 to 48 hours. Once the pest dies, the nematode reproduces in the dead host, and the juveniles return to the soil and look for other hosts.

How to apply beneficial nematodes

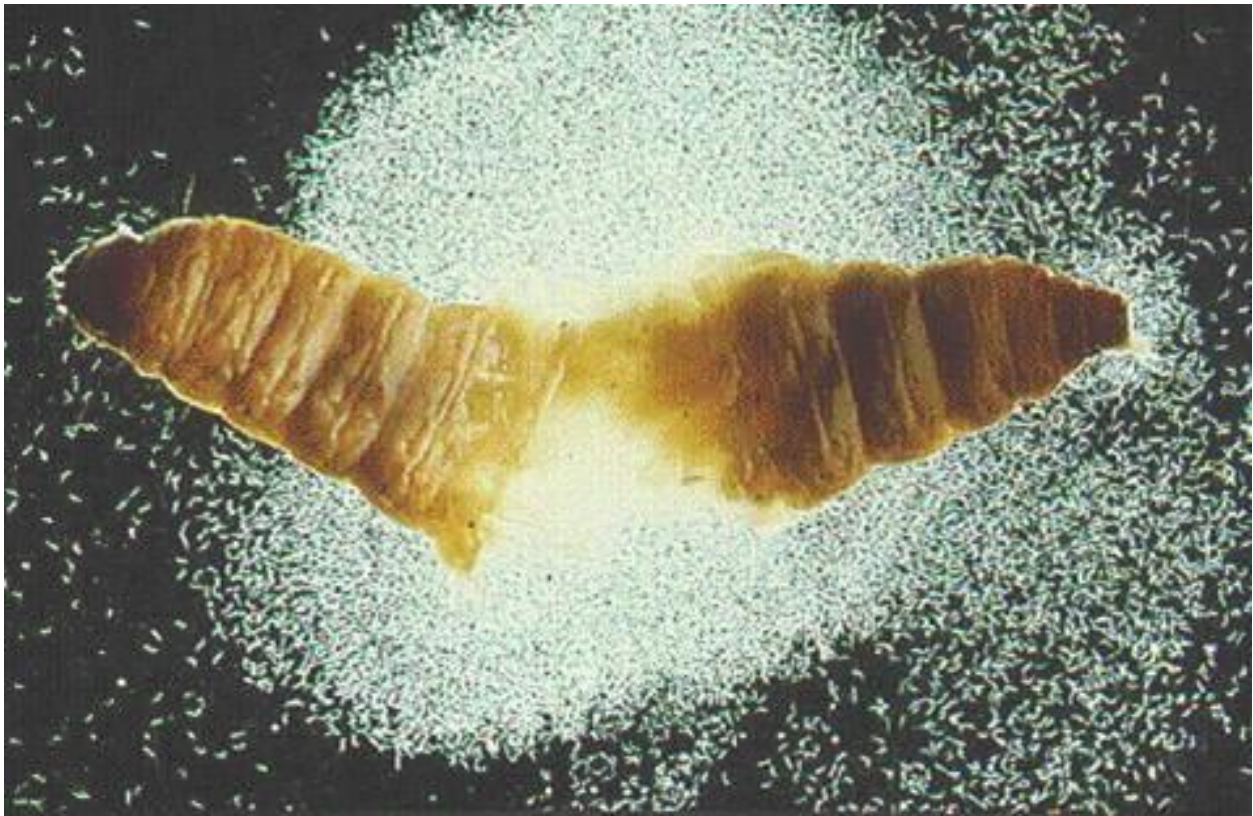
1. Choose the correct nematodes: Each species of nematode will target a variety of different pests. Some species overlap. Be sure you identify the correct pest problem. This will help you match the nematode species to the specific pest to get the most effective management. For instance:
 - For Japanese beetles, lawn grubs, and weevils, look for *Heterorhabditis bacteriophora*. These nematodes cruise lower through the soil.
 - For flea larva, codling moth, leaf miner, and cutworms, look for *Steinernema carpocapsae*. These nematodes will manage pests near the surface of the soil.
 - For fungus gnats, flea beetles, and root aphids, look for *Steinernema feltiae*.
2. Where to purchase: Many local garden centers sell them in the spring. There are online retailers that specialize in beneficial nematodes, such as [Arbico Organics](#) or [Northwest Beneficials](#).

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3. Store properly: Keep nematodes cool in your refrigerator until you are ready to apply them and use them as soon as possible, within 2-3 weeks. Remember, these are living organisms, so be sure to check the expiration date on the package before using this product.
4. Timing application: Apply nematodes early in the morning or at dusk, since they are sensitive to light and heat. Apply when the soil temperatures are above 45°F.
5. Keep soil moist: Water before applying, and lightly water again after applying the nematodes. Soil should be moist, but not soggy. Nematodes need moisture to survive and move through the soil.
6. Applying nematodes: There are different ways to apply so follow the package instructions for the specific pest. For instance, one application is to mix nematodes with cool water and apply to moist soil by using a watering can, hose end sprayer, pump sprayer, or irrigation system.
7. Monitor pests: You may have to repeat the application in the fall if the pest problem persists.



Entomophagous nematodes emerging from a wax moth larva (canr.msu.edu)

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