

How to Can Fruits and Vegetables

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FOR SUCCESSFUL CANNING of fruits and vegetables, all that is needed is good equipment and careful following of a few simple directions. Home-canned and frozen foods, stored raw vegetables and fruits, home-butchered meats, fresh dairy and poultry products are practical and thrifty sources of an adequate diet for farm people. Most farm families produce enough fruits and vegetables, or could easily do so, to can most of their supply for winter use. Plenty of canned foods in the storage cellar generally means better eating, better growth of the children, and better health for all, than when families depend on buying such foods fresh.

EQUIPMENT NEEDED

The steam pressure cooker is the only entirely reliable canner for low-acid vegetables (all the vegetables except tomatoes). This is because the temperature in the pressure cooker can be kept above the boiling point.

The water bath is especially suited to canning acid foods (fruits and tomatoes). However, low-acid vegetables have been successfully canned in the water bath by following carefully the directions in this circular. As the temperature in the water bath does not go above 212° F, the time of processing is much longer than in the pressure cooker, and the danger of spoilage is greater.

A water-bath canner may be bought, or it may be assembled from home equipment. A large pail, lard can, or wash boiler is a satisfactory container. It must be deep enough to allow for a rack in the bottom, for the water to extend at least 2 inches above the jars, and for several inches of space above the water to permit active boiling. A rack raised 1 inch from the bottom of the canner allows free circulation of water under the jars, prevents breakage, and lessens likelihood of loss of liquid from the jars. The rack may be made of strong ½-inch wire netting fastened on a wooden frame, or of wooden strips nailed together securely. A flat piece of iron fastened to the bottom of the wooden rack helps to keep it from floating. Handles attached to the rack and extending above the water line are convenient for lowering and removing the jars. The lid should fit closely so as to reduce evaporation of water.

Jars and lids.—Check jars before they are used to see that the lids fit, that the bails on the glass-top jars are tight, and that there are no nicks or chipped places around the rim or shoulder of the glass. Use new or perfect lids for screw-top jars. Test the seal by placing a rubber on the jar, partly filling with water, tightening the lid and inverting. If there is any leakage the seal is not perfect.

Rubber rings.—Buy the best quality of rubber rings and use them only once. Rubber loses quality with age, becomes porous, and does not make a perfect seal. Jars are made so as to be completely sealed with only one rubber. *Never use two rubbers on a jar.*

(This circular is a revision of Circular 362.)

DIRECTIONS FOR SEALING JARS

BEFORE PROCESSING

Screw top (one piece).— Partly seal by screwing until tight and turning back $\frac{1}{4}$ inch.

Glass top (wire bail).— Partly seal by putting upper bail in place and leaving lower bail up.

Two-piece metal vacuum seal.— Completely seal before processing, by putting cap in place and turning band tight.

Two-piece glass top with band.— Partly seal by fitting the rubber ring around the projection on the under side of the lid, placing the lid so the rubber lies between the lid and top edge of jar. Place the band over the top and screw it tight, then loosen about $\frac{1}{4}$ turn or until the band fits loosely.

Glass top with clamps.— Place the rubber and lid the same as with the 2-piece glass top jar with band. Adjust clamps around the top, 2 for water bath and 4 for processing in pressure cooker.

AFTER PROCESSING

Screw top (one piece).— Completely seal by screwing lid slowly until tight, immediately after taking jar from canner.

Glass top (wire bail).— Completely seal by pressing down lower bail immediately after taking jar from canner.

Two-piece metal vacuum seal.— Completely seal before processing. Don't turn the band after processing.

Let stand 24 hours. Then remove band.

Two-piece glass top.— Screw the band tight to complete the seal. Remove the band 24 hours after processing.

Glass top with clamps.— Remove the clamps 24 hours after processing.

DIRECTIONS FOR PROCESSING

Processing is cooking the prepared product in jars.

