

#### **UCCE Master Food Preservers of Amador/Calaveras County**

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# **Bountiful Strawberries**

The quality of food is judged by wholesomeness, its nutritional value, and our expectations of its color, flavor, odor, and texture. The quality of preserved food varies greatly and depends mostly on the quality of the fresh food and preservation methods. High quality preserved foods are free from microbial spoilage and toxins, are pleasing to eat, and are reasonably nutritious.

**The Bottom Line:** If you prepare or serve food, you are responsible for making sure it's safe food.

#### **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 tsp 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

- 1. Must reach and maintain an internal temperature high enough to kill pathogens.
- 2. 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.

### Jars, Lids & Rings

Not just any jar will do for canning. Canning jars are special and are made to withstand high heat and / or freezing and are designed for the lids to fit correctly.

The lids are made specifically for canning jars in two different size jar openings, *regular and wide mouth*. Lids are self-sealing round metal disc that are held in place with a metal screw band (ring). The lids have a gasket that seals after processing. The lids are intended for <u>one-time use</u>. The rings are reusable.

There are jars with clear glass lids and a replaceable rubber ring between it and the jar. These are not suitable for canning purposes.

Wash lids and rings with warm soapy water. Do not use rusting or damaged lids or rings. Place lids seal down onto clean jar rim and follow with metal screw band. Tighten enough to hold the lid in place but loose enough to allow the air to vent from the jar, this enables the jar to have a tight vacuum seal when done.

Rule of thumb is to tighten the screw band very gently until you feel a sight resistance. Then finger tight a little more. You do not want the bands too tight or too loose.

#### **Processing the Jars**

Process foods for which you have a researched-based processing time. The process time is unique to each food, based on the amount of time needed for the contents of the jar to reach a temperature required to destroy all dangerous microorganism. Processing times are specified for jar size. All recipes specify jar size needed. You can move down in size of jar (and be safe). Use the same processing time for the smaller jar as listed in the recipe. Never use a larger jar than the recipe recommends. If a larger jar is used, processing time has to be adjusted for that size jar and content. Don't estimate on the processing time for larger jars; you need to be precise.

## **How Canning Preserves Food Safely**

• With proper canning practices, air is forced from the jars, leaving a vacuum. Heat destroys most heat-resistant microorganisms capable of growing in food stored at room temperature.

- Molds and some yeasts are unable to grow in a vacuum. However, there is a very healthy growth
  environment for anaerobic bacteria in sealed, home-canned foods. Such foods must be heat processed
  until a commercially sterile product is achieved, or they must have salts, sugars, acids or other
  preservatives added.
- Yeasts and molds are destroyed when food temperatures reach about 190°F, whereas most bacterial
  vegetative cells are destroyed in foods heated to a boiling temperature. Bacterial spores are able to
  survive for a long period at the temperature of boiling water.
- Pressure enables the processing of canned foods at temperatures higher than boiling water, where kill
  rates are greatly increased. Pressure canning is required to safely process low-acid foods that may support
  the growth of bacterial spores, leading to the production of toxins.

#### Sweetening and Acidifying Jellies & Jams

Adds sugar and acids that tie up free water and lower the pH.

#### **Canning Processes**

- Use an **atmospheric steam canner** or a **boiling water canner** for high acid foods: fruits, pickled and fermented products, jams and jellies.
- Use a **pressure canner** for low acid foods: meats, vegetables, and seafood.

Why two different processes? Low acid foods must be pressure canned because Clostridium botulinum, the bacteria that causes botulism, is a spore former. When conditions are not favorable for the organism to grow (high heat, dryness, etc.), the bacterial cell forms a protective structure called a spore. It takes a higher temperature than boiling to destroy the spores: 240° - 250°F. If you do not destroy the spores in low acid foods they will germinate and produce fatal toxins in the food when it is stored on the shelf. High acid foods have enough acidity to destroy spores.

The USDA <u>does not</u> recommend the open kettle method of canning because it does not prevent all risks of spoilage. (Open kettle canning is ladling hot foods into hot jars, applying the lids and letting them seal without processing them in a canner.)

#### 5-minute Processing Time for Jams & Jellies

To prevent growth of molds and loss of good flavor or color, fill hot products into sterile jars, leaving 1/4-inch headspace, and process 5 minutes in a boiling-water or steam canner, adding 1 minute per 1,000 feet above sea level. If using unsterile jars, process the filled jars 10 minutes. Use of sterile jars is preferred, especially when fruits are low in pectin, since the added 5-minute process time may cause weak gels. Sterilize jars in boiling water for 10 minutes, adding 1 minute per 1,000 feet above sea level.

