FILL YOUR PANTRY
Making Jams and Jellies

Making jelly and jam from fresh produce is an easy food preservation method which requires only fruit, sugar, pectin, and a few basic kitchen tools to get started.

CANNING KNOWLEDGE

For best practices, read resources from the National Center for Home Food Preservation. Read *Using Boiling-Water Canners* before beginning to make jam or jelly at home. Read the USDA *Complete Guide to Home Canning: Guide 1 Principles of Home Canning* if new to canning.

PROCESSING

Use a boiling-water canner to process all recipes contained in the following pages.

STYLE OF PACK	JAR SIZE
Hot	Half-pints or pints

PROCESSING TIMES

At altitude	Time
0 - 1,000 feet	5 minutes
1,001 to 6,000 feet	10 minutes
over 6,000 feet	15 minutes

REMAKING SOFT JELLIES

If jelly does not set properly and is too soft, remake jelly using the following directions. Measure the jelly to be recooked, and work with no more than 4 to 6 cups at a time.

To remake with powdered pectin:

For each quart of jelly, mix:

- ¼ cup sugar
- ½ cup water
- 2 tablespoons bottled lemon juice
- 4 teaspoons powdered pectin

Bring to a boil while stirring. Add jelly and bring to a rolling boil over high heat, stirring constantly. Boil hard for ½ minute. Remove from heat, quickly skim foam off jelly, and fill sterile jars, leaving ¼-inch headspace. Adjust new lids and process as recommended below.

To remake with liquid pectin:

For each quart of jelly, mix:

- ¾ cup sugar
- 2 tablespoons bottled lemon juice
- 2 tablespoons liquid pectin

Bring jelly only to boil over high heat, while stirring. Remove from heat and quickly add sugar, lemon juice, and pectin. Bring to a full rolling boil, stirring constantly. Boil hard for 1 minute. Quickly skim off foam, and fill sterile jars, leaving ¼-inch headspace. Adjust new lids.

To remake without added pectin:

For each quart of jelly, add 2 tablespoons of bottled lemon juice. Heat to boiling, and boil for 3 to 4 minutes. Use one of the tests described in *Testing Jelly Without Added Pectin* by the National Center for Home Food Preservation to determine jelly doneness. Remove from heat. Quickly skim off foam, and fill sterile jars, leaving ¼-inch headspace. Adjust new lids and process as recommended.

STRAWBERRY JAM

Yields about 9 or 10 half-pint jars.

Ingredients

- 5-½ cups crushed strawberries (about three 1-quart boxes)
- 1 package powdered pectin
- 8 cups sugar

To prepare berries:

- Select fully ripe berries (not overly ripe) for best flavor.
- Sort, wash, and rinse thoroughly before cooking. Do not soak and drain-off excess water.
- Remove stems and blossoms before crushing.

To make jam:

- Measure crushed strawberries and place into kettle.
- Add pectin and stir well. Place on high heat.
- Stirring constantly, bring quickly to a full boil with bubbles over the entire surface.
- Add sugar, continue stirring, and heat again to a full bubbling boil. ***Optional:*** *to decrease the amount of foam that is formed during the cooking process, add ¼ teaspoon butter or margarine.*
- Boil hard for 1 minute, stirring constantly.
- Remove from heat, and skim off foam.
- Follow canning and processing directions below.

Source: National Center for Home Food Preservation. University of Georgia Extension. bit.ly/2Wn7fZE

BLUEBERRY SPICE JAM

Yield: about 4 or 5 half-pint jars.

Ingredients

- 2-½ pints fresh blueberries
- 1 tablespoon lemon juice
- ½ teaspoon nutmeg or cinnamon
- 5-½ cups sugar
- ¾ cup water
- 1 box pectin

To make jam:

- Wash and thoroughly crush blueberries, one layer at a time, in a saucepan.
- Add lemon juice, spice, and water.
- Stir in the pectin and bring mixture to a full, rolling boil over high heat, stirring frequently.
- Boil hard for 1 minute, stirring constanty. Remove from heat, quickly skim off foam, and fill sterile jars, leaving ¼-inch headspace.
- Follow canning and processing directions below.

Source: National Center for Home Food Preservation. University of Georgia Extension. bit.ly/3zFZE6M

Recipes adapted from: *How to Make Jellies, Jams and Preserves at Home*. Home and Garden Bulletin No. 56. Extension Service, United States Department of Agriculture. 1982 reprint. National Center for Home Food Preservation, June 2005.

