

# Let's Preserve: Fruit and Fruit Products

Julie A. Albrecht, Extension Food Specialist

Home-canned fruits can be a delightful addition to family meals through the year. Canning fruits also may be an economical way to preserve quality foods at home.

Fruits can be safely preserved at home using a boiling-water canner. Pressure canners also are acceptable. This publication includes processing times for both procedures.

Refer to the publication *Let's Preserve: Canning Basics (EC434)* for procedures for using a boiling-water or pressure canner and for information on selecting, preparing, and filling jars.

## Determine Your Altitude

At sea level, water boils at 212°F. As elevation increases, water boils at lower temperatures and foods take longer to cook. To ensure safely canned foods above sea level, lengthen the processing time for boiling-water canning methods. If you choose to pressure-can fruit, increase the pressure for your altitude.

The map on Page 8 indicates Nebraska altitudes (*Figure 1*). Find your altitude and check the tables for the correct processing time or pressure.

## Canning Fruits With Sugar

Adding sugar or syrup to canned fruit helps retain flavor, color, and shape, but does not prevent spoilage. The chart on Page 2 provides five types of syrups with different

sugar contents. The quantities of water and sugar are enough to make syrup for a canner load of pints or quarts.

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

**Other sweeteners:** Light corn syrups or mild-flavored honey may be used to replace up to half the table sugar called for in syrups. Do not use honey with fruits that may be fed to babies.

## Canning Fruits Without Sugar

Fruits can be preserved without adding sugar. Select fully ripe but firm fruits for high quality products. Prepare as described in this publication but use water or regular unsweetened fruit juices instead of sugar syrup. Juice made from the fruit you are canning is best. Blends of unsweetened apple,

pineapple, and white grape juice are excellent replacements for syrups.

Also, the color, flavor, and texture of fruits canned without sugar may be different than expected. Many fruits typically packed in heavy syrup are excellent packed in lighter syrups if you want to reduce calories but are hesitant to try canning without sugar.

Splenda® is the only sugar substitute that can be added to the canning liquid before canning fruits. Add other sugar substitutes, if desired, when serving.



Photo courtesy of National Presto Industries, Inc.

## Preparing and Using Syrups

		Measures of Water and Sugar				
		For 9-Pt Load		For 7-Qt Load		
Syrup Type	Approx. % Sugar	Cups Water	Cups Sugar	Cups Water	Cups Sugar	Fruits Commonly Packed in This Syrup
Very Light	10	6 ½	¾	10 ½	1 ¾	Approximates natural sugar level in most fruits and adds the fewest calories.
Light	20	5 ¾	1 ½	9	2 ¾	Very sweet fruit. Try a small amount the first time to see if your family likes it.
Medium	30	5 ¾	2 ¾	8 ¾	3 ¾	Sweet apples, sweet cherries, berries, grapes.
Heavy	40	5	3 ¾	7 ¾	5 ¾	Tart apples, apricots, sour cherries, gooseberries, nectarines, peaches, pears, plums.
Very Heavy	50	4 ¾	4 ¾	6 ½	6 ¾	Very sour fruit. Try a small amount the first time to see if your family likes it.

### Maintain Color in Fruits

During preparation, some fruits can turn an undesirable color. To maintain the natural color of these fruits, avoid exposing them to air for long periods. While preparing fruits, place peeled, halved, quartered, sliced, or diced apples, apricots, nectarines, peaches, and pears in water containing ascorbic acid. Ascorbic acid may be obtained in pure form, as vitamin C tablets or as commercially prepared mixes (for example, Fruit Fresh®).

Add 3 grams (1 teaspoon pure ascorbic acid or 6 500-milligram vitamin C tablets crushed) to 1 gallon cold water.

For commercial mixes, follow package directions.

### Canning Fruits For Baby Foods

Fruits can be prepared chunk-style or pureed following directions in this publication. Sugar or syrup can be replaced with water or unsweetened fruit juices. Do not use honey with fruits canned for baby food. Hot-pack fruit into half-pint or pint jars and process in a boiling-water canner for 20 minutes when below an altitude of 1,000 feet or for 25 minutes when at altitudes of 1,001 to 6,000 feet.