In steam pressure cooker

1. Pour enough water into the canner to cover the rack at least 1 inch, and heat it to boiling before putting the filled jars in place. In enamel cookers put in at least 2 quarts of water.
2. Be sure the top is on even and fastened securely.
3. Put the pressure cooker over a hot fire.
4. Leave petcock open until there has been a steady flow of steam for 7 minutes, by the clock; then close the petcock and allow gauge to go to 10 pounds (except for tomatoes).
5. Begin counting time when 10 pounds pressure is reached.
6. Adjust the heat to maintain an even pressure.
7. When the required processing time is up, remove canner from stove, allow temperature to go to zero.
8. Open petcock gradually before unclamping the cover.
9. Take jars from the canner and complete the seal according to directions.

In water-bath canner

1. Bring the water in the canner to a rolling boil.
2. Fill a few jars at a time so they will not cool before putting in canner.
3. Place the jars or cans on the rack with enough space between them to allow the water to circulate freely.
4. Keep at least 2 inches of water over the jars.
5. Begin counting time of processing when the water comes back to boiling.
6. Remove the jars from the canner as soon as full time for processing is up.
7. Completely seal the jars immediately.

GENERAL RULES FOR CANNING

1. Select fresh, sound fruits and vegetables in prime condition and can them immediately. Two hours from the garden to the can is a good rule.
2. Wash the fruit or vegetables thoroughly, and discard bruised, decayed, or otherwise imperfect products.
3. Wash the jars and lids in clean, hot, soapy water and rinse them in boiling water.
4. Place jars, glass lids, and screw tops in a pan of water, bring to boiling point, and keep hot until ready to use.
5. Dip rubbers and vacuum seal covers into boiling water just before using.
6. Prepare the product to be canned according to directions on pages 5 to 7.
7. Precook vegetables by boiling time given on pages 5 and 6.
8. Pack boiling hot precooked vegetables in hot jars, working briskly. Add 1 teaspoon salt to a quart, and cover the vegetables with boiling liquid.
9. Pack fruit in hot jars and cover the fruit with boiling sirup.
10. Process according to directions on pages 5 to 7.
11. Remove the jars from the canner one at a time, completing the seal of partly sealed jars as they are removed.
12. Place glass jars several inches apart out of draft to cool. Even a slight air current striking hot jars may cause them to break.
13. Store canned products in a cool, dry, dark place.

VEGETABLES: DIRECTIONS FOR CANNING

Recipes	Processing time		
	Steam pressure 10 pounds		Hot water bath, minutes
	Quarts, minutes	Pints, minutes	
Asparagus Wash—grade for size—cut in 1- to 2-inch lengths—precook 2 to 3 minutes—pack in hot jars—cover with boiling liquid in which cooked—add 1 teaspoon salt per quart—seal (see page 3)—process—complete the seal.	55	25	120 (2 hr)
Lima beans Shell—grade—precook 5 minutes—pack loosely—fill jar with liquid in which cooked, leaving 1 inch headspace—add 1 teaspoon salt per quart—seal (see page 3)—process—complete the seal.	60	35	180 (3 hr)
Snap beans Can only young, tender beans. Wash—string—cut in convenient lengths—precook by boiling 5 minutes in uncovered container—pack in hot jars—fill with liquid in which cooked—add 1 teaspoon salt per quart—seal (see page 3)—process—complete the seal.	25	20	180 (3 hr)
Soybeans Preparation same as for lima beans. (Canning in quarts not recommended.)	-----	60	180 (3 hr)
Whole beets Can only small, tender beets. Leave 1- to 2-inch tops on beets. Wash—boil until skins slip (about 15 minutes)—peel—pack in hot jars—cover with boiling liquid in which cooked—add 1 teaspoon salt per quart—seal (see page 3)—process—complete the seal.	55	25	150 (2½ hr)
Sliced beets (Beets other than baby beets.) Wash—peel—dice or slice—boil 5 to 8 minutes—pack in hot jars—cover with water in which cooked—add 1 teaspoon salt per quart—seal (see page 3)—process—complete the seal.	25	20	150 (2½ hr)
Carrots Wash—scrub with stiff brush or scrape—slice, dice, or leave whole—precook 5 to 8 minutes—pack in hot jars—cover with water in which cooked—add 1 teaspoon salt per quart—seal—(see page 3)—process—complete the seal.	25	20	150 (2½ hr)
Corn Select corn in milk stage—shuck and silk—cut from cob—measure—add 1 part boiling water to 3 parts corn—heat to boiling—add 1 teaspoon salt per quart—pour mixture into hot jars—cut through mixture with spatula or knife—seal—(see page 3)—process—complete the seal.	85	55	180 (3 hr)
Greens Use fresh, crisp greens—wash thoroughly in several waters—steam in covered container, using smallest possible amount of water, until completely wilted—pack loosely into hot jars—cover with water used for steaming—add 1 teaspoon salt per quart—seal (see page 3)—process—complete the seal.	70	45	180 (3 hr)

