

CHAPTER 2

The Background Story



- 34 History of Raisins & Dried Fruits: Ancient Times
- 36 History of Raisins & Dried Fruits: The Old & New World
- 38 History of Raisins & Dried Fruits: To California
- 40 History of Raisins & Dried Fruits: To Today
- 42 The Golden State
- 44 Irrigation Water
- 46 The Thompson Seedless Story

History of Raisins & Dried Fruits

Ancient Times

Known to have flourished for 60 million years, wild grapes were discovered by early hunter-gatherers who ate fresh grapes or those dried into raisins by the sun. The earliest cultivated vine was in Anatolia, at the northern peninsula of Western Asia, where wine jars were found dating to 6,000 B.C. Here, in what is now Turkey and the Caucasus, lies Mount Ararat, where, according to the Bible, Noah landed his ark and sowed the first grape seed.

FIT FOR A KING

Remains of engineered irrigation dating to 5,000 B.C. was found along the Nile River, confirming that the Egyptians were cultivating grapes by 3,000 B.C. This painting (*below*) from the tomb of Nakht, in Thebes, shows the gathering and crushing of grapes. Baskets of dried fruits discovered in tombs indicate that Egyptians considered fruit precious goods, worthy of bringing with them into the afterlife.



FORBIDDEN FRUIT

In the Book of Genesis, Adam and Eve ate forbidden fruit from the Tree of Knowledge of Good and Evil. The Latin translation calls the fruit *malum*, which means both “apple” and “evil.” Earlier Slavic texts and the *Zohar* (Jewish Kabbalah) describe the forbidden fruit as the grape. Some scholars believe the fruit in question to be the fig, as the next verse describes sewing the fig leaves into loincloths.



ASSYRIAN STONE RELIEF

Fruit was an important theme for artists in the ancient world, and agriculture was an indication of prosperity. This 7th-century stone relief shows the Assyrian King Ashurbanipal and his queen under grapevines and date palms. By 360 B.C., grapes were common illustrations on Babylonian coins.



AMPHORA

As early as 3,500 B.C., wine and juice were stored and transported in amphora. The grape was prized for its sweetness and made into syrups like *sapa* and *defrutum*, which were common ingredients throughout the classic world. The Greeks frequently decorated their urns with scenes of the grape harvest. Wine stored in an amphora was preserved with a layer of olive oil to keep out the air.



FIGS

The Sumerians were growing figs, dates, plums, and other fruits between the Tigris and Euphrates rivers around 5,500 B.C.

Figs were strung together and hung out to dry in long strands, or pressed into cakes that were easily stored and packed for long journeys.

DATES

Arabic legend tells that when man was first created, what remained was used to create the date palm. Today, dates are so widespread that their exact origin is contested by many Middle Eastern, African, and South West Asian countries. It is known that date palms grew in the Jordan Valley as early as 6,000 B.C., and Jericho became known as the “City of Palm Trees.” By 3,000 B.C., the date was being cultivated throughout the Fertile Crescent, where its fruit was eaten both fresh and dried. People also ate the shoots and flowers, tapped the sap for syrup, and made household objects using the fiber and wood.



History of Raisins & Dried Fruits

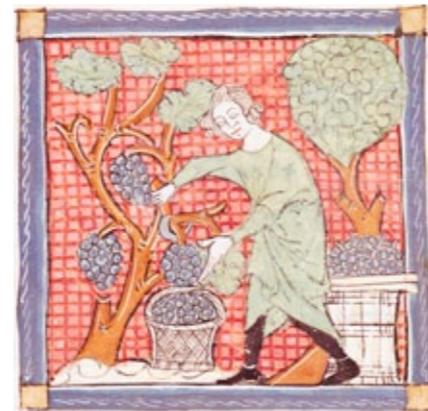
The Old & New World

Dried fruits traveled to new areas across the globe, where they began to be incorporated into diverse cuisines. Knowledge of fruit cultivation and drying expanded and was recorded in greater detail. Greek philosopher Aristotle's writings in his *History of Science* from around 300 B.C. composed a comprehensive system of Western philosophy encompassing morality, aesthetics, logic, politics, metaphysics, and science, including the biology of fruits and seeds and the need to prune vines in order to produce the best fruit. Latin poet Virgil also wrote about making raisin wine in *Georgics*, his four-volume poem from around 29 B.C. Dried fruits traveled to the new world via explorers, and production began in California and Mexico at Spanish missions.



EXPLORATION AND DISCOVERY

According to Nordic legend, Viking explorer Leif Eriksson discovered North America around 1000 A.D. He landed on a spot teeming with wild grapes and named it Vineland. Archeologists have unearthed what they believe to be that first Norse settlement on the Northern tip of Newfoundland.



FEUDAL SOCIETIES

This 13th century illustration gives an account of the grape harvest in medieval times. Europe was still in the midst of Catholic military campaigns to control the Holy Land. Crusaders returned from their conquests bearing exotic ingredients and Middle Eastern cooking methods that included the mixing of meat, fruit, and spices. This style of cooking remained fashionable for centuries.

THE RENAISSANCE

Fruit has long been a favorite subject of artists, from the Greeks' rendering of Dionysus on their wine cups to Roman wall paintings at Pompeii and fantastic faces composed entirely of food by Renaissance painter Giuseppe Arcimboldo. This detailed painting, *Still Life of Flowers and Dried Fruit*, from 1611, was painted by Flemish artist Clara Peeters, one of the few known female artists of the time.



