



FOOD PRESERVATION

WITH REDUCED OR NO SALT OR SUGAR



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Many want to reduce or eliminate their salt and sugar intake. Preserving food at home is one way to accomplish this, whether by personal choice for less sweetness, desire for reduced calories, or due to individual dietary restrictions.

The three scientifically tested and approved canning methods for home food preservation are pressure canning, boiling water canning and atmospheric steam canning. It is advised to use current research-based tested recipes and the recommended processing method.

It is essential to know your local altitude or elevation when home canning foods. Water will boil at temperatures below 212°F at altitudes greater than 1,000 feet above sea level. The lower temperatures are less effective for killing bacteria. Canning recipe directions are written for sea level. To adjust recipes for high-altitude canning, use these two basic concepts:

- For boiling water canning, higher altitudes require adding processing time.
- For pressure canning, high altitudes require increased pressure.

Follow these guidelines for a safe product.

SALT

Except for cured or smoked foods and most pickled products, salt is not necessary to safely process home-canned or frozen fruits and vegetables. It is primarily added for flavor. However, its addition does help retain the natural color and texture of the canned product.

To can or freeze foods without salt, follow research-based tested recipes for canning and freezing directions and omit the salt. To improve saltless vegetables' flavor, add ½ to 1 tablespoon of lemon or orange juice to each pint of asparagus, beets or carrots. Dried herbs and spices may sparingly be added. It is not recommended to can foods with powdered herbs and spices because the liquid will turn cloudy.

Salt substitutes are not recommended in canning. They may contain additives that react with the foods,

impart off flavors or colors, or give brines a cloudy appearance. Wait to add a salt substitute until serving the product.

Salt is needed for the safe preservation of brined fermented pickles and cured and smoked foods. Do not alter the salt content in these recipes. The salt in fermented pickles and sauerkraut should never be reduced. It controls bacterial growth during fermentation.

Reduced sodium salts may be used in quick-process (fresh pack) pickle recipes. The pickles may have a slightly different taste. A few low sodium, high vinegar, fresh pack pickle recipes have been developed. Any fresh pack pickle recipe that calls for as much or more vinegar than water and provides a finished product with at least ¼ cup of 5 percent acidity vinegar per pint jar of pickled products can be safely made without salt. **Caution:** The use of reduced sodium salt in fermented pickle recipes is not recommended. When making reduced sodium pickles, do not use the low-temperature pasteurization method of processing.



Sweet pickles generally taste better without salt than dill pickles. If salt is omitted from fresh pack dill pickles, try adding garlic, herbs, and/or hot peppers to the recipe. Dill pickles taste better if as little as 0.5 percent salt by weight of entire contents is added. This is the equivalent of ½ to ¾ teaspoon of salt per pint jar of pickles.

Use the tested recipes included in this publication for making successful reduced sodium or salt-free pickles.

SUGAR

All fruits can be safely canned or frozen without sugar. The amount of sugar added to canned fruit can be reduced, omitted, or any level between. Added sugar does not act as a preservative in canned or frozen fruit; the exception is jams and jellies. Fruits may be canned safely without sugar, and no adjustments need to be made in the processing time. The absence of sugar may result in softer texture, less flavor, and loss of color in fruit.

Select fully ripe, firm fruit for optimum flavor and texture. Use the hot pack method in canning to get additional natural liquid and flavor from the fruit.

Water may be used as the packing liquid. Fruits may also be canned in unsweetened fruit juices to replace sugar syrup and add natural sweetness. Pick fruit juices with flavor and color that will complement the fruit you are canning. Juices to use include apple, cranberry, grape, orange, pineapple, and white grape. Either frozen or canned juices can be used. They can be diluted with water to achieve the sweetness you desire.

Cook a few pieces of the fruit in the canning liquid. Cool and taste. Adjust sweetness if desired. This will give you an indication of what the canned fruit will taste like after processing.

All canned fruits must be processed to be safe. Processing times should include the addition of the altitude adjustment.

Sugar is not added to most canned vegetables; however, a few recipes, such as stewed tomatoes, tomato catsup, relishes, and sweet pickles require

sugar. Canning vegetables requires the use of a pressure canner.

Non-nutritive sweeteners

Non-nutritive sweeteners (also called sugar substitutes or artificial sweeteners) contain few or no calories or nutrients.

- Acesulfame potassium or Ace-K (Sunette® and Sweet One®) is heat stable and can be heat processed.
- Aspartame (Equal®, or NutraSweet®, and Sugar Twin®) loses its sweetness when heated.
- Saccharin (Equal Saccharin®, Necta Sweet®, Sweet Twin®, and Sweet'N Low®) may develop bitterness and off flavors when used in canning.
- Stevia (PureVia®, Sun Crystals®, SweetLeaf®, Truvia®) is stable to heat and could be used for canning fruit and other products where sugar is not critical to food safety or texture. Stevia can only be used in jams and jellies when used with no sugar needed pectin (low-methoxyl pectin).
- Sucralose (Equal Sucralose®, NatraTaste Gold®, and Splenda®) is not affected by heat and can be used in canning. Sucralose can only be used in jams and jellies when used with no sugar needed pectin (low-methoxyl pectin).

The best results are generally achieved by adding a non-nutritive sweetener at the time of eating if a sweetened product is desired. Many individuals prefer hot packed fruit canned with the addition of no sweetener. Use research-based tested recipes when making products using non-nutritive sweeteners.

Non-nutritive sweeteners may be used when freezing fruits; however, they will not provide the beneficial effects of sugar. An alternative is to add non-nutritive sweeteners to the fruit just before serving. Use directions on the sugar substitute container to determine the amount of sweetener needed.

No or low sugar fruit spreads

When the amount of sugar is reduced in a recipe, it can compromise that preserve's shelf life, yield, and gel ability. Fruit spreads with higher amounts of sugar hold their quality longer than lower sugar fruit



spreads. You can often reduce the sugar a little bit, but if you do, you may need to cook it longer so the proper concentration can be reached. Reduced sugar and longer cooking can reduce the yield of the product.

Sugar promotes gel formation in jams, jellies, and preserves. The correct proportions of fruit, pectin, acid, and sugar are essential for gelling. Unless specific recipes and pectin products are used, reducing or eliminating sugar when making fruit spreads can result in failure. Fruit spreads made with no and low sugar will not have the normal gel formation. These fruit spread recipes produce a softer, thickened product resembling a gelatin dessert or may even be runny, like syrup, without sufficient sugar. Unflavored gelatin or special commercial pectin may be used to give body and firmness to the gelled product when sugar is reduced or omitted.

The amount of sugar used in making fruit spreads can be reduced or eliminated by using special pectins. These are either pectin substitutes or low-methoxyl pectins, which do not require sugar for gelling. You will find that the more sugar that is added, the firmer the gel will be. A little experimentation might be necessary to find a preferred fruit spread recipe.

When using special pectins, you can add concentrated apple juice as part of the fruit for a natural sweetener. Use about 1 cup of concentrated frozen apple juice for every 3 cups of fruit juice or pulp.

Since sugar acts as a preservative in fruit spreads, storage quality is impacted if sugar is reduced. Recipes will specify processing in a boiling water canner or storing it in a refrigerator/freezer. Most low sugar fruit spreads must be processed in a boiling water canner for 10 minutes plus altitude adjustment or frozen for extended storage. After opening, refrigerate to prevent mold growth. If the fruit spread is not boiling water processed, it must be stored in the refrigerator or

freezer. Non-processed refrigerated spreads should be used within four weeks.

Pectin and gelling agents

Pectin is a carbohydrate (starch) found in fruit that enables it to gel. Some fruits contain enough natural pectin to form a gel; others require added pectin.

Regular pectins require sugar to gel. They need at least ½ cup of sugar per 1 cup of fruit. Commercial fruit pectin made from apples or citrus fruit is available in powder and liquid form. Powdered and liquid pectin are not interchangeable in recipes. Liquid pectin is not rehydrated dry pectin.

- Powdered pectin is added to the unheated fruit or juice, which is then cooked; the sugar is added at the end of the process.
- Liquid pectin is added after the sugar is added at the end of the jam-making process.

Low-methoxyl pectin needs little or no sugar to gel. Sometimes it is used with calcium. This type of pectin is labeled “light/lite,” “less sugar,” “low/lower sugar,” or “no sugar needed.”

Gelatin can be used to prepare no sugar jams and jellies. Sweet spreads made with gelatin must be refrigerated and should be used within four weeks. Do not freeze or use boiling water process spreads with gelatin. The gelatin will disintegrate when frozen and heating it will weaken its gelling ability.

Use the tested recipes included in this publication for making successful no and low sugar fruit spreads.

