# nemycel® phorid fly

## Control of Phorid fly larvae

**General Description**
nemycel® phorid fly contains entomopathogenic nematodes of the Steinernema species for biological control of phorid larvae in mushrooms production.

**Storage**
nemycel® phorid fly should be used as soon as possible upon delivery.
The package may be stored for a limited period of time at 2 to 8 °C (36 to 46 °F). It should never be frozen or exposed to temperatures higher than 30°C (86 °F).

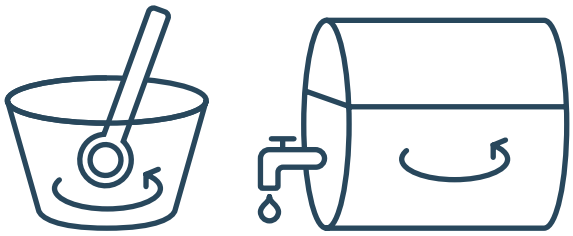

**Application conditions**
Phorid larvae or adults should be present in the compost at application to enable nematodes to multiply in the insects.

The nematodes are infective at compost temperatures up to 30°C (86°F). At higher temperatures, nematode efficacy decreases. Nematodes infect best in casing with 70 % water content. They cannot swim and therefore cannot move in a water-saturated casing.

**Directions for Use**
nemycel® phorid fly is delivered on an inert carrier. It dissolves in water and forms a suspension that is easily applied to the crop. Remove all sieves. Use nozzles with at least 0.8 mm diameter. Pressure should not exceed 5 bar (80 psi).

Apply 1.6 million nematodes per m²
(150 million per 1,000 sq ft) at casing or immediately afterwards, at latest on day 2.
Repeat the application with first watering on first flush 18 - 20 days after casing.


Mix the solution thoroughly for 3 minutes and continue mixing during spraying to avoid sedimentation of the nematodes!



**Packaging**

| Package Size | Treated Area | |
|---|---|---|
| 250 million | 150 m² (1,600 sq ft) | Adjust dose rate accordingly for other areas. |
| 500 million | 300 m² (3,200 sq ft) | |

**Compatibility**
nemycel® phorid fly can be tankmixed with SporGon or Vivando. Sodium hypochlorite at a concentration of 0.05 % has no effect. Chlorine up to 50 mg per liter of water has no effect. Hydrogen peroxide should be applied 3 days before or after nemycel application.

For any questions ask your supplier or send us an email at
mushroom@e-nema.de

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# Phorid and Sciarid Flies

nemycel® phorid fly

**Phorid larvae** *(Megaselia halterata)* are obligate mycelial feeders therefore the adult flies are not attracted to oviposit in the compost until after spawning. The larvae are white, 1 to 6 mm long, are stubby at one end and have a pointed head at the other. They feed on the growing mushroom mycelium but rarely feed on the fruiting body itself. They can be distinguished from sciarid larvae by the absence of the black head and they develop more rapidly into a pupa.

The adult fly is 2 to 3 mm long, has very short antennae and a characteristic hump-back. It can be distinguished from the sciarid fly by the short antennae and by its rapid, jerky, running movement.

Adult phorids act as a vector for Verticillium fungicola. 75 flies per m2 (7 per sq ft) may already cause an outbreak of the disease. They are unable to fly when the temperature falls below 12˚C (54˚F) and are therefore unlikely to re-infest mushroom houses between late autumn and early summer.

**Sciarids** *(Lycoriella ingenua)* are compost feeders and prefer unspawned compost to that colonised by Agaricus mycelium. The adult flies are attracted by volatiles from the compost so they may infest at any time after pasteurisation when the compost is cool. The adults are 3 - 4 mm long and can be distinguished from the other fly pests of mushrooms by their long antennae.

The females deposit between 50 to 200 eggs in the compost and the developing larvae pass through four moults varying in size from 1 to 8 mm long before pupating. They are easily recognised by their black shiny heads. They feed on rotting vegetation, so mushroom compost is an ideal substrate for them.

Sciarid larvae are more harmful to mushroom growing than the phorid larvae, as they are bigger and the larval stage lasts longer.

**Life cycle (in days) at 18 – 20˚C (65 – 68˚F) of phorid and sciarid flies**

| | Phorids | Sciarids | |
|---|---|---|---|
| Egg | 2 | 3 | not susceptible |
| Larva | 9 | 14 | susceptible |
| Pupa | 14 | 4 | not susceptible |
| **Total** | **25** | **21** | |

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