

EFFECT OF POPULATION LEVELS OF *MELOIDOGYNE JAVANICA* ON PLANT GROWTH AND NEMATODE MULTIPLICATION ON CUCURBITS

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Abstract

Pathogenic effect of *Meloidogyne javanica* on bitter gourd (*Momordica charantia*), bottle gourd (*Lagenaria siceraria*), red gourd (*Cucurbita maxima*) and sponge gourd (*Luffa cylindrical*) were studied by inoculation of different inoculum levels of second stage juveniles (J₂) viz., 0, 250, 500, 1000, 2000, 4000, and 8000 J₂/kg sterilized soil in earthen pots. Significant reduction in growth of bottle gourd and red gourd was recorded at initial inoculum level of 1000 J₂/kg soil of *M. javanica* which was the damaging threshold level. Similarly, the damaging threshold level of *M. javanica* on sponge gourd and bitter gourd were recorded at the inoculum level of 500 and 2000 J₂/kg soil, respectively. An increase in the level of inoculum showed a progressive increase in host infestation as indicated by number of galls as well as nematode multiplication. Maximum nematode multiplication in all the tested plants was observed at the lowest inoculum density and vice versa.