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AN EPIDEMIOLOGICAL APPROACH TO THE CONTROL OF *OIDIUM HEVEAE* IN RUBBER

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Powdery mildew of rubber caused by *Oidium heveae* affects immature leaves formed during refoliation after the annual wintering, resulting in premature defoliation referred to as secondary leaf fall (SLF).

The pattern of wintering and the incidence of SLF due to *Oidium* were recorded on clones PB 86, RRIC 7, RRIC 45 and RRIC 52 at Dartonfield Estate over a 4 year period. In addition, the host phenology, the pattern of spore distribution and spore viability were also studied during the same period.

The results show that the wintering of all clones usually commences in early December, and reaches a peak between the 3rd-4th week of January. However, the exact time differs from year to year and on the clone, depending on the weather conditions during the interim period. Generally, in RRIC 45 the peak wintering period is seen in 1st-2nd week of February. The commencement of SLF takes place in the 2nd week of February and is continued into early April and late May, with the peak infection brtween 3rd-4th week of February. In RRIC 45 peak SLF occurs in the 2nd week of March. In some years a small peak of SLF occurs in 2nd-4th week of April. *Oidium* spores were trapped on rod traps using a sellotape as the trapping surface. These were found in abundance in the 2nd week of February and the maximum spore catch was seen in late February. The maximum viability also coincided with the period of maximum spore release. A second catch was observed over the entire month of April. The critical period to protect against an oubreak of the disease, therefore, is just prior to the 2nd week of February.

In-depth studies on the epidemiological relationship between the disease and the host and its environment has helped to determine the optimum time to control the disease thereby reducing the cost of sulphur dusting.