### Spiced Crabapples

- 5 lb crabapples
- 4½ cups apple cider vinegar (5%)
- ¾ cups water
- 7½ cups sugar
- 4 tsp whole cloves
- 4 sticks cinnamon
- Six ½-inch cubes of fresh ginger root

Remove blossom petals and wash apples, but leave stems attached. Puncture the skin of each apple four times with an ice pick or toothpick. Mix vinegar, water,

and sugar and bring to a boil. Add spices tied in a spice bag or cheesecloth. Using a blancher basket or sieve, immerse one-third of the apples at a time in the boiling vinegar/syrup solution for two minutes. Place cooked apples and spice bag in a clean 1- or 2-gallon crock and add hot syrup. Cover and let stand overnight. Remove spice bag, drain syrup into a large saucepan, and reheat to boiling. Fill pint jars with apples and hot syrup, leaving ½-inch headspace. Adjust lids and process according to the recommendations below. Wait five minutes before removing jars from canner.

Recommended Process Time for Spiced Crabapples in a Boiling-water Canner				
Style of Pack	Jar Size	Process Time at Altitudes of		
		0-1,000 ft	1,001-3,000 ft	3,001-6,000 ft
Hot	Pints	20 min	25 min	30 min

### Zucchini-Pineapple

- 4 quarts cubed or shredded zucchini
- 46 oz canned unsweetened pineapple juice
- 1 ½ cups bottled lemon juice
- 3 cups sugar

**Procedure:** Peel zucchini and either cut into ½-inch cubes or shred. Mix zucchini with other ingredients in a large saucepan and bring to a boil. Simmer 20 minutes. Fill half-pint or pint jars with hot mixture and liquid; leave ½-inch headspace.

For altitudes under 1,000 feet, process 15 minutes in boiling-water canner. For altitudes of 1,001 to 6,000 feet, process 20 minutes. Wait five minutes before removing jars from canner.

## Recommended Process Times for Acid Fruits in a Boiling-Water Canner

Fruit	Amount needed for:		Quality	Preparation	Hot Pack	Raw Pack	Style of Pack	Jar Size	Process Time at Altitudes of		
	9 Pints	7 Quarts							0 - 1,000 ft	1001 - 3,000 ft	3001 - 6,000 ft
Apple Slices Applesauce	12 ¾ lb	19 lb	Select juicy, crisp, and preferably, a mixture of sweet and tart apples.	Wash, peel and core apples. Slice, if desired. Place in water containing ascorbic acid. Add 2 cups water or syrup per 5 lb drained, sliced apples. Boil 5 minutes; stir occasionally.  Prepare apples as described above. Place drained apples in large saucepan. Add ½ cup water, heat quickly until tender (5-20 minutes); stir occasionally to prevent burning. Press through a sieve or food mill. Add 1/8 cup sugar per quart, if desired. Reheat sauce to boiling.	Fill jars with slices and liquid or sauce; leaves ½-inch headspace.		Hot	Pints or Quarts	Apple Slices		
									20 min	25 min	30 min
									Applesauce		
									15 min	20 min	20 min
							Hot	Quarts	20 min	25 min	30 min
									Wait 5 minutes before removing jars from canner.		
									For altitudes under 1,000 ft, process 15 min in boiling water canner. For altitudes of 1,000 ft to 6,000 ft, process 20 min.		
Apricots	10 lb	16 lb	Select firm, ripe, mature fruit of ideal quality for eating fresh.	Dip fruit in boiling water 30-60 seconds until skins loosen. Quickly chill in cold water and slip off skins. Cut in half, remove pits and slice, if desired. Place in water containing ascorbic acid.	Bring fruit and water, juice or syrup to a boil. Fill jars with fruit and liquid; leave ½-inch headspace. Place halves in layers, cut side down.		Hot	Pints	20 min	25 min	30 min
Nectarines	11 lb	17 ½ lb						Quarts	25 min	30 min	35 min
Peaches	11 lb	17 ½ lb						Raw	Pints	25 min	30 min
								Quarts	30 min	35 min	40 min
									Wait 5 minutes before removing jars from canner.		
									For altitudes under 1,000 ft, process 15 min in boiling water canner. For altitudes of 1,000 ft to 6,000 ft, process 20 min.		

