

MAKING MAGIC WITH MANGOS

BY NORIS LEDESMA, CURATOR TROPICAL FRUIT

With mango season close at hand, we are all thinking about that age-old question: how to deal with all those glorious, delicious—and ripe—mangos. This is the tricks of the trade in handling mango harvest from Fairchild Tropical Botanical Garden who convert the production of our fruit collections into wondrous products. Learn how to make a wide range of mango products, which are the backbone of the International Mango Festival. Learn the basics of preparing and freezing pulp, making juices and jams, and much more.



METHODS OF HOME PRESERVATION OF FRUIT

This section will discuss various ways that fruits can be preserved in the home. One of the advantages of preserving fruits is to have them available for consumption over a longer period of time. By preserving fruit, one is able to utilize all of the fruit in a single season. The following methods to do not require sophisticated equipment and can be accomplished using basic equipment found in the home.

DRYING MANGOS

Drying is an excellent way to preserve fruit. Dried slices or “fruit leather” are two options to make delicious, sweet, all-natural snacks. There are several advantages to drying including: ease in preparation, and the fact that pre-treatment of the fruit is not necessary.

Drying is the oldest method of preserving fruit. Originally, fruits were left out in the sun to dry. Later, people began drying fruit over fire. Now, most drying is done in stoves or ovens. Commercial dehydrators are also available for home use.

Many fruits can be preserved by dehydration. Several types that are easily dried include: apples, peaches, apricots, and mangos (which are perhaps the most popular). However, with a little experimentation, many of our South Florida tropical fruits work equally well.

Dehydrators: Several good commercial dehydrators are available for home use. The best machines have an electric heating element with temperature controls, and fans that assure uniform temperature distribution in the drying chamber. Teflon mesh trays are preferable because the dried fruit slices do not stick to them.

A household oven (electric or gas) can be used if the temperature can be set low enough to prevent darkening of the fruit. A convection oven works almost like an electric dehydrator.



DEHYDRATING MANGOS

PROCEDURE:

Select quality fruit: Select firm, ripe fruit. Carefully wash and peel the fruit.

Cut the fruit: Cut the pulp into lengthwise slices up to an inch in thickness.

Place the trays in the dehydrator: Arrange the slices flat on the dehydrating trays. Be careful not to clump the fruit slices together.

Temperature: Set the temperature control from 125° to 135°F, and let it run until the slices reach the desired consistency. Slices that are too soft or moist do not store well. Drying time depends upon the thickness of the slices, the amount of fruit in the dehydrator and the humidity. In South Florida, drying times depends on the ambient temperature and atmospheric humidity. The relative amount of moisture in the fruit, and the thickness of fruit are also important to consider.

MANGO LEATHER

Mango leather is an excellent alternative to make a delicious candy. Kids love it!

Select fully ripe fruit that is in season. This is a good way to use culls or slightly bruised fruit. The pulp should be soft enough to puree easily. In a blender or food mill, process the peeled and pitted pulp to a smooth puree. No additives are needed. Place the plastic wrap or wax paper on the dehydrator trays. Spread the puree about an inch thick. Place the trays in the dehydrator with the temperature set to 125F to 130F. Turn on the dehydrator and let it run until the leather has reached a firm, elastic, sticky consistency, usually about 8 to 10 hours. The leather is finished when the dried pulp can be easily peeled from the plastic. Dried mango leather is usually a darker color than dried slices. Remove leather from the trays and roll it up in the plastic sheets. Uncovered leather rolls will stick together.

ADVANTAGES OF DRY FRUIT

This healthy snack contains fiber, vitamins and minerals.

Most people like it

Drying do not change the flavor of the natural fruit

In many fruit the color retention is excellent

Fruit can be stored in a small space

Dried fruit make beautiful crafts and gifts

PACKAGING FOR STORAGE DRY FRUIT

Dried fruit slices and fruit leather should be sealed in bags soon after drying or they will take up moisture and soften considerably. For best storage, dried fruit can be kept in the refrigerator for at least three years. Do not store them at room temperature for more than a few days, they will ferment or mold.



CANNING

Canning involves the natural enzymatic breakdown of fruit by heating fruits in a liquid medium inside a closed container. This method requires more knowledge of food preservation. The recommended method of canning fruit is the water-bath.

PH: Fruits with a pH of 4.0 to 4.5 (such as mangos, papayas, figs) should have acid added to packing medium to obtain a pH below 4.0. One-fourth cup lime or lemon juice per pint is enough to make the needed pH adjustment.

Processing fruit: Fruit and all the equipment to be used should be washed thoroughly prior to commencing work. It is preferable to use fresh fruit over frozen. Make sure to remove all seeds first.

Jellies, jams, butters, marmalades and preserves are fruit preserved with sugar and usually jelled to some extent. Their individual characteristics depend on the kind of fruit used, the mixture, and the method of cooking.

Cooking times and methods vary according to the product being made. When making preserves without commercial pectin, combine the fruit or juice with sugar and cook to the

Jelly: is made from fruit juice and should be clear and tender, yet firm enough to holds its shape.

