

## TEXTURE PROFILE ANALYSIS OF DATE FLESH FOR SOME SAUDI DATE CULTIVARS

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### ABSTRACT

Texture profile analysis (TPA) parameters (i.e., brittleness, hardness, cohesiveness, elasticity and adhesiveness) were determined for eight popular cultivars of Saudi dates, namely *Bari*, *Khudari*, *Khlass*, *Serri*, *Sukkari*, *Suffri*, *Saqie*, and *NubotSaif* at the Khalal, Rutab and Tamer stages of maturity. The effects of cultivar type and maturity stage on TPA characteristics were investigated. The hardness values at the Khalalstage varied from 72.83 N (*Khudari*) to 35.34 N (*Suffri*). The cohesiveness values ranged from 0.803 (*Suffri*) to 0.763 (*Khlass*). There was no adhesiveness on the surfaces of *Barhi*, *Serri*, *Sukkari*, *Saqie*, and *NubotSaif* cultivars at the Khalal stage, whereas the adhesiveness was very low for the other three cultivars. At the Rutab stage, a sharp decrease in hardness values was found relative to those at the Khalal stage, with values ranging from 4.632 N (*Saqie*) to 0.254 N (*Khalas*). The values for hardness, adhesiveness, gumminess, chewiness and resilience at the Khalal stage were significantly higher than the values at the other two maturity stages.

**KEYWORDS:** Texture Profile Analysis, Date Flesh, Date Cultivars, Maturity Stage, Brittleness