EFFICACY OF BIO-AGENTS AND CARBOFURAN AGAINST ROOT KNOT NEMATODE, MELOIDOGYNE GRAMINICOLA INFESTING RICE

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Abstract: Rice root-knot nematode (Meloidogyne graminicola) is an emerging problem to rice cultivation in various rice growing areas. Rice root knot nematode has reported to cause up to 50% loss in grain yield and in severe cases it may go up to 64 per cent. An experiment was conducted to study the efficacy of bio-agents against Meloidogyne graminicola on rice variety PB-1121. It was observed that, all Trichoderma isolates at 20 and 30 gm/kg soil significantly increased the shoot length of rice plants. Trichoderma isolates were reduced the infestation of root knot nematode in rice. At 40 days after seed sowing, minimum 1.61 galls/plant were recorded in Trichoderma isolate-V @ 30 gm/kg soil. In case of Trichoderma isolate-III @ 30 gm/kg soil, average 3.00 galls/plant were recorded as compare to carbofuran @ 3gm/kg (4.61) and control (25.17). In vitro, at 72 hours after inoculation, maximum 96.68% larval mortality was recorded in Pseudomonas fluorescens suspension. In Trichoderma isolate-IV, 74.18% larval mortality was recorded as compare to carbofuran (95.00%).

Keywords: Rice crop, Rice root knot nematode, Meloidogyne graminicola, Management

REFERENCES


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