



nema-green®

**Biological Control of
Chafer Grubs**



THE PROBLEM



Turf turns yellow and brown despite watering and can be easily rolled off. Damage is caused by C-shaped white grubs that feed on the roots.

Garden chafer (*Phyllopertha horticola*)

About 9 mm long, metallic-green head, reddish brown wings.



The garden chafer is the most common turf pest in Europe. Adults emerge from late May to early June. Swarms of males searching for emerging females on late mornings are typical for garden chafer. They mate immediately and females burrow back into the ground to deposit 80 % of their eggs. Therefore, controlling the adults doesn't prevent damage, since they have already laid most of their eggs.

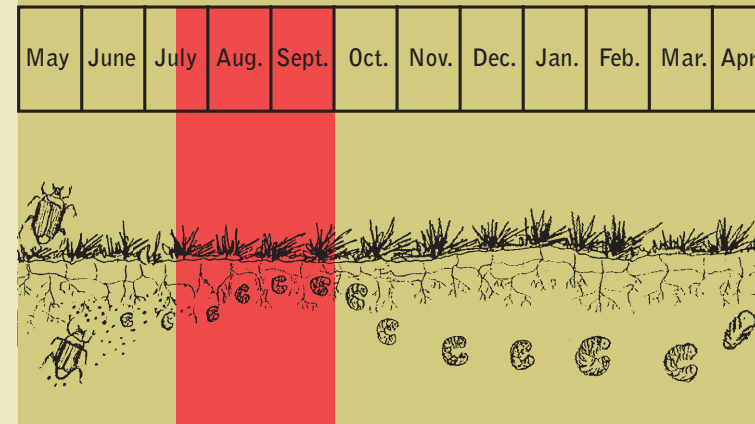
Garden chafer grubs



Healthy grub (white) and nematode infected grub (red)

Life Cycle

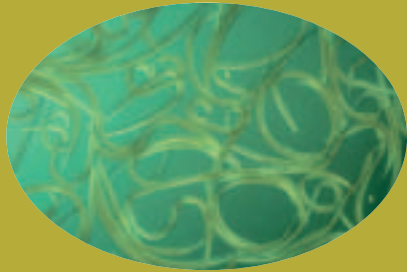
The best time to apply nema-green® is from mid July to the end of September. The earlier it is applied, the better the control.



Eggs hatch 3-5 weeks after appearance of the chafers. Damage is caused from mid July, when the grubs move to the upper soil layer and cut off the grass roots. From mid-August badgers, foxes and birds damage the turf while searching for the protein-rich grubs. These stay in the upper layers up to mid-October when they migrate to deeper soil horizons to hibernate.

THE SOLUTION

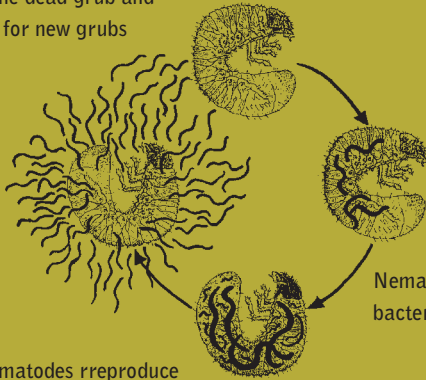
nema-green® contains insect-pathogenic nematodes of the species *Heterorhabditis bacteriophora*.



HOW NEMA-GREEN® WORKS

Thousands of new nematodes leave the dead grub and search for new grubs

Nematodes enter living grub



Nematodes release bacteria and kill grub

Nematodes reproduce inside the dead grub

Nematodes

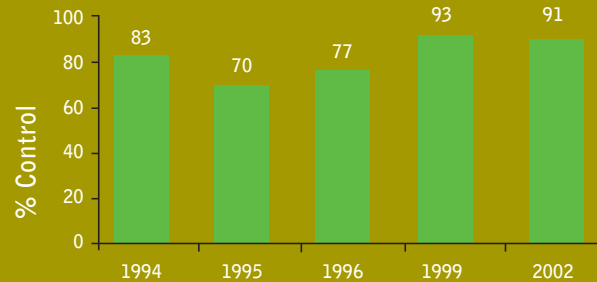
- are naturally occurring enemies of chafer grubs.
- are safe for beneficial insects, plants, pets and humans.
- have been used for over 12 years by professional horticulturists, greenkeepers and landscape gardeners.

EFFICACY

In field experiments performed by the University of Kiel up to 93 % of grubs were killed by nematodes.

Control rates increase continuously in the weeks following the treatment, due to nematode-recycling inside the infected grubs.

Results of field tests, University of Kiel



APPLICATION TIPS

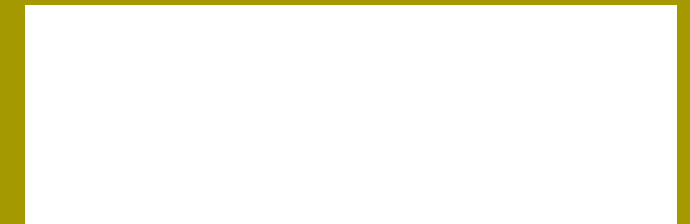
- nema-green® is mixed with water and applied with a watering can or conventional spraying equipment.
- Apply to moist soil and irrigate after application with 1-2 litres of water / m².
- Maintain the soil moisture for 3-4 weeks after application.
- Use of wetting agents improves nematode establishment.



nema-green® is available in different pack sizes suitable for treatment of 50 m² to 10,000 m².

NEED FURTHER INFORMATION?

Please contact us! We would be pleased to answer your questions!



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