

NemaTrident® C

Natural pest control. Proven by science.

Bionema 
Founded on research – focused on nature

RT 
rugby taylor



Unique tri-component system for improved efficacy

A unique tri-component system

For controlling of chafer grubs

The most common pests of Turf and Landscape are Welsh chafer (*Hoplia philanthus*), Garden chafer (*Phyllopertha horticola*), Summer chafer (*Amphimallon solstitialis*), May beetle (*Melolontha melolontha*) and Brown chafer (*Sericia brunnea*).

Adult beetles emerge in June, egg laying begins 2-3 weeks after emergence, and larvae hatch 2-3 weeks subsequently. Damage to grass roots caused by larval feeding is most severe during autumn, and again in the spring as soil temperatures begin to rise.



What is the NemaTrident® C tri-component system?

NemaTrident® C is a naturally occurring beneficial entomopathogenic nematode, *Heterorhabditis bacteriophora*.

The Tri-components system Includes:

1. Nematode
2. Approved soil conditioner
3. Training and advice

What is secret behind the NemaTrident® tri-component system?

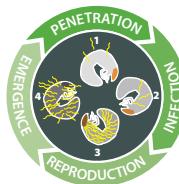
The unique NemaTrident® tri-component system ensures maximum dispersal of nematodes within the soil by combining the infective juveniles with an optimum concentration of uniquely formulated, approved soil conditioner. The tried and tested soil conditioner enhances the moisture retention capacity of the soil allowing the

nematodes to freely move and locate their target more effectively. The NemaTrident® system provides enhanced protection against a wide range of landscape, horticultural and forestry pests, ultimately increasing yields and improving plant growth for effective and sustainable development.

How NemaTrident® C works

1. NemaTrident® L actively search for insect larvae in soil.
2. The infective juveniles penetrate the larvae and release deadly symbiotic bacteria.

3. The infected larvae die and a new generation of infective juveniles develop inside the carcass.
4. New infective juveniles emerge from the dead larvae and go in search of other larvae to infect.



Application and recommended rate

NemaTrident® C is effective against larvae and pupae and should therefore be applied from April to the end of October ensuring soil temperatures are above 12°C during the day.

NemaTrident® C can be applied using conventional spraying equipment or irrigation systems. Where available soil injection equipment can be used to accurately deliver the NemaTrident® solution to precise depths where larvae

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

habitat. NemaTrident® C should only be applied to moist soil. Apply a minimum of 0.5 million nematodes/sqm evenly mixed in 1 litre of water. Following application, the area should be immediately irrigated to wash the nematodes into soil and due to the unique soil conditioner, which makes up the NemaTrident® system the nematodes are able to penetrate the soil more effectively.

Field efficacy

Field trials conducted over two years on Golf courses, Sports fields and Lawns with **NemaTrident®C** applied with Bionema approved soil conditioner, provided from 80-100% kill rates to the above listed insect pests at temperatures as low as 12°C- making **NemaTrident®C** the most effective and

versatile product currently available for controlling larval stages of various chafer grubs. Our unique Tri-component system ensures maximum dispersal and penetration of the nematodes into the soil, which then hunt out larvae and kill them.



Characteristics & symptoms caused by birds & wildlife searching for the protein rich chafer grubs.



The chafer grub causes extensive damage to grass roots when feeding.



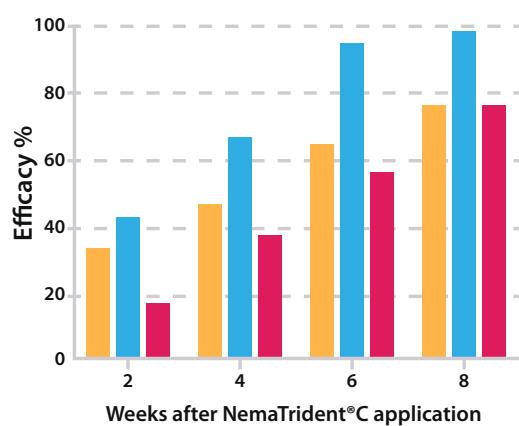
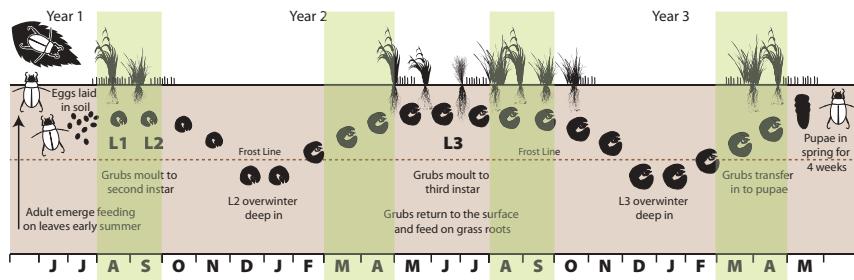
The **NemaTrident®C**, contains beneficial nematode, *Heterorhabditis bacteriophora*.



Chafer grubs killed with **NemaTrident®C**

Life cycle of Welsh Chafer

(optimum times for application of nematode to control larvae indicated in highlighted areas).



Comparative efficacy results of pesticide and **NemaTrident®C** with or without soil conditioner

Legend:
■ NemaTrident®C
■ NemaTrident®C + Approved soil conditioner
■ Chlorpyrifos