20 June 1636. In the Philip of London, master, Robert Huson for New England, John Winthorpe for the Plantation 13 barrel small band pitch, 4½ cwt Raisins, 10 cwt prunes, 5 cwt. sugar, 2 hhd. of vinegar, 38 iron pots and Kettles cost £6. 13s. 4d., iron work value £40. 250 ells of Vitrii canvas, 200 ells packing canvas, 600 ells coarse linen cost 8 pence an ell, several remnants of stuff cost £26, 5 ordinary yard broad sayes, 40 goads Welsh cottons, 14 gross Sheffield Knives, 14 dozen pair shoes with other things.

8. July 1636. In the William and John of London, master, Rowland Langrum for New England:— John Wenthorpe esq for the Plantation at Massachusetts Bay in New England one single serge, 36 yards of flannel, 250 goads Welch cottons, 100 goads Northern cottons, 240 yards ruggs for beds, 7 pair of blankets, 2 cwt. of wrought iron, 200 ells of vittry canvas, 36 pair of canvas breeches cost 45s., 19 cotton waistcoats cost 40s., 108 pair woollen stockings, 3 dozen children's woollen stockings, 40 goads Manchester cottons, 200 yards of Norwich stuffs cost 20 pence a yard, 4 yard broad remanences, 8 pieces of Tresp, 20 dozen of shoes, 2 dozen

RAISINS TO THE NEW WORLD

One of the earliest recorded shipments of raisins to the colonies arrived in June 1636. Port records from Boston Harbor show that the governor of the Massachusetts Bay Colony, John Winthorpe, received among his cargo "4½ cwt Raisins." Cwt is the abbreviation for a hundredweight, which is equivalent to about 115 pounds.

ROYAL RAISINS

In the mid-19th century, Queen Victoria's court enjoyed raisins imported from South Africa. When Queen Victoria opened the gardens of Hampton Court to the general public in 1838, the main attraction was a grapevine planted 100 years earlier in Queen Mary's Exotic Plant collection. More than 230 years old, the Great Vine still thrives, and is the oldest and largest known vine in the world. After harvest, visitors can buy the fruit in the palace gift shop.



PRESIDENTIAL FRUIT

In 1754, George Washington began his long residence at Mount Vernon, where raisins were a staple at the dinner table. Dried fruits appeared prominently in his wife Martha Washington's *Booke of Cookery*. When Martha prepared a "plumb broth" made of marrow bones, bread, sugar, raisins, and currants, her husband proclaimed it "the greatest success achieved by Mrs. Washington since our marriage." Following Washington's lead, many favorite dishes of subsequent presidents and first ladies included raisins and dried fruits. Thomas Jefferson returned from France with "figs from Marseilles, raisins, and almonds;" First Lady Dolley Madison was well known for her Scripture Cake featuring raisins and figs; and the Carter family enjoyed carrot and raisin salad.



History of Raisins & Dried Fruits To California

In 1873, Francis T. Eisen planted an experimental vineyard of Muscat grapes on 25 acres along Fancher Creek, just east of Fresno. In his 1891 publication, *California Homes and Industries*, Eisen described the first production year in 1877:

“It was a very hot year, and before the Muscat grapes were harvested a quantity of the crop dried on the vines, and we treated them as raisins, stemmed them, put them in boxes, and sent them to San Francisco market. They were sold to fancy grocers, who exposed them in show-windows and reported them imported from Peru; but a Mr. Hickson found they were from the Eisen Vineyard, and went there to see, and informed raisin dealers that the best raisins were made in Fresno County. Others then entered into the business, and this was the foundation for the present reputation of Fresno for raisins.”

Packaged raisins were shipped out of the state by 1878, and by 1903, California was producing 120 million pounds of raisins a year.



RAISINS OF SPAIN

Spanish artist Joaquin Sorolla y Bastida produced a series of paintings in the 1890s illustrating the raisin industry in Spain. Until the 20th century, the Valencia region of Eastern Spain was a major exporter of raisins. The first raisin grape to be commercially grown in California was the Muscat of Alexandria, brought to the state in 1851 by Colonel Agoston Haraszthy, who discovered it on an expedition overseas.

SUN-DRIED

The photograph below shows apricots and peaches being sun-dried on wooden trays near Sanger, California, circa 1912. Raisins, however, were dried in the field, either on trays or on the vine. While natural seedless raisins are still dried the same way today, most other dried fruits are dried in dehydrators in order to preserve their light color.



