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*Monthly Wednesday
Night Demonstration*

February 21, 2018

**To Sweeten or Not to Sweeten:
Sugars & Alternatives**



Resources:

- Please visit the National Center for Home Food Preservation at <http://nchfp.uga.edu> for detailed information about research-based methods of home food preservation.
- UC ANR Catalog (<http://anrcatalog.ucanr.edu>)
- Oregon State University Extension Catalog (<https://catalog.extension.oregonstate.edu>), publication #PNW199

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CANNING FRUITS

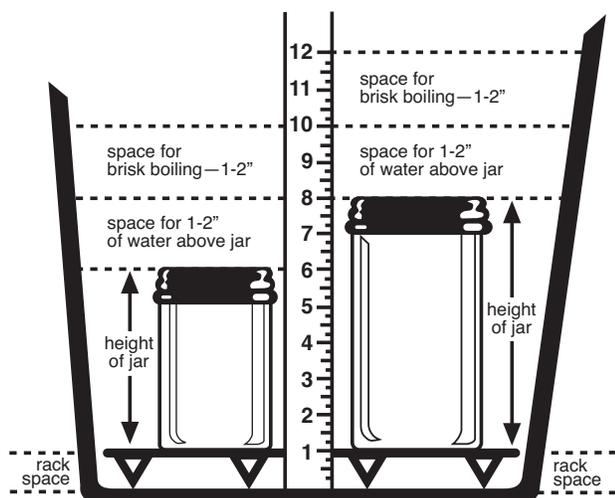
Home canning can be a safe and economical way to preserve fruits at home, but it must be done with care. Even garden fresh and thoroughly washed foods harbor microorganisms, including bacteria, yeasts, and molds. Microorganisms decrease food quality and may form toxins, or poisons, under certain conditions.

To preserve food for long-term storage, conditions must be made unfavorable for the growth of microorganisms. When fruits are canned, some microorganisms are destroyed by heat; others survive but cannot grow in acid foods or in air-free jars. These conditions also retard other undesirable changes such as vitamin loss, darkened color, and off-flavors.

The directions in this publication have been carefully researched for safe home canning. Following the directions exactly is vital to ensure a product that is top quality and safe to eat.

Selecting Equipment

You should base your choice of whether to use a boiling water canner or pressure canner on the level of acidity in the food you will be canning. When canning fruits, you can safely use a boiling water canner. Molds, yeasts, and bacteria which can grow in these high-acid foods are destroyed at boiling water-bath temperatures. Some fruits, such as Asian pears and figs, require the addition of acid (i.e., lemon juice) to be safely processed in a boiling water canner.



The canner must have room for 1 to 2 inches of briskly boiling water over the tops of the jars during processing; measure with a ruler when you buy. It is also important for the canner to have a lid and a rack.

Standard Mason jars are the best choice for canning. Other jars may not be heat tempered and could break during the canning process, or may not seal properly because their sealing surfaces do not exactly fit canning lids. Inspect jars for cracks and chips, and discard damaged ones. Inspect rings for dents and rust, and discard if either is found. To ensure proper sealing, do not use lids that are old, dented, deformed, have gaps or other defects in the sealing gasket, or have been used before. Spoilage could result if jars don't seal, and food is wasted.

Preparing Equipment

Wash jars, metal screw bands, and lids in hot, soapy water. Rinse. Place jars upside down on a clean, dry cloth, or leave them in the dishwasher until needed. Jars should be hot when filled to prevent breakage. Keep hot in a dishwasher or preheat in a boiling water canner. Follow the manufacturer's directions for heating lids before use.

Foods processed less than 10 minutes should be filled into sterilized jars. To sterilize empty jars, place them right side up in a boiling water canner. Fill with water to 1 inch above the jar tops. Boil 10 minutes at altitudes less than 1,000 feet. Add 1 minute for each additional 1,000 feet of elevation.

Selecting and Preparing Fruits

Select fresh, firm fruit. Gather or purchase only as much as you can practically handle before fruit becomes overripe. Work quickly throughout preparation and canning. If food is allowed to stand, quality is lowered, and food spoilage is more likely to occur.

Yield will depend upon quality, ripeness, size, and variety. The amount generally needed per quart is:

Fruit	Pounds Needed	Fruit	Pounds Needed
Apples	2 ½–3	Peaches	2–3
Apricots	2–2 ½	Pears	1 ½–3
Berries	1 ½–3	Plums	1 ½–2 ½
Cherries	2–2 ½		

Sort for size and ripeness. Wash in cool, running water, or lift in and out of several changes of water. Avoid soaking. Peel (if desired) and trim blemishes after washing the food. Do not can decayed or overripe fruit. Acidity decreases as fruit ripens.

Maintaining Color and Flavor

Follow these guidelines to ensure that fruit retains optimum color and flavor:

- Use only high-quality fruit that is mature and free of diseases and bruises.
- Don't unnecessarily expose prepared foods to air. Can them as soon as possible.
- Use the hot pack method for better long-term color retention than the raw pack method.
- Pre-treat fruits with light-colored flesh such as apples, apricots, nectarines, peaches, and pears to prevent darkening. Put prepared fruit into a solution of 3 grams (3000 milligrams) ascorbic acid to 1 gallon of cold water. This procedure is also useful for preventing stem-end discoloration in cherries and grapes. You can get ascorbic acid in several forms:
 - *Pure powder.* Seasonally available among canners' supplies in supermarkets and health food stores. One level teaspoon of pure ascorbic acid powder weighs about 3 grams. Use 1 teaspoon per gallon of water for pre-treatment.
 - *Vitamin C tablets.* Economical and available year-round in many stores. Buy 500-milligram tablets; crush and dissolve 6 tablets per gallon of water for pre-treatment.
 - *Commercially prepared mixes of ascorbic and citric acid.* Seasonally available among canners' supplies in supermarkets. Sometimes citric acid powder is also sold in supermarkets, but it is less effective in controlling discoloration. Follow the manufacturer's directions for amounts to use.

