

**PROFILE OF HYDROLASES AND LACCASE PRODUCTION BY
Moniliophthora perniciosa, THE CAUSAL AGENT OF WITCHE'S BROOM
DISEASE OF CACAO**

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Moniliophthora perniciosa is an endophytic fungi that causes witch's broom disease of cacao. In Brazil it is found throughout the Amazon basin and in southern Bahia, where is one of the most destructive diseases of this crop. The objectives of this work were to show a profile of some extracellular enzymes secreted in the culture medium after the fungus has grown on starch, xylan, citric pectin, olive oil, CM-cellulose, glucose, and also demonstrate if this microorganism produces laccase constitutively. *M. perniciosa* was grown in minimum Vogel's medium, under stationary and also submerged condition. The reducing sugars were detected by Somogyi-Nelson Method. Lipase and laccase were measured with PNPP and DMP as substrate, respectively. The decrescent order of enzyme production in stationary culture condition was: pectinase > amylase > xylanase = CMCase > lipase, while in submerged condition was: pectinases > CMCase > xylanase > amylase > lipase. Laccase was produced in the presence of all substrates in both conditions showing that it is a constitutive enzyme in this fungus. The highest level of laccase (5.2 U/mL) was obtained on olive oil as sole carbon source under stationary condition.
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