

Tulare County Office of Education

Jim Vidak, County Superintendent of Schools

Harvest of the Month

Growing Healthy Students



Nutrition Facts	
Serving Size: 1 cup, seedless (160g)	
Calories 110	Calories from Fat 2
% Daily Value	
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 3mg	0%
Total Carbohydrate 29g	10%
Dietary Fiber 1g	6%
Sugars 25g	
Protein 1g	
Vitamin A 2%	Vitamin C 29%
Calcium 2%	Iron 3%

Source: www.nutritiondata.com

Grapes/August

Health and Learning Success Go Hand-in-Hand

Research has shown that by educating students about nutrition, it can help them to develop healthy eating and physical activity habits. Given the information and the opportunity to make their own choices, students will choose to eat healthy foods, including fruits and vegetables, and be physically active. **Harvest of the Month** connects with core curricula to give students the chance to explore, taste and learn about the importance of eating fruits and vegetables. It links the classroom, cafeteria, home and community to motivate and support students to make healthy food choices and be physically active every day.

Grape Moments In History

Grapes are one of the oldest cultivated fruits. Hieroglyphics show that Egyptians were involved in grape and wine production, and the early Romans were known to have developed many varieties.

Grapes have been grown in California for more than 200 years. The tradition of viticulture began in 1769 when Spanish friars established missions throughout the region. Padres planted a European grape variety known as the Mission in order to make sacramental wine. Native American wild grapes of the type *Vitis girdiana* grew along California stream banks, but these grapes were sour and of little use for winemaking.

In California, the boom in grapes planted for fresh consumption arose in the early 1800s when a number of settlers recognized the untapped agricultural possibilities of the then-Mexican territory. William Wolfskill, a former trapper (and also founder of California's citrus industry) planted the first table grape vineyard in 1839 on pueblo land near present-day Los Angeles.

By the 1850s, the United States had officially acquired California from Mexico and 80,000 gold prospectors had moved to the region, a few of them recognizing that there was money in grapes as well as ore. The young agricultural society recognized that grapes were an important commodity in which to invest, and today California wine, table grapes and raisins are all important agricultural commodities, with approximately 700,000 acres planted in vineyards.

For more information, visit:
www.freshcaliforniagrapes.com



Cooking in Class: Great Grape Smoothie

Ingredients (Makes 32 tastes at 1/4 cup each)

- 4 cups seedless grapes
- 2 cups seedless grapes
- 2 cups each orange and banana slices
- Blender
- Paper cups

Combine all ingredients in blender container (divide recipe in half to fit). Blend until mixture is smooth. Pour into cups. Repeat with remaining ingredients.

Source: *Discover the Secret to Healthy Living*, Public Health

August Events:

- Family Fun Month
- Farmers Market Week
- California State Fair

Reasons To Eat Grapes

One Cup of seedless grapes contains:

- Antioxidants called flavonoids and phenols that can help prevent heart disease and some cancers.
- Almost 30 percent of the recommended Daily Value for Vitamin C and also an excellent source of Vitamin K.
- Fiber, iron, calcium and Vitamin A.
- About three fourths cup water, helping to keep the body hydrated.

Eat Your Colors

Fruits and vegetables come in a rainbow of colors. Eat a variety of colorful fruits and vegetables every day - red, yellow/orange, white, green and blue/purple. There are three main color varieties of grapes - red, green and blue/black (part of the blue/purple color group).

- Red fruits and vegetables help maintain a healthy heart, memory function and urinary tract health. They may also lower the risk of some cancers. Examples of red California grape varieties include Flame Seedless, Red Globe, Ruby Seedless, Christmas Rose, Emperor, Rouge and Crimson Seedless.
- Green fruits and vegetables help maintain vision health and strong bones and teeth. They may also lower the risk of some cancers. Examples of green California grape varieties include Perlette, Sugraone, Thompson Seedless and Calmeria.
- Blue/purple fruits and vegetables help maintain healthy aging, memory function and urinary tract health. They may also lower the risk of some cancers. Examples of blue/purple California grape varieties include Beauty Seedless, Autumn Royal, Ribier, Fantasy Seedless, Marroo Seedless and Niabell.

