

REVIEW ARTICLE

RESEARCH ON SOUTH AMERICAN LEAF BLIGHT
(*MICROCYCLUS ULEI*) OF RUBBER IN BRAZIL

L. Gasparotto and M. I. P. M. Lima

Gasparotto, L. and Lima, M. I. P. M. Research on South American leaf blight (*Microcyclus ulei*) of rubber in Brazil. Indian J. Nat. Rubb. Res. 4(2): 83-90.

South American leaf blight (SALB), caused by *Microcyclus ulei*, remains a problem of overriding importance in rubber (*Hevea brasiliensis*) cultivation in Brazil. The disease is widely distributed and is responsible for poor latex yield. Research on this disease is concentrated on epidemiology, development of resistance, disease avoidance mechanisms and chemical control.

Key words:- *Hevea brasiliensis*, South American leaf blight, *Microcyclus ulei*, Brazil.

L. Gasparotto (for correspondence) and M. I. P. M. Lima, Centro de Pesquisa Agroflorestal da Amazonia Ocidental (CPAA/EMBRAPA), Caixa Postal 319, 69001-Manaus, AM, Brazil.

One of the original habitats of the rubber tree (*Hevea* spp.) is the Brazilian Amazon basin where 10 to 11 *Hevea* species occur. Other areas of origin are located in Bolivia, Peru, Ecuador, Guyana, Surinam and Venezuela (Goncalves *et al.*, 1983). The centre of origin is located between latitudes 3° North and 15° South of the American continent in an area of approximately six million km².

Among the South American countries, Brazil has traditionally been closely associated with the production of the para rubber. It was, until the 1910s, the world's chief supplier of natural rubber, the source being the rubber collected from *Hevea* trees growing naturally in the tropical rain forest. Today the situation has changed drastically. Brazil contributes to only less than 1 per cent of the world natural rubber production and is importing more than 75 per cent of its present natural elastomer needs (Bernardes *et al.*, 1990).

Brazil started to establish rubber plantations like some Asian countries from the

1940s. Besides the early plantations of the Ford Company in Fordlandia and Belterra, Para, investments in rubber plantations were also started in the 1960s in south-east Bahia and later in Sao Paulo and Mato Grosso (Goncalves *et al.*, 1983). All these attempts to establish large scale rubber cultivation in Brazil failed mainly due to attacks by diseases, in particular South American leaf blight (SALB), caused by *Microcyclus ulei* (P. Henn.) v. Arx.

The National Rubber and Oil Palm Research Centre established in 1975 in Manaus, Amazonas State, is actively involved in rubber research. Areas of research in SALB include epidemiology, disease resistance, disease avoidance mechanisms and chemical control. This paper discusses the current status of research on SALB in Brazil with particular reference to some recent findings of interest.

Epidemiology

Leaves of the rubber tree are susceptible to *M. ulei* infections only in their growth