

4-H Club Canning Project

UNIT I

Fruits and Fruit Juices

Circular 416

**UNIVERSITY OF KENTUCKY**

**College of Agriculture and Home Economics**

**Agricultural Extension Division**

Thomas P. Cooper, Dean and Director

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## Units in the Canning Project

Seven units are available to 4-H Club girls who wish to take the canning project. It is best to take the first 3 in the order given.

- Unit I.....Fruits and Fruit Juices
- Unit II.....Tomatoes and Tomato Juice
- Unit III.....Vegetables
- Unit IV.....Meats (Use U. S. Dept. of Agriculture  
AW 1-110) In this unit, can—
  - 5 quarts chicken
  - 5 quarts pork
  - 5 quarts of meat (other than pork  
or chicken if available)
  - 30 quarts of fruits and vegetables
  - Keep a record using 4-H Canning  
Record Book
- Unit V.....Relishes and Pickles
- Unit VI.....Jellies, Jams, and Marmalades
- Unit VII.....Canning Budget
  - Help plan and can the budget for  
the family.
  - Can at least a budget for one person  
(100 jars).
  - Use budget plan in Canning Record  
Book.
  - Use the above circulars for canning  
directions.

A 4-H Canning Record Book is available for keeping a record in any unit.

*(This circular is a revision of Circular 377.)*



## 4-H Club Canning Project

### Unit I — Fruits and Fruit Juices

By Ruth Latimer, Edith Lacy and Dorothy Gentry

FRESH FRUITS AND MELONS are available on most farms through the summer and fall, but they last only a few weeks. A few varieties of pears and apples can be stored and kept for months, but many homes have no suitable storage space. During at least seven months in the year no ripe fruits are in the home orchards or in the garden. Therefore it is suggested that 4-H club girls preserve choice fruits from tree, bush, and vine for use in the winter and spring when such fruits are not obtainable fresh unless bought, and then they are expensive. The surplus supply of summer fruit that might otherwise go to waste will, if canned properly, save dollars, improve diets, and bring better health to the family.

Can only fresh, sound, firm products picked in their prime. Discard all over-ripe, decayed, or injured parts. Gather at one time only as much as can be prepared for processing within the hour.

#### WHAT TO DO IN UNIT I, 4-H CANNING PROJECT

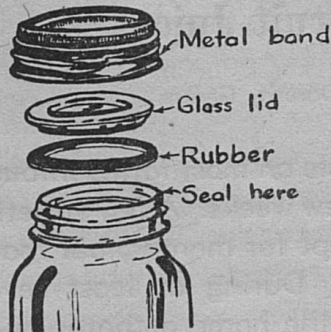
1. Follow the directions given in this leaflet, to can—  
10 quarts of large fruit, such as plums, pears, peaches, apples;  
10 quarts of small fruit such as cherries, berries.



2. Label each jar as shown in the illustration. Get club labels from the County Extension Office for use in county and state exhibits. For home storage use homemade labels giving name of product and date when canned.
3. Keep a complete record in the Canning Record Book.
4. Use the score card in practice judging of one variety of canned fruit.
5. Exhibit two quarts (one large fruit and one small fruit) in clear, white glass jars, and Canning Record Book, in local or county

shows. (A dozen or more clear glass jars purchased annually and used for exhibit of canned food, is a good investment.)

## KNOW YOUR JARS . . . AND HOW TO SEAL THEM



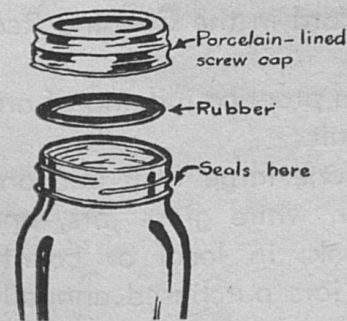
← **3-piece cap**—metal band, glass lid, and rubber—Fit rubber to underside of the lid. Place lid, with rubber side down, on top of the jar. Screw the band on firmly . . . then **turn back almost a quarter turn**. After jar with food in it has been boiled and taken out of the water, **screw the band on tight**.



← **2-piece cap**. Place metal lid, with rubber side down, on top of jar. Screw band on firmly, and **do not tighten** it again even after the jar of food is taken from the boiling water.



← **"Lightning" jar**. Fit rubber in place on ledge at top of the jar. Put on glass lid, then push the long wire clamp tight over top of lid. Leave short wire loose. After the jars of food have been boiled and taken out of the boiling water . . . push this short wire down.