Sweetening Fruits

Adding a sugar syrup to canned fruits helps to retain the flavor, color, and texture. Other sweeteners may be used, too.

Preparing sugar syrup. Select the level of sweetness you desire based on the chart immediately below. Heat water and the listed amount of sugar together. Bring to a boil and pour over raw fruit in jars. For hot packs, bring water and sugar to a boil, add fruit, reheat to boil according to the processing chart, and fill into jars immediately.

Syrup Type	For 9-Pint Load		For 7-Quart Load	
	Water	Sugar	Water	Sugar
Very Light	6 ½ cups	¾ cup	10 ½ cups	1 ¼ cups
Light	5 ¾ cups	1 ½ cups	9 cups	2 ¼ cups
Medium	5 ¼ cups	2 ¼ cups	8 ¼ cups	3 ¾ cups
Heavy	5 cups	3 ¼ cups	7 ¾ cups	5 ¼ cups

Using other sweeteners. Light corn syrup or honey may be used in place of sugar. However, honey can overpower fruit flavor.

Canning Without Sugar

Adding sugar to canned fruits is not necessary to prevent spoilage and can be safely omitted. To can without sugar, replace sugar syrup with water or regular unsweetened fruit juice and follow the processing chart methods and times.

When canning fruits without sugar, select fully ripe, but firm fruits. Sucralose (commonly called Splenda) is the only sugar substitute in the marketplace that can be added to liquids before canning because it is heat stable. Other sugar substitutes are best added after the fruit is opened, just before eating.

Packing Jars

Follow the preparation directions for each fruit in the processing chart at the end of this publication. For the hot pack method, food is briefly boiled in water, syrup, or juice, and packed into hot jars. Then, the cooking liquid or boiling water is added. For the raw pack method, food is packed raw into hot jars and covered with boiling water, syrup, or juice.

The hot pack method has several advantages. Heated fruits are softer and easier to pack into jars. As a result, more fruit can be put in each jar so fewer jars are needed. There is also less floating fruit, the processing time is usually shorter, and the flesh color of light-colored fruits such as apples and peaches is often better protected. The main advantage of raw-packed fruit is a firmer texture.

Pack food and liquid in jars until there is ½ inch headspace unless directed otherwise in the processing chart. Headspace is the space between the food or liquid and the top of a jar. If a jar is too full, some of the contents could bubble out during heat processing and leave food on the sealing surfaces so that the jar does not seal. Too much headspace may prevent sealing if the processing time is too short to exhaust all air from the jar.

After filling jars, run a plastic utensil around the insides of the jars to remove air bubbles.

Closing Jars

Wipe jar rims and threads with a clean, damp paper towel to remove any bits of food that might prevent a seal. Follow the manufacturer's directions for preheating flat lids. Cover the rims with a new lid, putting the circle of sealing compound against the glass. Screw on the metal band following the manufacturer's directions for tightening bands. If rings are too loose, liquid can escape during processing and seals may fail. If rings are too tight, air cannot vent during processing, causing lids to buckle or jars to break.

Processing in a Boiling Water Canner

1. Use a rack to keep jars from touching the canner bottom and allow heat to reach all sides of the filled jars. Fill the canner half full of water.

- Preheat water to 140°F for raw-packed fruit and to 180°F for hot-packed fruit. Place clean, empty jars into the canner to preheat to help prevent breakage. Jars can also be preheated in a dishwasher.
- Load filled jars into the canner, keeping jars upright at all times.
- Add more boiling water, if needed, to bring water 1 to 2 inches above jar tops. Avoid pouring water directly on the jars. Place the lid on the canner. (If a pressure canner is used for water-bath canning, leave the cover unfastened and the petcock open to prevent buildup of pressure.)
- Turn heat to the highest setting and heat until water boils vigorously. Once boiling, set a timer for the total minutes required for processing the fruit. Select the processing time for the style of pack (hot or raw), the jar size, and the altitude where you live.
- Keep the canner covered and maintain a boil throughout the process schedule. The heat setting can be lowered to a gentle boil, as long as the boil is maintained for the entire process time. If the water stops boiling at any time during the process, bring back to a vigorous boil and begin the timing of the process over, from the beginning.
- Add more boiling water during processing if necessary to keep the water level above the jars.
- When processing time is complete, turn off the heat and remove the canner lid. Wait 5 minutes before removing jars.
- Using a jar lifter, remove the jars, being careful not to tilt them, and place on a towel 1 inch apart. Spoilage could occur if jars are left in hot water.

Cooling Jars

Cool jars on a rack or cloth at room temperature, allowing air to circulate freely around them. Avoid cold drafts or fans blowing on the jars.

Do not retighten screw bands after processing. Retightening of hot lids may cut through the gasket and cause seal failure.

Testing for Seal

After cooling 12–24 hours, test each jar for a vacuum seal. Jars with flat, metal lids are sealed if:

- The lid has popped down in the center.
- The lid does not move when pressed down.
- Tapping the center of the lid with a spoon gives a clear, ringing sound.

Reprocessing

If a jar does not seal, refrigerate the contents and use within a few days, or reprocess within 24 hours of the initial processing. Reprocess using a hot or raw pack as recommended for that product. Wipe jar rims clean. Use a new lid and process for the full time listed. Fruit which has been heat processed twice may not be as firm or as nutritious. Alternatively, you can freeze the jars instead of reprocessing. In this case, adjust the headspace to 1 ½ inches. *Foods that were under-processed or improperly processed and held over 24 hours should be destroyed.*

Storing

Remove the screw bands so the lids under them do not cause rusting. Wipe jars. Label with the date, contents of the jar, and processing information.

