Inducing the Systemic Resistance of Tomato Plants by Root-Knot Nematode Females Extract against Meloidogyne Javanica Infection

Ahmed El-Sayed Ismail

1Plant Pathology Department, National Research Center, Giza, Egypt

Abstract

Females of Meloidogyne javanica were homogenized with distilled water in the proportion of 20 individuals / 3 ml of water. The dilute homogenate was applied as foliar spray at the rate of 3 ml / plant to tomato plants inoculated with Meloidogyne javanica. While some nematode females extract (NFE) treatment were pre-inoculation, others were post-inoculation. NFE treatment was also given to uninoculated groups of pots. Evidently, nematode females extract (NFE) significantly (P≤ 0.05% and or 0.01% levels) increased growth of plants and reduced nematode infection. The pre-inoculation treatment was more effective than post-inoculation one. Clearly, the nematode females extract is thought to induce systemic resistance in tomato plants.

Keywords: Systemic resistance, Tomato, Root-knot nematode, Meloidogyne javanica