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Case Study

Application of Nematode Solutions Against Vine Weevil

Vine weevils remain one of the most damaging pests in nurseries, particularly in plants grown in containers.. PSP supported a trial led by East Riding Horticulture (ERH) by providing specialist equipment to enable the precise application of nematode treatments.



The Situation

As part of its research into effective biological control methods for pest control, ERH, a leading horticultural products supplier, trialled the use of *Heterorhabditis bacteriophora* nematodes against vine weevils. The nematodes were applied using the **Nematode Spraying Kit** (with **7.6L Guarany Compression Sprayer**) and the **Guarany Dosimeter Valve**.



The objective of the trial was to test usability of the kit and the efficacy of the nematodes in an outdoor setting with varying pot sizes and plant species.

The Trial

The trial took place in a diverse nursery where multiple plant species are cultivated in 1L and 2L round and square pots. Many of these are kept outdoors, either for overwintering or for later sale in a garden centre.

Vine weevil is the main pest concern and, although Lalgard 52, a bio-insecticide, had previously been applied at the potting stage, the grower was interested in evaluating nematodes as a biological control method. The trial targeted plants on the nursery floor, with a known but low infestation rate, identified from vine weevil eggs found in the compost.



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The Product

The Nematode Spraying Kit

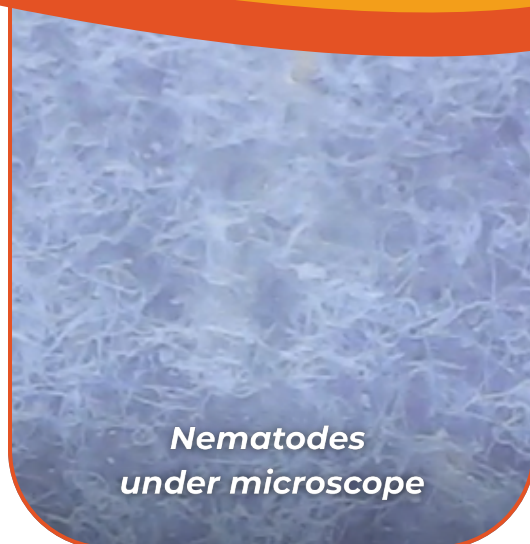
SCAN for Info



Guarany 7.6 L Handheld
Compression Sprayer



Guarany Dosimeter Valve
Calibrated at 50 ml



Nematodes
under microscope

About the Guarany Dosimeter Valve

This innovative valve, featuring a trigger mechanism and application pipe, easily attaches to any standard sprayer to deliver precise, consistent volumes of fluid with every squeeze. Its pressure-retaining system ensures reliable performance regardless of pressure fluctuations in the sprayer. The delivery volume is fully adjustable between 2 ml and 25 ml per stroke, allowing for exceptional control and repeatability.

The Results

The Dosimeter, paired with the specially adapted compression sprayer designed to ensure free passage of nematodes and prevent clogging, enabled the grower to apply precise, measured doses directly into each container. This ensured even distribution without excessive runoff, which was especially important for plants placed on weed-control matting.

No adult vine weevil were found and no plant damage was observed when examined 8 weeks after treatment. The Nematode Spraying Kit was well received with the nursery delighted to be able to successfully use a biological approach rather than chemical alternatives.

ERH's Melanie Breillat, who designed the trial, said: *"The Nematode Spraying Kit gives our client more control during application. Using the Dosimeter means nematodes stay in the pots and nothing spills onto the ground. While using it is a bit trickier with pots on the floor, the grower plans to move susceptible plants onto tables in the future to make the process even easier."*

Overall, we are all extremely happy with the results. The trial showed that applying nematodes using the Kit was straightforward and efficient."