

RESEARCH ARTICLE

Efficacy of various bio-control agents for the management of leaf spot of turmeric (*Curcuma longa* L.) caused by *Taphrina maculans*

■ Shweta, R.K.S. Tiwari and Vinod Kumar Nirmalkar

SUMMARY

A field experiment was conducted in the last week of June 2020, at Horticulture Research cum Instructional Farm of Barrister Thakur Chhedilal College of Agriculture and Research Station, Sarkanda, Bilaspur (C.G.), to test the efficacy of various bio-control agents for the management of leaf spot of turmeric caused by *Taphrina maculans*. Treatment include the bio-agents alone or different combinations viz. *Trichoderma harzianum*, *Pseudomonas fluorescens*, *Bacillus subtilis*, *Trichoderma harzianum* + *Pseudomonas fluorescens*, *Trichoderma harzianum* + *Bacillus subtilis*, *Pseudomonas fluorescens* + *Bacillus subtilis* and *Trichoderma harzianum* + *Pseudomonas* + *Bacillus subtilis* and chemical fungicide mancozeb for foliar spray at 35 days after appearance of disease. Foliar spray of combination *Pseudomonas fluorescens* at 45 days after appearance of disease significantly reduced percent diseases index of taphrina leaf spot (PDI 43.57 %) and enhanced fresh rhizome yield (20.85 t ha⁻¹) compared to other bio-control agents applications.

Key Words : Crop phenology, Yield, Turmeric, *Taphrina maculans*

How to cite this article : Shweta, Tiwari, R.K.S. and Nirmalkar, Vinod Kumar (2022). Efficacy of various bio-control agents for the management of leaf spot of turmeric (*Curcuma longa* L.) caused by *Taphrina maculans*. *Internat. J. Plant Sci.*, **17** (1): 32-36, DOI: 10.15740/HAS/IJPS/17.1/32-36, Copyright@ 2022:Hind Agri-Horticultural Society.

Article chronicle : Received : 25.09.2021; Revised : 11.10.2021; Accepted : 08.11.2021

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