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# Home Canning of Fruits

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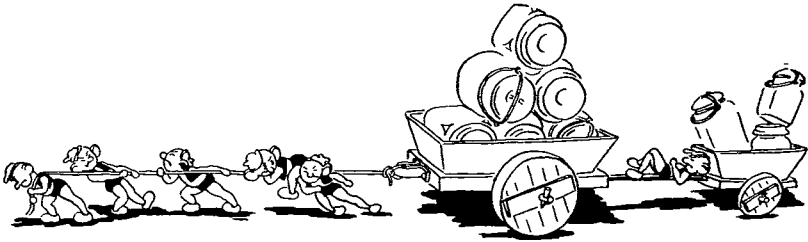
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FORT COLLINS, COLO.

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# Home Canning of Fruits

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“Can summer’s sunshine for winter’s health”

Canned fruits are aids to the homemaker in planning and preparing meals that are well balanced and pleasing to the appetite. One of the most satisfying sights to a thrifty homemaker is an array of canned foods on the shelves of her store-room. A variety of juices and fruits will mean beverages, salads, puddings and other dishes for the winter.

Under ordinary home conditions it is impossible to keep most fresh fruits for any length of time. Yeast, molds and bacteria that are present in the air and in water settle on them causing fermentation and decomposition. Enzymes present in fruit help it to mature and ripen. If the action of these enzymes continues after the product ripens, the fruit will deteriorate rapidly. See the Colorado Home Food Supply Plan for budgeting suggestions.

**(CAUTION: Avoid tasting or using canned fruits that have a disagreeable odor or that show gas pressure in the jar).**

The aim in canning any fruit is to sterilize with heat and to preserve in air-tight containers.

The method of canning affects the vitamin content to some extent, but there need be only small losses if proper methods are followed. In order to preserve as much of the vitamins and minerals as possible in canned products, be sure to:

1. Can as soon as fruit is gathered.
2. Work rapidly while canning.
3. If precooking, cook just a short time and pack hot.
4. Use liquid in which product was precooked.

### Selection of Product

Good quality canned fruit depends on the use of ripe, firm, good quality, fresh fruit. Berries, apples, peaches, cherries, apricots, and plums are most often canned in Colorado. Some varieties of fruit are better suited for different kinds of canned products than others.

Table I.—Yield of Fruit for Canning

Amount of Raw Fruit and Number of Jars Needed (Approximate)			
Fruit	Measure	Weight	Quarts
Apples	1 bu.	50 lb.	20
Apricots	1 box	25 lb.	8
Berries	24 qt. case		15 to 18
Cherries	1 bu.	50 lb.	18 to 20
Peaches	1 bu.	50 lb.	20 to 22
Pears	1 bu.	50 lb.	18 to 22
Plums	1 box	25 lb.	8
Tomatoes	1 bu.	56 lb.	16

“Two hours from garden to can” is a good rule to follow. Gathering fruit in small quantities, and spreading them in a cool, well-ventilated place is desirable. Gather fruit in the coolness of early morning whenever possible.

### Selection and Care of Equipment

#### Equipment needed:

Paring knives (stainless steel); case knife  
 Wooden spoon (for stirring); fork  
 Jar lifter  
 Kettle (for sterilizing jars or bottles and other tools)  
 Saucepan (for making sirup for sweetened fruit)  
 Double boiler (for fruit juices)  
 Cheesecloth or bag (for juice straining)  
 Jars, lids and rubbers, or bottles, cap and capper (for fruit or juice)  
 Dairy thermometer (for fruit juices)  
 Colander; cutting board  
 Funnel (for juices); ladle  
 Fruit press (for juices)  
 Kettle for cooling fruit juices  
 Bowls or pans for fruit or fruit juice  
 Measuring cup; measuring spoons  
 Water-bath processor (for fruit)

**Jars.**—The condition of the sealing edge or rim of the jar is particularly important for an air-tight seal. Run the finger around the edge to see that there are no nicks or rough places which will cut the rubber and prevent a seal. With **tempered** jars there is less danger of breakage. Jars are tempered only during manufacturing process. Jars should be washed in soapy water and rinsed immediately after being emptied, and stored in a clean place. Wash jars in soapy water, rinse, and sterilize before using. To sterilize place jars in boiling water, cover the container, and allow jars to remain there for at least 20 minutes. When bottling fruit juice it is desirable to keep jars filled with sterile hot water until ready to be used.

