EFFICACY OF NEMARIOC-AL PHYTONEMATICIDE AS INFLUENCED BY CONTAINER-TYPE AND POSITIONING ON GROWTH OF NEMATODE-INOCULATED TOMATO PLANTS

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A micro-plot study was conducted to evaluate the efficacy of Nemafric-AL phytonematicide as influenced by container type and positioning on growth of tomato (*Solanum lycopersicum*) plants and suppression of *Meloidogyne incognita*. Tomato seedlings were transplanted in 30-cm-diameter brown and black plastic pots and 5 L polyethylene plastic bags containing 4.5 L steam-pasteurized loam soil and Hygromix at 3:1 (v/v) ratio. Seven days after transplanting seedlings into brown pot below soil surface, brown pot above, black pot below, black pot above, plastic bag below and plastic bag above, were arranged in randomised complete block design, with 10 replications, each was inoculated with 2000 + J2 *M. incognita*. Nematodes in each seedling were treated with 3% Nemarioc-AL phytonematicide at 17-day interval. Each seedling was irrigated with 500 ml chlorine-free tapwater every other day, fertilized once using 2:3:2 (26) and 2:1:2 (43), with insects scouted and monitored daily, whereas a disease-spraying programme similar to those in commercial tomato-producing enterprises was designed. At 56 days after inoculation, treatments had significant effects on plant height, dry root mass, fruit number, and dry fruit mass and dry shoot mass, contributing 91, 79, 78, 79 and 86% in total treatment variation of the respective variables. Also, treatments had significant effects on Ca, Mg, K, P and Zn, contributing 68, 42, 53, 62 and 53% in TTV of the respective variables, except for iron. The treatments did not have any effects on nematode variables. The below ground treatment had moderating effects on the variability of the treatments and should therefore be prepared in microplot studies.

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