

Harvest of the Month



Network for a Healthy California



Nutrition Facts

Serving Size: 1 medium plum (66g)
Calories 30 Calories from Fat 2

	% Daily Value
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 2mg	0%
Total Carbohydrate 8g	3%
Dietary Fiber 1g	4%
Sugars 7g	
Protein 0g	

Vitamin A 5% Calcium 0%
Vitamin C 10% Iron 1%

PLUMS

Health and Learning Success Go Hand-In-Hand

Healthy foods are a daily essential for growing children. Every day, millions of students eat nutritious, free or reduced-price school meals, but did you know that only a fraction of them receive these same free meals during the summer months? The USDA's Summer Food Service Program (SFSP) is the single largest federal resource available for schools and summer recreation programs to provide free meals and snacks to children. Learn more about the SFSP. Visit www.cde.ca.gov/ls/nu/sf/.

Exploring California Plums: Taste Testing

Getting Started:

- Ask school nutrition staff for help in getting produce for taste tests.
- Find a local retailer or grower to provide produce or do a classroom presentation. (Refer to *Student Advocates* on page 3 for ideas.)

What You Will Need (per group):

- 2 ripe fresh plums (different varieties)
- 2 dried plums
- Printed Nutrition Facts labels for fresh and dried plums*
- Paring knife and cutting board
- Paper towels

Activity:

- Explore look, feel, and smell of uncut fresh and dried plums. Record observations.
- Cut open fresh plums.** Observe color, texture, taste, and smell. Record for fresh and dried plums. Discuss similarities and differences.
- Review Nutrition Facts labels. Compare and contrast the nutrient values.
- Take a poll of students' preferred variety. Chart and share results with school nutrition staff. (See *Cafeteria Connections* on page 4 for follow-up activity.)

*Download labels from the Educators' Corner of www.harvestofthemonth.com.

**Hint: Cut plums in half around stone pits, remove pits, and slice.

For more ideas, reference:

School Foodservice Guide – Successful Implementation Models for Increased Fruit and Vegetable Consumption, Produce for Better Health Foundation, 2005, pp. 39-42.

Cooking in Class: Fruit Dip

Ingredients:

Makes 32 tastes at ¼ cup each

- 4 cups lowfat vanilla yogurt
- ½ cup 100% orange juice
- ¼ cup lime juice
- 4 teaspoons brown sugar
- 8 medium plums, pitted and sliced
- 4 cups berries
- 4 medium peaches, pitted and sliced
- Small paper cups or bowls
- Spoons

1. In medium bowl, combine yogurt, juices, and brown sugar. Mix well.
2. Mix fruit in separate bowl.
3. Spoon yogurt mix into cups and top with mixed fruit.

Adapted from: *Everyday Healthy Meals, Network for a Healthy California*, 2007.

For more recipes, visit:

www.cachampionsforchange.net



Reasons to Eat Plums

One medium-sized plum provides:

- A good source of vitamin C.

Champion sources of vitamin C:*

- Plums
- Green beans
- Peppers
- Spinach
- Melons
- Cabbage
- Mangos
- Tomatoes
- Strawberries

*Provide a good or excellent source of vitamin C. Learn about vitamin C and iron on page 2.

More About Vitamin C and Iron

- Vitamins are nutrients that are necessary for your body to grow and function.
- Vitamin C helps your body heal cuts and wounds.
- It also helps absorb more iron found in food.
- Iron is a mineral (like calcium and phosphorus). It is usually combined with a protein to form hemoglobin, which transports oxygen to and from cells. Although most iron is in the blood, it is also in every cell. It is used for many functions, like: changing beta carotene into vitamin A and helping make collagen, new red blood cells, and antibodies to fight infection and clear toxins out of the blood.
- It is important to include iron-enhancing foods in your meals, such as fruits and vegetables rich in vitamin C.

For more information about vitamin C, refer to *Peaches* newsletter.

