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Georgia C. Lauritzen PhD
Utah State University Extension

Carl M. Johnson
Utah State University Extension

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Utah State University
Cooperative Extension
Logan, UT

Elderberries

FACT SHEET

By Georgia C. Lauritzen, PhD., R.D., Nutrition Specialist &
Carl M. Johnson, Associate Professor Emeritus, Forestry Resources

This common plant has an interesting history of use in the State of Utah, as well as throughout a good portion of North America. There are seven native species, two of which are mostly shrubby and found in eastern North America. Five species, more or less arborescent, grow throughout the Rocky Mountains and west to the Pacific Ocean from SW Canada to NW Mexico. The most abundant species found in Utah is Elderberry (Blueberry Elder or Blue Elderberry). The scientific name is *Sambucus glauca* Nutt. or some authors classify it *S. cerulea*. Common names seem to vary with local usage.

Some authors do not consider this plant a tree due to its varied stature¹. The majority of our specimens in Utah are rather small and shrubby in appearance. However, on better sites along ravines, stream bottoms and moist hillsides, more arborescent specimens may be found, some reaching 50' in height (commonly 20' or less) and 12" DBH (Diameter at Breast Height).

Other identification characteristics: Leaves are pinnately compound, produced in pairs along the twigs. One complete leaf is about 7" long 7" wide. Each leaf has 7-9 leaflets, each of which is about 3" long, oval or narrow-oblong, sharp pointed, with finely toothed margins. Twigs are stout and brittle with large pith or hollow centers. Buds arise from leaf axils, are greenish and scaly. Flowers are abundant in early summer, in showy white dense clusters that produce blue drupe-like berries, usually covered with a whitish glaucous bloom. When ripe these berries are about 1/4" in diam-

eter, with sweet juicy flesh. Each fruit contains 3-5 tiny nutlets. Bark is thin, furrowed and gray brown. Wood is soft, light in weight and brownish in color. A fairly large pith or hollow tube is common, even in large stems.

These trees have little importance from the wood produced, even though it occasionally may be used for firewood. The primary uses for Elderberries in Utah is because of the fruit produced. The foliage is eaten by wildlife, especially deer and elk browse it heavily. The berries are used for food for birds and human delicacies. The berries are somewhat distasteful when green. Ripe berries produce an abundance of sweet juice that is used for jelly, jam, syrup, etc. The whole berries, even though somewhat seedy, make excellent pies.

The native Americans had a use for almost all parts of this plant; berries for food (fresh or dried); stems for tubes, pipes and musical instruments. Some Indians called this plant "the tree of music," since the smaller twigs and limbs made excellent flutes. Strips from larger limbs made arrow shafts. Flowers were used for external antiseptic washes.

Domestic animals also feed on the plant leaves and twigs.

Use

Most of the berries which are gathered are used to make wine. Suggestions for home use are fresh or with cream as desserts such as pies, cobblers and fruit dumplings. Elderberries are often preserved whole, as juice, syrup and jelly. The flavor might be enhanced by combining with other fruits or fruit juices such as apples.

¹ By definition, a tree is a perennial plant, with a single woody trunk or stem with secondary thickening in form of annual growth rings, a single high crown and root system, and when mature, at least 2" DBH and 16' high (varies by authors 8-20')

Nutritive Value for 100 gm (approximately 2/3 cup)

Calories:	73
Potassium:	280 mg
Carbohydrates:	18.4 gm
Ascorbic acid:	36 mg
Fiber:	7 gm
Vitamin A:	300 IU (60 R.E.)

Smaller amounts of calcium, iron, phosphorus and the B vitamins.

Canning Instructions

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.

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. Prepare and boil preferred syrup.

PREPARING AND USING SYRUPS					
Measures of Water and Sugar					
		For 9-Pint Load		For 7-Quart Load	
Syrup Type	Approx. % Sugar	c. H ₂ O	c. sugar	c. H ₂ O	c. sugar
Very Light	10	6-1/2	3/4	10-1/2	1-1/4
Light	20	5-3/4	1-1/2	9	2-1/4
Medium	30	5-1/4	2-1/4	8-1/4	3-3/4

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

Other sweeteners: Light corn syrups or mild-flavored honey may be used to replace up to half the table sugar called for in syrups. Adjust lids and process.

