



PRESERVING BERRIES

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Preserving Berries

Abstract

Fresh berries can be preserved for long-term storage by canning, freezing, and dehydrating. Before deciding which method to use for preserving fresh berries, it is best to determine how you plan to use them. Berries can be canned whole, as fruit spread, as syrup, or as pie filling. Berries can be pre-treated with sugar or syrup before freezing, or processed without pre-treatment prior to freezing. For dehydrating, berries can be dried whole, as slices, or as fruit leather. This publication will teach the essential steps for preserving fresh berries through the processes of canning, freezing, and dehydrating.

Preserving Berries

Berries of the Pacific Northwest

A variety of berries can be found in the Pacific Northwest. The list of berries that grow abundantly in the Pacific Northwest is extensive. Some popular berries include: blackberries, blueberries, boysenberries, chokecherries, currants, dewberries, elderberries, gooseberries, grapes, huckleberries, loganberries, marionberries, mulberries, salmonberries, strawberries, raspberries and youngberries. Depending on the type, berries can be ready for harvest in the late spring, with some seasons stretching until late fall. If you are seeking more information about the availability of specific berries in your area, contact your local Extension Office.

General Information

Berries can be preserved by canning, freezing, or dehydrating. Berries can be canned whole, made into fruit spread, turned into syrup, or used in pie fillings. Berries can be frozen dry (not pre-treated), with sugar, or in syrup. Berries can be dehydrated whole, as slices, or pureed into fruit leather. When choosing how to preserve berries, it is best to determine how you are going to use them before preserving them.

Harvesting

Since berries lose their freshness quickly in the heat, it is best to pick them in the coolness of the early morning. Once picked, place berries in the shade or refrigerator. Berries should not be washed until just before using or preserving them.



Assorted berries; picked at the peak of ripeness for optimal flavor.



Harvesting blueberries.

Quantity

The exact quantity of berries you needed depends on the size and variety of the berry. Following is a rough estimate:

- 2 lbs. of fresh berries will yield 1 quart of frozen or canned berries.
- 1 quart of fresh berries will yield approximately 1 cup of juice for jelly or 2 cups of mashed berries for jams and other fruit spreads.
- A 36 lb. crate of whole berries will yield approximately 18-24 quarts.
- About 12 pounds of berries are needed to fill 7 quarts for canning.
- About 8 pounds are needed to fill 9 pints for canning.

Canning Whole Berries

Berries are high in acid so they can be canned using a boiling water bath canner. All varieties of berries, except strawberries, can be canned whole. Unfortunately, home canned strawberries become mushy and lose their color and flavor. When canning whole, the following berries produce the highest quality canned products: blackberries, blueberries, boysenberries, currants, dewberries, elderberries, huckleberries, loganberries, marionberries, mulberries, raspberries, and youngberries.



Canned whole cherries.

Preparing Whole Berries for Canning

To prepare whole berries for canning, follow the steps below:

1. Choose ripe, sweet berries with uniform color.
2. Wash 1 to 2 quarts of berries at a time.
3. Remove cap and stem, if necessary. (For gooseberries, snip off heads and tails with scissors.)
4. Berries may be canned in their natural juices, in water, or in syrup.

When canning without added sugar, berries can be canned in their natural juices or in water. When canning using added juice, either extract juice from berries or add unsweetened fruit juice. Juice can be extracted from a portion of the fruit to be canned, or from fresh apples, pineapple, or white grapes.

To extract juice from berries:

1. Crush the ripe, unbruised fruit.
2. Heat to simmer over low heat.
3. Strain through a cheesecloth or jelly bag.



Extracting berry juice.

A steam juicer may also be used to extract juice. Follow manufacturer instructions when using a steam juicer, or contact your local Extension office for more information.

If using unsweetened fruit juice, canning fruit in its own juice produces the best results. Commercial, unsweetened apple juice, pineapple juice, or white grape juice may also be added to canned berries, if not enough natural juices are extracted.

Berries will hold their shape and color better if canned in either natural juices or syrup. To make syrup, boil the amount of sugar and water recommended in Table 1. Table 1 shows the proportions of water and sugar needed to create enough syrup for 9 pints of whole berries.

Table 1. Proportions of Sugar and Water for Syrup

Type of Syrup	Water	Sugar
Very Light	6 ½ cups	¾ cups
Light	5 ¾ cups	1 ½ cups
Medium	5 ¼ cups	2 ¼ cups
Heavy	5 cups	3 ¼ cups



Some of the equipment and accessories that are helpful for home canning.



