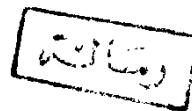


**EFFICIENCY OF CERTAIN NEMATOCIDES
ON PLANT-PARASITIC NEMATODES
ASSOCIATED WITH MEDICINAL PLANTS
REFERRING TO THEIR BIOLOGICAL
AND CHEMICAL RESIDUAL
ACTION ON TEST ANIMALS**

BY

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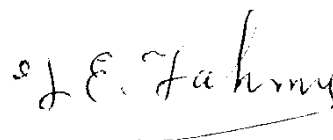
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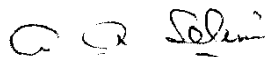
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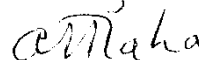
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ABSTRACT

The effect of infection by Meloidogyne incognita on growth parameters, viz. roots, stems, leaves, flowers and fruits, of two medicinal plants, Egyptian henbane, Hyoscyamus muticus, and solanum, Solanum laciniatum, and the chemical constituents of these plants was investigated in the presence and absence of nematicidal treatments. Introduction of M. incognita at increasing inoculum levels caused significant reduction of fresh and dry weights of roots, stems, leaves, flowers, and fruits of both plants.

Use of nematicides, Nemacur and Vydate, at two rates each, significantly reduced nematode population and improved plant growth. The higher rate (200 ug/pot) of Nemacur was best, followed by the higher rate (0.2 ml/pot) of Vydate, then the lower rates of Nemacur (100ug/pot) and Vydate (0.1 ml/pot), respectively. In consequence of improvement of plant growth, the chemical constituents, hyoscyamine, hyoscyne and atropine

in Egyptian henbane, and solanine and solasodine in solanum became greater than those in infected plants. Also, the status of macronutrients (N.P.K) and micronutrients (Zn.Mn.Fe.Cu) improved in nematocidal-treated plants. No residues of nematocides were detected in plants at harvest (five months following nematocidal treatment). The biological functions of the test animals were not affected.

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