



Berries

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Did you know?

- Berries belong to the rose (Rubus) family.
- The American colonists invented strawberry shortcake.
- An early name for blackberry was brambleberry or bramble.
- Don't wash berries until close to time to eat them. They tend to rot if held moist.



SELECTION AND PREPARATION OF BERRIES

Strawberries

Selection: Bright to deep red, free of green spots with fresh green caps. Don't ripen after picking. Avoid moldy berries.

Season: Local berries late spring to mid-late summer. Imported and frozen berries year round.

Storage: Remove moldy, damaged berries. Refrigerate unwashed, single layer on paper towel, uncovered. Use within 3 days.

Preparation & Handling: Before removing hulls, wash under running water; do not soak. Blot dry with paper towel. Remove hulls using strawberry huller, paring knife or spoon.

Raspberries

Selection: Red, firm and plump. Avoid shriveled and moldy berries.

Season: Mid to late summer. Imported and frozen berries year round.

Storage: Remove moldy, damaged berries. Refrigerate unwashed, single layer between paper towels; wrap in plastic. Use within 3 days.

Preparation & Handling: Wash gently under running water, do not soak. Blot dry with paper towel.

Blackberries

Selection: Blue-black uniform color with sheen. Large plump sacs with no green hull attached. Avoid moldy berries.

Season: Mid summer. Imported or frozen, in some areas, year round.

Storage: Remove moldy, damaged berries. Refrigerate unwashed, single layer between paper towels; wrap in plastic. Use within 1-3 days.

Preparation & Handling: Wash gently under running water, do not soak. Blot dry with paper towel.

Blueberries

Selection: Dark blue with powdery hue. Dry, plump and free of stems. Avoid reddish colored and wrinkled berries. Do not ripen after picking.

Season: Mid to late summer.

Storage: Remove moldy, damaged berries. Refrigerate unwashed, loosely covered with paper towels. Use within 2 weeks.

Preparation & Handling: Pick out leaves and stems; place berries on towel and roll back and forth to clean. Or, wash gently under running water, do not soak. Blot dry with paper towel.

FREEZING

When freezing any food, pack it to allow for 10% expansion (food is mostly water and water expands when turning to ice).

Select fully ripe, firm berries. Wash carefully under cold running water, discarding soft, underripe or defective fruit. Remove caps and stems. Place berries in colander to drain. Pack using one of the following methods:

Dry Pack

This is the preferred way if you have not yet determined their use. To freeze individually, place washed, well-drained berries in a single layer on a waxed paper lined baking sheet. Freeze berries until firm, then package frozen berries in freezer bags or containers to prevent freezer burn. If it is not important to have the berries individually frozen, wash, drain and package immediately into freezer containers.

Frozen berries can be used at the table, in salads, in desserts and/or snacks. Or they can be used later for making jams, jellies, pies, cobblers, or syrups.

Sugar Pack

Sprinkle washed berries with sugar to taste and let sit until sugar is completely dissolved. Package in freezer bags or containers.

Syrup Pack

For syrup recipe, follow directions in canning section (page 4), using a 30 or 40% syrup depending on the sweetness of the berries. Cool syrup before using.

Place berries loosely into freezer containers. Cover with cold sugar syrup, leaving 1 inch head space. Freeze. The sugar syrup will help the berries retain their firmness.

CANNING

All varieties of berries, with the exception of strawberries, may be canned. Strawberries become very mushy and lose their color and flavor when canned. Berries may be canned in sugar syrup, water or juices such as apple, white grape, or berry juice. They will hold their shape best if canned in syrup. Canning the berries in juice provides added nutrients and unique flavors.

Quantity: An average of 12 pounds is needed per canner load of 7 quarts. An average of 8 pounds is needed per canner load of 9 pints. A 24-quart crate weighs 36 pounds and yields 18-24 quarts—an average of 1 3/4 pounds per quart.

Quality: Choose ripe, sweet berries with uniform color.

Procedure: Wash 1 or 2 quarts of berries at a time. Drain, cap and stem if necessary. For gooseberries, snip off heads and tails with scissors. Prepare and boil preferred syrup (page 4), if desired. Add 1/2 cup syrup, juice, or water to each clean jar.

