

lesson 11 Agriculture

CALIFORNIA AGRICULTURE OVERVIEW

OVERVIEW

This lesson introduces students to the general history of agriculture in California, including the move from raising livestock for hides to the growth of wheat farming and the introduction of specialty crops. *In Lesson 11, students use the Sacramento History Online database at <http://www.sacramentohistory.org>.*

STUDENT OBJECTIVES

1. Explain how the geographic features of California affected the growth of agriculture.
2. Identify several projects, ethnic groups, and events that helped make the Sacramento Delta suitable for farming.
3. Analyze several documents to see how farming was promoted in the early 20th century.
4. Use the SHO database to find specific historical information.

CALIFORNIA HISTORY STANDARDS

- 4.1.3 - 4.1.5 Physical and human geographic features that define places and regions in California
- 4.2.3 - 4.2.8 Social, political, cultural and economic life and interactions among people of California
- 4.3.3 - 4.3.4 Economic, social and political life from the Bear Flag Republic through the Gold Rush
- 4.4.2 - 4.4.6 California's rise as an agricultural and industrial power

BACKGROUND ARTICLE 11

California Agriculture Overview (*pages 11-5 through 11-7*)

STUDENT ACTIVITY SHEET 11 AND KEY

Sacramento Transportation (*pages 11-9 and 11-10*)

DOCUMENTS TO DISCUSS

The documents shown below provide an overview of the history of agriculture in California.



1. Sutter's Hock Farm

[ca. 1849]

This farm was one of the first agricultural projects in California. This photo of a painting shows the first steamboat that passed up the Feather River receiving a cannon salute from General Sutter at the Hock Farm.



2. Levi Painter's fruit and vegetable ranch

[1880]

Shows the steamboat *Julia* on the Sacramento River; Painters Hall left; dock at right; farmhouse, barn, outbuildings, orchards, fields in the distance. The location is identified as one mile south of Courtland.



3. Map of California Delta District

[ca. 1920]
Map of the Sacramento and San Joaquin River delta area northwest of Stockton; shows rail lines, rivers, sloughs, and Delta islands.



4. Celery gathering and growing on Grand Island

[unknown]
Workers on a celery farm in the Delta.



5. Bella Vista Ranch

[ca. 1890]
View from the north of Bella Vista Ranch near Rocklin originally owned by the Thomas Marshbrowne family; shows house and outbuildings surrounded



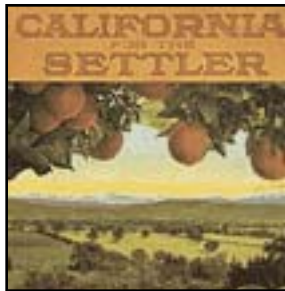
6. Yolo County orchards

[ca. 1910]
Aerial view of orchards spreading across the valley floor. At lower right, people posed near fruit drying trays on the ground; at upper right foreground, foothills in the distance.



7. Loading watermelons

[ca. 1915]
View of two men loading watermelons from a truck onto a railroad box car, at Orland.



8. California for the Settler

[1910]
Southern Pacific Railroad booklet describes agricultural opportunities available in California. Includes the types of crops grown in each region of the state, with details about production and yields.



9. Natomas News

[1911]
This newsletter includes photos of reclamation phases and equipment, including the *Hercules*, described as *the largest clam shell dredge in the world*.



10. Cultivating field, Bear River area

[1912]
Land being cultivated with a horse-drawn disking machine. The field location is in the upper Bear River area Natomas Company Reclamation Dist. 1001.

INSTRUCTIONS

1. Print any of the images shown above that you will use in your discussion, as well as **Student Activity Sheet 11 and Key**.
2. Read **Background Article 11**. You may wish to read it to your students or print it and have them read it by themselves. Discuss any questions that they may have.
3. Show and discuss **Document 1, Sutter's Hock Farm**. Tell students that the image shows one of the first farm projects in California and ask them what time period it depicts. (1840s) What clues are in the image? (*steamboat, cannons, clothing*)

What do they already know about John Sutter? Why would he need a farm? (*to provide food for the settlers at Sutter's Fort*) Ask why they think the men are shooting cannons? (*documentation for the image does not explain the cannons, but students may have ideas.*) Why do they think that the Indians who lived in what is Northern California did not rely on farming for their food? What did they eat instead, and how did they obtain it?

