

According to the Indian Council of Agricultural Research (ICAR), the fruit can be sold between Rs. 150-200 per Kg and thus can fetch a huge profit for the farmers. With crop diversification, an important part of Government's strategy is to increase farmers income crops like Dragon fruit will surely being new hope for the Indian farmers that to especially Karnataka farmers.

Dragon fruit demand is very high and many people are showing interest in dragon fruit cultivation in Karnataka and neighboring state also. Among lot of exotic fruits now a days the dragon fruit is commercially grown in India. The Indian climatic conditions are highly favorable and suitable for its cultivation.

#### **Climatic Condition**

This fruit is best suited for the tropical climate with an annual rainfall 40 - 60 cm and Temperature ranging from 20° C to 40° C is considered suitable to grow.

#### **Soil requirement**

This can be grown on almost any soils however sandy soils that have good irrigation are generally preferred. The pH value of the soil should be in the range of 5.5 to 6.5 for a better crop.

#### **Dragon fruit varieties**

##### **Mainly 3 varieties**

- 1. Pink variety:** Epicarp, as well as the edible endocarp, is pink in colour with black seeds.
- 2. Red white variety:** Upper epicarp is pink and the edible portion is the white colour with black seeds.
- 3. Yellow variety:** Upper part seems to be yellow and the edible portion is white colour with black seeds.

#### **Planting**

There are 2 methods of growing dragon fruit, the first is the use of seeds and the second is using cuttings from the plants. Seed method will consume more time. So, farmers opt for the cutting method and its commercial one. The length of cutting (sapling) should be 20 cm and it should be cut from the mother



plant and left in the shade for one week before being planted in the field. The distance between the plants depends on whether the support used is vertical or horizontal. In vertical support, the distance between the plants should be 2-3 meters while in horizontal support the distance reduced to almost 50 cm and allows for intensive farming. The vertical support should be in between 1 to 1.20 meter high while the horizontal support should be 1.40 to 1.60 meter for appropriate growth.

#### **Irrigation**

Since the plant requires less water irrigation is recommended once a week and drip irrigation should be used for better efficiency.

#### **Flowering**

The flowers start with on small spiral button type attract structures at the stem margins. These develop to flower buds in 10-15 days. The beautiful hermaphrodite nature flowers length (25-30cm), white inside and greenish yellow with purple dyes on the outside. They are scented and only blooming at night and last one only night. Flower production generally takes place during May - August and fruit harvest 30-40 days after fruits set.

#### **Harvesting of Dragon fruit**

The fruit requires 27 -30 days to fully grow. The fruit should be picked as soon it is fully grown as even

a delay of 4-5 days can cause it to rot. The expected yield per acre may vary from (1<sup>st</sup> year to 4<sup>th</sup> year) 04 to 12 metric tons depending on the conditions and techniques used.

The main advantage part of this fruit is that no requirement of either huge manure or regular medication etc. With less effort, get more profit.

### Pests

**Aphids:** Prune to avoid dense canopy, do not intercrop with alternate hosts, enhance natural enemies by incorporating natural habitats of agro-forestry and flowers strips around field. Spray Lambda Cyhalothrin, Cypermethrin, Imidacloprid, Acetamipride, etc. are recommended, at the rate of 1m/ litre of water.

**Thrips:** Destroy all plant residues and volunteer plants during field preparation by turning them under while ploughing, apply mulch to reduce pupation. Spray insecticides like Deltamethrin at the rate of 1ml/1litre of water.

**Mealybug:** Spray acephate 75 SP @ 1 g/l or Quinalphos 25 EC 2 ml/l or Chlorpyrifos 25 EC 2ml/l or Profenophos 50 EC @ 2 ml or Thiodicarb 75 WP 2gm/l.

### Diseases

**Anthracnose:** Pre-harvest spraying of Mancozeb 2g/lit or Carbendazim 1g/lit or Thiophanate methyl 1g/lit or Chlorothalonil 2 g/lit, 3 times at 15 days interval will control anthracnose.



**Brown Spot:** Field sanitation (collection and disposal of fallen diseased fruits, leaves and vines). Pruning vines to reduce density and thereby reducing humidity within the crop. Timely sprays with copper-based fungicides.

**Soft rot:** Control includes pruning out dying stems and spraying with copper sulfate. White washing before onset of the problem. Timely sprays with copper-based fungicides. Copper oxy chloride (at 0.2%) can be used for managing this disease.

**Fruit rot:** Maintain a weed free planting and remove and discard diseased plants (i.e. stems, fruits, and flowers) promptly when symptoms occur.

### Reference

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