Plants treated with Benlate had only 6.3% disease incidence; plants treated with N.F. 48, 6.6%; and plants treated with Daconil, 6.8%. The unsprayed

control had 41.4% incidence. Pots sprayed with Bavistin had 8.5% incidence; with Difolatan, 8.7%; with Kitazin, 10.6%;

with Hinosan, 11.0%; and with Miltox, 13.9% — also lower than incidence in the control.

Control of sheath blight disease of rice

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The rice variety ADT 31, which is susceptible to sheath blight caused by *Rhizoctonia solani*, was grown in concrete pots during kuruvai (Jun-Sep) 1977. At maximum-tillering stage the plants were inoculated with the pathogen by the straw-bit method developed by Venkata Rao and Kannaiyan in 1973. The test fungicides Bavistin, Kitazin, Hinosan, Benlate, Demosan, thiabendazole, Vitavax, Daconil, Brassicol, and wettable ceresan were used at 0.05, 0.1, and 0.2% levels. They were sprayed once at 12 hours after inoculation. The disease intensity was assessed with the 1976 Standard Evaluation System for Rice scale. Compared with the untreated control, all the fungicides effectively controlled the disease. Bavistin, Kitazin, Hinosan, Benlate, Demosan, and thiabendazole gave significant disease control (<75%). An increase in spray concentration of all fungicides lowered the disease index (see table). ■

Effect of fungicides on the control of sheath blight disease of rice. Tamil Nadu, India.

| | 0.05% level | | 0.1% level | | 0.2% level | |
|------------------|------------------------------|----------------------------------|------------------------------|----------------------------------|------------------------------|----------------------------------|
| Fungicide | Mean disease index (%) | Reduction (%) over control | Mean disease index (%) | Reduction (%) over control | Mean disease index (%) | Reduction (%) over control |
| Bavistin | 5.6 | 92.8 | 4.9 | 93.7 | 3.3 | 95.7 |
| Kitazin | 7.1 | 90.9 | 5.7 | 92.7 | 4.5 | 94.2 |
| Hinosan | 9.0 | 88.4 | 7.2 | 90.7 | 5.4 | 93.0 |
| Benlate | 12.2 | 84.3 | 9.1 | 88.3 | 7.5 | 90.3 |
| Demosan | 13.2 | 83.0 | 10.1 | 87.0 | 7.0 | 91.0 |
| Thiabendazole | 17.9 | 77.0 | 14.4 | 81.5 | 12.1 | 84.5 |
| Vitavax | 24.1 | 69.1 | 18.4 | 76.4 | 16.0 | 79.5 |
| Daconil | 26.2 | 66.4 | 22.1 | 70.9 | 17.9 | 77.0 |
| Brassicol | 30.3 | 61.5 | 25.8 | 66.9 | 23.2 | 70.2 |
| Wettable ceresan | 64.2 | 17.7 | 58.8 | 24.7 | 52.0 | 33.4 |
| Control | 78.1 | - | 78.1 | - | 78.1 | - |

Treatments: S.E. = 0.4262, S.E.D. = 0.6028, C.D. = 1.23.

Concentrations: S.E. = 0.2335, S.E.D. = 0.3302, C.D. = 0.67

Treatments x concentrations: S.E. = 0.6028, S.E.D. = 0.8524, C.D. = 1.74. Significant at 1% level.

Reaction of some common weeds in Sri Lankan rice fields to *Corticium sasakii*

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Sheath blight is a common rice disease in the wet zone of Sri Lanka. The degree of infection varies with region and season. But the fungus appears to survive continuously from season to season through an alternate host or in rice stubble of infected fields.

Two virulent isolates of *Corticium* sasakii, PI 1 and PI 2, were used to test the ability to infect several weeds common in rice fields. Eight species of weeds were grown in the greenhouse at 23-79°C. After 7 weeks *C. sasakii* inoculum grown in sterilized rice seeds was incorporated into the plants' substrate. The pathogenicity of the two isolates to the weeds is summarized in the table.

All the weeds tested. except *Eriocaulon* species and *Monochoria vaginalis*, were susceptible to sheath blight and showed spreading lesions. Symptoms were similar to those on rice plants. Spots that originated at soil level were irregular and pale green. They turned off-color and spread further upward along the stem. In *Echinochloa*, the sheath appeared water-soaked and wrinkled. The *Echinochloa* species were

Reactions of some common weeds^a in rice fields to sheath blight fungus. Peradeniya, Sri Lanka.

| Host | Days before lesion development | | Mean lesion length (mm) after 2 wk | | Disease incidence ^b | |
|-------------------------|--------------------------------|------|---------------------------------------|------|--------------------------------|--|
| | PI 1 | PI 2 | PI 1 | PI 2 | (%) | |
| Echinochloa crusgalli | 5 | 7 | 8 | 6.2 | 30.8 | |
| Echinochloa colonum | 5 | 6 | 8 | 5.5 | 30.0 | |
| Fimbristylis miliacea | 7 | 8 | 5.2 | 3.0 | 20.0 | |
| Fimbristylis littoralis | 7 | 7 | 6 | 2.8 | 16.9 | |
| Cyperus difformis | 9 | 13 | 1.8 | 1 | 0.7 | |
| Eriocaulon species | - | - | - | - | - | |
| Monochoria vaginalis | _ | - | _ | - | - | |

^a Mean of 12 plants. ^b 2 wk after inoculation.