VEGETABLES: DIRECTIONS FOR CANNING (continued)

Recipes	Processing time		
	Steam pressure 10 pounds		Hot water bath, minutes
	Quarts, minutes	Pints, minutes	
Okra Can only tender pods. Wash—trim—precook 1 minute in boiling water—cut into 1-inch pieces or leave pods whole as desired—pack in hot jars leaving ½ inch head space—add 1 teaspoon salt per quart—seal (see page 3)—process—complete the seal.	40	25	120 (2 hr)
Peas Select young, tender peas—shell—wash—precook 3 to 5 minutes—pack in hot jars—cover with liquid in which cooked—add 1 teaspoon salt per quart—seal (see page 3)—process—complete the seal. (Canning in quarts is not recommended.)	.....	40	180 (3 hr)
Pimiento Wash—place in a dry pan in a hot oven (400° F) until the skin blisters and cracks—cool quickly by dipping in cold water—remove skins and seeds—pack dry in hot jars—add ½ teaspoon salt to a pint—seal (see page 3)—process—complete the seal.	.....	.....	40
Pumpkin or Winter squash Wash—cut in pieces—cook until tender—pack in hot jars—seal (see page 3)—process—complete the seal.	90	55	180 (3 hr)
Summer squash Wash—do not peel—trim ends—cut into ½-inch slices—halve or quarter—add enough water to cover—bring to boil—pack in hot jars—add 1 teaspoon salt to a quart—seal (see page 3)—process—complete the seal.	40	30	150 (2½ hr)
Sauerkraut Pack in jars—add no water or salt—seal (see page 3)—process—complete the seal.	.....	.....	30
Sweet potatoes (1) Wet pack. Wash—boil or steam until skin slips easily—skin—cut into pieces—pack hot to 1 inch of top of jar—cover with boiling water, leaving 1-inch head space—add 1 teaspoon salt to quart—seal (see page 3)—process—complete the seal. (2) Dry pack. Prepare like wet pack sweet potatoes—pack hot tightly to 1 inch of top—add no salt or liquid—seal (see page 3)—process—complete the seal.	90	55	.....
Tomatoes Wash—scald to loosen skins—dip in cold water—peel and remove core—pack whole or in quarters in hot jars—cover with boiling tomato juice—add 1 teaspoon salt per quart—seal (see page 3)—process—complete the seal.		10 minutes at 5 pounds	45

When you open home-canned vegetables, boil them 10 minutes before serving as a safeguard against botulinus poisoning.