PLUMS

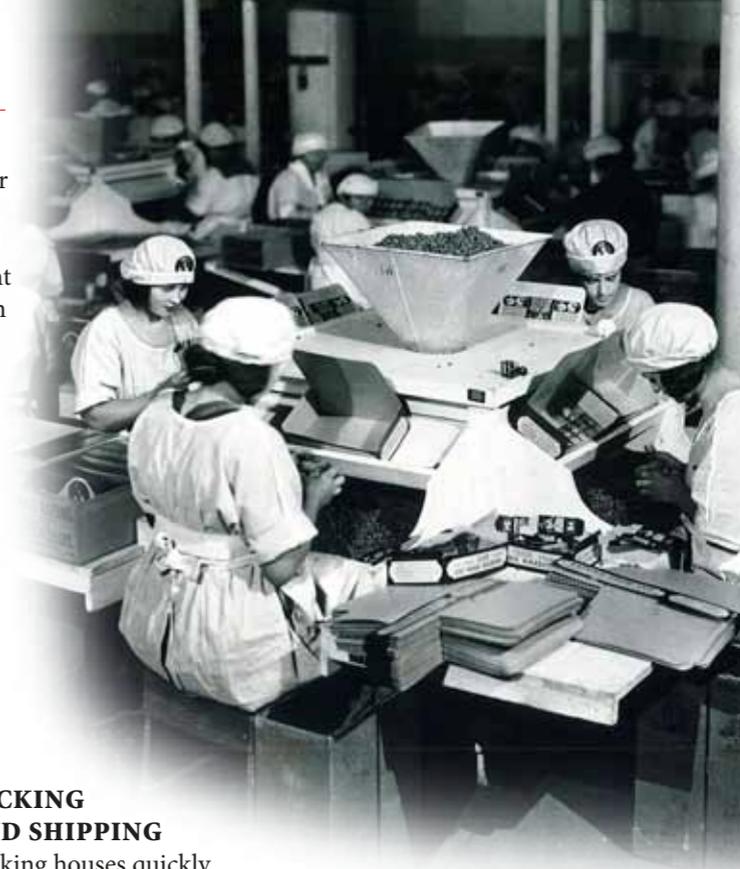
In 1850, Frenchman Louis Pellier came to California from Agen, a district known in France as the “Capital of the Prune.” He bought a parcel of land near Mission San Jose, and successfully grafted the Agen root stock onto wild plums. In the 1880s, the area

experienced a glut of apples and pears, and local growers saw an opportunity for success in the dried plum industry. Dried plums were a popular import, but with the help of the railroad, California soon became the nation’s leading producer. By 1900, there were 85 plum-packing plants in the Santa Clara Valley.



APRICOTS

The apricot first arrived in California with Spanish missionaries. Settlers to the Santa Clara Valley, on the southwest tip of the San Francisco Bay, found the area perfect for stone fruit. Plums, peaches, cherries, and apricots thrived in the 1920s, and by 1935 the area had nearly 3,000 apricot growers.



PACKING AND SHIPPING

Packing houses quickly became a vital link between the grower and the consumer, and dozens sprouted up across the San Joaquin Valley. Employing hundreds of people, these facilities received the sun-dried raisins from the grower, then they stored, processed, packaged, and shipped the fruit throughout the United States and to countries around the world.

RAILROADS

The transcontinental railroad was completed in 1869, bringing farmers and immigrants from the East, and enabling growers to quickly transport products from the West to new markets. In 1872, Leland Stanford brought the Central Pacific Railroad to the San Joaquin Valley, choosing a location in present-day downtown Fresno as the rail stop Fresno Station. Depots in surrounding communities, such as the Reedley Depot seen here (left), soon followed. As the railroads expanded, so too did the area surrounding Fresno Station, attracting farmers eager to grow agricultural products to satisfy the increasing demand from faraway markets.



MUSCAT GRAPES

The large, round berries of the Muscat grape were used to make Fresno County’s first raisins. Muscat raisins were the industry standard until the switch to the Thompson Seedless variety.



History of Raisins & Dried Fruits To Today

Once Central California's great potential for producing raisins and dried fruits was realized, the area quickly transformed from scattered small farming towns into a top-producing agricultural region. As production increased, so did innovation, and growers, packers, and marketers of raisins and dried fruits all helped establish their industry as a vital part of California's agriculture and economy. Today, California dominates U.S. production, producing more than 90 percent of the nation's raisins and dried fruits.

SHIFTING GROWING AREAS

In 1890, raisin grape acreage was scattered throughout California. By 1950, it had moved to mostly within the San Joaquin Valley and today, most raisin grapes are grown within 50 miles of Sun-Maid's Kingsburg headquarters. The prune and fig industries underwent similar concentrations, and are now grown primarily in the Sacramento and San Joaquin Valleys, respectively.



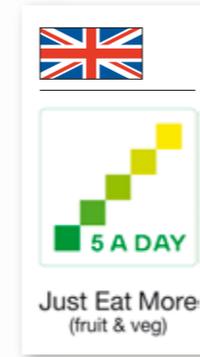
TOP-PRODUCING CALIFORNIA COUNTIES IN 2010:

Raisins	Prunes	Figs
1. Fresno	1. Sutter	1. Madera
2. Madera	2. Butte	2. Merced
3. Kern	3. Tehama	3. Fresno
4. Tulare		

■ Prune Production
■ Raisin Production

DRIED-ON-THE-VINE & MECHANICAL HARVESTING

Growers develop and perfect innovative methods for raisin production such as dried-on-the-vine and mechanical harvesting using continuous trays (left).



PROMOTING HEALTHY CHOICES

Sun-Maid packages of traditional dried fruits—dried apricots, apples, dates, figs, peaches, raisins, and prunes—include the endorsement of programs encouraging increased consumption of fruits and vegetables: Mix it Up! in Canada, 5 A Day in the United Kingdom, and Fruits & Veggies More Matters in the United States.



CHANGING PUBLIC PERCEPTIONS

In May 2011, internationally recognized health researchers including Dr. Dan Gallaher (above), presented their views at the XXX World Nut & Dried Fruit Congress, recommending that food policy-makers consider dried fruits equivalent to fresh fruits in dietary recommendations around the world.



