

nemamax[®]

Biological Control of Black Vine Weevil with *Heterorhabditis downesi*

AREA OF APPLICATION

nemamax[®] controls larvae and pupae of vine weevils (*Otiorhynchus sulcatus*, *O. armadillo*, *O. dieckmanni*, *O. rugosostriatus*, *O. salicicola*, *O. smierczkii*, *O. ovatus*) in nurseries and soft fruit farms and larvae of pine weevils (*Hylobius abietis*) in forestry.

MODE OF ACTION

nemamax[®] contains entomopathogenic nematodes of the species *Heterorhabditis downesi*. The nematodes forage for an insect host in soil, enter through natural openings and release bacterial cells that kill the host within 48 hours.

The nematodes develop to adults and mate feeding on bacterial cells and degrading host tissue. As the nutrition quality within the cadaver deteriorates, the nematodes develop into infective juveniles, emerge from the cadaver and seek new hosts. Under ideal conditions, new nematodes emerge within 12 -14 days after infection.

APPLICATION

nemamax[®] is effective at lower temperatures than other *Heterorhabditis* species and should therefore be applied from February – May and from September – October. Soil temperatures should stay above 8°C for several hours a day.

nemamax[®] can be applied using conventional spraying equipment, as a drench by dipping or through drip irrigation. Apply 250,000 – 500,000 nematodes per m² for soil, 2,500 – 5,000 nematodes per liter of substrate for container cultures and 25,000 nematodes per plant for strawberries.

EFFICACY

nemamax[®] shows excellent results in field trials and gives better results against black vine weevil than other *Heterorhabditis* species in the temperature range from 6-12°C and better results than *Steinernema* species in the temperature range from 12-30°C.

nemamax[®] gives excellent control against the black vine weevil *Otiorhynchus sulcatus* but is particularly suitable to control other emerging pest species in the genus *Otiorhynchus*, like *O. armadillo*, *O. salicicola* and *O. dieckmanni*.

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

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Black Vine Weevil (*Otiorynchus sulcatus*)

Larvae cause severe damage on plant roots.



Other weevils like *Otiorynchus armadillo* become more and more widespread.

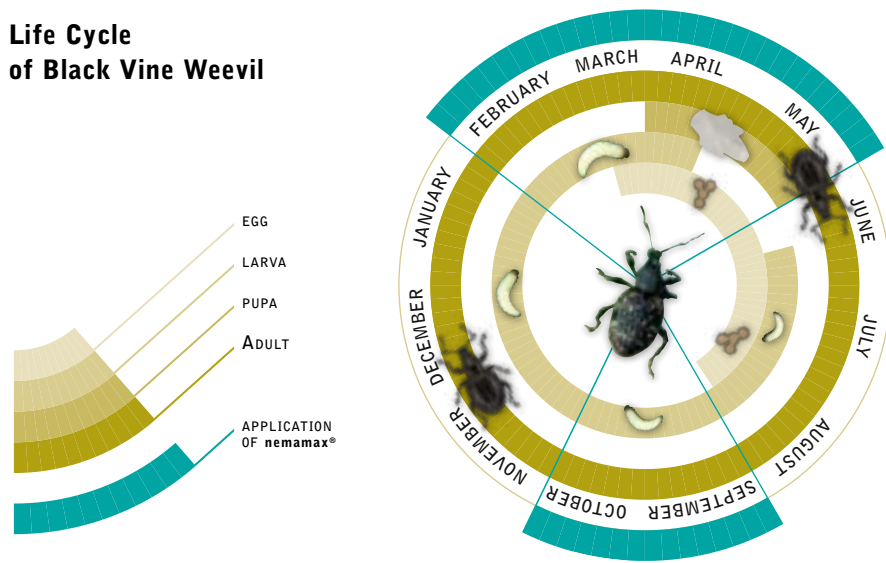


Beneficial Nematodes (*Heterorhabditis downesi*)

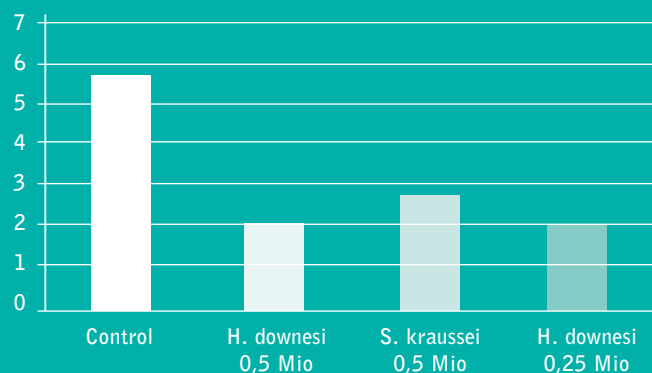
A new *Heterorhabditis* species active at low temperatures.



Life Cycle of Black Vine Weevil



Efficacy against Black Vine Weevil at 6 to 12°C



Pot trial Schleswig Holstein Chamber of Agriculture 2019



CONTROL OF BLACK VINE WEEVIL AND CHAFER GRUBS

nemamax® Responsible. Innovative. Pioneering.

For effective control of black vine weevil larvae and chafer grubs

CAUTION
CONTAINS BENEFICIALS
NEMATODES
STORE AT 4-8°C
DO NOT FREEZE

e-nema® Biological Plant Protection