

## Identification of genotypes resistant to blast, bacterial leaf blight, sheath blight and tungro and efficacy of seed treating fungicides against blast disease of rice.

### ABSTRACT

A total of 35 inbred and 13 hybrid varieties including susceptible checks were screened against the 4 major diseases of rice (blast, bacterial leaf blight, sheath blight and tungro) as well as experiments on management of blast were conducted in the rain-fed and irrigated rice ecosystems during 1999 to 2003. Results showed that none of the tested high yielding varieties (HYV) were resistant to blast, while the hybrids, sonarbangla1, aalock6201, KRH2, IR71101H, IR68877H and IR76901H, and inbreds BR12, BR15 and IR72 were moderately resistant in the irrigated rice ecosystem. On the other hand, all the varieties tested against bacterial leaf blight (BLB) and sheath blight (ShB) were moderately susceptible in the same ecosystem. The inbred varieties BR22, BR25, BRR1 dhan31, BRR1 dhan32, BRR1 dhan33, BRR1 dhan34, BRR1 dhan38 and BRR1 dhan39 demonstrated moderately resistant reactions but all the hybrids were moderately susceptible to BLB in the rain-fed ecosystem. Eight inbreds, predominantly, BR22, BR23, BRR1 dhan27, BRR1 dhan31, BRR1 dhan32, BRR1 dhan37, BRR1 dhan38 and BRR1 dhan40 were moderately resistant to tungro disease. Among the 3 fungicides tested in 2 different trials, adivistin and haydazim 50 WP (carbendazim) at the rate of 0.4% were more effective as seed-treating fungicides for the control of rice blast disease.

**Keyword:** Hybrids; Inbreds; Screening genotypes; Major rice diseases; Seed-treating fungicides.