### **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.









### **Canning Basics**

#### Get Ready ... Be Prepared!

- Read the recipe thoroughly before you begin.
- Measure out all ingredients.
- Have all of your utensils at hand.
- Wash jars, lids and rings in hot soapy water and rinse well. Check jars for imperfections.
- Place clean jars into the boiling water canner to heat.
- Prepare lids and rings according to the directions on the lid and ring packages. (Newer boxes of lids don't require pre-heating, older ones do. You may still pre-heat newer lids.)
- Do a "dry run" of the recipe to make sure you have all of your materials and understand the process.

#### **General Canning Supplies**

- Standard canning jars, rings, self-sealing one-time use lids; no paraffin wax as a sealing agent
- Funnel
- Headspace measurer
- De-bubbler
- Jar lifter
- Tray/towel for hot jars
- Canning pot with bottom rack and a lid
- Reputable recipe that follows the USDA recommended canning procedures

#### Raw-Pack vs. Hot-Pack Methods

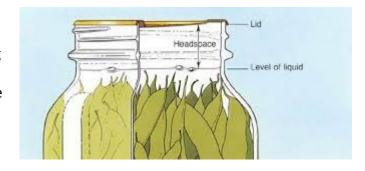
Filling jars with raw, unheated food prior to heat processing is called the raw-pack method. The preferred method, filling jars with preheated, hot food prior to heat processing, is called the hot-pack method. Benefits include a tighter pack and, because food expels air when heated, less float.

#### Jars

Check jars, lids and bands for high quality. Wash jars, lids and bands in hot, soapy water. Rinse well. Heat home canning jars in hot water, not boiling, until ready for use. Fill a large saucepan or stockpot half-way with water. You may also place them in your canner. Place jars in water (filling jars with water from the saucepan will prevent flotation). Bring to a simmer over medium heat. Keep jars hot until ready for use. You may also use a dishwasher to wash and heat jars. Keeping jars hot prevents them from breaking when hot food is added. Leave lids and bands at room temperature for easy handling.

#### Headspace

Headspace is the completely empty space left in the jar underneath the lid and above the food. Headspace allows for food to expand during canning without being forced out from under the lid during processing. Too much headspace and a vacuum may not form. Too little and the product may boil onto the rim and prevent a good seal.



## **Boiling Water Canner Processing**

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".
- 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, 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		

Note: these altitude adjustments are for non-jam & jelly recipes. Process jams & jellies for 5+ minutes in sterile jars as recommended on page 4.

- 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 boiling water 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.
- removing the ring band. If not properly sealed, the lid will come off.

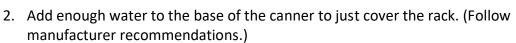
  13. Wash and dry bands. Clean the jars with a damp cloth.
  The ring bands may be replaced on the jars if desired.
- 14. Label and date the jars, and store in a cool, dark, dry area.

**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 method originally advised and for the full length of time.

The ring bands must be thoroughly dry.

### **Atmospheric Steam Canner Processing**

 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.



- 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 5). 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 212°F. A canner that is 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.

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

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Zone 3

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#### Recipes

## Strawberry Vinaigrette Dressing (aka Strawberry Shrub)

Whole strawberries, washed and stemmed White distilled vinegar Sugar

- 1. Place strawberries in a large stainless steel sauce-pot, glass or plastic container. Add enough vinegar to cover the strawberries. Cover container tightly with plastic wrap and let stand overnight in a dark, cool place (70°F to 75°F).
- 2. Strain liquid from strawberries. Liquid should be red and clear (no pulp).
- 3. Measure liquid. Measure an equal amount of sugar in a separate container.
- 4. Place strawberry vinegar in a clean, large stainless steel saucepan. Add sugar, stirring to combine. Bring mixture just to a boil. Remove from heat and skim foam if necessary.
- 5. Ladle hot vinaigrette into hot jars leaving 1/4-inch headspace. Wipe rim and apply two-piece metal canning lids.
- 6. Process in a steam or boiling water canner for 10 minutes at 0-1000', 15 minutes at 1,001 -3,000', 20 minutes at 3,001 6,000', 25 minutes above 6,000' elevation.

Source: Ball "Complete Book of Home Preserving" 2012 / 2020 editions

## Strawberry Shrub Drink

Strawberry shrub/vinaigrette dressing Sparkling water

- 1. To serve, mix 8 ounces of shrub syrup with 24 ounces of sparkling water.
- 2. Taste and add more syrup, if desired.

