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Interaction of Steinernema Glaseri, an Entomopathogenic Nematode with a Predatory Fungus Arthrobotrys Superba on Different Nutrient Media

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Abstract : Steinernema glaseri is known to be the most potent biocontrol agent against a number of insect pests of various orders and of diverse habitats under laboratory conditions. But in nature many micro pathogens may affect the efficacy of such entomopathogenic nematodes. Keeping this in view, the interaction of Steinernema glaseri with a predatory fungus Arthrobotrys superba was assessed on eight different nutrient media. The activity of A.superba was evaluated in terms of trap formation, conidiophore formation, and number of adhesive cells formed in the presence and absence of nematodes. The fungus failed to form any trap on any of the culture media in the absence of nematodes. However, in the presence of nematodes, the trap formation by the test fungus was increased but the number of conidiophores decreased with increase in dilution of Corn Meal Agar from 5% to 2%. Higher number of chlamydospores were observed in phenylalanine treated medium which indicates the inhibiting effect of phenylalanine on the growth of A. superba. Our results suggest that care should be taken during release of entomopathogenic nematodes in an agroecosystem for managing various insect pests in a more efficient manner.

Keywords : Entomopathogenic Nematode , Steinernema Glaseri, Predatory Fungus, Arthrobotrys Superba
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