fargro®

Beneficial nematodes
Application Guide

OVERVIEW

This guide explains how to store, mix and apply beneficial nematodes. Follow the sections in order: storage, general handling, then the application method that matches your equipment.

1. STORAGE

ON DELIVERY

Remove individual packs from the box and store them in a refrigerator at 4°C.

Check the 'use-by' date on the pack — this is usually 2–6 weeks from delivery — and apply the nematodes before it.

2. BEFORE YOU START: GENERAL INFORMATION

Safety

- Nematodes are safe to users. There is no harvest interval or re-entry interval after treating a crop.

Mixing

1. Mix the nematodes initially in a bucket (approximately **10–20 litres**) before adding them to a spray tank.
2. Use **cool tap water only** not warm water. Ideal range is **10–15°C**, maximum **20°C**.
3. Use the **whole pack in one go**. Do not split packs.



Keep the Suspension Moving

Nematodes settle in still water at about **1 cm per minute**, so constant agitation is essential.

- A bubbler gives extra oxygen and agitation.
- A paddle stirrer is sufficient if the suspension will be used within a few hours.
- A plasterer's paddle fixed to an electric or battery-powered hand drill, run at low speed, works well and can be bought from builders' merchants.

Conditions to Avoid

- Do not expose nematodes to high temperatures or direct UV light.
- Do not apply to waterlogged soil or compost it will drown the nematodes. If you can squeeze water out of the compost, it is already too wet for a drench application; let the crop dry for a few days and re-test.
- Do not apply to compost that is dry at the surface nematodes will struggle to penetrate it. Water the compost a day or so before treating.

As a guide, once compost has dried, most nematodes will die. This matters for foliar applications too, as active life expectancy off the plant is no more than a few hours.

biosales@fargro.co.uk

Chemical Compatibility

Beneficial nematodes can be used alongside some chemicals. For a full list of compatible products, contact your local Fargro technical representative or Biosales.

Temperature Sensitivity by Product

Product	Activity
Entonem	Active across a wide range of soil temperatures, down to 5°C.
Larvanem	Requires soil temperature above 12°C to be active.
All products	Soil temperatures above 30°C can de-activate the bacteria inside the nematodes.

3. IRRIGATION APPLICATION WITH DOSATRON

Setup

- Keep the mixing tank continuously agitated throughout application. A motorised sprayer with agitation is ideal, simply hang the uptake pipe in the spray tank.
- A Dosatron (or similar) can introduce the nematode solution from the mixing tank into irrigation water.
- Remove fine filters (finer than 18 mesh / 1 mm) from the irrigation system downstream of where the nematodes are introduced, and from the pipe leading into the applicator.

Coverage Rates

Vine weevil

Bed-grown crops need twice the water volume of pot-grown crops, so a pack treats half the area.

Pack size	Bed-grown, full rate	Pot/container, full rate	Low-dose, every 4–6 weeks
50 million	50 m²	100 m²	200–300 m²
250 million	250 m²	500 m²	1,000–1,500 m²
10x250million	2,500 m²	5,000 m²	10,000-15,000 m²

Nemaslug

Pack size	Area Coverage	Water Volume
30million	100 m²	1L per m²

LOW-DOSE PROGRAMME

Trials show frequent, low-dose applications are cost-effective and give excellent vine weevil control.

Apply every 4–6 weeks at the lower rate shown above.

Use 6-weekly intervals for smaller areas and 4-weekly intervals for larger areas.

4. FULL-RATE DOSATRON CALCULATION

Standard rate: **500,000 nematodes per m²** in **4 litres of water per m²**.

How to calculate your stock solution

1. Total irrigation water needed = area (m²) × 4 litres.
2. Stock solution volume = 1% of that total (for a Dosatron set to a 1% injection rate).
3. Dissolve the whole nematode pack in the stock solution volume.
4. Before application, time how long it takes for 4 litres of water to pass through the hose, this gives the seconds-per-m² figure to apply at.

Worked Examples:

Vine Weevil

Area treated	Pack size	Total irrigation water	Stock solution (1% injection)
100 m² (pot/container)	50 million	100 × 4 L = 400 L	1% of 400 L = 4 L
500 m² (pot/container)	250 million	500 × 4 L = 2,000 L	1% of 2,000 L = 20 L

Both examples use hose-and-rose application with a coarse rose (1 mm holes). Notes on bed-grown plants are in Section 3.

Applying the Solution

1. Start the irrigation system and flood the irrigation lines.
2. Begin introducing the nematode solution during the **first half** of the irrigation programme (e.g. the first 15 minutes).
3. Continue running the irrigation system for the **second half** of the programme (e.g. a further 15 minutes) to wash the nematodes into the soil.
4. Run the system at the maximum pressure recommended for your setup, but never exceed **15 bar**.

Nemaslug Application

Area treated	Pack size	Total irrigation water	Stock solution (1% injection)
100 m²	30 million	100 × 1 L = 100 L	1% of 100 L = 1 L

5. SPRAY APPLICATION

1. Keep the spray tank continuously agitated throughout application. Nematodes settle at approximately 1 cm per minute, so after 15 minutes the top 15 cm (6 inches) has very few nematodes while the bottom 15 cm is far more concentrated (see the paddle stirrer in Section 2).
2. Remove all fine filters (finer than 18 mesh / 1 mm) from the application equipment to avoid damaging the nematodes.
3. Use nozzles with holes larger than 0.5 mm.
4. Do not exceed a sprayer pressure of **15 bar**.
5. Follow the product label for application rates — these vary by crop, situation and pot size.
6. After application, irrigate to wash the nematodes off leaves and into the soil.

biosales@fargro.co.uk

6. WATERING CAN APPLICATION

For smaller areas, or where the equipment above isn't available, nematodes can be applied equally well as a drench with a watering can.

1. Fill the can with plain water and apply it to a measured section of the area to be treated. Divide the total area by this measured section to get the total number of cans needed to cover the whole area.
2. Use that number of cans to size your stock solution (see worked example below), aiming for **5 litres or more** to make mixing easier.
3. Put the entire nematode pack into the bucket of stock solution and mix until dissolved.
4. Take one 'can volume' from the stock solution, put it in the watering can, and top up with water. Apply immediately to the pre-measured area. Repeat until the whole area is covered.
5. A coarse rose can be used to spread the nematodes, provided the holes are larger than 1 mm in diameter.
6. If necessary, irrigate with water after application to wash the nematodes into the ground or pots.

WORKED EXAMPLE

If 8 cans are needed to cover the area: use 8 × 1 litre = 8 litres of stock solution.

If 15 cans are needed: use 15 × 500 ml = 7.5 litres of stock solution.

7. WARNINGS

READ BEFORE APPLYING

- Do not apply fertilisers together with nematodes. Many pesticides are compatible, but please check with your Fargro Technical representative or Biosales before proceeding if you are unsure.
- If the compost or soil dries out, the nematodes are likely to die. In dry conditions, consider pre-wetting the top surface before applying so the nematodes do not hit a dry, capped surface this can stop them entering the substrate and cause them to die on the surface before they can provide control.