

Research Article

## Molecular Characterization of Antagonistic *Trichoderma* Isolates Against Soil Borne Pathogens of Chickpea

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### Abstract

Twenty isolates of *Trichoderma* spp obtained from chickpea rhizosphere soils of Rayalaseema region of Andhra Pradesh characterized by ITS-PCR. Comparison of rDNA sequences, showed that they were belonging to four different species such as *T. asperellum*, *T. longibrachiatum*, *T. viride* and *T. harzianum*. Among all *Trichoderma* isolates, KNN 4 (*T. asperellum*) showed maximum inhibition of mycelia growth by 81.1 per cent against *R. bataticola*, KNPG3 (*T. asperellum*) recorded inhibition against *S. rolfsii* (80.7%) and ATPU 1 (*T. asperellum*) inhibited the mycelia growth of *F.o. f sp ciceri* (84.1%) under *in vitro* condition. Under field condition, treatment (T6=seed and soil application of *Trichoderma asperellum* (ATPU 1) recorded lowest dry root rot disease incidence (12.93%) and maximum plant height (45.97cm) and highest yield 1751.00 Kg ha<sup>-1</sup> of chickpea.

**Key words:** Chickpea molecular characterization, *Trichoderma* spp, soil borne pathogen.

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