INTERNATIONAL JOURNAL OF PLANT PROTECTION
VOLUME 9 | ISSUE 2 | OCTOBER, 2016 | 540-546

● e ISSN-0976-6855 | Visit us : *www.researchjournal.co.in*

IJPP

RESEARCH PAPER

DOI : 10.15740/HAS/IJPP/9.2/540-546

Studies on comparative efficacy of commercially available talc formulations of *Trichoderma* spp. and fungicide against root rot of chilli (*Capsicum annuum* L.)

■ RESHU*, LAXMIKANT[1] AND SATYAPRAKASH[2]

Krishi Vigyan Kendra, BULANDSHAHR (U.P.) INDIA
[1]Krishi Vigyan Kendra, RAMPUR (U.P.) INDIA
[2]Krishi Vigyan Kendra, SAHARANPUR (U.P.) INDIA

ARITCLE INFO

Received : 03.06.2016
Revised : 03.09.2016
Accepted : 17.09.2016

KEY WORDS :
Chilli, Biological control, *Rhizoctonia solani*, Plant growth

ABSTRACT

Rhizoctonia solani causing root and stem rot in young transplanted plants is a major soil borne pathogen of chilli (*Capsicum annuum* L.). Poor growth of affected plants, yellowing and drying of foliage accompanied with partially or fully damaged root system are major symptoms of the disease. Studies were carried out to evaluate efficacy of soil application of ten commercially available formulations of *Trichoderma harzianum* and *T. viride*, under laboratory and field conditions for efficacy in suppressing *Rhizoctonia* root rot and promoting plant growth in chilli. Soil drenching by carbendazim 75 per cent WP (0.2%) was also taken as standard chemical check. Except BF 10 and BF 5 all the formulations which were tested in the field experiment were effective in reducing *Rhizoctonia* rot incidence in chilli as compared to control. However, disease incidence was least (12%) for the BF4. Reduction in disease incidence in this treatment was comparable to soil drenching by carbendazim (12%). Among other treatments BF3 was second most effective bioagent against *Rhizoctonia* root rot All the bioagents promoted plant growth in terms of plant height, root length, shoot dry weight and root dry weight. Maximum shoot dry weight was recorded for BF4 (60.5 g) followed by BF3 (60.00 g), BF6 (56.5 g) and BF2 (55.6 g). Similar trend of root dry weight was recorded. Highest rhizosphere soil population was recorded in case of bioagent formulation BF4 ($4.1x10^6$ cfu/g soil) followed by BF3 ($3.8x10^6$ cfu/g soil) and BF6 ($3.4x10^6$ cfu/g soil).

How to view point the article : Reshu, Laxmikant and Satyaprakash (2016). Studies on comparative efficacy of commercially available talc formulations of *Trichoderma* spp. and fungicide against root rot of chilli (*Capsicum annuum* L.). *Internat. J. Plant Protec.*, **9**(2) : 540-546, **DOI : 10.15740/HAS/IJPP/9.2/540-546**.

***Corresponding author:**