Store jars in a cool, dark, dry place. For best eating quality and nutritive value, use within one year. Exposure to heat, freezing temperatures, light, or dampness will decrease the quality and shelf life of canned food.

Before Using

As you select each jar for use, examine it for signs of spoilage. Check the lid for tightness and a vacuum seal. With the jar at eye level, look for streaks of dried food on the outside of the jar. Inside the jar, look for cloudy canning liquid, rising air bubbles, or any unnatural color. While opening the jar, watch for spurting liquid or cotton-like mold growth on food surfaces or under the lid. Smell for unnatural or off odors. Never taste food from a jar with an unsealed lid or food that shows signs of spoilage.

Disposal

If there is any sign of spoilage, destroy the food. You can either put spoiled high-acid food down the garbage disposal with lots of water or flush the liquid portion down the sink and wrap the solids in newspaper or plastic and discard in the garbage.

Fruit Canning Processing Chart

Canning method. Instructions for processing various fruits in a boiling water canner are provided in the following chart. Follow the preparation instructions carefully. Begin counting the processing time when the water comes back to a rolling boil.

Various altitudes. Adjust the processing time for elevations over 1,000 feet.

Headspace. Leave ½ inch headspace for both the fruit and liquid unless otherwise specified.

Process Time (Minutes) at Various Altitudes

Fruit	Preparation	Pack	Jar Size	0–1000 ft	1001–3000 ft	3001–6000 ft	Over 6000 ft
Apples	Wash, peel, core, and slice. To prevent darkening, put in ascorbic acid solution. Drain. Boil 5 minutes in light syrup, water, or juice. Pack into hot jars and cover with boiling cooking liquid.	Hot	Pints and Quarts	20	25	30	35
Applesauce	Wash apples. Cut large fruit into pieces. Simmer until soft. Add water, if needed, to prevent sticking. Put through food strainer or mill. Add sugar to taste. Re-heat sauce to boil and pack into hot jars. Caution: Use a lid or wear protective clothing when heating to prevent burns from popping applesauce.	Hot	Pints Quarts	15 20	20 25	20 30	25 35
Apricots, nectarines, peaches, pears	Wash. Peel if desired (to peel peaches, dip in boiling water 30–60 seconds, place in cold water, and slip skins). Halve fruit and remove pits or cores. Slice if desired. To prevent darkening, put in ascorbic acid solution. Drain. <i>Hot pack.</i> Heat apricots, nectarines, or peaches until syrup, water, or juice boils. Pack fruit into hot jars and cover with boiling liquid. For pears, boil in cooking liquid for 5 minutes before packing into jars. <i>Raw pack.</i> Pack fruit into hot jars and cover with boiling syrup, water, or juice.	Hot Raw	Pints Quarts Pints Quarts	20 25 25 30	25 30 30 35	30 35 35 40	35 40 40 45
Asian pears	Asian pears are lower in acid than Bartlett or other similar varieties of pears. In order to can safely, lemon juice is added to jars before processing. Wash. Peel, halve, and remove cores. Slice if desired. To prevent darkening, put in ascorbic acid solution. Drain. <i>Hot pack.</i> Heat fruit until syrup, water, or juice boils. Add 2 tablespoons bottled lemon juice per quart or 1 tablespoon per pint to the jars. Fill hot jars with hot Asian pears and cooking liquid. <i>Raw pack.</i> Pack fruit into jars. Add 2 tablespoons bottled lemon juice per quart or 1 tablespoon per pint to the jars. Cover with boiling syrup, water, or juice.	Hot Raw	Pints Quarts Pints Quarts	20 25 25 30	25 30 30 35	30 35 35 40	35 40 40 45
Berries	Choose firm berries with no mold. Wash and drain. Prepare and boil syrup, if desired. Add ½ cup syrup, water, or juice to each jar before addition of berries. <i>Hot pack.</i> Heat berries in boiling water 30 seconds. Drain. Pack into hot jars. Cover with boiling syrup, water, or juice. <i>Raw pack.</i> Pack raw berries into hot jars. Shake gently to obtain full pack. Cover with boiling syrup, water, or juice. Note: The quality of canned strawberries is poor.	Hot Raw	Pints and Quarts Pints Quarts	15 15 20	20 20 25	20 20 30	25 25 35

Process Time (Minutes) at Various Altitudes

Fruit	Preparation	Pack	Jar Size	0–1000 ft	1001–3000 ft	3001–6000 ft	Over 6000 ft
Cherries (sweet or pie)	Wash. Remove pits, if desired.						
	<i>Hot pack.</i> Put cherries in large saucepot. Add ½ cup. syrup, water, or juice per quart. Bring to boil. Fill hot jars with cherries and cooking liquid.	Hot	Pints	15	20	20	25
			Quarts	20	25	30	35
	<i>Raw pack.</i> Add ½ cup boiling syrup, water, or juice to hot jars. Pack cherries, shaking to obtain full pack. Cover with cooking liquid.	Raw	Pints and Quarts	25	30	35	40
Figs	Select firm, ripe, uncracked figs. Do not can overripe fruit with very soft flesh. Wash. Drain. Do not peel or remove stems. Cover figs with water and boil 2 minutes. Drain. Gently boil figs in light syrup for 5 minutes. Add 2 tablespoons bottled lemon juice per quart or 1 tablespoon per pint to the jars. Fill jars with hot figs and cooking syrup.	Hot	Pints	45	50	55	60
			Quarts	50	55	60	65
Fruit Juice	Wash fruit. Remove pits or seeds, crush fruit. Heat to simmering, stirring to prevent sticking. Strain through cloth bag. Add 1 cup sugar to 1 gallon juice, if desired. Reheat to simmering (185–210°F). Pour hot juice into hot jars. If using a steam juicer to prepare juice, pour simmering juice directly into hot jars.	Hot	Pints and Quarts	5	10	10	15
			½ Gallon	10	15	15	20
Fruit Puree	Wash, peel, and remove seeds or pits. Add 1 cup hot water per quart of fruit. Cook slowly until soft. Put through sieve or food mill. Add sugar to taste. Reheat to boiling and pack into hot jars leaving ¼ inch headspace. Caution: Do not use figs, cantaloupe or other melons, papaya, ripe mango, or coconut to make fruit purees because they are not acidic enough to safely process in a boiling water canner.	Hot	Pints and Quarts	15	20	20	25
Plums	Wash and remove stems. To can whole, prick skins on two sides of plums with fork to prevent splitting. Freestone varieties may be halved and pitted.						
	<i>Hot pack.</i> Add plums to hot syrup and boil 2 minutes. Cover saucepan and let stand 20–30 minutes. Fill hot jars with hot plums and cover with cooking liquid.	Hot	Pints	20	25	30	35
	<i>Raw pack.</i> Fill hot jars with raw plums, packing firmly. Cover with hot syrup, water, or juice.	Raw	Quarts	25	30	35	40
Rhubarb	Wash stalks and cut into ½–1-inch pieces. Add ½ cup sugar per quart of fruit. Let stand until juice appears. Bring to a boil and fill hot jars.	Hot	Pints and Quarts	15	20	20	25

