Correlation and Path Coefficient Analysis for Yield and Yield Component Traits in American Cotton (*Gossypium Hirsutum* L.)

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ABSTRACT

Correlation and path coefficient analysis have been carried out for 15 characters in 50 genotypes of American cotton (*Gossypium hirsutum* L.) for yield and yield component traits. The character association analysis revealed that plant height, number of sympodia per plant, number of bolls per plant, boll weight, ginning out turn, seed index, lint index and lint yield per plant were found to have significant positive association with seed cotton yield per plant at both phenotypic and genotypic level suggesting that these were the major yield contributing traits. Path analysis revealed that number of bolls per plant, boll weight and seed index showed direct positive effect and significant positive correlation with seed cotton yield per plant which suggested that direct selection for these traits would be effective to improve the seed cotton yield of American cotton.

Key words: *Correlation, Gossypium hirsutum, Path analysis, Yield.*