

Genetic Variability, Heritability and Genetic Advance for Seed Cotton Yield and its Components in Cotton (*Gossypium hirsutum* L.)

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ABSTRACT

An investigation was carried out in cotton to assess the variability, heritability and genetic advance for eighteen characters *viz.*, plant height (cm), days to 50% flowering, number of monopodia per plant, number of sympodia per plant, relative water content (%), specific leaf weight (mg/cm²), number of bolls per plant, boll weight (g), seed index (g), lint index (g), ginning out turn (%), 2.5% span length (mm), micronaire value (10⁻⁶ g/in), bundle strength (g/tex), uniformity ratio, seed cotton yield per plant (g), lint yield per plant (g) and fibre elongation (%) in 52 genotypes (fifty hybrids, along with two checks). The results revealed that high PCV and GCV were observed for the characters number of monopodia per plant, number of bolls per plant. High heritability accompanied with high genetic advance was recorded in number of monopodia per plant, specific leaf weight, number of bolls per plant and seed cotton yield per plant indicating the preponderance of additive gene action which may be exploited through breeding methods involving simple selection like mass selection, ear-to-row method, etc. are to be followed to improve these traits.

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