



nematop®

Effective Biological Control of

Black Vine Weevil

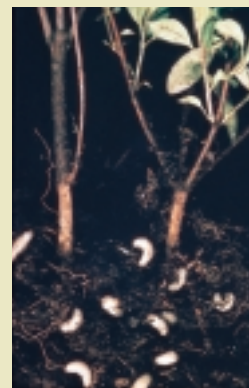


THE PROBLEM:



Characteristic notching of leaves caused by adult weevils.

By far the most severe damage is caused by the larvae, which feed on roots, rhizomes and the bases of woody stems. They may girdle the root crown, and strip bark from woody stems. Even large plants can wither and die within a short period of time.

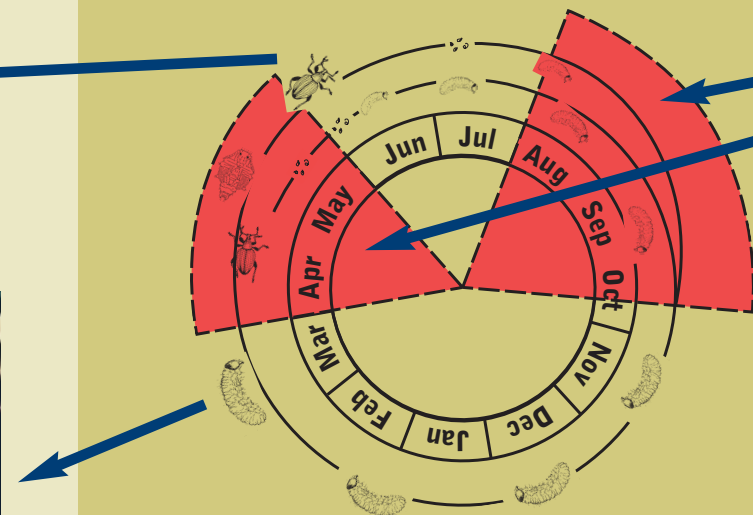


By examining the stem base and the root-zone area, the larvae can be detected at an early stage and effectively controlled with **nematop®**!

Plants attacked:

More than 200 species of crop plants and ornamentals are known to be particularly susceptible to vine weevil attack, including strawberry, raspberry, blackcurrant, blueberry, grapevine, yew, rhododendron, azalea, euonymus, camellia, cyclamen, rose, geranium, and primula.

THE PEST (*OTIORHYNCHUS SULCATUS*):

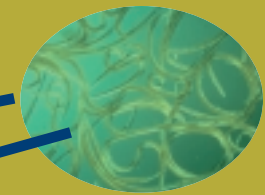


Life cycle of vine weevil (Optimum times for application of nematodes indicated in red)

The adult weevils (ca. 8-13 mm long) emerge from late May to early July. They feed on leaves at night, and hide during the day in the soil or under litter. Laying of eggs may begin after 3-4 weeks, and larvae hatch some 2-3 weeks later. Root damage from larval feeding is most severe through the autumn, and again in the spring as temperatures begin to rise. Larvae over-winter deeper in the soil and finally pupate in late spring.

nematop® is only effective against larvae and pupae and should therefore be applied during April / May and from August to the end of September. Soil temperatures should be above 11°C for at least several hours per day.

THE SOLUTION:



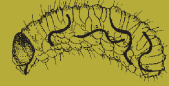
Thousands of new nematodes leave the larva and search for further larvae to infest



The nematodes search actively for vine weevil larvae and pupae and enter them



The nematodes reproduce inside the dead larva



The larva dies after 2-3 days

Nematode Development inside the Larva

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

- These nematodes are naturally occurring enemies of vine weevil larvae.
- They search actively in the soil for vine weevil larvae and pupae.
- Our research has shown that the nematodes can survive in the soil for several months in the absence of weevil larvae.
- Nematodes have been used for over 12 years by professional horticulturists, for the control of vine weevil.

In trials carried out by research stations in Germany and France, using **nematop®** to control vine weevil in yews and strawberries, control rates of up to 95% have been achieved.

nematop®

- is highly effective, often even more effective than chemical control measures.
- gives a long-lasting period of control, which even improves at higher pest densities.
- is only active against insect larvae. Humans, plants and beneficial organisms are not affected.
- is easily applied as a drench or dip; or with conventional spraying equipment; or through drip-irrigation systems.



Young plants, e.g. bare-rooted or containerised liners, can be dipped into a suspension of **nematop®**

- Application rate: 0.5 million nematodes per m² or 5,000 nematodes per liter compost.
- **nematop®** is available in 3 different pack sizes, suitable for treatment of 20m², 100m² or 1,000m².
- **nematop®** is produced subject to strict quality control, in accordance with the guidelines of the international working group on entomopathogenic nematodes.



Further information needed?

Please contact us ! We will be happy to answer your questions!

nematop® is produced by:
e-nema GmbH

Klausdorfer Str. 28-36, D-24223 Raisdorf, Germany

Tel: +49 4307-82 95 0 www.e-nema.de

Fax: +49 4307-82 95 14 info@e-nema.de