4. **Document 2, Levi Painter's fruit and vegetable ranch.** This print shows a later view of a farm along the Sacramento River. What details can students identify in the image? The location is identified as one mile south of Courtland. How do they think a modern image of the same area might look today? What would have changed?

5. **Document 3, Map of California Delta District and Document 4, Celery gathering and growing on Grand Island.** What do students notice about the geography of the area depicted on the map? Do they recognize any of the names on the map? What do they think would be some of the challenges of living, traveling, and farming in this area?

6. **Document 5, the Bella Vista Ranch near Rocklin and Document 6, Yolo County orchards.** Have students determine how long ago the photos were taken. (*1890 and 1910*) Locate Rocklin and Yolo County on a map. How do they think the land in these areas would look today? For example, much of the area around Rocklin is now filled with residential and commercial buildings. Discuss how population growth and development has affected farming in California. Is farming an important business in your area? How do people decide how land should be used in your community?

7. **Document 7, Loading watermelons.** Discuss the railroad's impact on California agriculture.

8. **Document 8, California for the Settlers.** This 1910 booklet from the Southern Pacific Railroad celebrates the wonders of Northern California as a farming region. At this time, railroads and others who were interested in selling land for development and promoting tourism often published such brochures. Some of these publications made exaggerated claims about the climate and crops that could be successfully grown in California. Read the brochure to your students and have them decide how accurately it describes growing conditions at that time. Do students agree that there is no climactic difference between Northern and Southern California? Have them locate annual weather data to support their conclusions. Which crops shown are still widely grown commercially in Northern California?

9. **Document 9, Natomas News and Document 10, Cultivating field, Bear River area.** These images show some of the work involved in reclamation of the Delta lands for farming. Locate the Bear River area on a map.

10. Give students **Activity Sheet 11: Agriculture Overview** (*page 11-9*). After they have completed the activity, discuss their answers as a group.

FOLLOW-UP

1. **Search the database** for a photo showing some type of farming in the area where you live or a place you have visited. How long ago was the photo taken? Has the land changed since then? If so, how?

2. **Learn about the agricultural history of your own community.** Find other websites to help you learn more. Where else can you find information?

3. **Find out if any reclamation or irrigation projects** were implemented in your own area. When were they started? What impact did they have on your community?

3. **Look for more information** on early farmers such as Levi Painter. You can find one article (originally published in 1890) on the internet at rootsweb.com (<http://freepages.genealogy.rootsweb.com/~npmelton/sacpain.htm>)

REFERENCES AND RESOURCES

2003 *Teacher resource guide: A guide to educational materials about agriculture.*

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Kelley, R. L. *Gold vs. grain: The hydraulic mining controversy*

in California's Sacramento Valley. Glendale, CA: A.H. Clark Co., 1959.

Kelley, R. L. *Battling the inland sea: American political culture, public policy,*

and the Sacramento Valley, 1850-1986. Berkeley, CA: University of California Press, 1989.

Jelinek, L.J. *Harvest empire: A history of California agriculture.*

San Francisco, CA: Boyd and Fraser Publishing Company, 1979.

McClurg, S. *Water and the shaping of California*

Water Education Foundation and Heyday Books.

Miller, C. and Hyslop, R. *California: The geography of diversity.*

Pomona, CA: Mayfield Publishing Company, 1983.

Schlebecker, J.T. *Whereby we thrive: a history of American farming, 1607-1972*

Ames, IA: The Iowa State University Press, 1975.

RELATED LINKS

California Department of Food and Agriculture Kids

(<http://www.cdfa.ca.gov/kids>)

California Farm Bureau Federation

(<http://www.cfbf.com/info/>)

California Foundation for Agriculture in the Classroom

(<http://www.cfaitc.org/>)

Early California History: An Overview

(<http://memory.loc.gov/ammem/cbhtml/cbrush.html>)

National Agriculture Statistics Service

(<http://www.usda.gov/nass/nasskids/nasskids.htm>)

Sacramento's Delta History

(<http://www.sacdelta.com/hist.html>)



The Indians who lived in what is now California relied on hunting and gathering plants that grew naturally in the area for food. Except for limited farming by Indians along the Colorado River, agriculture began in California in the 1770s, with the establishment of the Spanish Missions. Using Indian labor, the missions grew wheat, vegetables, grapes, citrus, and other fruit to support the people living there.