How Much Do I Need?

One medium-sized plum is about a ½ cup of fruit. The amount of fruits and vegetables you need depends on your age, gender, and physical activity level. (Hint: Strive for 60 minutes of daily physical activity.) All forms of fruits and vegetables count—fresh, frozen, canned, and dried! Remind students to eat a variety of colorful fruits and vegetables throughout the day. It will help them reach their total daily needs.

Recommended Daily Amounts of Fruits and Vegetables*

	Kids, Ages 5-12	Teens and Adults, Ages 13 and up
Males	2½ - 5 cups per day	4½ - 6½ cups per day
Females	2½ - 5 cups per day	3½ - 5 cups per day

*If you are active, eat the higher number of cups per day. Visit www.choosemyplate.gov to learn more.

How Do Plums Grow?

Unlike other stone fruits, plum trees are adaptable to a wider range of climatic conditions. Both Japanese and European plums thrive where rainfall during the growing season is minimal (less than 30-45 inches annually). In winter, plum trees require pruning and a chilling, or rest, period (between 800-850 “chill hours”). In California, these are hours when the temperature falls below 45°F.

For a chart with information about how to plant and grow plums, refer to *Plums Botanical Images* (in the Educators’ Corner) on www.harvestofthemonth.com.



Botanical Facts

Pronunciation: plŭm

Spanish name: ciruela

Family: Rosaceae

Genus: *Prunus*

Species: *P. salicina* (Japanese plum)

The plum is a stone fruit tree of the Rose family.* This deciduous tree produces white flowers in clusters of one to five, each flower with five petals. The flowering plants produce drupes, or fleshy fruits surrounding stone pits. Plums are related to other stone fruits such as peaches, apricots, and cherries, which are also drupes. The plum is more diverse than its relatives and grows in a wide range of shapes, sizes, colors, and flavors. Plums have a groove running down one side, smooth skin, and stone pits.

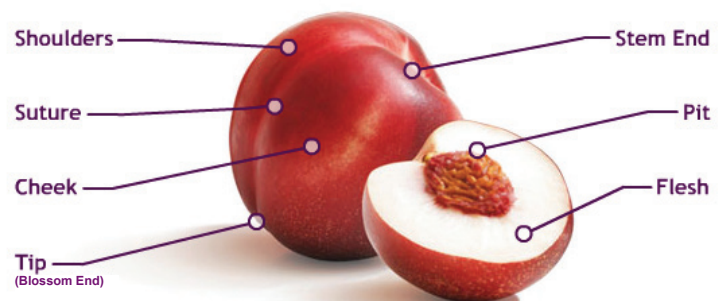
There are two main species of plums: *Prunus salicina* and *Prunus domestica*. *Prunus salicina*, or Japanese plums, are the most widely grown type. Plums of the species *Prunus domestica* are known as European plums. In California, most European varieties are grown for use as dried plums.

Species	<i>Prunus salicina</i>	<i>Prunus domestica</i>
Common Name	Japanese plum	European plum
Shape & Size	Round, some with a pointed tip, larger than <i>P. domestica</i>	Oval-shaped, smaller than <i>P. salicina</i>
Skin Color	Red, purple, black, green, yellow	Purple to blue
Flesh Color	Red or yellow	Golden yellow
Pits	Clingstone	Freestone
Taste	Juicy with tart skin and sweet flesh	Less juicy, more tart, become sweeter when dried
Common Varieties	Santa Rosa, Red Beaut, Black Beaut, Elephant heart	Italian, President, Empress, Stanley, Tragedy

*Refer to *Peaches* newsletter for more information about stone fruits and the two cultivars (clingstone and freestone).

For more information, visit:

www.fruitsandveggiesmatter.gov/month/plum.htm



Source: www.eatcaliforniafruit.org

For more information, visit:

www.uga.edu/fruit/plum.html

School Garden: Summer Maintenance

If your school has a garden, here is an activity you may want to implement. Look for donations to cover the cost of seeds, tools, irrigation systems, electric pumps, and any salary incurred by garden educators or others.

