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FREEZING APPLES

Syrup pack is preferred for apples to be used for fruit cocktail or uncooked desserts. Apples packed in sugar or frozen unsweetened are good for pie making.

Select full-flavored apples that are crisp and firm, not mealy in texture. Wash, peel and core. Slice medium apples into twelfths, large ones into sixteenths

Syrup pack -- Use 40 percent syrup (2-3/4 cups sugar per 4 cups of water). For a better quality, frozen product, add 1/2 teaspoon ascorbic acid to each quart of syrup. Slice apples directly into cold syrup in a container, starting with 1/2 cup syrup to a pint container. Press fruit down in containers and add enough syrup to cover. Seal, label and freeze.

Sugar pack – To prevent darkening, dissolve 1/2 teaspoon (1500 mg) ascorbic acid in 3 tablespoons water. Sprinkle over the fruit. Or, apple slices can be steam blanched for 1-1/2 to 2 minutes. Over each quart (1-1/4 pounds) of apple slices evenly sprinkle 1/2 cup sugar and stir. Pack apples into containers and press fruit down, leaving adequate headspace. Seal, label and freeze.

Unsweetened pack – Follow directions for sugar pack, omitting sugar.

Determining Adequate Headspace:

Type of pack	Container with wide top opening		Container with narrow top opening	
	Pint	Quart	Pint	Quart
Liquid pack*	1/2 inch	1 inch	3/4 inch***	1-1/2 inches
Dry pack**	1/2 inch	1/2 inch	1/2 inch	1/2 inch

* Fruit packed in juice, sugar, or water; crushed or pureed fruit or fruit juice.

** Fruits or vegetables packed without added sugar or liquid.

*** Headspace for juice should be 1-1/2 inches.

Source:

E.L. Andress and J.A. Harrison. 1999. *So Easy to Preserve*. Cooperative Extension Service/The University of Georgia. 344 pp.

Reviewed June 2003 by:

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FREEZING APPLE CIDER

The flavor of fresh cider can be conserved by freezing. Pour cider into food-grade containers (plastic water jugs or two liter soft drink bottles) that have been washed in warm soapy water and rinsed very well). Allow 1-1/2-inch headspace because the cider will expand as it freezes. Seal, label and freeze.

Frozen apple cider should be used within 8-12 months. For best quality use within the recommended time. After this, the food should still be safe, just lower in quality.

Reviewed:

August 2002 by Angela Fraser, Ph.D., Associate Professor/Food Safety Education Specialist, North Carolina State University, Raleigh, NC.

FREEZING BANANAS

Select firm ripe bananas. Peel; mash thoroughly. Add 1/2 teaspoon (1500 mg) ascorbic acid to each cup of mashed bananas. Pack into containers, seal, label, and freeze.

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FREEZING CHERRIES

A syrup pack is best for cherries to be served uncooked. Sugar pack is preferable for cherries to be used for pies or other cooked products. Select bright-red, tree-ripened cherries. Stem, sort and wash thoroughly. Drain and pit. Use one of the following methods. Syrup pack

Pack cherries into containers and cover with cold 50% percent syrup, (1 cup water to 1 cup sugar) depending on tartness of the cherries. Seal, label and freeze.

Sugar pack — To 1 quart (1-1/3 pounds) cherries add 3/4 cup sugar. Mix until sugar is dissolved. Pack into containers. Seal, label and freeze. Prepare for packing as freezing whole. Remove pits and crush cherries coarsely. To each quart (2 pounds) of crushed fruit add 1-1/2 cups sugar and 1/4 teaspoon ascorbic acid. Mix well. Pack into containers. Seal, label and freeze.

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FREEZING CITRUS – Grapefruit, oranges

Sections or slices. Select firm tree-ripened fruit heavy for its size and free from soft spots. Wash and peel. Divide fruit into sections, removing all membranes and seeds. Slice oranges if desired. For grapefruit with many seeds, cut fruit in half, remove seeds; cut or scoop out sections. Pack fruit into containers. Cover with cold 40% syrup (1 cup water or juice to 2/3 cup sugar) made with excess fruit juice and water if needed. For better quality, add 1/2 teaspoon ascorbic acid to a quart of syrup. Leave 1/2-inch headspace. Seal, label and freeze.

