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PHENOLOGICAL AND POMOLOGICAL DIFFERENCES IN GAMMA IRRADIATED '0900 ZIRAAT' SWEET CHERRY MUTANTS

'0900 Ziraat' is the leading cultivar with high quality fruit characteristics among sweet cherry cultivars in Turkey. Pollination and compatibility problems result in poor fruit set in different ecological conditions of the country. Improved fruit quality such as size, appearance, firmness, flavour, extending harvest season, self-compatibility, compact growth habit are main breeding goals in '0900 Ziraat' breeding. Induced mutations may play significant roles in increasing new '0900 Ziraat' types. Gamma irradiation is a physical mutagen widely used for mutation breeding. The doses applied in this study were 0 Gy (control), 10 Gy, 20 Gy, 30 Gy, 40 Gy and 50 Gy; the irradiated scions consisted of 5 buds in each. The buds were grafted immediately after mutation treatment on mahaleb (*Prunus mahaleb*) rootstocks. Mutations were stabilized in three vegetative generations. In this study, several observations were carried out to determine plant growth and fruit characteristics in mutant plants. This study showed considerable potential for enhancement of '0900 Ziraat' sweet cherry genetic variation.

Country or International Organization

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