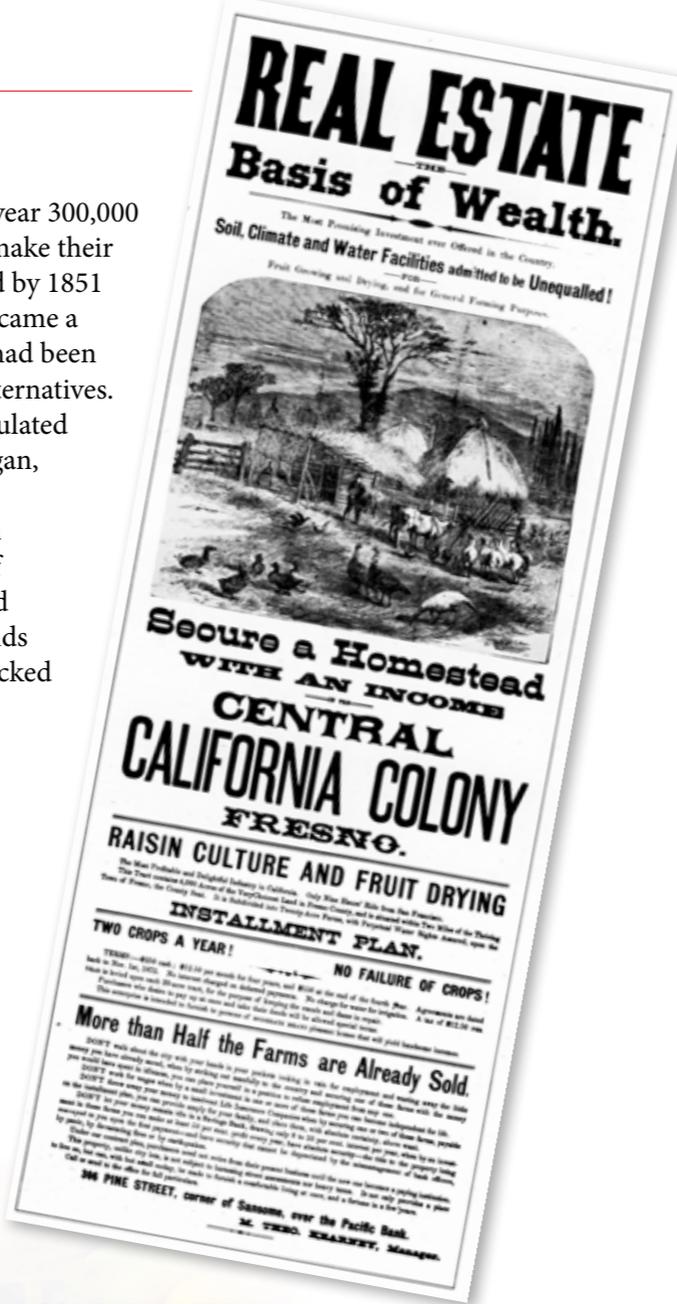
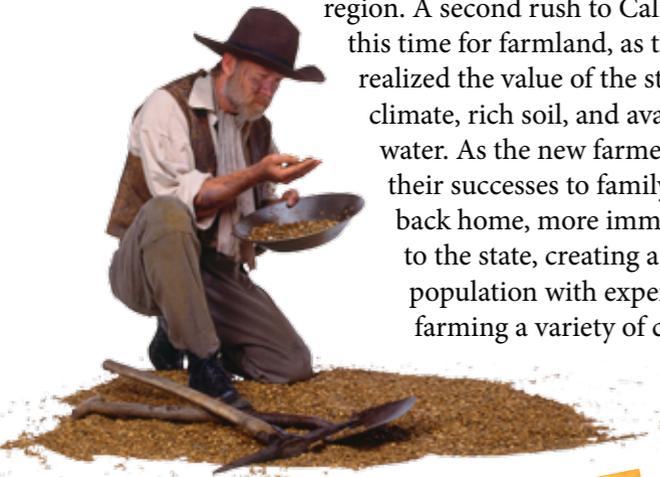
NEW FRUIT VARIETIES

New grape varieties are developed and released, including Fiesta in 1973, DOVine in 1995, and Selma Pete in 2001. These earlier-ripening varieties allow growers to harvest earlier in the season and increase crop yield.



The Golden State

In 1848, gold was discovered at Sutter's Mill, and within a year 300,000 settlers from around the world had come to California to make their fortunes. Gold was found in the San Joaquin River too, and by 1851 the town of Millerton, just north of present-day Fresno, became a bustling mining camp. Soon, much of the California gold had been mined away, and many of the new settlers began to seek alternatives. They were eager to seize opportunities in this sparsely populated region. A second rush to California began, this time for farmland, as the settlers realized the value of the state's warm climate, rich soil, and availability of water. As the new farmers reported their successes to family and friends back home, more immigrants flocked to the state, creating a diverse population with expertise in farming a variety of crops.



THE COLONY SYSTEM

The area experienced a land boom, thanks in part to Martin Theodore Kearney, who began his career in Fresno by managing the Central California Colony for W.S. Chapman and Bernhard Marks of San Francisco. Kearney later promoted developments of his own, including the Easterby Colony east of Fresno and the Fruit Vale Estate west of Fresno. The colony farms offered 20-acre parcels of rich, well-irrigated soil perfectly suited to farming. Immigrants streamed to the area, and by the early 1890s, more than a dozen towns were established, including Caruthers, Centerville, Clifton (now Del Rey), Dinuba, Easton, Fowler, Kingsburg, Reedley, Sanger, and Selma. By the turn of the century, the Valley had been transformed, with the colony farms supporting thousands of fertile acres.

