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Pomegranate Fruit And Juice

Alice M. Crites, Northeast Clark County Extension Educator

Mary Wilson, Southern Area Nutrition Specialist

The pomegranate is a native fruit of Persia. Its name in Latin means "apple with many seeds." The fruit, which is about the size of an apple, has a thin rind lined with a layer of white membrane which divides the fruit into several cells. Each cell contains numerous seeds encased in a juicy pulp. The outer rind color is pink to deep red when the fruit is mature on the most popular varieties for eating.

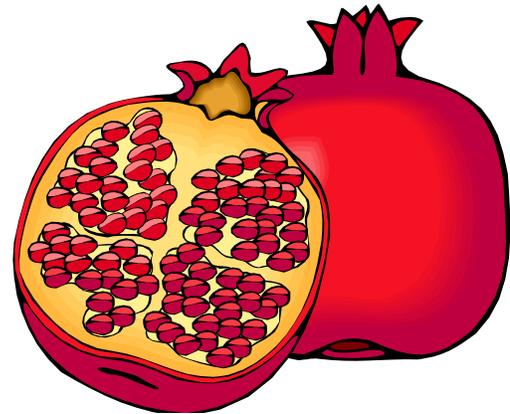
The pomegranate plant may be used for its aesthetic beauty in hedges, as a shrub or tree or for its fruit. The pomegranate plant is well adapted to the hot, dry climate of the Southwest and grows in a wide range of soils. For anyone wanting to raise pomegranates, "Growing Pomegranates in Southern Nevada," UNCE Fact Sheet 04-76 is available from UNCE offices or via the web at www.unce.unr.edu/publications.

Fruit Use

The edible portions of the fruit include the seed and the juicy translucent flesh enclosing the seed (arils). The tart flavor of the pulp and juice of the ripe pomegranate can add interest and variety to foods.

The flesh-covered seeds can be used as a garnish in fruit cups, compotes, salads and desserts, and as a snack. The juice is used in making jellies, puddings, desserts, wine and fruit drinks. Grenadine, made from pomegranate juice, is indispensable in flavoring some beverages. Grenadine also makes a delicious topping for ice

cream and chilled fruits such as peaches, pears and bananas.



Nutritive Value

One medium apple-sized pomegranate (3-3/8" in diameter, 154 grams in weight) provides about 105 calories. It has 26 grams carbohydrate, is a good source of potassium (399 milligrams), has some vitamin C (9 milligrams) and fiber (0.9 grams) as well as small amounts of several other vitamins and minerals.

Claims of the pomegranate's medicinal qualities have been touted for centuries, yet only recently have scientific studies been conducted on the potential health benefits of this peculiar and often unfamiliar fruit.

Pomegranates have much the same phytochemical qualities as cherries, blueberries, cranberries and other red or brightly colored fruit.

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Recent studies, though small, have shown the effects of pomegranate juice consumption as a potent antioxidant reducing heart disease and cancer risk. In fact, cardiovascular benefits were shown when study participants consumed only 2 ounces of pomegranate juice daily. Other studies have shown pomegranate juice helpful in protecting the skin from tumors. Pomegranates contain several polyphenols and anthocyanidins that are powerful free-radical scavengers, even more effective than those found in red wine and green tea.

Removing the Seeds

Choose fruits heavy for their size (the juiciest) and free of cracks. It's a good idea to wear plastic gloves and an apron when handling pomegranates. They tend to spurt, and the stain is almost impossible to remove. Because pomegranate juice darkens if it comes in contact with metal, it is best to use plastic or glass utensils when working with pomegranates.

Seeds can be removed by cutting off the crown end and lightly scoring the skin in quarters from top to bottom and then breaking the fruit open. The seeds can be removed with your fingers. Each section is surrounded by a thin, bitter membrane. Peel the membranes back as the seeds are removed and discard the membranes and the rind.

When you need a large number of seeds, submerge scored pomegranates in a bowl of cold water and let soak for at least five minutes. While holding the fruit under water, split the sections and separate the seeds from the section walls. The seeds will sink to the bottom and the peel and membranes will float. Skim off and discard peel and membranes and drain seeds in a plastic colander.

Seeds can also be removed by cutting the pomegranate in half, placing the cut face down and rapping the shell firmly with a blunt instrument such as a hammer handle. The section walls will break and the juice sacs will come loose. Pick out the sections of membrane and discard.