← **Zinc porcelain-lined cap** with shoulder rubber ring to fit standard Mason jar. Fit wet ring down on jar shoulder, but don't stretch more than needed. Fill jar, then screw cap down firmly and turn it back  $\frac{1}{4}$  turn. As soon as jar is taken from canner, quickly screw cap down tight to complete seal.



## GETTING THE JARS AND LIDS READY

### Check Jars and Lids

Check jars and lids carefully to see that bails are tight, that lids fit, and that there are no nicked or chipped places around the rims.

### Rubber Rings

Use new rubber rings of the best quality. Use only one ring on a jar. Do not stretch the rings except to place them on jars. Screw tops on slowly to prevent the ring skidding from under the top.

### Scald Jars, Lids, and Rubbers

Shortly before gathering the products to can, wash the jars and lids in hot, soapy water, rinse them thoroughly with boiling water, and set the jars, tops down, on clean cloth. About half an hour before packing the jars, put the jars, upside down, and the lids, into about 2 inches of hot water in a pan. Heat to boiling and keep simmering until ready to use. Scald rubbers and vacuum-seal tops in boiling water just before using. Place a ring on the jar before the jar is packed.

## APPROVED METHODS OF PACKING AND PROCESSING

Success in canning depends upon a knowledge of canning principles and the ability to follow instructions carefully. Be sure you understand the method of packing and the method of processing to be used.

Methods of packing refer to the way the food is prepared and packed into the jar. Methods of packing must not be confused with methods of processing. The two methods of packing are "cold-pack-method," and "hot-pack-method."

### Hot-Pack Method

The hot-pack method calls for a short precooking (boiling) of the food before it is packed into the jar. Precooking removes air from the food cells and shrinks the product, making it possible to pack more food in the jar. It also aids in processing because the food is already hot when jars are placed in the canner, and the heat penetrates to the center of the jar sooner than it would in the cold-pack method. The hot-pack method has been found to be the only satisfactory way for canning vegetables and meats.

### Cold-Pack Method

Cold packing is putting the cold or raw food into the jar, then processing (cooking) it in the jar. This method may be used for fruits, berries, and tomatoes.

### Processing

Heating the food in the jar is called "processing." Methods of processing used most often are the hot-water bath, pressure cooker, and steamer. Processing is one of the most important steps in the canning procedure. Follow reliable time tables. You must heat the jars of food long enough and at a temperature high enough to sterilize the food in the jar. If you don't do this the canned food will spoil.

Never let jars of precooked foods stand before processing. Have the canner or processing vessel ready on the stove, and put each hot jar in the canner as soon as it is filled.

For processing fruits and tomatoes the hot-water bath is best. The temperature in the hot-water bath is high enough, and the texture, color, and flavor of the canned fruit or tomatoes are better than when a pressure cooker or steamer is used. A pressure cooker is recommended for processing meats and all vegetables except tomatoes.



Putting the jars into the canner



You can make a water-bath canner from a wash boiler or a large vessel that has a close-fitting cover and is deep enough for the jars to be covered with 2 inches of water without the water boiling over. Fit the canner with a rack made of laths, galvanized wire, or other perforated material. The rack must hold the jars at least  $\frac{1}{2}$  inch above the bottom of the canner. Set jars far enough apart to allow the water to circulate freely around each jar.

When you start packing the jars, have the water-bath canner on the stove with enough water in the canner to cover the jars at least 2 inches over the top. Have the water near boiling when you put the jars of food (with jar caps properly adjusted) on the rack in the canner.

Start counting processing time as soon as the water around the jars begins to boil. Keep the water boiling for the whole processing period. If the water boils down, add enough **boiling** water to keep it at the required height. As soon as the processing period is over, take the jars from the canner. If there is any adjusting of jar caps, do it at once. The "self-sealing" cap requires no further tightening. Set the jars upright on a surface that has been covered by a folded cloth or several thicknesses of paper. Don't set the jars in a draft, and set them far enough apart to allow free circulation of air around them so they will cool to room temperature as quickly as possible. Do not cover the jars while they are cooling.