Jam: is made from crushed or ground fruit. It is smooth and thick, slightly softer than jelly and still holds it's shape.

Butter: is made of fruit pulp that is cooked to a smooth and very thick consistency. It can be sweet or spiced.

Marmalade: is made of pieces of fruit pulp and rind evenly suspended throughout a clear jelly. Citrus fruits are commonly used, either alone or in combination with other fruits.

The temperature or consistency recommended, or to the jelly point. If you like your product firmer, lengthen the cooking time, for a softer product, shorten it. Overcooking it is also causes darkening of preserves and a taste and odor of caramelized sugar. Be careful not to overcooking the fruit.

Preserves: are whole fruits or large pieces of fruit cooked in thick sugar syrup until the fruit is tender and somewhat transparent in appearance.

Sterilization: The objective here, is to destroy bacteria and other microorganisms that may spoil food, by heating the mixture. Special canning jars with self-sealing lids should be washed in hot soapy water. Lids must be new. Place clean jars in a large pot, cover with water and bring to a boil. Boil jars for at least 10 minutes to sterilize.

Filling and sealing jars: When the fruit is ready for canning, remove a hot, sterile jar from the water with tongs, and ladle the fruit into the jar. After jars are filed, wipe away anything on the threads of the jar, or anything that has spilled on the outside with a clean damp cloth. Place lid on jar and screw tightly. Invert jar for about 30 seconds so hot jelly can destroy molds or yeast, which may have settle on the lid. Return jar to an upright position and allow it to cool. When the jar has completely cooled, check the seal to be sure it is secure. If the center of the lid is indented slightly, the jar is sealed.

Most often the seal is completed as the jar cools, and you will hear a familiar "ping" sound as the center of the lid inverts when a vacuum is formed. If the seal is not complete, bring the contents of the jar to a boil and re-pack using a clean, hot, sterile jar and a new lid.

FREEZING MANGOS

Freezing mangos is accomplished by storing fruit at temperatures bellow 32F. This limits the enzymatic breakdown of the fruit.

Mangos can be frozen without any special treatment except washing, while some fruits need to be peeled or seeded. Still others need to be treated with ascorbic acid to prevent darkening. Frozen fruit looks and tastes very similar to fresh fruit.



MANGO SALSA

BY LEILA BARNS

- 2 Large Mangos – diced
- 1 inch piece of Ginger- grated
- Cilantro-bunch (about ½ cup)
- Purple onion-1/2 large
- 2 jalapeno peppers-seeded and finely diced
- Dash salt
- Lime juice-to taste

Combine all ingredients and serve with corn chips

GREEN MANGO MARMALADE

BY RICHARD J. CAMPBELL

This sweet mango preserve is just right as an accompaniment to your favorite bread. Mango cultivar selection is key, requiring firm and green mangos. The best cultivars are 'Nam doc Mai', from Thailand and 'Carabao' from the Philippines.

INGREDIENTS:

- 4 cups of mango
- 2 ½ cups of sugar
- ¼ cup of water
- 1 tsp. of ginger (optional)

Wash and peel the mangos. Then cut the mango in squares and cook until soft. Add sugar to the mango and leave it on the maximum temperature while stirring constantly. Add the Sure-Jell or pectin source and mix it entirely. If you prefer, you can add grown ginger.

MANGO PICKLES

Spicy mango pickles are an ancient tradition in Indian cuisine, providing a flavorful accent to flat breads and savory dishes. Mango pickles can be made from either whole mangos or mango pieces. In addition, removing some of the tiny fruits is a healthy technique for the mango trees, we recommend that you remove up to 25% of these fruits. These are can be used to prepare Pickles.

INGREDIENTS:

- 5 cups of small mangos
- 3 cups of fruit vinegar
- 1 cup of sugar
- 5 tsp. of salt
- Aromatic herbs to taste
- Jalapenos and peppers (optional)

Wash the mangos to eliminate unnecessary substances. Cut them in vertically in half and take out the seed. In a pan, boil the mangos in water for 3 minutes. After, take out the water and add the vinegar, salt, and sugar. Leave it boiling for 10 minutes more and add the rest of the ingredients.



MANGO SMOOTHIE

INGREDIENTS:

- 1 cup of mango pulp from fresh ripe mangos
- 1 ½ of ice
- 2 tsp sugar



MANGO CHUTNEY

BY LEILA BARNS

INGREDIENTS:

- 4 cups Ripe "Tommy Atkins" mango
- 4 cups green mango
- ½ cup apple vinegar
- 1 ½ pounds brown sugar
- 2 tsp salt
- 2 large onions- diced
- 3 tsp. de mash garlic
- 4 tsp. Allspice seeds (cinnamon, cumin, mustard, paper)
- 2 fresh green jalapenos - quartered
- 2 tsp grated fresh ginger
- 1 cup dark raisins

Mango: hard, ripe, peeled, seeded and sliced. Place all ingredients in heavy saucepan over medium heat. Bring to boil. Lower heat and simmer for about 20 minutes, stirring frequently. Remove from heat, cover, and let stand for about 12 hours. Again bring to a boil, lower heat, and cook for 15 minutes, stirring frequently.