

## B-29 Brown spot of paddy grains in Batticaloa District

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Infection of brown spot disease was noticed in rice crops in light sandy soils, during Maha 1995/96. Infected seeds were collected randomly from a few locations in the

Batticaloa district where brown spot was a serious problem. The seeds were sealed in polyethylene bags immediately after collection and brought to the Laboratory of Agricultural Biology, Eastern University, for investigation. Soil samples were collected for analysis of major soil nutrients.

The infected grains were randomly picked and were surface sterilised by immersing the grains for 2-3 min in 5% sodium hypochlorite solution. The grains were blotted and dried on sterile paper and placed on Oat Meal Agar pour plates. Inoculated plates were kept inside the incubation chamber at a temperature range of 30-32°C for 2 days. Structure and characters of colonies were observed and identified. Different species of the fungi were carefully isolated and a series of subculturing was made to obtain pure culture. The species characteristics were precisely studied to identify species.

Isolated pathogens were identified as *Cochliobolus lunatus* and *Cochliobolus sativus*, based on their characteristics of colonies and conidiospores. The mean temperature of the study area varied from 34 to 38°C and it probably would have enhanced the proliferation of the pathogens. Nutrient status of the soil was poor to induce disease incidence. The estimated quantities of nitrogen and potassium in soil were 0.014% and 0.009% respectively. These amounts are considered very low.