THE VALLEY IS BORN

It has taken millions of years of geologic activity to create the Sierra Nevada mountain range, which is an estimated 40 million years old and contains the popular Yosemite National Park. From the Sierras, ancient glacier runoff has deposited soil in layers on the Valley floor. Mountain rivers and streams have left behind sediment, and formed a wide alluvial plain. A loose mixture of sand, silt, gravel, and clay have created sandy loam, a permeable soil that allows for root expansion and rich nutrients, which provides a fertile growing environment.



PRECIOUS WATER

When the San Joaquin Valley was first settled, farmers relied on rain, and the vast underground water table to nourish their crops. Early man-made canals diverted precious water from the Kings and San Joaquin rivers, and eventually dams allowed snow-pack runoff from the Sierra Nevada mountain range to the east to be better utilized in the Valley fields below.



THE IDEAL CLIMATE

California contains several unique micro-climates. The central San Joaquin Valley enjoys optimum weather patterns, contains well-drained sandy loam soil (which dries quickly), and hot, dry Septembers that allow drying grapes to transform into sweet raisins. The mountains surrounding the Valley create a basin of fog during the winter months, allowing fruit crops to rest in dormancy and save their energy for vigorous spring growth. The summer's dry, sunny climate, and fertile soil is tailor-made for dried fruit production. The pioneers of dried-fruit farming realized the potential of this perfect climate. By 1890, California had produced more than 66 million pounds of dried fruits, more than 45 million pounds of raisins, more than 10 million pounds of prunes, and 50,000 pounds of figs.

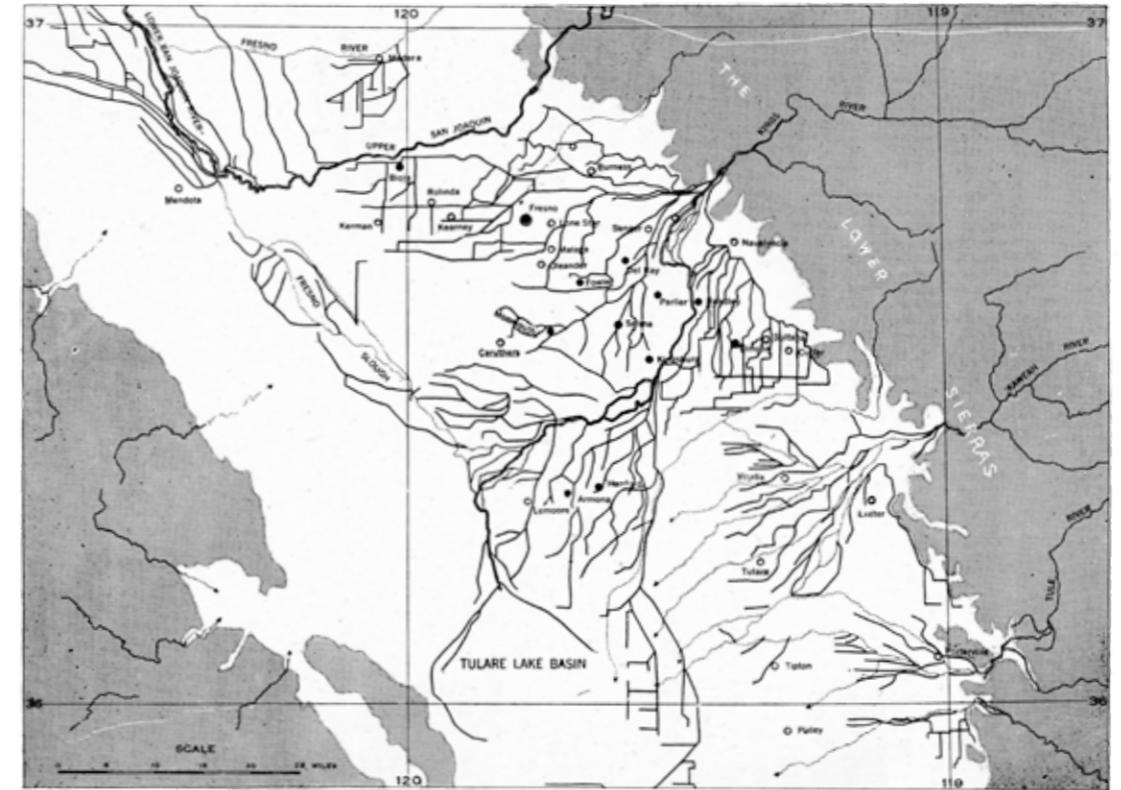


Irrigation Water

Spanish explorer Gabriel Moraga led an expedition in 1804 to California's interior valley. There, he discovered a large river, and named it San Joaquin for St. Joachim, father of the Virgin Mary. He traveled south through dry grassland and camped along another river on January 6, the day of epiphany. He named it The River of Holy Kings (*El Rio de los Santos Reyes*). Today, the San Joaquin and Kings rivers supply water to one of the most productive agricultural regions in America.

