Studies on certain biological control methods on root-kont nematode infecting some vegetable plants

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Generally, plant parasitic nematodes are considered as one of the important pests. They cause many problems to vegetable, horticultural and field crops, and appear to be highly distributed in sandy soils, of which, root-knot nematode represents the most important and serious nematode pest, especially in Egypt. Nematicides, not only too expensive, but also have hazardous effects to environment and destructive influence to the Agro-ecosystem. Thus, biological control methods of nematodes is considered as the unilateral method of nematode population management, simultaneously preventing environment from pollution and saving ecosystem from being destroyed. The antagonistic fungi proved that they are , efficient in biological control agents of the plant parasitic nematodes.In this regard the following factors were studied:1- Survey of the most important parasitic nematode species associated with some vegetable plants especially in Sharkia and Qalubia Governorates.2 (A). Lab studies of the most suitable ecological factors (temperature, humidity, light and pH) affecting fungi growth.2 (B) Comparative studies between the effect of fungi filtrates and certain nematicides on the second stage Juveniles of root-knot nematodes Meloidogyne incognita.3- Greenhouse comparative studies dealing with the effect of both fungi filtrate and spores on root-knot nematodes on tomato and eggplants.4 (A)Field studies, concerning the affect of the antagonistic fungus species Nematoctonus concurrens on the reduction of the root-knot nematodes population, on tomato plants.4 (B)Chemical analysis of the utilized tomato plants. The obtained results are summarized in the following: 1) Occurrence & Distribution of Plant Parasitic Nematodes in Sharkia & Qalubia Governorates.More than 500 samples were collected from soil cultivated with vegetable plants (tomato, eggplants, cucumber and green pepper), at Abu-Hammad, Abu-Kabir, El-Husseinia, Fakous, Hehia and Zagazig (Sharkia Governorate), Abu-Zaabal, Kafr-Shebin, El-Amar and Moshtohor (Qalubia Governorate), their results are shown in the following:• However thirteen nematode genera were found, the most occurrence was shown with Tylenchorhynchus & Meloidogyne then Pratylenchus, Longidorus and Pratylenchulus appeared, followed by the scarcely occurring species.