Invitro evaluation of potent efficacy of predaceous fungi against saprophytes and root-knot nematodes to combat nematicidal residual problems in agro-ecosystem

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ABSTRACT: Pesticides, fungicides or nematicides are useful tools in agriculture but gradual degradation of ecosystem and consequent disaster can not be ignored. Considering the harmful effects of chemicals, alternative approach is being made in the field of biological control of plant diseases. Limited works are being reported under integrated pest management. The increased pressure and the ill effects of chemical pesticides have led to the genesis of bio control. The explosion in the field of bio control of *Meloidogyne* spp. causing root knot disease led to the introduction of biological arsenals as nematophagous fungi (*Dactylaria eudermata and Arthrobotrys oligospora*). These fungi have been considered promising biological agents for the control of plant parasitic nematodes. The occurrence of capturing devices in agar plates in presence of saprophytic as well as plant parasitic nematodes, indicated the immense potential of these fungi as bio control agent. Predacity test of both the fungus was done against saprophytes and root-knot nematodes and the maximum percentage of predacity was observed in *Dactylaria eudermata* (89-95 %), followed by *Arthrobotrys oligospora* (86-94 %).

Key Words: Arthrobotrys oligospora, Dactylaria eudermata, saprophytic nematodes, juveniles of Meloidogyne incognita.