

eco-nemguard™

ORGANIC* LIQUID NEMATICIDE

ACTIVE CONSTITUENT: 1280 g/L GARLIC EXTRACT
CONTAINING A MINIMUM 26 g/L TOTAL POLYSULFIDES

ORGANIC* GRANULAR NEMATICIDE

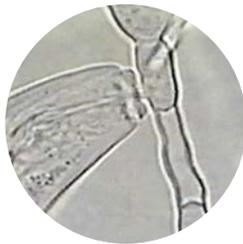
ACTIVE CONSTITUENT: 450 g/kg GARLIC EXTRACT
CONTAINING A MINIMUM 9 g/kg TOTAL POLYSULFIDES

- NOVEL ACTIVE BASED ON EXTRACTION & STABILISATION OF DIALLYL POLYSULFIDES (DAS) FROM GARLIC
- NEW MODE OF ACTION TO ASSIST WITH NEMATICIDE RESISTANCE MANAGEMENT
- EASY TO APPLY ANY TIME IN A LIQUID AND GRANULAR FORMULATION
- DEGRADES NATURALLY IN THE SOIL, HAVING MINIMAL IMPACT ON OTHER SOIL BIOLOGY
- APPROVED AS AN ORGANIC INPUT UNDER AUSTRALIAN AND INTERNATIONAL STANDARDS
- NO MRL AND HAS NO NEGATIVE IMPACT ON CROP ROOTS – IDEAL FOR SHORT TERM CROPS (e.g. Salad crops)
- CAN BE USED THROUGHOUT THE CROP CYCLE SO HAS EXCELLENT FIT WITH PRE-PLANT NEMATICIDES THAT CANNOT BE USED AT OR AFTER PLANTING

THE BIOLOGY OF NEMATODES PARASITIC TO VEGETABLES

All parasitic nematodes feed by insertion of a needle like tube into root tissue. Ecto-parasitic nematodes feed with the body outside the plant roots and in soil samples will be present at all stages in the life cycle i.e. mature adults, immature adults, juveniles, immature juveniles and eggs. Ecto-parasitic nematodes are therefore generally vulnerable to a contact nematicide and high levels

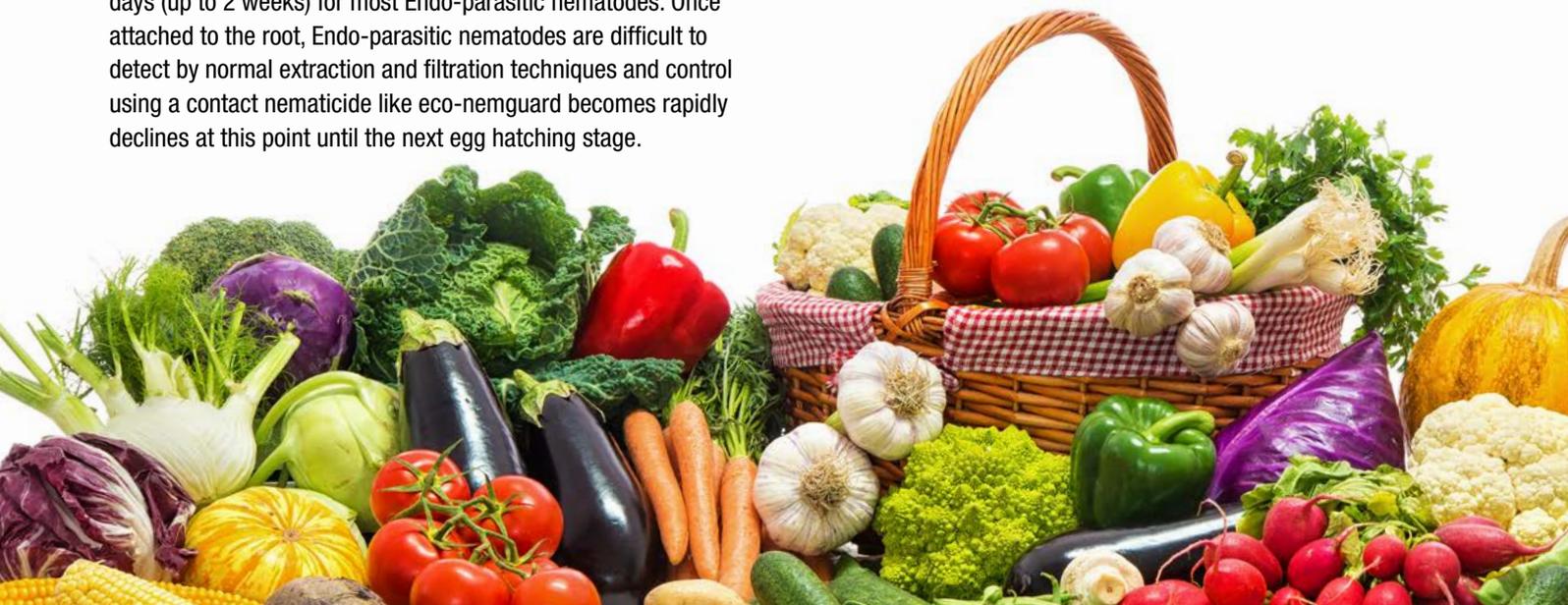
of population reduction of these nematodes can be achieved by 1-3 sequential treatments with eco-nemguard. Endo-parasitic nematodes feed by progressive invasion of the plant tissue becoming embedded well into root cortex or specialised feeding sites formed by the nematode in the root mass. The invasive stage of the life cycle in Endo-parasitic nematodes is a second instar juvenile (J2) recently emerged from an egg. Time from emergence from the egg to invasion of the root is usually a matter of a few days (up to 2 weeks) for most Endo-parasitic nematodes. Once attached to the root, Endo-parasitic nematodes are difficult to detect by normal extraction and filtration techniques and control using a contact nematicide like eco-nemguard becomes rapidly declines at this point until the next egg hatching stage.



