Information from

Human Environmental Sciences Extension

FOOD PRESERVATION

Fruitful Canning

Nutritional Sciences
University of Missouri Extension

Fruits are highly acidic, so you may safely can them in a boiling-water canner. Before canning fruit, please refer to MU publications GH1451, ***Before You Start to Can, Learn the Basics*** and GH1452, ***Steps to Success in Home Canning***.

These guides will give you information on correct canning procedure and the steps to follow in boiling-water canning.

Boiling-water canners are faster when you consider the time it takes for pressure canners to heat up, vent, pressurize, process and cool down. If you prefer to use a pressure canner, see Table 3 on page 6 for processing directions for canning some fruits in dial- and weighted-gauge canners.

Fruits are at peak quality for six to 12 hours after being picked. For this reason, fruit picked from your garden or purchased from nearby producers is usually good for canning.

Allow apricots, peaches, pears and plums to ripen one or more days between harvest and canning for best results. If you must delay canning other fresh fruit, keep it refrigerated until you are ready to begin.

Quality for Keeps

Maintain color

Keep apples, apricots, peaches and pears fresh-looking by holding them in an ascorbic acid (vitamin C) solution. This procedure also helps prevent stem-end darkening of cherries and grapes. Ascorbic acid comes in several forms.

▶ You will find pure, powdered ascorbic acid with canners' supplies in supermarkets during canning season. Use one teaspoon per gallon of water as a treatment solution.

▶ Vitamin C tablets are economical and available year-round in many stores. Crush and dissolve six, 500-milligram tablets in a gallon of water as a treatment solution.

▶ Commercially prepared mixtures of ascorbic and citric acid are available with canners' supplies. Follow the manufacturer's directions. Citric acid powder is often sold in supermarkets, but it is less effective in controlling darkening.

Preparing and using syrup

Use light corn syrups or mild-flavored honey to replace up to half the table sugar in syrups *(see Table 1)*.

Syrups (made from water and sugar) help canned fruits retain flavor, color and shape. The syrup will not prevent spoilage, however. Amounts of water and sugar needed to make enough syrup for a canner-load of pints or quarts are given below for each syrup type.

The new "very light" syrup is much like the natural sugar content of many fruits. Even fruits typically packed in heavy syrup are excellent when packed in lighter syrups. Lighter syrups contain fewer calories from added sugar.

Cut out the sugar — leave the fresh fruit taste

For best quality, select fully ripe but firm fruit. Prepare the fruits as if you were canning with syrup, but use water or unsweetened fruit juice instead. Can fruit in its own juice for best results. In other words, use peach juice to can peaches, cherry juice to can cherries. Blends of unsweetened apple, pineap-

Table 1. Preparing and using syrups

Syrup type	Amounts of water and sugar			
	For 9-pint load[1]		For 7-quart load	
	Cups water	*Cups sugar*	*Cups water*	*Cups sugar*
Very light (10% sugar) *Much like natural sugar level in most fruits. Adds fewest calories.*	6½	¾	10½	1¼
Light (20% sugar) *Very sweet fruit. Try small amount first to see if you like it.*	5¾	1½	9	2¼
Medium (30% sugar) *Sweet apples, sweet cherries, berries, grapes.*	5¼	2¼	8¼	3¾
Heavy (40% sugar) *Tart apples, apricots, sour cherries, gooseberries, peaches, pears, plums.*	5	3¼	7¾	5¼
Very heavy (50% sugar) *Very sour fruit. Try small amount first to see if you like it.*	4¼	4¼	6½	6¾

[1]*This amount is also enough for a four-quart load.*

Procedure: Heat water and sugar together. For raw packs, bring to boil and pour over raw fruits in jars. For hot packs, bring water and sugar to boil, add fruit, reheat to boil, and pour into jars immediately.

ple and white grape juice are also good. Follow the processing recommendations for fruits canned in sugar syrups.

Don't use sugar substitutes to make syrups. Instead, can fruit in water and add the sugar substitute when serving.

Apple juice

Quality: Use a blend of varieties to make quality apple juice. For best results, buy fresh juice from a local cider maker within 24 hours after it has been pressed.

Procedure: Refrigerate juice for 24 to 48 hours. Without mixing, carefully pour off clear liquid and discard sediment. Strain clear liquid through a paper coffee filter or double layers of damp cheesecloth. Heat quickly, stirring occasionally, until juice begins to boil. Pour immediately into sterilized pint, quart or half-gallon jars. Leave ¼-inch headspace. Adjust lids and process as directed in Table 2.

