

**RELATIONSHIP BETWEEN INOCULUM DENSITY OF  
*MELOIDOGYNE GRAMINICOLA*, GROWTH OF RICE  
SEEDLINGS AND DEVELOPMENT OF THE NEMATODE**

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**Abstract**

The relationship between inoculum density of *Meloidogyne graminicola*, growth of rice seedlings and development of the nematode was studied in a pot experiment under controlled conditions. The initial population densities of 0, 125, 250, 500, 1000, 2000, 4000 and 8000 juvenils ( $J_2$ ) per 9-cm diam., pot were used. The assessments were made 10 and 30 days after inoculation. Shoot and root growth of rice was adversely affected at all inoculum levels. With the increase in inoculum, there was a decrease in root growth. More pronounced growth suppression was caused by  $> 1000 J_2$  per pot inocula, and the seedlings did not tolerate even the lowest inoculum of  $124 J_2$  per pot. Initial inoculum densities positively correlated with number of galls, total nematodes in roots. Males and females, but negatively related to numbers of eggs per eggmass. Reproduction rate, i.e., final population ( $P_f$ )/initial population ( $P_i$ ) decreased with an increase in the level of inoculum.