

Technical Bulletin #39:

Bitter Gourd Harvest and Postharvest Recommendations

1. Harvest

- Bitter gourds can be harvested 60 days after transplanting.
- Bitter gourd fruits should be harvested at an immature stage: near full size, but before the skin starts to change color.
- Over-maturity can be identified by a change in skin color from green to yellow or orange.
- Harvesting should be done during the cooler hours of the day, preferably in the morning or afternoon and when there is no rain.
- Remove the fruit from the plant using sharp shears or scissors.
- Avoid leaving the fruit exposed to direct sunlight, which will cause it to droop.
- After filling a container with bitter gourd, it should be taken to a shaded, well-ventilated temporary holding area.



Mature fruit

2. Cleaning and sorting

- Take out the unripe or over-mature fruit along with any fruit with fresh injuries or fruit-fly perforations.
- Cleaning can be done manually by rubbing the fruit's surface with a soft damp cloth. In case of contamination with dirt, wash with potable water and air dry.
- If there is no potable water, use sodium hypochlorite at a concentration of 150 ppm (15g/L) as a sanitizing agent and water maintained at a pH level of 6.5 for effective cleaning.
- Bitter gourd is sorted based on size, shape, firmness, skin color, and glossiness.



Immature fruit

3. Packing for transport

- Before packing in a basket, box, etc., wrap bitter gourds with paper to avoid fruit latex contamination.
- Bitter gourds should be packed in strong, well-ventilated containers made either of wood, plastic, or bamboo (use liners such as banana leaves for cushion).
- Fill fiberboard boxes or light-weight containers with no more than about 15 kg of fruit.
- The container should have protective padding to prevent fruit scarring and scratching.
- Avoid overloading, which can cause bruises or damage by compression.



Harvesting with scissors

4. Transport to the market

- Use shelves to avoid piling baskets on top of each other.
- Cover the baskets on top with a wet cloth or banana leaves to protect from heat and dirt.
- A vehicle with refrigeration is recommended for transporting to the market. If this is not possible, the vehicle should have at minimum a roof to protect fruit from direct sunlight.



Packing for transport

5. Storage

- Keep the fruit in a cool place under the house or shaded areas with good ventilation.
- Bitter gourd is susceptible to water loss during storage. Therefore, use a wet cloth to cover the baskets.
- Bitter gourd can be stored in an evaporative control wooden cupboard by frequently sprinkling water on the jute sack.
- For the optimum storage period of up to 2-3 weeks, bitter gourd should be stored at 10-12°C with relative humidity of 85-90 percent.



Wrapping fruit to protect it from wasps and other insects

6. Nutrition Value

- Bitter gourd is a highly nutritious vegetable. Healthy meals can be made using the leaves as well as the pods.
- Raw bitter gourd pods are an excellent source of Vitamin C, a micro-nutrient that is important for maintaining strong bones and teeth, and for helping your body fight infections. In a popular Cambodia dish such as *phlea mreah*, 100g of thinly sliced bitter gourd pods will provide more than 100 percent of the recommended daily requirement for Vitamin C.
- Cooking bitter gourd pods or using pods or leaves in soups reduces the level of Vitamin C to about 50 percent of the recommended daily requirement. But even at that level, they are still excellent sources of this key micronutrient.
- All forms of bitter gourd are very good sources of Vitamin A, a micro-nutrient that helps maintain good eyesight. They are also good sources of iron, calcium, and dietary fiber.

Cambodia HARVEST

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