

Benefitting from the Bodysnatchers: Putting Nematodes to Work for You

February 2014

Beneficial nematodes are microscopic, non-segmented round worms that attack and kill targeted insects, without affecting any other organisms. When released in their juvenile stage, the beneficial nematode searches out and enters an insect's body cavity and immediately starts to feed. This causes deadly bacteria to be released from the nematode's intestinal tract. The targeted insect dies within 24-48 hours. The bacteria then converts the host tissue into products which are easily taken up by the nematodes. This facilitates the rapid production of more nematodes that disperse in search of new hosts.



Beneficial nematodes are a safe integrated pest management (IPM) tool and serve as a good addition to existing insecticide programs. These nematodes are safe for humans, animals and

the environment. The EPA does not require them to be registered and therefore nematodes carry no REI or requirements for personal protection equipment.

Nematodes are predators to specific hosts. Steinernema feltiae nematodes help provide biological control of soil-dwelling stages of fungus gnats, as well as the pre-pupal and pupal stages of western flower thrips. Steinernema carpocapsae nematodes help control shoreflies and certain soil-dwelling insects such as billbugs, weevil larvae and certain worms. Heterorhabditis bacteriophora beneficial nematodes help provide biological control of white grub, black vine weevils, stages of European chafers and Japanese beetles.

Nematodes are packaged in containers of 50, 100, 150, 250 or 500 million nematodes. You will not find nematodes on the OMRI list, because of the silicon carrier that nematodes are shipped in.

Beneficial nematodes are a safe integrated pest management (IPM) tool and serve as a good addition to existing insecticide programs. These nematodes are safe for humans, animals and the environment.

Upon receipt, immediately remove packs from shipping packaging and refrigerate at 41°F. They can be refrigerated up to four weeks if necessary. DO NOT FREEZE.

To ensure successful nematode applications, avoid high light. Nematodes are UV-sensitive, so make applications when light levels will be low in the greenhouse for a few hours or more. Adding a high-quality surfactant, such as **CapSil®**, to spray applications causes water droplets to sheet over plant surfaces more evenly, allowing the nematodes to contact more thrips. Air temperature should be less than 90°. Nematodes can drown if left in the stock tank too long. It is best to use cool water and aeration in the stock tanks. Remove all screens/filters that are 50 mesh or finer. Do not apply nematodes through sprayers that exceed 300 psi or have nozzle apertures less than 0.5mm. Drench applications should be made to moist soil.

Are you using nematodes in your insect control program? Consult Griffin's GGSPro team for further information.

Featured Products

| Manufacturer | Nematode | Packaging* | Item No. | Price |
|-------------------|--|-----------------------|-----------|----------|
| BASF | Nemasys® – Steinernema feltiae | 5 trays x 50 million | 70-2460 | \$170.24 |
| BASF | Nemasys® – Steinernema feltiae | 5 trays x 250 million | 70-2490 | \$233.42 |
| BioWorks® | Nemashield™ – <i>Steinernema feltiae</i> | 1 tray x 100 million | 70-6033 | \$76.27 |
| BioWorks® | Nemashield™ – <i>Steinernema feltiae</i> | 1 tray x 500 million | 70-6034 | \$211.84 |
| Syngenta BioLine™ | Exhibitline™ SF - Steinernema feltiae | 1 tray x 50 million | SB1011-01 | \$40.68 |
| Syngenta BioLine™ | Exhibitline™ SF - Steinernema feltiae | 5 trays x 50 million | SB1011-02 | \$160.00 |
| Syngenta BioLine™ | Exhibitline™ SF - Steinernema feltiae | 5 trays x 250 million | SB1011-03 | \$263.45 |
| BASF | Millenium® – Steinemema carpocapsae | 5 trays x 250 million | 70-2455 | \$216.79 |

^{*}Other packaging sizes available; contact your Griffin sales representative for details.