It can be challenging to maintain school gardens in the summer. Here are tips to help keep your garden growing:

- Use mulch—it reduces weed growth, maintains soil moisture, and enriches the soil.
- Schedule volunteers to help with summer care.
- Stagger the planting of summer vegetables to extend harvesting throughout the season.
- Use low-maintenance plants. (Hint: Check for drought tolerance and vigorous foliage.)
- Deadhead flowers and harvest vegetables.
- Collect supplies for fall garden.
- Sign up for regional e-mail reminders from organizations, such as National Gardening Association, www.garden.org. These reminders provide seasonally appropriate gardening tasks.

To learn more about school gardens, request a free copy of *Gardens for Learning* from the California School Garden Network (www.csgn.org/join.php).

Source: *Gardens for Learning: Maintaining Your School Garden*, California School Garden Network, www.csgn.org.

Home Grown Facts

- California is America's leading grower of plums, producing nearly 90% of all domestic plums.
- Tulare, Fresno, Kings, Kern, and Madera counties are California's leading plum growers, respectively.
- Of total U.S. plum exports (fresh and dried), California's share is about 95%.

2007 Data

Activity:

Visit www.eatcaliforniafruit.org to learn about California plum growers. Have students research a grower and do a presentation to the class.

For more information, visit:
www.cdfa.ca.gov



A Slice of Plum History

- Like peaches, plums originated in China about 4,000 years ago.
- The species *Prunus salicina* (Japanese plum) originated in China, but was domesticated in Japan 400 years ago.
- John Kelsey, a nurseryman from Berkeley, brought the plum from Japan to California in 1870.
- Early colonists brought the European plum, *Prunus domestica*, to America and pioneers traveled West with it during the Gold Rush.
- The dried plum industry arose in California after the Gold Rush.

For more information, visit:
www.fruitsandveggiesmatter.gov/month/plum.htm
www.agmrc.org

Student Sleuths

- 1 Use botanical image (on page 2) to study anatomy of stone fruit. Draw a plum and label the fruit's seven parts (stem end, shoulders, pit, cheek, flesh, suture, and tip). Define each part.
- 2 Plums are a type of stone fruit. Other stone fruits include peaches, apricots, and cherries. Study Nutrition Facts labels for at least three stone fruits. (Hint: Use comparable weight measurements.) Make a chart of the three fruits and list the top five nutrients found in each fruit. Which fruits have similar nutrients? Which variety contains the most vitamin C per serving? Which one contains the most fiber per serving? What is the function of each of these nutrients in your body?
- 3 Since the body is efficient in conserving iron supplies, iron deficiencies occur mainly in the growth period or during blood loss. What happens to the body when intake fails to meet the needs to replace depleted iron stores? What food choices are excellent sources of iron? How can cooking techniques impact iron levels in foods?
- 4 Describe how the following factors can affect the absorption of iron: vitamin C, the form of iron, composition of a meal, fiber in diet, and tannins in tea.

For information, visit:

www.eatcaliforniafruit.com/ourfruit/anatomy.asp
www.fruitsandveggiesmatter.gov/month/
www.eatright.org

Student Champions

In California, farmers' markets are most prolific during summer. They present an opportunity for the school community (teachers, school nutrition staff, students, parents) to connect with local growers. These connections can help you implement *Harvest of the Month* activities, like taste tests and cafeteria contests, and can help students learn more about California agriculture. Local growers also benefit from your community's support. Here are some ways that teachers, school nutrition staff, and families can build these relationships.

