## Cont'd

Spacios	Origin	IDDI	Damage rating <sup>a</sup>	
Species	Origin	acc. no.	N. nigropictus	N. virescens
O. officinalis	Malaysia	101152	4.3	1.0
O. officinalis	Malaysia	101154	5.0	1.0
O. officinalis	Malaysia	101155	4.3	1.0
O. officinalis	Philippines	101166	5.7	1.0
O. punctata	Tanzania	101171	6.3	1.7
O. punctata	Nigeria	101329	7.0	1.7
O. minuta	Japan	101386	7.7	3.3
O. minuta	Japan	101387	7.7	1.7
O. latifolia	Guatemala	101392	1.3	1.0
O. alta	USA	101395	3.0	0.7
O. officinalis	Vietnam	101399	5.0	1.7
O. punctata	Ghana	101408	5.0	1.0
O. punctata	Ghana	101409	3.7	0.7
O. officinalis	India	101412	4.3	1.7
O. officinalis	India	101414	4.3	1.7
O. punctata	Kenya	101417	4.3	0.7
O. eichingeri	Uganda	101422	5.7	1.7
O. eichingeri	Uganda	101426	4.3	1.7
O. punctata	Tanzania	101434	3.0	1.3
O. punctata	Ghana	101439	5.0	1.0
O. latifolia	Mexico	101443	0.3	0.7
O. officinalis	Indonesia	102382	3.7	1.3
O. latifolia	Nicaragua	102481	0.3	1.0
O. sativa (Nira)	India	1748 (suscep- tible check)	9.0	9.0
O. sativa (IR29)	Philippines	30414 (resistant check)	3.7	3.7

<sup>a</sup> Av of 3 replications. Damage rating is based on 0-9 scale.

## Screening for green leafhopper (GLH) resistance

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We screened 18 rices with genes for resistance to Nephotettix virescens (Distant) for resistance to N. nigropictus (Stål) and *N. virescens* using the seedbox screening test. Test entries were sown in  $60 - \times 40$ - $\times$  10-cm seedboxes with IR29 as the resistant check and Nira as the susceptible check. Separate seedboxes were used for each hopper species. Seven days after seeding (DAS), seedlings were thinned to 15-20 per entry and infested with 4-5 3dinstar nymphs per seedling of each species. When all susceptible check seedlings died, entries were rated for damage using the Standard evaluation system for rice 0-9 scale.

All the rices with genes for *N. virescens* resistance were resistant (rating of 3-3.7) or moderately resistant (rating 4.3-5.7) to *N. nigropictus.* Jhingasail, Lien-tsan 50,

replication. At 10-15 d after seeding, seedlings were infested with 4-5 3d-instar GLH nymphs per seedling. When Nira seedlings died, test entries were rated for damage using the *Standard evaluation system for rice* 0-9 scale. Each entry was replicated three times.

*N. nigropictus* is more virulent and caused more damage to wild rices than *N. virescens.* Of the 91 wild rices, 53 (59%) were resistant (score 0-39), 31 (33%) were moderately resistant (score 4.0-5.9), and 7 (8%) were susceptible (score 6.0-9) to *N. nigropictus* (see table). All but one of the wild rices were resistant to *N. virescens.* 

When the IR varieties (*Oryza sativa*) were screened for GLH resistance in another test, *N. virescens* was generally more virulent. Also, the weed *Leersia hexandra* was a better host for N. nigropictus than for *N. virescens*. Thus, *N. nigropictus* is better adapted to feeding on wild rices and *L. hexandra* than on cultivated rice.  $\Box$ 

Re	action of rice	cultivars	with genes	for N.	virescens	resistance	when	infested	with N.	nigropictus o	r
Ν.	virescens in t	he seedbo	x screening	test,	IRRI, 198	83-84.					

		_	Damage rating <sup>a</sup>		
Variety	Origin	Gene	N. nigro-	N. vires.	
			pictus	cens	
Pankhari 203	India	Glh 1	3.0 bc	3.3 ab	
Jhingasail	Bangladesh	Glh 2	3.0 bc	3.7 bc	
Lien-tsan-50	China	Glh 2	3.0 bc	3.7 bc	
ASD7	India	Glh 2	4.3 cde	3.7 bc	
Godalki	Bangladesh	Glh 2	5.7 ef	5.0 bcd	
Palasithari 601	Sri Lanka	Glh 2	5.0 def	3.0 a	
Н5	Sri Lanka	Glh 3	2.3 bc	6.3 cd	
DNJ 97	Bangladesh	Glh 3	4.3 cde	3.7 bc	
IR8	Philippines	Glh 3	5.7 ef	5.7 bcde	
Arai	Bangladesh	Glh 3	3.7 cd	3.7 bc	
IR30	Philippines	Glh 3	3.0 bc	3.0 a	
Ptb 8	India	glh 4	3.7 cd	5.7 bcde	
IR42	Philippines	glh 4	3.7 cd	7.0 cde	
ASD8	India	Glh 5	5.0 def	3.0 a	
IR36	Philippines	Glh 6	3.0 bc	7.0 cde	
Ptb 18	India	Glh 6	4.3 cde	5.7 bcde	
TAPL #796	Bangladesh	Glh 6	1.7 a	3.7 bc	
Moddai Karuppan	Sri Lanka	Glh 7	3.0 bc	5.7 bcde	
IR29 (resistant check)	Philippines	-	3.0 bc	3.7 bc	
Nira (susceptible check)	India	-	9.0 f	9.0 e	

<sup>*a*</sup> In a column, means followed by a common letter are not significantly different at the 5% level by Duncan's Multiple Range Test. Damage rating is based on a 0-9 scale. Av of 3 replications.

Arai, IR30, and TAPL #796 were resistant and six rices were moderately resistant to both hopper species (see table). In general, reactions to both species were similar, except for IR36 and IR42, which had higher damage when infested with N. virescens.