

Genetic Divergence in Upland Cotton (*Gossypium hirsutum* L.)

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ABSTRACT

Sixty genotypes of upland cotton (*Gossypium hirsutum* L.) collected from different geographic regions were subjected to Mahalanobis' D^2 statistic, cluster analysis and principal component analysis. On the basis of clustering methods, fourteen and eight clusters were obtained for Mahalanobis' D^2 statistic and cluster analysis, respectively. In PCA, six principal components were identified. The first six principal components with eigen values more than one contributed 78.21 per cent towards the total variability in cotton. The principal component analysis (PCA) enabled loading of similar type of variables on a common principal component

Key words : Cotton, D^2 analysis, Cluster Analysis, Principal Component Analysis.