

ADVANCED IN POST HARVEST HANDLING OF DRAGON FRUIT

Dhanusha V^{1*}, R Vidhya Vigashini¹ and C Venkatesh²

¹B.Sc., (Hons.) Agriculture, ²Assistant Professor (HOR), J.K.K.Munirajah College of Agricultural Sciences, T.N.Palayam, Erode District.

*e-mail: dhanushavishnu09872@gmail.com

INTRODUCTION

- Common name: Dragon fruit
- Scientific name:
Hylocereus costaricensis
- Family: Cactaceae
- Chromosome number :2n=22

BIOLOGY

- Dragon fruit is a perennial cactus.
- Fruit type – Globorous berries.
- Pulp colour –Reddish purple or white or yellow in colour with small black seeds.
- Long day plant.
- Night blooming flower is named as “Nobel Women” or “Queen of Night”.
- Fruit is generally known as “Pithaya”.
- Pithaya means “The scaly fruit”.



Fig.1. Dragon fruits

USES OF DRAGON FRUIT

- Young stem of yellow dragon fruit is edible.
- Fresh flower buds are eaten as vegetables.
- Dragon fruit helps to prevent against cough and asthma.

- The fruit contains high amount of Vitamin – C.
- It is rich in flavonoids.
- Dragon fruit act against cardio related problems.
- Dragon fruit improves eyesight and prevent hypertension.
- It helps in reduction of blood sugar level.
- Dragon fruit is an high preferred fruit to type 2 diabetes patients.

POST HARVEST HANDLING OF DRAGON FRUIT

1.Optimum temperature:

- 6 to 10 °C based on the type and variety.
- Generally optimum temperature for yellow pithaya is 6°C

2. Rate of respiration:

- 41 to 49 CO₂

3. Response to ethylene:

- Ethylene involves only in fruit ripening, but not involved in the fruit colour development.

4. Optimum relative humidity:

- The optimum relative humidity of dragon fruit is 85 to 90 %

5. Rate of ethylene production:

- 0.09 µl C₂H₄/ kg /hour during fruit growth and development.

- Ethylene production doesn't increase during ripening.

POST HARVEST HANDLING

1. Harvesting

- Dragon fruit harvested at fully ripened stage but still firm.
- Bright coloured dragon fruit is harvested.

2. Cleaning

- After harvesting, the fruit is cleaned to remove the dirt or debris.
- It is done using water and soft brush.

3. Sorting

- Fruit should be graded based on size, shape, colour and quality.
- Damaged or over ripe fruit should be separated.

4. Packaging

- Dragon fruit is packed in ventilated container or crates.
- Packaging should be sturdy to prevent bruising along transportation.

5. Storage

- Dragon fruit should be stored in cool and dry place.
- The ideal storage temperature is 10 to 14 °C.



Fig. 2. Different storing temperature of dragon fruit

6. Transportation

- Dragon fruit should be handled with care to prevent bruising or damage.
- Proper ventilation in transport vehicles is important to maintain the fruit quality.

7. Ripening

- Dragon fruit is a climacteric fruit.
- Ripening can be slowed down by storing fruit at lower temperature.

8. Quality control

- Regular checks should be conducted to ensure the fruit quality.
- Any signs of rotting or mold should be discarded.

VALUE ADDITION

1. Dragon fruit jam.
2. Dragon fruit peel candy.
3. Dragon fruit jelly.
4. Dragon fruit juice.
5. Dragon fruit wine.