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Savory Jams, Jellies and Beyond

Jams, jellies, and other soft spreads are foods with a variety of textures, flavors, and colors. They primarily consist of fruits, preserved mostly by means of sugar, and they are thickened, or jellied, to some extent.

Savory vs Sweet, what is the difference? Sweet food has the favor or taste of sugar or honey, while savory food is not sweet but rather full-flavored and sometimes spicy.

Jams are made by cooking crushed or chopped fruits with sugar. They are thick, sweet spreads that tend to hold their shape but are less firm than jelly. The shape of fruit pieces is not retained when making jam. Jam has a uniform consistency and is thick enough to spread.

Jellies are usually made by cooking fruit juice with sugar and prepared in a way that keeps the juice crystal clear and shimmering. It should be firm enough to hold its shape when turned out of the container but should quiver when the container is moved. When cut, it should be tender yet retain the angle of the cut. Jelly should have a flavorful fresh fruity taste that is not too tart and not too sweet.

Preserves are small, whole fruits or uniformly sized pieces in a thick slightly gelled sugar syrup. The fruit should be tender and plump. The color should be characteristic of the fruit and fruit pieces should be translucent to clear.

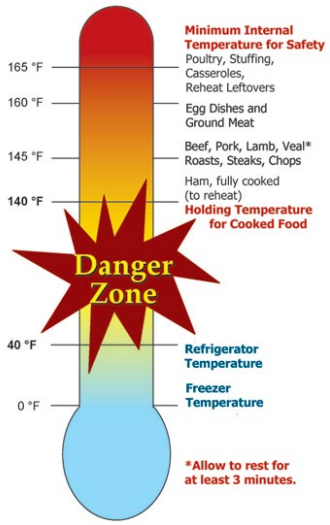
Conserves are jam-like made with a combination of two or more fruits, nuts and raisins. Conserves are cooked until they round up on a spoon. If nuts are used, they can be added during the last five minutes of cooking.

Chutneys range from chunky to smooth and from mild to hot in seasoning. A delicious combination of fruit, vinegar and sugar, cooked and seasoned with spices, onions, garlic or peppers. For maximum visual appeal, create chutneys that offer contrasting colors as well as flavors.

Marmalades are soft fruit jellies containing small pieces or slices of fruit or fruit peel evenly suspended in the transparent jelly. They usually include citrus.

Fruit butters are soft spreads made by cooking fruit pulp with sugar to a thick spreadable consistency.

Factors That Affect Growth of Microorganisms



1. **Temperature:** Foodborne pathogens grow best under the same conditions that allow people to thrive. Most foodborne bacteria grow fastest at temperatures from 90° to 110° F. However, foodborne bacteria will grow in the temperature range known as the ***Danger Zone***, 40° to 140°F; some grow at temperatures below this range.

2. **Acidity or alkalinity (pH):** Most organisms grow best under conditions that are not highly acid or alkaline; that is, a neutral pH. (Very few foods are highly alkaline.) High acid foods generally do not support bacterial growth.

3. **Moisture:** Microorganisms require moisture for growth. Dehydration preserves foods by removing moisture.

4. **Oxygen:** Most microorganisms require oxygen to grow; a few pathogens do not, or may require limited oxygen. However, controlling oxygen content is not useful for controlling bacterial growth for home food preservers.

5. **Time:** It takes time for microorganisms to grow or multiply in foods. The time required is affected by temperature, acidity, moisture and oxygen levels. Under ideal conditions bacteria can double in number every 10 to 20 minutes.

6. **Food:** Bacteria require nutrients to reproduce. Foods provide proteins and carbohydrates for growth.

7. **Inhibitors:** Some natural compounds/food additives are bacterial inhibitors (sugar, acid).

Preventing Foodborne Illnesses

Clean

- Wash hands frequently and after using the toilet, changing a baby's soiled diaper, sneezing or coughing, touching animals, handling raw meat, fish and poultry and before handling food.
- 20-second rule: wash hands for 20 seconds or sing the Happy Birthday song twice.
- Bandage any cuts or burns on hands before handling food; use disposable gloves to protect food.
- Run sponges and dish scrapers through the dishwasher often. Change dish cloths daily.
- Use paper towels to mop up spilled juices from meat, fish or poultry.
- Use a disinfecting solution consisting of 1 teaspoon unscented chlorine bleach to 1 quart of water. Use a spray bottle to disinfect countertops, cutting surfaces, etc. Make a new solution every week.

Separate

- Avoid cross contamination. **ALWAYS** wash your hands, knives, cutting boards, and food preparation surfaces well with soapy water before and after any contact with raw meat or fish.
- Use a separate cutting board for fresh produce, raw meat and cooked meat.
- Rinse all fresh fruits and vegetables well under running water before preparing or eating them.
- When grilling or barbecuing, always use a clean plate for the cooked meat.
- Ice is food! Use clean ice to avoid contaminating food.
- Store raw meat, fish and poultry on the bottom shelf in the refrigerator or on a plate to prevent juices from dripping onto other food items.

Cook

- Internal heat must reach and maintain an internal temperature high enough to kill pathogens.
- Use a thermometer on meats; follow a reputable recipe when canning.

Chill

- Keep your refrigerator set at 40°F or below and refrigerate all perishable foods.
- Thaw frozen perishable foods in a refrigerator overnight, in a microwave oven, or under cold running water. Do not thaw frozen food on your counter.
- Do not prepare food more than 2 hours before serving without plans for proper storage in a refrigerator then reheating just before serving.
- Divide leftover hot food into shallow containers to accelerate cooling and refrigerate within 2 hours after preparation.
- Foods can spoil in as little as 1 hour in the hot sun. Discard any perishable foods from a picnic or potluck that have not been kept adequately chilled (40°F or below) or kept hot (140°F or above).

