

Variability and Association Studies in Dry Direct Sown Rice (*Oryza sativa* L.)

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ABSTRACT

Genetic variability and character association for 12 yield and quality traits were studied under dry direct sowing conditions in rice. The results of genetic parameters revealed high GCV and PCV coupled with high heritability and high genetic advance as percent of mean for filled grains per panicle and alkali spreading value suggesting an additive type of gene action. The remaining traits manifested low to moderate estimates for GCV and PCV, moderate to high heritability and low to high estimates for genetic advance as percent of mean indicating the preponderance of both additive and non-additive gene effects in controlling these traits. The results of correlation and path analysis studies indicated that positive direct effects coupled with positive correlation coefficients with plant height, ear bearing tillers, days to 50% flowering, panicle length, test weight, kernel breadth, L/B ratio and alkali spreading value. Hence, selection of the above traits would result in improvement of grain yield in rice.

Key words: *Correlation, Genetic parameters, Grain yield, Path analysis.*