## Strawberry Balsamic Freezer Jam with instant pectin

Yield: about 5 half-pints

1 cup balsamic vinegar

4 cups crushed strawberries

1/2 cup honey

5 tablespoons Ball Instant Pectin

- 1. Place balsamic vinegar in a small saucepan. Cook over medium heat until reduced to 3/4 cup. Chill until cool.
- 2. Mix strawberries, honey and cooled balsamic vinegar in a large mixing bowl. Let stand for 10 minutes.
- 3. Add pectin. Stir 3 minutes.
- 4. Ladle the strawberry balsamic jam into clean jars, leaving 1/2-inch headspace. Apply lids.
- 5. Let stand until thickened, about 30 minutes.
- 6. Refrigerate up to 3 weeks or freeze up to 1 year.

Source: freshpreserving.com, 2018

### Strawberry Freezer Jam with liquid or powdered pectin

- 2 cups prepared fruit (about 1 qt. fully ripe strawberries)
- 4 cups sugar, measured into separate bowl
- 2 tablespoons fresh lemon juice
- 1 pouch liquid pectin or 1 box powdered pectin.
- 1. Rinse clean plastic containers and lids with boiling water. Dry thoroughly.
- 2. Stem and crush strawberries thoroughly, one layer at a time. Measure exactly 2 cups prepared fruit into large bowl. Stir in sugar. Let stand 10 min., stirring occasionally.
- 3. Mix pectin and lemon juice in small bowl. Add to strawberry mixture; stir 3 minutes or until sugar is dissolved. (A few sugar crystals may remain.)
- 4. Fill all containers immediately to within 1/2 inch of tops. Wipe off top edges of containers; immediately cover with lids. Let stand at room temperature 24 hours. Jam is now ready to use. Refrigerate up to 3 weeks or freeze up to 1 year. Thaw in refrigerator.

Source: Kraft Foods

## Strawberry Jam

Yield: About 9 or 10 half-pints

5-1/2 cups crushed strawberries (about 3 quart boxes)

1 package powdered pectin

8 cups sugar

- 1. 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.
- 2. Sort and wash fully ripe strawberries; remove stems and caps. Crush berries.
- 3. Measure crushed strawberries into a kettle.
- 4. Add pectin and stir well. Place on high heat and, stirring constantly, bring quickly to a full boil with bubbles over the entire surface.
- 5. Add sugar, continue stirring, and heat again to a full bubbling boil. Boil hard for 1 minute, stirring constantly.
- 6. Remove from heat; skim foam if necessary.
- 7. Pour hot jam immediately into hot, sterile jars, leaving 1/4-inch headspace. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
- 8. Process half-pint jars in a boiling water or atmospheric steam canner for 5 minutes at 0-1,000 feet elevation, 10 minutes at 1,001-6,000 feet, and 15 minutes above 6,000 feet.

Source: National Center for Home Food Preservation, 2018

## Low/No Sugar Strawberry Jam with powdered pectin

Makes 4 half pints

2-2/3 cups hulled, rinsed, crushed, fully ripe strawberries

1/3 cup water (or unsweetened apple juice)

3 tablespoons Ball Low or No Sugar fruit pectin

1/2 cup (or less) granulated sugar, sugar substitute, or honey

- 1. Sterilize jars. Boil 10 minutes at altitudes of less than 1,000 ft. At higher elevations, boil 1 additional minute for each additional 1,000 ft. elevation. If using a steam canner, place jars upside down on the rack and steam as if processing for the above recommended times.
- 2. In a large, deep stainless steel saucepan, combine crushed strawberries and liquid. Whisk in pectin until dissolved.
- 3. Bring to a boil over high heat, stirring frequently.
- 4. If using, add sweetener all at once and return to a full rolling boil, stirring constantly.
- 5. Boil hard, stirring constantly, for 1 minute. Remove from heat and skim off foam.
- 6. Ladle hot jam into hot, sterile jars, leaving 1/4-inch headspace. Wipe rims, adjust two-piece lids and rings.
- 7. Process in a boiling water or atmospheric steam canner.