When In Doubt - Throw It Out! Never taste food that looks or smells strange to see if it can still be used. **Just discard it.** Generally, foods that contain bacteria will look, smell, and taste normal. Generally speaking, most bacteria that cause foodborne illness are odorless, colorless and tasteless.

Basic Jam & Jelly Ingredients

For an acceptable jam or jelly, the proper proportions of fruit, sugar, acid and pectin are needed.

Fruit

- Gives each spread its unique flavor and color.
- Supplies the liquid to dissolve the rest of the necessary ingredients.
- Furnishes some or all of the pectin and acid.
- High-quality, flavorful fruits make the best jellied products.

Sugar

- Serves as a preserving agent, contributes flavor, and aids in gelling.
- Cane and beet sugar are the usual sources of sugar for jelly or jam. Corn syrup and honey may be used to replace part of the sugar in recipes, but too much will mask the fruit flavor and alter the gel structure. Use tested recipes for replacing sugar with honey and corn syrup.
- Do not reduce the amount of sugar in traditional recipes. Too little sugar prevents gelling and may allow yeasts and molds to grow.

Acid

- Adds flavor.
- Proper level of acidity is critical to gel formation. If there is too little acid, the gel will never set; if there is too much acid, the gel will lose liquid (weep).
- For fruits low in acid, add lemon juice or other acid ingredients as directed.
- Commercial pectin products usually contain acids which help to ensure gelling.

Pectin

- Natural occurring carbohydrate located between plant cell walls that give jams and jellies firmness.
- All fruits contain some pectin; some need additional pectin to gel, others do not.
- Forms a gel if it is in the right combination with acid and sugar in traditional recipes.
- Use a low/no sugar pectin to make a reduced sugar fruit spread. These modified pectins use calcium instead of sugar to form the gel.

Methods of Making Jams and Jellies

There are two basic methods of making jams and jellies: the traditional long-boil method, which does not require added pectin, and the quick-cook method, which uses added pectin. The long-boil method works best with fruits naturally high in pectin. The quick-cook method, which requires the use of commercial liquid or powdered pectin, is easier and results in a greater yield. The gelling ability of various pectins differs. To make uniformly gelled products, be sure to add the quantities of commercial pectin to specific fruits as instructed on each package. Overcooking may break down pectin and prevent proper gelling.

When using either method, make one batch at a time according to the recipe. Increasing the quantities often results in soft gels. Stir constantly while cooking to prevent burning. Recipes are developed for specific jar sizes. If jellies are filled into larger jars, excessively soft products may result. To use 4-ounce jars or 12-ounce jars for soft spreads, follow the same processing time as given for 8-ounce jars.

Making *Jam* Without Added Pectin (Traditional Long-Boil Method)

Wash and rinse all fruits thoroughly before cooking. Do not soak fruit. For best flavor, use fully ripe fruit. Remove stems, skins, and pits from fruit; cut into pieces and crush. For berries, remove stems and blossoms and crush. Seedy berries may be put through a sieve or food mill. Measure crushed fruit into large saucepan using the ingredient quantities specified in Table I below.

Table I: Ingredient Quantities for Jam without Added Pectin

Fruit	Crushed Fruit (Cups)	Sugar (Cups)	Lemon (Tsp)	Yield (half-pints)
Apricots	4 to 4-1/2	4	2	5 to 6
Berries*	4	4	0	3 to 4
Peaches	5-1/2 to 6	4 to 5	2	6 to 7
*Includes blackberries, boysenberries, dewberries, gooseberries, loganberries, raspberries and strawberries.				

Add sugar and bring to a boil while stirring rapidly and constantly. This may take anywhere from 25 to 45 minutes or more. Continue to boil until mixture thickens. Use either the freezer or temperature test described below to determine when jam has reached the gel stage and is ready to be processed for long-term storage.

NOTE: Long-boil jams and jellies may be made with reduced sugar by boiling fruit pulp or juice for extended periods of time, which will make a product thicken and resemble one made with more sugar; however, there will be slight differences in texture (for example, rather than a delicate gel achieved by the proper ratio of sugar to fruit/juice, extended cooking will eventually result in a product with a concentrated sticky texture).

Making *Jelly* without Added Pectin (Traditional Long-Boil Method)

Making the juice is the first step in making any fruit juice jelly. Use only firm fruits naturally high in pectin. Select a mixture of about 3/4 ripe and 1/4 under-ripe fruit. Do not use commercially canned or frozen fruit juices. Their pectin content is too low. Wash all fruits thoroughly before cooking. Do not soak fruit. Crush soft fruits or berries; cut firmer fruits into small pieces. Using the peels and cores adds pectin to the juice during cooking. Add water to fruits that require it, as listed below. Put fruit and water in large saucepan and bring to a boil. Simmer according to the times shown in Table II below until fruit is soft, while stirring to prevent scorching. One pound of fruit should yield at least 1 cup of clear juice and 4 cups of juice should yield about 4 half-pints.

Table II: Extracting Juices and Making Jelly without Added Pectin

			Ingredients Added to Each 4 Cups of Strained Juice		
	Cups of Water to Pound of Fruit	Minutes to Simmer Fruit before Extracting Juice	Sugar	Lemon Juice	Jelly Yield from 4 Cups of Juice (half-pints)
Apples	1	20 to 25	3 cups	2 tablespoons	4 to 5
Berries*	None or 1/4	5 to 10	3 to 4 cups	None	5 to 6
Crab Apples	1	15 to 20	3 to 4 cups	None	5 to 6
Plums	1/2	15 to 20	3 cups	None	5 to 6
*Includes blackberries, boysenberries, dewberries, loganberries, raspberries and youngberries.					

