Genetic Variability, Heritability and Genetic Advance Studies for Yield and Fibre Quality Traits in Cotton (*Gossypium Hirsutum* L.)

K Surya Naik, Y Satish, J Dayal Prasad Babu and V Srinivasa Rao Department of Genetics and Plant Breeding, Agricultural College, Bapatla, A.P.

ABSTRACT

In the present study, forty five hybrids along with their ten parents and standard check were estimated for genetic variability, heritability and genetic advance for seed cotton yield, yield components and fibre quality traits. The analysis of variance revealed that sufficient variability was present in the material for all the characters. The Phenotypic Coefficient of Variation (PCV) was slightly higher than Genotypic Coefficient of Variation (GCV) for all the characters indicating the influence of the environment. The variability studies indicated that high PCV and GCV was observed in case of number of monopodia plant⁻¹ and seed cotton yield plant⁻¹. High heritability coupled with high genetic advance as percent of mean was observed for number of monopodia plant⁻¹, number of bolls plant⁻¹ and seed cotton yield plant⁻¹ which provides better scope for advancement through direct selection.

Key words: Genetic advance, Gossypium hirsutum, Heritability, Seed cotton yield, Variability.