Apples — sliced

Quantity: For each canner load of 7 quarts, you need an average of 19 pounds of whole apples. For each canner load of 9 pints, you need an average of 12¼ pounds of whole apples.

A bushel weighs 48 pounds and yields 16 quarts to 19 quarts — an average of 2¾ pounds per quart.

Quality: Select apples that are juicy and crisp. Use a mixture of both sweet and tart apples.

Procedure: Wash, peel and core apples. To prevent darkening, slice apples into a mixture of water and ascorbic acid (use directions given on page 1). Raw packs make poor-quality products. Place drained apple slices in a large saucepan and add water or very light, light or medium syrup (1 pint of liquid per 5 pounds of sliced apples). Boil five minutes. Stir occasionally to prevent burning. Fill jars with hot slices and hot syrup or water; leave ½-inch headspace. Adjust lids and process as directed in Table 2.

Applesauce

Quantity: For each 7-quart canner load, you need an average of 21 pounds of whole apples. For each 9-pint canner load, you need an average of 13½ pounds of whole apples.

A bushel weighs 48 pounds and yields 14 quarts to 19 quarts of sauce — an average of 3 pounds per quart.

Quality: Select apples that are sweet, juicy and crisp. For a tart flavor, add 1 pound to 2 pounds of tart apples for each 3 pounds of sweeter fruit.

Procedure: Wash, peel and core apples. If desired, slice apples into a mixture of water and ascorbic acid to prevent darkening (use directions given on page 1). Place drained slices in an 8- to 10-quart pot. Add ½ cup water, cook quickly and stir occasion-

Table 2. Recommended processing times in a boiling-water canner

			Processing time in minutes at different altitudes	
Product	***Style of pack***	***Jar size***	***0–1,000 feet***	***1,001–3,000 feet***
Apple juice[1]	Hot	Pints or quarts	5	10
		Half-gallon	10	15
Apples (sliced)	Hot	Pints or quarts	20	25
Applesauce	Hot	Pints	15	20
		Quarts	20	25
Apricots (halved or sliced)	Hot	Pints	20	25
		Quarts	25	30
	Raw	Pints	25	30
		Quarts	30	35
Berries (whole)	Hot	Pints or quarts	15	20
	Raw	Pints	15	20
		Quarts	20	25
Cherries (whole, sweet or sour)	Hot	Pints	15	20
		Quarts	20	25
	Raw	Pints or quarts	25	30
Grape juice	Hot	Pints or quarts	5	10
		Half-gallon	10	15
Grapes (whole)	Hot	Pints or quarts	10	15
	Raw	Pints	15	20
		Quarts	20	25
Peaches (halved or sliced)	Hot	Pints	20	25
		Quarts	25	30
	Raw	Pints	25	30
		Quarts	30	35
Pears (halved)	Hot	Pints	20	25
		Quarts	25	30
Plums (halved or whole)	Hot and Raw	Pints	20	25
		Quarts	25	30
Rhubarb (stewed)	Hot	Pints or quarts	15	20

[1] *This is a safe processing time for apple juice up to altitudes of 6,000 feet.*

ally to prevent burning. Cook until tender (five to 20 minutes, depending on maturity and variety). Press through a sieve or food mill, or skip the pressing step if you prefer chunky-style sauce.

Pack sauce without sugar. For a sweeter sauce, add ⅛ cup sugar per quart of sauce. Add more sugar if a sweeter taste is desired. Reheat sauce to boiling. Fill jars with hot sauce; leave ½-inch headspace. Adjust lids, and process as directed in Table 2.

Apricots — halved or sliced

QUANTITY: For each 7-quart canner load, you need an average of 16 pounds of fresh apricots. For each 9-pint canner load, you need an average of 10 pounds of fresh apricots. A bushel weighs 50 pounds and yields 20 quarts to 25 quarts — an average of 2¼ pounds per quart.

QUALITY: Select firm, well-colored, mature fruit. Look for fruit at the ideal stage for eating fresh.

PROCEDURE: Follow directions for peaches, but removal of skins is optional. Wash if skins are not removed. Use the same process time.

Berries — whole

Blackberries, blueberries, currants, dewberries, elderberries, gooseberries, huckleberries, loganberries, mulberries, raspberries.

Note: Strawberries keep much better when frozen.

Quantity: For each 7-quart canner load, you need an average of 12 pounds of fresh, whole berries. For each 9-pint canner load, you need an average of 8 pounds of fresh, whole berries.

