VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM

A project report

on

ISOLATION AND CHARACTERISATION OF TRICHODERMA INVOLVED, AND USED AS A BIOCONTROL AGENT

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In

BIOTECHNOLOGY

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ABSTRACT

Biological control involves the use of beneficial micro-organism to attack and control plant pathogens and the disease they cause. Biological control offers an environmentally approach to the management of plant disease and can be incorporated into cultural and physical control for an effective integrated pest management system. Trichoderma Viride is one such beneficial fungus that has antagonistic effect on the different foliar diseases caused by pathogenic fungi such as Fusarium and Alternaria species. In our work we have isolated Trichoderma Viride from air and rhizosphere region of soil. The biochemical characterisation of the strain was performed, followed by the extraction and identification of toxin. Identification of toxin was done by comparing with the standard Rf values of antifungal antibiotics. The toxin was found to be gliotoxin. To find out the antagonistic effect of Trichoderma Viride, the different pathogenic fungi like Fusarium and Alternaria species were transferred from the agar slant into the petri dishes containing the Czapek-Dox agar media. Filter paper discs dipped into the toxin of Trichoderma Viride were placed around the test organisms. We observed that a zone of inhibition was found around the discs.