**Lids.**—Screw-top lids should fit closely to rim or shoulder of the jar. Porcelain linings should be free from cracks. It is wise to use new lids. **Tighten screw-tops** when jar comes out of hot-water bath. Jars which have lacquered caps do not require the extra rubber ring for they seal with the composition material that is on the inside edge. Tighten the band of this type as soon as jar is filled. **Do not** tighten after processing or seal may be broken. After jar is cooled, band may be removed and used again.

**Rubbers.** — With forefinger of both hands, stretch the rubber and twist to see if it is strong and elastic. When released, the rubber should resume its original shape. Pinch to see if it will crack or break. **Use new rubbers each season for canning.**

**Water-Bath or Pasteurization Processor.** — A water-bath processor may be a large kettle, bucket or a washboiler. In addition to being roomy enough for a fairly large number of jars, it must be deep enough so that the tops of the jars when standing on the false bottom are about 2 inches below the rim of the container, since water must cover the tops of the jars. A tight cover is necessary, and also a false bottom or rack or individual containers for jars, so that the jars will not touch the bottom of the kettle and water will circulate freely around them. One of the most satisfactory false bottoms made by a tinner at small cost is similar to a milk-bottle carrier with partitions so that jars do not tip, and with handles to lift the rack. A wire basket is satisfactory, or a false bottom may be made from a couple of thicknesses of rabbit wire. A pressure cooker used without pressure may serve as a hot-water bath container if the petcock is left open during the processing. The boiling point in hot-water bath will vary from 212 degrees F. at sea level to 193.6 degrees F. at 10,000 feet altitude.

**Other Equipment.**—For pans, kettles, knives, spoons, double boiler and other equipment coming in direct contact with the fruit or juice, use enamelware, aluminum, stainless steel, earthenware, or heat-proof glass. **Avoid chipped enamelware, galvanized ware, or tin ware not well tinned.**

### Ways to Save Sugar When Canning

1. Use ripe fruits; they require less sugar.
2. Fruits for puddings and pies are commonly canned without sugar. Fruits canned without sugar are best sweetened when used by dissolving sugar in hot juice and then adding the fruit and allowing it to stand and absorb the sweetened juice.
3. Substituting honey or light corn sirups for all or part of the sugar in some canned fruits on a cup-for cup basis.
4. Precooking some fruits in the sirup helps to cut the amount of sugar required.
5. Preserve the natural flavor of fruits by using low to moderate amounts of sugar.

Fruits are usually canned with a sirup made of cane or beet sugar and water or fruit juice. Make the sirup somewhat in advance so that there will be no delay when fruit is ready to be prepared. Reheat just before using.

### Proportions for Sirups Used With Fruits

Sirup	Type of Fruit	Sugar per cup of water or fruit juice
Thin	Berries	$\frac{1}{4}$ to $\frac{1}{2}$ cupful
Medium	Peaches, pears	$\frac{3}{4}$ cupful
Heavy	Sour fruit—gooseberries, sour cherries	1 to $1\frac{1}{4}$ cupfuls

Dissolve the sugar in liquid and simmer for about 5 minutes to make a sirup. Remove any scum that has formed. **Allow about  $\frac{3}{4}$  c. sirup for each pint of fruit.** A sirup that is too heavy will destroy the natural flavor of the fruit, cause it to shrivel, and to float in the jar.

### Preparing Products

1. **Sorting and washing.**—Sort and wash fruits carefully in several waters. One poor fruit may give off flavors or cause spoilage of the whole lot. Lift fruit out of water rather than pouring off the water. Cut, slice, prick, or leave whole, depending upon type of fruit prepared.

Quick handling of fruit is urgent. Work with small quantities of fruit and in a cool place. (See chart for special preparation.)

2. **Precooking and blanching.**—Some fruits and tomatoes are scalded or steamed to loosen skins then dipped into cold water. This is blanching.

