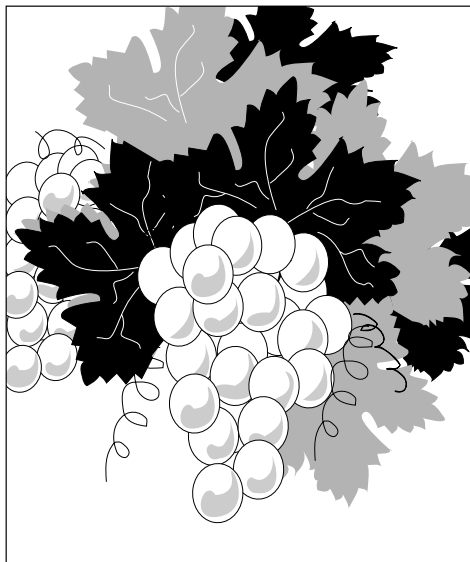


Table Grapes

Information compiled by the California Table Grape Commission

How Produced – Growing fresh market grapes is a year round job. Growers vigorously prune the vines in the winter. In the spring, buds appear, flowers bloom and shoots emerge next to the flower clusters. The flowers bloom when daytime temperatures reach about 68°F. As the flowers die, tiny green berries appear. These will eventually grow and ripen into clusters of grapes. In late spring, the farmers girdle the vines of many varieties, stripping a small ring of bark from the shoots, canes or trunks. This forces nutrients from the vines and roots into the fruit, resulting in larger berries.

When grape berries achieve the correct size, sugar content and color, they are harvested by hand with special clippers. Harvest usually occurs in late spring to mid-July in the warm desert area of the Coachella Valley. In the San Joaquin Valley, harvest begins in early July and continues until late fall.



At harvest, the bunches are trimmed and inspected, packed into shipping containers, and transported to a cold storage facility to quickly cool the grapes. Grapes not immediately shipped to market are maintained in a controlled climate storage facility between 30°F to 32°F with 90 to 95 percent relative humidity. This storage process allows consumers to enjoy California table grapes through February.

History – Viticulture, or the science, production and study of grapes, first began in California in the late 1700s when Spanish friars arrived to establish Catholic missions. Because the native grapes were sour and made poor wine, the Friars brought over grapes from Europe and planted their own vineyards to make sacramental wine.

In the mid-1800s, prospectors poured into California. They came looking for gold until some discovered that there might be more money in grapes. Shortly after the Gold Rush, California's fledgling agricultural society declared, "Capital put into vineyards would bring greater rewards than... fluming rivers for golden treasures." Their instincts were good. California's warm, dry climate turned out to be ideal for growing grapes. Today, more than 700,000 acres across California are planted with fresh grape, wine and raisin vineyards.

Varieties – As one of the largest table grape producers in the world, California produces 1.87 billion pounds of table grapes each year. To give an idea of the total annual crop size, if boxes packed with California grapes were layered across a

professional football field, they would stack approximately two times higher than the Empire State Building.

The more than 60 varieties of table grapes are grouped into three color classifications: green, black and red. The numerous varieties enable consumers to have fresh California table grapes from May through February.

Commodity Value – The total annual crop value of fresh grapes from California is more than one billion dollars. Approximately one-third of California's table grapes are exported annually to more than 60 overseas markets. Since 1999, exports of fresh California grapes have increased by 40 percent, through 2008. Canada, Mexico, China, the Central American region and Australia currently represent the top five export markets for California table grapes.

Top Producing Counties – California produces 98 percent of the nation's commercially grown table grapes. Key producing counties include Fresno, Kern, Kings, Madera, Riverside and Tulare, among others.

Nutritional Value – Grapes of all colors make a healthy snack. A serving of grapes ($\frac{3}{4}$ cup) is just 90 calories, has no fat or cholesterol and virtually no sodium. Grapes are a source of potassium, as well as some calcium and vitamin C. Fresh grapes are also a natural source of beneficial antioxidants. Research suggests that an important group of natural grape components—called polyphenols—helps maintain a healthy heart. It is recommended that people consume a "rainbow" of naturally colorful, whole fruits and vegetables; eating a variety of fresh grapes helps achieve this goal and is a great start to a healthy lifestyle. Eat them fresh by the bunch, tossed into salads and in yogurt. Frozen grapes also make a refreshing snack on a hot day.

