Correlation and Path Analysis for Morpho-physiological Traits in American Cotton

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ABSTRACT

Correlation and path coefficient analysis have been worked out for 21 morpho-physiological characters in 40 genotypes of upland cotton during *kharif* 2010. Correlation studies indicated that number of bolls plant^{-1}, boll weight, lint index, ginning out turn and harvest index had positive significant association with seed cotton yield plant^{-1}. Further partitioning of correlation coefficients into direct and indirect pathways of influences showed that characters number of bolls plant^{-1}, boll weight, lint index, ginning out-turn and harvest index had positive direct effect on seed cotton yield plant^{-1}. The correlation and path analysis clearly indicated that direct selection based on these attributes may be helpful in evolving high yielding varieties of upland cotton.

Key words : Correlation, Cotton, Morpho-physiological traits, Path analysis.