

COMPATIBILITY OF BIO-CONTROL AGENT *TRICHODERMA VIRIDE* WITH SOME PESTICIDES

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Abstract: The effect of seven commercial pesticides, Bavistin 50% W.P., Vitavax 75% W.P., Captan 50% W.P., (Fungicides), Chloropyriphos 20 E.C., Monocrotophos 20 E.C., Thimet 10 G (Insecticides), 2,4-D 80% W.P. (Weedicide), in 1000 ppm, 100 ppm, 10 ppm and 1 ppm was studied on growth of *Trichoderma viride* by poisoned food technique. The above commercial formulations exhibited varying effects on growth of fungus ranging from inhibitory or neutral, antisporeulant to stimulatory. Captan, Monocrotophos and lower doses of Vitavax, Chloropyriphos and Phorate can be used in combination with *Trichoderma viride* in IDM of selected pathogen.

Key words: *Trichoderma viride*, compatibility, pesticides.

REFERENCES

- Chet, I. (1989). Integrated control of soil borne and bulb borne pathogen in Iris. *Phytoparasitica*. **10**: 229-236.
- Dennis, C. and Webster, J. (1971). Antagonistic properties of species groups of *Trichoderma harzianum*. *Trans. Brit. Mycol. Soc.* **57** : 363-369.
- Elad, Y and Chet, I. (1983). Improved selective media for isolation of *Trichoderma spp.* *Phytoparasitica*. **11** (1) : 55-58.
- Gowdar, S.B.; Kulkarni, S. and Kulkarni, S. (1999). Compatibility effect of antagonists and seed dressers against *Fusarium udum*, the causal agent of Pigeon pea wilt. *Karnataka Journal of Agricultural Sciences* **12**:1-4, 199-199.
- Gowdar, S.B.; Ramesh Babu, H.N.; Nargund, V.B. and Krishnappa, M. (2007). Studies on effect of seed treatment fungicides and insecticides on the growth of *Trichoderma harzianum* Rifai. *Advances In Plant Sciences*. **20** (1) : 279-281.
- Jebakumar, R.S.; Anandaraj, M. and Sharma, Y.R. (2000). Compatibility of phorate and chloropyriphos with *Trichoderma harzianum* (Rifai.) applied for integrated disease management in black pepper. *Journal of Spices and Aromatic crops*. **9** : 2, 111-115.
- Mondal, G.; Srivastava, K. D. and Agarwal, R. (1995). Antagonistic effect of *Trichoderma spp.* on *Ustilago septum* var. *tritici* and their compatibility with fungicides and biocides. *Indian Phytopathology*. **48** : 466-470
- Nene, Y.L. and Thapaliyal, P.N. (1993). Fungicides in plant disease control. Oxford and I B H Publishing Co. Pvt. Ltd. New Delhi. **691** pp.
- Papavizas, G.C. (1985). *Trichoderma and Gliocladium*: their biology, ecology and potential of bio-control. *Annual Review Phytopathology*. **23** : 23-54.
- Prasanna, A.R.; Nargund, V.B.; Bheemanna, M. and Patil, B.V. (2002). Compatibility of thiamethoxam with *Trichoderma harzianum*. *Journal of Biological Control*. **16** (2) : 149-152.
- Sharma, D.D.; Gupta, V.P. and Chandrashekar, D.S. (1999). Compatibility of certain Bio-control agents with chemical pesticides and fertilizers. *Indian journal of Sericulture*. **38** (1) : 79-82.
- Windham, M.I.; Elad, Y. and Baker, R. (1986). A mechanism for increased plant growth induced by *Trichoderma spp.* *Phytopathology*. **76** : 518-521.