

# ABSTRACT

The work reported in this thesis was carried out to study the isolation and characterization of cellulase of Trichoderma viride produced by surface culture technique in presence of banana stem waste. Trichoderma viride was grown in 5% wheat bran medium containing banana stem waste. Production of cellulase and degradation of banana stem were monitored. The extra cellular cellulase produced, using 5 liters medium was subjected to ammonium sulphate fractionation. The fractions (cellulase) thus obtained were subjected to gel filtration chromatography. The characteristics of the fractions obtained after gel filtration were determined and compared to distinguish them from each other.

The results indicate that Trichoderma viride produces three cellulase enzymes i.e. the first fraction and last one are highly active while the second fraction is less active. The comparison of their characteristics indicates that they are different enzymes.