

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

B Jaishankar Babu, Y Satish, M Lal Ahamed and V Srinivasa Rao

Regional Agricultural Research Station, Acharya N. G. Ranga Agricultural University, Lam, Guntur

ABSTRACT

Forty F_1 's of American cotton were obtained by crossing 8 lines and 5 testers in Line \times Tester design were evaluated along with parents during *Kharif*, 2016-2017 for genetic variability, heritability and genetic advance as per cent of mean based on 14 characters. High phenotypic coefficient of variation (PCV) was recorded for seed cotton yield per plant. Moderate phenotypic coefficient of variation (PCV) and Genotypic coefficient of variation (GCV) were recorded in number of monopodia per plant and number of sympodia per plant. High heritability coupled with high genetic advance as per cent of mean was recorded for characters *viz.*, number of bolls per plant, micronaire value (10^{-6} g/inch) and seed cotton yield per plant indicating the preponderance of additive gene action making simple or direct selection effective.

Key words: Cotton, Genetic advance, Heritability, Variability.