

Efficacy of *Steinernema carpocapsae* STSLU formulations against *Meloidogyne incognita* in tomato

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ABSTRACT : 2-year experiment was conducted to test the efficacy of formulated entomopathogenic nematode, *Steinernema carpocapsae* STSLU against root-knot nematode, *Meloidogyne incognita* in Tomato. Two treatments namely, water dispersible granules (WDG) and Sponge bits @ 2×10^4 IJs/kg soil were evaluated and compared with recommended nematicide (carbofuran 3G @ 2 kg a.i./ha) in *M. incognita* infested field. The initial nematode population (INP) was recorded as 604 and 659 larvae/200 cc soil during 1st and 2nd year, respectively. After four months, the observations were recorded on nematode population i.e. number of galls/plant, number of egg-mass/plant, number of eggs and larvae/egg-mass, nematode population/200 cc soil and crop yield parameters viz., yield/plot and yield/hectare were recorded. Experimental results showed that application of *S. carpocapsae* STSLU significantly enhanced plant growth characters and reduced nematode reproduction. Minimum galls/plant (57.88), egg-mass/plant (20.63), eggs and larvae/egg-mass (112.88), larvae/200 cc soil (527.13) and maximum yield (118.88 q) were recorded with the application of sponge bit formulation @ 2×10^4 IJs/kg soil over untreated control.

Key Words: *Steinernema carpocapsae*, *Meloidogyne incognita*, entomopathogenic nematode, root-knot nematode, formulation, tomato.