P-73 (12) DROUGHT RESISTANCE OF ORNAMENTAL PEACH CULTIVARS WITH DIFFERENT ORIGIN

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Ornamental peaches with double flowers stand out by showy flowering in early to middle spring. As a result of breeding, a large diversity of cultivars and hybrids of these plants which refers to different species have been obtained. It is known that hybrids with wild species are characterized by delicate leaf blades and may be more sensitive to high summer temperatures, dry wind and water deficit. To identify of cultivars adaptive to arid conditions of the summer period, the water content, the water deficit and the degree of recovery of turgor after 24 hours of wilting were determined in the leaves of 27 accessions of ornamental peach origin from Prunus persica, P. mira, P. davidiana and P. dulcis. During the period of drought maximum development in summer the content of total water in the leaves of the studied accessions ranged at 41.9-80.22%. It was established experimentally that for 4 hours from the withering beginning the leaves lost from 3.7 to 26.7% of water. After eight hours, the moisture loss was 7.5-33.4%. Twenty four hours later the leaves lost the moisture from 15.6 to 48.7%. 'Ruthenia', 'Vesna', 'Adalary v Snegu', 'Zhiselle', 'Lel', 'Fei Tao', peach David 'Alba', 'Fleur Pompon', 'Decorativny Ryabova' and 'Belosnezhka' have lost only from 15.1 to 21.9% of water after many hours of withering and are characterized by the most water retention capacity. The degree of recovery of turgor leaf tissues of all studied cultivars after 24 hours of withering was from 36.4 to 99.9%. The best waterretaining characteristics during the summer moisture deficits in combination with high reparation capacity of leaves after significant dewatering were observed in peach cultivars 'Adalary v Snegu' and 'Fei Tao', in peach-almond hybrids 'Fleur Pompon' and 'Ruthenia' and in hybrid of David-peach 'Belosnezhka'.

Keywords: cultivar, hybrid, water content, water deficit, recovery of turgor

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