



Post-harvesting technology involved in *Mangifera indica* linn

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DESCRIPTION

Mango (*Mangifera indica* Linn) is an important fruit crop in India and is commonly referred to as the 'King of Fruits'. Mango is the most widely grown fruit in India. Mango is the national fruit of India, It is the one of the most important and popular Asian fruits. Mango cultivation is deeply embedded in India's history. Mangoes are widely available year-round as fresh fruit and as frozen and processed foods. Mangoes thrive in tropical regions and are grown throughout India, and are also grown in domestic gardens along field borders and roadsides. Mangoes are believed to be native to northeastern India, northwestern Myanmar and Bangladesh. They later spread to the rest of Asia of their own accord, with the help of humans. About 50% of tropical he fruits produced worldwide are mangoes. India is the top mango producer, accounting for about 49.62% of the world's mango production and his 42.06% of the world's production. Andhra Pradesh has the largest mango planted area in the country.

Due to its good adaptability, high nutritional value, abundant varieties, delicious taste and excellent aroma, it is very popular among the masses. The fruit is consumed raw and ripe in both forms. All parts of mango are used in some way. Bark, leaves, bark, or seeds have all been

processed into various types of treatments or prophylaxis over the centuries. We have proposed several measures to strengthen our marketing system. Promote true competition among market participants, including new liberalized global market opportunities. This profile was developed based on the recommendations of an interagency task force to help the farming community manage post-harvest operations scientifically and raise awareness for better commercialization of mangoes. Profiles cover almost every aspect of marketing, including Post-harvest management, marketing practices, quality standards, grading, packaging, transportation, storage, Stiff-Person Syndrome SPS requirements, marketing issues, marketing information, etc.

Mangoes are typically harvested at the physiological stage of maturity and aged for optimum quality. The fruits are hand-picked and harvested with a harvester. The best way to tell when a mango is ripe is the flesh color, which changes from cream to pale yellow as it ripens. Harvesting should be done in the morning and the fruits should be collected in plastic trays and stored in the shade. Fruit harvested on 8-10 mm stems look better as they ripen and prevent unwanted skin staining from sap burn. Such

fruits are less susceptible to stem rot and other storage diseases.

The following would be the operational Procedures in the pack house

Sorting, cleaning and washing: A preliminary storing of produce is carried out to remove unmarketable prices and foreign matter such as plant debris, soil, stone etc. prior to the produce being transferred for further operations. Cleaning and washing are carried out with flush of cold water to clear produce which has acquired latex stains from injuries caused during harvesting.

Sterilization treatment: Since mold and bacterial spoilage is a major cause of loss in long-distance transportation and marketing of fresh produce, fungicides are applied after the produce has been washed and dried. Fruits are placed in a trough containing a detergent and 0.5% disinfectant solution.

Size, grading and waxing: The fruits treated in this way are finally sorted according to size, ripeness and quality without blemish. Sorting and grading in small packhouses is best done by human eye and hand, referring to ring sizing. Namely packaging:

Fruits are packed in Circulating Fluidized Beds (CFBS) with required burst, puncture and crush strength. Detailed specifications for Ciphertex Feedback (CFB) boxes are recommended by APEDA.

Pre-cooling: After packing the mangoes into his CFB boxes, the packed boxes move to a pre-cooling room where the temperature is set at 12.5°C and 90%-95% relative humidity. When the product is pre-cooled, heat is radiated into the room by field heat and respiratory heat. When the goods are at the optimum storage temperature, respiration is controlled and the maximum shelf life of the goods is achieved. The pulp temperature is observed to drop from 35°C to 12.5°C in about 6 hours.

Cold store: After pre-cooling, the product is transported to cold storage to extend the shelf life. The harvested fruit is pre-cooled to 10-12°C and stored at the proper temperature. Dashehari, Mallika and Amrapalli fruits are pre-cooled to 12°C and stored at 8°C and 85%-90% relative humidity. The fruit can be stored in good condition at low temperatures for 3-4 weeks.

Transport of mangoes: Trucks were adopted as the most convenient mode of transport due to the easy access from the orchards to the market. However, these trucks put a lot of pressure on the fruit and lack temperature controls, so they are not suitable for transporting these live materials. Therefore, designing and developing a suitable transportation system is essential.