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CORYNESPORA LEAF FALL DISEASE MANAGEMENT IN *HEVEA* USING OIL-DISPERSIBLE AND DUST FUNGICIDE FORMULATIONS

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Corynespora leaf fall (CLF) disease caused by *Corynespora cassiicola* (Berk & Curt) Wei. is currently considered as one of the major leaf diseases of *Hevea brasiliensis* in South and South East Asian countries. Chemical control of this disease by high volume spraying in mature plantations is expensive. Field experiments were conducted from 1998 to 2000 to assess the efficacy of oil-dispersible and dust fungicide formulations in controlling the disease. Four oil-dispersible fungicides *viz.* mancozeb 75 % powder, mancozeb 50 % liquid, copper oxychloride (COC) 56 % powder and mancozeb 50 % + COC 15 % (mixed powder) and three dust fungicides *viz.* hexaconazole 2 % carbendazim 1.5 % and tridemorph 1.5 % were tested. Mancozeb 75 % powder and mancozeb liquid formulations were found to be more effective treatments among the oil-dispersible fungicides. COC 56 % ODP and mancozeb + COC mixed formulations also gave significant control of the disease. Hexaconazole 2 % and carbendazim 1.5 % were found to be superior among the dust formulations. Dusting during refoliation period is more advantageous for controlling CLF disease as compared to spraying of oil-dispersible fungicides.

Key words: *Corynespora cassiicola*, Disease control, Fungicides, *Hevea brasiliensis*

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INTRODUCTION

Corynespora cassiicola (Berk &Curt.) Wei. is the fungal pathogen causing Corynespora leaf fall (CLF) disease in rubber trees (*Hevea brasiliensis*). The disease normally appears during refoliation period by infecting the new flushes and subsequently causes die-back of young branches if infection is severe. The disease incidence was earlier reported to be confined to polybag nurseries and young plantations (Pillay *et al.*, 1980). However, as a new epidemic, CLF has emerged as one of the major leaf diseases of rubber in South and South East Asia. Severe economic loss due to widespread incidence of the disease has been reported from Sri Lanka (Liyanage *et al.*, 1991), Indonesia (Sinulingga *et al.*, 1996) and Malaysia (Kamar, 1994).

In India, the disease was reported in rubber nurseries as early as 1958 (Ramakrishnan and Pillay, 1961) and later in immature and mature plantations (George and Edathil, 1980). During 1996, it was reported to occur in serious dimensions in eight to nine-year-old plantations in the Hevea Breeding Sub-Station of the Rubber Research Institute of India at Nettana, Karnataka (RRII, 1997). Since then, intensity of the disease has increased in the rubber growing areas of Southern Karnataka and the adjoining areas of Kerala. Chemical control by using water-based fungicides has been recommended for the disease management in nurseries and younger plantations (Pillay *et al.*, 1980). Owing to the requirement of repeated application, difficulty in spraying on tall trees and high cost involved, spraying of water-based fungicides in mature plantations is not generally recommended. Considering these, the present investigation was undertaken to evaluate