

# ENTONEM - Directions For Use

## Unit of Packaging

ENTONEM pack size: blister in a box

Contains: 50 million larvae (third stage) in inert carrying material

Large ENTONEM pack size: 2 bags in a box

Contains: 2 x 250 million larvae (third stage) in inert carrying material

**Target:** Larvae of Sciarid flies (Sciaridae).

## Preparation of Solution

- put the contents of the package into a bucket containing 1 -2 gal of water (15-20°C/59-68°F)
- stir well and leave the solution to soak for 20-30 seconds
- stir well again and pour the entire content into spray tank
- fill up with the required amount of water
- spray immediately after preparation
- use the whole package at once, the distribution of nematodes in the pack is not homogenous!

| ENTONEM        | rate   | m <sup>2</sup> /unit | ft <sup>2</sup> /unit | interval | frequency | remark |
|----------------|--|----------------------|-----------------------|----------|-----------|--------|
| preventive     | -  | -                    | -                     | -        | -         | -      |
| curative light | 500,000/m <sup>2</sup> (46,468/ft <sup>2</sup> ) | 100                  | 1076                  | -        | 1x        | -      |
| curative heavy | 500,000/m <sup>2</sup> (46,468/ft <sup>2</sup> ) | 100                  | 1076                  | 2 weeks  | 2x        | -      |

## Application and Dose

- with a watering-can, irrigation system, knapsack or motorized sprayer
- to avoid blockage, all filters should be removed
- use a maximum pressure of 5 bar
- the spray nozzle opening should be at least ½ mm (500 micron)
- spread the spraying solution evenly over the area to be treated
- continuous mixing should take place to prevent nematodes sinking to the bottom of the spray tank
- water the crop before and after application
- keep the soil moist for the first 2 weeks after application

## Soil application against Sciarid flies

- rate 0.25-1 million nematodes per m<sup>2</sup>
- amount of spray solution depends on application method
- water the crop before and after application
- keep the soil moist for the first 2 weeks after application

## Leaf application against thrips

- use 0.25 million nematodes per m<sup>2</sup> dissolved in 0.125 l spray solution (=1250 l/ha)
- add some wetting agent to improve efficacy
- spray the crop evenly with the ENTONEM solution
- repeat treatment weekly as long as necessary

## DO NOT:

- **Apply in direct sunlight.** Early morning or evening applications should be made to avoid sunlight. Direct sunlight will kill nematodes.
- **Leave nematodes in hot vehicles.**
- **Leave nematodes in spray tanks for long periods.** Apply immediately after mixing.

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## Environmental Conditions

- the humidity content of the soil must be high
- soil temperature between 13-25°C/56-77°F

## Storage and Handling

- storage after receipt: see package for expiry date
- storage temperature: 2-6°C/36-42°F
- in the dark
- remove product from insulating outer for rapid cooling of content

## Appearance

- Larvae (third stage): size 0.7-1.0 mm
- Other stages: develop inside host

## Mode of Action

The nematode enters the larva of the sciarid fly via mouth, anus or respiratory openings and starts to feed. This causes specific bacteria to emerge from the intestinal tract of the nematode. These spread inside the insect and multiply very rapidly. The bacteria convert host tissue into products which can easily be taken up by the nematodes. The sciarid larva dies within a few days.

## Visual Effect

Infected insects color yellow to (light) brown and become slimy. Hence they are difficult to observe in the soil.