



RESEARCH PAPER

Evaluation of organics, antagonists and carbendazim against *Fusarium wilt* of pigeonpea (*Cajanus cajan* L.)

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Abstract : In India, pigeonpea [*Cajanus Cajan* (L.) Millsp.] wilt caused by *Fusarium udum* is prevalent in all areas it cultivated. Among the major soil borne diseases pigeonpea, the *Fusarium wilt* caused by *Fusarium udum* is one of the most important diseases and can cause 30-100% loss in grain yield. A pot experiment was conducted to assess the efficacy of *Trichoderma harzianum*, *Pseudomonas fluorescens*, farm yard manure, spent mushroom substrate of oyster mushroom and the fungicide Carbendazim 50% WP against *Fusarium wilt* of pigeonpea in terms of seed germination and disease incidence under artificial inoculation conditions during *Kharif* 2021. Among the treatments assessed, maximum seed germination (95.83%) was recorded in treatments in which seed were treated with Carbendazim 50% WP or soil amended with the combination of spent mushroom substrate+*Trichoderma harzianum* or spent mushroom substrate+(*Trichoderma harzianum*+ *Pseudomonas fluorescens*) prior to sowing. Maximum reduction in disease incidence (73.81%) of *Fusarium wilt* over the control was recorded in treatment in which soil was amended with combination of spent mushroom substrate+(*Trichoderma harzianum*+ *Pseudomonas fluorescens*). The results revealed that all the treatments applied as prophylactic measure, reduced the *Fusarium wilt* and increased the seed germination significantly over the unprotected crop.

Key Words : Antagonists, Carbendazim, *Fusarium udum*, Organics, Pigeonpea, Wilt

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