

# Preserve the Harvest



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## Grapes

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### Did you know?

- Botanically speaking, grapes are a form of berry.
- European grape varieties include Tokay, Ribier, and Thompson seedless. American grape varieties include Concord, Delaware, Niagara and Isabella. The American grapes tend to be larger and have skins that are easier to slip off, but the seeds are held firmly in the pulp.
- Commercial grape jelly in America is made from Concord grapes.
- Thompson seedless is the most common grape used to make raisins.



### SELECTION OF GRAPES

High quality grapes are plump, well formed and firmly attached to green, pliable stems. Fully ripe grapes are soft and tender. Grapes showing signs of decay, shriveling, stickiness or dry brittle stems should be avoided. Moldy and wet grapes indicate decay.

Unlike some fruits, grapes will not improve or ripen after they have been harvested. They must be at peak quality and sweetness when you purchase or pick them. Green grapes are the sweetest and best flavored when they're yellow-green in color; red varieties when the grapes are predominately red; and the blue-black varieties when the berries have a full rich color.

### Fresh Facts

- Just before use, wash grape clusters under a gentle spray of water, drain and pat dry.
- Seedless grapes are used whole. For seeded grapes, remove seeds by cutting grapes into halves lengthwise and scooping out seeds with the point of a knife.
- Grapes are easier to peel when they're frozen. Just rinse frozen grapes in lukewarm water until skins split. Skins will then slip right off.

- When preparing small clusters of grapes for garnishing, cut the clusters with scissors. This helps keep the grapes attached to the stem.

## Canned Facts

- Seedless grapes can be canned whole for use in fruit salads and molded gelatin desserts. If seeded varieties are used, halve and remove seeds before canning.
- Grape juice can be canned sweetened or unsweetened. If juice will be made into jelly later, it's best to can it without sugar, then add the proper amount of sugar at jelly making time.

## CANNING

### Grape Juice

**Quantity:** An average of 24 pounds is needed per canner load of 7 quarts; an average of 16 pounds per canner load of 9 pints. A lug weighs 26 pounds and yields 7 to 9 quarts of juice – an average of 3 pounds per quart.

**Quality:** Select sweet, well-colored, firm, mature fruit of ideal quality for eating fresh or cooking.

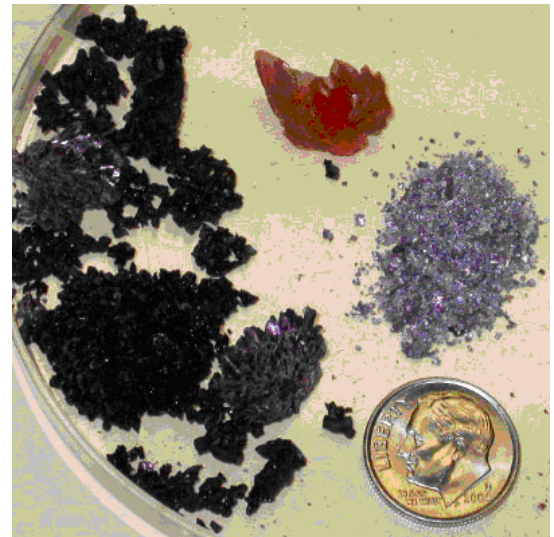
**Procedure:** Wash and stem grapes. Place grapes in a saucepan and add boiling water to cover grapes. Heat and simmer slowly until skin is soft. Strain through a damp jelly bag or double layers of cheesecloth. Refrigerate juice for 24 to 48 hours. Without mixing, carefully pour off clear liquid and save; discard sediment\*. If desired, strain through a paper coffee filter for a clearer juice.

Add juice to a saucepan and sweeten to taste. Heat and stir until sugar is dissolved. Continue heating with occasional stirring until juice begins to boil. Fill hot, sterilized jars immediately, leaving 1/4-inch headspace. Adjust lids and process according to the following chart.

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\*If sediment remains in juice it will result in large crystals forming in the bottom of jar. These crystals, primarily tartaric acid, are not harmful but are unappealing. Tartaric acid is used in the making of cream of tartar.

Larger crystals shown here were from bottles of homemade grape juice after storage. Lighter-colored small crystals above the dime were strained from Concord grape juice refrigerated overnight.



Processing Times at different altitudes for Grape Juice in a BOILING WATER canner				
Style of Pack	Jar Size	0-1,000 ft	1,001-6,000 ft	Above 6,000 ft
Hot	Pints or Quarts	5 min*	10 min	15 min

\*Note: If processing time is less than 10 minutes, jars need to be sterilized before filling.