Hot Pack

Dip berries in boiling water, syrup or juice for 30 seconds; drain. Fill jars and cover with hot liquid, leaving 1/2 inch head space. Adjust lids and process in boiling water canner or pressure canner.

Raw Pack

Fill jars with raw berries, shaking down gently while filling. Cover with hot syrup, juice, or water, leaving 1/2 inch head space. Adjust lids and process in boiling water canner or pressure canner. Note: There will be more floating fruit using the raw pack method.

Processing Times at different altitudes for Berries, Whole, in a BOILING WATER canner					
Style of Pack	Jar Size	0-1,000 ft	1,001-3,000 ft	3,001-6,000 ft	Above 6,000 ft
Hot	Pints or Quarts	15 min	20 min	20 min	25 min
Raw	Pints	15 min	20 min	20 min	25 min
	Quarts	20 min	25 min	30 min	35 min

Processing Times at different altitudes for Berries, Whole, in PRESSURE Canners								
			Dial Gauge Pressure Canners				Weighted Gauge	
Style of Pack	Jar Size	Process Time	0-2,000 ft	2,001-4,000 ft	4,001-6,000 ft	6,001-8,000 ft	0-1,000 ft	Above 1,000 ft
Hot	Pints or Quarts	8 min	6 lb	7 lb	8 lb	9 lb	5 lb	10 lb
Raw	Pints	8 min	6 lb	7 lb	8 lb	9 lb	5 lb	10 lb
	Quarts	10 min	6 lb	7 lb	8 lb	9 lb	5 lb	10 lb

After processing is completed, remove jars from canner with a jar lifter and place on a towel or rack. Do not retighten screw bands. Air-cool jars 12 to 24 hours. Remove screw bands and check lid seals. If the center of the lid is indented, wash, dry, label and store jar in a clean, cool, dark place. If lid is not sealed, examine and replace jar if defective, use new lids and reprocess as before. Alternatively, jars with lids that failed to seal may be held in the refrigerator and consumed or may be frozen.

Preparing and Using Syrups for 7 Quart Load			
Syrup Type	Approx. Percent Sugar	Cups water	Cups sugar
Very Light	10%	10 1/2	1 1/4
Light	20%	9	2 1/4
Medium	30%	8 1/4	3 3/4
Heavy	40%	7 3/4	5 1/4

Procedure: Heat water and sugar together. Bring to a boil and pour over raw fruits in jars. For hot packs, bring water and sugar to boil, add fruit, reheat to boil, and fill jars immediately.

Other sweeteners: Light corn syrups or mild flavored honey may be used to replace up to half the granulated sugar called for in syrups.

Blueberry Pie Filling

Each canned quart makes one 8 inch to 9 inch pie. The filling may be used as toppings on desserts, cookie fillings or in pastries.

	Quantities of Ingredients Needed For:	
	1 Quart	7 Quarts
Fresh berries	3 1/2 cups	6 quarts
Granulated sugar	3/4 cup + 2 Tbsp	6 cups
Clear Jel®	1/4 cup + 1 Tbsp	2 1/4 cups
Cold Water	1 cup	7 cups
Bottled Lemon Juice	3 1/2 tsp	1/2 cup
Blue Food Coloring (optional)	3 drops	20 drops
Red Food Coloring (optional)	1 drop	7 drops

Yield: 1 quart or 7 quarts

Procedure: Select fresh, ripe, and firm berries. Wash and drain fresh blueberries. Place 6 cups at a time in 1 gallon boiling water. Boil each batch 1 minute after the water returns to a boil. Drain, but keep heated fruit in a covered bowl or pot. Combine sugar and Clear Jel® in a large kettle. Stir. Add water and, if desired, food coloring. Cook on medium high heat until mixture thickens and begins to bubble. Add lemon juice and boil 1 minute, stirring constantly. Fold in drained berries immediately and fill jars with mixture, leaving 1 inch head space. Adjust lids and process immediately.

Processing Times at different altitudes for Blueberry Pie Filling in a BOILING WATER canner					
Style of Pack	Jar Size	0-1,000 ft	1,001-3,000 ft	3,001-6,000 ft	Above 6,000 ft
Hot	Pints or Quarts	30 min	35 min	40 min	45 min

JAMS AND JELLIES

Berry Jam without Added Pectin

4 cups crushed berries

4 cups sugar

Yield: 3 to 4 half-pints

Wash and rinse all berries thoroughly before cooking. Do not soak. For best flavor, use fully ripe berries. Remove stems and blossoms and crush. Seedy berries may be put through a sieve or food mill to make seedless jam. Measure crushed berries into large saucepan.

