Association and Path Analysis in American Cotton (*Gossypium hirsutum* L.)

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ABSTRACT

Fifty five diverse genotypes of American cotton (*Gossypium hirsutum* L.) were evaluated for 17 qualitative and quantitative traits. The correlation study revealed that seed cotton yield was found to be positively and significantly correlated with traits like no. of bolls plant^{-1}, boll weight, ginning out turn and lint yield plant^{-1} at both phenotypic and genotypic levels. Path coefficient analysis revealed high positive direct effect of number of bolls plant^{-1}, boll weight and lint yield plant^{-1}on seed cotton yield plant^{-1}. The correlation and path analysis therefore clearly indicated that direct selection based on bolls plant^{-1} and boll weight may be helpful in developing high seed cotton yield varieties in upland cotton.

Key words: *Character association, Gossypium hirsutum , path analysis*