## Whole Grapes

**Quantity:** An average of 14 pounds is needed per canner load of 7 quarts; an average of 9 pounds is needed per canner load of 9 pints. A lug weighs 26 pounds and yields 12 to 14 quarts of whole grapes – an average of 2 pounds per quart.

**Quality:** Choose unripe, tight-skinned, preferably green seedless grapes harvested two weeks before they reach optimum eating quality.

**Procedure:** Stem, wash and drain grapes. Prepare very light, or light syrup. (See General Syrup Directions.)

**Raw pack** – Fill hot jars with grapes and hot syrup, leaving 1-inch headspace. Adjust lids and process.

**Hot pack** – Blanch grapes in boiling water for 30 seconds. Drain and proceed as for raw pack.

## General Syrup Directions

**Very Light Syrup** (Approximates natural sugar level in most fruits and adds fewest calories.)

Mix 6 1/2 cups water to 3/4 cups sugar for 9 pint or 4 quart load.

Mix 10 1/2 cups water and 1 1/4 cups sugar for 7 quart load.

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

## Light Syrup

Mix 5 3/4 cups water to 1 1/2 cups sugar for 9 pint or 4 quart load.

Mix 9 cups water and 2 1/4 cups sugar for 7 quart load.

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

Processing Times at different altitudes for Grapes, 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
Raw	Pints	15 min	20 min	20 min	25 min
	Quarts	20 min	25 min	30 min	35 min
Hot	Pints or Quarts	10 min	15 min	15 min	22 min

## FREEZING

Grapes are best frozen in syrup, but grapes to be used for juice or jelly can be frozen without sweetening.

**To freeze grapes:** Choose tender skin, firm, sweet grapes with full color and flavor. Sort, remove stems and wash. Leave seedless grapes whole; cut table grapes with seeds in half and remove seeds.

**Unsweetened pack:** Pack into freezer containers without sweetening. Leave 1/2 inch headspace. Seal, label and freeze.

**Syrup pack:** Pack into containers and cover with cold 40% syrup (1 cup water to 2/3 cup sugar). Leave 1/2 inch headspace. Seal, label and freeze.

**Loose pack:** Freeze seedless grapes on a large tray or cookie sheet. When frozen, remove and place in freezer bags or cartons and return to freezer. Seal and label. The loose grapes can be used in fruit salads or as “grape” ice cubes to cool summer drinks.



## Grape pie

Grapes can be premeasured and frozen to use for grape pie. Stem and wash seedless green grapes such as Himrod or Interlaken. Fill a pie pan to the desired level (approximately 4 cups). Transfer to a tray and follow instructions above for freezing individual grapes.

**To make pie later:** Make or buy two-layer pie crust. Line the bottom and sides of the pie pan with uncooked rolled out dough. Place thawed grapes in uncooked crust. Sprinkle with a mixture of 1/4 to 1/2 c. sugar, 2 tbs. flour, 1/4 teaspoon salt, and 1/4 teaspoon nutmeg. Cover with lattice top crust. Bake at 425°F for 25-30 minutes or until crust is browned and juice bubbles at edges.

## To freeze juice for jam or jelly

Wash, remove stems and crush grapes. Add 1 cup water per gallon crushed grapes. Simmer for 10 minutes. Strain juice through a jelly bag. Let juice stand overnight in a refrigerator or other cool place while sediment sinks to the bottom. Pour off clear juice for freezing. Discard sediment.

Pour juice into containers, leaving 1/2 –1 inch headspace. Seal, label and freeze.

If tartrate crystals form in frozen juice, they may be removed by straining the juice through a jelly bag or coffee filter after thawing.

# JELLIES AND JAMS

## Grape Jam

2 quarts grapes (Concord, Muscadine, Scuppernog)

6 cups sugar

**To prepare pulp:** Separate pulp from skins of grapes. Chop skins, if desired. Cook skins gently 15 to 20 minutes, adding only enough water to prevent sticking (about 1/2 cup). Cook pulp until soft. Press through sieve or food mill to remove seeds.

**To prepare jam:** Combine pulp, skins and sugar in a large saucepot. Bring slowly to boil, stirring until sugar dissolves. Cook rapidly almost to gelling point, about 10 minutes. As mixture thickens; stir frequently to prevent sticking. Remove from heat. Skim foam if necessary. Ladle hot jam into hot jars, leaving 1/4-inch headspace. Adjust two-piece caps. Process in a boiling-water canner. Yield: about 3 pints.