CANNING INSTRUCTIONS

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- Sterilize canning jars in boiling water.
- Pour hot jelly immediately into hot, sterilized jars, leaving ¼-inch headspace.
- Wipe rims of jars with dampened clean paper towel; adjust two-piece metal canning lids.
- Process the filled, lidded jars in a boiling water canner.
- Carefully remove jars from boiling water; let cool.
- Remove screw bands after about 12 to 24 hours.
- Label and date product.
- Store product in a dark, dry, cool location.

PROCESSING DETAILS

Determine processing times at altitude using a **boiling- water canner**:

JAR SIZE	PACK
Half-pints or pints	Hot

PROCESSING TIMES

At altitude	Time
0 - 1,000 feet	5 minutes
1,001 to 6,000 feet	10 minutes
over 6,000 feet	15 minutes

APPLE JELLY (PECTIN-FREE)

Yields about 4 or 5 half-pint jars.

Ingredients

- 4 cups apple juice (about 3 pounds apples and 3 cups water)
- 2 tablespoons strained lemon juice, if desired
- 3 cups sugar

To prepare juice:

- Select about one-fourth under-ripe and three-fourths fully ripe tart apples.
- Sort, wash, and remove stem and blossom ends; do not pare or core.
- Cut apples into small pieces. Add water, cover, and bring to a boil on high heat.
- Reduce heat and simmer for 20 to 25 minutes, or until apples are soft.
- Extract juice.

To make jelly:

- Measure apple juice into a kettle.
- Add lemon juice and sugar and stir well.
- Boil over high heat to 8°F above the boiling point of water, or until jelly mixture sheets from a spoon.
- Remove from heat; skim off foam quickly.
- Follow canning and processing directions below.

Source: National Center for Home Food Preservation. University of Georgia Extension. bit.ly/2VkpU7R

GRAPE JELLY

Yields about 8 or 9 half-pint jars.

Ingredients

- 5 cups grape juice (3-⅓ pounds concord grapes and 1 cup water)
- 1 package powdered pectin
- 7 cups sugar

To prepare juice:

- Sort, wash, and remove stem from fully ripe grapes.
- Crush grapes. Add water, cover, and bring to boil on high heat. Reduce heat and simmer for 10 minutes.
- Extract juice. Prevent formation of tartrate crystals in the jelly by letting juice stand in a cool place overnight; strain through two thicknesses of damp cheesecloth to remove crystals that have formed.

To make jelly:

- Measure juice into a kettle.
- Add pectin and stir well.
- Place on high heat, stirring constantly. Bring quickly to a full rolling boil that cannot be stirred down.
- Add sugar, continue stirring, and heat again to a full rolling boil.
- Boil hard for 1 minute; remove from heat; skim off foam quickly.
- Follow canning and processing directions below.

Source: National Center for Home Food Preservation. University of Georgia Extension. bit.ly/372JSH4

Recipes adapted from: *How to Make Jellies, Jams and Preserves at Home*. Home and Garden Bulletin No. 56. Extension Service, United States Department of Agriculture. 1982 reprint. National Center for Home Food Preservation, June 2005.

CANNING INSTRUCTIONS

For best practices, read resources from the National Center for Home Food Preservation. Read *Using Boiling-Water Canners* before beginning to make jam or jelly at home. Read the USDA *Complete Guide to Home Canning: Guide 1 Principles of Home Canning* if new to canning.

- Sterilize canning jars in boiling water.
- Pour hot jelly immediately into hot, sterilized jars, leaving ¼-inch headspace.
- Wipe rims of jars with dampened clean paper towel; adjust two-piece metal canning lids.
- Process the filled, lidded jars in a boiling water canner.
- Carefully remove jars from boiling water; let cool.
- Remove screw bands after about 12 to 24 hours.
- Label and date product.
- Store product in a dark, dry, cool location.

