

Cultivars screened for rice blast resistance^a in Guilan, Iran, 19784-84.

Origin	Cultivars (no.)		Total entries tested (no.)
	Resistant	Susceptible	
IRRI	139	255	391
Japan	43	33	76
USA	35	32	67
Taiwan	34	11	45
India	28	15	43
Pakistan	11	6	17
China	9	—	9
Iran	7	537	544
Philippines	6	13	19
Italy	3	—	3
Senegal	3	6	9
Korea	2	—	2
Hong Kong	2	2	4
Indonesia	2	—	2
USSR	2	24	26
Vietnam	1	—	1
Bangladesh	1	—	1
Egypt	1	—	1
South America	1	2	3
Thailand	1	1	2
Total	328	937	1265

^aStandard evaluation system for rice.

were no effective resistance genes in Guilan cultivars, but many exotic sources had genes for resistance to *P. oryzae* races found in Guilan. In general, varieties that possess *Pi-a*, *Pi-i*, and *Pi-ta* resistance genes were resistant to rice BL in Guilan Province. □

Insect resistance

Whitebacked planthopper (WBPH) *Sogatella furcifera* (Horvath) survival and nymph emergence on some rice varieties

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We studied survival and nymph emergence of WBPH on susceptible TN1 and IR50; moderately resistant Ptb 12, Ptb 19, CO 22, IR28, IR30 and IR60, and highly resistant ARC10550

and ARC6650 rice varieties. We used 40-d-old plants in three replications.

Ten freshly emerged nymphs/plant were enclosed in a polyethylene cage to the adult stage. Three 3-d-old gravid females/plant were confined to study nymph emergence. After 10 d, the adults were removed and emerging nymphs counted periodically.

The varieties differed significantly in WBPH survival and nymph emergence (see table). Survival was lowest on ARC10550, followed by

ARC6650 and CO 22. Nymph emergence was low on highly resistant varieties. Among the moderately resistant varieties, CO 22, IR28, IR30, and IR60 permitted more nymph emergence than Ptb 12 and Ptb 19.

Effects of resistant accessions on nymph development were also observed. Average nymph duration on resistant accessions was longer than on the susceptible check. In the resistant and moderately resistant varieties, nymph development was delayed. □

Growth of WBPH nymphs on resistant and moderately resistant rice varieties.^a Madurai, India.

Variety	Survival (no.)	Nymph emergence (no.)	Nymph duration (d)
ARC6650	3.00 b (1.70)	51.33 a (7.16)	13.0 a (3.61)
ARC10550	1.66 a (1.27)	55.00 a (7.39)	13.0 a (3.61)
CO 22	3.66 c (1.91)	82.66 cd (9.07)	12.6 b (3.56)
IR28	6.00 e (2.45)	94.33 de (9.71)	13.0 a (3.61)
IR30	7.33 ef (2.70)	104.00 ef (10.16)	13.0 a (3.61)
IR50	8.00 g (2.82)	127.33 g (11.28)	12.0 c (3.46)
IR60	6.30 ef (2.52)	108.66 f (10.41)	13.0 a (3.61)
Ptb 12	5.0 d (2.24)	67.33 b (8.20)	13.0 a (3.61)
Ptb 19	4.66 d (2.16)	71.66 bc (8.45)	12.6 b (3.56)
TN1 (susceptible check)	8.66 h (2.94)	164.00 h (12.80)	11.6 d (3.41)
LSD (P=0.05)	0.19	0.66	0.04

^aMean of 3 replications. Figures in parentheses are transformed values. In a column, means followed by the same letter are not significantly different at the 5% level.

Reaction to brown planthopper (BPH) of varieties originating from *Oryza officinalis*

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We screened 86 lines originating from wild rice *O. officinalis* against BPH using the modified seedling bulk test. Test lines were sown 20 seeds/row in 10-cm-long rows in iron seedboxes 105

× 60 × 5 cm filled 3 cm deep with fine soil, in a randomized complete block design with three replications.

Seedlings were infested 10 d after seeding with second- to third-instar BPH biotype 2 nymphs at 8-10 nymphs/plant. Plant damage was assessed when 95% of susceptible check TN1 had died.

Forty lines showed resistance to BPH 19 lines at grade 1 and 21 lines at grade 3 (see table). □