For additional information:

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Table Grapes Activity Sheet

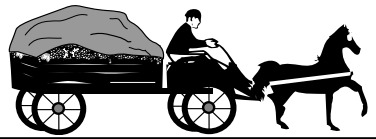
A Little Bit of History

William Wolfskill, a former trapper from Kentucky, planted the first table grape vineyard in 1839. It was located in a Mexican colonial pueblo now known as Los Angeles.



In the 1860s, William Thompson, an English settler, first planted a popular Eastern Mediterranean grape in Yuba City. It is now known as the Thompson Seedless grape.

In the mid-1800s, Colonel Agoston Haraszthy personally brought 100,000 table grape cuttings to California and planted them to provide fruit to the miners of the California Gold Rush.

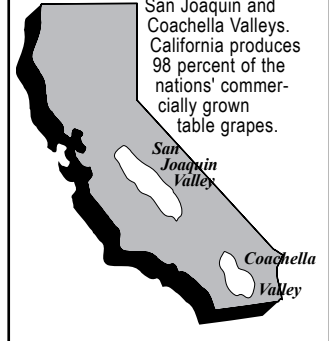


In 1869, R.B. Blowers pioneered the transport of fresh table grapes to eastern markets.

The first load was shipped by freight train to Chicago. Each grape cluster was wrapped in paper bags, in 22-pound boxes.



Today, the major California table grape growing regions are the San Joaquin and Coachella Valleys. California produces 98 percent of the nation's commercially grown table grapes.



Lesson Ideas

- Make a mural depicting the lifecycle of a grapevine.
- Research the role of phloem, xylem, and cambium in plants and relate it to the girdling process done on grapevines.
- Use a world map to trace the distribution of grapes over time.
- Compare the latitudes and longitudes of major grape-growing countries and grape-importing countries.
- Compare and sort various grape varieties by color, shape, or size.
- Use thumbprints to make pictures of grapes and grape bunches.
- Research the Phoenicians and their importance in the ancient world.
- Use frozen grapes as ice cubes in a favorite drink.
- Compare the etymology of the French word "grape" and the English word "grapple."

Fantastic Facts

1. True or false? Growers harvest grapes when they are fully ripe.
 2. Name one of two California valleys which produce the most fresh market grapes.
 3. Who brought the first grapes to California?
 4. California produces _____ percent of the nation's commercially grown table grapes.
 5. Where were the first California grape vineyards planted?
 6. True or false? Upon harvest, grapes are quickly cooled to preserve freshness.
- 1) True 2) Coachella or San Joaquin Valleys 3) The Spanish friars who established the missions 4) 98 5) In present-day Los Angeles 6) True

Lesson Plan: To Market! To Market!

Introduction: Since 1970, the United States per capita consumption of table grapes has grown from two pounds to eight pounds per year. Many factors contributed to this rise, including improved marketing techniques. Developing new marketing techniques relies heavily on research such as surveys and taste tests. In this activity, your students will conduct a survey, analyze the results, and produce a magazine advertisement to sell table grapes.

Materials: *Table Grape Fact Sheet*, supermarket advertisements for grapes, magazine food advertisements, and red, green and black grapes.

Procedure:

1. Discuss how advertising and product presentation affect the sale of foods. Have students bring in samples of food advertisements from magazine and grocery ads.
2. Discuss the various marketing strategies used to persuade a consumer to purchase a product. Examples may include low

prices, convenience, healthy eating, or appealing to the senses. Have the students analyze what strategies are used in the ads brought to class.

3. Have students gather information on grapes by examining and tasting fresh grapes, writing down words that describe the grapes, looking at the cash register receipt from the grape purchase, and reading the *Table Grape Fact Sheet* and other literature you have on grapes.
4. Have the students develop and administer a survey designed to find out what consumers are looking for when buying fresh fruit, in particular, fresh grapes. Possible questions may include: "Who eats grapes in your home?," "Does price matter in your fruit choice?" and "What color of grapes do you prefer?"
5. After conducting their survey and analyzing results, have students write magazine or grocery ads to promote their products.

