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ADVANCED IN POST HARVEST HANDLING OF DRAGON FRUIT

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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".



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:

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

5. Rate of ethylene production:

• 0.09 μ l C₂H₄/ kg /hour during fruit growth and development.

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•Ethylene production doesn't increases 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

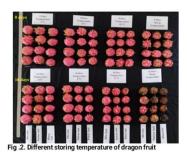
- After harvesting, the fruit is cleaned to remove the dirt or debris.
- It is done using water and soft brush.

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



6. Transportation

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

7. Ripening

- Dragon fruit is an climatric 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.
- Ang 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.