Determining Adequate Headspace:

Type of pack	Container with wide top opening		Container with narrow top opening	
	Pint	Quart	Pint	Quart
Liquid pack*	1/2 inch	1 inch	3/4 inch***	1-1/2 inches
Dry pack**	1/2 inch	1/2 inch	1/2 inch	1/2 inch

* Fruit packed in juice, sugar, or water; crushed or pureed fruit or fruit juice.

** Fruit or vegetable packed without added sugar or liquid.

*** Headspace for juice should be 1-1/2 inches.

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FREEZING COCONUT

Shred coconut meat or put it through a food chopper. Pack into containers and cover with the coconut milk leaving adequate headspace. Seal, label and freeze.

Determining Adequate Headspace:

Type of pack	Container with wide top opening		Container with narrow top opening	
	Pint	Quart	Pint	Quart
Liquid pack*	1/2 inch	1 inch	3/4 inch***	1-1/2 inches
Dry pack**	1/2 inch	1/2 inch	1/2 inch	1/2 inch

* Fruit packed in juice, sugar, or water; crushed or pureed fruit or fruit juice.

** Fruit or vegetable packed without added sugar or liquid.

*** Headspace for juice should be 1-1/2 inches.

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FREEZING CRANBERRIES — whole

Choose firm, deep-red berries with glossy skins. Remove stems and sort. Wash and drain.

Unsweetened pack - Pack into containers without sugar, leaving adequate headspace. Cranberries can be first frozen on a tray and then packed into containers as soon as they are frozen. Seal, label, and freeze.

Syrup pack - Pack into containers. Cover with cold 50% syrup (1 cup water to 1 cup sugar), leaving adequate headspace. Seal, label, and freeze.

Determining Adequate Headspace:

Type of pack	Container with wide top opening		Container with narrow top opening	
	Pint	Quart	Pint	Quart
Liquid pack*	1/2 inch	1 inch	3/4 inch***	1-1/2 inches
Dry pack**	1/2 inch	1/2 inch	1/2 inch	1/2 inch

* Fruit packed in juice, sugar, or water; crushed or pureed fruit or fruit juice.

** Fruit or vegetable packed without added sugar or liquid.

*** Headspace for juice should be 1-1/2 inches.

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FREEZING DATES

Select dates with good flavor and tender texture. Wash and split to remove pits. Leave whole or press through a sieve for puree.

Dry pack — Pack into containers, leaving adequate headspace. Seal, label, and freeze.

Determining Adequate Headspace:

Type of pack	Container with wide top opening		Container with narrow top opening	
	Pint	Quart	Pint	Quart
Liquid pack*	1/2 inch	1 inch	3/4 inch***	1-1/2 inches
Dry pack**	1/2 inch	1/2 inch	1/2 inch	1/2 inch

* Fruit packed in juice, sugar, or water; crushed or pureed fruit or fruit juice.

** Fruit or vegetable packed without added sugar or liquid.

*** Headspace for juice should be 1-1/2 inches.

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FREEZING FIGS

Select fully ripe fruit. Make sure figs have not become sour in the center. Sort, wash and cut off stems. Peel if desired. Slice or leave whole. Use one of the following packs:

Syrup pack – Use 40% syrup (2-3/4 cups sugar to 4 cups water). For a better product, add _ teaspoon (2250 mg) ascorbic acid or 1/2 cup lemon juice to each quart of syrup. Pack figs into containers and cover with cold syrup, leaving 1-2-inch headspace. Seal, label, and freeze.

Unsweetened pack - To prevent darkening of light colored figs, dissolve 3/4 teaspoon (2250 mg) of ascorbic acid in 3 tablespoons cold water and sprinkle over 1 quart of fruit. Pack figs into containers, leaving _-inch headspace. Figs can also be frozen first on a tray and then packed into containers as soon as they are frozen. Seal, label and freeze.