Notes:

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Apple Pie in a Jar

Source: Fresh Preserving.com, Light Apple Jam, 2018

Yield: 6 (8 oz) half-pints

If you're a fan of apple pie you'll love this luscious sugar free apple jam. Serve it on bread or use it more creatively in mini-tarts or as a dessert topping. You're certain to receive rave reviews!

Ingredients:

6 cups peeled, chopped Granny Smith apples or other tart apples (about 6 medium)
 Juice and grated zest of 1 medium lemon
 2 cups unsweetened apple juice
 3/4 cup raisins
 1 teaspoon ground cinnamon
 3 tablespoons Ball® RealFruit™ Low or No-sugar Needed Pectin
 1-1/2 cups sugar or SPLENDA® No Calorie Sweetener, Granular

Procedure:

1. PREPARE boiling water canner. Heat jars in simmering water until ready for use. Do not boil. Wash lids in warm soapy water and set bands aside
2. COMBINE apples, lemon peel and juice in a large saucepan. Bring to a boil. Reduce heat and simmer until apples begin to soften. Remove from heat and whisk in pectin. Add raisins and cinnamon. Return mixture to a boil. Boil 5 minutes. Add sugar or sweetener. Return mixture to a boil that cannot be stirred down. Boil hard for 1 minute, stirring constantly. Remove from heat. Skim foam, if necessary.
3. LADLE hot jam into hot jars leaving 1/4 inch headspace. Wipe rim. Center lid on jar. Apply band until fit is fingertip tight.
4. PROCESS in a boiling water or atmospheric steam canner for 10 minutes, adjusting for altitude. Turn off heat and remove cover. Let jars cool 5 minutes. Remove jars from canner; do not retighten bands if loose. Cool 12 hours. Check seals. Label and store jars.

Note: If you are at an altitude higher than 1,000 feet, adjust the processing time for the boiling water or steam canner according to the chart below.

Altitude in feet	1,000 – 3,000	3,001 – 6,000	6,001 – 8,000	8,001 – 10,000
Increase processing time	+5 minutes	+10 minutes	+15 minutes	+20 minutes

Sweeteners

Sweeteners for fruit spreads vary greatly. Following is a list of choices both natural and artificial. Artificial sweeteners cannot be used in fruit spreads that require cooking, as the sweetener breaks down under heat. Sugar's purpose goes beyond making the fruit sweet; it is used as a preservative and gelling agent in large quantities when making fruit spreads. Never change the ratio of sugar, fruit and pectin in your recipes.

Sugar: Besides adding flavor to fruit spreads, sugar is a key ingredient in the gelling. (A large amount of sugar does add calories.) Granulated sugar made from cane or beets or light brown sugar, which has maltose added, is appropriate for making fruit spreads.

Artificial sweeteners: Saccharin, aspartame, and other artificial sweeteners cannot be used in cooked products, as they break down when heated and become bitter. Use artificial sweetener only in uncooked fruit spread recipes for the freezer or refrigerator. For cooked and processed recipes, add artificial sweetener when you open the individual jar for one use.

Honey: Light and mild honey can be used in place of sugar. Because it has double the sweetening power of sugar, it adds fewer calories. Choose a recipe that specifies the use of honey. Don't switch from sugar to honey on your own. Honey will cause more foam on the top of cooked fruit mixture.

Jams made with honey are trickier to make than conventional sugar-based jellies and jams. To jell, you must cook honey-based preserves longer than if they were made with sugar-about 8 to 10 minutes for pectin added jellies and jams and even longer for the cooked down ones that have no extra pectin added. Don't go over 20 minutes or the pectin will break down. Don't be surprised if honey-based preserves are a little less firm than sugar-made jells because of the extra liquid in the honey.

Frozen Juice and Fruit Juice Concentrates: When selecting fruit juice, use natural juice, if available-apple juice with canned apples, for example. This will give the most natural fruit flavoring; adding a small amount of lemon juice will enhance the flavor even more. Try small batches using various juices. Try adding spices to add zing to the flavor.

Concentrated apple juice, orange juice, and pineapple juice are available in the freezer of your grocery store and should be used as soon as possible after thawing for best flavor. Most frozen juices are meant to be diluted with three volumes of water. Used undiluted or partly diluted, they make a concentrated sweetener for canning or preserving. Just be sure they are labeled "pure juice."

Cooperative and some health stores sell fresh or frozen fruit juice concentrates. These are much more concentrated than regular frozen juices, and are excellent to use in cooking and canning. Fresh juice concentrates taste the most natural, frozen are almost as good, and canned least desirable. Taste any of these products before using as there is considerable difference in taste and desirability among brands.