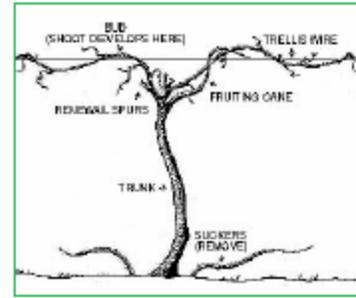


Fruity Facts

1. Grapes are actually berries.
2. There is an average of 100 grape berries in a bunch.
3. In the United States today, the annual per capita consumption of grape is about eight pounds, up from 2.5 pounds in 1970.
4. Grapes are about 80 percent water.
5. Concord grapes are one of only three fruits native to North America.

How Do Grapes Grow?

Grapes grow in bunches on climbing, woody vines that grow from the ground. Grapes can be grown in most temperate climates, but the vines thrive in tropical and subtropical regions with average annual temperatures above 50 F.



Source: <http://pods.dsnr.okstate.edu>

Grapevines are grown from cuttings or grafted onto existing rootstocks. The vines need to grow two years before the first grapes are ready to harvest. As they grow, the vines need to be supported on trellises to keep the heavy bunches of fruit off of the ground.

Grape growing, or viticulture, is a year-round job. The life cycle of viticulture has five stages. First, vines are pruned during the winter months to ensure the correct number of fruiting canes will sprout the following year. Then, in early spring, growers “girdle” the vines, meaning they strip a small ring of bark from the trunk or cane to force nutrients to the vine roots and fruit, resulting in larger berries.

The third stage is called “bud break” followed by a burst in leaf growth. In the fourth stage, branches, or caneshoots, grow rapidly and flower clusters, which eventually become grapes, emerge. Blooming occurs when temperatures reach 68 F. Young “green berries” (grapes) appear in place of flowers and ripen into clusters.

Like most fruits, grapes develop sugar as they ripen, but they neither ripen nor sweeten after being harvested. This makes harvest time very important. Several factors go into determining maturity of fresh grapes: measurement of grape sugar content, assessment of bunch and berry size, assessment of bunch and berry uniformity, and berry color.

When determined that grape berries are ripe, they are harvested by hand with special clippers. In the warm desert areas of the Coachella Valley, harvest generally begins in late spring and lasts until mid-July. The San Joaquin Valley can harvest until late fall.

During harvest, the grape bunches are trimmed, inspected, packed into shipping containers and then transported to a cold storage facility for cooling. Grapes are not immediately shipped to market but are maintained in a controlled climate storage facility between 30 to 33 F with 90 percent relative humidity. This prolongs their life to allow consumers to enjoy California grapes through February.

For more information, visit:
www.freshcaliforniagrapes.com

Physical Activity Corner

August is summer time and people like to be outdoors. Being active, in addition to eating healthy, can make a big difference in the way students perform in the classroom. Dedicate the month of August to playing a different game or activity outdoors, like *Playground Spike-ball*, each week and help your students stay healthy and fit both mentally and physically.

Playground Spike-ball

Objective: Develops focus and hand-eye coordination

Supplies: Volleyball, basketball hoop

Activity:

- Divide class into two teams
- Send one member from each team to free throw line
- Serve volleyball into basketball hoop*
- Repeat until first team to reach 15 points

* Show students various ways to aim and serve the ball.

Go Farther: Give extra points for jump serves or serves made from the three-point line.

Bring It Home: Encourage students to play *Playground Spike-ball* at home with family members. Or they can play it at the park during a picnic.

For more ideas, visit:

www.gitfit.net

Home Grown Facts

Ninety-seven percent of the grapes consumed in the United States are grown in California

Currently there are more than 50 varieties of table grapes grown in California, 18 of which are considered major varieties. Thomson Seedless and Flame Seedless are the two dominant varieties produced in California, followed by Red Glove, Ruby Seedless, Crimson Seedless and Perlette.

Grapes are the number two ranked commodity in California, following dairy production.

About 85 percent of California's table grape production is in the southern San Joaquin Valley region, with the Coachella Valley region accounting for the bulk of the remaining production.

Major grape-producing counties include Kern, Tulare, Riverside and Fresno, with much smaller production in Madera, San Joaquin, San Bernardino, Kings, Merced and Imperial counties.

