

Management of root-knot nematode, *M. incognita* in ridge gourd by using bio-agents, botanicals and chemicals

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ABSTRACT : Ridge gourd, *Luffa acutangula* Roxb. is popular vegetable grown almost all the year around and having medicinal value. The crop is severely affected by root-knot nematode (*M. incognita*). The study was to evaluate, the effect of bio-agents, botanicals and chemicals to suppress population of *M. incognita* under glasshouse conditions. An experiment was carried out to know the effect of various treatments, among those individual treatments, carbofuran 3G was found to be best compared to all other treatments and recorded the increased growth parameters viz., plant height (14.66 and 16.26 cm) and number of leaves (6.33 and 7.83). The root length (13.38 cm), fresh and dry root weight (0.60 and 0.22 g) and reduced nematode parameters, minimum number of galls per root system (21.00), nematode population (712.00) and gall index (3.03) at 30 and 60 DAS, respectively followed by neem cake. Among the combination treatments, neem cake + carbofuran 3G proved best and recorded the increased growth parameters viz., plant height (15.80 cm and 17.42 cm) and number of leaves (6.66 and 8.00) at 30 and 60 DAS, respectively. The root length (14.30 cm), fresh and dry root weight (0.55 and 0.20 g) and reduced nematode parameters minimum number of galls per root system (17.33), nematode population and gall index (696.33 and 3.0) at 60 DAS, respectively.

Key Words : Ridge gourd, root-knot nematode, management, bioagent, botanical, chemical