Microscopic view of a nematode taken from an infected root system.

HOW BEST TO APPLY ECO-NEMGUARD

Due primarily to irregularities in the uniformity of egg hatch and dynamics of infection, at least three sequential applications of eco-nemguard are usually required to significantly reduce numbers of endo-parasitic nematodes, irrespective of the presence of ecto-parasitic nematodes as the primary target. If endo-parasitic nematodes are the primary target, applications of eco-nemguard must coincide with emergence and migration of J2 nematodes throughout the root zone. If ecto-parasitic nematodes are the only target, applications of eco-nemguard can be initiated at any time during the crop cycle. It is recommended that three sequential applications of eco-nemguard are applied to significantly reduce populations of ecto-parasitic nematodes, although substantial reductions in populations can be achieved by a single application.



eco-nemguard™

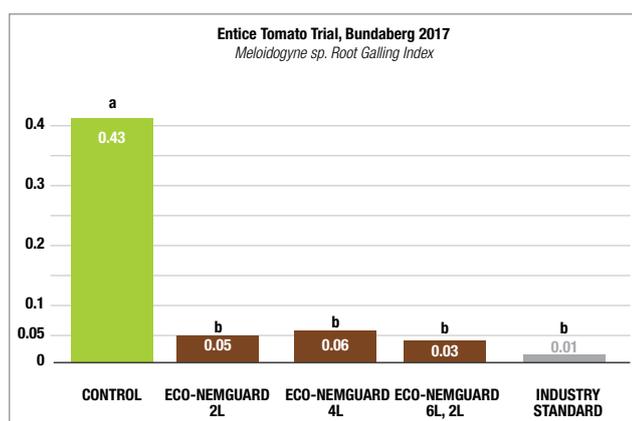
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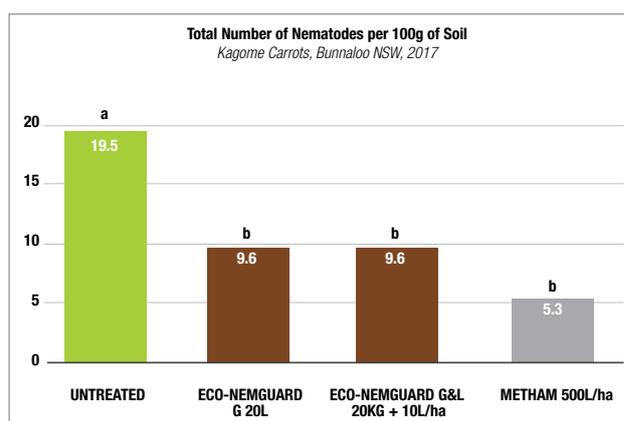
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TRIAL RESULTS



Eco-nemguard Liquid was applied at time of transplanting and then every 14 days for a period of 6 weeks. One treatment 3 x 4L/ha and the other 6L/ha at planting and then 2 x 2L/ha. Industry Standard was applied once at 8L/ha 7 days before transplanting to prevent phytotoxicity to crop.



Eco-nemguard G was incorporated into beds and eco-nemguard Liquid applied in banded spray along the seed furrow and watered in with 10mm irrigation at 2-3 true leaf. Nematode counts taken 90 days after planting.

DIRECTIONS FOR USE

LIQUID	CRITICAL COMMENTS
4L/100L as a drench or 4 L/ha via irrigation	<p>Trays and Pots: Apply no more than one application to moist soil as a drench to the propagation tray, the transplant hole or, to plants within a day of transplanting. Apply 5mL of dilute solution to each plant in trays or pots. Apply 2L of dilute solution per m² of propagation tray or transplants.</p> <p>Trickle Irrigation:* Apply 4 L/ha uniformly by trickle irrigation within the top 5-10 cm of soil, in a 20 – 40cm band along the planted rows. Use rate solutions should not be less than 0.1% and not more than 0.25% when diluted with water. Maximum efficacy will be obtained if the product is introduced at the end of an irrigation cycle, thereby reducing drainage loss. Apply up to six times at about 14-day intervals. Irrigate treated areas for optimum results. A soil wetter like HydraSoil® may be of benefit in soils that are slightly non-wetting. *or similar systems equipped with an accurate flow metering system.</p>
GRANULES	CRITICAL COMMENTS
20 kg/ha direct drilled into planting furrow	<p>For longer crop cycles like tubers and melons apply one application of granules in the furrow as near to the seed as possible at the same time as drilling through an appropriate calibrated granular applicator. Follow up with liquid eco-nemguard application as suggested by agronomist based on nematode population densities and cropping cycle. If conditions are dry at planting time, 20mm of irrigation should be applied as soon as possible after application. If dry conditions persist, additional regular irrigation should be applied (see general instructions.)</p>