### SIRUPS TO USE WITH FRUIT

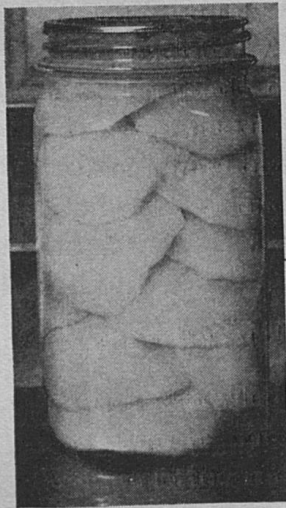
(Recipes from Kentucky Circular 362)

Fruits have a better flavor if canned in sirup. Use 1 cup of sirup to each quart jar. Make the sirup by mixing water and sugar together, stirring the mixture until all the sugar is dissolved, and bringing it slowly to boiling. Fruit juice may be used instead of water in making the sirup. Depending on the kind of fruit to be canned, use the following amounts of sugar and water in making the sirup:

- Thin sirup**.....1 cup sugar to 3 cups water  
(For sweet fruits, such as sweet apples and pineapple)
- Medium sirup**.....1 cup sugar to 2 cups water  
(For apricots, berries, sweet cherries, grapes, peaches, pears, plums,  
and strawberries)
- Thick sirup**.....1 cup sugar to 1 cup water  
(For sour fruits, such as sour cherries, gooseberries, and rhubarb)

**Apples**

1. Select firm, sound, tart varieties.
2. Wash, pare, core, cut in quarters, and drop into water salted with 1 tablespoon salt per quart of water to prevent discoloration.
3. Make a thin sirup (1 c. sugar to 3 c. water).
4. Remove the apples from salted water, drain, place them in boiling sirup and simmer 5 minutes.
5. Pack the apples in jars, cover fruit with the sirup in which it was precooked, and seal the jars according to directions on page 4.
6. Process 15 minutes in water bath.
7. Label and store.

**Peaches**

1. Select peaches which are ripe but not soft.
2. Immerse peaches about 1 minute in boiling water, or until the skins can be slipped off easily.
3. Plunge fruit at once into cold water; remove the skins and stones.
4. Simmer in a medium sirup (1 c. sugar to 2 c. water) 4 to 6 minutes, depending on the softness of the fruit.
5. Pack fruit in hot, sterilized jars, placing the halves in overlapping layers, concave side down, with blossom end facing the glass.
6. Cover with the boiling medium sirup, and seal the jars according to directions on page 4.
7. Process 15 minutes in water bath.
8. Label and store.

**Pears**

1. Select ripe, firm pears, free from bruises.
2. Wash, peel, cut in halves, core and drop into water salted with 1 tablespoon salt per quart of water. This prevents discoloration.
3. Make medium sirup (1 c. sugar to 2 c. water).
4. Drain pears and place them in medium sirup. Boil 4 to 8 minutes.



5. Pack the pears in jars, overlapping halves, concave side down, cover fruit with sirup in which it was precooked, and seal the jars according to directions on page 4.
6. Process 20 minutes in water-bath.
7. Label and store.

### Plums

#### *Method 1*

1. Select slightly underripe fruit. Prick with a fork to prevent bursting.
2. Place in hot medium sirup and simmer 5 minutes.
3. Pack carefully in hot sterilized jars; seal according to directions on page 4.
4. Process 15 minutes in water bath.

#### *Method 2*

1. Prepare fruit as for method 1.
2. Pack in hot sterilized jars, cover with boiling medium sirup, seal glass- and screw-top jars and vacuum-seal jars according to directions on page 4.
3. Process in water bath 20 minutes; remove from canner, seal glass- and screw-top jars and vacuum-seal according to directions on page 4.

### Rhubarb

1. Select young, tender stalks, trim, wash and cut in 1- to 2-inch lengths.
2. Measure fruit. Add  $\frac{1}{4}$  as much sugar and cook without water, or bake until tender.
3. Pack boiling hot in sterilized jars and seal according to directions on page 4.
4. Process 5 minutes in water bath.

### Cherries

1. Pit cherries.
2. Pack as tight as possible in hot containers.
3. Cover with a thick sirup (1 c. sugar and 1 c. water) if they are sour cherries, or a medium sirup (1 c. sugar and 2 c. water) if they are sweet. Juice from pitted cherries should be used in making sirup.
4. Partly seal.
5. Process quarts and pint jars 25 minutes in water bath.
6. Remove jars from canner and seal according to directions on page 4.