When fruit is softened, strain through a double layer of wet cheesecloth or a wet jelly bag. Allow juice to drip through, using a stand or colander to hold the bag. Pressing or squeezing the bag or cloth will cause cloudy jelly. The juice may be frozen at this time to be used another day.

Combine fruit juice with sugar and bring to a boil while stirring rapidly and constantly. This may take anywhere from 25 to 45 minutes or more. Continue to boil until mixture thickens. Use the sheet or temperature test, described below, to determine when jelly has reached the gel stage and is ready to be processed.

Tests for Proper Gelling of Traditional Long-boil Jams and Jellies

Sheet or Spoon Test – Dip a cool metal spoon into the boiling jelly mixture. Raise the spoon about 12 inches above the pan (out of the steam). Turn the spoon so that liquid runs off the side. The jelly is done when the syrup forms two drops that flow together and sheet, or hang off the edge of the spoon.

Freezer Test – Remove the jam mixture from the heat. Pour a small amount of boiling jam on a cold plate or spoon and put it in the freezing compartment of a refrigerator for a few minutes. Remove it from the freezer. If the mixture gels, it should be done.

Temperature Test – Use a jelly or candy thermometer and boil until jam or jelly mixture reaches the following temperatures at altitudes of:

Sea Level	1,000 ft.	2,000 ft.	3,000 ft.	4,000 ft.	5,000 ft.	6,000 ft
220°F	218°F	216°F	214°F	212°F	211°F	209°F

Canning Jams, Jellies and Other Soft Spreads

Jams, jellies and other soft spreads are considered high-acid foods and may be safely canned using either a boiling water canner or atmospheric steam canner. Follow recipe directions for canning your product for long-term storage. As a general guideline, full-sugar jams, jellies and other soft spreads should be placed in sterilized jars and then processed in a boiling water or atmospheric steam canner for 5 minutes at altitudes of 0-1,000 feet. Add 1 minute to the processing time for each 1,000 feet of additional altitude. If using non-sterilized jars, processing time is 10 minutes at altitudes of 0-6,000 feet. The basic processing time for low- or reduced-sugar jams, jellies and other soft spreads should be increased by an additional 5 minutes to a total of 10 minutes and, again, adjusted for altitude differences by adding 1 minute to the processing time for each 1,000 feet of additional altitude.

Canning Fundamentals

Food safety tips

- Wash hands and forearms frequently: after using toilet, after changing baby's soiled diaper, after touching animals, before handling food, and after touching raw meat, fish and poultry.
- 20-second rule: wash hands for 20 seconds.
- Use disposable gloves if you have a cut or sore on your hands.

When in doubt - throw it out

- DANGER - Never taste food that looks or smells strange to see if it can still be used. Just discard it.
- Generally, foods that contain bacteria will look, smell, and taste normal.
- Generally speaking, most bacteria that cause food borne illness are odorless, colorless, and tasteless.

General cleaning tips

- Run sponges and pot scrubbers through the dishwasher frequently. Change dish cloths daily.
- Mop up spilled juices from meat, fish or poultry immediately using a disposable paper towel.
- Use a disinfecting solution consisting of 1-1/2 teaspoons of chlorine bleach to 1 pint of water. Dispense with a spray bottle to disinfect countertops, cutting surfaces, etc. Make a new solution every week.
- AVOID CROSS CONTAMINATION. ALWAYS wash your hands, knives, cutting boards, and food preparation surfaces well with soapy water before and after any contact with raw meat, fish, or poultry.
- Rinse all fresh fruits and vegetables well under running water before preparing or eating them. Do not soak.

Use the Right Equipment

- Use standard canning jars, lids, and rings.
- Cook the product in a deep, non-reactive kettle, stainless-steel, enameled, or glass.
- *Use a reputable recipe for the best results; they have been tested for quality, flavor, and* ***safety****.*

Getting Ready: Be Prepared!

- Read the recipe thoroughly before you begin. Measure out all ingredients and have all needed utensils at hand. Make sure your vinegar is 5% acidity (read the label).
- **Do not** change the quantities of produce nor vinegar in any recipe, unless specified in a tested recipe. (If you cut a non-fruit spread recipe in half, do the math right.)
- Check the jar for flaws. Wash jars, lids, and rings in hot soapy water and rinse well. Place clean jars into the canner to heat.

Fill and Seal Jars Properly

- Fill hot jars, leaving the headspace specified in the recipe.
- Wipe the rim with a clean, damp, paper towel.
- Place lids and rings on jars. Tighten the rings only fingertip tight.

Boiling Water Canner Processing

1. Preheat water to 140°F for raw-packed foods and to 180°F for hot-packed foods. Food preparation can begin while this water is preheating. Do not have the water boiling when you add the jars.
2. Place jars on the rack in the canner. Add enough boiling water to cover the tops of the jar by at least 1 to 2 inches.
3. Place lid on canner. Bring the water to a rolling boil, then reduce heat to a gentle boil.
4. Begin to count processing time when the water comes to a boil.
5. Process for the time indicated in the recipe, maintaining a constant boil.
6. All recipes are developed using sea level as the criteria for processing time. If you are at a higher altitude and your recipe doesn't include adjustments for your elevation, adjust the processing times according to the following chart:

Altitude in feet	Increase processing time
1000 - 3000	5 minutes
3001 - 6000	10 minutes
6001 - 8000	15 minutes
8001 - 10000	20 minutes

7. When the jars have boiled for the recommended time, turn off the heat and remove the canner lid. Wait no more than 5 minutes before removing jars
8. Keep the jars upright when you remove them from the canner.
9. Place the hot jars on a rack or folded towel away from drafts or cool surfaces. Keep the jars separated so they will cool evenly. Do not disturb the seal. Do not retighten the rings.
10. Leave the ring bands on the jars until they have cooled (approximately 24 hours).
11. Do NOT invert jars: Some canning books still recommend inverting the jars after removing them from the canner. The USDA does not recommend this method.
12. After the jars have cooled, remove the ring bands. Look at the top of each jar. If the lid is slightly concave, it indicates a seal. Test the seal by pressing on the lid with your finger; the lid should not give. If you are not sure a jar is sealed, carefully lift the jar by the lid after removing the ring band. If not properly sealed, the lid will come off.

