

STUDY ON PHYSICAL, CHEMECHAL AND ENZYMATIC CHARACTERISTICS OF DATE PALM FRUITS (*Phoenix dactylifera*_L. cv . Hilalli) DURING DEVELOPMENT.

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ABSTRACT

This investigation was carried out on Hilalli date palm fruits “*Phoenix dactylifera* L.”, grown in Basrah to study some physical, chemical and enzymatic changes of date palm fruits during their development. Results showed that The fresh weight of fruit, pulp and seed, fruit volume, length and diameter increased steadily to reach its highest values at Khalal stage followed by gradual decrease at Rutab and Tamer stage. There was a rapid accumulation of dry mater ,total soluble solid ,total and reducing sugars at the stages of ripening (Rutab) and the increase lasted for Tamer stage. Water content, sucrose and total titratable acidity reduced as fruits interred ripening. According to the results, the activity of invertase and cellulase increased rapidly at the end of khalal stage and at the beginning of rutab stage..

Key words: date palm, Hilalli cultivar, fruit fresh weight, enzymes