

SCLEROTIUM COLLAR ROT OF HEVEA SEEDLINGS AND ITS MANAGEMENT

C. K. Jayasinghe, S. S. Warnapura and B. I. Fernando

Jayasinghe, C. K., Warnapura, S. S. and Fernando, B. I. (1993). *Sclerotium* collar rot of *Hevea* seedlings and its management. *Indian Journal of Natural Rubber Research*, 6 (1 & 2) : 5-9.

A collar rot disease of *Hevea brasiliensis* had spread in 1987 on seed germination beds for the first time in Sri Lanka, devastating more than 10,000 three months old seedlings. The causal organism was identified as *Sclerotium rolfsii* Sacc. and its pathogenicity was confirmed. The symptoms were yellowing of leaves and rotting of the stem at the collar region followed by collapse of plants. The presence of white cottony mycelium on the stem and the seed coat was evident.

Among seven chemicals evaluated *in vitro* by poisoned food technique captan (0.02%), thiram (0.02%), formaldehyde (0.05%), benomyl (0.2%) and mancozeb (0.2%) could check the growth of the pathogen successfully. In pot culture trials only formaldehyde (0.12%) and tebuconazole (0.06%) were effective in controlling the pathogen without any phytotoxic effect. The disease was completely checked in traditional burning of soil included as a treatment in pot culture trial and none of the seedlings or hypocotyl region of germinating seeds were found to be affected with *S. rolfsii*.

Key words : *Hevea brasiliensis*, Disease management, Collar rot, *Sclerotium rolfsii*, Chemical control, Sri Lanka.

C. K. Jayasinghe (for correspondence) S. S. Warnapura and B. I. Fernando, Rubber Research Institute of Sri Lanka, Dartonfield, Agalawatta, Sri Lanka.

INTRODUCTION

A collar rot disease of rubber (*Hevea brasiliensis*) seedlings had spread in 1987 on seed germination beds for the first time in Sri Lanka devastating more than 10,000 three months old seedlings. The causal organism was identified as *Sclerotium rolfsii* Sacc. (IMI herb No. 319716, perfect stage *Corticium rolfsii* Curzi) and its pathogenicity was confirmed by fulfilling Koch's postulates (Jayasinghe *et al.*, 1988). Repeated attacks were observed during 1988,

1990 and 1991 destroying more than 50 percent of the seedlings in the germination beds.

This is the first detailed account of the occurrence of collar rot disease of *Hevea* in Sri Lanka. This disease has not been recorded from other rubber growing countries (International Rubber Research and Development Board, 1988) except for one report that *S. rolfsii* had infected and killed germinating rubber seeds in Malaysia (Weir, 1929).