

**FIGS: HIGH INCOME WITH FRESH AND DRIED FRUITS**

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<sup>1</sup>Ravi Kondle\* and <sup>1</sup>J. Shankaraswamy<sup>1</sup>College of Horticulture Mojerla, SKLTSHU, Mulugu, Siddipet, Telangana- 509381, IndiaEmail: [kondleravi27@gmail.com](mailto:kondleravi27@gmail.com)

**T**he experiment was carried out at instructional Farm, College of Mojerla, SKLTSHU, Madanapuram, Wanaparthy, Telangana. We have planted three varieties of fig such as Turkey Brown, Pooona Red, and Deanna.

Fig (*Ficus carica*) belongs to the family Moraceae. It is one of the first few plants that were popular worldwide for its dry and fresh consumption. This is an important fruit due to its high economic and nutritional values. It is also a good source of food for fruit eating animals in tropical areas.



### Nutrition and Uses

The fresh and dried figs also contain high amounts of fiber and polyphenols. Figs are an excellent source of phenolic compounds, such as proanthocyanidins, whereas red wine and tea, which are two good sources of phenolic compounds, contain phenols lower than those in fig.



- ❖ Figs common edible part is the fruit which is fleshy, hollow, and receptacle. Fig fruits can be eaten raw, dried, canned, or in other preserved forms.
- ❖ Fig fruit, root, and leaves are used in traditional medicine to treat various ailments such as gastrointestinal (colic, indigestion, loss of appetite, and diarrhea), respiratory (sore throats, coughs, and bronchial problems), and cardiovascular disorders and as anti-inflammatory and antispasmodic remedy.
- ❖ Fig leaves are used for fodder in India. They are plucked after the fruit harvest.

- ❖ The latex is collected at its peak of activity in the early morning, dried, and powdered for use in coagulating milk to make cheese and junket.
- ❖ From it can be isolated the protein digesting enzyme ‘ficin’, which is used for tenderizing meat, rendering fat, and clarifying beverages.
- ❖ Dried seeds of fig contain 30 percent of fixed oil, which is edible oil and can be used as a lubricant.

## Botany

Fig may be a gynodioecious (functionally dioecious), deciduous tree, or large shrub, growing to a height of 7–10 meters, with smooth white bark. It bears fragrant leaves which have three or five lobes. The complex inflorescence consists of a hollow fleshy structure called the syconium, which is lined with numerous unisexual flowers. The flower itself isn't visible outwardly because it blooms inside the inflorescence. Although commonly mentioned as a fruit, the fig is really the inflorescence or scion of the tree, referred to as a pome or aggregate fruit, during which the flowers and seeds are borne. It's a hollow ended stem containing many flowers. The tiny orifice (ostiole) visible on the center of the fruit may be a narrow passage, which allows the specialized fig wasp, *Blastophaga psenes*, to enter the fruit and pollinate the flower, whereafter the fruit grows seeds. The product consists of the mature syconium containing numerous one seeded fruits (druplets). The depart the fig fruit is thin and tender, usually green, and turns purple or brown after ripening. Fig has milky sap (laticifer). The sap of the fig's green parts is an irritant to human skin. The edible seeds are generally hollow unless pollinated. Pollinated seeds provide the characteristic nutty taste of dried figs.

## Important Varieties

Characters	Poona	Deanna	Conadria	Excel
<b>Plant height (m)</b>	1.80	1.56	0.90	1.38
<b>Plant canopy</b>	3.42	3.52	0.78	1.17
<b>Earliness</b>	Late	Early	Early	Early
<b>Av. Fruit wt. (g)</b>	38.5	61.5	38.5	34
<b>Fruit shape</b>	Phyriform	Phyriform	Phyriform	Ovoid
<b>Skin colour</b>	Light purple	Lemon - Yellow	Green	Yellow

<b>Pulp colour</b>	Strawberry	Light yellow	Pink	Pink – Yellow
<b>Flavor</b>	Distinct	Very mild	Mild	Mild
<b>TSS (°B)</b>	22	21	20.5	21
<b>Seeds</b>	Few	Many	Many	Few
<b>Taste</b>	Sweet acidic	Sweet	sweet	Slightly acidic
<b>Tolerance for splitting</b>	Very poor	Good	good	Very good
<b>Susceptibility to rust</b>	Moderate	Susceptible	Moderate	Moderate
<b>Fruit Yield (Kg/tree)</b>	2.69	3.94	1.87	1.75

### Propagation and Planting

Rooted hardwood cuttings are the common method of propagation in fig. Rooting was the best in cuttings from two to three years old wood with 30-40 cm length and 1.5- 2 cm thick. Cuttings are taken during January-February at the time of pruning in North India, whereas; the cuttings are taken during the season in South India.

A spacing of 3-5 m is suggested depending upon the fertility status of the soil for max yield. Planting season varies from place to place viz., South India (August – September), Western India (June – July), North India (January – February).

### Training and Pruning

Fig trees are usually fan trained. The tree shouldn't be allowed to become tall because it is straightforward to reap fruits by handpicking from low headed trees. Pruning is additionally done to encourage new growth. In Pune, notching of buds is completed in July for inducing fruit bearing shoots by giving slant cuts over dormant buds to get rid of a little slice of bark with wood, and two buds are notched in each shoot.

### Maturity and Harvesting

Though fig starts bearing fruits from the second year, commercial harvesting is completed from the 2<sup>nd</sup> year. The yield increases with an increase in canopy size of the tree and stabilizes during the 7-8<sup>th</sup> year. The economic lifetime of the plant is about 35 years. The

harvesting season starts in February- March and is over by May June. The fruits are harvested in 2-3 day intervals manually. Figs destined for the fresh fruit market or canning should be picked once they become fully colored and still firm. They're harvested by hand with a twisting and pulling motion. Pickers should wear gloves because the latex from the tree can cause skin irritation. The fruit is then placed into buckets or shallow fats for transport to the packing shed. Fruit should be carefully packed to avoid latex drops staining the skin of harvested fruit. The fruit should be cooled to 0°C as soon as possible.

### Processing

The most common method of processing in fig is drying. Smyrna and Calimyrna figs are the foremost suitable for drying, because the seeds contribute to the ultimate flavor. In California, drying figs remains a viable industry. Fruit is allowed to ripen and fall naturally before it's collected from the bottom. After harvest, the figs are immersed in a boiling brine solution (100 g salt per 5 L water). This removes soil and cracks the skin to assist with drying. The figs are rinsed in clean water and then dried further by sun drying or dehydration. The final moisture content is aimed at 17 percent. Dried fruits are graded to remove damaged, sunburnt, split, diseased, and defective fruit. They are then sent to processors in bulk bins.

### Conclusion

Here we are cultivating the fig varieties *i.e.* Deanna, Poona Red, Turkey Brown, and describe the important characteristics of fresh fig cultivars, including fruit length and diameter, Average weight of fruit, fruit skin, and pulp color, and fruit shape. Consumer acceptance of fresh figs was affected by ease of peeling, pulp flavor, juiciness, sweetness, and acidity. Among the tested varieties, Fruits of Deanna are good for drying, canning, high yielding, and the most acceptable for fresh consumption. Based on our analyses, we recommend the consumption of the whole fig fruit of Deanna.

### References

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