Fruit	Amount needed for:		Quality	Preparation	Hot Pack	Raw Pack	Style of Pack	Jar Size	Process Time at Altitudes of		
	9 Pints	7 Quarts							0 - 1,000 ft	1001 - 3,000 ft	3001 - 6,000 ft
Berries or Berry Syrup	8 lb	12 lb	Choose ripe, sweet berries with uniform color.	Wash, drain, cut, and stem if necessary. For syrup: Heat 6 ½ cups berries to boiling. Simmer until soft (5-10 minutes). Strain hot through a colander; cool enough to handle. Strain through two layers of cheese-cloth or jelly bag. Discard pulp. Combine 5 cups juice with 6 ¾ cups sugar in a large saucepan. Bring to a boil and simmer 1 minute.	For blueberries, currants, elderberries, gooseberries, and huckleberries. Heat berries in boiling water 30 seconds; drain. Fill jars with berries and liquid; leave ½-inch headspace.	Fill jars with berries; shake down gently. Add hot water or syrup; leave ½-inch headspace.	Hot	Pints or Quarts	15 min	20 min	20 min
							Raw	Pints	15 min	20 min	20 min
								Quarts	20 min	25 min	30 min
							Berry Syrup				
	Hot	Half Pints or Pints	10 min	15 min	15 min						
Wait 5 minutes before removing jars from canner.											
For altitudes under 1,000 ft, process 15 min in boiling water canner. For altitudes of 1,000 ft to 6,000 ft, process 20 min.											
Cherries	11 lb	17 ½ lb	Select bright, uniformly colored, mature cherries.	Stem and wash cherries. Remove pits, if desired. If canned unpitted, prick skins with a clean needle to prevent splitting.	Add ½ cup water, juice, or syrup for each quart of cherries; bring to a boil. Fill jars with cherries and liquid; leave ½-inch headspace.	Fill jars with cherries; shake down gently. Add hot water, juice, or syrup; leave ½-inch headspace.	Hot	Pints	15 min	20 min	20 min
							Raw	Quarts	20 min	25 min	30 min
								Pints or Quarts	25 min	30 min	35 min
Wait 5 minutes before removing jars from canner.											
For altitudes under 1,000 ft, process 15 min in boiling water canner. For altitudes of 1,000 ft to 6,000 ft, process 20 min.											
Fruit Cocktail	For <b>six pints</b> , use 3 lb peaches 3 lb pears 1 ½ lb green grapes (slightly underripe) 10 oz jar maraschino cherries 3 cups sugar 4 cups water			Stem and wash grapes. Place in water containing ascorbic acid. Prepare peaches and pears as directed for canning, except cut into ½-inch cubes. Place in water with grapes. Combine sugar and water in saucepan and bring to boil.		Add ½ cup syrup to each jar. Add a few cherries and fill with drained, mixed fruit. Add syrup; leave ½"-inch headspace.	Raw	Half-pints or Pints	20 min	25 min	30 min
Wait 5 minutes before removing jars from canner.											
For altitudes under 1,000 ft, process 15 min in boiling water canner. For altitudes of 1,000 ft to 6,000 ft, process 20 min.											

