

Nemasys®

Advanced Biocontrol for Horticulture
For control of sciarids/fungus gnats (*Bradysia* spp.), western flower thrips (*Frankliniella occidentalis*), leafminer and *Tuta absoluta* in greenhouse horticulture production

Contains the beneficial nematode *Steinernema feltiae* (90%) and an inert carrier with water (10%)

Product suitable in organic farming according to RCE n° 834/2007

RECOMMENDED RATES

Pest	Application method	Application volume	Dose	Pack size 50 million	Pack size 250 million
Sciarids/ Fungus gnats	Soil drench	1 litre/m ² (Propagation)	500,000/m ²	100m ²	500m ²
		1 litre/m ²	1,000,000/m ²	50m ²	250m ²
Western Flower Thrips	High volume foliar spray	0.1 litre/m ² (+/- to ensure leaf coverage with runoff)	250,000/m ²	200m ²	1,000m ²
Leaf miner*		*Avoid run-off for leaf miners that do not pupate in the soil	250,000/m ²	200m ²	1,000m ²
<i>Tuta absoluta</i>		400 – 4,000 litres/ha (+/- to ensure leaf coverage with runoff)	1,000,000/litre	50 L	250 L

DIRECTIONS FOR USE

- Remove all fine filters (50m mesh or smaller) from the application equipment.
- Partly fill the tank with cool, clean water.
- Empty one tray into a bucket and add a small volume of water to form a thick suspension.
- Stir the contents thoroughly making sure all lumps are fully dispersed before adding more water (normally a minimum of 10 litres).
- Add the nematode suspension to the tank and fill with water up to the required level.
- Start the agitator and keep running until the application is completed. If a propeller is used, ensure it does not run at high revolutions (below 150 rpm)
- Apply dose immediately to the whole crop at the appropriate rate.

Knapsack sprayer (20L capacity) application instructions (suitable for 50 million packs only):

Soil drench application for sciarids in propagation (100 m²)

- Disperse the entire contents of the pack in a bucket containing 10 litres of water to create a stock solution.
- Stir vigorously, immediately take 2 litre of the stock solution and add to knapsack fitted with a coarse spray nozzle and fill with cool, clean water.
- Apply the suspension to a fifth of the area to be treated. Keep the nematode suspension agitated as nematodes settle out quickly.
- Repeat steps 2 and 3 until the whole area is treated.
- Immediately after application water the treated area thoroughly to ensure nematodes are washed into the soil.

Dosing unit application:

- Set injection rate on dosing unit (normally 1%).
- Considering the pack size, injection rate, area to treat and recommended rates, calculate number of nematodes and volume of water required for a stock solution.
- Make up the stock solution and mix thoroughly to ensure that the nematodes are well dispersed. NOTE: If the suspension is too viscous add an additional known volume of water and adjust the injection rate accordingly.
- Place inlet tube into the stock solution and start the flow of water, so the dosing unit can start injecting nematodes into the outlet pipe.
- Start application ensuring the correct volume of water is being applied per unit area. Throughout application ensure that the nematode suspension remains agitated.
- Apply evenly to the whole area via lance, boom sprayer, sprinklers or drip irrigation system.

Drip irrigation application:

- Allow enough time for nematodes to reach the crop.
- Inject nematodes in the first half of the irrigation cycle and immediately flush the system with enough water to wash nematodes out of irrigation pipes in the second half.
- If multiple blocks are treated, use short irrigation cycles between blocks to ensure an even application of nematodes. Consider spot treatments of drop off zones at the end of drip lines with a lance or knapsack.
- Position irrigation drippers close to the base of the plant. When more than one dripper is used per pot, these should be distributed evenly around the base of the plant.
- Consult your supplier to determine suitability of your drip irrigation system.



APPLICATION CONDITIONS

Soil drench

- If using spray equipment, apply as a coarse spray ensuring nematodes reach the soil surface.
- Treat entire house or plant inventory as soon as pests are seen.
- Soil should be moist and between 10°C and 30°C during application and 2 weeks after.
- Avoid applications in direct sunlight; evening applications are recommended.
- If product is applied over foliage, irrigate immediately to wash nematodes onto substrate.
- Propagation crops require frequent applications to maintain effective nematode numbers in the soil.
- Repeat applications every 4 weeks depending on pest pressure.

High volume foliar spray

- Apply as a medium spray ensuring good foliar coverage with run-off to target the soil life stages of the pest. For pests that do not pupate in the soil, avoid run-off as nematodes will be lost.
- After application, ensure that the crop foliage remains wet for at least 2 hours. Close windows/ventilation during this period.
- Do not apply in direct sunlight – use blackouts during and for at least 2 hours after application.
- If using artificial lighting, switch off during and for at least 2 hours after application.
- Repeat foliar applications every 5-7 days until the pest has been controlled.

PRECAUTIONS

- Agitate nematodes constantly during application.
- Do not use product if past expiry date or incorrectly stored.
- For information relating to which chemicals are compatible with Nemasys® ask your distributor.
- Once opened, use each entire tray immediately (do not sub-divide or store opened packs or mixed suspension).
- Do not exceed 300 psi/20 bar/2000 kPa pump pressure.
- Nozzle aperture should be greater than 0.5 mm
- Suitable nozzles should produce a medium spray (foliar application) or coarse spray (soil drench) at the intended application pressure.

SAFETY PRECAUTIONS

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.

STORAGE AND DISPOSAL

Storage: Upon receipt, use immediately or store in a refrigerator at or under 5°C. DO NOT FREEZE. Avoid the constant opening of the fridge to minimize temperature fluctuations and do not overfill to allow the movement of cold air. Use entire contents of pack at one time. Do not split or subdivide individual packs as each contains a measured dose of nematodes. Do not store diluted product. KEEP OUT OF REACH OF CHILDREN. THESE PRODUCTS CONTAIN LIVING ORGANISMS THAT REQUIRE SPECIAL HANDLING AND APPLICATION PROCEDURES. FOLLOW THESE INSTRUCTIONS CAREFULLY TO OBTAIN MAXIMUM ACTIVITY.

Disposal: Product and packaging waste resulting from the use of this product, or unused, outdated product, may be disposed of on site or at any approved waste disposal facility in accordance with local regulations.

WARRANTY DISCLAIMER

BASF plc warrants that this product conforms to the description on the label and is reasonably fit for the purpose stated on the label when used in accordance with the directions. BASF PLC DISCLAIMS ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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The remedy for injury or damage for this product is limited to, in BASF plc sole discretion, replacement of the product or refund of the purchase price paid. Under no circumstance shall BASF plc be liable for incidental, consequential or special damages.

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