



**nemaplus<sup>®</sup>**  
**Biological**  
**Control of Sciariids**

**THE PROBLEM**  
**Sciariid Fly (*Bradysia* spp., *Lycoriella* spp.)**

Sciariid flies, also known as fungus gnats, are small, black, midge-like flies, 3 - 4 mm long. They can be distinguished from other fly pests by their two long antennae. They are poor flyers and often rise in clouds when disturbed.



Sciariid fly  
(3-4 mm)

Damage is caused by the larvae feeding on roots and stalk tissue of seedlings, cuttings and younger plants. They tunnel into roots and stems thus creating entry points for fungal and bacterial diseases. As a result plants may collapse and die.



Sciariid larva,  
2-5 mm long,  
transparent with distinct  
shiny black head

Potted plants known to be susceptible to sciarid attack include poinsettia, azalea, cyclamen, kalanchoe, exacum, gerbera and begonia.

**THE DAMAGE**



Poinsettia cutting after  
Sciariid larvae attack.

This damage can be effectively prevented by using nemaplus!

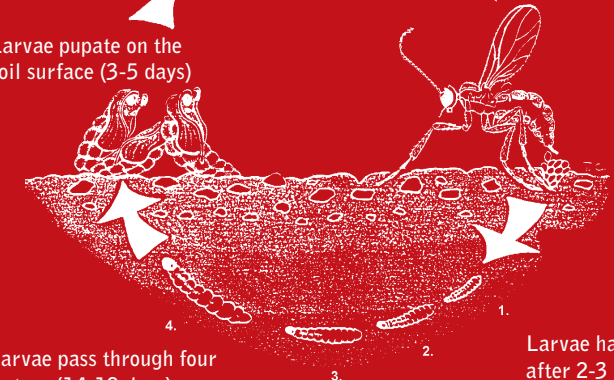
**LIFE CYCLE OF SCIARIID FLIES**

Copulation on the soil surface during the first day after emergence



Deposition of 100 - 200 eggs in batches of 20 - 30

Larvae pupate on the soil surface (3-5 days)



Larvae pass through four instars (14-18 days)

Larvae hatch after 2-3 days

Veg.

Adult flies live for 7 days in which gravid females lay approx. 200 eggs on the surface of plants and potting mixture. Development from egg to adult takes about 4 weeks at 24°C. The short life cycle together with the high propagation rate can lead to extreme increases in fly numbers.



## THE SOLUTION

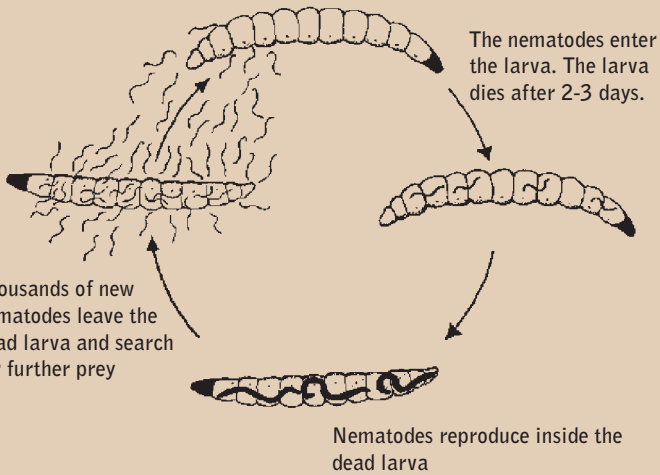
nemaplus® contains insect-pathogenic nematodes of the species *Steinernema feltiae*.



Sciariid larva infected with *Steinernema feltiae*

## MODE OF ACTION

The nematodes actively search for sciariid larvae



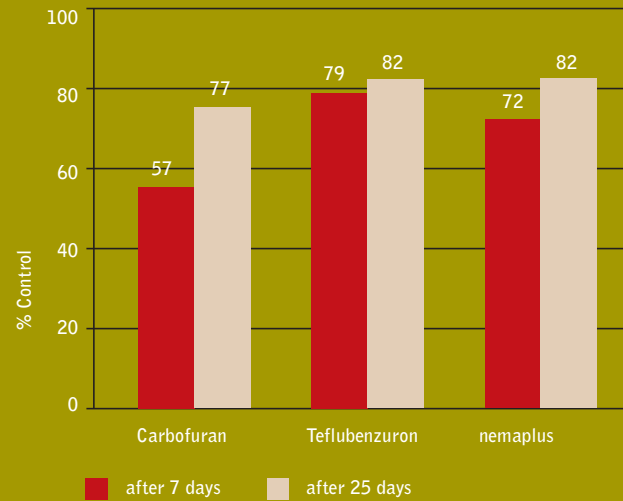
### Nematodes of the species *Steinernema feltiae*

- are naturally occurring enemies of sciariid larvae.
- kill sciariid larvae within a few hours.
- are safe for beneficial insects, plants, pets and humans.
- have been used for over 10 years by professional horticulturists for the control of sciariid flies.

## EFFICACY

In trials carried out by research stations in Germany, using nemaplus® to control sciariid flies in potted plants, control rates of over 80 % have been achieved.

### Plant Protection Service Hanover, 2000



### nemaplus®

- is mixed with water and applied through conventional spraying equipment or irrigation systems
- should be used routinely and preventatively as soon as possible after sowing seeds or inserting cuttings.
- works best in warm, moist soil (minimum 12°C, maximum 28°C).
- is available in different package sizes suitable for treatments of 10 m<sup>2</sup> to 1,000 m<sup>2</sup>.
- Application rate: 0.5 million nematodes per m<sup>2</sup>.



## NEED FURTHER INFORMATION?

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

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