

An Overview of Cactus Pear (*Opuntia ficus* Mill.) Production and Consumption in Turkey

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1. INTRODUCTION

Cactus pear (*Opuntia ficus indica* L. Mill.) is grown widely at Mediterranean region of Turkey. Generally it is concentrated some cities and towns. These cities are Adana, Mersin, Antalya and their towns with villages.

It is generally grown as border plant of the fields and fence to protect horticultural plants from animals (Ak, 2006). Fresh leaves can be eaten by animals. As it is well known that is highly drought tolerance and rain-use efficiency makes *Opuntia ficus indica* and other platyopuntias ideal for cultivation in arid and sub-arid zones (Middleton, 2002). This plant fruits can provide valuable food for people (Barbera et al., 1995). Fruits are consumed by people. It contains 87.69 % water, 14 mg vitamin C, 0.7 g protein, 0.5 g fats, 7.8 g Carbohydrates (Glucose), 1.8 g fibre, 220 mg potassium, 85 mg magnesium, 56 mg calcium and 24 mg phosphorous per 100 gram edible portion (Anonymous, 2003).

People who like eating cactus pear, they usually buy and eat them at Turkish bazaars. Therefore, it is not considered as economic crop in Turkey. **Because of this reason, there are no regular cactus pear orchards, enough information, cultivar name and financial support for growing this fruit species.** Generally it is called them as "Indian Fig" in Turkey. In this work the first scientific cactus pear fruit pomological traits data were determined. The cactus pear fruits which are sampled from different locations were analyzed such as fruit weight, size, soluble solids, number of seeds etc. by Ak, 2006.



SOME TRAITS OF PLANT AND FRUIT

Plant Traits: Plant shape is Elongate or round. Generally habitus is upright types. Cladodes shape generally ovate some of them round. There are spine and some of them white and 2 cm long. Some is spineless and there are only glochides on them.

Fruit traits: Fruit shape is Ovoid or Oblong. They are 80-150 g weight. That means they are changes small and medium size. Peel colour is between Orange or Greenish, Pulp colour is orange, yellow orange. Some other fruit traits were given tables below.

Fruit and peel weight of different local cactus pear fruits samples

SAMPLING LOCATIONS	Fruit Weight (g)	Edible Part Of Fruit weight (g)	Peel weight (g)	Edible Ratio of Fruit (%)
Mersin	140.814	85.572	55.242	60.77
Tarsus	99.508	45.557	53.951	45.78
Ceyhan	107.757	57.540	50.217	53.40
Karaisali	81.042	43.842	37.200	54.10
AVERAGE	107.280	58.128	49.152	54.18

$$\text{Edible Ratio of Fruit (\%)} = \frac{\text{Weight of Edible Part of Fruit}}{\text{Full Weight of Fruit}} \times 100$$

Fruit size of different local cactus pear fruits samples

SAMPLING LOCATIONS	Fruit Length (mm)	Fruit Diameter (mm)	Ratio of Fruit (Length/Diameter)
Mersin	79.35	55.68	1.43
Tarsus	69.97	51.33	1.36
Ceyhan	76.86	52.18	1.47
Karaisali	71.52	48.09	1.49
AVERAGE	74.43	51.82	1.44



Soluble solids and seed number of different local cactus pear fruits

SAMPLING LOCATIONS	Soluble solids (%)	Total seed Number	Abortive seed number and rate (%)*	Fertilized seed number and rate (%)*
Mersin	11.0	262	120 (48.5)	142 (54.2)
Tarsus	11.2	184	138 (75.0)	46 (25.0)
Ceyhan	10.4	232	145 (62.5)	87 (37.5)
Karaisali	10.4	261	166 (63.6)	95 (36.4)
AVERAGE	10.8	235	142 (60.4)	93 (39.6)

RESULT: **We need to make research with different cultivars in Turkey.**