

Bioefficacy of a repository of *Trichoderma* spp. isolates against *Alternaria solani* inciting early blight of tomato

Jahaar Singh, Ashish Kumar and R.K. Tiwari

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ABSTRACT : *Trichoderma* species are omnipresent and very popular as effective means of plant disease management. In the present investigation, our aim was to determine the bioefficacy of the local isolates of *Trichoderma* spp. against virulent isolate of the fungus *Alternaria solani*- a causal agent of early blight disease. For identification of virulent isolate, of *Alternaria solani*, 10 isolates were isolated from infected tomato samples and after pathogenicity testing one isolate namely isolate 7 was selected showing maximum PDI of 57.78%. A repository of 40 potential isolates of *Trichoderma* spp. from Madhya Pradesh was used under confrontation assay against *A. solani*-Isolate 7. All the 40 *Trichoderma* isolates showed differential degree of inhibition for *A. solani* after different incubation period. However, two isolates namely T₆ (54.82%) and T₃₉ (53.95%) showed better potential of inhibition under confrontation assay after 96 hours of incubation period.

Key Words : Tomato (*Lycopersicon esculentum* Miller), *Alternaria solani*, bioefficacy, *Trichoderma* spp., tomato early blight disease.