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Variation in the antagonistic potential of Trichoderma spp. against Sclerotium rolfsii *in vitro*

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I solate Trichoderma harzianum Th₄ and T. virens Tv_5 were found effective against Sclerotium rolfsii, Chickpea collar rot pathogen, when twenty one sympatric Trichoderma isolates were assessed for their antagonistic potential in vitro using dual culture method. The test Trichoderma isolates were categorized based on their interactions in dual culture through qualitative parameters such as formation of zone of inhibition, lysis and over growth. Successful antagonism resulted in penetration of Trichoderma in to S. rolfsii zone causing lysis of S. rolfsii hyphae by occupying the thick strands and forming dark green spore pustules. Comparisons were made between T. harzianum Th₄ with faster radial growth in monoculture, and simultaneous lysis of S. rolfsii. Volatile metabolites of isolate Tv_5 were more inhibitory to S. rolfsii growth (54.6% inhibition) compared to Th₄ (16.3% inhibition) while non volatile metabolites of Th₄ (100% inhibition at 60% concentration) were more effective compared to Tv_5 (69.3% at 80% concentration) against S. rolfsii.

Biography

B. Swathi has completed M. Sc (Agriculture) in Plant Pathology and presently pursuing doctoral programme in Dept of Plant Pathology from Acharya N.G. Ranga Agricultural University, Agriculture College, Bapatla, Andhra Pradesh.

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