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EFFECT OF CHEMICAL FERTILIZERS ON ROOT-KNOT NEMATODE (*Meloidogyne incognita*) IN GREENHOUSE CUCUMBER CULTIVATION *

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Abstract

Effect of different levels of nitrogen, phosphorus, iron and zinc on the activity of root-knot nematode (*Meloidogyne javanica*) on cucumber, cultivar Super Amelia, and the vegetative growth indices of the host plant, was investigated under greenhouse conditions. Combination of levels 0, 50, 100, 200 and 400 mg/kg of soil of nitrogen and 0, 25, 50 and 100 mg/kg of soil of phosphorous, from urea and triple superphosphate sources, respectively, also combination of 0, 2.5 and 5 mg/kg of soil of zinc and iron, from zinc sulfate and Fe-chelat sources, respectively were tested in 1.5 kg pots filled with field soil, in two independent experiments The experiments were done in randomized complete block designs, each with five replicates. Each pot was inoculated with five eggs or juvenile two/gram of soil, at six-leaf stage of plant. The results showed that application of 100 mg of nitrogen and 100 mg of phosphorus per kg of soil, also five mg of zinc and 2.5 mg iron per kg of soil caused a significant increase in the plant shoot length, shoot fresh and dry weight. The number of eggs, egg masses and galls were also decreased.

Keywords: Urea, Fe-chelat, Triple super phosphate, Zinc sulfate, Control, Plant parasitic nematodes.

See persian text for figures and tables (Pages ۲۶۳-۲۷۴).

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