13. Wash and dry bands. Clean the jars with a damp cloth. The ring bands may be replaced on the jars if desired. The ring bands must be thoroughly dry.
14. Label and date the jars, and store in a cool, dark, dry area.

Reprocessing - If a jar did not seal, refrigerate and use within a few days, or reprocess it within 24 hours using a new lid. Check the jar for flaws. Process by the original method and for the full length of time.

Atmospheric Steam Canner Processing

1. Use a research-tested recipe and processing time developed for a **boiling water** canner when using an atmospheric steam canner. An atmospheric steam canner may be used with recipes approved for half-pint, pint, or quart jars.
2. Add enough water to the base of the canner to cover the rack. (Follow manufacturer recommendations.)
3. Preheat water to 140°F for raw-packed foods and to 180°F for hot-packed foods. Food preparation can begin while this water is preheating. Do not have the water boiling when you add the jars.
4. Heat jars prior to filling with hot liquid (raw or hot pack). Do not allow the jars to cool before filling.
5. Load filled jars, fitted with lids, onto the canner rack and place the lid on the canner base.
6. Turn heat to its highest position to boil the water until a steady column of steam (6-8 inches) appears from the vent hole(s) in the canner lid. Jars must be processed in pure steam environment.

7. If using a canner with a temperature sensor, begin processing time when the temperature marker is in the green zone for your altitude. If using a canner without a temperature sensor, begin processing time when a steady stream of steam is visible from the vent hole(s).
8. Set the timer for the total minutes required for processing the food, adjusting for altitude (see chart on page 7). Processing time must be limited to **45 minutes or less, including any modification for elevation**. The processing time is limited by the amount of water in the canner base. When processing food, **do not** open the canner to add water.
9. Monitor the temperature sensor and/or steady stream of steam throughout the entire timed process. Regulate heat so that the canner maintains a temperature of 210-212°F. A canner boiling too vigorously can boil dry within 20 minutes. If a canner boils dry, the food is considered under-processed and therefore potentially unsafe.
10. At the end of the processing time, turn off the heat, wait 2-3 minutes and remove the lid, lifting the lid away from you.
11. Using a jar lifter, remove the jars without tipping and place them on a towel, leaving at least 1-inch spaces between the jars during cooling. Let jars sit undisturbed to cool at room temperature for 12 to 24 hours.
12. Wash and dry bands. Clean the jars with a damp cloth. The ring bands may be replaced on the jars if desired. The ring bands must be thoroughly dry.
13. Label and date the jars, and store in a cool, dark, dry area.

Reprocessing - If a jar did not seal, refrigerate and use within a few days, or reprocess it within 24 hours using a new lid. Check the jar for flaws. Process by the original method and for the full length of time.

Resources: National Center for Home Food Preservation, http://nchfp.uga.edu

Recipes

Tuscan Tomato Jam

Makes about 4 half-pint jars

This sweet and tart jam will liven up an autumn cheeseboard and is equally delicious in any of your favorite recipes calling for ketchup or chili sauce. Spread it on meatloaf halfway through baking to make a savory glaze or serve with eggs for brunch.

6 lbs. red tomatoes (about 18 medium)
6 tablespoons powdered pectin
1 teaspoon grated lemon peel (about 1/2 medium)
2 tablespoons balsamic vinegar
1/4-cup dry white wine, such as pinot grigio or sauvignon blanc
2 teaspoons dried herbs, such as thyme, rosemary, oregano, savory or marjoram or a combination of any of these
1 teaspoon salt
1/4-teaspoon ground black pepper
2 tablespoons bottled lemon juice
1-1/2 cups granulated sugar

1. Wash tomatoes. Core and slice into quarters. Cook until soft in large sauce pot or Dutch oven. Purée mixture using an electric food strainer or food mill to remove peels and seeds.
2. Return purée to sauce pot and simmer over medium-high heat until reduced by half, stirring frequently to prevent sticking. Add pectin, lemon peel, bottled lemon juice, salt, pepper, balsamic vinegar, white wine and herbs, stirring to blend in pectin. Bring mixture to a boil over medium-high heat, stirring constantly. Add sugar, stirring to dissolve. Bring mixture to a rolling boil that cannot be stirred down. Boil hard for 1 minute, stirring constantly. Remove from heat. Skim foam if necessary.
3. Ladle hot jam into hot jars, leaving 1/4-inch headspace. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
4. Process jars in either a boiling water or steam canner for 15 minutes at 0-1,000 feet elevation, 20 minutes between 1,001-3,000 feet, 25 minutes between 3,001-6,000 feet, and 30 minutes above 6,000 feet.

