

Genetic Variability and Correlation in Yield and Grain Quality Characters of Rice Germplasm

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ABSTRACT

A field experiment was conducted involving 72 rice genotypes to study the extent of variability and associations in yield and grain quality traits under irrigated conditions. Coefficients of variation were high for filled grains per panicle and grain yield per plant. Existence of high heritability with high to moderate genetic advance as percentage of mean for filled grains per panicle, 100-grain weight and Kernel length indicated the possibility of yield and quality improvement through adoption of selection procedures. The characters, days to 50% flowering and filled grains per panicle had significant positive correlation with grain yield per plant. These two traits also exhibited direct positive effects on yield. Increased growth period resulted in increase of yield through larger sink size. The results indicated that selection might be highly fruitful, if directed towards higher number of grains per panicle and long slender grains with moderate tillering to evolve potential genotypes suitable for *kharif* season under irrigated conditions.

Key words : Correlations, Rice, Variability, Yield traits.