Recommended process time for Elderberries, whole in a boiling-water canner					
Process Time at Altitudes of					
Pack Style	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.

Berry Syrup

Yield: About 9 half-pints.

Procedure: Select 6-1/2 cups of fresh or frozen fruit. Wash and stem fresh fruit and crush in a saucepan. Heat to boiling and simmer until soft (5 to 10 minutes). Strain hot fruit 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 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 a 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 simmer as in making regular syrup. Remove from heat, skim off foam, and fill into clean half-pint jars, leaving 1/2-inch headspace. Adjust lids and process.

Recommended process time for Berry Syrup in a boiling-water canner				
Process Time at Altitudes of				
Pack Style	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.

Making Jelly Without Added Pectin

Use only firm fruits naturally high in pectin. Select a mixture of about 3/4 ripe and 1/4 underripe fruit. Wash fruit thoroughly before cooking. Crush berries. Put 4 pounds of fruit and 1 cup of water in large saucepan and bring to a boil. Simmer 5-10 minutes

Nutritive Value for 100 gm (approximately 2/3 cup)

Calories:	73
Potassium:	280 mg
Carbohydrates:	18.4 gm
Ascorbic acid:	36 mg
Fiber:	7 gm
Vitamin A:	300 IU (60 R.E.)

Smaller amounts of calcium, iron, phosphorus and the B vitamins.

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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. Prepare and boil preferred syrup.

PREPARING AND USING SYRUPS					
Measures of Water and Sugar					
		For 9-Pint Load		For 7-Quart Load	
Syrup Type	Approx. % Sugar	c. H ₂ O	c. sugar	c. H ₂ O	c. sugar
Very Light	10	6-1/2	3/4	10-1/2	1-1/4
Light	20	5-3/4	1-1/2	9	2-1/4
Medium	30	5-1/4	2-1/4	8-1/4	3-3/4

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

Other sweeteners: Light corn syrups or mild-flavored honey may be used to replace up to half the table sugar called for in syrups. Adjust lids and process.

Recommended process time for Elderberries, whole in a boiling-water canner					
Process Time at Altitudes of					
Pack Style	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.

Berry Syrup

Yield: About 9 half-pints.

Procedure: Select 6-1/2 cups of fresh or frozen fruit. Wash and stem fresh fruit and crush in a saucepan. Heat to boiling and simmer until soft (5 to 10 minutes). Strain hot fruit 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 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 a 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 simmer as in making regular syrup. Remove from heat, skim off foam, and fill into clean half-pint jars, leaving 1/2-inch headspace. Adjust lids and process.

Recommended process time for Berry Syrup in a boiling-water canner					
Process Time at Altitudes of					
Pack Style	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.	

Making Jelly Without Added Pectin

Use only firm fruits naturally high in pectin. Select a mixture of about 3/4 ripe and 1/4 underripe fruit. Wash fruit thoroughly before cooking. Crush berries. Put 4 pounds of fruit and 1 cup of water in large saucepan and bring to a boil. Simmer 5-10 minutes

until fruit is soft, while stirring to prevent scorching. One pound of fruit should yield at least 1 cup of clear juice.

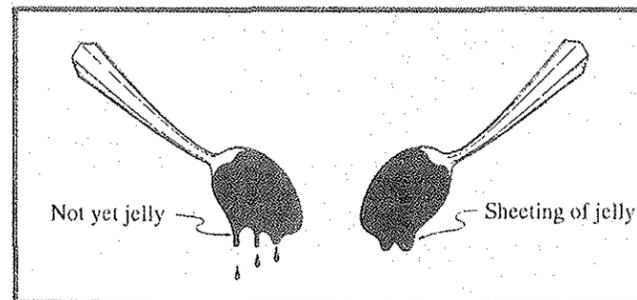
When fruit is tender, strain through a colander, then strain through a double layer of cheesecloth or a jelly bag. Allow juice to drip through, using a stand or colander to hold the bag. Pressing or squeezing the bag or cloth will cause cloudy jelly.