**Fruit juice**

1. Use any soft fruit—berries, cherries, grapes, plums.
2. Select firm ripe fruit, wash, crush, and heat to simmering (185°F.).
3. Strain through several layers of cheesecloth.
4. Add 1/3 to 2/3 cup sugar per quart of juice according to tartness of fruit. Stir until sugar is dissolved, pour hot into sterilized jars, and completely seal.
5. Process 30 minutes in water bath at simmering point (185°F).

**TIME TABLE FOR CANNING FRUIT**

	Precooking	Kind of sirup	Time of processing in water bath* min.
Apples.....	Precook 5 minutes.....	Thin	15
Applesauce.....			5
Apricots.....	Simmer 3-5 minutes.....	Medium	15
Blackberries.....	} No precooking..... or } Simmer 3 to 5 minutes in sirup.....	Medium	20
Huckleberries.....		Medium	5
Raspberries.....		20	
Strawberries.....	Bring slowly to boil.....		20
Cherries.....	No precooking.....	Thick for sour cherries; medium for sweet	25
Peaches.....	Simmer 4-6 minutes.....	Medium	15
Pears.....	Precook 4-8 minutes.....	Medium	20
Plums.....	No precooking or simmer 5 minutes.....	Medium	15-20
Rhubarb.....	} Bake with 1/4 as much sugar as rhubarb by measure.... or } No precooking.....		5
		Thick	20
Grapes.....	No precooking.....	Medium	20

\*Glass jars, either quarts or pints.

**Blackberries, Huckleberries, or Raspberries**

*Method 1*

1. Gather berries in shallow trays or baskets.
2. Wash the berries by placing them in a shallow colander and dipping them in and out of water or by pouring water over them.
3. Remove caps and stems, separating the small and imperfect berries from the good ones.
4. Pack the berries into jars, and press them gently into place to make a full pack.
5. Cover with boiling medium sirup and seal the jars according to directions on page 4.



6. Process quart or pint jars 20 minutes in water bath.
7. Remove the jars from the canner and complete the sealing according to directions on page 4.

#### Method 2

1. Cook the berries by simmering in a medium sirup 3 to 5 minutes, depending on the softness of the berries.
2. Pack in hot, sterilized jars.
3. Seal according to directions on page 4.
4. Process 5 minutes.

#### Gooseberries

1. Select firm berries, either green or ripe.
2. Discard spotted or broken berries.
3. Use method suggested for berries substituting thick sirup (1 c. sugar, 1 c. water) for medium sirup or, if desired, make sauce by adding a small quantity of water to berries and boil until the fruit is cooked to a pulp.
4. Add  $\frac{1}{2}$  cup of sugar, or more if desired, to each quart of pulp.
5. Heat until sugar is dissolved and pack boiling hot in containers.
6. Seal according to directions on page 4 and process all sizes of containers in waterbath for 5 minutes.

#### Strawberries

Strawberries contain so much water that they do not make an attractive canned product. However, some kinds keep their color, flavor and texture better than others. The Redheart and Premier are particularly good berries to can. The following method is the best the authors have found.

1. Gather berries in shallow trays or basket and can as soon as possible after gathering.
2. Wash by placing in a shallow colander and dipping in and out of water, or pouring water over the berries.
3. Remove caps and discard all soft berries.
4. Make a little juice by crushing small and soft berries.
5. Add 1 cup of sugar and 2 tablespoons of juice to 1 quart of berries. Bring slowly to boiling point.
6. Cover and let stand over night.
7. In the morning pack berries in hot jars.
8. Reheat sirup; fill the jars.
9. Seal according to directions on page 4.
10. Process 20 minutes in a water bath.

**SCORE CARD — CANNED FRUITS**

	Score
Fruit .....	50
<b>Condition of product chosen:</b> uniformly well ripened, graded, not defective .....	20
<b>Condition of finished product:</b> natural bright color, neither overcooked, mushy, nor uncooked in appearance ....	30
Sirup .....	20
Clear, bright, natural color of fruit, no sediment; Consistency, neither watery nor thick like preserves	
Pack .....	30
<b>Neatness and uniformity:</b> arranged to make best use of space. Small fruits canned whole, large fruits of convenient size to serve. Fancy packs not acceptable .....	15
<b>Proportion of fruit to sirup:</b> jar should be well filled with product which is covered with sirup. Product not settled at top or bottom .....	10
<b>Container:</b> of specified size, clear glass, clean, attractive, plainly labeled according to directions .....	5
<b>TOTAL</b> .....	100

Lexington, Kentucky

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