

Biological Control of Leatherjackets and Chafer Grubs

Plant Product offers the following Nematodes
for Sports Turf and Lawn Pest Control

Pest	Item #	Description
Leatherjackets	20005	NEMASYS 5X250M!
Leatherjackets	20049	NEMASYS 50 MILLION/PK!
Chafer Grub Control	20529	NEMASYS-G 250 MILLION/PK

Nematodes can be very effective in controlling a number of turf and lawn pests provided certain conditions are met.

Background Information

Timing of application to coincide with the youngest most susceptible larval stages will provide the greatest efficacy. Nematodes will not control adult Chafer or Crane fly. See specific timing related to each pest.

Nematodes require a film of water in order to move. Turf should be moist prior to application and they should be watered immediately following to ensure the nematodes are washed off the leaves and through any thatch that may exist. Application during rain is highly desirable. Ensuring that soil is kept moist for several weeks after application will allow the nematodes maximum mobility in their search for prey to feed on.

Soil temperatures between 12°C and 30°C will provide best results.

Avoid exposure of nematodes to direct sun or any high temperature during application.

Even after mixing, the spray tank must be agitated constantly while applying to prevent nematodes from settling out.

Living nematodes may not be evenly distributed through the package requiring that the contents of the entire package should be mixed and used all at one time.

Understanding how these living predators work and following the above recommendations can lead to very effective pest control.

Biological Control of Leatherjackets and Chafer Grubs

European Chafer Grub Control

In southern Ontario adult European Chafer emerge from the ground during late June and the month of July and take off around dusk on mating flights in groups sometimes having so many individuals as to sound like a swarm of bees. Females will lay eggs the following day after burrowing several inches into the soil. Eggs hatch in 2 to 3 weeks and by autumn the grub will have progressed to the 3rd instar.

The ideal time for application of nematodes for Chafer grub control will be from the time of egg hatch sometime during late July or August, until soil temperatures drop below 12°C in the Autumn. Precise timing will depend on climatic conditions in particular regions and may differ for any region year to year.

Leatherjacket Control

Leatherjacket infestations were first documented in Ontario in 1996 and we are still learning about this turf pest. Early research has indicated that the nematode *Steinernema feltiae* is effective in controlling leatherjacket grubs in their early stages.

The adult of the leatherjacket is properly referred to as a Crane Fly. Crane Flies emerge from the ground in late August and September to mate, and females will lay their eggs within 24 hours of emerging. Eggs hatch 10 to 14 days after being laid. Properly timed Nematode applications could be as early as 10 days after adults emerge, and can continue as long as the soil temperature is above 10°C.



PLANTPRODUCTS

314 Orenda Road
Brampton ON L6T 1G1

Phone 905-793-7000

Toll Free 1-800-387-2449

Fax 905-793-9632

www.PlantProd.com

www.NaturalKnowHow.com

E-mail sales@PlantProd.com

March 2004