

COMPARITIVE STUDY ON OPTIMISATION OF CELLULASE ENZYME FROM VEGETABLE WASTE BY USING TRICHODERMA ATROVIRIDE

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ABSTRACT

It's a study about the production of cellulose enzyme from vegetable waste using *Trichoderma atroviride*, through solid state fermentation process. The cellulose enzyme production was studied, by optimising the physical parameters such as incubation time, temperature and pH. By optimization of these three parameters, the maximum activities of cellulose produces by *Trichoderma atroviride* were observed after 5.5 days of incubation at a pH of 5.50 and 32.5°C temperature. The high activity of cellulase produced by the fungus had high activity, which inturn proves its potential for commercial scale production and thereby having various industrial applications.

KEYWORDS: Cellulase, Optimization, Solid State Fermentation, *Trichoderma Atroviride*, Incubation Time, Temperature & Ph