B-79: Isolate comparison of *Phytophthorn meadii*

T L Dharmasiri [1], R L C Wijesundera[1], A H R Jayaratne[2]
([1]Dept of Botany, University of Colombo, Colombo 3, [2]Dept of Plant Pathology, Rubber Research Institute of Sri Lanka)

Seven isolates of the fungal pathogen, *Phytophthora meadii* which causes black stripe, leaf fall, shoot die back and pod rot in rubber were collected from different parts of the country and were studied in order to see the presence of any differences within the species.

The colony morphology, growth rates and sporangial dimensions were compared in cultures grown on Lima Bean Agar (LBA) plates with identical growth conditions.

Although the appearance of aerial mycelia showed a visible difference, there was no marked difference seen in the colony margins. The isolates grown at different temperatures (10°C, 20°C, 30°C) showed no significant difference in their growth rates. However the growth rate difference was significant ($p<0.05$) among the isolates grown in complete light conditions. This is as opposed to the growth rates of the same in complete darkness, which showed no significant difference. The abundance of sporangia as well as their appearences were also similar in all seven isolates. The lengths, breadths and pedicel lengths of the sporangia were statistically compared but no significant differences were seen among the isolates.

The above results show that the seven isolates of the observed pathogen could possibly belong to the same strain of the species. However phyllogenetic differences may be present within the strain which are responsible for certain differences seen among isolates.