Source: ballmasonjar.com

Gingered Zucchini Marmalade

Yield: about 4 half-pint jars

2 oranges
2 lemons
4 cups granulated sugar
5 cups shredded zucchini
1 tart apple, cored and shredded
2- to 3-inch piece of gingerroot, peeled & chopped

1. Thoroughly wash citrus fruit. With a vegetable peeler, remove colored peel from oranges; thinly slice orange peel and place in a large, deep stainless-steel saucepan.
2. With a sharp knife, cut white pith and any remaining peel from oranges and lemons. Tie pith, peel and gingerroot in a large square of cheesecloth, creating a spice bag; add to peel in saucepan. Finely chop orange and lemon pulp; add to saucepan with zucchini, apple and sugar
3. Over medium-high heat, bring mixture to a boil, stirring frequently, boil uncovered until mixture reaches gel stage, about 45 minutes.
4. Ladle hot marmalade immediately into hot jars, leaving 1/2-inch headspace. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
5. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes between 1,001-3,000 feet, 20 minutes between 3,001-6,000 feet, 25 minutes between 6,001-8,000 feet, and 30 minutes between 8,001-10,000 feet.

Source: freshpreserving.com, 2018

Double Onion Marmalade

Yield: 6 half-pint jars

A little dab of this sweet onion marmalade is all you need to jump-start an amazing appetizer or main dish. Great on Burgers!

1-1/2 cups thinly sliced red onion
1-1/2 cups thinly sliced Vidalia onion
1/4-cup firmly packed light brown sugar
1/3-cup apple cider vinegar (5%)
1 tablespoon black peppercorns
cheesecloth & kitchen string
2 bay leaves
2-1⁄2 cups unsweetened apple juice
1⁄2-cup raisins
6 tablespoons powdered pectin
4 cups sugar

1. Combine first 4 ingredients in a 6-qt. stainless-steel or enameled Dutch oven. Cook, stirring often, over medium heat 13 minutes or until liquid evaporates.
2. Place peppercorns and bay leaves in a 5-inch square of cheesecloth or spice bag. Add to onion mixture. Add apple juice and raisins; stir in pectin.
3. Bring mixture to a full rolling boil that cannot be stirred down, over high heat, stirring constantly.
4. Hold spice bag to one side of Dutch oven with tongs. Add sugar, stirring until dissolved. Release spice bag. Return mixture to a full rolling boil. Boil hard 1 minute, stirring constantly. Remove from heat; remove and discard spice bag. Skim foam, if necessary.
5. Ladle hot marmalade into hot jars, leaving 1⁄4-inch headspace. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
6. Process jars in either a boiling water or steam canner for 15 minutes at 0-1,000 feet elevation, 20 minutes between 1,001-3,000 feet, 25 minutes between 3,001-6,000 feet, 30 minutes between 6,001-8,000 feet, and 30 minutes between 8,001-10,000 feet.

Source: *The All New Ball Book of Canning and Preserving, published by Oxmoor House (2016).*

Corncob Jelly

Yield: about 4 half-pint jars

1 dozen medium-sized fresh red corncobs from field corn (cobs only)
(We've tried it with sweet & yellow cobs and the result is great!)
2 quarts water
1 package powdered pectin
3 cups corncob juice
3 cups sugar

1. Wash the corncobs and cut into 4-inch lengths. Place in a large stockpot, add 2 quarts water or enough to cover, and bring to a boil. Reduce heat and boil slowly for 35 to 40 minutes.
2. Strain the juice through a double layer of damp cheesecloth or a damp jelly bag. Do not press or squeeze the bag or cloth.
3. Sterilize canning jars by boiling for 10 minutes at altitudes of less than 1,000 feet. At higher elevations, boil jars 1 additional minute for each additional 1,000 feet elevation.
4. Measure 3 cups of corncob juice into a large saucepot (add water if needed to make 3 cups liquid).
5. Stir in the pectin and bring to a boil.
6. Add the sugar all at once, and bring the mixture back to a full rolling boil while stirring. Boil for 5 minutes.
7. Remove from heat; skim off foam quickly. Pour hot jelly immediately into hot, sterile jars, leaving 1/4-inch headspace. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
8. Process in a boiling water or atmospheric steam canner for 5 minutes at 0-1,000 feet elevation in sterilized jars, 10 minutes at 1,001-6,000 feet, and 15 minutes above 6,000 feet.

Source: National Center for Home Food Preservation, 2018

Tomato Apple Onion Chutney

Yield: 6 half-pint jars

Serve this tasty chutney warmed over baked Brie for an appealing appetizer. Allow a plentiful supply of crackers and apple slices for spreading the Brie.
Mix it with mayonnaise for a scrumptious sandwich spread.

1-1/2 cups white vinegar
2 cups chopped cored peeled apples (about 2 medium)
5 cups chopped cored peeled tomatoes (about 7 medium)
1-1/2 cups lightly packed brown sugar
1 cup chopped English cucumber (about 1 medium)
3/4-cup chopped onions (about 1 small)
3/4-cup chopped seeded red bell peppers (about 1 large)
1/2-cup raisins
1 red chili pepper, finely chopped
1/4-teaspoon finely chopped garlic (about 1/2 clove)
1-1/2 teaspoon ground ginger
1/2-teaspoon salt
1/2-teaspoon ground cinnamon

1. Combine vinegar and apples in a large saucepan. Add remaining ingredients. Bring to a boil, stirring frequently. Reduce heat and simmer 30 minutes, stirring frequently.
2. Ladle hot chutney into hot jars leaving 1/2-inch headspace. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
3. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes between 1,001-3,000 feet, 20 minutes between 3,001-6,000 feet, 25 minutes between 6,001-8,000 feet, and 30 minutes between 8,001-10,000 feet.