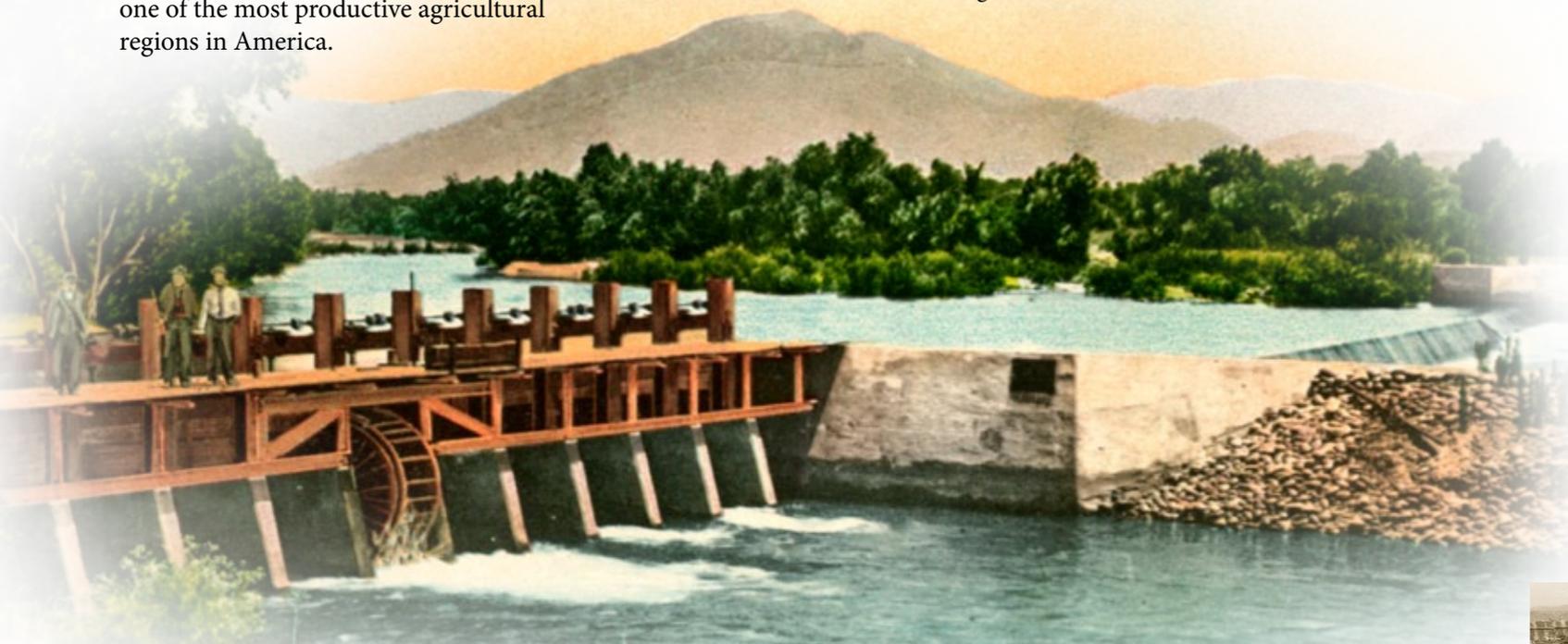
PUTTING WATER TO WORK

The area's first farmers relied on rain and groundwater to nourish their crops. Snow melt from the Sierra Nevada range flows down through the rivers, seeps under the soil, and migrates west to create a vast underground water table in the Valley. The water table was so high that early day farmers could reach it with a shovel. Now, as rain and snowfall fluctuates from year to year, so does the level of the water table. Agriculture began to boom as soon as the flow from the rivers was diverted into dams, irrigation canals, and water districts.



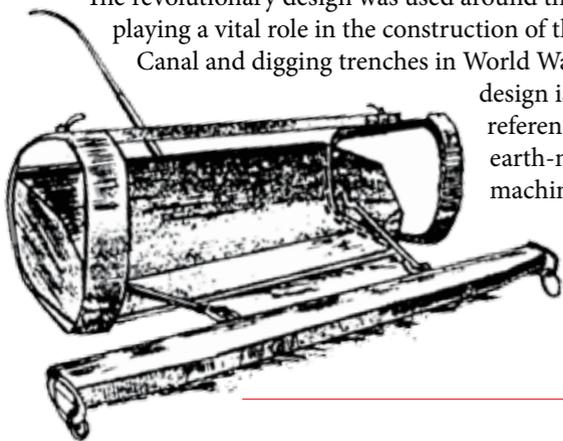
WATER RIGHTS

Once water had been controlled, farmers and ranchers began to argue over their right to it. The Wright Irrigation Act of 1887 permitted farming regions to form irrigation districts. In these districts, small farmers joined together, pooled their resources, and diverted the water to where it was needed. Smaller irrigation districts eventually merged, and today these serve Sun-Maid growers in such districts and associations as the Madera Irrigation District, Fresno Irrigation District, Consolidated Irrigation District, and the Alta Irrigation District.



THE FRESNO SCRAPER

Recognizing the need for efficient canal construction, Scottish immigrant James Porteous invented a machine that quadrupled the amount of soil that could be moved by hand. Porteous created Fresno Agricultural Works in the mid-1870s and later patented his "Fresno Scraper." The revolutionary design was used around the world, playing a vital role in the construction of the Panama Canal and digging trenches in World War I. Its design is still referenced for earth-moving machinery today.



