

Compatibility Relationships Within and Between Ten Date Palm Cultivars (*Phoenix dactylifera* L.).

II- Physical and Chemical Fruit Properties.

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ABSTRACT

The present experiment was carried out to investigate the effects of different pollen sources within or between ten date palm cultivars namely, "Succary", "Barhi", "Nebut Seif", "Seleg", "Khudari", "Menafey", "Saki", "Maktoumy", "Sefry" and "Serey" on physical and chemical fruit properties. Data indicated that different pollen sources used in this study had a slight effect on length, diameter, shape, weight and volume of fruits in the ten cultivars under study. Pollen sources had metaxenic effects on %TSS, it was found that, "Menafy" and "Saki" pollens produced the higher %TSS in "Succary" fruits in both seasons. Similarly, "Khudari" pollen produced higher %TSS in "Saki" fruits in both seasons but it produced the opposite effect in "Serey" cv. in both seasons. Pollen source had also metaxenic effects on moisture content in fruits of ten cultivars under study. Generally, it was noticed that, the pollen sources had metaxenic effects on physical and chemical properties, but the responses differed according to year study and female parents. Also, differences in physical and chemical fruit properties as affected by pollen sources may be considered due to the existence of degrees of self and cross incompatibility within or between the ten cultivars.