

## How to Can Fresh Fruit

Fruits are highly acidic, so you may safely can them using a boiling-water or steam canner.

Before canning fruit, **please refer to MU Extension publications GH1451, *Safe Home Canning Basics*, and GH1452, *Steps for Successful Home Canning*, for information on correct canning procedures and specific step by step guidance.**

Boiling-water or steam 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 for processing directions for canning some fruits in dial- and weighted-gauge canners.

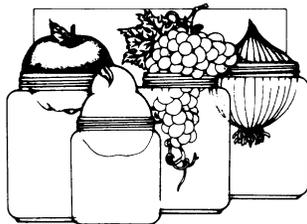
Fruits are at peak quality for six to 12 hours after being picked. For this reason, fruit picked from your garden or purchased from nearby producers is usually good for canning. Allow apricots, peaches, pears and plums to ripen one or more days between harvest and canning for best results. If you must delay canning other fresh fruit, keep it refrigerated until you are ready to begin.

### Pretreatment needed to maintain quality 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:

- Pure powdered ascorbic acid is available where canning supplies are sold. Use 1 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 where canning supplies are sold. Follow the manufacturer's directions.
- Citric acid powder is often sold in supermarkets, but it is less effective in controlling darkening.

### Quality for Keeps



### Choose a packing method for best product

1. **Syrups**, which are made from water and sugar, help canned fruits retain flavor, color and shape. The syrup will not prevent spoilage, however. The amounts of water and sugar needed to make enough syrup for a canner-load of pints or quarts are given for each syrup type in Table 1.

The “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.

You can use light corn syrups or mild-flavored honey to replace up to half the table sugar in syrups. But don't use sugar substitutes to make syrups. Instead, can fruit in water and add the sugar substitute when serving.

Some sugar substitutes may be used in water for a covering liquid, but it is best to add these just before serving. Most substitutes are not recommended for high-heat applications, and become bitter or lose their sweetening power during heating. Also sugar substitutes give a sweet flavor but do not provide the beneficial effects of sugar in canned fruits, such as color protection, the plumping of some fruit tissues and syrup thickening. Therefore, the sweetness can be added at serving time.

2. **Low to no sugar.** Prepare the fruits as if you were packing 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, pineapple and white grape juice are also good

**Table 1. Preparing and using syrups.**

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

<sup>1</sup> This amount is also enough for a 4-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.

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

Product	Style of pack	Jar size	Processing time at 0–1,000 feet elevation	Processing time at 1,001–3,000 feet elevation
Apple juice <sup>1</sup>	Hot	Pints or quarts	5 minutes	10 minutes
		Half-gallon	10 minutes	15 minutes
Apple pie filling	Hot	Pints or quarts	25 minutes	30 minutes
Apples, sliced	Hot	Pints or quarts	20 minutes	25 minutes
Applesauce	Hot	Pints	15 minutes	20 minutes
		Quarts	20 minutes	25 minutes
Apricots, halved or sliced	Hot	Pints	20 minutes	25 minutes
		Quarts	25 minutes	30 minutes
	Raw	Pints	25 minutes	30 minutes
		Quarts	30 minutes	35 minutes
Berries, whole	Hot	Pints or quarts	15 minutes	20 minutes
	Raw	Pints	15 minutes	20 minutes
		Quarts	20 minutes	25 minutes
Cherries, whole, sweet or sour	Hot	Pints	15 minutes	20 minutes
		Quarts	20 minutes	25 minutes
	Raw	Pints or quarts	25 minutes	30 minutes
Grape juice <sup>1</sup>	Hot	Pints or quarts	5 minutes	10 minutes
		Half gallons	10 minutes	15 minutes
Grapes, whole	Hot	Pints or quarts	10 minutes	15 minutes
	Raw	Pints	15 minutes	20 minutes
		Quarts	20 minutes	25 minutes
Peaches, halved or sliced	Hot	Pints	20 minutes	30 minutes
		Quarts	25 minutes	35 minutes
	Raw	Pints	25 minutes	35 minutes
		Quarts	30 minutes	40 minutes
Pears, halved	Hot	Pints	20 minutes	25 minutes
		Quarts	25 minutes	30 minutes
Plums, halved or whole	How or raw	Pints	20 minutes	25 minutes
		Quarts	25 minutes	30 minutes
Rhubarb, stewed	Hot	Pints or quarts	15 minutes	25 minutes

<sup>1</sup> This is a safe processing time for elevations up to 6000 feet.

