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MANAGEMENT OF BLACK STRIPE DISEASE OF *HEVEA*

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Field experiments were conducted to evolve a schedule for application of non-mercurial fungicides for protection of tapping panels of *Hevea* trees from black stripe disease caused by *Phytophthora* spp. Mancozeb 0.375 per cent and phosphorous acid 0.08 per cent gave effective and economic protection when applied at weekly intervals.

Key words : *Hevea brasiliensis*, Black stripe, *Phytophthora*, Chemical control.

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INTRODUCTION

Black stripe disease caused by *Phytophthora* spp. which was considered to be less important in India, has recently gained more importance with the popularity of rainy season exploitation of rainguarded rubber (*Hevea brasiliensis*) trees. Panel disinfection using organomercurial fungicides has been recommended for the control of this disease (Pillay and George, 1980). Organomercurial fungicides are known to cause human toxicity (Huising, 1974) which has prompted the Central Insecticide Board of the Government of India to issue directives to restrict the use of these fungicides for seed dressing purpose only. Attempts made earlier to identify alternative fungicides for the control of black stripe indicated the usefulness of mancozeb 0.75 per cent, captafol 0.8 per cent and thiram 0.75 per cent, mancozeb being significantly superior to the other two (Edathil *et al.*, 1988). The present study was aimed at identifying the optimum interval between consecutive rounds of fungicide application, effective economic dosage and to explore new fungicides for the control of the disease.

MATERIALS AND METHODS

Experiments were designed and conducted on two important aspects of disease management, *viz.*, interval between fungicide applications and alternative fungicides.

Interval between fungicide applications

Field experiments were laid out at Lahai Estate (Pathanamthitta District, Kerala) in clone PB 28/59 in a randomized block design with seven treatments and four replications, with a plot size of one ha each. The fungicides included were mancozeb (0.75%), captafol (0.8%) and thiram (0.75%) applied either weekly or fortnightly. Weekly application of methoxyethyl mercury chloride (MEMC 0.015%), the fungicide recommended earlier, formed the control. The fungicides were dispersed in water and approximately 4 l was used per hectare per round. The treatments were initiated with the onset of SW monsoon and continued upto the end of