

عنوان مقاله:

First report: Grafting of Three Iranian Commercial Pomegranate Cultivars on Drought Tolerant Rootstocks

محل انتشار:

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خلاصه مقاله:

The objective of this study was to evaluate the stenting (grafted cutting) propagation of commercial pomegranate cultivars as scions on drought tolerant genotypes as rootstocks. The effect of drought stress on nine pomegranate rootstocks was analyzed. Cultivars including 'Daneshgah 13', 'Daneshgah 32' and 'Daneshgah 8' that were used as rootstocks showed the maximum drought tolerance among the studied cultivars; therefore, these three rootstocks were used to investigate the stenting propagation. Furthermore, three pomegranate cultivars including 'Malas Saveh', 'Robab' and 'Bihasteh' were used as scions. The highest percentage of graft success (58.88%) was obtained from grafting on 'Daneshgah 13'. In addition, the highest percentage of graft success (84.22) was found in 'Robab'. 'Robab' and 'Malas Saveh' had the longest shoot (11.50-11.93 cm) and highest shoot fresh weight (33.66-35.00 g) when grafted on 'Daneshgah 13'. 'Daneshgah 13' had higher shoot dry weight (5.47 g) compared to the other rootstocks. Regarding the scion cultivars, 'Robab' and 'Malas Saveh' showed higher shoot dry weight (6.76-6.96 g) in comparison with 'Bihasteh'. Using 'Daneshgah 13' as rootstock resulted in the highest content of chlorophyll a (18.11 mg/g), chlorophyll b (8.02 mg/g) and total chlorophyll (26.13 mg/g) in the scion leaves. 'Robab' and 'Malas Saveh' had highest content of chlorophyll a (18.11-18.33 mg/g), chlorophyll b (8.58-8.62 mg/g) and total chlorophyll (26.73-26.92 mg/g) among the scion cultivars. In all three rootstocks, a negative correlation was observed between the total phenolic content and the percentage of graft success. In addition, there was a negative correlation between the total phenolic content and the percentage of graft success in 'Bihasteh' scion.

کلمات کلیدی:

Chlorophyll, Grafting, phenol, scion, Stenting

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