BOILING WATER CANNING BASICS

A lower temperature canning process, such as boiling water canning, is ideal for high acid foods and recipes that incorporate the correct measure of acid. The combination of time and temperature destroys mold, yeast, and enzymes that cause spoilage while creating a vacuum seal. This process is recommended for produce and recipes, including:

- Fruits and fruit juices
- Jams and jellies

- Salsas
- Tomatoes
- Pickles and relishes
- Chutneys, sauces, pie fillings
- Vinegars
- Condiments

Recipes

Recipes published prior to 2015 should be checked against a current reliable resource for safety. Not all recipes found on the web or in other publications are scientifically tested. Following are a list of trusted resources that the University of Wyoming Extension recommends for safe home food preservation:

Books

- *Ball Blue Book Guide to Preserving*, 37th edition, 2020.
- *Ball Canning Back to Basics*, 2017.
- *Ball Complete Book of Home Preserving*, New and Updated, 2020.
- *The All New Ball Book of Canning and Preserving*, 2016.
- *Complete Guide to Home Canning*, 2015 revision, USDA Bulletin No. 539, <http://nchfp.uga.edu/index.html>
- *So Easy to Preserve*, 6th Edition, 2020. University of Georgia Cooperative Extension.

Websites

- Ball and Kerr at www.freshpreserving.com
- National Center for Home Food Preservation at www.uga.edu/nchfp
- University of Wyoming Extension Nutrition & Food Safety Website at <https://bit.ly/NFS-Food-Preservation>

Always use tested recipes from reliable current sources and strictly follow the recipe. Don't alter ingredients. Alterations can compromise food safety.

Read the recipe thoroughly before you start canning. Follow guidelines for preparation, jar size, preserving method, and processing time. Set aside enough time to prepare and process the recipe without interruption.

Canner

It is not necessary to purchase specific cookware for boiling water canning. A large, deep saucepot equipped with a lid and a rack works well. As long as it is large enough to fully immerse the jars in water by 1 to 2 inches and allows the water to boil rapidly when the pot is covered, the pot is adequate. If you don't have a rack designed for home preserving, use extra bands tied together to cover the pot's bottom.

Fill boiling water canner at least half full with water. Cover and maintain a simmer or 180°F until jars are filled and placed in the canner. Ensure the hot water covers the jars by 1 to 2 inches.

Check and clean jars

Use glass jars explicitly made for home canning. Jars can be reused many times. Jar sizes include jelly jar (4 oz.), half-pint (8 oz.), three-quarters pint (12 oz.), pint (16 oz.), pint and a half (24 oz.), quart (32 oz.), and half-gallon (64 oz.) with a regular or wide mouth. The standard jar mouth opening is about 2 $\frac{3}{8}$ inches. Wide-mouth jars have openings of about 3 inches, making them more easily filled and emptied. Use the size of the jar recommended in the recipe. Check the jars' rims for nicks, chips, or cracks because those can affect the seal or cause jar breakage. If damaged, set these jars aside for non-canning uses.



Before every use, wash empty jars in hot water with detergent and rinse well by hand, or wash in a dishwasher. Unrinsed detergents may cause unnatural flavors and colors. These washing methods do not sterilize jars. Scale or hard-water films on jars are easily removed by soaking jars for several hours in a solution containing 1 cup of vinegar (5 percent acidity) per gallon of water.

Jar sterilization

Sterilize empty jars used for any canning recipe that is processed less than 10 minutes. To sterilize 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 feet. At higher elevations, boil one additional minute for each additional 1,000 feet elevation. Remove and drain hot sterilized jars one at a time. Save the hot water for processing filled jars.

Lid selection, preparation, and use

The United States Department of Agriculture (USDA) recommends using the two-piece lids manufactured for canning. The USDA does not recommend reusable canning lids or one-piece twist-top lids at this time. The standard self-sealing lid (also called ‘flat’) consists of a flat metal lid held in place by a metal ring band during processing. Canning lids come in two sizes, regular and wide mouth, to match the jars. According to the Jarden (Newell Brands) Company, manufacturer of Ball products, their unused lids have a storage life of five years beyond purchase from a reputable retailer. Although there are often no dates on the lid box, use the oldest lids first.

Lids can only be used one time for canning. Lids should not be used a second time since the sealing compound becomes indented by the first use, preventing another airtight seal. Examine lids to ensure they are not scratched, have even and complete compound, and have not been used previously for canning. Do not use old, dented, or deformed lids, or lids with gaps or other defects in the sealing gasket.

Previously used canning lids can be used to top jars of freezer foods, homemade mixes, dried goods, and

other non-canned foods. As long as the lids aren’t rusty, they are fine to use again and again for any purpose that does not involve canning.

To ensure a good seal, carefully follow the manufacturer’s directions in preparing lids for use. Most manufacturers do not recommend heating the lids as was done in the past.

Ring bands should be easy to adjust on the jar, without any signs of warping or corrosion. Bands can be reused many times unless they are badly rusted or damaged.

Wash lids and bands in warm soapy water. Rinse well. Dry the lids and bands; set aside.

Preheat jars

Jars must be preheated and kept hot until they are used. To preheat jars, completely submerge them in water that has been brought to a simmer, or about 180°F. They should remain at this temperature until they are used, removing one at a time as needed.

Packing

There are two different methods for packing jars: hot and raw packs. In raw packing, uncooked food is packed into canning jars and covered with boiling liquid. In hot packing, food is partially cooked, packed into jars, and covered with cooking liquid.

A wide-mouth canning funnel placed on a jar helps help keep jar rims clean by allowing food items to pass into jars without spilling. Use a long-handled ladle with a pouring spout when filling canning jars.

Headspace

Headspace is the space in the jar between the food or liquid and the jar’s rim. Each recipe will specify the correct headspace to use. Too little or too much space can prevent the lid from sealing.

Removing air bubbles

Once you have packed the food into the jar, you need to remove any air bubbles. Using a nonmetallic utensil or bubble remover and headspace tool, slide it in between the food and the side of the jar. Gently

press into the food to release the bubbles to the top or move the spatula up and down to allow air bubbles to escape. Repeat this process, working your way around the jar.

Clean jar rims

Wipe the rim and threads of the jar using a clean, damp cloth to remove any food residue. Any food residue remaining on the jar rim, such as grease, juice, seeds, or pulp can prevent the formation of an airtight seal.

Lids and bands

Center the lid on the jar, allowing the sealing compound to contact the jar rim. Apply band and adjust until fit is fingertip tight. Turn the band just until you feel resistance, then turn it one-quarter turn more. Do not use force or use jar tighteners when applying two-piece lids.

Lids are made to release pressure by venting air from the jar during processing and cooling. If the ring band is too tight, air cannot escape. Air must be able to escape from the jar during processing. If air cannot escape, pressure build-up can buckle lids. Buckled lids may not seal properly. In addition, hot air needs to escape the jar to create a vacuum when the jar cools. To prevent buckled lids, always process foods using up-to-date guidelines; prepare lids according to manufacturer's instructions; and apply bands just until a point of resistance is met to fingertip tight.

A jar lifter tool helps lift hot jars into and out of hot water in the canner. These specialized tongs fit around the base of the canning jar rims to safely grasp jars.

Processing and altitude adjustment

Place the filled jars into the canning rack, resting on the edge of the canner. Carefully lower the rack into the canner. The water should cover the jars by 1 to 2 inches. Add more boiling water if needed.

Place the lid on the canner and bring the water to a rolling boil. You will start timing or processing, according to the recipe, once the water is boiling. Keep the water at a rolling boil for the entire processing time. When the timer rings, turn off the heat, remove the lid, and let the canner cool for five minutes before removing the hot jars.

If you choose to process a recipe in a jar smaller than a quart but larger than a pint, follow the processing time given for quarts. If your jar selection is smaller than a pint, follow the processing time given for pints. Jams, jellies, and other soft spreads canned in 4-ounce, 8-ounce, and 12-ounce jars use the same processing time as stated for an 8-ounce jar.

As altitude increases, water boils at lower temperatures. Because the lower temperatures are less effective for killing bacteria, the processing time must be increased for boiling water canning.

In Wyoming, community altitudes range in elevation from over 3,500 feet to 7,200 feet above sea level. If you are canning at higher altitudes, use the processing times given with food products from the USDA *Complete Guide to Home Canning* or follow the Ball® altitude adjustments listed in the chart below.

Altitude Adjustments for Boiling Water Canning	
Altitude in Feet	Increase in Processing Time
1,001 to 3,000	5 minutes
3,001 to 6,000	10 minutes
6,001 to 8,000	15 minutes
8,001 to 10,000	20 minutes

According to Colorado State University (CSU) Extension, for more precise boiling water canning times, use the following procedures:

- *If processing is 20 minutes or less*, increase the processing time by one minute per 1,000 feet above sea level.

