EFFECTIVENESS OF BIO-CONTROL AGENT WITH CHEMICAL PESTICIDES TO CONTROL PIGEON PEA WILT

Yojna Lal and Sobita Simon

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ABSTRACT : Biological control of *Fusarium oxysporum* f sp. *udum* causing wilt disease of pigeon pea was studied *in vivo*. *Trichoderma harzianum* was found to be the most promising in inhibiting the radial colony growth of the test pathogen as biological control by amending their inoculate at different concentrations (10, 100 and 1000ppm) in pots in the laboratory of Department of Plant Protection, Allahabad School of Agriculture, Sam Higginbottom Institute of Agriculture, Technology & Sciences, Allahabad. All the studied fungicides showed low to moderate inhibition of radial growth of *Trichoderma harzianum* except for Carbendazim and Benomyl, which depicted high inhibition. Maximum compatibility was observe between *Trichoderma harzianum* and Copper oxychloride. The population of *Fusarium oxysporum* f sp. *udum* was found to be markedly reduced when the antagonists were applied in the soil. The study establishes that *Trichoderma harzianum* can be exploited for the biological control of wilt disease even at field level.

Key Words : Trichoderma, chemical fungicides, fusarium wilt, pigeon pea