Plum

Grow

Plums are fruits which grow on trees. The trees produce white flowers in clusters of one to five, each flower with five petals. The flowering trees produce drupes, which are a fleshy fruit around stone pits. Plums are related to other stone fruits—apricot, cherry, nectarine and peach.[1-2]

Fun Fact: Plums originated in China about 4,000 years ago. *Prunus salcina* was cultivated in Japan about 400 years ago and brought to the United States in 1870.[2-3]

Plums are a member of the genus *Prunus* in the *Rosaceae* family. There are many varieties of plums. All are derived from two main species: Japanese (*Prunus salcina*) and European (*Prunus domestica*). Japanese plums are round in shape (some have a pointed tip). The flesh color is red or yellow and the skin color for these plums ranges from purple to red, black, green or yellow. European plums are smaller and oval shaped. The flesh color is a golden yellow with skin color that ranges from purple to blue.[1-3]

Fun Fact: European plums were brought to the Americas by early settlers, who discovered plums growing wild along the east coast of the United States.[3]

Plums are adaptable to a wide range of climates. Both Japanese and European plums thrive in areas with minimal rainfall (less than 30-45 inches annually) during the growing season . During the winter, plum trees must be pruned and go through a chill, or rest, period (800-850 hours). This is when the temperature falls below 45°F.[1-2]

Choose

There are over 140 varieties of plums sold in the United States. Common varieties of the Japanese species include Black Beaut, Elephant Heart, Red Beaut, and Santa Rosa. Common varieties of the European species are Empress, Italian, President, Stanley and Tragedy. Peak season is May to October. Choose plums with a good color that are fresh, plump, and fairly firm. Do not choose plums that have soft spots or are hard, immature, or shriveled.[1-5]

Store

Plums become softer, but not sweeter after picking. They can be ripened at room temperature (55-70°F) 2-3 days. Refrigerate plums after they become soft. Plums can be refrigerated 3-5 days. Store in single layers.[4]

Fun Fact: In the U.S., California, Oregon, Washington, Michigan and Idaho are the top plum producing states.[4]

Use

Plums are eaten fresh, dried, canned and as juice, jelly, jam or preserves. Dried plums are sometimes called prunes.

Two Types

A freestone fruit is when the flesh (mesocarp) separates from the stone (endocarp). With clingstone, the flesh clings to the stone. Japanese plums are clingstone and European are freestone. European varieties are preferred for drying as they have a uniform size and shape. Because they are not as juicy as the Japanese variety, the flavors become more concentrated when the plum is dried.[1,3]

Wash plums under clean, running water when ready to serve. Preferably remove the stone pit before eating. To prevent browning, dip cut plums in lemon juice.

Plums are great on their own as a snack or side dish. They can also be added to a variety of recipes. Be creative!

Image: Fotolia

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Plum

Teach

Plum Parts

Plum trees have several parts: roots, trunk, stems, leaves, flowers, fruit and seeds. Did you know plums have parts, too? The stem connects the fruit to the tree branch. The shoulders bulge around the stem and grow as the fruit matures. The cheeks are the sides of the plum. A groove or suture runs down the side of the plum. The tip is opposite to the stem end. The flesh is inside the skin. The pit is the seed inside.

Class Activity

Materials Needed:

- Plum or photo of a plum
- Paper, pen or pencils, computer or tablet to draw plum

Steps:

1. Discuss the parts of the plum.
2. Ask students to draw and label a plum with its parts: stem end, shoulders, suture, cheek, tip, flesh and pit.[1-2]

Fun Fact: Hybridization is a process used to create hybrid fruits with desired qualities from different parents. Pollen from the flower of one plant is transferred to the female stigma of another plant under controlled conditions.[1]

A "plumcot" is 50% plum and 50% apricot.
An "aprium" is 75% apricot and 25% plum.
A "pluot" is 75% plum and 25% apricot.

Class Activity

Materials Needed:

- Variety of hybrid fruits for students to examine

Steps:

1. Discuss the process of hybridization as a class.
2. Have students guess fruits used to for these hybrids:
   - Peacotum (peach, apricot and plum)
   - Limequat (lime and kumquat)
   - Oroblanco (pomelo and white grapefruit)
   - Rangpur (mandarin orange and lemon)
   - Tangelo (tangerine and pomelo or grapefruit)
   - Ugli fruit (grapefruit, orange and tangerine)
3. Ask students to design their own hybrid fruits.[1,2,4-5]

Eat

What a Plum!

A medium plum (½ cup) is about 30 calories and a good source of vitamin C (6 mg or 10% of the Daily Value). A serving of 5 dried plums has 114 calories and is a good source of fiber (3 g) and vitamin K (28 mg). Dried plums also have potassium (348 mg) and magnesium (19 mg). Plums are cholesterol free and low in fat and sodium.[2,5-8]

Fun Fact: Japanese and European plums can be grow in N.C. Use late-blooming cultivars, e.g., Methley, Byrongold, Ozark premier, Bluetoe, Stanley and Shrophire.[1]

Soluble fiber can help lower cholesterol. Insoluble fiber aids digestion. Vitamin C helps form collagen to hold muscles, bones and tissues together, protects us from infections and bruising, aids in healing, keeps our gums healthy, helps our body absorb iron and folate from plants, and acts as an antioxidant to prevent cell damage. Vitamin K helps our body clot blood and make protein needed for our blood, bones and kidneys. Potassium helps maintain normal blood pressure, regulate fluids and mineral balance, transmit nerve signals and contract muscles. Magnesium helps maintain body cells in nerves and muscles, signals muscles to relax and contract and serves as a component of bone. Anthocyanidins are a flavonoid sub-group and contribute to the blue, red and purple pigment of fruits. Anthocyanidins may help with maintaining brain and healthy immune function.[8]

Find

For more plum facts and resources, visit:

1. North Carolina State Extension, http://rubus.ces.ncsu.edu
2. California Harvest of the Month, http://harvestofthemonth.cdph.ca.gov
3. Wisconsin Department of Public Instruction, School Nutrition, http://dpi.wi.gov/school-nutrition/ffvp/nutrition-education
4. U.S. Department of Agriculture, Food and Nutrition Service, www.fns.usda.gov
5. Fruits & Veggies More Matters®, www.fruitsveggiesmorematters.org
6. California Dried Plums, www.californiadriedplums.org
7. USDA Food Composition Databases, http://ndb.nal.usda.gov
8. Academy of Nutrition and Dietetics, www.eatright.org

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