By the 1830s, when the missions had declined and California was ruled by Mexico, large ranchos were common. Raising cattle for hides and tallow became the most important agricultural activity. Hides were shipped to New England to provide leather for shoes and other items. Most of these hides were sent on ships from the ports of San Diego and Monterey around South America's Cape Horn. The wealthy rancheros did not need to farm to provide all of their food, and they could afford to import many goods.

By the time that Mexico transferred control of California to the United States in the 1840s, they had given away much of the land in grants. One of the people to receive such a land grant was John Sutter. Although Swiss by birth, Sutter became a naturalized Mexican citizen to qualify for the land. In 1840, he began to build the settlement known as Sutter's Fort, in what is now Sacramento. The next year, he also started one of the first agricultural projects, known as Hoch Farm, on the Feather River, near the current town of Yuba City in Sutter County. The name *Hoch* comes from a German word meaning *upper*, perhaps referring to a place upriver from Sutter's Fort. Sutter developed the farm to provide wheat, fruit, and vegetables for the residents of the Fort.

After leaving Sutter's Fort in 1849, Sutter moved to Hoch Farm, where he lived with his family until 1865. Even on the farm, cattle rustlers or squatters who disputed his right to the land sometimes bothered him. In 1865, a fire that may have been set by an angry employee destroyed the farm, and Sutter left California for the East.

During the Gold Rush, few people in California except Sutter took the time to plant crops. Everyone wanted to strike it rich in the gold fields. However, many miners turned to farming after placer mining quickly became unproductive. Placer mining required only a gold pan or a sluice box and a claim on a riverbank. The hardrock and hydraulic mining that followed the initial Gold Rush were more expensive operations, requiring large crews and special equipment. Hydraulic mining washed vast amounts of dirt from hillsides using water cannons (called *monitors*) that shot jets of water. Debris from this type of mining caused the Sacramento, American, Yuba, and Feather rivers to fill with silt and increased flooding along their banks in the valleys below. In 1884, a lawsuit finally stopped hydraulic mining operations, and the conditions for valley farmers began to improve.

Eventually, the hide trade of the Spanish rancheros gave way to wheat farming, the introduction of fruit and row crops, and livestock ranching for meat and dairy products. By the 1860s, California farmers were exporting wheat to England, sending it around Cape Horn on sailing ships. These ships could travel in deep water and were not as expensive to operate as coal-burning steamboats. Wheat was a major crop until about 1900, when the amount of grain the land would produce began to decline. Wheat farming without crop rotation had depleted the soil, and California even had to import wheat to meet the needs of its own citizens. Although wheat and other grains, such as barley, continued to be important in the Sacramento and San Joaquin Valleys, farmers increasingly began to plant row crops and orchards. Processing and shipping agricultural products also became an important industry. The railroad's arrival let farmers ship some crops by rail, although it initially was more cost effective to ship wheat by boat. However, the development of refrigerated rail cars eventually opened markets for fruit and vegetable crops in the East.

Farming required a big labor force. Many Chinese immigrants, almost all men, arrived in California during the Gold Rush and later helped to build the Transcontinental Railroad. Many of these Chinese laborers also found work on farms in the Sacramento Valley. Some saved enough money to buy small farms of their own, while others became sharecroppers. In fact, in the 1880s, the majority of farm laborers in California were Chinese men. However, in 1882, the Chinese Exclusion Act barred the entry of any more Chinese immigrants, and, eventually, other ethnic groups began to replace the Chinese laborers, including workers from Mexico and Japan.

The climate in California supports a wide variety of crops, but most of the land still requires irrigation for successful farming. Irrigation districts eventually were formed to manage large water projects. Although the Sacramento River Delta soil was rich, farming there required extensive reclamation work, such as draining swamps and building levees to stop annual flooding. Early efforts by individual farmers to build levees in the 1850s were not very successful. In the 1860s, legislators passed laws to establish reclamation districts. Other laws also rewarded those who invested in reclamation work with refunds and the title to the land they reclaimed. Although many acres of Delta land were reclaimed for agriculture, this latter approach sometimes meant that too many levees were built with too little planning.

