

In vitro evaluation of bio agents against rice sheath blight pathogen *Rhizoctonia solani* Kuhn

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ARTICLE INFO

Received : 05.07.2018
Revised : 05.09.2018
Accepted : 20.09.2018

KEY WORDS :

Biological control, *Pseudomonas floescens*, *Rhizoctonia solani*, Sheath blight of rice, *Trichoderma harzianum*

ABSTRACT

It is now an established fact that strains of *Trichoderma* and *Pseudomonas* are most capable among all the potent biological control agents against phytopathogenic microorganisms recorded till now. They are effective against pathogenic microbes by the virtue of their capacity to produce some antagonistic chemicals (antibiosis), competition for food and nutrition, direct killing (parasitisation) etc. One such study was conducted to know the interaction between *Trichoderma* spp. against *Rhizoctonia solani* causing sheath blight disease in rice. Nine isolates of *Trichoderma* were tested for its parasitisation ability under dual culture shown and it was found that 77.03 – 100 per cent inhibition of *Rhizoctonia* after 72 hours of inoculation. Also, the effect of inhibiting volatiles was seen by inverted plate technique. It was found that none of the nine isolate of *Trichoderma* significantly reduced the growth of *R. solani* by producing volatiles and inhibition percent was found only 3.88 – 5.60 per cent. Three isolates of *Pseudomonas floescens* inhibited the growth of the test fungus by only 30.36-34.81 per cent, which is very less when compared to fungal biocontrol agent *Trichoderma*.

How to view point the article : Lingwal, Shrishti and Vishwanath (2018). *In vitro* evaluation of bio agents against rice sheath blight pathogen *Rhizoctonia solani* Kuhn. *Internat. J. Plant Protec.*, **11**(2) : 146-150, DOI : 10.15740/HAS/IJPP/11.2/146-150, Copyright@ 2018: Hind Agri-Horticultural Society.

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