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Short Communication

Study of Duplicates in the Germplasm

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Small samples of germplasm with identical names, grain features, maturity, and other morpho-agronomic features and from same origin were screened for bacterial blight and white backed planthopper at IRRI, Philippines. Variable reaction for the disease and pest was observed within the identical names. The collections screened, therefore, were not duplicates.

In the cultivated rice (*Oryza sativa* L.), enough genetic variability is present to serve most of the needs of rice breeders. The genetic wealth of rice germplasm is threatened by rapid spread of new improved varieties. It became important, thus, to collect and conserve rice varieties of an obscure nature and of unknown genetic potential. Rice researchers in the tropics often have difficulty in maintaining a large collection in the absence of storage facilities. It is often suggested to reject the duplicates within the collection. Duplicate samples are discarded generally when two collected samples have (i) similar names, (ii) identical grain features, maturity, and other morpho-agronomic features, and (iii) the same or neighbouring places of origin (Chang *et al.*, 1972).

Zonal Agriculture Research Station, Raipur has a huge collection of about 19,000 indigenous rice germplasm, many of them having similar names. A small sample from this germplasm comprising entries with similar names, maturity, grain features and same origin were screened for bacterial blight (BB, *Xanthomonas campestris* pv. *oryzae*) and white backed planthopper (WBPH, *Sogatella furcifera*) at International Rice Research Institute, Philippines. The screening procedure for BB and WBPH were followed, using the method suggested by Kauffman *et al.* (1973) and Athwal *et al.* (1971), respectively.

The screening results for BB and WBPH are presented in Table 1. Fourteen accessions of *Badshah bhog* were evaluated. Among these, B 248 and B 1209 were rated resistant for BB and one accession B 189 was resistant for WBPH. Similar to this, other accessions of *Bhata dudgi*, *Chhatri*, *Dubraj*, *Gurmatia* and *Jhilli* showed variable reaction for this disease and pest.

The above screening was only in a few local types, and against only BB and WBPH. But more variable and differential reactions may be expected if the material is evaluated for other general traits, and for various pathotypes and/or biotypes of diseases and pests. Thus, the results suggested that the land races

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TABLE 1. SCREENING RESULTS OF BACTERIAL BLIGHT AND WHITE BACKED PLANTHOPPER

Landraces/ cultivar	MPRRI Acc. No.	Reaction to*	
		BB	WBPH
Badshah bhog	B 54	S	S
Badshah bhog	B 189	S	R
Badshah bhog	B 220	S	S
Badshah bhog	B 227	S	S
Badshah bhog	B 236	S	S
Badshah bhog	B 248	R	S
Badshah bhog	B 466	S	S
Badshah bhog	B 670	S	S
Badshah bhog	B 799	S	S
Badshah bhog	B 973	S	S
Badshah bhog	B 1005	S	S
Badshah bhog	B 1209	S	S
Badshah bhog	B 1322	S	S
Badshah bhog	B 1899	S	S
Bhata Dudgi	B 1899	S	S
Bhata Dudgi	B 2177	R	S
Chhatri	C 90	S	S
Chhatri	C 364	R	S
Dubraj	D 12	S	S
Dubraj	D 61	R	S
Dubraj	D 341	S	S
Dubraj	D 422	S	MR
Dubraj	D 1026	S	S
Gurmatia	G 123	S	R
Gurmatia	G 185	S	R
Gurmatia	G 245	S	S
Gurmatia deshi	G 123	S	R
Jhilli	J 7	R	R
Jhilli	J 107	S	R
Jhilli	J 273	R	R
Jhilli	J 274	R	MR
Jhilli	J 388	S	R
Jhilli parag	J 105	S	S

*R—Resistant
MR—Moderatel resistant
S—Susceptible.

collected from different fields and/or villages some times may have the identical names and morpho-agronomic features, but genetically they may not be the same. Therefore, the duplicates should not be discarded, unless evaluated thoroughly for different traits reactions.

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