

RAPD assay of wild-type olives in Turkey

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ABSTRACT. Genetic similarities and distances between wild-type olives in Turkey were studied using an RAPD-PCR assay. Seven wild olive tree samples were collected from villages in Manisa and Izmir provinces. Genomic DNA was extracted from young leaves and the RAPD-PCR assay was used to generate RAPD markers. Sixty-five random primers obtained from Operon Technologies were tested for the assay (OP-A 1-20, OP-I 1-20, OP-Q 1-20, and OP-J 1-5). Thirty-two of these primers yielded 115 highly polymorphic bands. The mean number of usable bands per primer for all the samples was 3.59. The genetic distance values ranged from 0.1498 to 0.6845, and genetic similarity values varied from 0.8609 to 0.5043. We found that the closest samples based on their genetic distance and similarity values were from Harlak and Sabancilar; the most distant samples were from Bornova and Bademli.

Key words: RAPD; Wild olives; Genetic analysis