- *If processing is greater than 20 minutes*, increase the processing time by two minutes per 1,000 feet above sea level.

Cooling jars

Using a jar lifter, remove the hot jars from the canner to a cooling rack, towel or cutting board. Allow space between the jars so they will cool evenly. Leave the jars at room temperature for 12 to 24 hours.

Test the seal

After cooling jars for 12 to 24 hours, remove the ring bands and inspect the lids for seals. The lid should be concave. Test seals with one of the following options:

- **Option 1: Finger press**

A properly sealed jar lid will not spring up when you press down in the center of the lid with a finger or thumb.

Sealed: There is no give when you press down in the center. This jar is good for storage.

Unsealed: The lid springs up when you lift your finger. This jar will need to be reprocessed before it can be safely stored.

- **Option 2: Spoon tap**

Tap the lid with the bottom of a metal teaspoon.

Sealed: There is a high-pitched ringing sound when the lid is tapped with a metal spoon.

Unsealed: There is a dull sound when you tap the lid with a spoon. However, if food is in contact with the underside of the lid, it will also cause a dull sound. If you are not sure, use one of the other two methods to ensure the jar is sealed.

- **Option 3: Concave lid**

During the sealing process, a vacuum is created, which draws the lid down, and forms a shallow, concave depression from the outer edge to the

center. Hold the jar at eye level and look across the lid.

Sealed: The lid dips towards the center (curved down slightly in the center) to give it a concave shape.

Unsealed: The lid is flat, or bulging upward. If you see this, the jar will need to be reprocessed.

Properly sealed lids will remain attached. If a lid fails to seal within 24 hours, you can refrigerate, freeze, or reprocess the contents of the jar. If you suspect any jar is unsealed, store it in your refrigerator and use it within a couple of days. Freeze unsealed jars after adjusting the headspace to 1.5 inches.

Reprocessing unsealed jars

If a lid fails to seal on a jar, remove the lid and check the jar-sealing surface for nicks or defects. If necessary, change the jar, add a new, properly prepared lid, and reprocess within 24 hours using the same processing time.

Storage

Remove the ring bands from the jars. Wash and dry the ring bands to protect them from corrosion for future use. Be sure to protect them from moisture where they are stored. It is recommended jars be stored without ring bands to keep them dry, as well as to allow for easier detection of any broken vacuum seals.

Clean the canning jars and lids. Label the jars with the recipe name and processing date. Store the jars in a cool (50° to 70°F), dry, dark place for up to a year. After this time, the food should still be good, but you will probably notice a decrease in quality or texture.

Signs of spoilage

Look at the contents for signs of spoilage: bulging lid, unsealed lid, cloudy liquid, unnatural color, off odor, mushy food, mold growth, or anything else unusual. If a jar is unsealed or shows signs of spoilage, do not taste or serve the food.

If low acid food, including tomatoes, exhibits signs of spoilage, it should be treated as possibly containing

botulinum toxin and handled carefully in one of two ways:

- If the suspect jars are still sealed, write on the jar “Poison Danger: Do Not Eat.” Place the jars in a heavyweight garbage bag. Close and place the bag in a regular trash container or dispose of it in a nearby landfill.
- If suspect jars are unsealed, open, or leaking, they should be detoxified before disposal.

Detoxification procedures are designed to inactivate botulinum toxin and must be followed carefully to be effective and to protect the person handling the suspect food. After detoxification, special procedures are needed to ensure the work area is free from toxins and the jars can be reused.

Detoxification process

Wear rubber or heavy plastic gloves when handling suspect foods and cleaning up contaminated work surfaces and equipment. Gloves are recommended even though the toxin does not penetrate intact skin and are particularly important if you have broken skin. Wear an old apron to protect clothing from the strong bleach solution.



Carefully remove the jar lids. Without splashing, place the suspect lids and jars on their sides in an 8-quart volume or larger stockpot, pan, or canner. Agitation or splashing of the liquid could cause aerosolization or the formation of micro-drops of toxin-containing liquid. Inhalation of aerosols can cause botulism. Thoroughly wash your gloved hands. Carefully add water, without splashing, until the level is 1 inch above the jars. Put a lid on the pot and heat the water to boiling. Boil for 30 minutes to detoxify the food and containers. Cool and discard the containers, their lids, and food in the trash, or dispose of them in a nearby landfill.

Cleaning process

Wearing rubber or heavy plastic gloves, spray or wet contaminated surfaces (such as counters), equipment, and other items with a fresh, strong chlorine bleach solution made of 1 part unscented, household (5 to 6 percent sodium hypochlorite) bleach to 5 parts clean, room-temperature water (20,500 ppm Cl), and let stand for 30 minutes. Bleach at this concentration is an irritant and should not come in contact with skin or be inhaled. Wearing gloves, wipe up treated spills with paper towels. Dispose of used paper towels when detoxification is complete by putting them in a plastic bag before discarding them in the trash.

Apply the bleach solution to all surfaces and equipment a second time, let stand for 30 minutes and rinse. After 30 minutes, rinse treated surfaces well with wet paper towels to remove the bleach. Wash all surfaces and equipment with soap and water. Discard gloves when the cleaning process is complete.

PICKLE RECIPES

Salt Free Zucchini Dills⁶

- 6 pounds zucchini
- 2 cups celery, thinly sliced (4 to 5 celery ribs)
- 2 cups onion, chopped (2 medium)
- Ice cubes
- ¼ to ½ cup sugar or honey
- 3 tablespoons dill seed
- 2 cups cider vinegar (5% acidity)
- 5 cloves garlic, halved

Yield: About 10 pint jars

Wash zucchini, celery, and onions under cold running water; drain and pat dry.

To prepare zucchini, peel, seed, and slice lengthwise into thin strips about ¼-inch thick and 4 inches long. This will make about 3 quarts (12 cups) of product.

Thinly slice the celery and chop the onion.

Mix all vegetables in a large bowl. Put ice cubes over the top. Cover with a towel. Let stand at room temperature for 3 hours. Drain.

If jars are processed less than 10 minutes, they must be sterilized. To sterilize jars, follow the process on page 5.

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

In a large pot, combine sugar, dill seed, and vinegar. Heat and stir constantly to boiling. Add the vegetables (zucchini, celery, and onion) and heat to boiling.

Pack hot vegetables into hot pint jars, adding a piece of peeled, halved garlic per jar. Cover with hot liquid to ½ inch from top of the jars.

Remove air bubbles with a straight spatula. If necessary, adjust food and/or liquid to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process jars for 5 minutes; adjust for altitude by Ball® altitude adjustment chart or increase the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Reduced Sodium Dill Pickle Slices³

- 4 pounds (3- to 5-inch) pickling cucumbers
- 6 cups white vinegar (5% acidity)
- 6 cups sugar
- 2 tablespoons canning or pickling salt
- 1½ teaspoons celery seed
- 1½ teaspoons mustard seed
- 2 large onions, thinly sliced
- 8 heads fresh dill

Yield: About 8 pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash cucumbers and onions under cold running water; drain and pat dry.

Cut ¼-inch slice off blossom end and discard. Cut the cucumbers in ¼-inch slices.

Thinly slice onions.

Combine the vinegar, sugar, salt, celery, and mustard seeds in a large pot and bring to a boil.

Place 2 slices of onion and ½ dill head in each hot pint jar. Fill jars with cucumber slices, leaving ½ inch headspace. Add 1 slice of onion and ½ head of dill on top. Pour hot pickling solution over cucumbers, leaving ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust food and/or liquid to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil.



Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 15 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 6,000 feet, process for 20 minutes, and above 6,000 feet, process for 25 minutes. If desired, follow the CSU recommendation to process jars for 15 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Reduced Sodium Sweet Pickle Slices³

- 4 pounds (3- to 5-inch) pickling cucumbers

Canning syrup

- 1 $\frac{2}{3}$ cups white vinegar (5% acidity)
- 3 cups sugar
- 1 tablespoon whole allspice
- 2 $\frac{1}{4}$ teaspoons celery seed

Brining solution

- 4 cups white vinegar (5% acidity)
- 1 tablespoon canning or pickling salt
- 1 tablespoon mustard seed
- $\frac{1}{2}$ cup sugar

Yield: About 4 to 5 pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash cucumbers under cold running water; drain and pat dry. Cut $\frac{1}{16}$ inch off blossom end and discard. Cut the cucumbers into $\frac{1}{4}$ -inch slices.

Combine all ingredients for the canning syrup in a saucepan and bring to a boil. Keep the syrup hot until used.

In a large pot, mix the ingredients for the brining solution. Add the cut cucumbers and cover. Bring to a boil and simmer until the cucumbers change color from bright to dull green (about 5 to 7 minutes). Drain the cucumber slices.

