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Cantaloupe: Safe Methods to Store, Preserve, and Enjoy

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Cantaloupe

Nutrition Facts
Serving Size 1/4 medium melon (134g)

Amount Per Serving

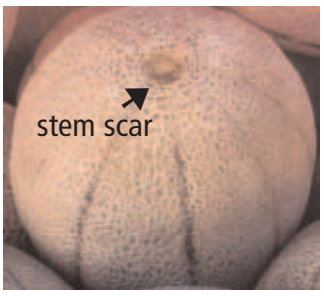
Calories 50	**Calories from Fat** 0
	Daily Value*
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0 mg	0%
Sodium 25 mg	1%
Total Carbohydrate 12g	4%
Dietary Fiber 1g	4%
Sugars 11g	
Protein 1g	

Vitamin A 100% • Vitamin C 80%
Calcuum 2% • Iron 2%

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 90 • Carbohydrate 4 • Protein 4



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WHAT IS CANTALOUPE?

The melon known in the United States as a cantaloupe or muskmelon *(Cucumis melo* L var. *reticulatus)* is a member of the gourd family (Cucurbitaceae). This melon has a raised rind netting over a yellow-skinned background, orange flesh, and a musky aroma. The gourd family also includes honeydew, crenshaw, casaba, and Persian melons, as well as cucumbers, pumpkins, squashes, watermelons, and chayote. Cantaloupes grown in the United States are not considered true cantaloupes. True cantaloupes *(Cucumis melo* var. *cantaloupensis),* commonly grown in Europe, have a rough, scaly, hard rind with no netting and green or orange flesh. In this publication, "cantaloupe" refers to the variety common in the United States, *C. melo* L var. *reticulatus*.

Cantaloupes are thought to have originated in Africa. They were brought to North America in approximately the sixteenth century. Cantaloupes purchased in the United States are grown primarily in the United States, Central America, and Mexico. California produces approximately 60 percent (1 million tons, or 907,000 metric tons, per year) of the total U.S. market. Cantaloupes grown in the United States are harvested from May to November, with the peak harvest from June to October. Melons are imported into the United States from Costa Rica, Guatemala, Honduras, Mexico, and other countries from November to May.

SELECTING CANTALOUPES

Selecting Cantaloupes from the Home Garden

Many different cantaloupe varieties are available for growing in the home garden. Check with your local nursery for guidance; see also *Home Garden Cantaloupe,* which is available on the University of California Vegetable Research and Information Center Web site at http://vric.ucdavis.edu/selectnewcrop.cantaloupe.htm#garden. Information found in *Key Points of Control and Management of Microbial Food Safety Concerns for Edible Landscape and Home Gardening* should be considered when growing fruits and vegetables in the home garden; see http://ucce.ucdavis.edu/files/filelibrary-/5453/4364.pdf.

Harvest melons at "full slip," that is, when a slight crack completely circles the stem where it is attached to the fruit and the fruit can be removed with little or no pulling. Once mature melons have been harvested, they should be protected from the sun to avoid rapid water loss and accelerated ripening. Melons are best when consumed as soon as possible after harvest.

Selecting Whole Cantaloupes at the Grocery Store

Choose cantaloupes that have a characteristic aromatic smell, a smooth, rounded stem scar, yield slightly to pressure on the blossom end (opposite of the stem scar),

and have a yellow background under raised well-developed netting. Some new varieties retain a green-colored background when ripe. Melons should be free of cuts, bruises, or other defects.

If one side of the melon looks blemished, it is probably the "ground spot," the point where the melon rested against the ground. The melon flesh inside the ground spot may look different and be less mature than the remainder of the melon, but the whole melon is fine to eat. This type of discoloration may also be due to sunburn. Sunburn is also a cosmetic defect that only affects eating quality when severe.

Cantaloupes will ripen (soften and become more juicy) after harvest, but the sugar content, or sweetness, will not increase. If the melon is not ripe when purchased, store at room temperature for one to two days.

TIP
The **maturity** of a melon is related, among other things, to its sugar content, or sweetness. **Ripeness** is used to describe the texture and juiciness of a melon as experienced by the consumer. Cantaloupes can soften after harvest but their sweetness does not change.