Determining Adequate Headspace:

Type of pack	Container with wide top opening		Container with narrow top opening	
	Pint	Quart	Pint	Quart
Liquid pack*	1/2 inch	1 inch	3/4 inch***	1-1/2 inches
Dry pack**	1/2 inch	1/2 inch	1/2 inch	1/2 inch

* Fruit packed in juice, sugar, or water; crushed or pureed fruit or fruit juice.

** Fruit or vegetable packed without added sugar or liquid.

*** Headspace for juice should be 1-1/2 inches.

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FREEZING GRAPES

Whole or halves - Grapes are best frozen with syrup, but grapes to be used for juice or jelly can be frozen without sweetening. Select firm-ripe grapes with tender skins and full color and flavor. Wash and remove stem. Leave seedless grapes whole; cut table grapes with seeds in half and remove seeds.

Unsweetened pack - Pack into containers without sweetening. Leave $\frac{1}{2}$ -inch headspace. Seal, label and freeze.

Syrup Pack - Pack into containers and cover with cold 40% syrup (1 cup water to $\frac{2}{3}$ cup sugar). Leave $\frac{1}{2}$ -inch headspace. Seal, label and freeze.

Juice - For beverages, select as for whole grapes. For jelly making, select as recommended in specific jelly recipe. Wash, stem, and crush grapes. Strain them 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. Pour juice into containers, leaving headspace. Seal, label and freeze. If tartrate crystals form in frozen juice, they can be removed by straining the juice after it thaws.

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FREEZING GUAVA

Select ripe, tender fruit. Wash, peel, and halve the fruits and remove the seeds.

Syrup pack — Pack in container. Cover with cold 30% syrup (mix 1-3/4 cups sugar with 4 cups lukewarm water). Leave adequate headspace, seal, and freeze.

Unsweetened pack — Arrange slices on a flat pan and freeze. When frozen remove and store in sealed, labeled freezer containers.

Determining Adequate Headspace:

Type of pack	Container with wide top opening		Container with narrow top opening	
	Pint	Quart	Pint	Quart
Liquid pack*	1/2 inch	1 inch	3/4 inch***	1-1/2 inches
Dry pack**	1/2 inch	1/2 inch	1/2 inch	1/2 inch

* Fruit packed in juice, sugar, or water; crushed or pureed fruit or fruit juice.

** Fruit or vegetable packed without added sugar or liquid.

*** Headspace for juice should be 1-1/2 inches.

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FREEZING HARD BERRIES – Blueberries, elderberries, huckleberries, gooseberries

The syrup pack is preferred for berries to be used for cooking. Select full-flavored, ripe berries all about the same size, preferably with tender skins. Sort, wash and drain. Use one of the following packs:

Syrup pack. Pack berries into containers and cover with cold 50% syrup (1 cup sugar to 1 cup water). Seal, label and freeze.

Unsweetened pack. Pack berries into containers. Seal, label and freeze.

Crushed or pureed. Select fully ripened berries. Sort, wash, and drain. Crush, or press berries through a fine sieve for puree. To 1 quart (2 pounds) crushed berries or puree, add 2/3 cup sugar, depending on tartness of fruit. Stir until sugar is dissolved. Pack into containers. Seal, label and freeze.

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FREEZING MANGOES

Select firm, ripe mangoes that yield to gentle pressure. Wash, peel, and slice.

Syrup pack — Pack slices in containers with a 30% syrup (mix 1-3/4 cups sugar with 4 cups lukewarm water). Leave adequate headspace. Seal, label, and freeze.

Unsweetened tray pack — Arrange slices on a flat pan and freeze. When frozen remove and store in sealed, labeled freezer containers.

Puree — Press mango slices through a sieve, blender chop or chop in a food processor. Pack into containers with or without sugar. Leave adequate headspace. Seal, label, and freeze.

Determining Adequate Headspace:

Type of pack	Container with wide top opening		Container with narrow top opening	
	Pint	Quart	Pint	Quart
Liquid pack*	1/2 inch	1 inch	3/4 inch***	1-1/2 inches
Dry pack**	1/2 inch	1/2 inch	1/2 inch	1/2 inch

* Fruit packed in juice, sugar, or water; crushed or pureed fruit or fruit juice.