IRRIGATION PIONEERS

In 1868, Anthony Y. Easterby and Moses Church moved from Napa County to Fresno to begin work on an irrigation canal, diverting water into dry fields and producing a beautiful crop. Easterby and Church formed the Fresno Canal and Irrigation Company in 1871—the parent of today's Fresno Irrigation District—which operated roughly 800 miles of canals.



CENTRAL VALLEY PROJECT

In 1935, the Central Valley Project was created to provide irrigation and municipal water. Water was diverted from various river basins in Northern and Central California by means of canals, aqueducts, pump plants, reservoirs, and dams that, to this day, not only store and manage water but also provide flood control, hydroelectric power, and welcome recreation.



FRIANT DAM

Completed in 1942, the Friant Dam was built across the San Joaquin River, submerging the area's first settlement of Millerton. Water could then flow from Millerton Lake through the Friant-Kern and Madera canals, providing water to Fresno, Kern, Madera, and Tulare counties. Upstream is the Big Creek hydroelectric project, which was created in the 1890s to supply electricity to Southern California.



PINE FLAT RESERVOIR

Construction of the Pine Flat Dam was completed in 1954 by the Army Corps of Engineers. The dam holds back the Kings River as it pours out of Kings Canyon, the deepest canyon in North America. Pine Flat Dam and its reservoir provide flood control, hydroelectric power, and a reliable water source for spring and summer irrigation. This lessens the farmers' reliance on the "run of the river" to deliver their water.

The Thompson Seedless Story

In 1868, English emigrant William Thompson left Illinois with his family, two wagons, and six horses, and crossed the Great Plains into Northern California, settling on a parcel just west of Yuba City. He purchased a number of grapevine cuttings from a nursery back east, three of which are thought to be “Lady de Coverly,” described as having originated in Constantinople. He grafted the three cuttings onto his existing root stock. His first vines failed because of a local flood. The remaining vine was overpruned, and produced nothing. Thompson assumed the vine was a dud and ignored it. He later discovered the vine bursting with fruit—and in 1875 it produced 50 pounds of big, sweet, oval grapes with thin skin, low acid, and no seeds.



FINDING THE RIGHT SPOT

The first large vineyard of Thompson’s grapes was planted by his friend, J. P. Onstott, on 200 acres in Sutter County. By 1892, Onstott had shipped out thousands of cuttings, many of which ended up in the San Joaquin Valley where grape cultivation was thriving. It didn’t take long for growers to identify the Fresno area as a prime grape-growing location.

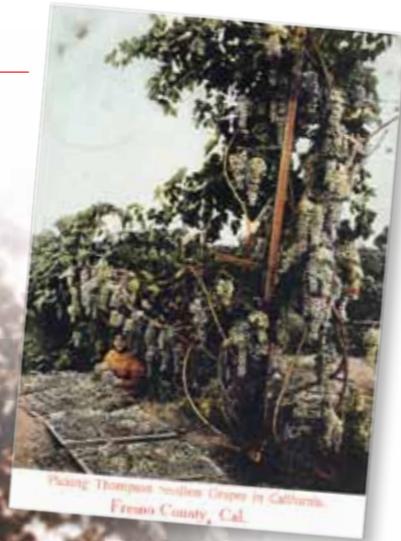
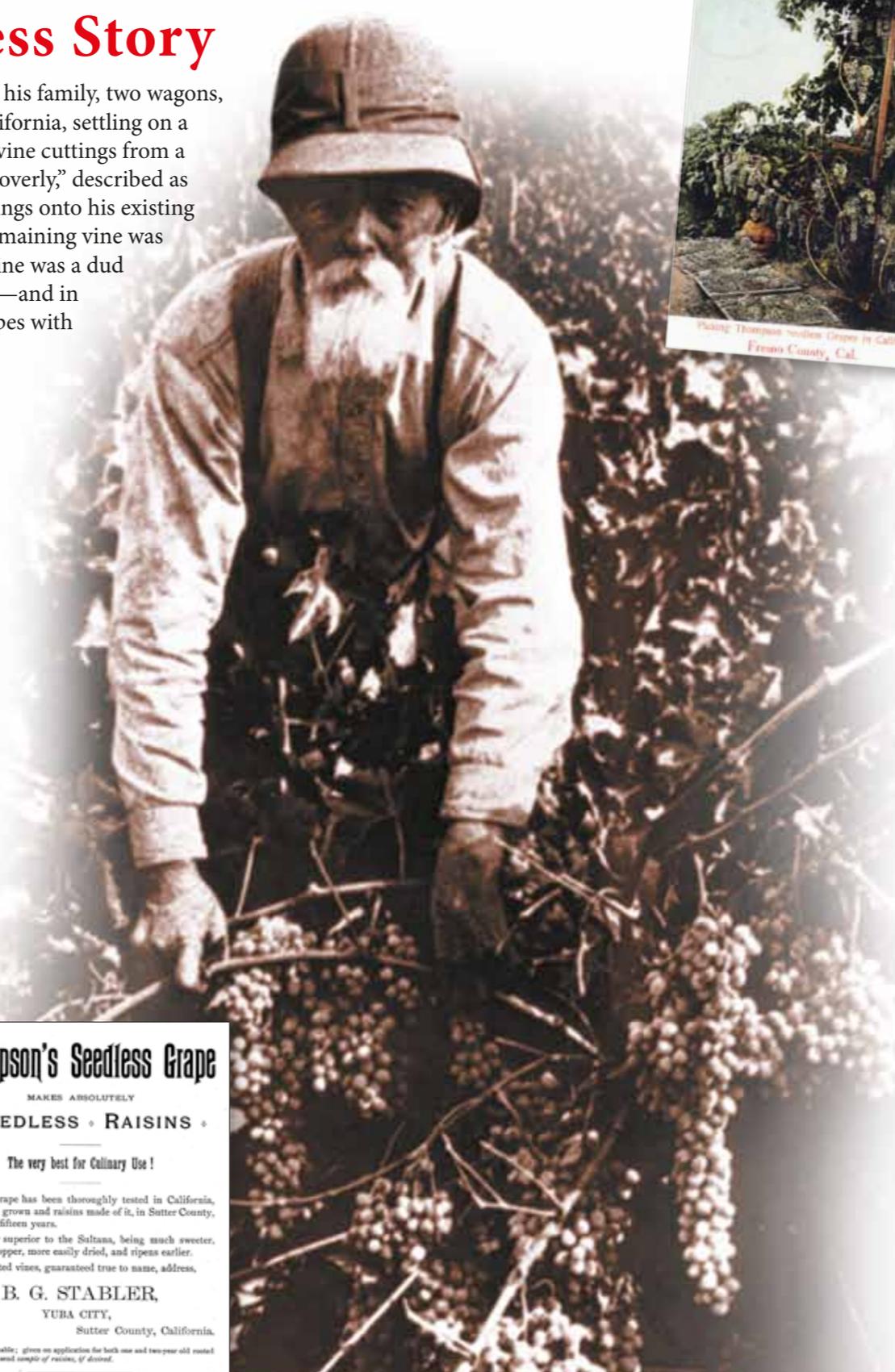
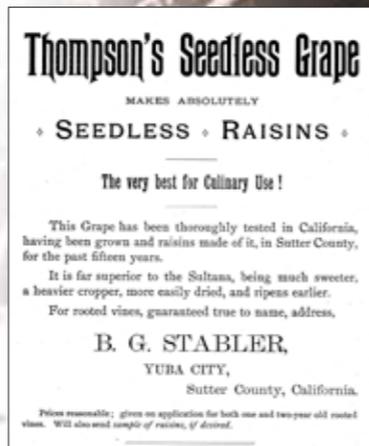
WHAT’S IN A NAME