Extracting the Juice

One large pomegranate yields 1/3 to 1/2 cup of juice. After you have removed the seeds, you need to crush or press them. To remove the juice, strain crushed pulp through a double thickness of cheesecloth or nylon netting. Juice can also be made by whirling seeds, 1½ cups at a time, in a blender or food processor until liquefied, then strain.

Another method of obtaining juice is to cut the fruit in half and use a juice press or juicer. Press, do not twist, the fruit. The rind contains tannin, which gives the juice a bitter taste. Place the juicer in the sink to avoid splattering. Strain juice through a plastic colander first, then through cheesecloth.

Storage and Preservation

Whole pomegranates keep well at room temperature for a week or refrigerated in an air-tight container for up to three months. Refrigerate seeds in an airtight bag for up to three days or freeze for up to six months.

Fruit kept in cold storage should be spread on shelves or tables or hung by tying strings to the fruit stems. Harvested fruit should be stored in a cool area (40-50°F). Ripening will continue to full flavor at these temperatures. Fruit stored at 32-40°F will keep weeks/months, especially at high relative humidity (80 percent). Storing at a warmer temperature or lower humidity increases dehydration, causing the fruit skin to harden and shrink.

Juice can be frozen or canned. Freezing is recommended because juice will hold its flavor and color better. To freeze, fill freezer containers allowing ½-inch headspace for expansion. Store in an upright position until frozen, label with date of freezing and try to use within one year.

Canned juice may turn brown and lose its flavor. Adding two tablespoons of lemon juice to each quart of juice helps retain color and flavor. Bring juice quickly to a boil, pour into sterilized jars, adjust lids and process in hot water bath for 15 minutes.

Freeze the seeds for use in salads and appetizers by spreading in a thin layer on a cookie sheet. Quick freeze, then store in moisture-proof, vapor-proof freezer bags or containers. For other uses, pack seeds in containers and cover with cold 30 percent syrup. Make the syrup by heating 2 cups of sugar in 4 cups of water until sugar dissolves. Cool syrup, then pour over fruit. Leave ½-inch headspace, seal and freeze.

Make pomegranate raisins by drying seeds in a fruit dryer. Pomegranate raisins can then be used as a snack or in breads, cakes, etc., as a replacement for grape raisins.

SOME RECIPES TO TRY

Snack

Eat seeds fresh from the fruit or use a bowl and spoon. Roll them in small cream cheese balls or eat chilled with yogurt.

Grenadine Syrup

4 cups pomegranate juice
2 cups sugar

Combine juice with sugar and stir. Heat just to simmering and simmer three to five minutes. Cool.

Store the syrup in the refrigerator for one to two weeks or in the freezer. Use as topping for ice cream or chilled fruits or in beverages.

Pomegranate Juice Cocktail

2 cups pomegranate juice
1½ cups pineapple juice
½ cup orange juice
1 teaspoon lemon juice

Mix together, strain and chill. Serve in cocktail glasses. Garnish with thin orange slices. Makes 6 to 8 servings.

Pomegranate Sauce

½ cup sugar
Few grains salt
2 tablespoons cornstarch
1 tablespoon butter or margarine
¾ cup boiling water
¾ cup pomegranate juice
1 tablespoon lemon juice

In saucepan, combine sugar, salt and cornstarch. Stir in boiling water and pomegranate juice. Bring to a boil, stirring constantly. Boil one minute. Add lemon juice and butter; mix well. Serve hot on waffles, cottage cheese or creamed pudding, or serve cold on ice cream, sponge or angel food cake.

Pomegranate Fruit Salad

4 cups pomegranate seeds
2 diced apples
2 diced bananas
½ cup chopped walnuts



Mix fruit, add dressing and stir.
For dressing try one of the following:
whipped cream
or low fat vanilla yogurt
or 2 parts orange or apricot juice with one part balsamic vinegar. Pomegranate seeds add flavor and color to any fruit salad.

Pomegranate Raisin Almond Chicken Salad

Seeds from 2 pomegranates
½ cup golden raisins
1 pound cooked chicken breast meat, cut into 1" chunks
1/3 cup toasted sliced almonds
1 chopped apple
½ cup chopped or thinly sliced celery
1 tablespoon chopped Italian parsley
¼ cup chopped green onion
¼ to ½ teaspoon curry powder (optional)
1/3 cup extra-virgin olive oil
3 tablespoons balsamic vinegar
Salt and pepper to taste

In a large mixing bowl, combine the pomegranate seeds, raisins, chicken, almonds, apple, celery, parsley, green onion and curry powder.