Source: Ball Complete Book of Home Preserving, 2020

Rhubarb-Orange Chutney

Yield: about 6 half-pint jars

10 whole black peppercorns
1 tablespoon mustard seed
1 tablespoon pickling spice
4 tablespoons grated orange zest
2/3 cup fresh orange juice
6 cups chopped rhubarb
5 cups lightly packed brown sugar
3-1/2 cups cider vinegar
3 cups chopped onion
1-1/2 cups raisins
2 tablespoons finely chopped garlic
2 tablespoons finely chopped gingerroot
1 tablespoon curry powder
1 teaspoon ground allspice

1. Wash rhubarb and oranges under cold running water; drain. Remove leafy tops and root ends from rhubarb. Chop rhubarb into 1/2-inch pieces. Cut oranges in half and remove seeds. Juice oranges; measuring 1 cup of orange juice. Using the peel from half of one orange, remove pith and cut into thin slivers.
2. Sterilize canning jars by boiling for 10 minutes at altitudes of less than 1,000 feet. At higher elevations, boil jars 1 additional minute for each additional 1,000 feet elevation.
3. Tie peppercorns, mustard seeds and pickling spice in a square of cheesecloth, creating a spice bag. Set aside.
4. Combine orange zest and juice, rhubarb, brown sugar, vinegar, onions, raisins, garlic, and ginger in a large stainless-steel saucepan. Bring to a boil over medium-high heat, stirring constantly. Reduce heat and boil gently, stirring occasionally, for 45 minutes.
5. Add curry powder, allspice, and reserved spice bag; stir well. Boil gently, stirring frequently, until thick enough to mound on spoon, about 30 minutes.
6. Ladle hot chutney into hot jars leaving 1/2-inch headspace. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.

7. Process 10 minutes in a boiling water canner or atmospheric steam canner, adding 1 additional minute per 1,000 feet above sea level. Remove jars and cool. Check lids for seal after 24 hours. Lid should not flex up and down when center is pressed.

Source: Ball Blue Book Guide to Preserving

Pork Medallions with Chutney of choice

1-3/4 to 2 lb. pork tenderloin, cut into 1-inch pieces
Cooking oil or spray
Season both sides of pork with salt and pepper, or seasoning of your choice.
Place in oiled frying pan. Brown pork on both sides.
Oil shallow baking dish; place pork in bottom of pan. Cover pork with favorite chutney. Roast at 350°F for 10-20 minutes or until meat thermometer reaches 140°F.
Cover with foil until you are ready to serve. Serve extra chutney on the side.

Herbes De Provence Wine Jelly

Makes about 4 4-ounce jars or 2 half-pint jars

2 cups dry white wine
2 cups granulated sugar
2 tablespoons Herbes de Provence
1 pouch liquid pectin

1. In a large stainless-steel saucepan, combine wine and herbs. Bring to a boil over high heat. Remove from heat, cover and let steep for 20 minutes.
2. Transfer to a dampened jelly bag or strainer lined with several layers of dampened cheesecloth set over a deep bowl. Let drip undisturbed for 20 minutes. Measure 1-3/4 cup infused wine. If you do not have the required amount squeeze the bag. [note: squeezing the jelly bag is the exception to the rule for making juice for jelly. In this recipe, it is acceptable because there is no pulp that will be expressed into the juice.]
3. Meanwhile, prepare canner, jars and lids.
4. Transfer infused wine to a clean large, deep stainless-steel saucepan. Stir in sugar. Over high heat, stirring constantly bring mixture to a full rolling boil that cannot be stirred down. Stir in pectin. Boil hard, stirring constantly, for 2 minutes. Remove from heat and quickly skim off foam.
5. Quickly pour hot jelly into hot jars, leaving 1/4-inch headspace. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
6. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes between 1,001-3,000 feet, 20 minutes between 3,001-6,000 feet, 25 minutes between 6,001-8,000 feet, and 30 minutes between 8,001-10,000 feet.

Source: Ball Complete Book of Home Preserving, 2020

Jalapeño Jelly

Yield: about 5 half-pint jars

12 ounces jalapeño peppers (about 12 medium)
2 cups cider vinegar, divided
Green food coloring, optional
6 cups sugar
2 3-ounce pouches liquid pectin

Caution: Wear Plastic or rubber gloves and do not touch your face while handling or cutting hot peppers. If you do not wear gloves, wash hands thoroughly with soap and water before touching your face or eyes.

1. Purée peppers in food processor or blender with 1 cup cider vinegar until smooth. Do not strain.
2. Combine purée with remaining 1 cup cider vinegar and sugar. Bring to a boil over high heat. Boil 10 minutes, stirring frequently.
3. Stir in liquid pectin quickly. Return to a full rolling boil; boil exactly 1 minute, stirring constantly. Remove from heat. Add food coloring, if using. Skim foam if necessary.
4. Ladle hot jelly into hot jars, leaving 1/4-inch headspace. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
5. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes between 1,001-3,000 feet, 20 minutes between 3,001-6,000 feet, 25 minutes between 6,001-8,000 feet, and 30 minutes between 8,001-10,000 feet.