Boiling water bath canner loaded with jars.

Canning Whole Berries Using the Hot Pack Method

Canned whole berries can either be hot packed or raw packed. You can usually fit more berries in the jars by using the hot pack method. Raw packed berries may have a tendency to float.

To hot pack whole berries:

1. Bring water, syrup or juice to a boil.
2. Add berries to the boiling liquid for 30 seconds.
3. Fill hot jars with hot berries and cover with the hot liquid, leaving ½ inch headspace. (Headspace is the distance between the bottom of the lid and the product in the jar.)
4. Remove bubbles by inserting a bubble freer or any plastic or rubber knife-like utensil at the edge of the jar and gently shifting the food around to release any trapped air. Re-measure and adjust headspace by adding liquid, if needed. (Do not use a metal utensil for removing bubbles, as the metal can scratch and weaken the jar.)
5. Thoroughly wipe jar rim and threads with a clean, damp paper towel.
6. Cover with lid and band, tighten band to “fingertip tight.”
7. Load jars into the canner using a jar lifter and keep the jars upright at all times.
8. If water does not cover jars by 1 to 2 inches, add more boiling water to the canner.
9. Turn heat to the highest setting, cover the canner with the lid, and heat until the water boils vigorously.
10. Once the water reaches a full rolling boil, start your timer for the recommended number of minutes (Table 2), making sure to adjust for altitude. Make sure the water in the canner remains boiling throughout the entire processing time.
11. When timer goes off, turn off the heat, remove the canner lid and allow jars to sit for 5 minutes.
12. After 5 minutes, remove jars with a jar lifter, keeping the jars upright at all times. Place jars on a drying rack and allow to cool for 12-24 hours.
13. When cool, check for seals, label, date and store in a cool, dark place. To check jars for seal, listen for the “popping” sound during cooling. Lids are sealed if they are curved downward in the center and do not move when pressed on. Another way to test for seal is by tapping the center of the lid with a spoon. Sealed lids produce a clear, ringing sound.

Canning Whole Berries Using the Raw Pack Method

Following are instructions for raw packing whole berries for canning:

1. Fill hot jars with clean, raw berries, shaking down gently while filling.
2. Cover with hot juice, water, or syrup, leaving ½ inch headspace.
3. Remove bubbles and adjust headspace, if needed.
4. Thoroughly wipe jar rim and threads with a clean, damp paper towel.
5. Cover with lid and band, tighten band to “fingertip tight.”
6. Load jars into the canner using a jar lifter and keep the jars upright at all times.
7. If water does not cover jars by 1 to 2 inches, add more boiling water to the canner.
8. Turn heat to the highest setting, cover the canner with the lid, and heat until the water boils vigorously.
9. Once the water reaches a full rolling boil, start your timer for the recommended number of minutes, making sure to adjust for altitude (Table 2). Make sure the water in the canner remains boiling throughout the entire processing time.
10. When timer goes off, turn off the heat, remove the canner lid and allow jars to sit for 5 minutes.
11. After 5 minutes, remove jars with a jar lifter, keeping the jars upright at all times. Place jars on a drying rack and allow to cool for 12-24 hours.
12. When jars are completely cool, check lids for seal. To check jars for seal, listen for the “popping” sound during cooling. Lids are sealed if they are curved downward in the center and do not move when pressed on. Another way to test for seal is by tapping the center of the lid with a spoon. Sealed lids produce a clear, ringing sound.
13. Remove ring bands from sealed jars to prevent rusting, clean jars and lids, label, and store in a cool, dry place out of direct light.

14. What if jars don’t seal? You have three choices:
 - Put in the refrigerator and use immediately.
 - Put in the freezer.
 - Re-process within 24 hours. Remove the lid and check the jar sealing surface for tiny nicks. If necessary, change the jar, add a new treated lid, and reprocess using the original processing time.
 - If jar(s) unseal after 24 hours, product must be thrown away.

Other Canned Products using Berries

Fresh berries can also be made into jams, jellies, spreads, and syrups, and then canned or frozen. Fresh and frozen berries can also be made into pie fillings using a modified food starch called Clear-Jel as a thickening agent, and canned in a boiling water bath canner. For research-based recipes for jams, jellies, spreads, syrups and pie fillings, contact your local Extension Office or refer to the [National Center for Home Food Preservation](#).

