Genetic relationships between selected Turkish mulberry genotypes (Morus spp) based on RAPD markers

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ABSTRACT. Mulberry (Morus spp, Moraceae) is an important horticultural crop in Turkey, which is one of the main world producers of mulberry fruit. We evaluated the genetic relationships among 26 mulberry genotypes selected for agronomic characteristics, using RAPD markers. A total of 367 DNA markers were generated with 34 random primers. The highest genetic similarity (0.80) was observed between Oltu58 (M. nigra) and Olur90 (M. nigra) genotypes. The genotypes Oltu3 (M. alba) and Oltu18 (M. rubra) were the most distant (0.36). We found that the RAPD technique is a useful tool to discriminate mulberry genotypes at both the intra- and interspecific level. This type of information will aid in accurate identification of useful genotypes for breeding programs.

Key words: Morus alba; Morus nigra; Morus rubra; RAPD; Genetic relationship