

## Dragon fruit : An exotic future of Saurashtra

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### Introduction

Botanical name of Dragon fruit is *Hylocereus undatus*.

Dragon fruit is a tropical fruit that has become increasingly popular in recent years. The fruit is famous in Thailand, Israel, Srilanka and Vietnam. In India, nowadays its cultivation became popular due to its high price and nutritive value, price of dragon fruit in India is about 200-250/kg. The fruit shows its excellent growth in the region where less rainfall is expected. Though people primarily enjoy it for its unique look and taste. Dragon fruit grows on the *Hylocereus* cactus, also known as the Honolulu queen, whose flowers only open at night. The plant is native to southern Mexico and Central America. Today, it is grown all over the world.

Dragon fruit is also known by other names like, pitaya, pitahaya, and strawberry pear. Dragon fruit may look exotic, but its flavors are similar to other fruits. Its taste has been described as a slightly sweet cross between a kiwi and a pear.

### Type of Dragon Fruit

- 1) Red colour fruit with White colour flesh.
- 2) Red colour fruit with Red colour flesh.
- 3) Yellow colour Fruit with White colour flesh.

### Nutritional Status

Dragon fruit contains several important nutrients that plays important role in Human diet. As it is also a decent source of Iron, Magnesium ad Fibers. 100gm of Dragon fruit contain-

- ❖ **Calories:** 60
- ❖ **Protein:** 1.2 grams
- ❖ **Fat:** 0 grams
- ❖ **Carbs:** 13 grams
- ❖ **Fiber:** 3 grams

- ❖ **Vitamin C:** 3% of the RDI (Recommended Dietary Intake)
- ❖ **Iron:** 4% of the RDI
- ❖ **Magnesium:** 10% of the RDI
- ❖ Dragon fruit contain several Anti-oxidants. These Anti-oxidant protects cells from FREE RADICALS. Information of Anti-oxidant present in Dragon fruit is given below:
  - ✓ **Betalains:** Found in the pulp of red dragon fruit, these deep red pigments have been shown to protect LDL cholesterol from becoming oxidized or damaged.
  - ✓ **Hydroxycinnamates:** Possess Anti-cancer property
  - ✓ **Flavonoids:** This large, diverse group of antioxidants is linked to better brain health and a reduced risk of heart disease.

#### **Other Health Benefits of Dragon Fruit**

- ✓ Helps in controlling Diabetes.
- ✓ Helps in lowering Cholesterol.
- ✓ The fruit is high in Fats and Protein.
- ✓ Improve Heart health.
- ✓ Good source of Anti-oxidants.
- ✓ Acts as anti-ageing due to presence of Vitamin C.

#### **Climate and Soil**

The dragon fruit plant survives in poor soil and also in varied temperature condition. Tropical condition is best suited. Minimum annual rainfall requirement of plant is 50mm and ideal temperature for flourish growth required by plant is 20<sup>0</sup>C to 30<sup>0</sup>C. It require less Sunlight, in areas receiving high Sunlight, shades must be provided for good yield.

Best growth of dragon fruit is recorded in soils ranging from Sandy loam to Clay loam. But most accepted soil is Sandy loam soil with good Organic matter and soil pH should be 5.5 to 7.0. Drainage is primary requirement for Dragon fruit cultivation.

## **Land Preparation**

For cultivation of dragon fruit plant, soil is brought to fine tilth. Organic matter is added as an amendment in poor soil. Structure of Concrete pillar or trellis or fence line is laid down on prepared soil.

## **Propagation And Planting Method;**

The most common and easiest method is by Cuttings. However it can also be propagated by seeds, but seed takes longer time and it will not possess the characteristics of Mother plant. Cuttings of 20cm from healthy mother plant is taken. These cuttings should be potted with planting mixture. Dry cow dung: top soil: Sand as ratio of 1:1:2.

After 15-20 days, these cuttings are transplanted in main field. In main field pits of 60 cm x 60 cm x 60 cm are dug out. These pits should be filled with top soil and compost with 100gm Super phosphate. Keep Plant-to-Plant spacing of 2m x 2m. Narrow spacing helps to achieve better yield. About 1700 Plants can be accommodated in 1 Acre.

## **Training**

To get proper growth and development, dragon fruit plant must be supported with Concrete pillars or wooden column. Small immature plant's stems are tied with this structures. Lateral shoots are removed & 2 to 3 main stems are allowed to grow. It is necessary to have round concrete, metal or wooden frame to maintain balanced dragon shrub.

## **Manure and Fertilizer**

Organic matter plays an important role in Growth, Development and Yield. Each plant should be applied with 15-20kg of organic compost/organic fertilizer. Apply Urea, Murate of potash and Super phosphate in ratio of 70:40:90 grams/plant or 50:50:100 grams/plant. At fruit bearing stage, low amount of Nitrogen and high amount of potash should be applied.

## **Irrigation**

Being succulent plant, dragon fruit plant requires less water compared to other normal plants. However, at the time of planting, flowering and fruit development stage, hot dry climatic conditions and frequent irrigations are required. Drip irrigation is excellent.

### **Pest and Disease**

No pest and disease incidence are detected.

### **Harvesting**

This plants starts bearing fruits in first year itself. Generally, these plants starts flowering in May to June month and bears fruits from August to December month. Dragon fruit becomes ready for harvesting after 1 month of flowering. Fruiting time continues till December. Picking up of these fruits can be done up to 6 times within this period. Exact time for harvesting is after 3 to 4 days of colour change. But in case of export, they should be harvested 1 day after colour change. Use the sickle or hand to pick the fruit.

### **Yield**

Average yield of 5 to 6 tons per acre is obtained.