Many bottled and canned juices are not pure. Read the label carefully to ensure you're getting pure juice with no sugar added. A number of interesting juice combinations are now on the market. Apple-pear would be an excellent choice for freezing grapefruit and/or fresh pineapple. Keep watching to see what new combinations are introduced that might be good to use.

Roasted Red Pepper Spread

The roasted vegetables in this spread have a wonderful robust flavor that can be enjoyed on toasted crusty breads. Use it instead of tomatoes to make your favorite bruschetta.

Source: Fresh Preserving.com, 2018

Yield: Makes about 5 (8 oz) half pints

Ingredients:

6 pounds red bell peppers (about 14 medium)	1 small white onion
1 pound Italian plum tomatoes (about 5 medium)	$\frac{3}{4}$ cup red wine vinegar
2 cloves garlic, unpeeled	2 tablespoons finely chopped fresh basil
	1 tablespoon sugar
	1 teaspoon salt

Procedure:

1. ROAST red peppers, tomatoes, garlic and onion under a broiler or on a grill at 425°F, turning to roast all sides, until tomatoes and peppers are blistered, blackened and softened and garlic and onion are blackened in spots. Remove from heat.
2. PLACE pepper and tomatoes in paper bags, secure opening and let cool about 15 minutes. Allow garlic and onion to cool. Peel garlic and onion. Finely chop garlic. Set aside. Finely chop onion, measuring 1/4 cup. Set aside. Peel and seed peppers and tomatoes. Place peppers and tomatoes in a food processor or blender, working in batches, and process until smooth.
3. PREPARE boiling water canner. Heat jars in simmering water until ready for use. Do not boil. Wash lids in warm soapy water and set bands aside.
4. COMBINE pepper and tomato puree, garlic, onion, vinegar, basil, sugar and salt in a large saucepan. Bring to a boil. Reduce heat and simmer until mixture thickens and mounds on a spoon, about 20 minutes.
5. LADLE hot spread into hot jars leaving 1/2 inch headspace. Wipe rim. Center hot lid on jar. Apply band and adjust until fit is fingertip tight.
6. PROCESS in a boiling water or atmospheric steam canner for 15 minutes. Remove jars and cool. Check lids for seal after 24 hours.

Note: If you are at an altitude higher than 1,000 feet, adjust the processing time for the boiling water or steam canner according to the chart below.

Altitude in feet	1,000 – 3,000	3,001 – 6,000	6,001 – 8,000	8,001 – 10,000
Increase processing time	+5 minutes	+10 minutes	+15 minutes	+20 minutes

Freezer Lemon Curd

Yield: 1-1/2 cups; may be doubled

Ingredients:

3/4 cup sugar
1 tablespoon lemon zest
2 large eggs
2/3 cup fresh lemon juice, 3 to 4 lemons
2 tablespoons cold, unsalted butter

Procedure:

1. Wash freezer container(s) with warm, soapy water. Rinse well and dry. Keep covered or upside down on clean surface to prevent contamination while you make your lemon curd.
2. Combine first three ingredients in a saucepan over medium heat, stirring with a whisk. Cook until sugar dissolves and mixture is light in color, about 3 minutes.
3. Stir in lemon juice and butter, cook for 5 minutes or until mixture thinly coats the back of a spoon.
4. Cool, cover and chill. Mixture will thicken as it cools.
5. Store in refrigerator for up to one week or freeze for up to six months.

Note: May also be made using limes instead of lemons.

Applesauce

Source: National Center for Home Food Preservation (nchfp.uga.edu), 2018

Quantity: An average of 21 pounds is needed per canner load of 7 quarts; an average of 13½ pounds is needed per canner load of 9 pints. 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 to each 3 pounds of sweeter fruit.

Procedure:

1. Wash, peel, and core apples. If desired, slice apples into water containing ascorbic acid to prevent browning.
2. Placed drained slices in an 8- to 10- quart pot. Add ½ cup water.
3. Stirring occasionally to prevent burning, heat quickly until tender (5 to 20 minutes, depending on maturity and variety).
4. Press through a sieve or food mill, or skip the pressing step if you prefer chunk-style sauce.
5. Sauce may be packed without sugar. If desired, add 1/8 cup sugar per quart of sauce. Taste and add more, if preferred.
6. Reheat sauce to boiling. Fill jars with hot sauce, leaving ½-inch headspace. Adjust lids and process.
7. Processing in a boiling-water or atmospheric steam canner according to the table below.

		Applesauce Process Time at Altitudes of			
Style of Pack	Jar Size	0 - 1,000 ft	1,001 -3,000 ft	3,001 -6,000 ft	Above 6,000 ft
Hot	Pints	15 min	20 min	20 min	25 min
	Quarts	20 min	25 min	30 min	35 min

Balsamic-Fig Jam

Source: Preserving with Pomona Pectin, 2013

Yield: 4 to 5 half-pint jars

Ingredients:

2 1/4 pounds figs*
 1 cup water
 1/2 cup balsamic vinegar
 1/4 teaspoon cayenne pepper
 1/4 cup lemon juice
 4 teaspoons calcium water**
 1 1/2 cups sugar
 3 teaspoons Pomona's pectin powder

Procedure:

1. Prepare your jars, lids, and bands; heat up your canner; and sterilize your jars.
2. Rinse figs, remove stems, and finely chop.
 1. Combine chopped figs in saucepan with the 1 cup water. Bring to a boil over high heat, reduce heat, and then simmer, covered, for 5 to 10 minutes, or until fruit is soft, stirring occasionally.
 2. Remove from heat and mash the figs.
 3. Measure 4 cups of the mashed figs (saving any extra for another use), and return the measured quantity to the saucepan. Add balsamic vinegar, cayenne pepper, lemon juice, and calcium water and mix well.
 4. In a separate bowl, combine sugar and pectin powder. Mix thoroughly and set aside.
 5. Bring fig mixture back to a full boil over high heat. Slowly add pectin-sugar mixture, stirring constantly. Continue to stir vigorously for 1 to 2 minutes to dissolve pectin while the jam comes back up to a boil. Once the jam returns to a full boil, remove it from the heat.
 6. Remove jars from canner and ladle jam into hot jars, leaving 1/4 inch of headspace. Remove trapped air bubbles, wipe rims with a damp cloth, put on lids and screw bands, and tighten to fingertip tight.
 7. Process in a boiling water or atmospheric steam canner for 10 minutes.