Fill pint jars to $\frac{1}{2}$ inch of jar tops with drained cucumber slices. Cover with hot canning syrup, leaving $\frac{1}{2}$ inch of headspace.

Remove air bubbles with a straight spatula. If necessary, adjust food and/or liquid to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001

to 6,000 feet, process for 15 minutes, and above 6,000 feet, process for 20 minutes. If desired, follow the CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

No Sugar Added Sweet Cucumber Slices³

- 3½ pounds pickling cucumbers
- Boiling water to cover sliced cucumbers
- 4 cups cider vinegar (5% acidity)
- 1 cup water (soft, spring, or distilled)
- 3 cups sucralose (Splenda®)
- 1 tablespoon canning salt
- 1 tablespoon mustard seed
- 1 tablespoon whole allspice
- 1 tablespoon celery seed
- 5 1-inch cinnamon sticks, optional

Yield: About 4 or 5 pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash cucumbers under cold running water; drain and pat dry. Slice ¼-inch off the blossom ends and discard. Slice cucumbers into ¼-inch slices.

Pour boiling water over the cucumber slices and let stand 5 to 10 minutes. Drain off hot water and pour cold water over the cucumbers. Let cold water run continuously over the cucumber slices, or change water frequently until cucumbers are cooled. Drain slices well.

Mix vinegar, 1 cup water, sucralose, and all the spices in a large pot. Bring to a boil. Add drained cucumber slices carefully to the boiling liquid. Return to a boil.

Place one cinnamon stick in each jar, if desired. With a slotted spoon, fill hot pickle slices into hot pint jars, leaving ½ inch headspace. Cover with boiling hot pickling brine, leaving ½ inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust food and/or liquid to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 6,000 feet, process for 15 minutes, and above 6,000 feet, process for 20 minutes. If desired, follow the CSU

recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

No Sugar Added Pickled Beets³

- 7 pounds (2- to 2½-inch diameter) beets
- 4 to 6 onions (2- to 2½-inch diameter), if desired
- 6 cups white vinegar (5% acidity)
- 1½ teaspoons canning or pickling salt
- 2 cups sucralose (Splenda®)
- 3 cups water (soft, spring, or distilled)
- 2 cinnamon sticks
- 12 whole cloves
- Cheesecloth or spice bag

Yield: About 8 pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Trim off beet tops, leaving 1 inch of stem and roots to prevent bleeding of color. Wash beets under cold running water; drain and pat dry.

Sort beets according to size. Cover similar sizes together with boiling water and cook until tender, or about 30 minutes. Drain and discard liquid. Cool beets. Trim off roots and stems and slip off skins. Slice into ¼-inch slices. See variation for pickled whole baby beets.

Wash, peel, and thinly slice the onions.

Combine vinegar, salt, sucralose, and water in a large pot. Tie cinnamon sticks and cloves in a cheesecloth or spice bag and add to the vinegar mixture. Bring to a boil. Add beets and onions. Simmer 5 minutes. Remove spice bag.

With a slotted spoon, fill hot beets and onion slices into hot pint jars, leaving ½ inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust food and/or liquid to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.



Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 30 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3,000 feet, process for 35 minutes; 3,001 to 6000 feet, process 40 minutes; and above 6,000 feet, process for 55 minutes. If desired, follow the CSU recommendation to process jars for 30 minutes, then adjust for altitude by increasing the processing time by 2 minutes per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Variation: Pickled whole baby beets—Follow the directions above but use beets that are 1- to 1½ inches in diameter. Pack whole after trimming, cooking, and peeling; do not slice.

No Sugar Added Cantaloupe Pickles³

- 6 pounds of 1-inch cantaloupe cubes — about 3 medium *under-ripe* cantaloupe. Under-ripe cantaloupes are full size but almost fully green and firm to the touch in all areas, including the stem area.
- 1 teaspoon crushed red pepper flakes
- 2 1-inch cinnamon sticks
- 2 teaspoons ground cloves
- 1 teaspoon ground ginger
- 4½ cups cider vinegar (5% acidity)
- 2 cups water (soft, spring, or distilled)
- 3 cups sucralose (Splenda®)
- Cheesecloth or spice bag

Yield: About 4 pint jars

Day 1

Wash cantaloupe under cold running water; pat dry. Cut the melon into halves; remove seeds. Cut into 1-inch slices and peel. Cut strips of flesh into 1-inch cubes. Weigh out 6 pounds of pieces and place in a large glass bowl.

Place red pepper flakes, cinnamon sticks, cloves, and ginger in a cheesecloth or spice bag and tie the ends firmly. Combine vinegar and water in a large pot. Bring to a boil, and then turn the heat off. Add spice bag to the vinegar-water mixture, and let steep for 5 minutes, stirring occasionally.

Pour hot vinegar solution and spice bag over melon pieces in the bowl. Cover with a food-grade plastic lid or wrap and let stand overnight in the refrigerator (about 18 hours).

Day 2

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Carefully pour off vinegar solution into a large pot and bring it to a boil. Add Splenda®; stir to dissolve. Add cantaloupe and bring back to a boil. Lower the heat to simmer until cantaloupe pieces turn translucent, about 1 to 1¼ hours.

Remove cantaloupe pieces into a medium-sized stockpot, cover, and set aside. Bring the remaining liquid to a boil and boil for an additional 5 minutes. Return cantaloupe to the liquid syrup and bring it back to a boil.

With a slotted spoon, fill hot cantaloupe pieces into hot pint jars, leaving 1-inch headspace. Cover with boiling syrup, leaving ½ inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust food and/or liquid to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 15 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 6,000 feet, process for 20 minutes, and above 6,000 feet, process for 25 minutes. If desired, follow the CSU recommendation to process jars for 15 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. **DO NOT** retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.



Caution: New research has shown that white-fleshed peaches and nectarines are higher in pH and lower in acid than yellow-fleshed varieties. Do not use white-fleshed peaches and nectarines for recipes that require boiling water processing in this publication.

PROCESSED JAM RECIPES

No Sugar Strawberry Jam⁴

- 4 cups crushed strawberries (8 cups whole strawberries)
- $\frac{2}{3}$ cup unsweetened fruit juice
- 3 tablespoons low or no sugar pectin

Yield: About 4 half-pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash strawberries under cold running water; drain and pat dry. Remove the stems and the caps from the strawberries. Crush the strawberries, one layer at a time, using a potato masher.

Combine crushed strawberries and juice in a medium saucepan. Gradually stir in pectin.

Over high heat, bring the mixture to a full rolling boil that cannot be stirred down. Boil hard 1 minute, stirring constantly. Remove from heat. Skim foam if necessary.

Ladle hot jam into a hot jar, leaving a $\frac{1}{4}$ -inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust the fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 6,000 feet, process for 15 minutes, and above 6,000 feet, process for 20 minutes. If desired, follow the



CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Apple Pie Jam with Regular Pectin²

- 6 cups Granny Smith apples, peeled and diced (6 to 7 apples)
- 2 cups apple juice or apple cider
- 1 tablespoon bottled lemon juice
- ½ cup chopped raisins (optional)
- 3 tablespoons regular powdered pectin
- 1 teaspoon ground cinnamon
- ¼ teaspoon ground nutmeg
- 2 cups sugar

Yield: About 5 half-pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash apples under cold running water; drain and pat dry. Peel, core, and dice apples.

Bring the apples, juices, and raisins to a boil in a large pot; reduce heat and simmer, uncovered, 10 minutes or until the apples are soft, stirring occasionally.

Whisk in the pectin, ground cinnamon, ground nutmeg, and sugar. Over high heat, bring mixture to a full rolling boil that cannot be stirred down. Boil hard 1 minute, stirring constantly. Remove from heat. Skim foam if necessary.

Ladle hot jam into a hot jar, leaving a ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3,000 feet, process for 15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and 8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Apricot Jam²

- 2⅔ cup apricots, pitted and finely chopped
- ⅔ cup unsweetened fruit juice or water (soft, spring, or distilled)
- 3 tablespoons low or no sugar pectin
- 1 cup sugar

Yield: About 4 half-pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash apricots under cold running water; drain and pat dry. Pit and finely chop the apricots.

Combine the apricots, fruit juice or water, and the pectin in a large pot. Over high heat, bring mixture to a full rolling boil that cannot be stirred down.

Add the sugar, stirring to dissolve. Return to a full rolling boil. Boil hard 1 minute, stirring constantly. Remove from heat. Skim the foam, if necessary.