Selecting Cut Cantaloupe at the Grocery Store

When you buy cut or diced cantaloupe (or other cut or diced melon), make sure it is properly chilled, preferably in a refrigerated display case. If cut or diced melons are displayed on ice, they should be surrounded by ice and the surface of the container or wrap should be cold to the touch.

STORING AND HANDLING CANTALOUPE

Storing Fresh Cantaloupe

The optimal storage temperature for ripe cantaloupe is 36º to 41ºF (2.2º to 5ºC). The optimal relative humidity is 95 to 100 percent, which prevents drying. If possible, place cantaloupe in the refrigerator crisper, where the humidity tends to be higher. Under these conditions, freshly harvested cantaloupe, picked at full slip, lasts about 5 to 15 days, depending on variety and growing conditions. When purchased from a grocery or supermarket, melons will keep in the refrigerator for about 5 days, depending upon the initial degree of ripeness—the riper they are, the shorter their keeping time.

TIP
Cantaloupes produce ethylene gas, a natural plant hormone involved in ripening. Storing cantaloupes and other melons with ethylene-sensitive produce (such as cucumbers, kiwi, avocado, and broccoli) can cause these fruits and vegetables to spoil more rapidly.

Safety Tips for Handling Fresh Cantaloupe

Cantaloupes are grown in close contact with the ground, which may occasionally introduce bacterial contamination from soil, water, and animals. Contamination from human contact may arise during or after harvest.

Eating cut cantaloupe has been linked to foodborne illnesses caused by *Salmonella* or *Escherichia coli* O157:H7. In most cases the source of contamination cannot be determined; however, bacteria present on the melon rind at time of purchase or harvest from a home garden can transfer to the edible flesh when the melon is cut. It is important to follow the washing instructions below before preparation. Storing cut melons at room temperature or other warm conditions such as in a hot car or at a picnic can lead to rapid growth of harmful bacteria on the flesh. Foodborne illnesses associated with melons have also occurred when dirty utensils or cutting boards (especially those used to handle raw meats) have been used to prepare melons. For this reason it is important to wash hands before and after preparing melons and always use clean equipment, utensils, and cutting surfaces.

CAUTION
Always peel, cover, and refrigerate cut cantaloupe. Throw cut melon out if it has been kept for longer than 2 hours at room temperature or 1 hour when temperatures are over 90°F (32°C).

Washing Cantaloupe

Cantaloupes should be washed just before preparing and eating. It is best not to wash cantaloupes before storage; this helps ensure a longer shelf life for the uncut fruit. The spaces within the netted rind on the cantaloupe acts as protection for bacteria, often making bacteria difficult to remove. Most bacteria can be removed by scrubbing the

whole melon with a clean vegetable brush under clean running water. After washing, blot the melon with clean paper towels to remove excess water. Place on a clean surface, and cut off the stem end about ¾ to 1 inch (19 to 25 mm) from the end. Cutting within a kitchen sink is not recommended. Place the melon on a clean cutting board, plate, or other surface with the cut end facing down. With a clean knife, cut the melon from the blossom end to the stem end. Wash the knife with clean running water and set aside. Gently scrape out the seeds with a clean spoon. Continue to cut into slices or as desired.

The use of dish soap or detergent is not recommended or approved for washing fruits and vegetables. Produce items, especially cantaloupes, are porous and can absorb detergent residues.

Always peel, cover, and refrigerate cut cantaloupe. Refrigeration inhibits the growth of bacteria.

METHODS FOR PRESERVING CANTALOUPE

Prepare melons by washing and cutting as described above.

Freezing Cantaloupe

Select fully ripe but firm cantaloupe. Cut the melon into slices, balls, or cubes. After freezing, melons are best used while still frosty.

Syrup Pack

Add light syrup (2 cups sugar to 4 cups [500 ml to 1 L] water to cover cantaloupe pieces. One teaspoon (5 ml) of lemon juice may be added to each cup (250 ml) of syrup for flavor. Package in plastic bags or containers, leaving some room to allow for expansion during freezing.