Add sugar and bring to a boil while stirring rapidly and constantly. Continue to boil, until mixture thickens. For best results, use a jelly or candy thermometer and boil until mixture reaches the temperature for your altitude in the following table:

Sea level	1,000 ft	2,000 ft	3,000 ft	4,000 ft	5,000 ft	6,000 ft	7,000 ft	8,000 ft
220° F	218° F	216° F	214° F	212° F	211° F	209° F	207° F	205° F

Remove from heat and skim off foam quickly. Fill jars with jam. Use a measuring cup or ladle the jam through a wide-mouthed funnel, leaving 1/4 inch head space. Adjust lids and process.

Recommended process times for Berry Jams without Added Pectin, in a BOILING WATER canner				
Style of Pack	Jar Size	0-1,000 ft	1,001-6,000 ft	Above 6,000 ft
Hot	Half-Pints	5 min*	10 min	15 min

*If processing time is less than 10 minutes, sterilize jars by holding in boiling water for 10 minutes before filling.

Making Jams and Jellies with Added Pectin

Fresh fruits and juices as well as commercially canned or frozen fruit juice can be used with commercially prepared powdered or liquid pectins. The order of combining ingredients depends on the type of pectin used. Complete directions for a variety of fruits are provided with packaged pectin. Jelly or jam made with added pectin requires less cooking and generally gives a larger yield. These products have more of a fresh fruit flavor, but less concentrated flavor. In addition, using added pectin eliminates the need to test hot jellies and jams for proper gelling. Adding 1/2 teaspoon of butter or margarine with the juice and pectin will reduce foaming. However, these may cause off-flavor in long-term storage of jellies and jams.

Be sure to use Mason canning jars, self-sealing two-piece lids, and appropriate boiling water bath time.

Purchase fresh pectin each year. Old pectin may result in poor gels. Follow the instructions with each package and process as below:

Processing Times at different altitudes for Berry Jams or Jellies, with added pectin, in a BOILING WATER canner				
		Process Times at Altitudes of:		
Style of Pack	Jar Size	0-1,000 ft	1,001-6,000 ft	Above 6,000 ft
Hot	Pints	5 min*	10 min	15 min

*If processing time is less than 10 minutes, sterilize jars by holding in boiling water for 10 minutes before filling.

Strawberry Freezer Jam

2 cups finely crushed strawberries
 4 cups sugar
 1 package powdered pectin
 3/4 cup water

Combine strawberries and sugar. Let stand about 20 minutes, stirring occasionally. Combine pectin and water in a small sauce pan. Bring to a boil. Boil 1 minute, stirring constantly. Add pectin to fruit mixture; stir 3 minutes. Ladle jam into freezer containers. Let stand at room temperature until set, up to 24 hours. Label and freeze.

Yield: about 6 half pints.

Berry Syrup

Juices from fresh or frozen blueberries, raspberries (black or red), and strawberries are easily made into toppings for use on ice cream and pastries.

Yield: About 9 half-pints

Procedure: Select 6 1/2 cups of fresh or frozen berries of your choice. Wash, cap, and stem fresh fruit and crush in a saucepan. Heat to boiling and simmer until soft (5-10 minutes). Strain hot through a colander and drain until cool enough to handle. Strain the collected juice through a double layer of cheesecloth or jelly bag. Discard the dry pulp. The yield of the pressed juice should be about 4 1/2 to 5 cups. Combine the juice with 6 3/4 cups of sugar in a large saucepan, bring to boil, and simmer 1 minute. To make a syrup with whole fruit pieces, save 1 or 2 cups of the fresh or frozen fruit, combine these with the sugar and juice, and simmer as in making regular syrup. Remove from heat, skim off foam, and fill into clean half-pint or pint jars, leaving 1/2 inch head space. Adjust lids and process.

