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Production of cell wall degrading enzymes by the new population of *Corynespora cassiicola* isolated from *Hevea brasiliensis*

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Corynespora cassiicola which causes target spots on a large number of plant species in tropical and sub-tropical countries has now become a serious threat to the natural rubber plantation industry. To understand the host pathogen interactions, cell wall degrading enzyme production in the new population of *C. cassiicola* was investigated for a period of 20 days for pectolytic enzymes and up to 30 days for cellulolytic enzymes. One isolate from each cluster group (E, L & A) was selected for the present study. The *C. cassiicola* isolates produced pectic enzymes and cellulolytic enzymes in ammonium tartrate liquid medium with citrus pectin or carboxy methyl cellulose as sources of carbon. The agar plate method and viscosity reduction method were used to determine the polygalacturonase activity and the thio-barbituric acid method was used to assay pectin lyase activity. The β -glucosidase and cellobiase activities were measured by the hydrolysis of chromogenic substrates. All the three isolates investigated produced markedly high levels of pectin lyase while polygalacturonase was not produced by any of the isolates. All the three isolates of *C. cassiicola* also produced β -glucosidase and cellobiase in a similar pattern but showed variations in the production levels among the isolates. The results of this study suggest that principal pectic enzyme associated in pathogenesis of the rubber isolates of *C. cassiicola* is likely to be pectin lyase and at later stages cellulolytic enzymes are also involved possibly playing a role in the pathogen's nutrition.