

## CONTROL OF PATCH CANKER DISEASE ON *HEVEA BRASILIENSIS*

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Five systemic and contact fungicides incorporated in a petroleum wound dressing compound were evaluated for the control of patch canker disease caused by *Phytophthora* spp. in the *Hevea brasiliensis* clone PB 260 in comparison with Bordeaux paste. Among them, mancozeb, metalaxyl+mancozeb, phosphorous acid and thiophosphate were found to be effective. However, considering consistency of disease control and the cost of treatments mancozeb is the fungicide of choice for the control of the disease.

Key words: Disease control, *Hevea brasiliensis*, Patch canker, *Phytophthora* spp.

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### INTRODUCTION

Patch canker or bark canker is a wet weather disease affecting rubber (*Hevea brasiliensis*) trees of all age groups. This disease was first reported from Sri Lanka in 1903 (Young, 1955). Later it was noticed in other countries. In Malaysia the disease is reported to be caused by *Phytophthora* spp. (Rao, 1975). In India, *Phytophthora palmivora*, *P. meadii* or *Pythium vexans* are associated with this disease. Pillay and George (1980) reported that *Pythium vexans* is usually isolated when the infection is noticed at collar or root region.

The pathogen gains entry inside the bark of the trees through wounds/cracks formed on the bark due to twisting of trees in lashing winds, lightning and farm implements (Kothandaraman and Idicula, 2000). In the early stages of disease development, copious exudation of latex is noticed. Some times reddish or purplish exudation of sap may also be seen. The exudates later dry up

to form black streaks below the affected portion. Latex exudated between the bark and wood in the affected areas coagulates under the bark at the site of infection forming a pad, which protrudes out as a bulge on the bark. The latex pad can easily be removed by cutting open the bulged bark. The pad emits a foul smell. When the disease reaches an advanced stage decaying of bark with discolouration of wood is observed. In most cases, a patch canker infection can be detected before it fully penetrates through cortex to the cambium. However, if left alone, it may damage the cortex right down to the cambium and spread laterally so long as the growth conditions are favourable for the pathogen. It may thus extend over large areas of bark. Ultimately the affected portion becomes weak leading to breakage of tree during heavy winds. The most serious cases of patch canker are those in which the tree is attacked at the collar region. The disease may spread rapidly around the base of the tree