Note: If you are at an altitude higher than 1,000 feet, adjust the processing time for the boiling water or steam canner according to the chart below.

Altitude in feet	1,000 – 3,000	3,001 – 6,000	6,001 – 8,000	8,001 – 10,000
Increase processing time	+5 minutes	+10 minutes	+15 minutes	+20 minutes

How To Substitute Splenda Granular For Sugar In Your Own Recipe

Source: www.splenda.com

Confections

In recipes where the amount of sugar is quite high, sugar often Frosting, candy, fudge, caramel, pecan pies, angel food or pound cake:

For best results, only replace about 25% of the sugar required with SPLENDA® Granulated instead of a full sugar replacement. Contributes significantly to structure and texture.

Volume / Height

You may notice a smaller yield when substituting SPLENDA® Granulated for sugar. In some cases, cakes and quick breads will not rise as high as their full-sugar counterparts, but they will still taste delicious!

Creaming

When creaming butter or margarine with SPLENDA® Granulated, your mixture will appear less smooth than with sugar, and may separate upon the addition of eggs. This is normal and you should continue following the recipe instructions.

Texture

Sugar can play an important role in texture. Cookies often rely on brown sugar for their chewy, crunchy texture. Therefore, replace only the white granulated sugar in your cookie recipes. In jams, jellies, puddings, custards, sugar lends a thickening quality. With SPLENDA® Granular, these recipes may be slightly thinner or soft set.

Flavor

You may wish to enhance the flavor in cookies, puddings, and custards by adding an additional ½ teaspoon of vanilla extract per cup of SPLENDA® Granular.

Moistness

Sugar helps keep baked goods moist. In muffins, and quick breads, the addition of 1-2 tablespoons of honey and molasses will provide moistness as well as flavor.

Yeast Activation

SPLENDA® Granular will not activate yeast. Maintain at least 2 Teaspoons of sugar in recipes calling for yeast and replace the remaining sugar with SPLENDA® Granular.

Spread cookies often rely on sugar to spread. If you substitute all the sugar for SPLENDA® Granular in your cookie recipe, you may need to flatten your cookies before baking.

Browning

Baked goods made with little or no sugar do not brown like recipes made with sugar. To help achieve a more golden brown color when baking with SPLENDA® Granular, lightly spray the batter or dough with cooking spray just before placing in the oven.

Bake Time

Recipes made with SPLENDA® Granular may bake more quickly than those made with sugar. Check baked goods for doneness a bit earlier than the original recipe states.

- Cakes: check 7-10 minutes before stated bake time
- Cookies, Brownies and Quick Breads: check 3-5 minutes before stated bake time

Storage

Baked goods made with SPLENDA® Granular will stay fresh for 24 hours, when stored in an airtight container at room temperature. **If you wish to keep your baked goods longer, wrap well and freeze. Consult a sugarless canning cookbook for instructions on sugarless canning.**

In recipes where the amount of sugar is quite high, sugar often contributes significantly to structure and texture. Therefore in recipes, such as frosting, candy, fudge, caramel, pecan pies and angel food or pound cakes, complete substitution of SPLENDA® Granular for all of the sweeteners may not yield the best results. In these recipes, you may wish to replace only 25% of the sugar by creating a blend of sugar with SPLENDA® Granular instead of full sweetener replacement.

Using Pomona Universal Pectin

Pomona pectin, which is a 100% citrus pectin, can be used when canning with artificial sweeteners, honey or low sugar. It uses calcium instead of sugar to produce the jell. The complete directions are in the box; please read the directions thoroughly to understand the process.

Before you start jamming:

MAKE CALCIUM WATER.

1. There are 2 packets in the box. The larger packet is the pectin, the smaller packet is the Calcium (Monocalcium Phosphate). **It helps the pectin jell.**
2. Put 1/2 teaspoon calcium powder (from the smaller packet) and 1/2 cup water in a little jar with a lid.
3. Store in refrigerator between uses. Lasts several months.
4. Shake well before using.

Freezer Mango Butter with Ginger and Lime

Source: Jams & Jellies/by Lou Seibert Pappas

Yield: 3 cups

Ingredients:

2 large mangoes (about 3 lbs), peeled, cut from pit, and coarsely chopped
1/3 cup fresh lime juice
1/3 cup crystallized ginger, thinly sliced
2 tablespoons honey
Ground nutmeg to taste (optional)

Procedure:

1. Preheat oven to 300°F.
2. Puree mangoes in blender or food processor with the honey, lime juice, and crystallized ginger.
3. Place in glass or ceramic baking dish and bake, stirring 2-3 times, for 1 to 1 1/4 hours or until reduced by half and thickened. If desired, season with nutmeg.
4. Ladle butter into hot sterilized jars and seal.
5. Let cool, label, and refrigerate for up to 2 weeks or freeze for up to one year.

