CHARACTERIZATION OF *PESTALOTIOPSIS MICROSPORA*, THE CAUSAL AGENT OF RUBBER LEAF BLIGHT DISEASE IN CAMEROON

A.I.C. Nyaka Ngobisa, N.P.A. Owona, Oumar Doungous, Ntsomboh-Ntsefong Godswill[1,2], S.W. Njonje and E.E. Ehabe

Littoral Regional Centre For Scientific Research and Innovation, Douala, Cameroon
[1]Institute of Agricultural Research for Development (IRAD), Cameroon
[2]Department of Plant Biology, Faculty of Science, University of Yaounde I, Cameroon

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Hevea brasiliensis is the only commercial source of natural rubber in Cameroon and its production can be severely limited by diseases such as leaf blight. The disease is mostly observed in smallholder rubber fields in South West Cameroon. For this study, leaf samples were collected from infected plants. The pathogen was then isolated and identified as *Pestalotiopsis microspora* following the cultural and morphological characterisation of colonies developed from single spore isolates. Culture media, period of incubation, temperature and pH affected the mycelial growth of *P. microspora*. Inoculation on detached leaflets revealed the pathogenic capacity of this fungus. Re-isolation of the pathogen from the symptoms produced confirmed Koch's postulates. Molecular sequence analysis of the internal transcribed spacer (ITS) region 1 and 2 including 5.8S rDNA (ITS-5.8S-ITS2) confirmed the morphological identification. *P. microspora* was therefore identified as the causative agent of the leaf blight on rubber in South West Cameroon.

The effects of some fungicides were tested *in vitro* on mycelial growth of *P. microspora*. Banko plus (Chlorothalonil 550 g L^{-1} + Carbendazim 100 g L^{-1}), Penncoz (Mancozeb 800 g kg^{-1}) and Metalm 72 WP (Cuprous oxide 600 g kg^{-1} + Metalaxyl 120 g kg^{-1}) tested at different concentrations revealed inhibitory activity *in vitro*. Among these fungicides, a marked efficiency of Chlorothalonil + Carbendazim was observed, though the inhibition of mycelial growth was more effective with Cuprous oxide + Metalaxyl at rates: 100, 75 and 50 per cent only.

Key words: Internal transcribed spacer, Leaf blight, Pathogenicity, Natural rubber, *Pestalotiopsis microspora*

INTRODUCTION

The Pará rubber tree (*Hevea brasiliensis*), commonly known as rubber tree, is a perennial plant, widely grown for its rubber-containing latex and for wood. It is widely cultivated in South East Asia and West and Central Africa, including the South West region of Cameroon (Owona *et al*., 2010). Rubber tree contributes significantly to the income of thousands of smallholder farmers (Omorusi, 2012).

Correspondence: Nyaka Ngobisa (Email: boulnyaka@yahoo.com)