

PRODUCTION AND PURIFICATION OF CHITINASE BY *TRICHODERMA HARZIANUM* FOR CONTROL OF *SCLEROTIUM ROLFSII*

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ABSTRACT

Trichoderma species are potent biological control agents against several plant pathogens. In the present study twenty isolates of *Trichoderma* were isolated and screened for their antagonistic activity against *Sclerotium rolfsii*. All the isolates were able to inhibit the *S.rolfsii* in vitro, but T₇, T₉, T₁₀, T₁₃ and T₁₈ were superior antagonists compared to other isolates of *Trichoderma*. T₁₀ isolate is used for the production and purification of chitinase, due to their high enzymatic activity when screened in the medium containing chitin as sole a carbon source. T10 isolate produced the chitinases with molecular mass of 74 kDa (N-acetylglucosaminidase) and 32 kDa (endochitinase).

KEYWORDS: Antagonism, Chitin, Chitinases, *Sclerotium rolfsii*, Stem Rot, *Trichoderma*