William Thompson entered his seedless grape in an agricultural fair at Marysville, a town just east of Yuba City, across the Feather River.

He shared the winning root stock with friends, increasing both his popularity and that of the grape. Eventually, his name became synonymous with this grape, which came to be known as the Thompson Seedless. After William Thompson’s death, George Thompson, seen in this 1924 photograph tending to grapevines (right), worked to keep his father’s efforts alive.

CATCHING ON

In 1915, the Thompson Seedless grape was presented at the Panama Pacific International Exposition in San Francisco, where it gained increased consumer attention. While the delicious Muscat raisin was the preferred variety at the time, it contained seeds. When the seeds were mechanically removed, the raisin skin was broken and the fruit became sticky. The Thompson Seedless grape contained no seeds, so the resulting sweet raisin was more convenient to eat. Consumers began to prefer the Thompson Seedless, which quickly became California’s most popular raisin grape, now with over 200,000 acres planted statewide. Today, naturally sun-dried raisins made from Thompson Seedless grapes are the preferred raisins for baking, coating with chocolate or yogurt, cereals, and eating out of hand.



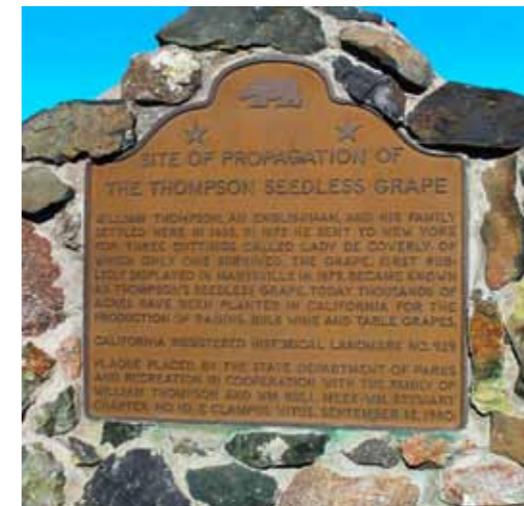
SPREADING THE WORD

By the 1930s, the Thompson Seedless was well established, and the sunny, agriculturally rich San Joaquin Valley was well known across the country. Postcards of the thriving industry were sent home by visitors, prompting even more migration to the area.



PROHIBITION

Congress’ passage of the Eighteenth Amendment in 1920 prohibited the production and sale of alcoholic beverages. On January 16, 1920, the Fresno Republican reported the new law, and alcohol was dumped into Fresno County’s Dry Creek. Prohibition shifted more Muscat grapes, many of which were used for winemaking, into the raisin market. Even with the increased supply of Muscat grapes for raisins, customers clearly preferred the Thompson Seedless. In 1933, Congress passed the Twenty-First Amendment repealing prohibition. The Thompson Seedless had proved to be an ideal grape, due both to consumer preference and growers’ desire for a versatile variety usable for both winemaking and raisins.



HISTORIC LANDMARK

Along Colusa Highway (State Highway 20), just west of Yuba City, lies California’s official monument to the Thompson Seedless grape. This plaque marks the spot where Thompson propagated the Lady de Coverly grape, later known as the Thompson Seedless.