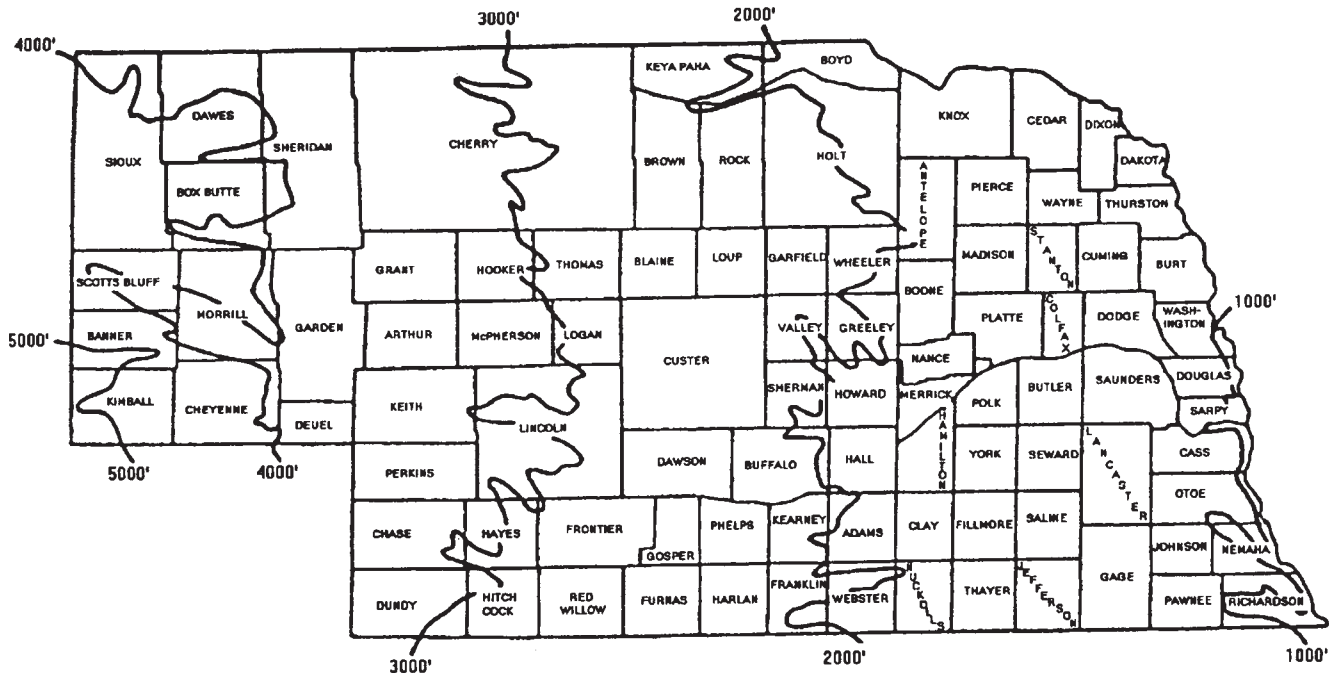
Fruit	Amount needed for:		Quality	Preparation	Hot Pack	Raw Pack	Style of Pack	Jar Size	Process Time at Altitudes of		
	9 Pints	7 Quarts							0 - 1,000 ft	1001 - 3,000 ft	3001 - 6,000 ft
Fruit Purees				Stem, wash, drain, peel, and remove pits of desired fruit. Add 1 cup hot water for each quart of fruit. Cook slowly; stir often. Press through sieve or food mill. If desired, add sugar to taste. Reheat mixture to boiling or until sugar dissolves. There are no home canning recommendations for canning fruit purees made with figs, tomatoes, cantaloupe and other melons, papaya, ripe mango, or coconut.	Fill jars with fruit puree; leave ¾-inch headspace.		Hot	Pints or Quarts	20 min	25 min	30 min
									Wait 5 minutes before removing jars from canner.		
Grapefruit or Oranges	13 lb	15 lb	Select firm, mature, sweet fruit. The flavor of orange sections is best if canned with equal parts of grapefruit.	Wash and peel fruit and remove white tissue to prevent bitter taste. Section fruit.  If syrup is used, prepare a very light, light, or medium syrup.	Fill jars with sections. Add hot water, juice or syrup; leave ½-inch headspace.		Raw	Pints or Quarts	15 min	20 min	20 min
									Wait 5 minutes before removing jars from canner.		
									For altitudes under 1,000 ft, process 15 min in boiling water canner. For altitudes of 1,000 ft to 6,000 ft, process 20 min.		
Grapes, whole	9 lb	14 lb	Select sweet, well-colored, firm, mature grapes.	Stem, wash, and drain grapes.	Blanch grapes in boiling water for 30 seconds; drain. Fill jars with grapes. Add hot syrup; leave 1-inch headspace.	Fill jars with grapes; add hot syrup; leave 1-inch headspace.	Hot	Pints or Quarts	10 min	15 min	15 min
							Raw	Pints or Quarts	15 min	20 min	20 min
									20 min	25 min	30 min
									Wait 5 minutes before removing jars from canner.		
									For altitudes under 1,000 ft, process 15 min in boiling water canner. For altitudes of 1,000 ft to 6,000 ft, process 20 min.		