Processing Times at different altitudes for Berry Syrup in a BOILING WATER canner				
Style of Pack	Jar Size	0-1,000 ft	1,001-6,000 ft	Above 6,000 ft
Hot	Half Pints or Pints	10 min	15 min	20 min

DRYING

If berries are seedy, when dried they tend to be mostly crunch and very little flesh. Strawberries have small seeds and dry acceptably. The seeds can be removed from blackberries, raspberries, and similar berries, and the puree used in leathers.

Blueberries

Choose large, firm blueberries with deep-blue color. Wash and remove stems. Dip in boiling water 30 seconds to “check” skins. Blueberries dried without boiling first have a puffy appearance. Dry at 130° to 135°F until leathery. Use like raisins in baked goods.

Strawberries

Choose ripe, juicy, red berries. Gently wash. Remove caps. Cut into 1/2-inch slices. Dry at 130° to 135°F until pliable to almost crisp. Use in puddings, yogurt, desserts or as a snack.

Note: Strawberries do not rehydrate well.

Fruit Leathers

Fruit leather can be made by pureeing fruit, either fresh or a drained, canned product. Wash fresh fruit. Make a puree from the desired fruit. A blender or food processor can be used on fresh or precooked fruit. If a blender is to be used for fresh fruit, puree the fruit first and then bring the puree to a boil while stirring continuously. If a food mill or potato masher is to be used, it is best to cook fresh fruit with a small amount of water in a covered pan until tender first, then puree the fruit. The heat process will inactivate enzymes that can cause the leather to discolor. After heating, add ½ teaspoon ascorbic acid crystals or 3 tablespoons lemon juice per 2 cups of fruit to protect the color and help destroy bacteria during drying.

Canned fruit should be well drained. It is not necessary to heat canned fruit. The pureed product can be lightly sweetened if desired. Heavily sweetened fruits will remain sticky and will not dry well. Spread the puree in a thin layer on a plastic film. The plastic film can be on a cookie sheet, a pizza pan, an oven-safe dinner plate or on some dehydrator trays. Make sure that the plastic sheet edges do not fold over and cover any of the puree. The puree should be about 1/4 inch deep.

Dry the leather at 140° F in a dehydrator or in an oven at its lowest temperature setting, and with the door slightly open to allow air circulation. The oven door can be held open with a jar ring. The leather is adequately dried when you can peel it from the plastic. The dried product should have a bright translucent appearance, chewy texture, and a good fruit flavor. Leathers can be stored by rolling them up while they are still on the film and placing them in a glass jar with a tight lid or plastic bag. They retain their color and flavor for several months at room temperature, but storage life can be extended by refrigeration or freezing.

STORAGE OF BERRY PRODUCTS

Fresh berries should be refrigerated and used in 5-7 days. For best quality, do not keep canned berries more than 40 months at 40°F, or 22 months at 70°F, or 9 months at 90°F. Frozen berries held at 0°F can be held for 18 months. Dried products will keep for a year if sealed in moisture-proof containers and stored in a cool, dark, dry place. Store fruit leather in a cool, dry, dark place. It will retain good quality for up to 1 year in the freezer, several months in the refrigerator, or 1 to 2 months at room temperature (70° F).

NUTRITIONAL INFORMATION

	Calories	Fiber g	Vit. A IU	Vit. C mg	Iron mg	Sodium mg	Calcium mg
Blueberries, raw, 1/2 cup	41	1.7	39	7	.20	1	4
Raspberries, raw, 1/2 cup	32	4	20	16.1	.42	1	15
Strawberries, raw, 1/2 cup	24	1.5	9	44.7	.32	1	12
Blueberries, frozen, unsweetened,, 1/2 cup	40	2.1	36	1.9	.14	1	6
Raspberries, frozen, sweetened, 1/2 cup	103	5.5	60	16.5	.65	1	6
Strawberries, frozen, unsweetened, 1/2 cup	26	1.6	34	30.7	.56	1	12
Blueberries, canned, Heavy syrup, solids & liquid, 1/2 cup	113	2.0	46	1.4	.2	4	6
Raspberries, canned, Heavy syrup, solids & liquids, 1/2 cup	116	4.2	42	11.1	.54	4	14
Strawberries, canned, Heavy syrup, solids & liquids, 1/2 cup	117	2.2	33	40.3	.62	5	17

Savor the Season All Year Long!

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