BROWN SPOT OF PADDY GRAINS IN BATTICALOA DISTRICT

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ABSTRACT

Infection of brown spot disease was noticed in rice crops grown in light 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 polythene bags immediately after collection and brought to the laboratory of Agricultural Biology, Eastern University, Sri Lanka for investigation. Soil samples were collected for analysis of major soil nutrients.

The infected grains were randomly picked and were surface sterilized by immersing the grains 3 minutes in 5% Sodium hypochlorite solution. The grains were blotted and dried on sterile filter paper and placed on Oat Meal Agar pour plates. Inoculated plates were kept inside the incubation chamber at a temperature range of $30 - 32^{2\%}$ C for two days. Structure and characters of colonies were observed and identified. Different species of the fungi were carefully isolated and a series of sub culturing was made to obtain pure culture. The species characteristics were precisely studied to identify species. Isolated pathogens were identified as *Cochilibolus lunatus* and *Cochlibolus sativus*, based on their characteristics of colonies and condiospores.

The mean temperature of the study area varied from 34 to 38^{20%} C and it probably would have enhanced the proliferation of the pathogens. Nutrients status of the soil was poor to induce disease incidence. The estimates quantities of nitrogen and potassium in soil were 0.014% and 0.0009% respectively and these amounts are considered very low. Theses observations and results corroborate with earlier findings reported elsewhere.