

EFFECT OF SELECTED NON-FUMIGANT NEMATICIDES ON *TYLENCHULUS SEMIPENETRANS* – INFECTED SOUR ORANGE SEEDLINGS

T.K. AL-AZZEH AND W.I. ABU-GHARBIEH

Plant Protection Department, Faculty of Agriculture, University of Jordan, Amman, Jordan

Corresponding author's E-mail: abugharb@ju.edu.jo

Abstract

A growth room experiment was conducted to evaluate the effectiveness of soil treatment with oxamyl @ 2, 3 g a.i./m²), phenamiphos (2, 4 g a.i./m²), ethoprop (4, 6 g a.i./m²) and carbofuran (2, 4 g a.i./m²) against the Mediterranean race of *Tylenchulus semipenetrans* infecting sour orange (*Citrus aurantium*) seedlings. In separate treatments, soil drenching with the two concentrations of oxamyl and phenamiphos was also followed by a foliar spray (FS) of 0.4 and 4.0 mg a.i./ml, respectively. The most effective treatments were combinations of phenamiphos drench (2 and 4 g a.i./m²) plus FS applied three weeks after soil drenching. J₂ numbers in the soil were reduced by 98.0 and 99.6 %, and other developmental stages in the roots between 78.3-100 %. These treatments were followed by phenamiphos drenching alone, and oxamyl drenching plus FS. The same trend of effectiveness was also reflected on the horticultural parameters of sour orange seedlings. Ethoprop and carbofuran were least effective against the nematode, and did not improve plant growth effectively.