

MANAGEMENT OF *MELOIDOGYNE JAVANICA* BY CROPPING SEQUENCE AND EFFECTS ON *PASTEURIA PENETRANS*

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Abstract

The efficacy of *Pasteuria penetrans* for the bio-control of *Meloidogyne javanica* was investigated in micro plots by sowing tomato, cowpea, okra, brinjal and tomato in succession and population dynamics of the antagonist and the nematode were monitored over the cropping sequence. After final crop significant reductions were observed in number of galls (24.68 %), egg masses (39.92 %) and nematode density (29.41 %) in micro plots where *P. penetrans* was applied. As a result 22.57 % increase in yield was recorded in *P. penetrans* treated plots as compared to the untreated ones. After first crop 18.5 % nematodes extracted from soil were encumbered with the endospores of *P. penetrans* which reached to 50.5 % at the harvest of final crop. *P. penetrans* infection was recorded on 7.5 % females after first crop which increased to an infection level of 23.75 % females in the *P. penetrans* amended micro plots after final crop.