

## 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 upto 50% loss in grain yield and in severe cases it may go upto 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

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