Elevation	1-1000'	1001-	2001-	3001-	4001-	5001-	Above
		2000'	3000'	4000'	5000'	6000'	6001'
Processing Time	5 min	6 min	7 min	8 min	9 min	10 min	15 min

Source: freshpreserving.com & National Center for Home Food Preservation

# Strawberry Jam with Liquid Pectin

Makes about 7 half-pints

4 cups crushed strawberries

6 1/2 cups sugar

1/2 tsp butter or margarine, optional

1 pouch Liquid Pectin

- 1. Sterilize jars. Boil 10 minutes at altitudes of less than 1,000 ft. At higher elevations, boil 1 additional minute for each additional 1,000 ft. elevation. If using a steam canner, place jars upside down on the rack and steam as if processing for the above recommended times.
- 2. Place crushed strawberries and sugar into a large saucepot, stirring until dissolved.
- 3. Bring to a boil over high heat; add up to 1/2 tsp butter or margarine to reduce foaming, if desired. Boil exactly 1 minute, stirring constantly.
- 4. Stir in liquid pectin quickly.
- 5. Return to a full rolling boil; boil exactly 1 minute, stirring constantly.
- 6. Remove from heat. Skim foam if necessary.
- 7. Ladle hot jelly into hot, **sterile** jars, leaving 1/4 inch headspace. Wipe rims and adjust two-piece lids.
- 8. Process in a boiling-water or atmospheric steam canner.

Elevation	1-1000'	1001-	2001-	3001-	4001-	5001-6000'
		2000'	3000'	4000'	5000'	
<b>Processing Time</b>	5 min	6 min	7 min	8 min	9 min	10 min

Source: Certo Liquid Pectin insert, with adaptations by National Center for Home Food Preservation

### Strawberry Jam with Pomona's Pectin

Makes about 7 half-pints

4 cups mashed strawberries, about 8 cups whole strawberries

2 teaspoons calcium water, see step #1

1/2 cup to 1 cup honey or 3/4 cup up to 2 cups sugar

2 teaspoons Pomona's Pectin mixed with sweetener

- 1. Prepare calcium water: Combine 1/2 teaspoon calcium powder with ½ cup water in a small, clear jar with a lid. Shake well. Store extra calcium water in the refrigerator for future use.
- 2. Wash, remove hulls, and mash strawberries. Measure fruit into sauce pan.
- 3. Add calcium water and mix well.
- 4. Measure sugar or room temperature honey into a bowl. Thoroughly mix pectin powder into sweetener. Set aside.
- 5. Bring fruit mixture to a full boil. Add pectin-sweetener mixture, stirring vigorously for 1 to 2 minutes to dissolve the pectin while the jam comes back up to a boil. Once the jam returns to a full boil, remove it from the heat.
- 6. Fill hot jars to 1/4-inch of top. Wipe rims and adjust two-piece lids.
- 7. Process in a boiling-water or atmospheric steam canner for 10 minutes (add 1 minute more for every 1,000 ft. above sea level). Eat within 1 year. Lasts 3 weeks once opened.

## **Rhubarb Strawberry Pie Filling**

Yield: 5 pints

3 large apples, peeled and finely chopped

1 tablespoon grated orange zest

1/4 cup freshly squeezed orange juice

7 cups sliced rhubarb (1-inch slices)

2 cups granulated sugar

4 cups halved hulled strawberries

- 1. In a large stainless steel saucepan, combine apples and orange zest and juice. Stir to coat apples thoroughly. Stir in rhubarb and sugar. Bring to a boil over medium-high heat, stirring constantly. Reduce heat and boil gently, stirring frequently, until rhubarb is tender, about 12 minutes. Add strawberries and return to a boil. Remove from heat.
- 2. Ladle hot pie filling into hot jars, leaving 1 inch headspace. Remove air bubbles and adjust headspace, if necessary, by adding hot filling. Wipe rim. Center lid on jar. Screw band down until resistance is met, then increase to fingertip-tight.
- 3. Process: 15 minutes in a boiling water canner or atmospheric steam canner for altitudes under 1,000 feet 20 minutes for 1,000-3,000 feet 25 minutes for 3,001-6,000 feet 30 minutes above 6000 feet.

#### TIPS:

- To ensure they maintain their shape and texture, select a variety of apples suitable for cooking, such as Golden Delicious, Granny Smith, Jonathan-gold, Lady or Rome Beauty.
- If using fresh strawberries, wash and drain thoroughly.
- If using frozen strawberries, measure whole berries, thaw, drain and reserve liquid. Measure liquid and substitute for an equal quantity of the liquid called for in the recipe.

Source: Ball Complete Book of Home Preserving, 2012

### Frozen Strawberry-Rhubarb Pie Filling

Instead of completing the pie assembly and baking, simply mix the filling ingredients and place them in a gallon freezer bag. You can double (or more) this recipe to make as many batches as desired.

4 cups sliced rhubarb 4 heaping tablespoons flour

1 quart fresh strawberries washed, hulled and 2 tablespoons butter cut into small chunks

lightly mashed pinch of salt

1 1/2 cups sugar

1. Combine all ingredients in a bowl until well mixed, and then pour into 1- gallon freezer bags. Squeeze as much air out as possible and then take a drinking straw and suck out any remaining air. Lay bags flat to freeze so they can be stacked easily once frozen.

