

Study on quantity changes of date palm (*Phoenix dactylifera* L.) fruit characteristics cvs. "Sayer" and "Barhee" during growth and development period.

A. Torahi and K.Arzani

Date Palm and Tropical Fruits Research Institute

Dept. of Horticulture, College of Agriculture, Tarbiat Modarres University, Tehran.

The ability of date palm to produce fruits abundantly of extremely low humidities, at least if the supply of the ground water suffices, makes the tree one of the most important producers of food in the desert belt of North Africa and South - west Asia. Fruit production of this tree in the countries that are favourable for its growth has a special commercial importance. So study on the fruit quantitative changes for improving and increasing of the yield production and identification of fruit growth curve has a great importance.

The purposes of this research were to study the fruit qualitative changes of both cultivars "Sayer" and "Barhee" such as fresh weight, dry weight, length, diameter, and volume of the fruit and seed and identification of fruit growth curve and fruit cell growth regions.

Results showed that the changes pattern of fruit and seed fresh weight, length, diameter, and volume are single sigmoid. But the dry weight of both cultivars was increasing till the end of the growth period.

Also study on the fruit growth pattern showed that the fruit cell growth areas are located at the calyx region.