

## **On-farm Mango Fruit Preservation Technique through Sun Drying**

### **Technique definition**

Prolonging the shelf-life, value addition of fruit and maintaining nutrition value and taste of the mango fruits by sun drying fresh mango fruits

### **Purpose**

- Ensure sustainable supply of mango fruit products throughout the year
- Add value to the mango fruit in order to have a higher market value
- Diversify products available in the market
- Reduce post-harvest losses
- Increase income to farmers

### **Procedure of mango fruit drying**

- Pick fresh, healthy, ripe mango fruits.
- Wash the fruits thoroughly with clean water. Water may also be chlorinated.
- Peel off the skin of the fruits while removing any damaged or discoloured parts.
- Slice fruits flesh longitudinally using clean sharp knife while ensuring the slices are thin and uniform in size.
- Make a preservative by adding 8-9 table spoons of lemon juice to 10 litres of clean water.
- Dip the sliced fruit pieces into the mixture of water and lemon juice (preservative).
- Spread sliced fruits treated with the preservative on clean plastic mesh in single layers.
- Leave the fruits to dry under the sun for 4-5 days while flipping the slices occasionally.
- Keep off any flies or birds by enclosing drying area.
- Collect, grade and package the dried mango fruit slices in air tight containers.

### **Advantages**

- Optimum utilization and availability of fruits.
- Prolonged shelf-life as dried mangoes can stay fresh for up to one year as opposed to fresh fruits that last for only 10 days.
- Attracts a higher market value through value addition.
- Caters for different categories of consumers.
- Ensures availability of fruits during off season.
- Reduced transport costs as the final product is less bulky.
- Easy to store.
- More mango trees planted because of the higher profits accrued, hence increased carbon sinks.

### **Disadvantages**

- Applicable only when there is sufficient sunlight.
- Hygiene may be compromised during rainy or cold weather days.
- Labour intensive.

## Dos

- Choose ripe and healthy fruits.
- Make sure the slices are thin enough to promote complete and uniform drying.
- Carry out the operation in a clean environment. Ensure high level of hygiene both for equipment and in the processing area.
- Wash hands thoroughly with soap and running water before commencing the process.

## Don'ts

- Avoid excessive sunlight when drying the fruits.
- Do not expose the sliced fruits to the sunlight for very long period of time.
- Collect and package the fruit slices when they are fully dry.
- Do not carry out mango fruit drying in the rainy season.

## Recommendations

- Promote other mango fruit value addition techniques, e.g. making fruit juice and powder.
- There is need to have a moisture content measuring equipment to monitor and ensure fruits dry to recommended moisture level.
- Solar drier could also be used to dry the fruits as it shortens time for fruits to dry.



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