** Fruit or vegetable packed without added sugar or liquid.

*** Headspace for juice should be 1-1/2 inches.

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FREEZING MELONS — Cantaloupe, Crenshaw, Honeydew, and Watermelon

Select firm-fleshed, well-colored, ripe melons. Cut in half, remove seeds and rind. Cut melons into slices, cubes, or balls.

Syrup pack — pack into containers and cover with cold 30 percent syrup (mix 1-3/4 cups water with 4 cups lukewarm water). Leave adequate headspace. Seal, label, and freeze.

Unsweetened pack — Pack into containers, leaving adequate headspace. Seal, label, and freeze.

Determining Adequate Headspace:

Type of pack	Container with wide top opening		Container with narrow top opening	
	Pint	Quart	Pint	Quart
Liquid pack*	1/2 inch	1 inch	3/4 inch***	1-1/2 inches
Dry pack**	1/2 inch	1/2 inch	1/2 inch	1/2 inch

* Fruit packed in juice, sugar, or water; crushed or pureed fruit or fruit juice.

** Fruit or vegetable packed without added sugar or liquid.

*** Headspace for juice should be 1-1/2 inches.

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FREEZING PEACHES, NECTARINES AND APRICOTS — Halves and slices

Fruit in halves and slices have better quality when packed in syrup or with sugar, but a water pack will serve if sweetening is not desired. Select firm, ripe fruit with no green color in the skins. Sort, wash, pit and peel. For a better product, peel fruit without a boiling water dip. Slice if desired.

Syrup pack — Use 50% syrup (1 cup sugar to 1 cup water). For a better quality product, add 1/2 teaspoon ascorbic acid for each quart of syrup. Put fruit directly into cold syrup in the container--starting with 1/2 cup syrup to a pint container. Press fruit down and add syrup to cover, leaving 1/2-inch headspace. Seal, label and freeze.

Sugar pack — To each quart (1-1/3 pounds) of prepared fruit, add 2/3 cup sugar and mix well. To retard darkening, sprinkle ascorbic acid dissolved in water over the peaches before adding sugar. Use 1/4 teaspoon ascorbic acid in 1/4 cup cold water for each quart of fruit. Pack into containers leaving 1/2-inch headspace. Seal, label and freeze.

Water pack -- Pack peaches into containers and cover with cold water containing 1 teaspoon ascorbic acid to each quart of water. Leave 1/2-inch headspace. Seal, label and freeze.

Crushed or puree -- To loosen skins, dip peaches in boiling water 1/2 to 1 minute. The riper the fruit, the less scalding needed. Cool in cold water, remove skins, and pit. Crush peaches coarsely, or, for puree, press through a sieve. Heat pitted peaches 4 minutes in just enough water to prevent scorching and then press through a sieve. With each quart (2 pounds) of crushed or pureed peaches, mix 1 cup sugar. For better quality, add 1/8 teaspoon ascorbic acid to each quart of fruit. Pack into containers, leaving 1/2-inch headspace. Seal, label and freeze.

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FREEZING PERSIMMONS

Select orange-colored, soft-ripe persimmons. Sort, wash, peel, and cut into sections. Press fruit through a sieve to make a puree. For a better product, to each quart of puree, add 1/8 teaspoon (375 mg) ascorbic acid. Puree made from native varieties needs no sugar. Puree made from cultivated varieties may be packed with or without sugar.

Puree — Pack unsweetened puree into freezer containers. Leave adequate headspace. Seal, label, and freeze. Or, mix 1cup sugar with each quart (2 pounds) of puree and pack into freezer containers. Leave adequate headspace. Seal, label, and freeze.

Determining Adequate Headspace:

Type of pack	Container with wide top opening		Container with narrow top opening	
	Pint	Quart	Pint	Quart
Liquid pack*	1/2 inch	1 inch	3/4 inch***	1-1/2 inches
Dry pack**	1/2 inch	1/2 inch	1/2 inch	1/2 inch

* Fruit packed in juice, sugar, or water; crushed or pureed fruit or fruit juice.