Source: freshpreserving.com, 2018

Strawberry-Jalapeno Jam (low sugar)

Yields: about 8 half-pint jars

1-1/2 cups chopped strawberries (about 1 pint)
1 cup chopped sweet red peppers (about 3/4-lb or 3 medium bells)
1/2- to 3/4-cup chopped jalapenos depending on how hot you like it (about 12-15 small peppers)
1-1/2 cups bottled lemon juice
1/2-cup white vinegar 5%
1-1/2 cups sugar
2 teaspoons calcium water (see step #1)
2 teaspoons Pomona's Pectin

1. Prepare calcium water. Combine 1/2-teaspoon calcium powder (in the small packet in your box of Pomona's Pectin) with 1/2-cup water in a small, clear jar with a lid. Shake well. Extra calcium water should be stored in the refrigerator for future use. Wash jars, lids, and bands.
2. While you prepare your jars, wash, finely chop, and measure the strawberries and the peppers. Remove stems, seeds, and white membranes from the peppers before chopping. Use latex gloves when handling the jalapenos. (I used a food processor to chop the peppers and berries so the measurements listed are exact.)
3. Put measured berries and peppers in the pot along with the lemon juice and vinegar. Slowly bring to a simmer, stirring occasionally. Simmer covered for 5 minutes. In a separate bowl, thoroughly stir pectin powder into sugar and set aside. After simmering for the 5 minutes, add the calcium water to the jam pot and stir well. Bring the jam to a good boil, then stir in the sugar-pectin mix.
4. Stir vigorously for 1 minute then boil hard for 1 minute. Remove from the heat.
5. Fill hot jars to 1/4-inch of top. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
6. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation; add 1 minute more for every 1,000 ft. above sea level.
7. Lasts 3 weeks once opened.

Source: Pomona's Pectin on-line 2022

Cranberry-Habanero Jelly (low sugar)

Yield 4 to 5 half-pint jars

1/4 cup finely chopped cranberries
1-1/4 cups seeded, finely diced yellow bell peppers
2 teaspoons seeded, minced habanero peppers
2 teaspoons calcium water (see step #1)
1-1/2 cups white vinegar
2-1/2 cups sugar, divided
2 teaspoons Pomona's Pectin

1. Prepare calcium water. Combine 1/2-teaspoon calcium powder (in the small packet in your box of Pomona's Pectin) with 1/2-cup water in a small, clear jar with a lid. Shake well. Extra calcium water should be stored in the refrigerator for future use. Wash jars, lids, and bands.
2. Combine chopped cranberries, diced yellow pepper, minced habanero pepper, and vinegar in a saucepan. Cover, bring to a boil, and then reduce heat and simmer, still covered, for 5 minutes. Remove from heat.
3. In a separate bowl, combine pectin powder with 1/2-cup of the sugar. Mix thoroughly and set aside.
4. Add calcium water to the pepper mixture, mix well, and return the mixture to a full boil over high heat. Slowly add pectin-sugar mixture, stirring constantly. Continue to stir vigorously for 1 to 2 minutes to dissolve pectin while the jelly returns to a boil. After the pectin is fully dissolved, add the remaining quantity of sugar and stir to dissolve it. Once sugar is dissolved, and the jelly returns to a full boil, remove it from the heat.
5. Ladle hot jam into hot jars, leaving 1/4-inch headspace. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
6. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation; add 1 minute more for every 1,000 ft. above sea level.
7. Lasts 3 weeks once opened.

Source: Pomona's Pectin on line, April 2016

Peach Almond Conserve

Yields: about 10 half-pint jars

1 teaspoon whole cloves
1 teaspoon whole allspice
1 cinnamon stick (about 4 inches), broken into pieces
8 cups crushed pitted peeled peaches
2 cups finely chopped seeded oranges (unpeeled)
7 cups granulated sugar
1 cup halved drained maraschino cherries
1/2-cup slivered almonds

1. Tie cloves, allspice and cinnamon stick pieces in a square of cheesecloth, creating a spice bag.
2. In a large, deep stainless-steel saucepan, combine peaches, oranges, and spice bag. Bring to a boil over high heat, stirring constantly. Reduce heat and boil gently, stirring occasionally for 15 minutes, until fruit is softened. Add sugar, increase heat to medium-high and return to a boil, stirring to dissolve sugar. Boil hard, stirring frequently, until mixture thickens, about 15 minutes. Stir in cherries and almonds; return to a boil. Boil stirring constantly, for 5 minutes. Remove from heat and test gel. If gel stage has been reached, discard spice bag and skim off foam.
3. Ladle hot conserve into hot jars, leaving 1/4-inch headspace. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
4. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation; add 1 minute more for every 1,000 ft. above sea level.
5. Lasts 3 weeks once opened.

Source: Ball Complete Book of Home Preserving, 2020

Cranberry Peach Conserve

Makes about 6 half-pint jars

4 cups finely chopped pitted peeled peaches
1/2-cup coarsely chopped dried cranberries
5 cups granulated sugar
2 tablespoons lemon juice
2 pouches (each 3oz) liquid pectin
1/4-cup toasted slivered almonds (optional)
1/4-cup amaretto liqueur
(or 1/2-teaspoon almond extract)

Tip: Toasting nuts freshens them and intensifies their flavor. Toast nuts in a toaster oven or place in a dry heavy skillet over medium heat and stir until they release their aroma, about 4 minutes.

1. In a large, deep stainless-steel saucepan, combine peaches, cranberries, sugar, and lemon juice. Over high heat, stirring constantly, bring to a full rolling boil that cannot be stirred down. Stir in pectin, boil hard, stirring constantly, for 1 minute. Remove from heat and stir in almonds, if using, and amaretto liqueur. Skim off foam.
2. Ladle hot conserve into hot jars, leaving1/4-inch headspace. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
3. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes between 1,001-3,000 feet, 20 minutes between 3,001-6,000 feet, 25 minutes between 6,001-8,000 feet, and 30 minutes between 8,001-10,000 feet.