Ladle hot jam into a hot jar, leaving a ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3,000 feet, process for 15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and 8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Berry Cherry Jam²

- 4 cups fresh ripe strawberries (about 3 pounds)
- 2 cups fresh blackberries (about 2 pounds)
- 2 cups sweet cherries, pitted and chopped (about 2 pounds)
- 1 cup water (soft, spring, or distilled)
- 3 tablespoons low or no sugar pectin
- 1½ cups sugar (optional)

Yield: About 6 half-pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash the strawberries, cherries, and blackberries under cold running water; drain and pat dry.

Remove the stems and the caps from the strawberries.

Crush the strawberries and blackberries, one layer at a time, using a potato masher.

Remove the cherry stems and pits; chop.

In a large pot, combine the strawberries, blackberries, cherries, water, and pectin. Bring the mixture to a full rolling boil that cannot be stirred down, over high heat, stirring constantly. Add the sugar, if desired. Return the mixture to a boil that cannot be stirred down. Boil hard for 1 minute, stirring constantly. Remove the mixture from heat if gel begins to form before 1-minute boil is completed. Skim the foam, if necessary.

Ladle hot jam into a hot jar, leaving a ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3000 feet, process for



15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and 8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Blueberry Jam²

- 1 pound fresh blueberries (2²/₃ cup crushed berries)
- ²/₃ cup water (soft, spring, or distilled) or unsweetened fruit juice
- 2 tablespoons bottled lemon juice
- 3 tablespoons low or no sugar pectin
- 1 cup sugar

Yield: About 4 half-pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash the blueberries under cold running water; drain and pat dry.

Crush the blueberries, one layer at a time, using a potato masher until evenly crushed. Measure out 2²/₃ cups of the crushed berries into a large pot.

Stir the lemon juice into the crushed blueberries. Stir in the pectin. Bring the mixture to a full rolling boil that cannot be stirred down, over high heat, stirring constantly.

Add the sugar, stirring to dissolve. Return to a full rolling boil. Boil hard 1 minute, stirring constantly. Remove from heat. Skim the foam, if necessary.

Ladle hot jam into a hot jar, leaving a ¹/₄-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3000 feet, process for 15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and 8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Peach Jam⁴

- 3 $\frac{2}{3}$ cups crushed ripe yellow-fleshed peaches (about 2 $\frac{1}{4}$ pounds or 7 medium). **Caution:** Do not use white-fleshed peaches or nectarines. An unsafe product may result.
- $\frac{1}{3}$ cup water (soft, spring, or distilled)
- 3 tablespoons low or no sugar pectin
- 2 tablespoons bottled lemon juice
- Up to 1 cup granulated sugar; granular sugar substitute; or honey

Yield: About 4 half-pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash peaches under cold running water; drain and pat dry. Remove the peels and the pits from the peaches.

Crush the peaches, one layer at a time, using a potato masher.

Combine crushed peaches, lemon juice, and water in a large saucepan. Gradually stir in pectin. Over high heat, bring mixture to a full rolling boil that cannot be stirred down. Boil hard 1 minute, stirring constantly. Remove from heat. Skim foam if necessary.

Ladle hot jam into a hot jar, leaving a $\frac{1}{4}$ -inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3,000 feet, process for 15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and 8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.



Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

No Sugar Peach Jam⁸

- 5 cups crushed yellow-fleshed peaches (4 pounds). **Caution:** Do not use white-fleshed peaches or nectarines. An unsafe product may result.
- 1 cup unsweetened apple or white grape fruit juice
- ¼ cup bottled lemon juice
- 1 package no sugar pectin

Yield: About 5 half-pint jars

If jars are processed less than 10 minutes, they must be sterilized. To sterilize jars, follow the process on page 5.

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash peaches under cold running water; drain and pat dry. Remove the peels and the pits from the peaches.

Crush the peaches, one layer at a time, using a potato masher.

In a large pot, combine crushed peaches, juice, and lemon juice. Gradually whisk no sugar pectin into prepared peaches until no lumps.

Over high heat, bring mixture to a full rolling boil that cannot be stirred down. Boil hard 1 minute, stirring constantly. Remove from heat. Skim foam if necessary.

Ladle hot jam into a hot jar, leaving a ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more hot water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process sterilized jars for 5 minutes; adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Reduced Sugar Peach Pineapple Spread³

- 4 cups drained yellow-fleshed peach pulp (procedure below). **Caution:** Do not use white-fleshed peaches or nectarines. An unsafe product may result.
- Cheesecloth or jelly bag
- 2 cups drained, unsweetened, crushed pineapple
- ¼ cup bottled lemon juice
- 2 cups sugar (optional)

Notes:

- This recipe may be made with any combination of yellow-fleshed peaches, yellow-fleshed nectarines, apricots, and plums, and without sugar or with up to 2 cups.
- Non-nutritive sweeteners may be added. If aspartame is used, the sweetening power of aspartame may be lost within 3 to 4 weeks.

Yield: About 6 half-pint jars or about 3 pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash peaches under cold running water; drain and pat dry. Peel peaches and remove pits.

Grind peach flesh with a medium or coarse blade, or crush with a fork or potato masher (do not use a blender).

Place ground or crushed peaches in a large saucepan. Heat slowly to release juice, constantly stirring until fruit is tender.

Place cooked fruit in a jelly bag or strainer lined with four layers of cheesecloth. Allow the juice to drip for about 15 minutes. Save the peach juice for jelly or other uses.

Measure 4 cups of drained peach pulp for making spread. Combine the 4 cups of pulp, pineapple, and lemon juice in a large saucepan. Add up to 2 cups of sugar, if desired, and mix well. Heat and boil gently for 10 to 15 minutes. Stir enough to prevent sticking. Skim foam if necessary.

Ladle hot spread into a hot jar, leaving a ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process half-pints for 15 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3,000 feet, process for 20 minutes; 3,001 to 6000 feet, process 20 minutes, and above 6,000 feet, process for 25 minutes.

Process pints for 20 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3,000 feet, process for 25 minutes; 3,001 to 6000 feet, process 30 minutes; and above 6,000 feet, process for 35 minutes.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Pear Apple Jam⁷

- 4½ pounds pears
- 1 to 2 Granny Smith apples
- ⅓ cup bottled lemon juice
- ½ teaspoon ground cinnamon
- 1 package low or no sugar pectin
- 6 tablespoons liquid artificial sweetener or its equivalent

Yield: About 5 pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash the fruit under cold running water; drain and pat dry.

Peel and core the pears.

Chop the pears in a food processor or blender. Add half of the lemon juice (2 tablespoons + 2 teaspoons) and process until smooth. Measure out 4 cups of pear pulp.

Repeat the process for the apples and measure 1 cup of pulp.

In a large pot, combine pear and apple pulp, cinnamon, and pectin. Gradually whisk until no lumps. Let stand for 10 minutes.

Over high heat, bring mixture to a full rolling boil that cannot be stirred down. Boil hard 1 minute, stirring constantly. Remove from heat. Skim foam if necessary.

Ladle hot jam into a hot jar, leaving a ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process jars for 10 minutes; adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

No Sugar Raspberry Jam⁸

- 5 cups crushed raspberries (3 pints whole berries)
- 1 cup unsweetened apple or white grape fruit juice
- 1 package no sugar pectin

Yield: About 6 half-pint jars

If jars are processed less than 10 minutes, they must be sterilized. To sterilize jars, follow the process on page 5.

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash raspberries under cold running water; drain and pat dry.

Crush the raspberries, one layer at a time, using a potato masher.

Measure 5 cups of crushed berries into a large bowl. Press half of the berries through a sieve to remove some of the seeds, if desired.

Combine crushed fruit and juice in a large saucepan.

Gradually whisk no sugar pectin into prepared berries until no lumps.

Over high heat, bring mixture to a full rolling boil that cannot be stirred down. Boil hard 1 minute, stirring constantly. Remove from heat. Skim foam if necessary.

Ladle hot jam into a hot jar, leaving a ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more hot water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process sterilized jars for 5 minutes; adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Raspberry Honey Jam²

- 10 cups red raspberries (about 6 pounds)
- 1 cup water (soft, spring, or distilled)
- 5 tablespoons low or no sugar pectin
- 1 cup honey

Yield: About 6 half-pint jars

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash raspberries under cold running water; drain and pat dry.

Crush the raspberries, one layer at a time, using a potato masher until evenly crushed.

Combine the crushed berries, water, and pectin in a large pot, stirring to blend the pectin.

Bring the mixture to a boil over medium-high heat, stirring constantly. Add the honey and return the mixture to a boil that cannot be stirred down, over high heat, stirring constantly. Boil hard for 1 minute, stirring constantly. Remove the mixture from the heat if gel begins to form before 1-minute boil is completed. Skim the foam, if necessary.

Ladle hot jam into a hot jar, leaving a ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3000 feet, process for 15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and 8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.



Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

REFRIGERATOR JAM RECIPE

Sparkling Strawberry Refrigerator Jam with Gelatin⁷

- 2 envelopes unflavored gelatin
- 12-ounce can strawberry diet carbonated beverage
- 2 cups strawberries
- 1 tablespoon granulated artificial sweetener

Yield: About 1 pint jar

Sterilize canning jar. To sterilize jars, follow the process on page 5. Keep jar warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

Wash the strawberries under cold running water; drain and pat dry. Remove the stems and hulls.

Sprinkle gelatin over strawberry diet carbonated beverage in a large saucepan. Add the berries; over medium heat, simmer 10 minutes occasionally stirring. Remove the saucepan from the heat.

Add the sweetener. Beat with a mixer or in a blender until smooth.

Ladle jam into the hot pint jar.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight.

Do not process or freeze. Store in refrigerator and use it within four weeks.

FREEZER JAM RECIPES

No or Low Sugar Blueberry Freezer Jam⁴

- 3 cups crushed blueberries (about 2 pounds or 2½ pints)
- 1 tablespoon bottled lemon juice
- 1¾ cups unsweetened white grape or apple juice
- 3 tablespoons low or no sugar pectin
- Up to 3 cups sugar; 1½ cups Splenda No Calorie Sweetener, Granular; ¾ to 1 cup honey; or desired amount of other artificial sweeteners (optional)

Yield: About 5 half-pint jars

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

Wash the blueberries under cold running water; drain and pat dry.

Crush the blueberries, one layer at a time, using a potato masher until evenly crushed.

In a large saucepan, gradually add pectin into fruit juice and lemon juice until dissolved. Bring to a full rolling boil that cannot be stirred down, over medium-high heat, stirring frequently. Boil hard 1 minute, stirring constantly. Remove from heat.

Immediately add prepared fruit to the hot pectin mixture. Stir vigorously for 1 minute. Stir in sugar, Splenda No Calorie Sweetener, Granular, other artificial sweetener, or honey according to the directions above.

Ladle hot jam into a hot jar, leaving a ½ inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Label and date jars.

Place jam in the refrigerator until set, approximately 24 hours.

Serve immediately, refrigerate for up to four weeks, or freeze up to one year.

Low Sugar Cherry Freezer Jam⁸

- 5 cups chopped cherries (about 4 pounds)
- 2½ cups sugar
- 1 package low or no sugar pectin
- 1 cup water

Yield: About 7 half-pint jars

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

Wash the cherries under cold running water; drain and pat dry.

Remove the cherry stems and pits; chop.

Measure the chopped cherries into a large bowl.

In a large pot, add the sugar and stir in the pectin, mixing thoroughly. Stir in 1 cup of water.

Over high heat, bring the sugar mixture to a full rolling boil that cannot be stirred down. Boil hard 1 minute, stirring constantly. Remove from heat.

Stir cherries into hot sugar mixture. Stir 1 minute or until thoroughly mixed. Skim foam if necessary.

Quickly ladle jam into hot jars, leaving ½ inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Label and date jars.

Let jam stand at room temperature overnight.

Serve immediately, refrigerate for up to four weeks, or freeze up to one year.

Peach Freezer Jam with Regular Pectin¹

- 4 cups peeled and pitted peaches
- 3-4 teaspoons liquid artificial sweetener
- 1 package (1¾-ounce) powdered pectin
- 1 tablespoon bottled lemon juice
- ½ teaspoon ascorbic acid

Yield: About 3 half-pint jars

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

Crush the peeled and pitted peaches, one layer at a time, using a potato masher until evenly crushed.

Measure 4 cups of crushed peaches into a large pot. Stir in sweetener, pectin, lemon juice, and ascorbic acid.

Over high heat, bring the sugar mixture to a full rolling boil that cannot be stirred down. Boil hard 1 minute, stirring constantly. Remove from heat. Continue to stir 2 minutes.

Ladle hot jam into hot jars, leaving a ½ inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Label and date jars.

Place jam in the refrigerator until set, approximately 24 hours.

Serve immediately, refrigerate for up to four weeks, or freeze up to one year.

Low Sugar Raspberry Freezer Jam⁴

- 3 cups crushed raspberries (about 2 pounds)
- 1¾ cups unsweetened cranberry-raspberry or apple juice
- 3 tablespoons low or no sugar pectin
- Up to 3 cups sugar; 1½ cups granular no-calorie sweetener; or ¾ to 1 cup honey

Yield: About 5 half-pint jars

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

Wash the raspberries under cold running water; drain and pat dry.

Crush the raspberries, one layer at a time, using a potato masher until evenly crushed.

In a large pot, gradually whisk pectin into fruit juice until dissolved. Bring to a full rolling boil that cannot be stirred down, over medium-high heat, stirring frequently. Boil hard 1 minute, stirring constantly. Remove from heat.

Immediately add prepared fruit into hot pectin mixture. Stir vigorously for 1 minute. Stir in desired sweetener.

Ladle jam into hot jars, leaving a ½ inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Label and date jars.

Place jam in the refrigerator until set, approximately 24 hours.

Serve immediately, refrigerate for up to four weeks, or freeze up to one year.

Low Sugar Strawberry Freezer Jam⁸

- 4 cups crushed strawberries
- 3 cups sugar
- 1 package low or no sugar pectin
- 1 cup water

Yield: About 6 half-pint jars

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

Wash the strawberries under cold running water; drain and pat dry.

Remove the stems and the caps from the strawberries.

Crush the strawberries, one layer at a time, using a potato masher until evenly crushed.

Measure 4 cups crushed berries into a large bowl.

Measure sugar into a large pot. Stir pectin into sugar until thoroughly mixed. Stir in 1 cup water.

Bring mixture to a boil on medium-high heat and boil 1 minute, stirring constantly. Remove from heat, skim off foam.

Stir fruit into hot pectin-sugar mixture. Stir 1 minute or until thoroughly mixed.

Ladle hot jam into a hot jar, leaving a ½ inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Label and date jars.

Let jam stand at room temperature overnight.

Serve immediately, refrigerate for up to four weeks, or freeze up to one year.

No Sugar Strawberry Freezer Jam⁸

- 4 cups crushed strawberries
- 3 to 4 teaspoons liquid saccharin*
- 1 tablespoon bottled lemon juice
- 1 package low or no sugar pectin

* $\frac{1}{8}$ teaspoon liquid saccharin equals the sweetening power of 1 teaspoon of sugar. If you use other sweeteners, read the label to determine their sweetening power. Aspartame (Equal[®], or NutraSweet[®], and Sugar Twin[®]) cannot be used to sweeten jellies or jams, since they lose their sweetness upon heating.

Yield: About 6 half-pint jars

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

Wash the strawberries under cold running water; drain and pat dry.

Remove the stems and the caps from the strawberries.

Crush the strawberries, one layer at a time, using a potato masher until evenly crushed.

Measure 4 cups crushed berries into a large pot. Stir in the amount of liquid sugar substitute to taste; pectin; and lemon juice.

Bring to a boil and boil 1 minute, stirring constantly. Remove from heat and skim off foam. Continue to stir 2 minutes.

Ladle hot jam into a hot jar, leaving a $\frac{1}{2}$ inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Label and date jars.

Let jam stand at room temperature for 2 hours so the gel sets.

Serve immediately, refrigerate for up to four weeks, or freeze up to one year.

Strawberry Freezer Jam with Regular Pectin¹

- 4 cups strawberries
- 3 to 4 teaspoons liquid artificial sweetener
- 1 package (1¾ ounce) powdered pectin
- 1 tablespoon bottled lemon juice
- Red food coloring, if desired

Yield: About 3 half-pint jars

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

Wash the strawberries under cold running water; drain and pat dry.

Remove the stems and the caps from the strawberries. Crush the strawberries, one layer at a time, using a potato masher.

Measure crushed strawberries in a large saucepan. Stir in sweetener, pectin, lemon juice, and food coloring.

Over high heat, bring the mixture to a full rolling boil that cannot be stirred down. Boil hard 1 minute, stirring constantly. Remove from heat. Continue to stir 2 minutes.

Ladle jam into hot jars, leaving a ½ inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Label and date jars.

Place jam in the refrigerator until set, approximately 24 hours.

Serve immediately, refrigerate for up to four weeks, or freeze up to one year.

PROCESSED JELLY RECIPES

Low Sugar Apple Jelly²

- 4 pounds apples
- 5 cups water (soft, spring, or distilled)
- Cheesecloth or jelly bag
- 4 tablespoons low or no sugar pectin
- 1 cup sugar

Yield: About 4 half-pints

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash the apples under cold running water; drain and pat dry.

Stem and cut the apples into chunks (do not core).

Bring the apples and water to a boil in a large pot. Cover, reduce heat, and simmer 10 minutes. Crush with a potato masher, and simmer 5 more minutes.