** Fruit or vegetable packed without added sugar or liquid.

*** Headspace for juice should be 1-1/2 inches.

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FREEZING PINEAPPLE

Select firm, ripe pineapple with full flavor and aroma. Pare and remove core and eyes. Slice, dice, crush or cut the pineapple into wedges or sticks.

Unsweetened pack – Pack fruit tightly into containers without sugar. Leave 1/2-inch headspace. Seal, label and freeze.

Syrup pack – Pack fruit tightly into containers. Cover with 50% syrup (1 cup water to 1 cup sugar) made with pineapple juice, if available, or with water. Leave _-inch headspace. Seal, label and freeze.

FREEZING PLUMS AND PRUNES – whole, halves or quarters

Frozen plums and prunes are very good for use in pies and jams, or in salads and desserts. The unsweetened pack is preferred for plums to be used for jams. Choose firm tree-ripened fruit of deep color. Sort and wash. Leave whole or cut in halves or quarters. Pack in one of the following ways:

Unsweetened pack – pack whole fruit into containers, leaving 1/2-inch headspace. Seal, label and freeze.

Syrup pack – Pack cut fruit into containers. Cover fruit with cold 50% syrup (1 cup sugar to 1 cup water). For improved quality, add 1/2 teaspoon ascorbic acid to a quart of syrup. Leave 1/2-inch headspace. Seal, label and freeze.

Puree – Select fully ripe fruit. Wash, cut in halves and remove pits. Puree may be prepared from unheated or heated fruit, depending on the softness of the fruit. To prepare puree from unheated fruit, press raw fruit through a sieve. For better quality, add either 1/4 teaspoon ascorbic acid or 1/2 tablespoon citric acid to each quart (2 pounds) of puree. To prepare puree from heated fruit, add 1 cup water for each 4 quarts (4 pounds) of fruit. Bring to a boil, cook 2 minutes, cool, and press through a sieve. With each quart (2 pounds) of puree, mix 1/2 to 1 cup sugar, depending on tartness of fruit. Pack into containers, leaving 1/2-inch headspace. Seal, label and freeze.

Juice – for juice to be served in beverages, select plums as for puree. For juice to be used for jelly making, select as recommended in specific jelly recipe. Wash plums. Then simmer until soft in enough water to barely cover. Strain through a jelly bag. Cool. If desired, sweeten with 1 to 2 cups sugar for each quart of juice, depending on tartness of fruit. Pour into containers, leaving 1/2-inch headspace. Seal, label and freeze.

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FREEZING POMEGRANATES

Select fully ripe pomegranates. Wash and cut in half. Place cut side down and rap the shell with a blunt instrument such as a hammer handle. This will break section walls and open the juice sacs.

Syrup pack — pack juice and pulp into freezer containers. Cover with a cold 30% syrup (mix 1-3/4 cups sugar with 4 cups lukewarm water), leaving adequate headspace. Seal, label, and freeze.

Unsweetened tray pack — Arrange slices on a flat pan and freeze. When frozen remove and store in sealed, labeled freezer containers.

Determining Adequate Headspace:

Type of pack	Container with wide top opening		Container with narrow top opening	
	Pint	Quart	Pint	Quart
Liquid pack*	1/2 inch	1 inch	3/4 inch***	1-1/2 inches
Dry pack**	1/2 inch	1/2 inch	1/2 inch	1/2 inch

* Fruit packed in juice, sugar, or water; crushed or pureed fruit or fruit juice.

** Fruit or vegetable packed without added sugar or liquid.

*** Headspace for juice should be 1-1/2 inches.

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FREEZING RASPBERRIES – WHOLE

Raspberries can be frozen in sugar or syrup or unsweetened. Seedy berries are best for use in making purees or juice. Select fully ripe, juicy berries. Sort. Wash carefully in cold water, and drain thoroughly.

Sugar pack — To 1 quart (1-1/3 pounds) berries, add 3/4 cup sugar and mix carefully to avoid crushing. Put into containers, leaving 1/2-inch headspace. Seal, label and freeze.