For more information, visit:

www.freshcaliforniagrapes.com

Taste Testing with California Grapes

Taste testing activities allow students to experience the featured produce with their senses, engaging them in the learning process and creating increased interest, awareness and support for increasing consumption of fruits and vegetables.

Tools:

- Bunches of red, green and blue-black varieties of seedless California grapes*
- Enough bunches to allow students to try each variety
- Graph paper and color pencils

*See *Eat Your Colors* on page 2 for varieties

Activity:

- Make three columns on graph paper labeled red, green and blue-black; make five rows labeled appearance, texture, sound, smell and flavor
- Taste red grape variety and describe in appropriate column and row
- Repeat activity for green and blue-black varieties

Classroom Discussion:

- Compare and contrast the three grape varieties
- Discuss the factors that contribute to the different characteristics in each variety (i.e., environment, harvest time, climate)
- Take a poll to determine the favorite grape variety

For more ideas, reference:

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



Grateful for Grapes

To Market! To Market!

Since 1970, Americans' consumption of table grapes has grown from two pounds to eight pounds per year. Many factors contributed to this rise, including improved marketing techniques. Marketing today relies heavily on research, including customer surveys and taste tests. Have students conduct a survey on what type of grapes their schoolmates prefer, analyze the results, and produce a magazine advertisement to sell grapes. Work with your school's newspaper or the PTA to place the ad in their next publication.

School Garden: Solar Cooker

Vegetables and fruits, like grapes, need the sun's energy to grow. In the month of August, explore ways in which the sun helps people through solar energy. The sun can help cook a meal, dry clothes, make fruit leather and even heat water for a solar shower or bath. By harnessing the sun's energy, we can help save the earth's precious resources.

Supplies:

- Poster board
- Foil
- Shoe box
- Wire hanger, straightened

How to Make a Solar Cooker:

- Cover poster board with foil
- Roll into a curve or U-shape and place in shoe box (trim if necessary)
- Insert straightened hanger through box like a skewer



Experimenting with a Solar Cooker

Note: Must be a warm, sunny day

- Spear a piece of food (preferably a fruit or vegetable)
- Take cooker outside and aim at the sun
- See how hot the piece of food gets and if it cooks
- If cooked, note the temperature and time it took

Source: *Gardening Tips from Life Lab's Garden Activity Calendar*, www.lifelab.org

Literature Links

- **Primary:** Making Raisins by Marvin Buckley, The Grapes Grow Sweet by Lynne Tuft and Table Grapes, California Table Group Commission (K-12).
- **Secondary:** Agriculture and Environment, American Farm Bureau Foundation for Agriculture and Table Grapes, California Table Group Commission (K-12)
- **High School:** The Vineyard by Idwal Jones, Harvest Sun by David Masumoto and Table Grapes, California Table Group Commission (K-12)

Up Next!

If you enjoyed exploring grapes with Harvest of the Month, join us next month to learn all about September's featured vegetable—the green bean.

Student Sleuths

1. Where are most phytonutrients found in grapes?
2. Name three health benefits of iron. What happens if you consume too much iron? Too little?
3. What does the color of a grape's skin indicate about the environment where it was grown?
4. Name three other fruits or vegetables that develop from flowers. How does pollination affect the varieties produced? What are some other methods to develop new varieties of fruit and vegetables?
5. Map the origin of grapes and the various geographical regions in California where grapes are grown.
6. List the different uses (e.g., fresh, juice, dried) for which grapes are harvested in California. Then rank them in order by use from greatest use to least.



For information, visit:

www.cdc.gov/nccdphp/dnpa/5aday/month/grapes.htm, www.dole5aday.com/ReferenceCenter/Encyclopedia/Grapes,

Cafeteria Connections

After reading this newsletter, think of ways in which you can support teachers and other school staff in conducting some of this month's activities. Some ideas include having a short talk with students about the school meal program or describing proper food safety and handling techniques during a classroom cooking activity. You can also just have an open discussion with students about the importance of nutrition to help reinforce the messages they receive in the classroom. Talk to the educators and offer your ideas of support. Adults working together and providing the same healthy messages sends an even more powerful message to students.

For more ideas, reference:



