

Table 2 Inheritance of BPH resistance in F₂ generation *O.glaberrima* derived introgression lines crossed with recurrent parent and susceptible variety

Cross	Segregation in F ₂ generation			Ratio	χ^2	P value
	Total	Resistant	Susceptible	R : S		
BPT 5204 x IR 64	230	62	168	1:3	0.469	0.50-0.30
BPT 5204 x IR 75870-5-8-5-B-1-B	314	230	84	3:1	0.514	0.50-0.30
BPT 5204 x IR 75870-5-8-5-B-2-B	416	323	93	3:1	1.551	0.30-0.20
IR 64 x IR 75870-5-8-5-B-1-B	248	196	52	13:3	0.801	0.50-0.30
IR 758570-5-8-5-B-1-B x IR 75870-5-8-5-B-2-B	234	228	4	1:0		

Table 3 Inheritance of BPH resistance gene in F₂ generation of *O.minuta* introgression lines cross with recurrent and susceptible variety

Cross	Segregation in F ₂ generation			Ratio	χ^2	P value
	Total	Resistant	Susceptible	R:S		
IR 31917-45-3-2 x IR 71033-121-15	254	187	67	3:1	0.257	0.70-0.50
BPT 5204 x IR 71033-121-15	491	376	115	3:1	0.654	0.50-0.30

The F₂ population of recurrent parent IR 31917-45-3-2 x IR 71033-121-15 (introgression line derived from *O. minuta*) and susceptible variety BPT 5204 x IR 71033-121-15, segregated in 3:1 (resistant: susceptible) ratio indicating monogenic dominant nature of resistance (Table 3). The wild species *O. minuta* (Acc. 101141) is distantly related to cultivated and other wild species of rice from where the BPH resistance genes have been identified and several incompatibility barriers restrict the natural gene flow from one species to another hence the BPH resistance gene present in IR 71033-121-15 is a new gene introgressed from *O. minuta* and designated tentatively as *Bph 23(t)*.

References

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