

Indian Farmer Volume 9, Issue 08, 2022, Pp. 365-369. Available online at: www.indianfarmer.net ISSN: 2394-1227 (Online)

### ORIGINAL PAPER



# **Preparation of Orange Marmalade**

Keerthana Chundurwar and Dipika Mal

School of Agriculture, Lovely Professional University, Phagwara, Punjab-144411

\*Corresponding author: dipika.21885@lpu.co.in

Article Received: 19 August 2022 Published Date: 23 August 2022

he term marmalade is generally used for the process products made from citrus fruits like lemons and oranges in which shredded peel is used as the suspended material. This is a fruit jelly in which slices of the fruits or fruit peel are suspended. Citrus marmalades are generally two types Jelly marmalade and Jam marmalade.

**Jam Marmalade:** The method preparation method of Jam marmalade is practically the same as the Jelly marmalade.

## INGREDIENTS FOR PREPARATION OF ORANGE JAM MARMALADE

• Sweet oranges: 2(450g)

• Sugar: 700g

• Sweet orange peel: 300g

## FLOW CHART FOR PROCESSING OF MARMALADE

Ripe fruits



Washing



Peeling outer yellow portion thinly



Cutting yellow portion into fine shreds (1.9-2.5 cm long and 0.08-0.12cm thick)



Cutting of 0.3-0.45 cm thick slices of peeled or crushing into pulp in a greater



Boiling

(in 2-3 times its weight of water for 40-60 minutes)



Straining the extract



Testing for pectin content (alcohol test)



Addition of sugar (as required)



Cooking to 103-105°C (continuous stirring)



Addition of prepared shreds
(Shredded peel boiled for 10-15 minutes in several
Changes of water for softening and removing bitterness and added about 62 g per kg of extract)



Boiling till jellying point (continuous stirring)



Testing for end point (sheet/drop test)



(to 82-88°C with continuous stirring)



Filling in sterilized bottles



# Sealing



# Storage at ambient temperature

#### STEPS IN PREPARATION OF MARMALADE

Take sweet oranges and wash it thoroughly followed by cutting into two halves. Extract the juice from the oranges, followed by scraping the pulp adhered to the peel and the juice from pulp is extracted by pressing it in sieve. The peel should be cut longitudinally into very thin pieces (as shown in figure) followed by boiling of the cut peels to remove the bitterness and keep it aside. Juice, which is extracted is boiled on medium flame and when it starts boiling add 1 cup sugar followed by addition of cut peels into the boiling juice and let it boil till end point is reached i.e., TSS of 65°brix or end point is checked by sheet test. Fill marmalade in bottle and let it cool followed by capping the bottle.





Plate 1: Take 2 oranges

Plate 2: Cut Oranges into 2 halves





Plate 3: Extract juice from oranges Plate 4: Scrape the pulp adhered to the peel



Plate 5: Extract the juice from scraped pulp Plate 6: Cut the peel into thin pieces



Plate 7: Add the cut peel to the juice

Plate 8: Boil the juice on medium flame



Plate 9: Addition of sugar to the boiling juice Plate 10: Stir continuously



Plate 11: Allow the juice to boil till end point

Plate 12: End point reached



Plate 13: Fill the marmalade into the glass jar

Plate 14: Orange marmalade

### PROBLEMS IN MARMALADE MAKING

Browning during storage is very common which can be prevented by addition of 0.09 g of KMS per kg of marmalade and not using tin containers. KMS dissolved in a small quantity of water is added to the marmalade while it is cooling. KMS also eliminates the possibility of spoilage due to moulds.

## **CONCLUSION**

There are few precautions to be followed while preparation of orange marmalade i.e., white layer adhered to the peel inside need to be scraped off, peels which are taken for marmalade need to be boiled to remove bitterness, while orange juice boiling continuous stirring is required to prevent sticking to the pan, marmalade should be filled in glass jars for good preservation, it should be capped after reducing to room temperature. This could be a viable option for rural women entrepreneurs.