

Efficacy of various bio-agents and plant extract against *Septoria lycopersici*

■ MOHAN LAL, M.R. DABBAS*, SANJIVE KR. SINGH, SHRAWAN KUMAR AND NARENDRA KUMAR

Department of Vegetable Science, C.S. Azad University of Agriculture and Technology, KANPUR (U.P.) INDIA

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ABSTRACT

Tomato is a very remunerative crop among vegetables which is largely affected by fungal, bacterial, nematode, phytoplasma and viral diseases. Studies on the radial growth of the fungus in various treatments was measured and the average diameter of the colony was calculated. However, among the five bio-agents and five plant extract viz., *Trichoderma viride* (50.56%), *Trichoderma harzianum* (45.56%), *Pseudomonas fluorescens* (44.45%), *Trichoderma virens* (30.56%) and *Trichoderma hamatum* (25.56%) proved to be the most effective as they have inhibited the growth pathogen. Neem (*Azadirachta indica*) 47.13 per cent, were most effective in inhibiting the fungal growth. ginger (*Zingiber officinale*) 45.98 per cent, garlic (*Allium sativum* L.) 43.68 per cent, onion (*Allium cepa* L.) 41.37 per cent and mustard (*Brassica nigra*) 26.44 per cent was least effective in checking the mycelial growth of the test fungus. The mean of analysis of two years data revealed that, the minimum disease intensity (12.05%) and maximum fruit yield 18.92 kg/plot were recorded in foliar spray of *Trichoderma harzianum* 4g/lit of water, next best effective bio-agent was *Trichoderma viride* 4g/lit of water which gave 15.85 kg/plot fruit yield.

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*Corresponding author:
Email: drmrabbas@gmail.com