

nemaflor[®]

Biological Control of Western Flower Thrips with *Steinernema feltiae*

AREA OF APPLICATION

nemaflor[®] is applied against soil dwelling nymphs of the Western Flower Thrips (WFT) *Frankliniella occidentalis*. WFT is the major pest in glasshouse production of vegetables, soft fruit and ornamentals. *Chrysanthemum*, *Streptocarpus*, *Saintpaulia*, *Gloxinia* and vegetables like pepper, aubergines, cucumbers and tomatoes are highly susceptible. WFT is sucking on flowers and leaves causing deformations of fruit and flowers. A major damage is also caused by transmission of viruses, particularly the Tomato Spotted Wilt Virus. WFT has acquired resistance against all available insecticides. Most biological control agents only target foliage-inhabiting stages. Virus transmission, however, is through adults emerging from the soil, why a control of the pupa and pre-pupa in the soil is necessary.

MODE OF ACTION

nemaflor[®] contains the entomopathogenic nematode *Steinernema feltiae*. It controls the pro-nymph (pre-pupa) and nymph (pupa) of WFT. Larval stages of WFT descend into the soil to develop to adults, particularly if predators colonize the leaves. The nematodes seek for the insects, invade through natural openings and advance into the body cavity, where they release symbiotic bacteria. The insect dies 1-2 days after invasion. The nematodes feed on the bacteria and propagate. **nemaflor[®]** is safe to beneficial insects, users, consumers and the environment.

APPLICATION

nemaflor[®] is a gel formulation. Other than the powder formulation, this product avoids powder residues on flowers, leaves and fruits after spraying. **nemaflor[®]** should be applied weekly at 125,000 - 250,000 nematodes per m². Apply as a spray or drench or through irrigation systems. If it is sprayed, adjust spray-volume until run-off and spray in the evening at high relative humidity to avoid rapid desiccation on the leaves. Buds, flowers and leaves should stay moist for at least 3 hours after application. **nemaflor[®]** works best at substrate temperatures between 10-28°C.

EFFICACY

In trials carried out on ornamental plants by German and Dutch research stations good efficiency was achieved with **nemaflor[®]**. The key for success is routinely application of **nemaflor[®]** throughout the growing season. **nemaflor[®]** should be used as an additional tool for WFT management. It is best combined with predatory mites, bugs and entomopathogenic fungi.

Further information needed?

Please contact us!

**We will be happy to answer
your questions!**

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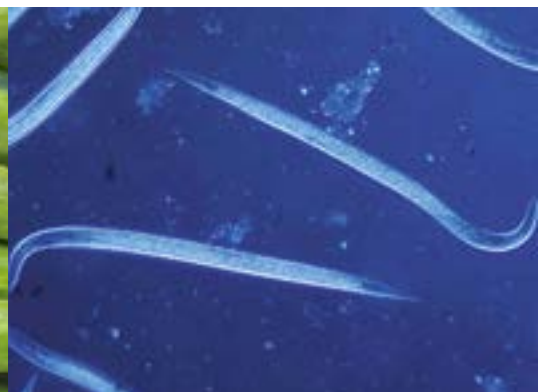
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**Western Flower Thrips
(*Frankliniella occidentalis*)**

Besides causing spotted flowers, thrips transmit viruses.