Syrup pack — Put berries into containers and cover with cold 50% syrup (1 cup sugar to 1 cup water), leaving 1/2-inch headspace. Seal, label and freeze.

Unsweetened pack — Put berries into containers, leaving 1/2-inch headspace. Seal, label and freeze.

Juice — For beverage use, select as for whole raspberries. For jelly making, select as recommended in specific jelly recipe. Crush and heat berries slightly to start the flow of juice. Strain in a jelly bag to extract juice. Sweeten beverage juice with 1/2 to 1 cup sugar for each quart of juice if desired. Pour into containers, leaving 1/2-inch headspace. Seal, label and freeze.

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FREEZING RHUBARB

Stalks or pieces - Choose, firm, tender, well-colored stalks with good flavor and few fibers. Wash, trim and cut into 1- or 2-inch pieces in lengths to fit the package. Heat rhubarb in boiling water for 1 minute. Cool promptly in cold water to retain color and flavor. Drain well. Unsweetened pack. Pack either raw or preheated rhubarb tightly into containers without sugar. Leave 1/2-inch headspace. Seal, label and freeze.

Syrup - Pack either raw or preheated rhubarb tightly into containers; cover with cold 50% syrup (1 cup sugar to 1 cup water). Leave 1/2-inch headspace. Seal, label and freeze.

Puree - Prepare rhubarb as for rhubarb stalks or pieces. Add 1 cup water to 1-1/2 quarts (2 pounds) rhubarb and boil 2 minutes. Cool and press through a sieve. To 1 quart (2 pounds) puree, mix 2/3 cup sugar. Pack into containers leaving 1/2-inch headspace. Seal, label and freeze.

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FREEZING SOFT BERRIES — blackberries, boysenberries, dewberries, loganberries, youngberries

Syrup - Pack is preferred for berries to be served uncooked. Sugar pack or unsweetened pack is satisfactory for berries to be used for cooked products such as pie or jam. Select firm, plump, fully ripe berries with glossy skins. Green berries might cause off-flavor. Sort and remove any leaves and stems. Wash and drain. Use one of the following packs:

Syrup pack — Pack berries into containers and cover with cold 50% syrup (1 cup sugar to 1 cup water). Seal, label and freeze.

Sugar pack - to 1 quart (1 1/3 pounds) berries, add 3/4 cup sugar. Turn berries over and over until most of the sugar is dissolved. Fill containers. Seal, label and freeze.

Unsweetened pack - Pack berries into containers. Seal, label and freeze.

Crushed or puree - Prepare for packing in same way as for whole berries. Crush or press through a sieve for puree. To each quart (2 pounds) of crushed berries or puree add 1 cup sugar. Stir until sugar is dissolved. Pack into containers. Seal, label and freeze.

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FREEZING STRAWBERRIES – Whole

Select firm, ripe, red berries preferably with a slightly tart flavor. Large berries are better sliced or crushed. Sort berries, wash them in cold water — do not use soap as it can leave a residue — drain well then remove caps and stems. Sugar and syrup packs make better quality frozen strawberries than berries packed without sweetening.

Syrup pack — Put berries into containers and cover with cold 50% syrup (mix 1 cup sugar to 1 cup lukewarm water), leaving 1/2-inch headspace. Seal, label and freeze.

Sugar pack — Add 3/4 cup sugar to 1 quart (1-1/3 pounds) strawberries and mix thoroughly or let stand for 15 minutes. Put into containers, leaving 1/2-inch headspace. Seal, label and freeze.

Unsweetened pack — Pack strawberries into containers, leaving 1/2-inch headspace. Seal, label and freeze.

Sliced or crushed — Prepare strawberries as for freezing whole; then slice or crush partially or completely. To 1 quart (1-1/3 pounds) berries and 3/4 cup sugar; mix thoroughly. Stir until most of the sugar is dissolved or let stand for 15 minutes. Pack into containers, leaving 1/2-inch headspace. Seal and freeze.

Source:

E.L. Andress and J.A. Harrison. 1999. *So Easy to Preserve*. Cooperative Extension Service/The University of Georgia. 344 pp.

Reviewed May 2003 by:

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