

EFFICACY OF FUNGICIDES TO CONTROL BROWN SPOT OF PADDY GRAINS

By

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Abstract

Brown spot caused by *Cochliobolus spp* is a major problem of the seed farmers of the Batticaloa district. No proper recommendation is made to control this disease chemically in Eastern region of Sri Lanka. Therefore, a study was carried out to select the most suitable fungicide to control this disease in the Eastern region Batticaloa. Paddy grains and leaves infested by brown spot disease were collected from the farmers field in Batticaloa district during Maha 2001/2002. The samples were brought to Agric Biology laboratory, Eastern University where the experiments were conducted. The pathogen was isolated from the grains and leaves of naturally infested rice plant by using oat meal agar (OMA) medium.

Six fungicides were evaluated against the mycelial growth of *Cochiliobolus sativus* by using the food poison technique in-vitro. The recommended, double the recommended and half the recommended rates of each tested fungicide solution were prepared in sterile water.

Amended OMA medium was poured into sterile petridishes. A mycelial disc was cut from the edge of an actively growing colony of *cochiliobolus spp* and was placed on the centre of the fungicide amended.

OMA poured plates in inverted position for each treatment were replicated five times. Unammended plates were kept as control. Radial growth of the hypha was measured and mycelial inhibition percentage was calculated. The data were analyzed by the SAS package.

The results showed that there were no significant differences in Hinosan, Eraser, and Mancozeb at double the recommended rate. Eraser and mancozeb have no significant difference at the recommended rate. Mancozeb shows the highest inhibition even at half the recommended rate. In all three concentration tested in this study, it was found that Mancozeb is the most suitable to control brown spot disease in paddy. However, further field studies should be made before any conclusion is made.

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