No spray residues

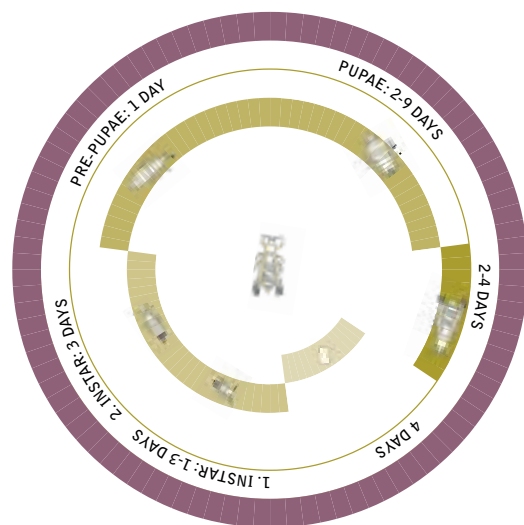
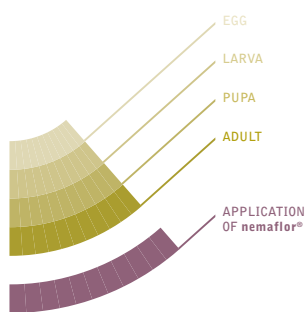
nemaflor® is a special formulation, which avoids residues on flowers, fruits and vegetables.

Steinernema feltiae

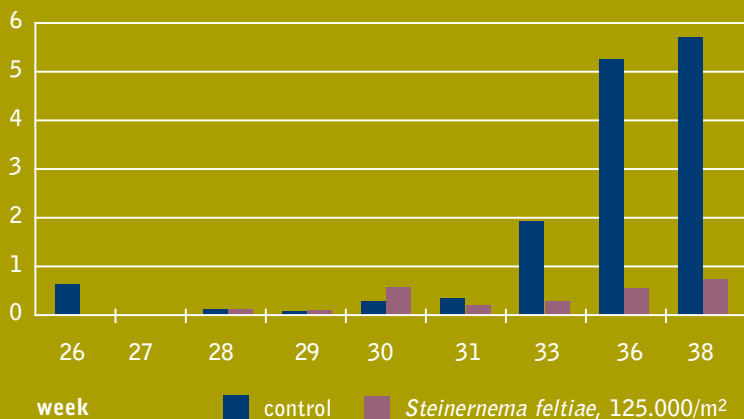
nemaflor® controls developmental stages of thrips on plants and in the growing media.



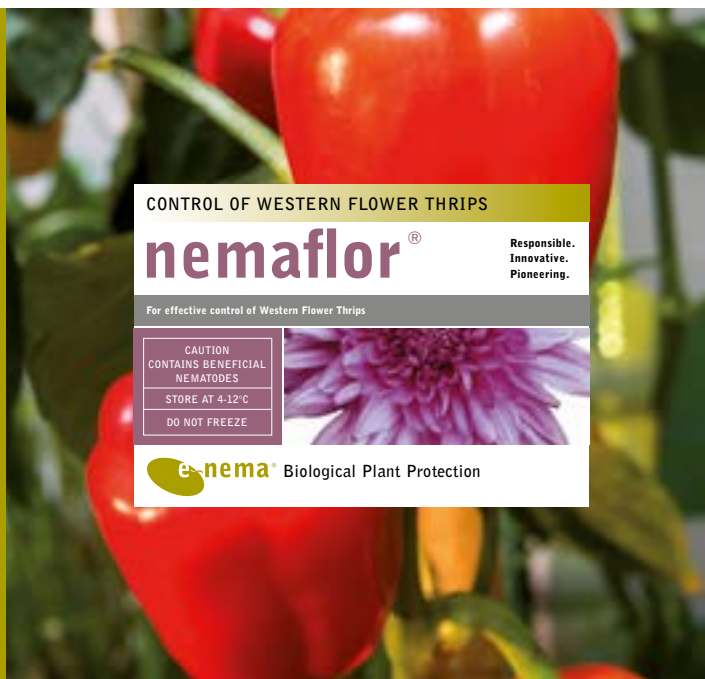
Life Cycle of Western Flower Thrips



Number of Thrips per flower of Streptocarpus



Dr. Albert, LfP Stuttgart, 2002



CONTROL OF WESTERN FLOWER THRIPS

nemaflor® Responsible. Innovative. Pioneering.

For effective control of Western Flower Thrips

CAUTION
CONTAINS BENEFICIAL NEMATODES
STORE AT 4-12° C
DO NOT FREEZE

e-nema® Biological Plant Protection