Building levees and draining swamps was dirty, wet, and hard work, and Chinese laborers were often the only ones willing to do it. Many of the levees built in the 1880s were made of peat bricks and mud. However, peat would dry out, and mud would crack, so that even these levees were not always high or strong enough to resist the force of the river.

The Chinese immigrants in California brought more with them than a willingness to work hard. Most had been farmers in China and were skilled at growing specialized crops such as celery. Some brought plants and seeds from their homeland that they eventually grew in California. Many other farmers in the Sacramento area were immigrants from Portugal or Italy, where they had learned how to grow crops in a dry Mediterranean climate.

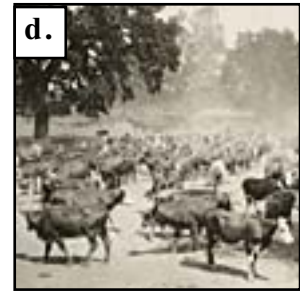
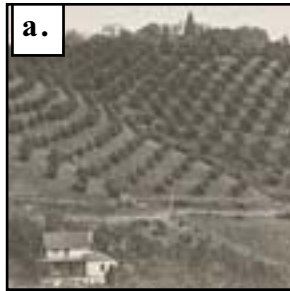
In the years after the United States took control of California, land disputes were common and continued for many years. California had sold a large amount of the land that the federal government had given it when it became a state. When the railroads were built in California, the U.S. government also gave railroad companies land in exchange for their construction efforts, much of which they also sold. Still, settlers had a difficult time competing against large landholders to purchase land for small farms. However, in the late 1800s and early 1900s, land was heavily promoted and sold by developers, and colonies of small farms were established in many locations including Thermalito, Orange Grove, and the Natomas reclamation districts.

The Natomas Consolidated Company began as the Natoma Water and Mining Company in 1851, building a water canal system for mining and agriculture in Placer County. When mining became less profitable, they became involved in agriculture-related projects. The company used steam-powered dredging, with what was called a *clamshell dredge* for mining operations on the American River. Such dredging also allowed the building of taller, stronger levees in the Delta region. In 1911, the State Reclamation Board was established to supervise levee construction and reclamation work. Reclamation District 1000 was located in Sacramento County and District 900 in Yolo County. The Natomas Company began reclamation work in Districts 900 and 1000 in 1912 and sold parcels of the reclaimed land for farming.

activity sheet 11 Agriculture
CALIFORNIA AGRICULTURE OVERVIEW

I. Image Match

Match the image by putting the correct letter next to the description.



- _____ 1. Beef cattle, Los Molinos
- _____ 2. Strawberry field in Yolo County.
- _____ 3. Fifth alfalfa cutting on Saylor's ranch in Natomas Reclamation District No. 1000.
- _____ 4. Notice to sell the assets of Bent Nelson on August 12, 1871
- _____ 5. Pile of potatoes
- _____ 6. Olive orchard near Auburn
- _____ 7. Hauling grapes to Woodland
- _____ 8. Shipping produce in 1924

II. Agriculture Scramble

Number the following items from 1 to 4 by when they became important in California agriculture

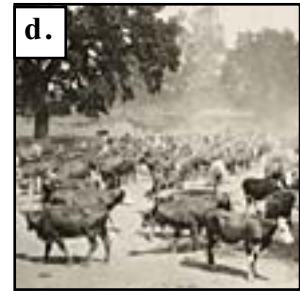
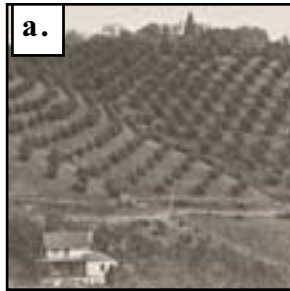
_____wheat _____ irrigation districts _____oranges _____cow hides

activity sheet 11 Agriculture
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KEY

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 2 wheat 4 irrigation districts 3 oranges 1 cow hides