A 24-quart crate weighs 36 pounds and yields 18 quarts to 24 quarts — an average of 1¾ pounds per quart.

Quality: Choose ripe, sweet berries with even color.

Procedure: Wash 1 quart or 2 quarts of berries at a time. Drain, cap and stem if necessary. For gooseberries, snip off heads and tails with scissors. Prepare and boil preferred syrup, if desired. Add ½ cup syrup, juice or water to each clean jar.

Hot pack: *(For blueberries, currants, elderberries, gooseberries and huckleberries.)* Heat berries in boiling water for 30 seconds and drain. Fill jars and cover with hot juice. Leave ½-inch headspace.

Raw pack: Fill jars with any of the raw berries; shake berries down gently while filling jars. Cover with hot syrup, juice or water. Leave ½-inch headspace. Adjust lids, and process as directed in Table 2.

Cherries — whole (sweet or sour)

Quantity: For each 7-quart canner load, you need an average of 17½ pounds of whole cherries. For each 9-pint canner load, you need an average of 11 pounds of whole cherries. A lug weighs 25 pounds and yields 8 quarts to 12 quarts — an average of 2½ pounds per quart.

Quality: Select bright, evenly colored cherries. Look for cherries that are at the ideal stage of maturity for eating fresh or cooking.

Procedure: Stem and wash cherries. Remove pits if desired. If pitted, place cherries in a mixture of water and ascorbic acid to prevent stem-end darkening. To can cherries with pits, prick skins on opposite sides with a clean needle to prevent splitting. Use water, apple juice, white grape juice or syrup.

Hot pack: In a large saucepan add water, juice or syrup (½ cup for each quart of drained fruit) and bring to boil. Fill jars with cherries and cooking liquid; leave ½-inch headspace.

Raw pack: Add ½ cup hot water, juice or syrup to each jar. Fill jars with drained cherries; shake fruit down into jars gently as you fill. Add more hot liquid; leave ½-inch headspace.

Adjust lids and process as directed in Table 2.

Grape juice

Quantity: For each 7-quart canner load, you need an average of 24½ pounds of fresh grapes. For each 9-pint canner load, you need an average of 16 pounds of fresh grapes.

A lug weighs 26 pounds and yields 7 quarts to 9 quarts of juice — an average of 3½ pounds per quart.

Quality: Select sweet, well-colored, firm fruit. Look for grapes at the ideal stage of maturity for eating fresh or cooking.

Procedure: Wash and stem grapes. Place grapes in a saucepan and add boiling water to cover grapes. Heat and simmer slowly until skin is soft. Strain through a damp jelly bag or double layers of cheesecloth. Refrigerate juice for 24 hours to 48 hours. Without mixing, carefully pour off clear liquid and save; discard sediment.

If desired, strain through a paper coffee filter for a clearer juice. Add juice to a saucepan, and sweeten to taste. Heat and stir until sugar is dissolved. Continue heating, stirring occasionally, until juice begins to boil. Pour juice into sterilized jars immediately; leave ¼-inch headspace. Adjust lids, and process as directed in Table 2.

Grapes — whole

Quantity: For each 7-quart canner load, you need an average of 14 pounds of fresh grapes. For each 9-pint canner load, you need an average of 9 pounds of fresh grapes.

A lug weighs 26 pounds and yields 12 quarts to 14 quarts of whole grapes — an average of 2 pounds per quart.

Quality: Choose unripe, tight-skinned, grapes harvested two weeks before they reach optimum eating quality. Green seedless grapes make the best product.

Procedure: Stem and wash grapes. To prevent stem end darkening, hold grapes in a mixture of water and ascorbic acid (use directions given on page 1). Prepare very light or light syrup.

Hot pack: Blanch grapes in boiling water for 30 seconds. Drain and proceed as for raw pack.

Raw pack: Fill jars with drained grapes and hot syrup; leave 1-inch headspace. Adjust lids and process as directed in Table 2.

Peaches — halved or sliced

Quantity: For each 7-quart canner load, you need an average of 17½ pounds of fresh peaches. For each 9-pint canner load, you need an average of 11 pounds of fresh peaches.

A bushel weighs 48 pounds and

yields 16 quarts to 24 quarts — an average of 2½ pounds per quart.

Quality: Choose ripe, mature fruit of ideal quality for eating fresh or cooking.

