

Integrated management of root-knot nematode, *Meloidogyne incognita* through different approaches in tomato, *Lycopersicon esculentum* Mill.

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ABSTRACT : The pot experiment was conducted during *Kharif* season, 2012. Pots were filled with Root-knot nematode infested soil (2 larvae/g soil) brought from the pure culture field at department of Nematology, RCA Udaipur. The combination of *P. lilacinus* @ 3.0g/kg soil + neem (*Azadirachta indica*) leaf extract at 20 per cent conc. was found most effective treatment as compared to other combinations like *P. lilacinus* @ 3.0g/kg soil + jatropha (*Jatropha curcas*) leaf extract at 20 per cent conc., *P. lilacinus* @ 3.0g/kg soil + castor (*Ricinus communis*) leaf extract at 20 per cent conc. and *P. lilacinus* @ 3.0g/kg soil + karanj (*Pongamia pinnata*) leaf extract at 20 per cent conc. However, highest reduction in nematode population was recorded with the application of carbosulfan 25 EC @ 2 %. Combined effect of *P. lilacinus* @ 3.0g per kg soil as soil application and 20 per cent concentration of plant leaf extracts of neem (*Azadirachta indica*) as root dip treatment proved better over other treatments in enhancing plant growth parameters of tomato and minimizing infection of root-knot nematode, *M. incognita*.

Key Words: Combined effect, fungal bio-control agents, *Meloidogyne incognita*, plant extracts, root-knot nematode, tomato.