

in the plot. Certain panicles in affected hills also suffered from sheath rot or bacterial leaf blight, but no correlation with panicle sterility could be traced. Diseased panicles sometimes set normal grains. Soil samples from affected and normal hills did not show any difference in nematode populations.

Symptoms were observed during 1980-81 and 1981-82 kharif, in different plots of the Jokhiat block, Purnea district, North Bihar. ■

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*The International Rice Research Newsletter (IRRN) invites all scientists to contribute concise summaries of significant rice research for publication. Contributions should be limited to one or two pages and no more than two short tables, figures, or photographs. Contributions are subject to editing and abridgement to meet space limitations. Authors will be identified by name, title, and research organization.*

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## GENETIC EVALUATION AND UTILIZATION

# Disease resistance

### Resistance to blast and brown spot in Karnataka

*S. Sannegowda and K. T. Pandurange-gowda, Division of Plant Pathology, Regional Research Station, University of Agricultural Sciences, Mandya 571 405 Karnataka, India*

Wide distribution of blast and brown spot diseases in an epiphytotic form causes severe damage at all stages of the rice crop in many areas of Karnataka. Considerable variation in resistance to leaf blast, neck blast, and brown spot diseases occurred in 69 varieties screened during 1981 kharif. Twenty-four varieties were found resistant to leaf and neck blast disease (see table). Twenty-five varieties were found resistant to brown spot disease. Of the 69 varieties screened, only 9 showed resistance to all 3 diseases. ■

#### Resistance of released and unreleased varieties of rice to blast and brown spot in Karnataka

Variety	Disease score <sup>a</sup>		
	Leaf blast	Neck blast	Brown spot
IET3116	M	R	R
IET3305	R	M	M
IET3195	R	M	M
IET2685	R	M	M
IET2490	R	R	R
IET4699	R	R	M
IET4155	R	R	M
IET3280	M	M	R
IET3626	R	R	R
ET4094	R	R	R
IET1789	R	R	R
IET4107	R	M	R

Variety	Disease score <sup>a</sup>		
	Leaf blast	Neck blast	Brown spot
IET2684	R	M	R
IET5725	R	R	R
IET2444	R	R	R
IET6211	M	R	R
IET5656	M	M	M
IET5890	R	R	M
IET5854	R	R	M
IET3629	R	M	M
IET2700	R	R	R
IET2730	M	R	M
IET4555	R	R	M
IET2570	M	M	M
IET5722	R	R	M
IET4592	R	R	M
IET5704	R	M	M
IET5721	M	M	M
IET2246	R	M	M
IET5853	M	M	M
KMP32	R	R	M
KMP41	M	R	M
KMP47	R	R	M
KMP63	M	R	M
KMP64	R	R	M
KMP65	R	M	M
KMP67	R	R	M
KMP68	R	R	M
KMP70	M	R	M
KMP73	R	R	M
KMP74	R	M	M
KMP75	R	R	M
KMP42	M	R	R
83-KMP (A) 57	R	M	M
CR222-MR-10	M	M	M
CR165-18-8	M	M	M
ES-6	M	M	M
ES-18	R	M	R
ES-24	M	M	M
IR6115-1-1-1	M	M	M
Improved Madhu	M	M	M
IR8	M	M	R
S705	M	S	R
Mahsuri	M	S	M
Intan	R	R	R
Cauvery	M	S	M
Jagnath	R	S	R

Variety	Disease score <sup>a</sup>		
	Leaf blast	Neck blast	Brown spot
S-22	R	R	R
Madhu	R	M	M
TN1	R	M	R
Pragathi	R	M	M
MR401	M	M	R
MR362	M	R	R
MR261	R	M	R
MR343	M	M	M
Sona	R	M	R
Vani	M	R	R
ADT32	R	M	M
IR3941-8-1	R	R	M

<sup>a</sup>R = resistant, M = moderately susceptible, S = susceptible.

### Properties and concentrations of rice bunchy stunt virus

*L. H. Xie and J. Y. Lin, Fujian Agricultural College, Fujian, China*

The properties of rice bunchy stunt virus (RBSV) were determined by bioassay that involves injecting a virus source into the abdomen of *Nephotettix cincticeps*, using a capillary glass needle provided by IRRRI. Virus sources were prepared by homogenizing diseased materials in 0.1 M phosphate buffer solution (pH 7.0).

Infectivity of insects indicated that the dilution end point of RBSV was 10<sup>-4</sup> of the diseased leaves and 10<sup>-3</sup> of viruliferous insects. The thermal inactivation point was 60° C and longevity in vitro was 4 days at 0-4° C.