

nematop[®]

Biological Control of Black Vine Weevil with *Heterorhabditis bacteriophora*

AREA OF APPLICATION

Adult weevils of *Otiorhynchus sulcatus* overwinter or next generation adults emerge from late May to early July. They feed on leaves at night and hide during the day in the soil or under litter. Egg laying begins two weeks after hatching from the pupa and larvae hatch two weeks later. Root damage from larval feeding is most severe through autumn and again in spring as temperatures begin to rise.

MODE OF ACTION

The active ingredient is the entomopathogenic nematode *Heterorhabditis bacteriophora*, a naturally occurring enemy of Vine Weevil larvae. The nematodes enter the larva through natural body openings and invade the insect body cavity. They release symbiotic bacteria that multiply and kill the larva. While feeding on the bacteria, the nematodes reproduce. After two weeks, thousands of new nematodes emerge and search for further prey.

APPLICATION

nematop[®] is effective against larvae and pupae and should therefore be applied in April/May and from August until October. Soil temperatures should stay above 12°C at daytime. In times with lower temperatures **nemamax[®]**, which contains the cold-active nematode *Heterorhabditis downesi*, can be used.

nematop[®] can be applied using conventional spraying equipment, as a drench by dipping or through drip irrigation. Apply 500,000 nematodes per m² for soil, 10,000 nematodes per liter of substrate for container cultures and 25,000 nematodes per plant for strawberries.

EFFICACY

In trials carried out by research stations in France, Germany and UK using **nematop[®]** to control Vine Weevil in yews, rhododendron and strawberries, efficacy of > 80% have been achieved.

**Further information needed?
Please contact us!
We will be happy to answer
your questions!**

e-nema GmbH

Klausdorfer Str. 28-36

24223 Schwentinental

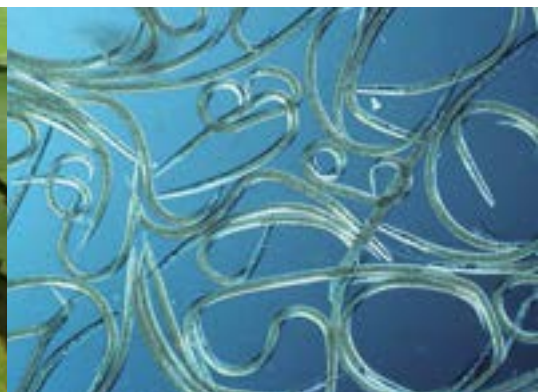
Germany

T+49 (0)4307-82 95 0

F+49 (0)4307-82 95 14

info@e-nema.de

www.e-nema.de



Black Vine Weevil (*Otiorhynchus sulcatus*)

Larvae cause severe damage on plant roots.

Proof of Infestation

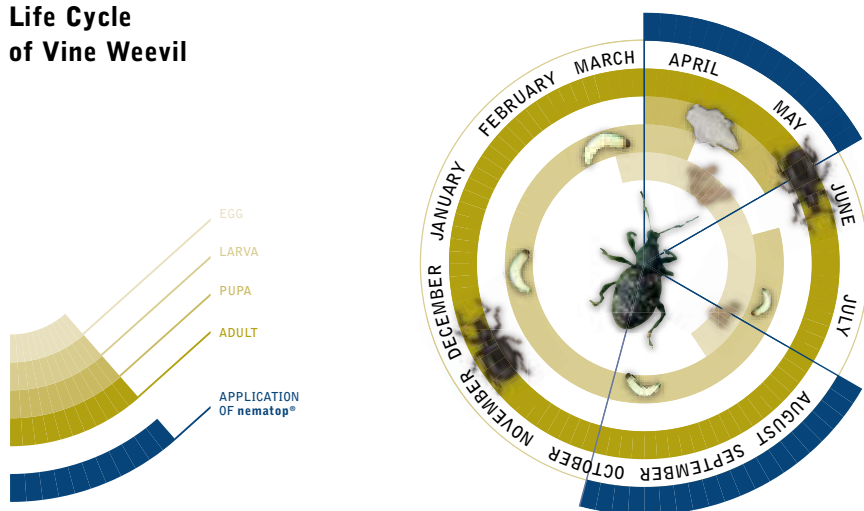
Notches around the edges of leaves indicate weevil infestation.

Heterorhabditis bacteriophora

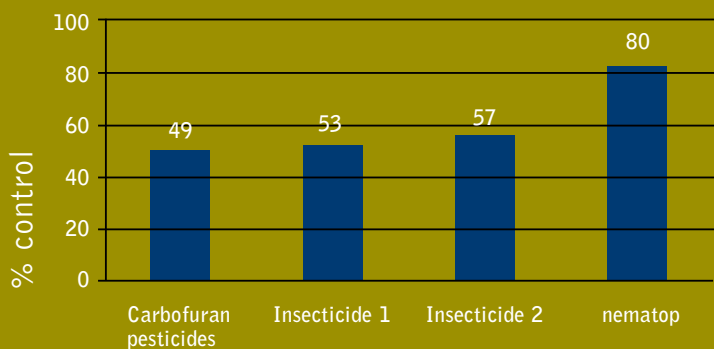
Kills larvae and pupae in spring and autumn within a few days.



Life Cycle of Vine Weevil



Efficacy of different pesticides to control Black Vine Weevil



University of Kiel

