

## DRY ROT DISEASE MANAGEMENT IN *HEVEA BRASILIENSIS*

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Three years trials on screening of different fungicides indicated that methoxyethyl mercury chloride, thiram, oxycarboxin, carbendazim, thiophanate methyl and propiconazole were effective in checking dry rot disease of rubber and were superior to Bordeaux paste. Comparison of two carriers for fungicides viz., povidyl compound and petroleum wound dressing compound indicated a significant superiority of the latter. The interaction between fungicide and carrier was also significant. Incorporating the fungicide in petroleum compound and applying to the affected area was as effective as applying fungicide solution followed by subsequent application of petroleum compound.

**Key words:** *Hevea brasiliensis*, Dry rot disease, Fungicides, Carriers, Application methods.

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### INTRODUCTION

Dry rot disease caused by the fungus *Ustilina deusta* (Hoffm. ex Fr.) Lind. was of less prominence in rubber plantations of South India. However, in recent years the occurrence of this disease had been on the increase and a large number of trees was lost due to the lack of timely detection (Fig. 1) and treatment. Varghese (1971) conducted inoculation studies and observed that deep wounds resulted in significantly more infections than medium or light wounds. He reported that infection occurred through lenticels and moribund root initials. Bordeaux paste was used by planters for controlling the disease. However, under moderate to high disease incidence and high rainfall conditions, this fungicide did not provide adequate control. In order to find out effective fungicides, suitable carriers and appropriate method of application, under South Indian conditions, trials were carried out from 1985-86 to 1987-88, in an estate

where an out-break of this disease in a large area was reported. The results are presented in this paper.

### MATERIALS AND METHODS

#### (a) Screening of fungicides

Five fungicides, viz., methoxyethyl mercury chloride (MEMC 0.015 per cent a.i.), Bordeaux paste, tridemorph (1 per cent a.i.), thiram (0.75 per cent a.i.), and oxycarboxin (0.5 per cent a.i.) were screened for their efficacy in checking the disease. Each fungicide was applied at the infected loci after removing the decayed bark and wood. On drying, a wound dressing petroleum compound (WDC) was applied over the cut surface. WDC, applied alone after washing the cut surface with water, served as the control. Each treatment was applied on 15 trees and the treatments were imposed during September each year.