

# Variability Studies for Yield, Yield Components and Quality Characters in M<sub>4</sub> Progenies of Rice (*Oryza sativa*)

**B Anusha, B Krishna Veni, Lal Ahamed M and Y Ashoka Rani**

Department of Genetics and Plant Breeding, Agricultural College, Bapatla 522 101, A P

## ABSTRACT

Variability and heritability parameters were estimated for 18 yield components and quality parameters in 25 treatments of Akshaya mutant population in M<sub>4</sub> generation. Four characters viz., number of fertile grains per panicle, grain yield per plant, ear bearing tillers per plant and water uptake manifested moderate to high estimates for PCV, GCV and genetic advance coupled with high heritability suggesting the role of additive gene effects in their inheritance. Except amylose content, all the remaining characters exhibited low to moderate GCV, PCV, genetic advance and moderate to high heritability indicating the preponderance of both additive and non additive gene action in their expression. All the genetic parameters studied recorded low estimates for amylose content indicating the predominance of non additive gene action. Hence, both additive and non additive genetic components could be exploited effectively by practicing reciprocal recurrent selection.

**Key words :** Components of rice, Quality, Variability, Yield.