Note: *Crystallized ginger and lime juice heighten the flavor of this golden spread. It particularly enhances toasted English muffins, scones, and pecan or macadamia nut waffles or pancakes.*

Dehydrated Pineapple Rings With Sugar-Free Jello

Source: The Dehydrator Bible, 2015

Ingredients:

Canned or fresh pineapple rings
Sugar free jello

Supplies:

Wax Paper
Paper Towels

Procedure:

1. Drain pineapple rings in a strainer. Keep the juice and freeze for a later use.
2. Lay wax paper down on a flat surface. Put the pineapple rings down in rows touching each other.
3. Using a paper towel, blot the slices.
4. Fill a spice jar that has holes in the lid with the dry jello. Sprinkle the jello lightly on the pineapples slices.
5. Turn pineapple slices over and blot that side. Sprinkle jello lightly on that side also. Put the slices on a dehydrator tray. Twenty five will fit on each tray close together.
6. Put the light colored jello pineapple on the top trays in the dehydrator so if they drip when drying it won't show up so much on the darker jello trays.
7. Dry at 160°F for 1-2 hours and then 130°F until dry.
8. Check after 4 hours. Take a tray out and let it cool and try to peel up an edge of the pineapple. If you can peel it up, then turn them over and continue drying till flexible but not sticky. Otherwise dry some more.
9. Should be flexible and not sticky when done. Store rings in a ziplock bag.

Canning Apples

Source: So Easy to Preserve, Cooperative Extension the University of Georgia, 2015

Ingredients: Select Apples that are juicy, crisp and preferably both sweet and tart.

Procedure:

1. HOT PACK - Make a very light, light or medium syrup or can the apples in water.
2. Wash peel, core and slice apples into 1/2 inch wedges.
3. To prevent darkening: After they are cut or peeled, light colored fruits such as apples, pears and peaches will begin to turn dark. Also the stem ends may darken after cherries are pitted or after grapes are removed from the stem. To prevent this, as you prepare the fruit for canning, place it in a holding solution made from one of the following:
 - One teaspoon or 3000 mg ascorbic acid (Vitamin C) and 1 gallon water. If using tablets, crush thoroughly before adding the water.
 - Commercial ascorbic acid mixture. Read the label for the amount to use.
 - Hold the fruit in one of these solutions until ready to pack. Drain the fruit well.
4. In a saucepan, add one pint water or syrup per five pounds of sliced apples. Boil five minutes, stirring occasionally. Fill jars with hot slices and hot syrup or water, leaving 1/2 inch headspace. Remove air bubbles. Wipe jar rims. Adjust lids.
5. Process pints and quarts in a boiling water or atmospheric steam canner for 20 minutes. At altitudes higher than 1,000 feet, adjust the processing time.

Altitude in feet	1,000 – 3,000	3,001 – 6,000	6,001 – 8,000	8,001 – 10,000
Increase processing time	+5 minutes	+10 minutes	+15 minutes	+20 minutes

Fruit Butters

Source: Ball Complete Book of Home Preserving, 2012

Fruit butters are smooth, creamy spreads. They are made by slowly cooking fruit pulp and sugar to a thick but spreadable consistency. Spices or a second fruit are often added to enhance the flavor. Among their many uses, these soft spreads make an excellent filling for layer cakes and sandwich cookies. Fruit butters can also be substituted for some of the fat in many baking recipes to produce delicious baked goods that are lower in fat.

Cooking Butters: Butters are cooked over medium to medium-high heat. To prevent scorching, stir butters frequently, especially as they thicken and reach the doneness point. Cooling times will vary depending on the diameter of the saucepan, the type of fruit and the intensity of the heat. Most butters will need 30 to 60 minutes of cooking time. Butters cook best in a wide diameter, heavy-bottomed stain- less steel saucepan. The extended cooking time evaporates moisture, thickening the fruit mixture and creating a spreadable buttery texture.

Testing Fruit Butters for doneness: Butters are cooked until they thicken and begin to hold their shape on a spoon. To assess done- ness, spoon a small quantity of cooked mixture onto a chilled plate. When liquid does not separate, creating a rim around the edge, the mixture holds a buttery, spreadable shape, the butter is ready to ladle into jars and process.

Light Apple Jam with Splenda

If you're a fan of apple pie you'll love this luscious sugar free apple jam. Serve it on bread or use it more creatively in mini-tarts or as a dessert topping. You're certain to receive rave reviews!

Source: freshpreserving.com, 2018

Yield: about 6 (8 oz) half-pints

Ingredients:

6 cups peeled, chopped Granny Smith apples or other tart apples (about 6 medium)
 Juice and grated zest of 1 medium lemon
 2 cups unsweetened apple juice
 3/4 cup raisins
 1 teaspoon ground cinnamon
 3 tablespoons Ball® RealFruit™ Low or No-sugar Needed Pectin
 1-1/2 cups sugar or SPLENDA® No Calorie Sweetener, Granular

Procedure:

1. PREPARE boiling water canner. Heat jars in simmering water until ready for use. Do not boil. Wash lids in warm soapy water and set bands aside
1. COMBINE apples, lemon peel and juice in a large saucepan. Bring to a boil. Reduce heat and simmer until apples begin to soften. Remove from heat and whisk in pectin. Add raisins and cinnamon. Return mixture to a boil. Boil 5 minutes. Add sugar or sweetener. Return mixture to a boil that cannot be stirred down. Boil hard for 1 minute, stirring constantly. Remove from heat. Skim foam, if necessary.
2. LADLE hot jam into hot jars leaving 1/4 inch headspace. Wipe rim. Center lid on jar. Apply band until fit is fingertip tight.
3. PROCESS in a boiling water or atmospheric steam canner for 10 minutes, adjusting for altitude. Turn off heat and remove cover. Let jars cool 5 minutes. Remove jars from canner; do not retighten bands if loose. Cool 12 hours. Check seals. Label and store jars.

Note: If you are at an altitude higher than 1,000 feet, adjust the processing time for the boiling water or steam canner according to the chart below.