Freezing Fresh Pacific Northwest Berries

If you have not determined how you are going to use your preserved berries, freezing is a good option. Berries can be frozen untreated, coated with sugar, or in syrup. Berries frozen untreated can be used to make jams, jellies, pies, syrups and other baked goods. Frozen berries should be stored below 0°F and used within 1 year for best quality.



Frozen mixed berries.

Table 2. Recommended Process Times for Whole Berries in a Boiling Water Bath Canner, Adjusting for Altitude

		Process Times at Altitudes of:			
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.

To freeze untreated berries:

1. Wash.
2. Drain well.
3. Place in single layer on a baking sheet.
4. Place baking sheet in freezer.
5. Freeze until berries are firm, then package frozen berries in freezer bags or containers. Freezing berries first on a cookie sheet keeps them from sticking to each other inside another container.
6. Label and date container or bag.

To freeze berries in sugar:

1. Wash the berries.
2. Drain.
3. Sprinkle with sugar. The amount of sugar used will depend on personal preference and taste.
4. Let berries and sugar sit until sugar is completely dissolved.
5. Package sugared berries in freezer bags or containers.
6. Freeze sugared berries.
7. Label and date container or bag.

Freezing berries in syrup will help the berries retain their firmness.

To freeze berries in syrup:

1. Choose a syrup from Table 1 and prepare following the canning directions.
2. Allow the syrup to cool.
3. Place washed and drained berries loosely in freezer containers.
4. Cover with the cold syrup, leaving 1-inch headspace. To hold berries under the liquid in the containers, place a piece of crumbled plastic wrap on top of the berries.
5. Place berries and syrup in freezer.

Dehydrating Fresh Pacific Northwest Berries

Drying is one of the oldest methods of food preservation. Dried foods are lightweight, take up little storage space, and do not need to be refrigerated. Dried berries are tasty and nutritious. They may be sweeter than fresh berries because the dehydrating process removes the water and concentrates the flavor.

Follow these steps for dehydrating fresh berries:

1. Select firm, ripe berries that have a solid color.
2. Wash berries, remove stems, and drain well.



Fruit and berry slices on a dehydrator tray.

3. Dehydrate smaller berries, like blueberries, whole. Larger berries, like strawberries, should be cut into ½ inch slices.
4. Place berries close, but not touching, on trays. This is the same rule for the trays used in dehydrator drying and cookie sheets used for oven drying. Contact your local Extension office if you want information on convection oven drying, sun drying, or solar drying of berries.
5. Follow the manufacturer's instructions for drying temperature and times, or contact your local Extension office to get instructions on using a dehydrator or oven for drying berries.

Most berries can be dried without pre-treatment. Berries like blueberries should be pre-treated by dipping in boiling water to crack their skins before dehydrating. Fruits are dry when they are leathery and pliable with no pockets of moisture. Dried berries are excellent eaten as a snack or added to cereal, baked products, or pancakes. Dried berries are best eaten dried because they lose their firm texture when rehydrated. Blackberries and raspberries are not recommended for dehydrating because of their high seed content and slow drying time. However, they do make excellent dried fruit leathers.

Making and Dehydrating Fruit Leathers

Fruit leathers can be made using fresh berries, canned berries, or frozen berries. Berries can be pureed by themselves, or in combination with other fruits, to make fruit leathers. Contact your local Extension office for fruit leather recipes. Since fruit seeds become hard after they dry, it is best to remove the seeds from the puree, using a mesh strainer or food mill, prior to dehydrating.

To make fruit leathers:

1. Puree berries.
2. Remove seeds by pushing pureed berries through a fine mesh sieve, collecting the berry pulp in a bowl, and discarding the seeds. This step is optional, and it is difficult to completely remove all the seeds from the pulp.
3. Sweeten to taste.
4. Pour on a specially-designed liner for leather drying using a dehydrator. For oven drying, cover a cookie sheet with a non-stick material, like plastic wrap. Do not use waxed paper or aluminum foil.
5. Follow the manufacturer's instructions for drying temperature and times, or contact your local Extension office to get instructions on using a dehydrator or oven for dehydrating fruit leathers.

Fruit leathers are finished when they are leathery with no moisture pockets. When fruit leather is done, remove from drying tray and roll or cut into bite size pieces.

Storage of Dehydrated Berries and Fruit Leathers

Store dehydrated berries and fruit leathers in moisture-proof containers. Containers that are appropriate for freezing work well for storing dried foods, too. Food-grade plastic freezer bags, glass jars with lids and plastic containers with lids are examples of acceptable storage containers.

Further Reading

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