Procedure: Dip fruit in boiling water for 30 seconds to 60 seconds until skins loosen. Dip quickly in cold water and slip off skins. Cut in half and remove pits. Slice if desired. To prevent darkening, slice peaches into a mixture of water and ascorbic acid (use directions at beginning). Prepare and boil a very light, light or medium syrup, or pack peaches in water, apple juice or white grape juice.

Raw packs make poor-quality peaches.

Hot pack: Place drained fruit and syrup, water or juice in a large saucepan and bring to boil. Fill jars with hot fruit and cooking liquid; leave ½-inch headspace. Place halves in layers, cut side down.

Raw pack: Fill hot jars with raw fruit, cut side down and add hot water, juice or syrup, leaving ½-inch headspace.

Adjust lids and process as directed in Table 2.

Pears — halved

Quantity: For each 7-quart canner load, you need an average of 17½ pounds of fresh pears. For each 9-pint canner load, you need an average of 11 pounds of fresh pears.

A bushel weighs 50 pounds and yields 16 quarts to 25 quarts — an average of 2½ pounds per quart.

Quality: Choose ripe, mature fruit of ideal quality for eating fresh or cooking.

Procedure: Wash and peel pears. Cut lengthwise in halves and remove core. A melon baller or metal measuring spoon works well for coring pears. To prevent darkening, hold pears in a mixture of water and ascorbic acid (use directions at beginning). Prepare a very light, light or medium syrup, or pack pears in apple juice, white grape juice or water. Raw packs make poor quality pears. Boil drained pears five minutes in syrup, juice or water. Fill jars with hot fruit and cooking liquid; leave ½-inch headspace. Adjust lids and process as directed in Table 2.

Plums — halved or whole

Quantity: For each 7-quart canner load, you need an average of 14 pounds fresh plums. For each 9-pint canner load, you need an average of 9 pounds fresh plums.

A bushel weighs 56 pounds and yields 22 quarts to 36 quarts — an average of 2 pounds per quart.

Quality: Select deep-colored, mature fruit of ideal quality for eating fresh or cooking. Plums may be packed in water or syrup.

Procedure: Stem and wash plums. To can whole, prick skins on opposite sides of plums with fork to prevent splitting. Freestone varieties may be halved and pitted. Prepare very light, light or medium syrup.

Hot pack: Add plums to hot water or syrup and boil two minutes. Cover saucepan and let stand 20 minutes to 30 minutes. Fill jars with hot plums and cooking liquid or syrup; leave ½-inch headspace.

Raw pack: Fill jars with raw plums; pack firmly. Add hot water or syrup and leave ½-inch headspace.

Adjust lids and process as directed in Table 2.

Rhubarb — stewed

Quantity: For each 7-quart canner load, you need an average of 10½ pounds of fresh rhubarb. For each 9-pint canner load, you need an average of 7 pounds of fresh rhubarb. A lug weighs 28 pounds and yields 14 quarts to 28 quarts — an average of 1½ pounds per quart.

Quality: Select young, tender, well-colored stalks from the spring or late fall crop.

Procedure: Trim off leaves. Wash stalks and cut into ½-inch to 1-inch pieces. In a large saucepan add ½ cup sugar for each quart of fruit. Let stand until juice appears. Heat gently to boiling. Fill jars without delay; leave ½-inch headspace. Adjust lids and process as directed in Table 2.

Table 3. Recommended process time for some fruits in pressure canners

				Canner gauge pressure at different altitudes		
				Dial gauge	**Weighted gauge**	
Type of fruit	***Style of pack***	***Jar size***	***Process time (minutes)***	***0–2,000 ft. (lbs.)***	***0–1,000 ft. (lbs.)***	***Above 1,000 ft. (lbs.)***
Applesauce	Hot	Pints	8	6	5	10
		Quarts	10	6	5	10
Apples, sliced	Hot	Pints or quarts	8	6	5	10
Berries, whole	Hot	Pints or quarts	8	6	5	10
	Raw	Pints	8	6	5	10
		Quarts	10	6	5	10
Cherries, sour or sweet	Hot	Pints	8	6	5	10
		Quarts	10	6	5	10
	Raw	Pints or quarts	10	6	5	10
Peaches and apricots	Hot or Raw	Pints or quarts	10	6	5	10
Pears	Hot	Pints or quarts	10	6	5	10
Plums	Hot or Raw	Pints or quarts	10	6	5	10
Rhubarb	Hot	Pints or quarts	8	6	5	10

Adapted from Complete Guide to Home Canning, USDA, Agriculture Information Bulletin, No. 539.

For more information, visit MU Extension:
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