

عنوان مقاله:

Biochemical and physicochemical properties of some date palm (*Phoenix dactylifera*) fruit cultivars

محل انتشار:

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خلاصه مقاله:

Purpose: The main aim of the present research was to determine the qualitative and quantitative properties of some commercial cultivars of date palm (*Phoenix dactylifera*) fruit from Iran. **Research method:** Mature fruits of uniform size, without of physical damage or injury from insects and fungal infection were used for all biochemical and physicochemical properties. The total phenolic and flavonoid contents were determined using the modified Folin-Ciocalteu colorimetric and aluminum chloride colorimetric methods, respectively. The antioxidant activity was determined by DPPH scavenging assay method. **Findings:** Among the evaluated cultivars, 'Kabkab' had the highest fruit length and diameter, seed length, flesh weight, flesh to seed ratio, total weight and moisture percentage. The amount of antioxidant activity (AA) was in the range 57.29 ± 2.91 to 70.04 ± 0.91 in the 'Hamrawi' and 'Barhee' cultivars, respectively. 'Khadrawi-Ahvaz' and 'Deiry' showed the highest (1103.76 ± 100.89 mg gallic acid/100 g fresh weight) and the lowest (261.86 ± 44.48 mg/100 g FW) content of total phenolic compounds (TPC), respectively. Besides, the highest soluble solid content (SSC) and titratable acidity (TA) were observed in 'Berim' (82.5%) and 'Hamrawi' (0.86%), respectively. **Research limitations:** No limitations were founded. **Originality/Value:** Selected date cultivars in this study had relatively high levels of TPC, TFC and AA. The highest content of AA, TPC and TFC were observed in 'Barhee', 'Khadrawi-Ahvaz', and 'Hamrawi' cultivars, respectively.

کلمات کلیدی:

Antioxidant activity, phenolic compounds, *Phoenix dactylifera*, Quantitative

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