**Table 3. Recommended process times for some fruits in a pressure canner.**

Type of fruit	Style of pack	Jar size	Process time (minutes)	Canner gauge pressure recommended for different elevations		
				Dial gauge	Weighted gauge	
				0–2,000 feet	0–1,000 feet	>1,000 feet
Applesauce	Hot	Pints	8 minutes	6 pounds	5 pounds	10 pounds
		Quarts	10 minutes	6 pounds	5 pounds	10 pounds
Apples, sliced	Hot	Pints or quarts	8 minutes	6 pounds	5 pounds	10 pounds
Berries, whole	Hot	Pints or quarts	8 minutes	6 pounds	5 pounds	10 pounds
	Raw	Pints	8 minutes	6 pounds	5 pounds	10 pounds
		Quarts	8 minutes	6 pounds	5 pounds	10 pounds
Cherries, sour or sweet	Hot	Pints	8 minutes	6 pounds	5 pounds	10 pounds
		Quarts	8 minutes	6 pounds	5 pounds	10 pounds
	Raw	Pints or quarts	8 minutes	6 pounds	5 pounds	10 pounds
Peaches and apricots	Hot or raw	Pints or quarts	10 minutes	6 minutes	5 minutes	10 minutes
Pears	Hot	Pints or quarts	10 minutes	6 minutes	5 minutes	10 minutes
Plums	Hot or raw	Pints or quarts	10 minutes	6 minutes	5 minutes	10 minutes
Rhubarb	Hot	Pints or quarts	8 minutes	6 minutes	5 minutes	10 minutes

## 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. Immediately pour into sterilized pint, quart or half-gallon jars. Leave ¼ inch of headspace. Adjust lids, and process as directed in Table 2.

5 cups apple juice

7 drops yellow food coloring (optional)

¾ cup bottled lemon juice

**Quantity:** 7 quarts

**Quality:** Use firm, crisp apples. Stayman, golden delicious, Rome and other varieties of similar quality are suitable. If apples lack tartness, use an additional ¼ cup of lemon juice for each 6 quarts of sliced apples.

**Hot pack:** Wash, peel and core apples. Cut apples into ½-inch slices. Place sliced apples in an anti-darkening solution. Remove from anti-darkening solution, and drain well.

## Canning pie fillings

The following pie filling is safe when processed according to the directions in the recipe. Each canned quart makes one 8- to 9-inch pie.

Because the variety of fruit might alter the flavor of the pie, can a trial quart and make a pie with it to get a sense of the process and resulting flavor. Then adjust the sugar and spices in the recipe to suit your preferences. However, do not alter the amount of lemon juice, because it is crucial to the safety and storage stability of the canned filling.

### Apple pie filling

6 quarts blanched, sliced apples

5½ cups sugar

1½ cups Clear Jel

1 tablespoon cinnamon

1 teaspoon nutmeg (optional)

2½ cups cold water

Recipes for pie filling in this guide use a modified food starch called Clear Jel. This starch produces the correct thickening, even after the fillings are canned and baked. Other starches, such as corn starch, break down and result in a runny filling.

**Clear Jel must be used as the thickener in these recipes;** there is no substitution. Do not use any other form of Clear Jel, such as Instant Clear Jel.

Clear Jel is not currently available in traditional grocery stores. In most areas, mail order is the only option, though you might also find it in some cooperatives or stores that sell cooking ingredients in bulk. There are several sources for purchasing Clear Jel on the Internet.

There are about 3 cups in 1 pound of Clear Jel. These fruit pie filling recipes take 1½ to 2¼ cups per 6 to 7 quarts of pie filling. suitable. If apples lack tartness, use an additional ¼ cup of lemon juice for each 6 quarts of sliced apples.

To blanch the fruit, place 6 cups of apples at a time in 1 gallon of boiling water. Boil each batch for 1 minute after the water returns to a boil. Remove the fruit from blanch water, but keep the hot fruit in a covered bowl or pot while the Clear Jel mixture is prepared. Combine sugar, Clear Jel, cinnamon and nutmeg in a large sauce pot with water, apple juice and food coloring. Stir and cook on medium-high heat until the mixture thickens and begins to bubble. Add lemon juice to the boiling mixture, and boil for 1 minute, stirring constantly. Immediately fold in drained apple slices, and fill hot jars with hot mixture. Leave 1 inch of headspace. Remove air bubbles, and wipe jar rims. Adjust lids, and process immediately in a boiling water bath.

