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Management of root-knot nematode, *Meloidogyne incognita* on okra through bioagents

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ABSTRACT : A field experiment was conducted at Central Research Farm, Bidhan Chandra Krishi Viswavidyalaya, Gayeshpur for two consecutive years during 2016 and 2017 for the management of root-knot nematode, *Meloidogyne incognita* race 2 on okra using fungal bioagents, *Purpureocillium lilacinum* and *Pochonia chlamydosporia* through seed treatment and soil application with vermicompost in comparison individually and in combination with the two bioagents. At the same time it was compared with chemical nematicides carbosulfan and carbofuran by seed soaking and soil application. The experiment was designed in Randomized Block Design using five treatments replicated four times. The result of the experiment revealed that application of Seed treatment with *P. lilacinum* @ 2.5 ml/kg + *Pochonia chlamydosporia* @ 2.5 ml/kg, followed by soil application of vermicompost @ 2.5 ton/ha enriched with *P. lilacinum* and *Pochonia chlamydosporia* (each @ 5 ml/ kg) gave highest yield (13.93 t/ha & 10.17 t/ha in 2016 & 2017, respectively) was the most effective treatment for management of root-knot nematode, *Meloidogyne incognita*/*M. javanica* infesting okra. However, when the incremental cost benefit ratio (ICBR) was calculated, it was observed that treatment with seed soaking by carbosulfan and soil application of carbofuran 3G was having highest benefit.

Key Words : *M. incognita*, okra, *Purpureocillium lilacinum*, *Pochonia chlamydosporia*, carbofuran.