Pour the apple mixture through a jelly bag and stand or a mesh strainer lined with 3 layers of dampened cheesecloth set into a bowl. Let drain 2 to 4 hours or until the juice measures 4²/₃ cups. To avoid cloudy jelly, do not press or squeeze the apple mixture.

Combine the apple juice and pectin in a 6-quart stainless steel or enameled Dutch oven. Bring the mixture to a rolling boil that cannot be stirred down, over high heat, stirring constantly.

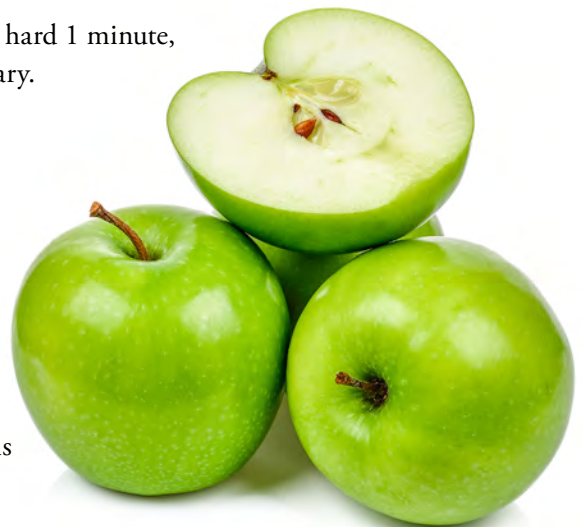
Add the sugar, stirring to dissolve. Return to a full rolling boil. Boil hard 1 minute, stirring constantly. Remove from the heat. Skim the foam, if necessary.

Ladle hot jelly into a hot jar, leaving a ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.



Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3,000 feet, process for 15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and 8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Berry Jelly²

- 4 pounds blackberries or raspberries (4²/₃ cup berry juice)
- Cheesecloth or jelly bag
- 4 tablespoons low or no sugar pectin
- 1 cup sugar

Yield: About 4 half-pints

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash the berries under cold running water; drain and pat dry.

Crush the berries, one layer at a time, using a potato masher.

Place berries in a large pot. Cover and bring to a boil; reduce heat, and simmer 5 minutes.

Pour the berry mixture through a jelly bag and stand or a mesh strainer lined with three layers of dampened cheesecloth set into a bowl. Let drain 2 to 4 hours, or until the juice measures 4²/₃ cups. To avoid cloudy jelly, do not press or squeeze the berry mixture.

Combine the berry juice and pectin in a 6-quart stainless steel or enameled Dutch oven. Bring the mixture to a rolling boil that cannot be stirred down, over high heat, stirring constantly.

Add the sugar, stirring to dissolve. Return to a full rolling boil. Boil hard for 1 minute, stirring constantly. Remove from the heat. Skim the foam, if necessary.

Ladle the hot jelly into a hot jar, leaving ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3,000 feet, process for 15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and 8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process

jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Grape Jelly²

- 4 pounds Concord grapes
- 2/3 cup water (soft, spring, or distilled)
- Cheesecloth or jelly bag
- 4 tablespoons low or no sugar pectin
- 1 cup sugar

Yield: About 4 half-pints

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash the grapes under cold running water; drain and pat dry.

Crush the grapes, one layer at a time, using a potato masher in a large pot. Cover and bring to a boil; reduce heat, and simmer 15 minutes.

Pour the grape mixture through a jelly bag and stand or a mesh strainer lined with three layers of dampened cheesecloth set into a bowl. Let drain 2 to 4 hours, or until the juice measures 4 2/3 cups. To avoid cloudy jelly, do not press or squeeze the berry mixture.

Combine the grape juice and pectin in a 6-quart stainless steel or enameled Dutch oven. Bring the mixture to a rolling boil that cannot be stirred down, over high heat, stirring constantly.

Add the sugar, stirring to dissolve. Return to a full rolling boil. Boil hard for 1 minute, stirring constantly. Remove from the heat. Skim the foam, if necessary.

Ladle the hot jelly into a hot jar, leaving 1/4-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3,000 feet, process for 15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and 8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process

jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Pepper Jelly²

- 4½ cups (4 large) green bell pepper, finely chopped
- ½ cup (4 small) jalapeño peppers, finely chopped
- ¼ cups apple cider vinegar
- 3 tablespoons low or no sugar pectin
- 2 cups sugar
- 1 cup honey

Yield: About 6 half-pints

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash the peppers under cold running water; drain and pat dry. Wear rubber gloves to prevent your hand from being burned and do not touch your eyes. Remove the stems and the seeds. Process the peppers with 1 cup of apple cider vinegar in a food processor or blender until smooth.

Combine the peppers and the remaining ¼ cup apple cider vinegar in a large pot. Gradually add the pectin. Bring the mixture to a rolling boil that cannot be stirred down, over high heat, stirring constantly.

Add the sugar and the honey. Return the mixture to a full rolling boil. Boil hard for 3 minutes, stirring constantly. Remove from the heat. Skim the foam, if necessary.

Ladle the hot jelly into a hot jar, leaving ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3,000 feet, process for 15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and 8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Plum Jelly²

- 4½ pounds firm, ripe red plums, pitted and diced
- ⅔ cup water (soft, spring, or distilled)
- Cheesecloth or jelly bag
- 4 tablespoons low or no sugar pectin
- 1 cup sugar

Yield: About 4 half-pints

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Bring the diced plums and water to a boil in a 6-quart stainless steel or enameled Dutch oven. Cover; reduce heat, and simmer 10 minutes.

Pour the plum mixture through a jelly bag and stand or a mesh strainer lined with three layers of dampened cheesecloth set into a bowl. Let drain 2 to 4 hours, or until the juice measures 4⅔ cups. To avoid cloudy jelly, do not press or squeeze the plum mixture.

Combine the plum juice and pectin in a large pot. Bring the mixture to a rolling boil that cannot be stirred down, over high heat, stirring constantly.

Add the sugar, stirring to dissolve. Return to a full rolling boil. Boil hard for 1 minute, stirring constantly. Remove from the heat. Skim the foam, if necessary.

Ladle the hot jelly into a hot jar, leaving ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3,000 feet, process for 15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and



8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Once processing time is complete, turn off the heat, remove the canner lid, and wait 5 minutes before removing jars.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

REFRIGERATOR JELLY RECIPES

Refrigerator Jelly with Gelatin⁷

- 2 cups unsweetened fruit juice
- 4 to 6 teaspoons unflavored gelatin
- 2 tablespoons bottled lemon juice (may be omitted with tart fruits)
- Artificial sweetener equivalent to the sweetness of ½ to 1 cup of sugar

Yield: Approximately 2 cups or about 2 half-pints

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

Sprinkle the gelatin over the cold fruit juice in a large saucepan. Add lemon juice and stir over high heat until boiling. Boil exactly 1 minute. Remove from heat. Add artificial sweetener.

Ladle hot jelly into a hot jar, leaving a ¼-inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Do not process or freeze. Store in refrigerator and use within four weeks.

Refrigerated Apple Spread with Gelatin³

- 2 tablespoons unflavored gelatin powder
- 4 cups unsweetened apple juice, bottled
- 2 tablespoons bottled lemon juice
- 2 tablespoons liquid artificial sweetener (saccharin)
- Food coloring, if desired

Variation: For spiced apple jelly, add 2 sticks of cinnamon and 4 whole cloves to the mixture before boiling. Remove both spices before adding the sweetener and food coloring.

Yield: About 4 half-pints

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

In a large saucepan, soften the gelatin in the apple and lemon juices. To dissolve gelatin, bring to a full rolling boil, then boil 2 minutes. Remove from heat.

Stir in sweetener and food coloring, if desired.

Ladle hot spread quickly into hot jars, leaving ¼-inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Do not process or freeze. Store in refrigerator and use within four weeks.

Refrigerated Grape Spread with Gelatin³

- 2 tablespoons unflavored gelatin powder
- 3 cups (24 oz.) unsweetened grape juice, bottled
- 2 tablespoons bottled lemon juice
- 2 tablespoons liquid artificial sweetener, to equal 1 cup sugar (read the label if substituting dry artificial sweetening agent)

Yield: About 3 half-pints

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

In a large saucepan, soften gelatin in the grape and lemon juices. Bring to a full rolling boil to dissolve gelatin. Boil 1 minute and remove from heat.

Stir in sweetener.

Ladle hot spread quickly into hot jars, leaving ¼-inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Do not process or freeze. Store in refrigerator and use within four weeks.