Source: Ball Complete Book of Home Preserving, 2020

Strawberry Margarita Preserves

Makes about 6 half-pint jars

6 cups halved hulled strawberries
1/2-cup tequila
2 cups chopped cored peeled tart apples
1/2-cup orange-flavored liqueur
1/4-cup lemon juice
2 tablespoons strawberry schnapps (optional)
4 cups granulated sugar

1. In a large, deep stainless-steel saucepan, combine strawberries, apples and lemon juice. Bring to a boil over high heat, stirring constantly. Add sugar stirring until dissolved. Reduce heat and boil gently, stirring frequently, until mixture thickens, about 25 minutes.
2. Remove from heat and test gel. If gel stage has been reached, stir in tequila, orange-flavored liqueur and strawberry schnapps, if using. Return to medium-high heat and bring to a boil, stirring constantly. Boil hard, stirring constantly, for 5 minutes. Remove from heat and skim off foam.
3. Ladle hot preserves into hot jars, leaving 1/4-inch headspace. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
4. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes between 1,001-3,000 feet, 20 minutes between 3,001-6,000 feet, 25 minutes between 6,001-8,000 feet, and 30 minutes between 8,001-10,000 feet.

Source: Ball Complete Book of Home Preserving, 2020

Berry Jam (no added pectin)

Yields about 6 half-pint jars

9 cups crushed blackberries, blueberries, boysenberries, dewberries, gooseberries, loganberries, raspberries, youngberries or a combination of these berries.
6 cups granulated sugar

1. In large, deep stainless-steel saucepan, combine berries, lemon juice and sugar. Bring to a boil over medium heat, stirring constantly to dissolve sugar. Boil, stirring frequently, until mixture thickens. Remove from heat and test gel. If gel stage has been reached, skim off foam.
2. Ladle hot jam into hot jars, leaving 1/4-inch headspace. Remove bubbles and adjust headspace, if necessary, by adding hot jam. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
3. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes between 1,001-3,000 feet, 20 minutes between 3,001-6,000 feet, 25 minutes between 6,001-8,000 feet, and 30 minutes between 8,001-10,000 feet.

Source: Ball Complete Book of Home Preserving 2020 edition

Red Raspberry Jam

Yields about 6 half-pint jars

4 cups crushed raspberries (approximately 36 ounces)
6-1/2 cups sugar
1 pouch liquid pectin

1. Crush berries; if desired, press half the crushed fruit through sieve to remove seeds.
2. Measure 4 cups crushed berries into stock pot, mix in sugar.
3. On high heat, stirring constantly, bring mixture to full rolling boil that does not stir down.
4. Stir in pectin quickly. Return to full rolling boil; boil exactly 1 minute, stirring constantly.
5. Remove from heat; skip off any foam with metal spoon.
6. Fill prepared hot jars to within 1/4-inch of top. Remove air bubbles and adjust head space, if necessary, by adding hot jam. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
7. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes between 1,001-3,000 feet, 20 minutes between 3,001-6,000 feet, 25 minutes between 6,001-8,000 feet, and 30 minutes between 8,001-10,000 feet.

Source: Ball Complete Book of Home Preserving 2020 edition

Sweet Apple Cider Butter

Yields about 8 half-pint jars or 4 pint jars

6 lbs. apples, peeled, cored and quartered
2 cups sweet apple cider
3 cups granulated sugar
1-1/2 teaspoon ground cinnamon
1/2-teaspoon ground cloves

1. In a large stainless-steel saucepan, combine apples and apple cider. Bring to a boil over medium heat. Reduce heat and boil gently, stirring occasionally, until apples are soft, about 30 minutes.
2. Working in batches, transfer apple mixture to a food mill or a food processor fitted with a metal blade and purée just until uniform texture is achieved. Do not liquefy. Measure 12 cups of apple purée.
3. In a clean large stainless-steel saucepan, combine apple purée, sugar, cinnamon and cloves. Stir until sugar dissolves. Bring to a boil over medium-high heat, stirring frequently. Reduce heat and boil gently, stirring frequently, until mixture thickens and hold its shape on a spoon.
4. Meanwhile, prepare canner, lids and jars.

5. Ladle hot apple cider butter into hot jars, leaving 1/4-inch headspace. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
6. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes between 1,001-3,000 feet, 20 minutes between 3,001-6,000 feet, 25 minutes between 6,001-8,000 feet, and 30 minutes between 8,001-10,000 feet.

Source: Ball Complete Book of Home Preserving, 2020

Low-Sugar Strawberry Jelly with Pomona's Pectin

Yields about 6 half-pint jars

4 cups strawberry juice
1/4-cup lemon or lime juice
4 teaspoons Pomona's Pectin
4 teaspoons calcium water (see step #1)
1/2-cup to 1 cup honey, or 3/4-cup to 2 cups sugar

1. Prepare calcium water. Combine 1/2-teaspoon calcium powder (in the small packet in your box of Pomona's Pectin) with 1/2-cup water in a small, clear jar with a lid. Shake well. Extra calcium water should be stored in the refrigerator for future use. Wash jars, lids, and bands.
2. To prepare fruit, mash raw strawberries through fine sieve and collect juice. Or, lightly mash fruit and simmer with a little water; pour simmered fruit into wet jelly bag and let drip until juice stops.
3. To make jelly, measure fruit juice into pan with lemon or lime juice. Add 4 teaspoons of calcium water to pan; stir well.
4. Measure sugar or room temperature honey into separate bowl. Thoroughly mix pectin powder into honey or sugar.
5. Bring juice to a boil. Add pectin-sweetener mixture. Stir vigorously 1-2 minutes to dissolve pectin while mixture returns to full boil. Remove from heat.
6. Ladle hot jelly into hot jars, leaving 1/4-inch headspace. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids until fit is fingertip tight.
7. Process jars in either a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation; add 1 minute more for every 1,000 ft. above sea level.
8. Lasts 3 weeks once opened.

Source: Pomona's Pectin on line, April 2016

No endorsement of any product/company is intended, nor is criticism implied of similar products/companies that are not included.

Sources: National Center for Home Food Preservation: http://nchfp.uga.edu/
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