

# THE BUG LADY

## ADDING POWER TO YOUR PEST CONTROL PROGRAMS

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### BENEFICIAL NEMATODES

There are several species of beneficial nematodes currently available in the commercial market. These nematodes cannot be seen with the naked eye, but if you look closely, you can see them with a 10X hand lens. Fungus gnats are flies, and the most commonly used species of nematode for fly larvae control is *Steinernema felticae*.

Although the application methods for nematodes are similar to conventional insecticides, there are no concerns about re-entry times, odors or staining. They are simple to apply using a preloaded syringe or watering can. Because nematodes are not insects, they are compatible with most of the common insecticides on the market.

#### Getting Started

Order your nematodes to arrive a day or so before you plan to apply them. This will ensure you can begin as scheduled. Proper storage is imperative, so be sure to read the package completely for supplier storage recommendations.

#### For Syringe applications:

1. Apply fresh water to the soil that is going to be treated.
2. Open the package. Remove the syringe and cap covering.
3. Insert the injector nozzle into clear, lukewarm water and pull water up into the barrel of the syringe.
4. Target the syringe nozzle to the site you want to treat and press the plunger.
5. The syringe can be reloaded with water and used again before all the nematodes have been rinsed out.
6. Water plant to wash in nematodes.
7. Dispose of the injector in a regular waste container.

#### For Sponge/Envelope applications:

1. Apply fresh water to the soil that is going to be treated.
2. Open package and remove sponge or open envelope of nematodes.
3. In container of lukewarm water, rinse contents of sponge. If you receive an envelope, pour water into envelope then pour into container.
4. Water in the nematode solution as if you were watering. Aim for the soil, not foliage. The nematodes can be sprayed, just be certain to remove any screens from the nozzles.
5. Water plant to wash in nematodes with clean water.
6. Dispose of packaging in a regular waste container.

It's important to wet the soil prior to nematode application

and again afterwards. This washes the little guys down into the soil where the fly larva lives. *Steinernema felticae*, once in the soil, sits near the surface waiting for contact with a host.

Upon contact, the nematode forces its way into the larva's body and releases a lethal bacteria into the host. This causes a painful death. Nematodes reproduce inside the insect cadaver making more nematodes.

Nematodes generally provide control for at least two to four weeks, though I have found them frequently working longer. Keep in mind nematodes only control larval stages. If you need immediate control, it may be necessary for you to use an adulticide.

#### Doing It Right

Beneficial nematodes come packaged in water-dispersible powders, paste formulations on sponges, envelopes, gels and syringes. Currently, there is debate over application rates. Consult with your nematode supplier to get his recommended rates. Although pricing is comparable to conventional spray products, nematodes provide longer residual control with-

out the concerns of conventional chemicals.

Hints for applying nematodes:

- When nematodes arrive, follow storage directions. These are live creatures!
- Avoid leaving nematodes in spray tank overnight.
- Avoid UV exposure.
- Don't leave them in a car where they can be killed by heat.
- Do not exceed pump pressure of 300 psi.

#### Suppliers

- Integrated BioControl Systems, Inc., PO Box 96, Aurora, IN, 47001; (812) 537-8674; [www.goodbug-shop.com](http://www.goodbug-shop.com)
- Hydro-Gardens, Inc., P. O. Box 9707, Colorado Springs, CO, 80932; (800) 634-6362
- BioLogic Company, Springtown Rd., Willow Hill, PA, 17271
- Becker Underwood, 801 Dayton Avenue, Ames, Iowa, 50010; (800) 232-5907

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Nematodes are easily applied using a syringe.