

GENETIC RELATIONSHIP OF SOME COTTON GENOTYPES**Y. Bolek****H. Cokkizgin****Kahramanmaras Sutcu Imam University****Kahramanmaras, Turkey****O. Erdogan****Nevsehir Haci Bektas Veli University****Nevsehir, Turkey****I. Ozmen****MayAgro Seed Corporation****Bursa, Turkey****A. Bardak****Kahramanmaras Sutcu Imam University****Kahramanmaras, Turkey****Abstract**

Cotton is one of the most important and widely produced agricultural crops in the world. This study aimed to determine genetic diversity for 150 different *Gossypium* genotypes. Total 10 SSR (Simple Sequence Repeats) primers were used to determine genetic relationships among the genotypes. Amplification of DNAs with SSRs produced 21 polymorphic bands. Analysis showed that genotypes were separated mainly two different groups. Especially, one that contains some *G. hirsutum* genotypes was generally Verticillium wilt susceptible genotypes. Genotype TMD 139 was genetically different from the other 149 genotypes. This study of the genetic diversity of cotton genotypes with SSR markers support the need to introduce new alleles into the gene pool of the breeding cultivars.