

Assessment of Genetic Variability and Genetic Parameters for Grain Yield and Its Component Characters in Rice (*Oryza sativa* L.)

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ABSTRACT

Twenty one rice genotypes were evaluated during *rabi*, 2011 for eleven quantitative and kernel traits to examine the nature and magnitude of variability, heritability (broad sense) and genetic advance. Analysis of variance revealed significant differences among twenty one genotypes for all the characters. Grain yield per plant and total number of productive tillers per plant exhibited high estimates of genotypic coefficient of variation and phenotypic coefficient of variation. Broad sense heritability was highest for kernel L/B ratio followed by number of grains per panicle, grain yield per plant and harvest index, which suggested that these traits would respond to selection owing to their high genetic variability and transmissibility. Maximum genetic advance as per cent of mean was recorded for grain yield per plant with high value of heritability.

Key words : Genetic advance, Rice, Variability, heritability, Yield.