



RESEARCH PAPER

Screening of rice (*Oryza sativa* L.) genotypes for shattering resistance

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Abstract : The present investigation on screening rice genotypes for shattering resistance was done involving twenty five rice genotypes. Among these lines Aiswarya and Aathira were taken as susceptible and resistant checks, respectively. Seeds were collected from Rice Research Stations of Kerala Agricultural University (KAU). Selected lines comprising both traditional and high yielding varieties were evaluated in augmented design and shattering was measured by Induced Random Impact (IRI) method using a force gauge apparatus. Fourteen characters were evaluated along with seed shattering and yield. Wide variability was found to exist among the tested genotypes for yield and most yield attributes. High phenotypic and genotypic co-efficient of variance (PCV and GCV) estimates were recorded for seed yield and shattering per cent indicating wide variability among genotypes for these traits and the possibility of improvement through selection. High heritability coupled with high genetic advance which indicate the influence of additive gene action in trait expression were observed for characters viz., days to fifty per cent flowering, length and width of flag leaf, number of panicles per plant, seed yield and shattering per cent. Substantial improvement in the expression of these characters over base population can be expected through simple selection.

Key Words : Seed shattering, Genotypic co-efficient of variation (GCV), Phenotypic co-efficient of variation (PCV), Heritability, Genetic advance

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