
Module 10

Harvesting and handling

Principles of harvesting and post-harvest handling

Harvesting and post-harvest handling are most important for maintaining quality and shelflife of the fruits. The requirements depend strongly on market standards, which differ according to the final market destination. This manual does not cover export market standards or any specific post-harvest treatment of fruits. Obtain information on these subjects from the relevant customers.

Harvesting

The time of harvesting at different stages of fruit maturity is largely dictated by

- the final market destination
- the market purpose, whether for fresh consumption or processing
- how long it takes the product to reach the consumer
 - for local markets, harvest when the fruit is ripe or about to ripen
 - for the export market, consider maturity as an index, that is, harvest when fruits are mature but not yet ripe
 - for processing, the external appearance is less important, but there are quality standards as well, regarding, for example, water, sugar and acid content of the fruit

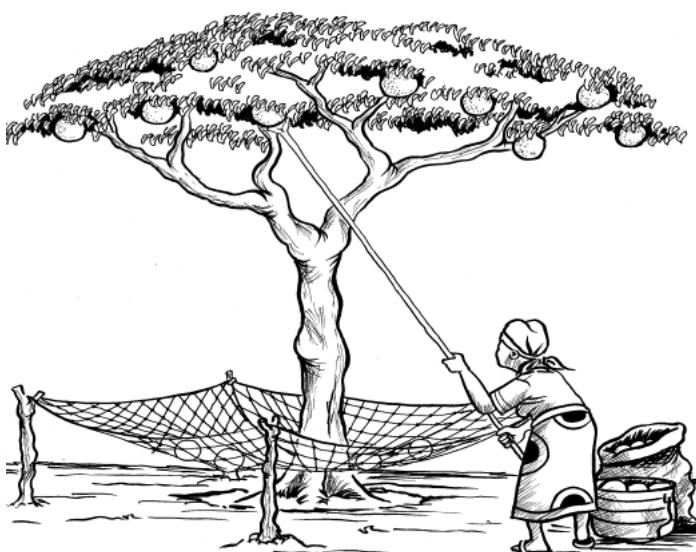
General recommendations for harvesting and handling

- Arrange for transport facilities before you start harvesting.
- Arrange for packing material before you start harvesting. Packaging depends on the markets, for example, for supermarkets the fruits are packed in boxes, for local markets fruits often are transported in sack, baskets or bags.
- For specific markets and clients, coordinate with your customers before harvesting. Inform the customer about harvesting date, quality as indicated by your cultivars and the size of fruits, and expected quantity of produce. Ask for client preferences, such as packaging requirements
- Fruits should be free of any disease and pest symptoms and of any debris.
- Hand pick the fruits to avoid bruising. Do not shake the branches to make the fruits fall down.



Do not use sticks to knock fruits down

- If it seems unavoidable to shake the branches or use a harvesting stick, let the fruits drop on a soft surface, such as a net above ground level or a layer of soft weeds or leaves. This method is applicable mainly for fruits harvested for processing.

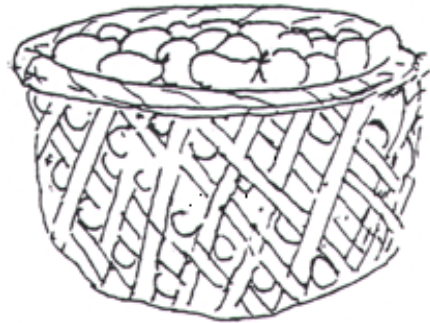


Use a net above the ground to prevent bruising fruits being harvested.

- For export markets or long transport, leave a portion of the stalk on avocado and mango.
- Use a ladder if fruits are not within close reach to avoid damaging the fruits.
- Do not throw fruits out during harvest.
- Use two people to harvest heavy banana bunches.
- To avoid field heat effectively, harvest in the early morning or late afternoon.
- During harvesting do the first grading according to market destination.
- Avoid spilling the latex of mango, banana and pawpaw on the skin of the fruit. If there is a spill, wash the fruit immediately in clean water.
- Take care of your eyes, if harvested fruits contain latex juice.
- Place your fruits on a well-aerated surface or in containers that are not made of rough surfaces.
- The less you touch each fruit, the better. It is best to pack the fruits as soon as possible in the final transport box or container.
- Fruits for the export market often have to be cooled.



Harvested fruit packed in sacks



. . . and in baskets

Trainer's note:

Have the participants summarize by asking the following questions:

- What aspects affect harvesting time?*
- What are the general principles of harvesting and handling?*