TERVIGO® – 'Best Practice: Product Placement'



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TERVIGO KEY FACTS

Throughout Australia root-knot nematodes are considered major pests of fruiting vegetables and cucurbits, with annual losses in horticulture estimated to be worth \$100-200 million (Stirling et al., 1992). Direct feeding damage and use of carbohydrates, disruption of the root systems architecture, transmission of viruses and root-rot complexes with fungi are the main reasons for crop losses.

Syngenta's TERVIGO is registered for the safe and effective control of root-knot nematodes in a range of fruiting vegetable crops including tomatoes, capsicums, chillies, eggplant, and cucurbit crops (refer to the product label for the full list of crops).

Formulation & Mode of Action:

TERVIGO has been specifically formulated for soil application to help move the active ingredient throughout the soil profile to protect the developing root system. As a Soluble Concentrate (SC), TERVIGO contains 20g/L abamectin. The active ingredient abamectin activates the chloride channels, irreversibly paralysing the nematodes, which means they are no longer able to infect roots. From a resistance management perspective TERVIGO is classified as a Group 6 insecticide.

Application Rates & Timing:

Up to five TERVIGO applications are permitted per crop, with the first applied either as a planting hole drench (400mL/1000 plants) or via drip/trickle irrigation (120mL/100m row). Following the initial transplant treatment, another four applications can be applied via trickle irrigation (60 to 120mL/100m row) at 14 day intervals.

On paddocks with a history of high nematode pressure, or when the soil contains clay, it is recommended that the planting hole drench be used followed by the higher rate (120mL/ha) for all subsequent trickle applications.

TERVIGO FEATURES & BENEFITS

- Effective nematode control
- Formulated specifically for soil application
- Applied through the trickle it protects the roots as they develop
- Flexible application method makes it easy to manage rates and timing
- Nil withholding period when used according to the label
- No plant back restrictions provides rotational flexibility
- Assists in the delivery of more consistent marketable yields
- Backed by an extensive supporting stewardship program

APPLICATION CONSIDERATIONS

TERVIGO allows growers to select the application method that suits their needs at the time of transplanting, beyond that they have the flexibility to manage rates according to the pest pressure and the soil type. The timing of applications can also be flexible, while a 14 day interval between treatments is recommended there may be occasions when applications are delayed because of rainfall. If this is the case, the next TERVIGO application should simply be applied when the crop is next irrigated with the remaining applications occurring at fortnightly intervals after that.

Planting Hole Drench Application: TERVIGO should be applied in a total minimum diluted volume of 50mL per seedling with the solution placed directly at the base of the transplanted seedling or into the planting hole immediately before transplanting. The actual total volume used will depend on the equipment used, the soil moisture levels and the soil type. The aim is to ensure uniform application and distribution.

Trickle Irrigation Application: TERVIGO should be applied via direct injection into the irrigation system (Figure 1). For ease of application, create a TERVIGO injection solution in a supply tank (minimum 500mL of product in 1L water) then inject that solution into the pressurised mainline.



Figure 1: An example of a TERVIGO application system, here the injection solution is mixed in the red supply tank then injected into the pressurised mainline using a 12 volt pump.

The TERVIGO injection solution should be injected into the irrigation system during the 2nd quarter of irrigation cycle, after the soil has been partially wetted up (Figure 2). The duration of injection should be long enough to distribute TERVIGO uniformly across the paddock, this will vary depending on the irrigation system set up and design, the area of crop treated, the emitter type, irrigation flow rates etc. (refer to the manufacturer specifications of the irrigation system). The total volume of the injection solution should not exceed what can be injected in a quarter of the total irrigation cycle. The final half of the irrigation cycle is used to flush the TERVIGO from the system and aid in the distribution of the product into the plants root zone.

Product Placement & Irrigation:

To work effectively, TERVIGO must be placed in and around the root zone, therefore a well maintained irrigation system is essential, periodically monitor the irrigation system and lines to ensure all delivery points are in working order and there are no blockages. For best results, seedlings should be planted close to the irrigation line, ideally within 10cm (Figure 3).



Figure 3: To ensure the plants are protected by TERVIGO, seedlings should be planted within 10cm of the irrigation line.

Compatibility:

TERVIGO is both physically and biologically compatible with ACTARA® and Confidor® Guard, as well as Nipro FlowPhos 15, Nipro KeyPro K-Trace, Nipro NitroCal B and Nipro K-Nite.

As formulations of other manufacturers products are beyond the control of Syngenta Australia Pty Ltd, and water quality varies with location, all mixtures should be tested prior to mixing commercial quantities.

SAFETY DIRECTIONS

TERVIGO is classified as a Schedule 6 (S6) Poison.

Harmful if swallowed. Harmful if inhaled. May irritate the eyes. Avoid contact with the eyes. Do not inhale spray mist. When opening the container, preparing the product for use and using the product wear:

- cotton overalls buttoned to the neck and wrist (or equivalent clothing)
- elbow length chemical resistant gloves
- half face-piece respirator with organic vapour / gas cartridge or canister.

Wash hands after use. After each day's use wash gloves and respirator and if rubber wash with detergent and warm water and contaminated clothing.

Reference:

Stirling GR, Stanton JM and Marshall JW 1992. The importance of plant parasitic nematodes to Australia and New Zealand agriculture. Australasian plant pathology. 21:104-115.