Fruits, such as apples, are precooked to shrink them. Pears are precooked in sirup to give them a transparency desired by many homemakers.

3. **Extracting juice.**—a. Work rapidly with small quantities of fruit.

b. Collect all equipment needed.

c. Wash fruit thoroughly and remove unsound portions. Moldy or rotten fruit gives off flavors and increases danger of spoilage.

d. Crush, chop or pit fruit. This depends upon variety being prepared.

e. Heat fruit in top of double boiler (bottom of double boiler has hot water coming well up the sides of the pan containing the crushed fruit). Stir fruit constantly and heat until thermometer inserted in mixture registers 175 degrees F.

f. Remove and strain through several thicknesses of cheesecloth.

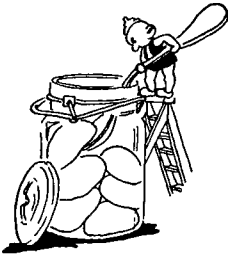
g. Let stand over night so that sediment settles. Then decant (pouring off juice from sediment). Fruits such as tomato puree and apricot juice need not be decanted.

h. Heat juice in top of double boiler to the same temperature as previously heated—175 degrees F.

i. Completely fill hot sterilized jars or bottles immediately and adjust lids or caps.

## Packing for Water Bath

1. **Fill jar to within  $\frac{1}{2}$  inch of the top.** Space is needed for expansion when product is cooking in the jar. Container should be firmly but not tightly packed. Too tight a pack prevents proper heat penetration.



2. **Add juice or sirup.** Use knife or spoon along edge of jar to help release air bubbles present in the jar.

3. **Avoid fancy packs.** Product should be neatly and economically packed. Fancy packing takes too much time.

4. **Before processing, drive the air out of filled containers** by setting them in a pan of boiling water to within 1 inch of the top for a 10-minute period, then seal quickly.

## Sealing

Tighten all composition-lid jars before processing. Exhaust and seal tin cans before processing. Follow directions accompanying different types of lids.

Foods are not all processed for the same length of time. Altitude also makes a difference.

## Processing

The methods recommended for processing fruits of different kinds are:

1. **Pasteurization method**—Berries canned by this method will remain whole; they will not float, and best of all, they will have better color, texture and flavor.

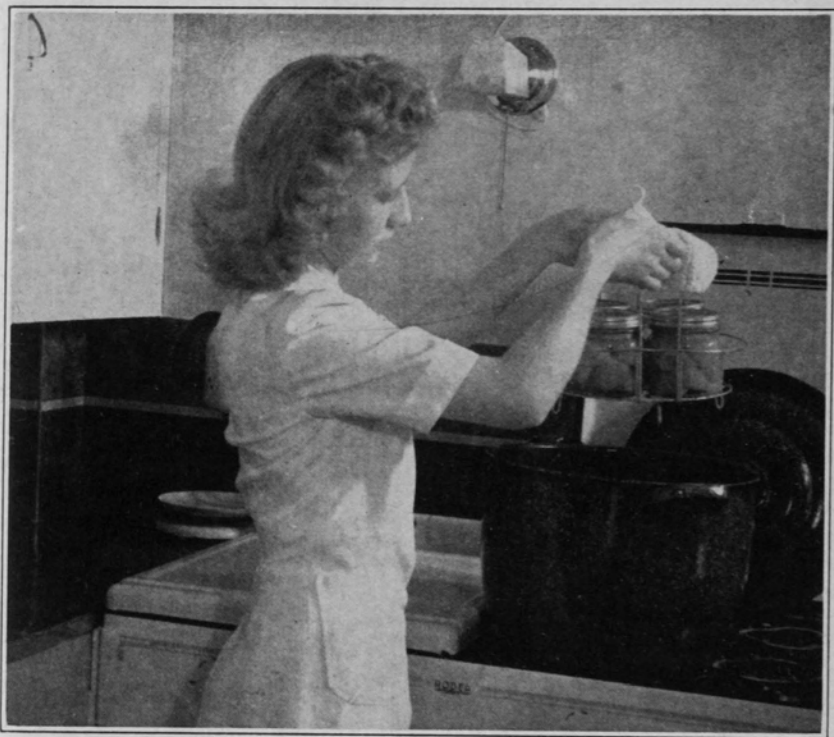
a. Place the filled jars of berries with tightly adjusted lids in the regular hot-water bath. The container should have a false bottom and the boiling water should cover tops of jars at least 1 inch. Adjust lid on boiler.

b. Set the hot-water boiler off the stove and allow the jars to remain until they are completely cool.

