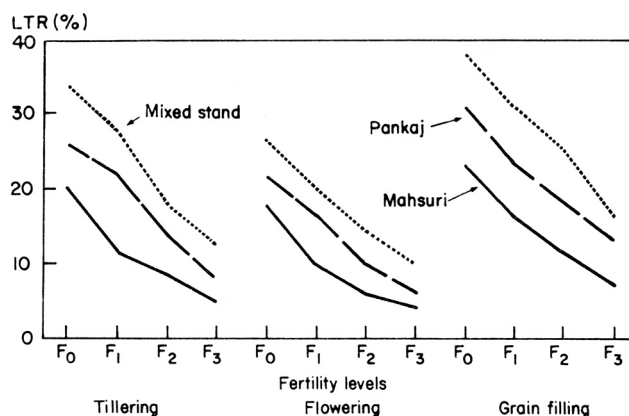


stand than in pure stands at all fertility levels except at zero added fertilizer. Higher fertility levels significantly increased plant height of both cultivars. The prismatic shape of the mixed stand canopy allowed more light to reach the plants and resulted in greater LTR than in pure stands of both cultivars at all growth stages (see figure). LTR was least in Mahsuri pure stand. LTR decreased gradually as fertility levels increased and decreased more in pure than in mixed stands. □



LTR in rice cultivars grown in pure and mixed stands at different fertility levels.

Dormancy of IR50 seeds

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IR50 seeds obtained at harvest were evaluated for dormancy. Immediately after harvest, they had 14.7% moisture and 15% germination. But when stained with a 0.25% solution of tetra-zolium chloride, the seeds showed 92% germinability, which indicated the presence of dormancy.

The seeds were sun-dried for 3 d from 0930 to 1130 h and from 1400 to 1700 h, shade-dried, or dried at 40°C in a hot-air dryer. Moisture content and percentage germination were recorded 1, 7, 14, and 27 d after harvest (see table).

At 14 and 27 d after harvest, shade-dried seeds were soaked in water for 24 h and tested for germination (see table). □

Moisture content and gemination of IR50 seeds at different days after harvest, Coimbatore, India.

Days after harvest	Drying treatment	Moisture content (%)	Germination (%)
Fresh	—	15	15
	Sun	12	22
	Shade	13	20
	At 40°C	13	26
7	Sun	9	85
	Shade	10	25
	At 40°C	9	70
	Soaking and leaching of shade-dried seed	—	78
14	Sun	10	87
	Shade	10	44
	At 40°C	10	86
	Soaking and leaching of shade-dried seed	—	83
27	Sun	9	85
	Shade	10	82
	At 40°C	10	83
	Soaking and leaching of shade-dried seed	—	83
CD (0.05)		3	4

Genetic Evaluation and Utilization DISEASE RESISTANCE

Comparative biology, pathology, and karyology of rice and maize isolates of *Rhizoctonia solani* f. sp. *sasakii*

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We compared six Indian isolates of maize and rice sheath blight (ShB) pathogen

R. solani f. sp. *sasakii*, collected from Karnal (R₁), Solan (R₂), Sundernagar (R₃), Bajaura (R₄), Hyderabad (R₅), and Coimbatore (R₆). We evaluated range of nuclei, mean and mode of nuclear number per hyphal cell, in vitro response to temperature, fungicide and antibiotic response, and relationship of temperature levels to disease intensity.

We found that rice and maize ShB pathogens were identical based on

positive cross-inoculation of the pathogen isolates; symptom similarity on *Saccharum officinarum*, *Paspalum scrobiculatum*, *Pennisetum purpureum*, *Zea maxicana*, *Zea mays* (varieties *indurata*, *indentata*, *saccharata*, and *everta*), *Setaria italica*, *Panicum miliaceum*, *Sorghum vulgare*, *Echinochloa frumentacea*, and *Pennisetum americanum*; similar sclerotial and mycelial characters; nuclear mode number (see table); similar range of