Sugar Pack

Sprinkle cantaloupe pieces with sugar (2¼ cups sugar to each 5 pounds [475 ml to 2 kg] cut melon), allow to stand a few minutes, mix gently, and package in plastic bags or containers, leaving some room to allow for expansion during freezing.

Unsweetened Melon

Freeze layers of melon between wax paper. Package in plastic bags or containers once frozen. Melon should be used within 1 month. These are best if served slightly frozen.

Drying Cantaloupe—Not Recommended

Cantaloupe and other melons are not well suited for drying or for making into fruit leather. This method of preservation is not recommended.

Canning Cantaloupe—Not Recommended

Cantaloupe and other melons should not be canned. Cantaloupe and other melons are nonacidic (have a high pH), with pH values ranging from 6.1 to 6.6. Nonacidic canned fruits support the growth of the bacterium that causes botulism when given the right conditions, which include moisture, room temperatures, lack of oxygen, and low-acid conditions. The high pH means that the product would need to be canned using a pressure canner rather than a water bath canner to ensure product safety. Safe processing times have not been determined because the high temperatures that would be needed leave the melon mushy and inedible.

Cantaloupe preserves or pickle recipes from reliable sources can be safely processed using a water bath canner because the addition of acids or acidic ingredients safely lowers the pH.

CAUTION
Cantaloupe pH is between 6.1 and 6.6. This puts it in the low-acid range. It is important to carefully follow recipes. Do not alter the proportion of fruit to lemon juice or other acids such as vinegar in preserve or pickle recipes containing cantaloupe.

Preserves

Cantaloupe-Peach Conserve

Makes 4 to 5 half-pint (250 ml) jars.

4 cups	cantaloupe pieces	1L
4 cups	chopped peaches	1L
6 cups	sugar	1.5L
¼ cup	lemon juice	65 ml
½ teaspoon	nutmeg	2 ml
¼ teaspoon	salt	1 ml
1 teaspoon	grated orange peel	5 ml
½ cup	slivered, blanched almonds (optional)	125 ml

1. Wash hands, work surfaces, and knife.
2. Wash, peel, and coarsely chop cantaloupes and peaches. In a large stockpot, combine chopped fruit and simmer for 20 minutes, stirring constantly. There should be just enough liquid to keep fruit from sticking to the pot.
3. Add sugar and lemon juice and boil until thick.
4. Add remaining ingredients and boil for 3 minutes.
5. Ladle the hot conserve into hot, sterile jars leaving ¼ inch (6.5 mm) of headspace. Remove air bubbles using a nonmetal utensil.
6. Wipe the jar rims and seal immediately with 2-piece self-sealing lids, following manufacturer's instructions.
7. At altitudes of up to 1,000 feet (300 m), process for 5 minutes in a boiling water bath canner. Increase processing time by 1 minute for every additional 1,000-foot increase in altitude.

CAUTION
Research on food preservation is ongoing, and recommendations may change. Make sure your information is always current. Always follow up-to-date, tested guidelines and recipes from reliable sources.

ADDITIONAL RESOURCES

The FoodSafe Program at the University of California, Davis, provides information about food safety and has links to resources on home food preservation.

http://foodsafe.ucdavis.edu

The Postharvest Technology Research and Information Center at the University of California, Davis, provides information on storing fresh fruits and vegetables.

http://postharvest.ucdavis.edu/Produce/Storage/FVstorage.pdf

University of California, Davis, Vegetable Research and Information Center has information on growing vegetables (and melons) in the home garden.

http://vric.ucdavis.edu/veginfo/homegarden.htm

The National Center for Home Food Preservation provides science-based information on home food preservation for Extension educators, other educators, and home food preservers.

http://www.homefoodpreservation.com (also: .net, .org).

University of Georgia College of Family and Consumer Sciences, Food Safety and Preservation section, provides extensive publications on preserving food safely and other food-related information.

http://www.fcs.uga.edu/extension/food_pubs.php

AboutProduce.com is a Web page maintained by the Produce Marketing Association. It has extensive information about produce, including recipes and nutritional information. http://www.aboutproduce.com

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