2. **Hot- or cold-packed water-bath method**—Firm, large fruits are best packed and processed by this method.

a. The fruit is packed into clean jars and the lid adjusted tightly. Either "hot pack" or "cold pack" may be used.





Removing fruit from water-bath canner.

b. Then the jar of food is put into the water-bath container so that water may circulate around jars.

c. The hot water in the bath should cover the tops of the jars at least 1 inch.

d. Adjust lid on water bath.

e. Begin counting time for processing when water begins to boil.

f. Process required length of time for product. (See chart for special preparation.)



3. **Open-kettle method** — a. The fruit is cooked in an open kettle until done.

b. Pack hot into hot sterilized jars. Fill the jar with hot sirup.

c. Seal immediately with sterilized lids.

This method is quick and requires little equipment. Some disadvantages are: The food is not so attractive; more vitamin value is usually lost; there is greater danger of spoilage.

Table II.—Processing Time for Fruits and Tomatoes in Hot-Water Bath at Varying Altitudes for Pint and Quart Glass Jars

	4,000 ft.	5,000 ft.	7,000 ft.	10,000 ft.
Rule 1. Berries, soft fruits . . . . .	22 min.	24 min.	27 min.	32 min.
Rule 2. Rhubarb, firm cherries, peaches, pears, apricots, plums . . . . .	29 min.	32 min.	35 min.	40 min.
Rule 3. Apples—Steam 5 to 10 min. and pack with hot sirup	16 min.	18 min.	20 min.	24 min.
Rule 4. Any fruit which is pre- cooked and packed hot..	7 min.	8 min.	9 min.	10 min.
Rule 5. Tomatoes* and pickled beets . . . . .	30 min.	35 min.	38 min.	45 min.

\* Note. Very firm tomatoes may require somewhat longer processing.

### Care After Processing

1. Remove from hot-water bath and let cool. Composition-top jars will seal as they cool and they **should not be tightened**. Zinc top lids and glass tops will need tightening as soon as they come from the hot-water bath. Put down the second clamp on clamp-top jars.

2. Avoid setting jars in drafts.

3. Label with name of product, date and method.

4. Keep jars under observation for about a week.

5. Screw rims or bands on composition-top jars are removed when product is stored.

6. Store in cool, dark, dry place.

Table III.—Chart for Canning Fruit, Tomatoes, and Other Acid Foods

Kind	Preparation Speed is important	Packing*	Method of processing	Sugar or sirup used
Apples	Wash and cut into uniform pieces. Fruit may be pared if desired. Drop into a weak salt solution (2 T. salt, 2 T. vinegar and 1 gal. water) to prevent darkening.	Steam, cook in sirup or bake before packing. Fill containers, add sirup, wipe sealing edge with clean cloth. Seal according to type of jar used.	Hot pack. Water bath. Rule 3 or 4.	Medium.
Apricots	Same as peaches. Skins may be left on.			
Berries Currants	Sort, wash carefully. Use smaller or imperfect berries for juice. Be sure to remove stems.	Pack into sterilized jars. Shake jar gently. Pour hot sirup on the berries. Wipe sealing edge with clean cloth. Seal according to type jar used.	Pasteurization. Cold pack. Rule 1.	Thin sirup. 1 c. sugar to 4 or 5 c. water or juice.
Sour cherries and Sweet cherries	Sort and wash. Sour cherries are usually pitted. If unpitted, prick to prevent shrinkage.	Pack in hot containers. Cover with boiling sirup or precook in sirup. Wipe sealing edge of jar with clean cloth. Seal according to type of jar used.	Hot-water bath. Rule 2 or 4.	Medium or heavy sirup for sour cherries. Thin or medium for sweet cherries.
Goose- berries	Sort and wash. Blanch by dipping into boiling water 2 minutes.	Pack into jars. Shake jars gently to settle fruit. Add sirup. Wipe sealing edge of jar with clean cloth. Seal according to type jar used.	Hot-water bath. Rule 1.	Medium or heavy sirup.

