Product data sheet

Capyphor

Heterorhabditis bacteriophora | Entomopathogenic nematodes



- For the control of weevils and other beetles in a wide range of crops
- Can be applied with regular spray equipment
- Highly soluble biodegradable formulation

Use for

Capyphor can be used for biological control of larvae of weevils and other beetles in a wide range of crops.

Pests

Beetles (Coleoptera):

- Weevils (Curculionidae): Citrus root weevil (*Diaprepes abbreviatus*); Blue green weevil (*Pachnaeus* spp.); Black vine weevil (*Otiorhynchus sulcatus*) and other *Otiorhynchus* spp.; South American fruit tree weevil *(Naupactus xanthographus)*
- White grubs (Scarabaeidae) mainly from the following species (not exhaustive): European chafer (*Amphimallon majale)*; Summer chafer/June beetle (*Amphimallon solstitialis*); *Amphimallon aestivus*; Dune chafer (*Anomala dubia*); Oriental beetle (*Anomala orientalis*) *Anoxia villosa;* Dung beetles (*Aphodius* spp.); Asiatic garden beetle (*Autoserica castanea*); *Hoplia* spp.; Common cockchafer (*Melolontha melolontha*); Common garden chafer (*Phyllopertha horticola*); *Phyllophaga* spp.; Japanese beetle (*Popillia japonica*); Brown chafer (*Serica brunnea*)
- Wireworms/ click beetles (*Agriotes* spp.)
- Flea beetles (*Phyllotreta* spp.)
- Caterpillars (Lepidoptera)
- Common swift moth (*Korscheltellus lupulina*)

How it works

Mode of action

The nematodes enter the pest and release symbiotic bacteria into the pest's body cavity. These bacteria convert the host tissue into a food source, on which nematodes feed, develop, and reproduce inside the host. This kills the pest within a few hours to days after infection.

Visual effect

Infected pest insects in the root zone turn red to brown but may be difficult to find, due to rapid degradation.

Life cycle

The third larval (or infectious juvenile) stage of the nematodes infect the pest through its natural openings and carries bacteria (*Photorhabdus* spp.) into the insect body. The bacteria produce toxins that kill the insect and convert the host tissue into a food source for the infective juveniles, which further develop to fourth stage larvae. These larvae develop to male and female adults, which reproduce sexually. Females lay eggs and the first and second larval stage of the nematodes develop inside the host insect. The third larval stage is the only stage that can survive outside the host as it does not feed but uses internal reserves.

Product specifications

Pack size

3,000 million - 4 sachets of 750 million in a box.

Developmental stage

Infective third-stage larvae (L3).

Concentration

86% *Heterorhabditis bacteriophora* – 14% inert biodegradable carrier.

Directions for use

Preparation

- Remove the sachets from the box and keep them at room temperature for 30 minutes
- Empty the contents of the sachets into a bucket containing at least six litres (1.5 gallons) of water per sachet (water temperature: 15-20°C/59-68°F)
- Stir well and leave the contents to soak for five minutes
- Stir again and pour the contents of the bucket into the half-filled spray tank (except when tank mixing with compatible products)
- Maintain agitation of mixture in the tank (*e.g.* with a recirculation pump)
- Fill the spray tank with the required amount of water
- If tank-mixing with a compatible product, add Capyphor at the end to a fully-filled tank
- Apply directly after preparation of the spray solution

Application

- Nematodes can be applied using a watering can, an airblast sprayer, through a sprinkler system, with a backpack sprayer, or a vehicle-mounted spray unit
- To avoid blockage, all filters should be removed, especially if finer than 0.3 mm (50 mesh)
- Use a maximum pressure of 20 bar/290 psi (on nozzle)
- The spray nozzle opening should be at least 0.5 mm (500 microns – 35 mesh) preferably high flow rate cone nozzle types
- Continuous mixing should take place to prevent nematodes sinking to the bottom of the spray tank
- Avoid sprayers equipped with centrifugal or piston pumps
- Water tank temperature must not exceed 25°C/77°F and pH must be between 4 and 8
- Distribute the spraying solution evenly over the soil/medium surface

Side Effects & Compatibility

- Pesticides can have (in)direct effects on biological solutions
- As a general rule for tank mixing, always add the nematodes to a fully filled tank containing the compatible product
- The product is safe for most beneficial insects and mites, but can have some effect on a few when in direct contact with foliar applied nematodes

Check the Koppert side effects database or contact your local representative for advice.

Product handling

Storage time after receipt

See expiry date on the box. On average product can be stored for 7 weeks.

Storage temperature

Refrigerate at a temperature of 2-6°C/35-43°F in a ventilated refrigerator/cold room.

Storage conditions

Upon receipt, take boxes out of the insulating shipment packaging.
Keep in a dark, ventilated refrigerator/cold room until use.

Disclaimers

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