Processing Times at different altitudes for Grape Jam or Jelly in a BOILING WATER canner				
Style of Pack	Jar Size	0-1,000 ft	1,001-6,000 ft	6,001-8,000 ft
Hot	Pints	5 min*	10 min	15 min

\*Note: if processing time is less than 10 minutes, sterilize canning jars first.

## Grape Jelly (No added pectin)

4 cups Concord grape juice (about 3 1/2 pounds)

3 cups sugar

Yield: 4 half-pints

**To prepare juice:** Select about 1/4 firm-ripe and 3/4 fully ripe grapes. Wash and stem fruit. Slightly crush fruit and add 1/2 cup water for each quart prepared fruit in a large saucepot. Cover; simmer fruit until soft. To prevent formation of tartrate crystals in grape jelly, let juice stand in a cool place 12 to 24 hours; strain through damp jelly bag or several layers of cheesecloth or coffee filter to remove crystals that have formed.

**To make jelly:** Put grape juice in large saucepot. Add sugar, stirring until dissolved. Boil over high heat, stirring constantly. 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 foam if necessary. Ladle hot jelly into hot jars, leaving 1/4-inch headspace. Wipe jar rims and adjust lids. Adjust two-piece caps. Process in a boiling water canner as listed in above table.

## Grape Jelly (With added pectin)

5 cups grape juice (about 4 1/2 pounds Concord grapes)

1 package powdered pectin

5 cups sugar

Yield: about 6 half-pints

**Juice:** Follow instructions for preparing juice in the above jelly recipe.

**To make jelly:** Juice may be used fresh, canned or frozen previously. Combine grape juice and pectin in large saucepot. Bring to boil over high heat, stirring constantly. Add sugar, stirring until dissolved. Return mixture to rolling boil. Boil hard 1 minute, stirring constantly. Skim foam if necessary. Ladle hot jelly into hot jars, leaving 1/4-inch headspace. Adjust two-piece caps. Process in a boiling water canner as listed in above table.

## DRYING

- The quality of dried grapes (raisins) is excellent.
- For best results, use seedless grapes. If seeded varieties are used, remove seeds as described above before drying.
- Pretreating fruit with an acidic solution prior to drying is highly recommended to enhance quality and safety.
- For best results, dry grapes in a dehydrator or oven.

**To dry grapes:** Select fully ripe sweet grapes, which are firmly attached to the stems. They should have a tender skin, be firm, with full color and flavor. Sort, remove stems and wash. Discard any imperfect grapes. About 4 1/2 pounds of grapes will yield one pound of raisins. Steam or place grapes in boiling water for 30 seconds to one minute until the skins crack. This will break the skins to enable them to dry. To prepare a pretreatment antimicrobial solution, stir 1 teaspoon (5 grams) of citric acid into 1 quart (~1 liter) of cold water, OR mix equal parts of lemon juice and cold water (i.e., 1 cup lemon juice and 1 cup water). Put the boiled grapes in the acidic solution for 10 minutes, drain, then place grapes on a dehydrator tray. Dry at a medium temperature for 24-48 hours or until there is no moisture in the middle of the grape. The raisins may be stored in plastic bags or glass canning jars. Storing under vacuum in glass jars will result in a longer shelf life.

To vacuum package the raisins, place dried raisins in canning jars. Place lids and rims loosely on jars. Heat jars in oven at 325 °F for 15 minutes. Remove from oven and tighten lids.

## STORAGE

Fresh grapes can be stored in the refrigerator, in a perforated plastic bag, or in a location with low temperatures (down to 31 degrees F) and high humidity. Fresh grapes will keep well in storage for about 2 weeks but are best when eaten within 2 to 3 days. Wash just before use by holding under cool running water. Drain and dry.

Temperature of storage has a major effect on storage time. For best quality, use within the following times depending on how stored.

	40°F	70°F	90°F
Grape juice	24 months	12 months	6 months
Raisins, not vacuum packed	18 months	9 months	5 months
Raisins, vacuum packed	36 months	18 months	9 months

## NUTRITION

	Calories	Fiber g	Vitamin C mg	Vitamin A IU	Folate mcg	Potassium mg	Iron mg
Table grapes, raw, 1/2 cup	55	0.7	8.6	53	2	153	0.29
Canned, syrup pack, 1/2 cup	93	0.7	1.3	82	4	132	1.2
Raisins, 1/4 cup	123	1.5	0.9	0	2	309	.78

*Savor the Season All Year Long!*

## References

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