\* Fill to within  $\frac{1}{2}$  inch from the top.

Kind	Preparation Speed is important	Packing	Method of processing	Sugar or sirup used
Peaches	Sort and wash. Remove pit. Scald peaches by placing them gently into boiling water until skins slip off. Plunge into cold water. Remove skins. Halve, quarter, or slice peaches. Place in weak salt solution to prevent darkening. (If desired boil peach pit in sirup for 5 minutes.)	Pack at once, placing halves in overlapping layers, concave surface downward. Fill with boiling sirup. Wipe sealing edge with clean cloth. Seal according to type of jar used.	Hot or cold pack water-bath. Rule 2 or 4.	Thin or medium
Pears	Wash. Peel, cut in halves and core. Place in weak salt solution (2 T. salt, 2 T. vinegar per gal. water) to prevent discoloration while preparing. Cook in sirup 4 to 8 minutes according to size of fruit.	Pack hot into jars. Fill with boiling sirup. Wipe sealing edge of jar with clean cloth. Seal according to type of jar used.	Hot-water bath. Rule 2.	Medium.
Plums	Wash. Prick to prevent skins bursting.	Pack into jars. Cover with boiling sirup. (Pre-cook first if desired.) Wipe sealing edge of jar with clean cloth. Seal according to type of jar used.	Hot-water bath. Rule 4.	Medium.
Rhubarb	Wash, cut into $\frac{1}{2}$ inch lengths.	Pack tightly into hot jar and cover with boiling sirup or bake with sugar ( $\frac{1}{4}$ as much sugar as rhubarb) and then pack and seal according to type of jar used.	Hot-water bath. Rule 2 or 4.	Medium or heavy.

Kind	Preparation Speed is important	Packing	Method of processing	Sugar or sirup used
Straw- berries	Wash and hull. Add 1 c. sugar and 1 T. liquid to each qt. berries. Boil slowly for 15 minutes and let stand over night in kettle. In morning re-heat mixture to boiling.	Fill into sterilized containers while hot. Wipe sealing edge of jar with clean cloth. Seal according to type jar used.	Process 10 minutes in hot-water bath or pasteurize.	Thin or medium. or Special method (see preparation.
Toma- toes	Dip into boiling water for one minute. Cold dip, drain, peel and core. May be quartered. Heat to boiling.	Pack hot, add salt, fill with tomato juice. If jar stands in a pan of hot water, tomatoes shrink and better pack is possible.	Hot-water bath. Rule 5.	1 t. salt per qt.
Tomato juice	(Avoid metal containers in preparation.) After washing and covering, cut in small pieces. Precook by simmering until soft. Cool and sieve quickly, or sieve quickly and pack quickly while hot.	Reheat to just boiling. Pour into sterilized containers. Wipe sealing edge with clean cloth. Seal according to type of jar used.	Hot-water bath or Open-kettle method.	½ to 1 t. salt per qt.

Kind	Preparation	Packing	Method of processing	Sugar or sirup used
Fruit juices	<p>Wash carefully. Cut large fruit into small pieces and heat in double boiler just below the boiling point. Stir constantly and heat until thermometer inserted into fruit mixture registers 175° F. Most people prefer the flavor of juice that is not boiled. Some fruits can be put through a colander or strained through several thicknesses of cheesecloth if preferred. For some fruit, such as cherries, let stand over night so that sediment settles, then decant (remove juice from sediment). Heat again in top of double boiler just to 175° F. A slightly higher temperature may prevent separation.</p>	<p>Hold juice at 175° F. while filling jars. Pour into hot sterilized jars or bottles. Wipe sealing edge with clean cloth. Seal according to type of jar or bottle used. Darkening of some juices on standing may be caused by poor closure, a leak, or container not being full enough.</p>	<p>As given in Method 1 under preparation.</p>	<p>Small amount of salt may be needed for bland fruits. Add sugar when using the juice, if desired.</p>

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