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## FIELD EVALUATION OF CERTAIN PROPRIETORY FUNGICIDES AGAINST SHEATH BLIGHT OF PADDY.

Eventhough Sheath blight of rice caused by *Corticium Sasakii* (Shirai) Matsumoto has been noticed in Kerala only in 1969 this has been recognised as one of the most serious diseases of rice at present. The fact that only little success has been achieved in locating a gene resistant to this disease in any of the rice varieties is faced with acute difficulty in evolving resistant variety.

Fungicidal control of this disease has been attempted for many years by different workers. Jain (1971), Mathai (1975), Mathai and Varadarajan Nair (1976) have reported that hinosan is effective in controlling the disease. Trials conducted at IRRI (Anon 1973) showed that benlate, BAS 3050 F and hinosan were effective in the order of preference against sheath blight. Muneera (1973) and Thimmalachar *et al* (1969) observed good control of this disease by using benlate and aureofungin-Sol respectively.

A field experiment was conducted at the Rice Research Station, Moncompu consecutively for 3 years from 1974—1977. A total of 4 sprays were given during each season, starting from tillering phase. The fungicides used for the study were hinosan, dithane 2.78, dithane M—45, aureofungin-Sol, miltox, ziride and difolatan. During 1976—77 kitazin was included additionally. The results are presented in Table 1. The disease intensity was scored following the "standard Evaluation System for Rice" adopted by IRRI (1976).

Though the disease incidence was statistically significant during 1974—75 and 75—76, on the basis of percent efficiency hinosan, dithane M—45 and aureofungin-sol. were found to be better than other fungicides. During 1976—77, hinosan, kitazin, difolatan, and dithane 2.78 were found to be superior than other fungicides. Taking into consideration the results of all the three years it can be concluded that fungicides belonging to organo phosphorous group (Hinosan, Kitazin) or dithiocarbamates (Dithane) and aureofungin-sol. are the most effective in controlling the disease in the order of preferance.

The superiority of hinosan over other fungicides in sheath blight control has been much emphasised in the past. (Jain 1971, Muneera 1973, Mathai 1975 and Mathai and Varadarajan Nair 1976). Abeygunawardena and Desilva (1964) recorded that dithiocarbamates such as ferbam are active against this disease. Under the present investigation, the disease was not severe in any of the three years. Perhaps this may be the reason why the grain yield did

not differ among the treatments. Mathai (1975) and Mathai and Varadarajan Nair (1976) obtained higher grain yields in a plot sprayed with hinosan.

**Table** 1 Disease incidence and **yield** of grain

| Treatments | Disease incidence (C—9 Scale) | | | Grain yield in kgs/plot | | |
|---|---|---|---|---|---|---|
| | 1974—75 | 75—76 | 76—77 | 74—75 | 75—76 | 76—77 |
| Hinosan (1 ml/litre water/plot) | 1.58 | 1.13 | 1.55 | 3.5 | 2,1 | 5.3 |
| Dithane Z-78 (2g/litre water) | 1.63 | 2.08 | 1.78 | 3.0 | 2.4 | 5.6 |
| Dithane M-45 (2g/litre water) | 1.65 | 1.49 | 1.95 | 3.1 | 2.1 | 5.5 |
| Aureofungin-Sol. (100mg/litre water) | 3.75 | 1.49 | 1.93 | 3.0 | 2.3 | 5.8 |
| Miltox (2g/litre water) | 2.00 | 1.76 | 2.08 | 3.0 | 2.1 | 5.7 |
| Difolatan (1g/litre water) | 2.05 | 1.67 | 1.75 | 3.2 | 2.3 | 5.6 |
| Ziride (2g/Jitre water) | 2.08 | 1.72 | 1.93 | 3.5 | 2.3 | 5.5 |
| Kitazin (1ml/litre water) | — | — | 1.58 | — | — | 5.4 |
| Control (1ml/litre water/plot) | 2.23 | 2.17 | 2.20 | 3.3 | 2.1 | 5.8 |
| CD | NS | NS | 2.25 | NS | NS | NS |

സംഗ്രഹം

നെല്ലിന്റെ പോളരോഗത്തിനെതിരായി 8 വിവിധ തരത്തിലുള്ള കുമിൾനാശിനികൾ പരീക്ഷിക്കുകയുണ്ടായി. ഹിനോസാൻ, കിറാസിൻ, ഡൈത്തേൻ എം—45, ഓറിയോഫംഗിൻ സോൾ എന്നീ കുമിൾനാശിനികൾ യഥാക്രമം പ്രയോജനപ്രദമെന്നുകണ്ടു.

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