

Genetic parameters and correlations among yield, quality and nutritional traits in rice (*Oryza sativa* L.)

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ABSTRACT

This study explores the genetic parameters and variability of yield-attributing traits to enhance the breeding strategies in rice. A high phenotypic coefficient of variation compared to the genotypic coefficient of variation was observed for the traits which indicates the influence of environment in the expression of the trait. High heritability and high genetic advance were observed for number of filled grains per panicle, test weight, protein content, amylose content, iron content and zinc content, and a simple selection procedure could be used for improvement of these traits. The results showed a significant negative correlation of ear-bearing tillers per plant with grain yield per plant. A positive direct effect was exhibited by the traits excluding the iron content. Hence, direct selection for the traits would simultaneously improve the grain yield per plant in rice.

Key words: *Correlation, Genetic advance, Genetic variability, Heritability and Rice*