

SCREENING OF CLONES OF RUBBER (*HEVEA BRASILIENSIS*) FOR GROWTH AND TOLERANCE TO POWDERY MILDEW DISEASE AT A HIGH ALTITUDE STATION IN KERALA, INDIA

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Ten ortet selections and five popular clones of *Hevea brasiliensis* were screened to ascertain powdery mildew disease tolerance in a high altitude station at Ambalavayal, Wayanad in Kerala. The experiment was conducted during the refoliation from January to April for a period of four years. The plants were protected with alternate application of systemic (carbendazim 0.05 per cent) and non-systemic (wetttable sulphur 0.2 per cent) fungicides as per standard practice. Girth of the plants and powdery mildew disease assessments prior to and after treatments were recorded. The ortet selection Iritty 1 showed high degree of disease tolerance with better growth.

Keywords: Disease screening, Fungicides, *Hevea brasiliensis*, Ortets, Powdery mildew, Susceptibility, Tolerance.

Rubber (*Hevea brasiliensis*) grows best at altitudes below 450 m in regions with an evenly distributed rainfall without any marked dry season. Growth of rubber is affected by extremes in temperature. Mean monthly temperatures of 20 to 25 °C have been found to be optimum (Vijayakumar *et al.*, 2000). The low temperature prevailing in high altitudes during refoliation period favours high incidence of powdery mildew disease caused by the fungus *Oidium heveae* affecting growth of the rubber trees adversely (Ramakrishnan and Pillai, 1962; Fernando, 1971; Liyanage *et al.*, 1985).

The replacement of native perennial crops such as pepper, tea, coffee and cardamom in the high altitude areas of Wayanad with more economic tree species like rubber necessitates the screening of rubber clones/selections for growth under low temperature conditions and tolerance to powdery mildew disease. Hence a study was taken up with 10 ortet selections (P 1, P 2, P 90, P 121, P 155, P 213, P 270, P 280, P 296 and Iritty 1) and five popular clones (RRII 105, RRII 203, RRIC 100, RRIC 102 and PB 86). The 10 ortets were selected from the seedling population existing in Panamaram,

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