FRUITS: DIRECTIONS FOR CANNING

Hot water bath, minutes	Recipes	Kind of sirup	Processing time Hot water bath
			Minutes
120 2 hr)	Apples Wash—pare and core. To prevent fruit darkening, put in cold water to which has been added 2 tablespoons salt and 2 tablespoons vinegar per gallon. Pre-cook in sirup 5 minutes—pack in hot jars—fill jars with the boiling sirup—seal (see page 3)—process—complete the seal.	Thin for sweet apples; medium for sour apples	15
180 3 hr)	Berries (1) Wash in colander—stem—pack in hot jars—cover with boiling sirup—seal (see page 3)—process—complete the seal. (2) Wash in colander—stem. Precook by simmering in sirup 3 to 5 minutes, using ¼ as much sirup as fruit by measure. Pack in hot jars—seal (see page 3)—process—complete the seal.	Medium	15
40		Medium	5
	Cherries Wash—pit—pack in hot jars—cover with sirup—seal (see page 3)—process—complete the seal.	Medium for sweet cherries; thick for sour cherries	15
180 3 hr)	Peaches or Apricots Wash—scald to loosen skins—dip in cold water—remove skins—cut in halves. To prevent fruit darkening put in cold water to which has been added 2 tablespoons salt and 2 tablespoons vinegar per gallon. Precook by simmering in boiling sirup 3 to 5 minutes. Pack in hot jars, placing halves in overlapping layers, concave side down. Fill jars with the boiling sirup—seal (see page 3)—process—complete the seal.	Medium	15
150 ½ hr)			
30	Pears Pare—cut in halves—core. To prevent fruit darkening, put in cold water to which has been added 2 tablespoons salt and 2 tablespoons vinegar per gallon. Precook in boiling sirup 4 to 8 minutes—pack in hot jars, concave side down—fill with the boiling sirup—seal (see page 3)—process—complete the seal.	Medium	20
45	Plums (1) Select slightly underripe fruit—prick with a fork to prevent bursting—precook in boiling sirup 5 minutes—pack in hot jars—fill jars with the boiling sirup—seal (see page 3)—process—complete the seal. (2) Prick with a fork—pack in hot jars—cover with boiling sirup—seal (see page 3)—process—complete the seal.	Medium	15
		Medium	20
	Rhubarb Wash—trim—cut in 1- to 2-inch pieces—measure one-fourth as much sugar as rhubarb—cook without water or bake in moderate oven (250° to 275° F) until tender—pack in hot jars—seal (see page 3)—process—complete the seal.	None	10

SIRUPS TO USE WITH FRUITS

Fruits have a better flavor if canned in sirup, but the sirup does not help the fruit to keep. Less sugar is needed to sweeten fruit if added when canning than if added when ready to serve. Make the sirup by mixing water or fruit juice and sugar together, stirring until all the sugar is dissolved, and bringing it slowly to boiling.

Use the following amounts of sugar and liquids in making sirup:

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

PRODUCTS NEEDING SPECIAL METHODS

Fruit juices from soft fruits (blackberries, raspberries, loganberries, huckleberries, cherries, or grapes).— Wash fruit—crush—add 2 cups water to 1 gallon crushed fruit—simmer until juices flow freely—strain through several thicknesses of cheese cloth—add 1 cup sugar to 1 gallon juice—reheat to simmering point—pour in hot jars—process at simmering point (175° to 185° F) 30 minutes in water bath.

Canned strawberries.— Wash—cap—crush a few berries for juice—add ½ cup sugar and 2 tablespoons juice per quart of berries—bring slowly to boil—remove from fire—cover—let stand several hours to plump the berries—pack berries in hot jars—reheat sirup—fill jars—process 20 minutes in water bath.

Soup mixture.— A good combination is a mixture of 1 quart tomato pulp, 1 pint tender corn, tiny lima beans or peas, ½ cup chopped sweet pepper, 1 pint okra and 1½ teaspoon salt. Bring to boil—pack hot—seal (see page 3)—process 180 minutes in water bath, or quarts 70 minutes and pints 60 minutes in a pressure cooker at 10 pounds.

Tomato juice.— Select firm, ripe tomatoes—wash—remove core and cut in quarters—heat to simmering in covered kettle until juice flows freely—strain quickly—add 1 teaspoon salt per quart—reheat to boiling point—pour into hot sterilized jars—seal completely—process 5 minutes in water bath.

Canned tomatoes, quick method.— Wash—core and cut in quarters without peeling—pack in jars tightly so that tomatoes are covered with their own juice—add 1 teaspoon salt per quart—seal (see page 3)—process in a pressure cooker 15 minutes at 5 pounds pressure, or 45 minutes in a hot-water bath—complete the seal.

This method preserves more vitamin C than any other way of canning tomatoes. Juice can be extracted when the jar is opened, or by removing the skins with a fork the tomatoes can be used for soups or stews.

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