Measure 4 cups of fruit juice and 3-4 cups of sugar and heat to boiling. Stir until the sugar is dissolved. Boil over high heat to the jelling point. To test jelly for doneness, use one of the following methods.

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

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

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 steam). Turn the spoon so the liquid runs off the side. The jelly is done when the syrup forms two drops that flow together and sheet off the edge of the spoon.



Remove from heat and quickly skim off foam. Fill sterile jars with jelly, leaving 1/4-inch headspace. Adjust lids and process.

Recommended process time for Jelly without added pectin in a boiling-water canner				
Process Time at Altitudes of				
Pack Style	Jar Size	0-1,000 ft.	1,001-6,000 ft.	above 6,000 ft.
Hot	Half-pints or pints	5 min.	10 min.	15 min.

Making Jelly With Added Pectin

Fresh fruits and juices as well as canned or frozen fruit juice can be used with commercially prepared powdered or liquid pectin. 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 made with added pectin requires less cooking and generally gives a large yield. These products have more natural fruit flavors, also.

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

Recommended process time for Jelly with added pectin in a boiling-water canner				
Process Time at Altitudes of				
Pack Style	Jar Size	0-1,000 ft.	1,001-6,000 ft.	above 6,000 ft.
Hot	Half-pints or pints	5 min.	10 min.	15 min.

Elderberry Pie Filling

	Quantities of Ingredients Needed for	
	1 Quart	7 Quarts
Fresh or thawed Elderberries	3-1/2 cups	6 quarts
Granulated sugar	3/4 c. + 2 tbsp	6 cups
Clear Jel	1/4 c. + 1 tbsp	2-1/4 c.
Coldwater	1 cup	7 cups
Bottled lemon juice	3-1/2 tsp	1/2 cup

Quality: Select fresh, ripe, and firm berries. Unsweetened frozen berries may be used. IF sugar has been added, rinse it off while fruit is still frozen.

Yield: 1 quart or 7 quarts.

Procedures: Wash and drain fresh berries. For fresh fruits, 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. Cook on medium high heat until mixture thickens and begins to bubble. Add lemon juice and boil 1 minute, stirring constantly. Fold in berries (drained) immediately and fill jars with mixture, leaving 1/2-1 inch headspace. Adjust lids and process.

Recommended process time for Elderberry Pie filling in a boiling-water canner					
Process Time at Altitudes of					
Pack Style	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.

Freezing Whole Berries

Sort and wash Elderberries and package according to one of the following methods.

Dry pack, no sugar. Pack into containers, leaving 1/2 inch headspace. Seal and freeze. This method is used when berries are used in cooked dishes.

Wet pack, in syrup. Pack into containers, cover with syrup, leaving 1/2 inch headspace. Seal and freeze. This method is used when berries are served uncooked. A medium syrup is made by dissolving 3 cups of sugar in 4 cups of water, to yield 5-1/2 cups of syrup. Chill before using.

• Elaine Roundy of Boulder, Utah, provided some information on use of elderberries as well as some pie recipes. Her special interest in elderberries was because of the wild, abundant elderberry crop which grows on Boulder mountain. As a child it was a late summer family tradition to spend a day gathering berries. Elaine suggests for the best flavor combining elderberries with apples. She uses a cup of crabapple juice with elderberry juice when making jelly and in her pie recipe.

Elderberry-Apple Pie

3¹/₂ cup fresh elderberries 1 cup sugar
 3/4 cup thinly sliced tart apple 1/3 cup flour
 1 TB lemon juice

Mix all ingredients together, place in pastry lined pan and dot with butter. Add top crust. Bake at 400 °F for 35 to 40 min. 1-2 crust pie.

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