Refrigerator Jelly with Gelatin and Splenda⁵

- 2 tablespoons unflavored gelatin powder
- 4¼ cups bottled unsweetened fruit juice (1 quart plus ¼ cup)
- ½ cup Splenda® Granular

Yield: About 4 half-pint jars

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

In a large saucepan, soften gelatin in juice. Bring to a rolling boil, dissolving gelatin; boil 1 minute. Remove from heat. Stir in Splenda Granular. Skim foam if needed.

Ladle hot jelly into a hot jar, leaving a ¼-inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Do not process or freeze. Store in refrigerator and use within four weeks.

FREEZER JELLY RECIPES

Low Sugar Apple Freezer Jelly⁸

- 5 cups bottled apple juice
- 3½ cups sugar
- 1 cup water
- 1 package low sugar pectin

Yield: About 8 half-pints

Measure apple juice into a large bowl; set aside.

In a large pot, add sugar. Stir pectin into the sugar until thoroughly mixed.

Stir 1 cup water into pectin-sugar mixture. Bring mixture to a boil on medium-high heat, stirring constantly. Boil and stir 1 minute. Remove from heat.

Stir juice into hot pectin-sugar mixture. Mix well, 1 minute.

Ladle hot jelly into a hot jar, leaving a 1/2-inch headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Label and date jars.

Let jelly stand at room temperature overnight.

Serve immediately, refrigerate for up to four weeks, or freeze up to one year.

PROCESSED FRUIT BUTTER RECIPES

No Sugar Habanero Carrot Butter²

- 2 pounds carrots, peeled and sliced
- 1 cup water (soft, spring, or distilled)
- 1 cup white wine vinegar (5% acidity)
- ¾ cup onion, finely chopped
- ½ cup bottled lime juice
- 1 teaspoon table salt
- 4 garlic cloves, chopped
- 3 habanero peppers, seeded and chopped
- ⅓ cup fresh cilantro, chopped

Yield: About 5 half-pints

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Bring all the ingredients, except the cilantro, to a boil in a large pot; reduce heat, cover, and simmer 30 minutes or until carrots are very soft. Remove from heat, and cool slightly about 5 minutes.

Process the carrot mixture and cilantro in batches in a blender or food processor until smooth, stopping to scrape down sides as needed.

Return the carrot mixture to the pan. Bring to a boil; reduce heat and simmer, uncovered, 10 to 15 minutes, or until the mixture thickens and holds its shape on a spoon.

Ladle the hot mixture into a hot jar, leaving ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.



Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process in a boiling water canner for 10 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 3000 feet, process for 15 minutes; 3,001 to 6,000 feet, process for 20 minutes; 6,001 to 8,000 feet, process for 25 minutes; and 8,001 to 10,000 feet, process for 30 minutes. If desired, follow the CSU recommendation to process jars for 10 minutes, then adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Reduced Sugar Apple Butter⁵

- 4 pounds apples
- 1 cup apple cider
- ½ cup granulated sucralose
- 1 tablespoon ground cinnamon
- ¼ teaspoon ground cloves
- ½ teaspoon ground allspice

Yield: About 4 to 5 half-pints

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Wash apples thoroughly and remove stems. Cut apples into quarters or eighths and remove cores.

Combine unpeeled apples and cider in a large pot. Cook slowly and stir occasionally to prevent sticking. Cook until apples are very soft or falling apart.

Position a food mill or strainer securely over a large bowl. Press cooked apples with cider through the food mill or strainer to make a pulp. Be sure to collect all the pulp that comes through the food mill or strainer by scraping any pulp clinging under the food mill or strainer into the bowl.

Combine pulp with sucralose and spices in a large pot. Simmer over low heat, stirring frequently.

To test for doneness, spoon a small quantity onto a clean plate; when the butter mounds on the plate without liquid separating around the edge of the butter, it is ready for processing. Another way to test for doneness is to remove a spoonful of the cooked butter on a spoon and hold it away from steam for 2 minutes. It is done if the butter remains mounded on the spoon.

Ladle hot apple butter into hot jars, leaving ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Process in a boiling water canner for 15 minutes if at an altitude of less than 1,000 feet. For altitudes of 1,001 to 6,000 feet, process for 20 minutes, and above 6,000 feet, process for 25 minutes. If desired, follow the CSU

recommendation to process jars for 15 minutes, adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.



Low Sugar Apple Butter⁷

- 5 pounds apples, peeled, cored and cut in eighths
- 1 cup apple cider or apple juice
- 2 tablespoons bottled lemon juice
- ½ teaspoon ground cinnamon
- ¼ teaspoon ground cloves
- ¼ teaspoon ground nutmeg
- Granulated artificial sweetener; equivalent to ¾ cup sugar, i.e. 18 packets Equal[®], or 9 packets of Sweet 'n Low[®] or Sweet One[®]

Yield: 1 to 2 pints or 3 to 4 half-pints

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Combine apples, cider, and lemon juice in a large pot.

Bring to a boil. Cook about 30 minutes, or until apples are very soft, stirring occasionally. Puree apple mixture in food processor or blender, or press through a sieve.

Combine apple mixture and spices in a 6- to 8-quart saucepan. Simmer over low heat approximately 35 minutes, or until very thick, stirring constantly.

Measure pulp. Return pulp to saucepan and bring to a boil. Add artificial sweetener. For every 1 cup of pulp you will need 6 packets of Equal[®], or 3 packets of Sweet 'n Low[®] or Sweet One[®].

Immediately ladle hot pint or half-pint jars with apple butter, leaving ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process jars for 15 minutes; adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

Low Sugar Peach Butter⁷

- 12 cups (about 5 pounds whole) peeled, pitted and chopped ripe yellow-fleshed peaches. **Caution:** Do not use white-fleshed peaches or nectarines. An unsafe product may result.
- 3 tablespoons bottled lemon juice
- ½ teaspoon ground cinnamon
- ¼ teaspoon ground nutmeg
- 30 to 48 packets Equal® artificial sweetener or 15 to 24 packets of Sweet 'n Low® or Sweet One®

Yield: 1 to 2 pints or 3 to 4 half-pints

Fill boiling water canner halfway with hot water, cover, and preheat to 180°F.

Preheat the canning jars in hot (180°F) water.

Prepare new canning jar lids as directed per the manufacturer's instructions.

Place peaches in a large pot.

Cook over medium-high heat about 30 to 40 minutes or until peaches are soft and transparent, stirring frequently.

Puree peaches in a food processor or blender, or press through a sieve.

Pour lemon juice into a large pot. Bring to a boil. Stir in peach puree and spices. Bring to a boil and simmer over low heat about 35 to 60 minutes, or until very thick, stirring frequently.

Measure pulp. Return pulp to saucepan and bring to a boil. Stir in artificial sweetener. For every 1 cup of pulp, you will need 12 packets of Equal® or 6 packets of Sweet 'n Low® or Sweet One®.

Immediately ladle hot pint or half-pint jars with peach butter, leaving ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Place jars in canner rack and lower rack into water. Make sure 1 to 2 inches of water covers jars; add more water if necessary.

Place lid on the canner and bring to a full rolling boil. Once at a rolling boil, set timer and begin processing time. Process jars for 15 minutes; adjust for altitude by increasing the processing time by 1 minute per 1,000 feet above sea level.

Remove jars from canner and set upright on a towel with at least a 1-inch space between the jars to prevent jar breakage.

Leave the jars undisturbed for 12 to 24 hours. DO NOT retighten bands or push on the center of lids!

After 12 to 24 hours, check lids for a good seal. The lid should not flex up and down when the center is pressed. If a lid fails to seal within 24 hours, refrigerate, freeze, or reprocess the contents of the jar.

Remove the bands. Clean the jars, label, and store in a cool, dry, dark place. For best quality, consume within one year.

REFRIGERATOR FRUIT BUTTER RECIPES

Refrigerator Apple Butter¹

- 24 (about 6 pounds) apples, cored and sliced to fill a 6-quart pot
- ½ cup water
- ½ teaspoon salt
- 5 drops cinnamon oil
- Sweetener to equal 2 cups

Yield: About 10 half-pint jars

Sterilize canning jars. To sterilize jars, follow the process on page 5. Keep jars warm until ready to use, in order to minimize risk of breakage when filling with hot jam or jelly.

In a large pot, heat apples and water, covered over medium heat for 6 to 8 hours, stirring frequently.

Press through a sieve.

Reheat apples and add salt, cinnamon oil, and sweetener. Cook to desired thickness.

Ladle hot fruit butter into hot jars, leaving a ¼-inch headspace.

Remove air bubbles with a straight spatula. If necessary, adjust fruit spread to obtain the proper headspace.

Wipe jar rim/threads using a clean damp cloth/paper towel to remove any food residue.

Center the lid on the jar, apply the band, and adjust until the band is fingertip tight. Repeat the process until all the jars are filled.

Do not process. Store in refrigerator and use within four weeks.

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