Get Connected:

- Find 1 to 3 farmers' markets in your area.
- Visit farmers' market(s) several times to get familiar with regular vendors and find out which ones are closest to your school.
- Introduce yourself (and your school affiliation) to several local growers.
- Bring samples of newsletters, activities, recipes, or lessons to share.
- Find out if the grower is interested in participating in *Harvest of the Month*.
- Ask how they can provide support to your school (e.g., providing produce for taste tests or the cafeteria, doing a classroom presentation, hosting a class field trip, or helping in the school garden).

To learn more about farmers' markets, visit:
www.cafarmersmarkets.com

Cafeteria Connections

Work with your school nutrition staff to conduct a school-wide contest. Each week, the cafeteria can feature one variety of plums, including fresh, canned, or dried.

How to Do It:

- Post Nutrition Facts labels for all plum varieties in the cafeteria.
- Display students' botanical drawings of plums or pictures of their favorite plum recipes in the cafeteria.
- Display *Harvest of the Month* posters around cafeteria.
- Provide sample taste tests of different plum varieties or feature plums on the menu.
- Conduct poll for students to vote for favorite variety.
- Display poll results in cafeteria. Feature students' favorite variety in a special recipe.
- Encourage students to review menu and complete activities on menu slicks. (Consider raffle drawing for students who submit their completed activities.)

Mix It Up:

Feature a different fresh variety each week, such as red, purple, black, green, or yellow plums. Or, conduct a contest using other stone fruits—plums, peaches, nectarines, cherries, and apricots.

For foodservice tips, visit:

www.eatcaliforniafruit.com/ppn/foodservice/fruitfacts.asp

Just the Facts

- Wild plum trees are symbolic of independence.
- Nearly all commercially grown plums in the U.S. are hybrids of a Japanese plum brought over by John Kelsey in 1870.
- A "plumcot" is 50% plum and 50% apricot.
- An "aprium" is 75% apricot and 25% plum.
- A "pluot" is 75% plum and 25% apricot.

For more information, visit:

www.uga.edu/fruit/plum.htm

www.uga.edu/fruit/apricot.htm

Activities & Resources Galore

Visit the Educators' Corner online for more resources:

- Cooking in Class (recipe analyses, cooking tips)
- Reasons to Eat (Nutrition Glossary)
- How Does It Grow (botanical images, growing tips)
- Student Sleuths (Answer Key)
- Adventurous Activities
- Literature Links (book lists)
- Links to California Content Standards (all grades)

All available at www.harvestofthemonth.com.

Adventurous Activities

Science Investigation

What You Will Need:

- 5-7 unripe plums at various stages
- Variety of containers (paper bag, plastic bag, box, refrigerator)

Activity:

- Put 1 fruit in refrigerator and 1 fruit on counter.
- Place remaining unripe fruit in bags and the box.
- Compare fruits after 2 to 3 days.
- Which storage ripened the fruit the best?
- Research ethylene gas and how fruits ripen commercially.
- Research how stone fruits ripen naturally.
- Research how plums are harvested, shipped, and stored for retail.

Mix It Up:

Use different stone fruits to identify variations in ripening.

Adapted from: www.healthylausd.net



Physical Activity Corner

Summer fires in California can have a devastating impact on our lands and air quality. Place students in groups and have them research a recent California fire.

Ask students to answer the following questions:

- Where did the fire burn? How much was burned?
- What impact did the fire have on the environment?
- What impact did the fire have on air quality?

Next, have an open discussion about:

- Health risks or problems associated with poor air quality.
- The impact of poor air quality on physical activity.
- Health benefits of regular physical activity.
- Physical activity options that students can do when air quality is poor.
- The importance of fire safety and prevention.

Have students assess their physical activity at:

www.mypyramidtracker.gov

Literature Links

Work with your school librarian to extend *Harvest of the Month* beyond the classroom.

- Ask for a list of books that feature plums.
- Arrange a class visit to the library for a reading session.
- Help coordinate a school-wide literature contest on plums. Students can write poems, lyrics, or essays.
- Visit local bookstores and research books that are available about plums.



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