

Value added products of papaya

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The papaya, papaw or pawpaw is the fruit of the plant *Carica papaya*, in the genus *Carica*. It is native to the tropics of the Americas, and was first cultivated in Mexico several centuries before the emergence of the Mesoamerican classic cultures.



It is a large tree-like plant, with a single stem growing tall, with spirally arranged leaves confined to the top of the trunk. The lower trunk is conspicuously scarred where leaves and fruit were borne. The

leaves are large, 50–70 centimeters (20–28 in) diameter, deeply palmately lobed with 7 lobes. The tree is usually unbranched if unlopped. The flowers are similar in shape to the flowers of the *Plumeria* but are much smaller and wax-like. They appear on the axils of the leaves, maturing into the large 15–45 centimeters (5.9–18 in) long, 10–30 centimeters (3.9–12 in) diameter fruit. The fruit is ripe when it feels soft (like a ripe avocado or a bit softer) and its skin has attained an amber to orange hue.

Just like coconut, papaya tree is considered as "*Karpaga Viruksha*" because, the various parts of the tree are used either for human consumption or for animals or as raw materials for several of the agro-based industries. Papaya not only helps to improve the farm income but also serves as a cottage industry.

Value added products:

Papain:

One of the important and economically manufactured products marketed under this name is the dried milk of raw papaya fruits. This is used industrially in tenderizing meat, to extract oil from liver of 'Tuna' fish, in the

manufacture of cosmetics like 'snow' and face creams and dental pastes, in degumming silk and rayon, in the pre-shrinking of wool, in the curing of leather and in brewing industry. In the medicinal field, papain finds use in the treatment of necrotic tissues, dyspepsia and other digestive ailments, ring worm and round worm infection, skin lesions and in disorders of kidney. Several proprietary pharmaceutical preparations using papain are in the market now. The cultivation of papaya for producing papain will be a profitable proposition and substantial quantities for internal and foreign market can be produced by adopting correct techniques.

Papaya candy:

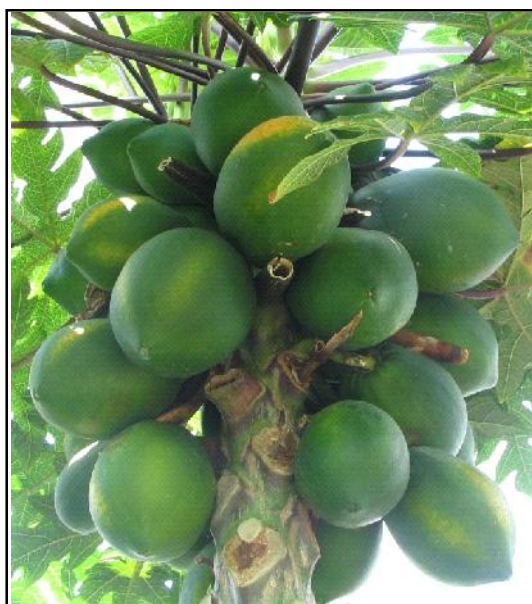
A fruit impregnated with cane sugar and glucose, and subsequently drained and dried is called a candy. A higher percentage of sugar is used than in preserves. The total sugar content of the impregnated fruit is kept at about 75% to prevent fermentation. The process of impregnation with sugar must not be hurried because otherwise, the fruit would shrivel and be unfit for glazing and crystallizing.

Ingredients:

Fully matured but unripe papaya, sugar to bring to 70° Brix, approximate half to 3/4th the weight of the fruit and essence (desired flavour and colour).

Method:

- Harvest fully mature but unripe papaya.
- Make a few streaks with a knife on the papaya and allow the latex to flow out. Wash thoroughly and wipe dry.
- Peel the papaya
- Cut and remove the seeds
- Cut the papaya into small, pieces of uniform size
- Soak it in cold water containing salt (2 g/100 ml) and calcium chloride (1 g/100 ml) for 1/2 an hour.
- Drain and wash with cold water.
- Add sugar (1/4 the weight of the pieces) and cook for 5 minutes with colour and flavour.
- Cool and keep aside for 4 hours.



