For more information, write or call:

TECHNOLOGICAL SERVICES DIVISION

Industrial Technology Development Institute (ITDI-DOST) Telefax: 837-2071 loc. 2265 / 837-6156 e-mail: tsd@itdi.dost.gov.ph

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Livelihood Technology Series 3

PREPARATION & PRESERVATION OF FRUIT JUICES



Department of Science and Technology INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE DOST Compound, General Santos Avenue Bicutan, Taguig City, Metro Manila, PHILIPPINES http://www.itdi.dost.gov.ph

'Our Business is Industry..."

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Prepared by:	ELNILA C. ZALAMEDA TSD-ITDI
	Ma. ELSA M. FALCO FPD-ITDI
Edited by:	VIOLETA B. CONOZA TSD-ITDI
Cover layout by:	LUZMIN R. ESTEBAN TSD-ITDI
Adviser:	NELIA ELISA C. FLORENDO

<u>Livelihood Technology Series 3</u> Preparation & Preservation of Fruit Juices

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PREPARATION AND PRESERVATION OF FRUIT JUICES

INTRODUCTION

The flavor of canned or bottled fruit juice will depend upon the selection and handling of the fruit from which the fruit juice is made. Select only fully ripened fruits. Under-ripe fruits are lacking in flavor and color while overripe, bruised or decayed fruits will spoil the flavor of the juice and make sterilization difficult. Use of iron, copper or bronze utensils and equipment should be avoided. Work with the fruit and juice as rapidly as possible in order to prevent loss of flavor and nutritive value due to exposure to air.

Naranghita (<u>Szinkum mandarin</u>) Juice and Calamansi (<u>Citrus microcarpa</u>) Juice

Select fresh, fully ripe and sound fruits. Wash the fruits thoroughly with detergent to remove dust, soil and other extraneous matter. Rinse thoroughly with running water. Cut the fruits crosswise into halves and extract the *naranghita* juice in a mechanical juice extractor or with the use of a household citrus juice extractor. Squeeze *kalamansi* fruits by hand. Strain the juice through a muslin bag to remove seeds. Sugar may or may not be added. It may be added in any desired proportion, according to the acidity of the fruit juice and the taste of the end-user. To the clear juice, add sodium benzoate to give a final concentration of 0.05 per cent of the total volume. The sodium benzoate should be dissolved in a small quantity of water before adding to the fruit juice. Heat the *naranghita* juice rapidly with constant stirring to 85°C and

maintain at that temperature for about 5 minutes. *Kalamansi* juice is heated to 75°C for 5 minutes. Pour immediately into cans or bottles which have been previously boiled in water for about 3 to 5 minutes. Fill the container to overflowing and seal completely at once. Process for 20 minutes in a boiling water bath. Cool immediately, wipe containers dry and keep in a cool, dark place, preferably in the refrigerator.

To prepare the fruit drink, dilute with water to the desired consistency and add sugar to suit the taste.

Mango Juice

Wash fresh, fully ripe and sound fruits using the method described above. Peel the fruits and remove the pulp from the seed by using an aluminum or stainless steel knife. Mash the pulp thoroughly and add an equal volume of water to facilitate juice extraction. Strain the juice through a muslin bag to remove pulp. To the clear juice, add sodium benzoate and citric acid equivalent to 0.05 and 0.3 per cent, respectively, of the total volume of the juice. Proceed as in method prescribed for *naranghita* juice.

Guyabano Juice

Wash thoroughly ripe and sound fruits using the above-prescribed method. Remove seeds and mash pulp with an equal volume of water to facilitate juice extraction. Filter through muslin bag and proceed as in preservation of *naranghita* juice.

Calamansi Nip

Use freshly harvested mature calamansi. Wash and drain. Cut across the upper portion of the fruit to avoid cutting

seeds. Squeeze juice thru a fruit juice squeezer or by hand. To every part of the juice, add 1³/₄ parts of sugar (60°Be). Stir to dissolve sugar. Allow to stand undisturbed for 3 days, preferably in a refrigerator. The clear lower layer is the calamansi nip. Siphon the nip into dry and sterile narrowmouthed glass bottles and stopper. Fill containers completely. Store in a refrigerator (50°F or below).

Duhat Juice

Extract juice from fresh, sound and ripe *duhat* berries. Strain thru cheesecloth. Transfer in dry sterile bottles. Store in a freezer. In the absence of a freezer, bottle the juice and pasteurize at 70°C. Seal tightly and store in a cool dry place.

Mango Nip

Select ripe sound mangoes. Peel, scrape the pulp and pass thru *sinamay* cloth. To every cup of the pulp, add one-fourth cup of sugar. Mix well and strain thru a thin cloth. Pour in dry bottles and pasteurize for 20 minutes at 80°C. Seal.

Frozen Guyabano Pulp

Use sound ripe *guayabano* fruit. Separate the seeds from the pulp. To every cup of the pulp, add 2 tablespoonfuls of calamansi juice. Pack in sterile glass jars. Store in freezer at 23°F. To serve as juice, add enough cold water and sugar to desired taste.

Papaya Nectar

Prepare 40°C boiling syrup (one cup sugar to one cup water). Scrape the pulp from a sound ripe papaya and pass thru *sinamay* cloth. Add 4 tablespoonfuls of calamansi juice. Add the syrup and mix well. Pour in cans. Exhaust cans in boiling water for 20 minutes until contents reach 85°C. Seal completely. Sterilize at 10-lb pressure for 20 minutes.

Pineapple Syrup

Peel sound ripe pineapples. Pass thru a meat grinder and extract the juice. Strain. To every cup of juice, add one cup sugar. Stir well. Heat to 70°C and pour immediately in sterile bottles. Pasteurize in boiling water for 20 minutes.

Guava Juice

48 to 50 medium-sized, firm ripe guavas, 2 cups water (barely sufficient to cover sliced guavas).

Wash, remove blossom end, and cut guavas into slices. Add water, bring to boiling point quickly, and boil gently for 15 minutes. Strain through a flannel jelly bag or two thicknesses of a sugar or flour bag. Heat juice to boiling point, pour into clean sterile jars and seal. Juice not canned will keep approximately a week in a refrigerator.

Pineapple Juice

Peel sound ripe pineapple and remove eyes. Wash and mash the fruit thoroughly. Add a little water to facilitate extraction. Strain the juice through cheesecloth or a muslin bag to remove pulp. To the juice, add sodium benzoate and citric acid equivalent to 0.05% (.5 g/liter) and 0.3% (3 g/liter) respectively of the total volume of the juice. Add sugar if desired. Heat the juice rapidly with constant stirring to 80°C and maintain at this temperature for about 15 minutes. Pour hot in tin containers or glass jars and seal immediately. Process in a boiling water bath for 15 minutes. Cool canned product, wipe-dry, label and store.