



Interrelationships of root- knot nematodes with root- rot fungi and their effect on common bean grown in natural infestation

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Abstract : Interaction between the root-knot nematode, *Meloidogyne arenaria* and root-rot fungi were studied on common bean *phaseolus vulgaris* L. cv. Giza -6 grown in natural infested field. Four root- rot fungi, *Fusarium solani*, *Rhizoctonia solani*, *Sclerotium rolfsii* and *Pythium sp.* were isolated from bean root- roted. *F.solani* was the most frequent fungi, occupying the first order with average of 57.5% frequency followed by *R.solani* with average of 18.68%, *Pythium sp.* with 14.43% and *S. rolfsii* with 9.38%. Relationship between nematode damage (root galling) and yield of bean, regardless of root- rot disease severity, was highly significant and negative ($r = - 0.97$). Correlation between root – rot disease severity and yield of bean, regardless of nematode damage was also highly significant and negative ($r = - 0.99$). Relationship between nematode damage and root-rot disease severity was highly significant and positive ($r = 0.97$) indicating a synergistic interaction occurred between them and producing a disease complex.

Key words : root – knot nematode, root- rot fungi, interaction, common bean, natural infestation.

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