## 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 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. 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 5 minutes or longer, as needed, until slices become transparent. Stir occasionally to prevent burning. Fill jars with hot slices and hot syrup or water; leave ½ inch of 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 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 to 2 pounds of tart apples for each 3 pounds of sweeter fruit.

**Procedure:** Wash, Wash, peel and core apples. If desired, slice apples into a mixture of water and ascorbic acid to prevent darkening. Place drained slices in an 8- to 10-quart pot. Add ½ cup water, cook quickly and stir occasionally to prevent burning. Cook until tender, or about 5 to 20 minutes, depending on maturity and variety. Press through a sieve or food mill, unless you prefer chunky-style sauce.

Pack sauce without sugar. For a sweeter sauce, add ⅓ cup of 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 of 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 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 as for peaches.

## Berries, whole

**Types:** 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 to 24 quarts (an average of 1¾ pounds per quart).

**Quality:** Choose ripe, sweet berries with even color.

**Procedure:** Wash 1 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 of headspace.

**Raw pack:** Place ½ cup of hot syrup, juice or water to each jar. Fill hot jars with any of the listed raw berries, gently shaking down while filling, while leaving ½ inch of headspace. Fill jars to ½ inch from the top with more of the hot syrup, juice or water.

**Final steps:** Leave ½ inch of 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 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— $\frac{1}{2}$  cup for each quart of drained fruit—and bring to boil. Fill jars with cherries and cooking liquid; leave  $\frac{1}{2}$  inch of headspace.

**Raw pack:** Add  $\frac{1}{2}$  cup hot water, juice or syrup to each jar. Fill jars with drained cherries; gently shake fruit down into jars as you fill. Add more hot liquid; leave  $\frac{1}{2}$  inch of headspace.

**Final steps:** Adjust lids, and process as directed in Table 2.

## Grape juice

**Quantity:** For each 7-quart canner load, you need an average of  $24\frac{1}{2}$  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 to 9 quarts of juice (an average of  $3\frac{1}{2}$  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 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. Immediately pour juice into sterilized jars; leave  $\frac{1}{4}$  inch of 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 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 optimal 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. 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 of 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  $17\frac{1}{2}$  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 to 24 quarts (an average of  $2\frac{1}{2}$  pounds per quart).

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

**Procedure:** Dip fruit in boiling water for 30 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. 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  $\frac{1}{2}$  inch of 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; leave  $\frac{1}{2}$  inch of headspace.

**Final steps:** Adjust lids, and process as directed in Table 2.

## Pears, halved

**Quantity:** For each 7-quart canner load, you need an average of  $17\frac{1}{2}$  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 to 25 quarts (an average of  $2\frac{1}{2}$  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. 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 5 minutes in syrup, juice or water. Fill jars with hot fruit and cooking liquid; leave  $\frac{1}{2}$  inch of 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 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 2 minutes. Cover saucepan, and let stand 20 to 30 minutes. Fill jars with hot plums and cooking liquid or syrup; leave ½ inch of headspace.

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

**Final steps:** 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 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. Immediately fill jars; leave ½ inch of headspace. Adjust lids, and process as directed in Table 2.

## References

White, Athalie, Ann Ford, Elizabeth L. Address, and Judy A. Harrison. 2014. *So Easy To Preserve*, 6th ed. University of Georgia Cooperative Extension Service.

### ALSO FROM MU EXTENSION PUBLICATIONS

- GH1451 *Safe Home Canning Basics*
- GH1452 *Steps for Successful Home Canning*
- GH1454 *How to Can Fresh Vegetables*
- GH1456 *How to Can Fresh Tomato Products*
- GH1457 *How to Can Pickled Products*
- GH1461 *How to Can Sweet Spreads*
- GH1490 *How to Can Meat, Fish and Poultry*
- GH1501 *Freezing Basics*
- GH1502 *How to Freeze Fruits*
- GH1503 *How to Freeze Vegetables*
- GH1504 *Freezing Meat, Poultry, Fish, eggs and Dairy Products*
- GH1505 *How to Freeze Home-Prepared Foods*
- GH1562 *Introduction to Food Dehydration*
- GH1563 *How to Dehydrate Foods*
- GH1564 *How to Use Dehydrated Foods*

[extension.missouri.edu](http://extension.missouri.edu) | 800-292-0969

Information in this publication is provided purely for educational purposes. No responsibility is assumed for any problems associated with the use of products or services mentioned. No endorsement of products or companies is intended, nor is criticism of unnamed products or companies implied.