

A Study of the Colletotrichum leaf disease of Rubber.

Abstract

Colletotrichum gloeosporioides is the causative agent of the Colletotrichum leaf disease of rubber. Several isolates of the pathogen have been collected from different rubber growing localities and variability in morphology, growth pattern and infectivity are known to occur among the different isolates.

Two isolates (Isolate I and V) were chosen for this study. Isolate V is known to be more pathogenic than Isolate I. The pattern of growth of the two isolates and their ability to secrete host cell wall degrading enzymes were investigated.

There were marked differences in growth pattern and sporulation between the two isolates. Isolate V had a rapid rate of growth but sporulation was greater in Isolate I.

Both isolates when grown in suitable liquid media secreted the pectolytic enzymes, polygalacturonase and pectin lyase and the cellulytic enzymes, cellobiase and B 1 - 4 glucanase. The levels of enzymes were higher in Isolate V.

The study show the existance of variations among the two isolates and the greater pathogenecity of Isolate V may be due to its higher rate of growth and its ability to secrete high levels of host cell wall degrading enzymes.