In a small bowl, whisk together the olive oil and vinegar. Pour in the chicken mixture and mix well. Add salt and pepper to taste.

Refrigerate until ready to serve.

Makes 6 servings.

Recipe from the UC Berkeley Wellness Letter

Pomegranate Vinaigrette

(Terrific on salads or fresh fruit)

1 cup pomegranate seeds
½ cup rice vinegar
½ cup honey
Salt and pepper to taste
1 cup virgin olive oil

In a blender, add pomegranate seeds, rice vinegar, honey and seasonings. Blend well. Slowly add olive oil while continuing to blend. Adjust seasoning and strain.

Ginger Muffins

2 cups flour
¾ cup sugar
1 tablespoon baking powder
¼ teaspoon salt
¼ cup chopped candied ginger or ½
teaspoon ground ginger
1 tablespoon grated orange peel
Seeds from 1 pomegranate
1 cup milk
1 egg
⅓ cup butter, melted and cooled
¼ cup sugar for muffin tops

Preheat oven to 400 degrees. Generously grease 12 muffin cups. In a bowl, mix flour, sugar, baking powder and salt. Stir in ginger, orange peel and pomegranate seeds. Make a well in the center. In a measuring cup, whisk together milk, egg and cooled butter. Pour liquid into well. Stir just until batter is moistened and ingredients are evenly mixed. Spoon batter into 12 prepared muffin cups. Sprinkle tops with 1 teaspoon sugar. Bake in preheated oven for 15-20 minutes or until lightly browned. Let muffins cool in pan for 10 minutes before removing.

Recipe from <http://www.pomwonderful.com>

Pomegranate Jelly

5 cups pomegranate juice, fresh,
frozen and thawed, or bottled
¼ cup lemon juice
½ tsp. butter or margarine (optional)
1 package Sure-Jell® powdered pectin
7 cups sugar

Wash and sterilize 9 half-pint canning jars.

Combine pomegranate juice, lemon juice and pectin in a 6 to 8-quart sauce-pot. Add butter to reduce foaming if desired. Bring to a full rolling boil over medium-high heat, stirring constantly. Stir in sugar until well blended; return to a full rolling boil and continue boiling, stirring constantly for 1 minute. Remove jelly from heat immediately. Skim off foam with a metal spoon.

Pour hot jelly quickly into hot jars, filling jars to within about 3/8 inch of tops. Carefully wipe off rim of jar. Put two-piece lid on each jar as it is filled, screwing ring band on as tightly as you comfortably can. Process in hot water bath 5 minutes (adjust time if high altitude). Remove jars and place upright on a towel to cool completely. If jars do not seal, refrigerate. Label sealed jars and store in a cool, dark area. Makes 9 half pints.

If using a different brand of pectin, adjust recipe for the directions in the package, i.e. cook for two minutes if using MCP®.

Recipe from Karen DeJoria, Overton, NV

For additional recipes visit the Pomegranate Council web site at:
<http://www.pomegranates.org>

References

- Aviram, M. et al. *Pomegranate juice consumption for 3 years by patients with carotid artery stenosis reduces common carotid intima-media thickness, blood pressure and LDL oxidation. Clinical Nutrition*, 2004, Vol. 23, No. 3, pp. 423-433.
- Albrecht, M et al. *Pomegranate extracts potently suppress proliferation, xenograft growth, and invasion of human prostate cancer cells. J Med Food*, 2004, Vol. 7, No. 3, pp. 274-84.
- Burton, A. *Chemoprevention: eat ginger, rub on pomegranate. Lancet Oncol.* 2003 December: Vol. 4, No. 12, pp.715.
- Pomegranates give the gift of antioxidants.* Environmental Nutrition, December 2002, Vol. 25, i12, pp. 8.
- Pomegranate Power.* UC Berkeley Wellness Letter, May 2004, Vol. 20, i6, pp. 6.
- U.S. Department of Agriculture, Agricultural Research Service. 2004. USDA National Nutrient Database for Standard Reference, Release 17. Nutrient Data Laboratory Home Page,
<http://www.nal.usda.gov/fnic/foodcomp>

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