D48

A STUDY OF THE CELL-WALL DEGRADING ENZYMES SECRETED BY ISOLATES OF *RIGIDOPORUS LIGNOSUS* (KLOTZCH) IMAZ, THE CAUSTIVE AGENT OF WHITE ROOT DISEASE OF RUBBER

A J Dharmatilake and R L C Wijesundera
Dept. of Botany, University of Colombo

A de S Liyanage
Dept. of Plant Pathology, Rubber Research Institute, Agalawatta

In a study to determine the involvement of pathogen secreted cell wall degrading enzymes in the white root disease of rubber, four selected isolates of Rigidoporus lignosus were screened for their ability to secrete the pectolytic enzymes polygalacturonase and pectin lyase. The isolates selected were T_1 9, $D_1$5, $H_2$3 and $S_1$1; these were grown in liquid cultures with pectin as the main source of carbon. The isolate $T_1$9 secreted both polygalacturonase and pectin lyase whereas all the other isolates secreted only pectin lyase.

The growth of the isolates on 2% malt extract medium and in liquid culture with pectin was also examined. The $T_1$9 isolate had the highest rate of growth in both media.

Of the isolates examined T_1 9 is known to be the most virulent. It was the only isolate which secreted polygalacturonase and it also had the highest pectin lyase activity.

It is possible that the high virulence is related to the ability to secrete both polygalacturonase and pectin lyase.

Reference

1. Riggenback, A. (1960) Studies on Fomes lignosus (Klotzch). Bres. the causative agent of the white root disease of the para rubber tree, Hevea brasiliensis Muelll. Arg Phytopathologische Zeitschrift 40 187-212