Studies on diversity analysis of cotton genotypes (*Gossypium hirsutum* L.) by using RAPD markers

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The present study was undertaken to evaluate 15 genotypes of *G. hirsutum* to study the genetic diversity by using Random Amplified Polymorphic DNA (RAPD) analysis. Polymerase chain reaction (PCR) was carried out by using 25 random decamer primers. Perusal of data revealed that twenty one primers were found polymorphic and produced 149 bands with 7.0 bands per primer. The polymorphism percentage was ranged from 20 to 100 per cent. The genetic similarity coefficient for all genotypes was ranged from 0.65 to 0.86 per cent. Cluster analysis separated in to three clusters which were corresponded well with their centers or sub centers or genetic relationship. The first major group comprised of three cultivars (KH 120, KH 121 and L 765), cluster II comprised of three sub clusters (II-A, II-B and II-C). Cluster II-A includes three cultivars (DHY 286-IR, MCU 5 and L 761). Cluster II-B comprised four cultivars (NH 545, NH 572, PH 297-7-1 and PH 348). The cluster II-C comprised three genotypes (PH 44-1-2, FH 1009 and PH 1024). The cluster III comprised of single genotype i.e. Cocker.

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