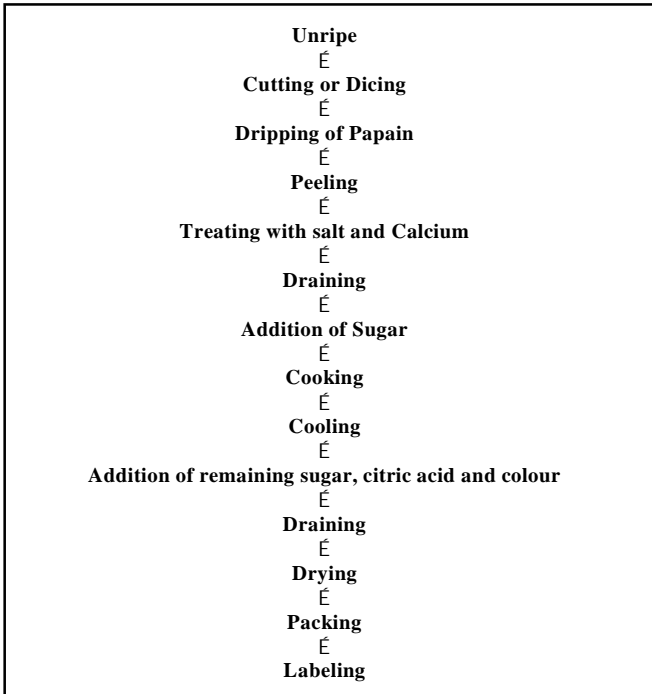


Fig. 1 : Flow chart on processing of papaya candy

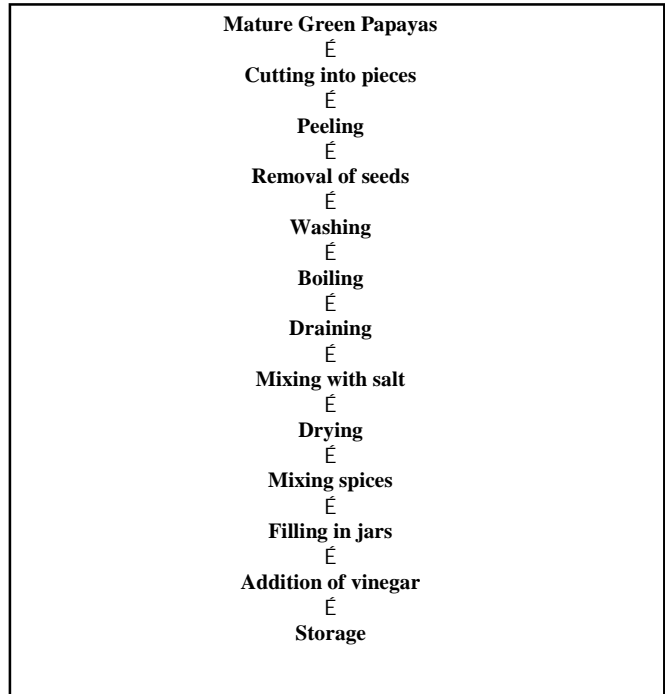


Fig. 2 : Flowchart on processing of papaya pickle

- Add a little more extra sugar and citric acid (1 g/ 100 ml) and cook for 5 minutes.
- Repeat the procedure till the final Brix reaches 70°.
- Drain the syrup and dry the candy under shade.
- Pack it in sterilized jars or polythene bags.
- This papaya candy can be used in the preparation of bakery products.

Papaya pickle:

The preservation of food in common salt or in vinegar is known as pickling. It is one of the most ancient methods of preservation of fruits. Pickles are good appetizers and add to the palatability of the meal. They stimulate the flow of gastric juices and thus help in digestion.

Ingredients:

- Peeled papaya pieces
- Salt
- Red chilli powder
- Mustard
- Fenugreek
- Asafoetida (powdered)
- Vinegar

Method:

- Wash and peel mature green papayas
- Remove the seeds and cut them into pieces
- Boil them in hot water and drain the water
- Mix with salt and add spices
- Fill in jars and add vinegar

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