

Determination of self-incompatibility groups of sweet cherry genotypes from Turkey

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ABSTRACT. Determination of S-allele combinations of sweet cherry genotypes and cultivars has importance for both growers and breeders. We determined S-allele combinations of 40 local Turkish sweet cherry genotypes using a PCR-based method. Ten different S-alleles were detected. Although the most common S-allele was S₃, as also found in Western genotypes and cultivars, there were some differences in the frequencies of some S-alleles between Turkish and Western sweet cherry genotypes. According to their S-allele compositions, 30 local Turkish sweet cherry genotypes were assigned to 10 previously identified incompatibility groups. For the remaining genotypes, whose S-allele combinations did not fit to any previous incompatibility groups, three more incompatibility groups, XLII, XLIII and XLIV, were proposed. Results obtained from this study will help both sweet cherry growers and breeders to better manage these local Turkish sweet cherry genotypes in their orchards.

Key words: Sweet cherry; S-allele; *Prunus avium* L.; S-genotyping; Incompatibility groups