Altitude in feet	1,000 – 3,000	3,001 – 6,000	6,001 – 8,000	8,001 – 10,000
Increase processing time	+5 minutes	+10 minutes	+15 minutes	+20 minutes

Lemon Prune Honey Butter

Lift your spirits from winter's doldrums by rekindling the joys of preserving. Made from ingredients that are available year-round, this tasty butter, like all those made from dried fruit, cooks relatively quickly. However, before you begin cooking, the dried fruit must be rehydrated and pureed. (Step 1)

Source: Ball Complete Book of Home Preservation, 2012

Yield: About three 8-ounce jars

Ingredients:

3 cups pitted prunes
 Grated zest and juice of 2 lemons
 1/2 teaspoon ground cinnamon
 1/4 teaspoon ground allspice
 1 1/4 cups water, divided
 2/3 cup liquid honey
 1/4 teaspoon ground cloves
 1/4 teaspoon ground nutmeg
 2 tablespoons brandy (optional)

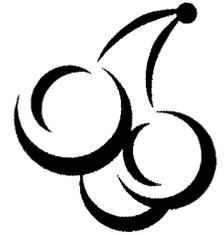
Procedure:

1. In a large stainless steel saucepan, combine prunes, 1 cup of the water and lemon zest and juice. Stir well, bring to a boil over medium-high heat. Reduce heat, cover and boil gently stirring occasionally, until prunes are soft, about 15 minutes.
2. Working in batches, transfer puree mixture to a food mill or a food processor fitted with a metal blade and puree just until a uniform texture is achieved. Do not liquefy.
3. Meanwhile prepare canner, jars and lids.
4. In a clean large stainless steel saucepan, combine prune puree, remaining 1/4 cup water, honey, cinnamon, cloves, allspice and nutmeg. Stir well. Bring to a boil over high heat. Stir in brandy, if using, and remove from heat.
5. Ladle hot butter into hot jars, leaving 1/4 inch headspace. Remove air bubbles and adjust head- space, if necessary by adding hot butter. Wipe rim. Center lid on jar. Screw band down until resistance is met, then increase to fingertip-tight.
6. Process jars in a boiling water or atmospheric steam canner for 10 minutes. If you are at an altitude higher than 1,000 feet, adjust the processing time for the boiling water or steam canner according to the chart below.

Altitude in feet	1,000 – 3,000	3,001 – 6,000	6,001 – 8,000	8,001 – 10,000
Increase processing time	+5 minutes	+10 minutes	+15 minutes	+20 minutes

TIP: As butter thickens, stir frequently to prevent sticking or scorching.

Sweet Cherry Jam



Source: Universal Pectin Insert

Yield: 4 cups

Ingredients:

3 cups pitted mashed sweet cherries (For firm fruit, simmer with a little water.)
¼ cup lemon or lime juice
1 cup concentrated juice (apple or white grape)
3 teaspoons pectin powder
4 teaspoons calcium water

Procedure:

1. **Sterilize canning jars:** Put them right side up on the rack in a boiling-water canner. Fill the canner and jars with hot (not boiling) water to 1 inch above the tops of the jars. Boil 10 minutes at altitudes of less than 1,000 ft. At higher elevations, boil 1 additional minute for each additional 1,000 ft. elevation. Remove and drain hot sterilized jars one at a time.
2. **Make calcium water:** mix ½ teaspoon white calcium powder with ½ cup of water in a small clear jar with lid. Shake well. Store unused calcium water in the refrigerator.
3. Measure fruit into pan with lemon juice. Add calcium water, stir well.
4. In a separate pot, boil concentrated juice. Put hot juice in a blender or food processor. Add pectin powder. Blend 1-2 minutes until all powder is dissolved.
5. Bring mashed cherries to a boil. Add blended pectin-concentrate mixture. Stir one minute while mixture returns to a full boil. Remove from heat.
6. Fill **sterilized** jars to 1/2" of top. Wipe rims clean. Screw on 2-piece lids. Process in a boiling water or atmospheric steam canner for 5 minutes. (Add 1 minute more for every 1,000 feet above sea level.)
7. Product lasts about 3 weeks once opened.

Notes:

- Pectin completes its jell when thoroughly cool. Color changes over time do not affect flavor or quality.
- If not using sterilized jars, process for 10 minutes, adding 1 minute for every 1,000 feet above sea level.

No Sugar Blackberry Jam

Source: Sure-Jell Pectin Insert, 2018

Yield: About 3 cups

Ingredients:

3 cups crushed blackberries (about 6 cups whole)
 1 box Sure-Jell Pectin for Less or No Sugar (the pink box)
 $\frac{3}{4}$ cup water
 $\frac{1}{2}$ cup SPENDA® No Calorie Sweetener (12 packets)

Procedure:

1. Place prepared fruit in a large saucepan. Stir in $\frac{3}{4}$ cup water and pectin.
2. Bring mixture to a full rolling boil (a boil that doesn't stop bubbling when stirred) on high heat, stirring constantly.
3. Boil exactly 1 minute, stirring constantly.
4. Remove from heat. Stir in SPLENDA. Skim off any foam with metal spoon.
5. Ladle immediately into hot, prepared jars, leaving $\frac{1}{4}$ inch headspace.
6. Process jars in a boiling water or atmospheric steam canner for 10 minutes. If you are at an altitude higher than 1,000 feet, adjust the processing time for the boiling water or steam canner according to the chart below.

Altitude in feet	1,000 – 3,000	3,001 – 6,000	6,001 – 8,000	8,001 – 10,000
Increase processing time	+5 minutes	+10 minutes	+15 minutes	+20 minutes

Note: For a sweeter jam with a firmer set, prepare as directed substituting 1 thawed 12-ounce can of frozen white grape juice concentrate or 1 thawed 12-ounce can of frozen apple juice concentrate for the $\frac{3}{4}$ cup water. The yield will increase to 4 cups.