

Ce 21/Xianghu 14), Xiushui 24 (XS24 derived from (Ce 21/Xianghu 14)²/Xianghu 25), and Xiushui 11 (XS 11, derived from CE 2¹/Xianghu 25) were used to study the inheritance of resistance to three BI races, ZB₁₃, ZC₁₅, and ZE₃, during 1991-93.

The seeds of parents, F₁, and F₂ were sown in 60- × 30- × 7-cm plastic trays, one cross/tray. Seedlings were inoculated at the 4-leaf stage by spraying an aqueous spore suspension of 5 × 10⁴

conidia/ml. Disease reactions were scored about 10 d after inoculation.

The results indicated that two dominant genes controlled resistance to three BI races in XU84, XU25, XS04, and XS24, and only one dominant gene controlled resistance in XS11 (Table 1). Testing allelism of resistant parents indicated that some resistance genes were allelic, depending on BI races used (Table 2). ■

Pest resistance—insects

Resistance to rice mealybug in whitebacked planthopper-resistant rice varieties

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Resistance to rice mealybug (*Brevinnia rehi*) was evaluated in rice varieties possessing diverse genes for resistance to whitebacked planthopper (WBPH) (*Sogatella furcifera*) using the seedbox screening test. Five replications were made. Pregerminated rice seeds were

sown in rows in a 30- × 25- × 6-cm seedbox.

At 7 d after sowing, each seedling was infested with 5-6 first-instar nymphs (crawlers). When about 90% of the susceptible check, TN1, had died, plant damage was rated on a 0-9 scale as 0 = no damage, 1 = slight damage, 3 = first and second leaves of most plants partially browned, 5 = pronounced browning and stunting or about half of the plants wilted or dead, 7 = more than half of the plants wilted or dead and remaining plants severely stunted and covered with a mealy coating, and 9 = all plants dead.

Rice mealybug damage ratings on rice varieties resistant to WBPH.^a Tamil Nadu, India.

Variety	Gene for resistance to WBPH	Origin	Damage rating ^b
Boegi Boera	<i>Wbph 1</i>	Indonesia	5.8 b
N22	<i>Wbph 1</i>	India	3.4 cd
Muskhan 41	<i>Wbph 1</i>	Pakistan	2.2 def
Siam Garden	<i>Wbph 1</i>	Peru	3.0 cde
Rening	<i>Wbph 1</i>	Indonesia	4.2 c
Senawee	<i>Wbph 1</i>	Sri Lanka	1.0 g
Oha	<i>Wbph 1</i>	Nepal	3.8 c
Sathra 265	<i>Wbph 1</i>	Pakistan	3.8 c
Sufaida 172	<i>Wbph 1</i>	Pakistan	1.0 g
ADR52	<i>Wbph 3</i>	India	1.0 fg
Podiwi A8	<i>Wbph 4</i>	Sri Lanka	1.4 fg
N'diang Marie	<i>Wbph 5</i>	Senegal	1.4 fg
WC1240	<i>Wbph 1 + 1</i> recessive	India	3.0 cde
Katuyhar Dhan	<i>Wbph 1 + Wbph 2</i>	Nepal	3.4 cd
ARC5752	<i>Wbph 1 + Wbph 2</i>	India	1.0 fg
Colombo	<i>Wbph 2 + 1</i> recessive	India	3.0 cde
Chaia Anaser	<i>Wbph 1 + Wbph 3</i>	Nepal	1.8 efg
TN1 (susceptible check)			9.0 a

^aMean of five replications. ^bIn a column, means followed by the same letter are not significantly different (P = 0.05) by DMRT.

Senawee, Sufaida 172, ADR52, and ARC5752 were highly resistant to mealybug. N22, Rening, Oha, Sathra 265, and Katuyhar Dhan were moderately resistant (see table). ■

Resistance to thrips in traditional rice varieties

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We evaluated 100 traditional rice varieties for resistance to *Stenchaetothrips biformis* (Bagnall) under field conditions at the Paddy Breeding Station, TNAU, Coimbatore, during Oct 1993.

Pregerminated seeds were direct seeded in three 1-m rows. The resistant check, Ptb 21, and the susceptible check, TN1, were sown between every 10 test varieties. Varieties were exposed to natural thrip infestation. Damage was scored 30 d after sowing (DAS) using the 1-9 scale of the *Standard evaluation system for rice*.

S. biformis population and plant damage ratings on traditional rice varieties under field conditions. Coimbatore, India, October 1993.^a

Variety	Population	Damage rating ^b
Co 2	9.0 cde	1.0 c
Co 4	8.2 def	1.0 c
Co 25	8.8 cde	1.4 c
Co 26	8.0 def	1.4 c
Co 27	7.8 def	1.0 c
Co 28	7.4 def	1.0 c
Co 30	7.4 def	1.0 c
ADT10	8.0 def	1.4 c
ADT25	9.8 cd	1.0 c
Ptb12	11.8 c	1.4 c
Ptb21 (resistant check)	6.0 f	1.0 c
PLR1	6.8 def	1.0 c
Thodavalan	9.0 cde	1.0 c
Kandagasalai	6.0 f	1.0 c
Valanchannel	8.8 cde	1.4 c
Chethuvali	7.8 def	1.4 c
Karuvali	6.6 ef	1.0 c
Kodagan	8.6 cdef	1.0 c
Vali	22.8 b	3.0 b
TN1 (susceptible check)	74.8 a	9.0 a

^aMean of five replications. In a column, means followed by the same letter are not significantly different (P = 0.05) by DMRT. ^bScored using 1-9 scale in SES.