

# Litchi

## Post Harvest Technology

### Grading

Before packing, the damaged, sunburnt and cracked fruits should be sorted out and graded properly according to their size. There should be only fruits of one grade in a box. Fruits of one variety should be packed in separate boxes and it is better if the box or container is tagged for variety name and grade.

### Packaging

After harvesting, fruit should be packed as quickly as possible, as their quality deteriorates markedly, if they are exposed to sun even for a few hours. For domestic markets litchi is usually packed in small bamboo baskets or wooden crates. These are lined with litchi leaves or other soft packing material as paper shavings, wood-wool, etc.

Proper packing of fruits is important in maintaining freshness and quality and preventing fruit decay during transit for marketing to distant places. A good box for packing fruits should be light in weight, shallow and rigid enough to protect the fruits. It should have few holes for ventilation and rope handles on either side for lifting the box. Fruits are packed in clusters along with few leaves.

### Storage

Litchi fruit cannot be kept for more than a few days after harvest, at room temperature. If marketing is delayed fruits should be kept in cold storage where they can be stored in good condition for 3-4 weeks. Fruits could be stored at 2°C in perforated polythene bags for 5 weeks without much spoilage. For short-term storage less than two weeks, a temperature of 7°C is satisfactory. A relative humidity should be kept at 90-95% throughout storage and transport.

Controlled atmosphere storage (3-5% O<sub>2</sub> and 3-5% CO<sub>2</sub>) reduces skin browning and slows down the losses of ascorbic acid, acidity, and soluble solids. Exposure to oxygen levels below 1% and/or carbon dioxide levels above 15% may induce off-flavors and dull gray appearance of the pulp.

### Cool Chain

Cool chain is essential during the transport of export quality commodity all the way from the farm to the customer. This helps in maintaining the temperature inside the box at the same low level as in the cold storage.

The various stages of the cool chain are:

1. Coldstore at the farm.
2. Refrigerated truck from farm to the airport
3. Coldstore at the airport.
4. Building up of the pallet in a coldstore at the airport.
5. Loading the aircrafts directly from the coldstore in a short time.
6. Cargo aircraft maintains coldstore temperature in hold.
7. Off loading direct into a coldstore in the receiving country.
8. Refrigerated truck to the customers.