

BENEFICIAL NEMATODES

BIOLOGICAL CONTROL OF GRUBS AND OTHER SOIL DWELLING PESTS

Nematodes are microscopic, non-segmented worms which occur naturally in soil all over the world. Thousands of strains exist with different life-styles. Beneficial ones attack soil dwelling insects and leave plants alone. These predators enter the host through body openings or by penetration of the body wall. Once inside, they release a bacterium which kills the host within 48 hours. The nematode continues to reproduce and its offspring begin to seek out new host material. Beneficial nematodes are a totally safe biological control parasitic insect organism. They are so safe that the EPA has waived the registration requirements for application.

NATURES WAY OF KILLING INSECT PESTS IN THE SOIL.

Though they are harmless to humans, animals, plants, and healthy earthworms, beneficial nematodes aggressively pursue pest insects. When they sense the temperature and carbon dioxide emissions of soil-borne insects, they move toward their prey and enter the pest through its body openings. The nematodes carry an associated symbiotic bacterium (*Xenorhabdus* species) that kills insects fast - within 48 hours. The bacteria is harmless to humans and other organisms and cannot live freely in nature. Several generations of nematodes may live and breed within the dead pest and they emerge and seek more pests in the soil. Nematodes offer a way to kill the immature stages of garden pests before they become adults.

Beneficial nematodes control grubs that are known to destroy crops. They are effective against white grubs and the larval or grub stage of Japanese Beetles, Northern Masked Chafer, European Chafer, Rose Chafer, Fly larvae, Oriental Beetles, June Beetles, Flea beetles, Bill-bugs, Cut-worms, Army worms, Black Vine Weevils, Strawberry Root Weevils, Fungus Gnats, Sciarid larvae, Sod Web-worms, Girdler, Citrus Weevils, Maggots and other Dip-tera, Mole Crickets, Iris Borer, Root Maggot, Cabbage Root Maggot, Flea, Ants, and Carrot Weevils. These predators are also effective against: termites, German cockroaches, flies, ants, and fleas.

Application: Mix with water and spray or sprinkle on the soil along garden, lawn or crop rows or around larger plants. Place the entire sponge of nematodes in a bucket. Pour at least two quarts of water over the sponge and repeatedly squeeze for a few minutes to get the nematodes out of the sponge and into the bucket of water. Discard the sponge and pour the water into a sprayer or water can. At this stage, you should have the amount of nematodes indicated on the bag suspended in about two quarts of water. Add clean water to dilute the suspension and make up the volume that your sprayer requires. You can always add more water for distribution of the nematodes to cover the required square footage. Just add 2, 5, or 10 gallons of water so that you have enough to allow even spread of the nematodes. Keep the soil moist during the first 10 days after application.

Information from www.buglogical.com