Entomopathogenic nematodes *Steinernemae feltiae*

For the control of over wintering codling moth larvae

**General information**

**Effect**
By the application of nematodes in autumn, over wintering codling moth larvae are controlled efficiently. As a result, pest pressure in the following spring is considerably reduced. Over wintering larvae die within 48 hours after the treatment.

**How does it work?**
Nematodes (ca. 0.5 mm long) actively seek out their insect hosts. When a host has been located, the nematodes penetrate into the insect body and release a bacterium, which multiplies rapidly and causes rapid insect death. The nematodes feed upon the liquefying larvae, and mature into adults. The life cycle is completed in a few weeks, and hundreds of thousands of new nematodes emerge in search of fresh insect hosts. Nematodes are effective in the soil for 3 – 6 weeks. When there are no new hosts present, the nematode population will quickly decrease.

**Application conditions**
Humidity: The essential factor for a good efficacy is humidity. Rain, drizzle, mist or dew after / during the treatment favours a good efficacy. If humidity conditions are not favourable – use micro sprinklers or overhead irrigation prior and immediately after the application (min. 2.5 mm, 25000 l/ ha). But avoid washing off the nematodes from the bark.

Nematodes are susceptible to direct sunlight. Therefore apply in the evening or late afternoon, so that the trunk does not dry off during the night. The bark should remain wet for at least 12 hours after the application.

Temperature: Air temperatures should be at least 8°C for several hours after the treatment in order to guarantee sufficient nematode activity.

**Dosage**
- 1.5 Billion nematodes/ ha (trunk and full crown) for orchards that are older than 5 years.
- 0.75 Billion nematodes/ ha/ m tree trunk for orchards that are younger than 5 years. It is sufficient to treat only the stem (turn off top nozzles of fan sprayer).
- Water volume: minimum 1000 l per ha if combined with rain or irrigation.

Pay special attention to a thorough treatment of the trunk base and area below the tree. Make sure that supporting wooden/ bamboo poles are treated as well.

**Treatment**
Larvae mostly hide in the area around the tree base as well as in fissures in the bark but also on branches, monilia infested fruits and the area below the tree. Other possible hideouts are crackly poles or bamboo sticks.
In older plantations it is recommended to treat the whole tree including the trunk base and the area below the trees. Pay special attention to a thorough treatment of all potential hiding places for overwintering larvae.

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Spray mixture
1. Clean tank well, especially after insecticide application
2. Dissolve packages into a bucket of tap water and stir well
3. Partly fill the tank with cool clean water
4. Start agitator and add content of the bucket into the spray tank
5. If necessary add wetting agent to increase the motility of nematodes
6. Dilute the mixture to the required quantity of water in the tank
7. Keep agitator running during application to prevent nematodes sinking to the bottom of the spray tank
8. The stock should be applied immediately after preparation.

Equipment
• To avoid blockage, all filters should be removed
• Use a maximum pressure of 5 bar
• The spray nozzle opening should be at least 0.5 mm (500 micron)

■ Precautions
• Keep agitator running during application
• Do not use product after the expiry date or incorrect storage

■ Protection
• Keep away from children.
• Wash hands and face with soap after application.

■ Storage
• Use nematodes as soon as possible after receipt.
• See package for expiry date
• Storage temperature after receipt: 2 – 6 °C in the dark
• Do not freeze the product
• Do not store mixed suspension

Limitation of liability
The instructions for use are a general guideline. Numerous factors, such as application technique, population density, incorrect storage and failure to observe the required waiting period after a chemical control, can influence the efficiency of the product. Andermatt Biocontrol AG cannot be held responsible for any risks. Please follow the instructions carefully or ask for help. Liability is disclaimed for insufficient quality or possible damage arising from circumstances outside of our jurisdiction.

Contact
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