Fruit	Amount needed for:		Quality	Preparation	Hot Pack	Raw Pack	Style of Pack	Jar Size	Process Time at Altitudes of		
	9 Pints	7 Quarts							0 - 1,000 ft	1001 - 3,000 ft	3001 - 6,000 ft
Grapes, juice	16 lb	24 ½ lb		For juice: Place grapes in saucepan and add boiling water to cover grapes. Heat and simmer until skin is soft. Strain through two layers of cheesecloth or jelly bag. Refrigerate juice for 24-48 hours. Without mixing, pour off clear liquid and save; discard sediment. For clear juice, strain through a coffee filter. Add juice to saucepan and sweeten to taste. Heat and stir until sugar is dissolved. Continue heating to boiling.	Fill jars with juice; leave ¾" headspace.		Hot	Juice Pints or Quarts	5 min	10 min	10 min
									Wait 5 minutes before removing jars from canner. For altitudes under 1,000 ft, process 15 min in boiling water canner. For altitudes of 1,000 ft to 6,000 ft, process 20 min.		
Pears	11 lb	17 ½ lb	Choose ripe, mature fruit.	Wash and peel pears. Cut lengthwise in halves and remove core with a melon baller or metal measuring spoon. Place in water containing ascorbic acid.	Boil drained pears 5 minutes in water or syrup. Fill jars with pears and liquid; leave ½-inch headspace.		Hot	Pints Quarts	20 min 25 min	25 min 30 min	30 min 35 min
									Wait 5 minutes before removing jars from canner. For altitudes under 1,000 ft, process 15 min in boiling water canner. For altitudes of 1,000 ft to 6,000 ft, process 20 min.		
Plums	9 lb	14 lb	Select deep-colored, mature fruit.	Stem and wash plums. To can whole, prick skins on two sides with fork to prevent splitting. Freestone varieties may be halved and pitted.	Add plums to hot syrup; boil 2 min. Cover and let stand 20-30 min. Fill jars with plums and liquid; leave ½-inch headspace.	Fill jars with plums, pack firmly. Add hot water or syrup; leave ½-inch headspace.	Hot and Raw	Pints Quarts	20 min 25 min	25 min 30 min	30 min 35 min
									Wait 5 minutes before removing jars from canner. For altitudes under 1,000 ft, process 15 min in boiling water canner. For altitudes of 1,000 ft to 6,000 ft, process 20 min.		
Rhubarb, stewed	7 lb	10 ½ lb	Select young, tender, well-colored stalks from spring or late fall crop.	Trim off leaves. Wash stalks and cut into ½ to 1-inch pieces. Add ½ cup sugar for each quart of fruit. Let stand until juice appears. Heat gently to boiling.	Fill jars with rhubarb and liquid; leave ½-inch headspace.		Hot	Pints or Quarts	15 min	20 min	20 min
									Wait 5 minutes before removing jars from canner. For altitudes under 1,000 ft, process 15 min in boiling water canner. For altitudes of 1,000 ft to 6,000 ft, process 20 min.		

## Recommended Process Times for Acid Fruits in a Pressure Canner

Type of Fruit	Style of Pack	Jar Size	Process Time (Min)	Canner Pressure (PSI) at Altitudes of				
				Dial-Gauge			Weighted-Gauge	
				0-2,000 ft	2,001-4,000 ft	4,001-6,000 ft	0-1,000 ft	Above 1,000 ft
Applesauce	Hot	Pints	8	6 lb	7 lb	8 lb	5 lb	10 lb
	Hot	Quarts	10	6 lb	7 lb	8 lb	5 lb	10 lb
Apples, sliced	Hot	Pints or Quarts	8	6 lb	7 lb	8 lb	5 lb	10 lb
Apricots, Nectarines, and Peaches	Hot and Raw	Pints or Quarts	10	6 lb	7 lb	8 lb	5 lb	10 lb
Berries, whole	Hot	Pints or Quarts	8	6 lb	7 lb	8 lb	5 lb	10 lb
	Raw	Pints	8	6 lb	7 lb	8 lb	5 lb	10 lb
	Raw	Quarts	10	6 lb	7 lb	8 lb	5 lb	10 lb
Cherries, sour or sweet	Hot	Pints	8	6 lb	7 lb	8 lb	5 lb	10 lb
	Hot	Quarts	10	6 lb	7 lb	8 lb	5 lb	10 lb
	Raw	Pints or Quarts	10	6 lb	7 lb	8 lb	5 lb	10 lb
Fruit Purees	Hot	Pints or Quarts	8	6 lb	7 lb	8 lb	5 lb	10 lb
Grapefruit and Orange Sections	Hot	Pints or Quarts	8	6 lb	7 lb	8 lb	5 lb	10 lb
	Raw	Pints	8	6 lb	7 lb	8 lb	5 lb	10 lb
	Raw	Quarts	10	6 lb	7 lb	8 lb	5 lb	10 lb
Pears	Hot	Pints or Quarts	10	6 lb	7 lb	8 lb	5 lb	10 lb
Plums	Hot and Raw	Pints or Quarts	10	6 lb	7 lb	8 lb	5 lb	10 lb
Rhubarb	Hot	Pints or Quarts	8	6 lb	7 lb	8 lb	5 lb	10 lb





**Figure 1. Altitude ranges in Nebraska.**

*Map was prepared by Les Howard, cartographer, UNL School of Natural Resources*

### Reference

*Complete Guide to Home Canning. Agriculture Information Bulletin 539, 2009. [www.uga.edu/nchfp/publications/publications\\_usda.html](http://www.uga.edu/nchfp/publications/publications_usda.html)*

### Disclaimer

Reference to commercial products or trade names is made with the understanding that no discrimination is intended of those not mentioned and no endorsement by University of Nebraska–Lincoln Extension is implied for those mentioned.

UNL Extension publications are available online at <http://extension.unl.edu/publications>.