

O-46 (223)**AN EVALUATION OF COMPATIBILITY AND DETERMINATION OF QUALITATIVE AND QUANTITATIVE PROPERTIES OF SIX TYPES OF DATE PRODUCED BY TISSUE CULTURE FARS PROVINCE IRAN**

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In order to study the fruit quality of some commercial date palm cultivars under local conditions in south of Fars province, six cultivars including Khalas, Abou Narenja, Koosh Zabad, Fard, Nabat Seif, and Helali were evaluated in a complete random block design on adult palm trees. These palm trees raised from explants via tissue culture technique imported from abroad. In this experiment which consists of three palm trees of each cultivar, four replications, totally seventy two palm trees were evaluated during ten years in agricultural research station of Jahrom Fars. The results showed that cultivar Abu Narenja was the best cultivars according to evaluation of size, length and weight, TSS and total sugar of fruits, using Duncan's multiple range tests. The highest and lowest fruit length was 41.69 mm and 37.37 mm for Abu Narenja and Helali, respectively. The average of fruit weight of Abu Narenja was 12.71g, while the lowest weights belonged to Fard cultivar. The highest ratio of flesh weight to the core was 15.16 and 15.06, respectively in Abou Nrenja and Helali and lowest rate was seen in Khalas with 9.79. Abou Narenja and Fard varieties with 62.67% and 67.16% are of the maximum percentage of fruit production in Jahrom. No significant difference in the content of reducing sugar was found between fruits. Low yield of cultivars Koosh Zabad and Nabat Seif was related to low rate of fruit set and high rate of immature fruit abscission, respectively. Considering all parameters specially semi-dry fruits, Abou Naranja and Fard cultivars were the best cultivars and their cultivation are recommended in palm grove areas of Fars.

Keywords: Date palm, Cultivar, Tissue culture, quantity, Sugar, TSS.