

# Variability, Heritability and Genetic Advance in Rice (*Oryza sativa* L.)

Ch Santhi Priya, Y Suneetha, D Ratna Babu and V Srinivasa Rao

Department of Genetic and Plant Breeding, Agricultural College, Bapatla 522 101, Andhra Pradesh

## ABSTRACT

Forty genotypes were studied for their genotypic and phenotypic coefficient of variation during *Khariif* 2015. Results indicated significant differences among all the characters studied *viz.*, Days to 50% flowering, days to maturity, productive tillers per plant, plant height, panicle length, grains per panicle, test weight, kernel length, kernel breadth, L/B ratio and grain yield per plant. Phenotypic coefficient of variation (PCV) was higher than the genotypic coefficient of variation for all the traits but smaller differences between GCV and PCV were recorded for all the characters studied, which indicated less influence of environment on these characters. PCV was higher for Grain yield per plant (26.04%) followed by grains per panicle (23.48%), productive tillers per plant (21.14%), test weight (16.79%), panicle length (12.67%), kernel breadth (11.09%), L/B ratio (9.32%), plant height (8.83%), kernel length (6.45%), days to 50% flowering (4.28%) and days to maturity (2.61%). High heritability coupled with high genetic advance as per cent of mean for the traits Test weight, panicle length and grains per panicle indicating the predominance of additive gene action and hence direct selection is useful with respect to these traits.

Key words: *Genetic advance, Heritability, Rice, Variability.*