PROCESSING DETAILS

Determine processing times at altitude using a **boiling-water canner**:

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CAUSES AND POSSIBLE SOLUTIONS FOR PROBLEMS WITH JELLIED FRUIT PRODUCTS

Problem	Cause	Prevention
Formation of crystals	Excess sugar.	Use a tested recipe and measure ingredients precisely.
	Undissolved sugar sticking to sides of saucepot.	Dissolve all sugar as jelly cooks. If necessary, wipe side of pan free of crystals with damp cloth before filling jars.
	Tartrate crystals in grape juice.	Extract grape juice and allow tartrate crystals to settle out by refrigerating the juice overnight. Strain juice before making jelly.
	Mixture cooked too slowly or too long.	Cook at a rapid boil. Remove from heat immediately when jellying point is reached. Make small batches at a time; do not double a tested recipe.
Bubbles	Air became trapped in hot jelly.	Remove foam from jelly or jam before filling jars. Ladle or pour jelly quickly into jar. Do not allow jelly or jam to start gelling before jars are filled.
	May denote spoilage. If bubbles are moving, do not use.	Follow recommended methods for applying lids and processing. (See Mold or Fermentation on following page.)
Too soft	Overcooking fruit to extract juice.	Avoid overcooking; this lowers the jellying capacity of pectin.
	Using too much water to extract the juice.	Use only the amount of water suggested in the instructions.
	Incorrect proportions of sugar and juice.	Follow recommended proportions.
	Undercooking causing insufficient concentration of sugar.	Cook rapidly to jellying point.
	Insufficient acid.	Lemon juice is sometimes added if the fruit is acid deficient.
	Making too large a batch at one time.	Use only 4 to 6 cups of juice in each batch of jelly.
	Moving product too soon.	Do not move jellied products for at least 12 hours.
	Insufficient time before using.	Some fruits take up to 2 weeks to set-up completely; plum jelly and jellies or jams made from bottled juices may take the longer time.
Syneresis or "weeping"	Excess acid in juice makes pectin unstable.	Maintain proper acidity of juice.
	Storage place too warm or storage temperature fluctuated.	Store processed jars in a cool, dark, and dry place. Refrigerate after opening.
Darker than normal color	Overcooking sugar and juice.	Avoid long boiling. Make smaller batches and cook rapidly.
	Stored too long or at too high of temperature.	Store processed jars in a cool, dark, and dry place; use within one year. Refrigerate after opening.

TABLE 1: National Center for Home Food Preservation. (2014). *Causes and Possible Solutions for Problems with Jellied Fruit Products.* Retrieved April 2020. bit.ly/3vFKgpL

CAUSES AND POSSIBLE SOLUTIONS FOR PROBLEMS WITH JELLIED FRUIT PRODUCTS

Problem	Cause	Prevention
Cloudiness	Green fruit (starch).	Use firm, ripe fruit, or slightly underripe.
	Imperfect straining of homemade juice.	Do not squeeze juice; let it drip through jelly bag.
	Jelly or jam allowed to stand before it was poured into jars or poured too slowly.	Pour into jars immediately upon reaching gelling point. Work quickly.
Mold or fermentation: denotes spoilage	Yeasts and mold grow on jelly.	Process in a boiling water canner. Test seal before storing. Pre-sterilize when processed less than 10 minutes in boiling water.
	Imperfect sealing. Common also with paraffin-covered jellies.	Use new flat lids for each jar; make sure there are no flaws. Pre-treat lids per manufacturer's directions. Use ring bands in good condition: no rust, no dents, no bends. Wipe sealing surface of jar clean after filling, before applying lid.
	Improper storage.	Store processed jars in a dark, dry, cool place. Refrigerate after opening.
Too stiff or tough	Overcooking.	Cook jelly mixture to a temperature 8°F higher than the boiling point of water or until it "sheets" from a spoon.
	Too much pectin in fruit.	Use ripe fruit. Decrease amount if using commercial pectin.
	Too little sugar, which requires excessive cooking.	When pectin is not added, use ¾ cup sugar to 1 cup juice for most fruits.

TABLE 1 (continued): National Center for Home Food Preservation. (2014). *Causes and Possible Solutions for Problems with Jellied Fruit Products.* Retrieved April 2020. bit.ly/3vFKgpL

RESOURCES

Books

So Easy to Preserve, 6th Edition: setp.uga.edu

USDA Complete Guide to Home Canning: bit.ly/3z5ljpK

The Ball ®Blue Book

Websites and Online Videos

National Center for Home Food Preservation: nchfp.uga.edu

YouTube: What's Cooking with Mary Liz Wright: bit.ly/3plFDi5

From Garden Gates to Dinner Plates: go.illinois.edu/CottageFoods

University of Illinois Extension Food Preservation Resources: go.illinois.edu/PreserveFood

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