- 2. To bake your pie, remove your bag from the freezer and thaw in the refrigerator overnight.
- 3. Prepare a double pie crust. Pour the filling into pie crust. Add top crust, flute edges and brush crust with egg white and 1 Tablespoon milk or cream.
- 4. Bake in pre-heated 425 degree oven for 10 minutes then reduce heat to 350 and bake for an additional 40 minutes or until golden brown and filling is bubbly.
- 5. Although everyone will want to eat it as soon as it comes out of the oven, you must allow your pie an hour or longer to cool before cutting so the juices can thicken.

Source: agriberry.com AgriBerry Farm and CSA

## Strawberry Pie filling with clear gel starch

Yield: 1 quart or 7 quarts

Ingredient	1 Quart yield	7 Quarts yield
Strawberries Fresh or thawed	3-1/2 cups	6 quarts
Granulated sugar	3/4+2 cup+2 tablespoons	6 cups
Clear Jel®	1/2 cup to 1/4+1 tablespoon \	1 cup to 2-1/4 cups
Cold water	1 cup	7 cups
Bottled Lemon Juice	3 tablespoons	1/2 cup

- 1. Rinse strawberries well and drain.
- 2. For fresh fruit, place 6 cups at a time in 1 gallon boiling water. Boil each batch 1 minute after the water returns to a boil. Drain and keep heated fruit in a covered bowl or pot.
- 3. Combine sugar and Clear Jel® in a large pot. Add water.
- 4. Cook on medium-high heat until mixture thickens and begins to bubble.
- 5. Add lemon juice and boil 1 minute, stirring constantly. Fold in drained berries.
- 6. Immediately fill hot jars with mixture, leaving 1-inch headspace. Adjust lids and process immediately.
- 7. Wipe rims and adjust two-piece lids.
- 8. Process in a boiling-water or atmospheric steam canner using the times listed below.

Elevation	0-1000'	1001-3000'	3,001-6,000'
<b>Processing Time</b>	30 minutes	35 minutes	40 minutes

Source: Washington State University, Let's Preserve Fruit Pie Fillings

### **Strawberry Lemonade**

Yield: about 7 (16 oz) pints

6 cups hulled strawberries
4 cups freshly squeezed lemon juice

6 cups granulated sugar 7 Ball® (16 oz) pint jars

1. Puree strawberries in a blender or food processor fitted with a metal blade, working in batches, until smooth. Transfer to a large stainless steel saucepan as completed.

- 2. Add lemon juice and sugar to strawberry puree, stirring to combine. Heat to 190° F over medium-high heat, stirring occasionally. Do not boil. Remove from heat and skim off foam.
- 3. Ladle hot concentrate into hot jars leaving 1/4 inch headspace. Wipe rim. Center lid on jar. Apply band until fit is fingertip tight. Place jar in boiling water canner. Repeat until all jars are filled.

4. Process in a boiling-water or atmospheric steam canner using the times listed below.

Elevation	0-1000'	1001-3000'	3,001-6,000'
Processing Time	15 minutes	20 minutes	25 minutes

Quick tip: To reconstitute, mix one part concentrate with three parts water, tonic water or ginger ale. Adjust concentrate to suit your taste.

### **Dried Strawberry Slices**

- 1. Wash and hull firm, fresh berries and drain well
- 2. Slice berries 1/4-inch thick and place on fine-mesh drying trays
- 3. Set dehydrator to 130° 140° F
- 4. Approximate Drying Time: 8 16 hours
- 5. Conditioning 4-10 days after drying
  - Place cooled, dry fruit loosely in plastic or glass containers, about two-thirds full
  - Stir or shake containers daily to keep pieces separated
- Package dried fruits in tightly sealed containers and store in a cool, dry place

## **Strawberry Fruit Leather**

2 cups strawberries

1/3 cup applesauce

Puree fruit in blender. Pour evenly onto non-stick drying sheet, kitchen parchment paper, or plastic wrap, and dehydrate at 135° until leathery.

# **Strawberry Rosé Leather**

2 1/2 cups sliced strawberries

1/4 cup rosé wine

1/2 teaspoon lemon juice

- 1. Blend all ingredients in a blender until smooth.
- 2. Line your dehydrator tray with a fruit leather tray or plastic wrap.
- 3. Spread the puree evenly onto trays keeping it approximately 1/8"-1/4" thick throughout. If using a leather tray without sides, keep fruit leather puree about 2 inches from the edges to avoid any run-off.
- 4. Dry at 135°F for 5-9 hours until dry but flexible. It should peel up from your tray easily.