ACACIA WINERY (BW 5067). A winery in the Carneros district, Napa County, founded in 1979 by Michael Richmond and several partners. Concentrating on Pinot noir and Chardonnay, Acacia emphasized single-vineyard wines for both varietals, but reduced yields forced them to modify this approach. After a try at wines in a red Bordeaux style in 1984, the partnership dissolved and the winery was sold to CHALONE* in 1986. In the 1990s Acacia raised its total annual production to about 55,000 cases, mostly of Chardonnay, and about 1,000 cases of sparkling wine. The second label is Caviste. The winery buildings are surrounded by the 42-acre Marina Vineyard.

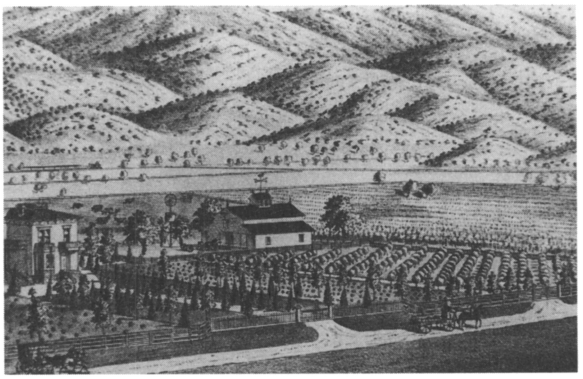
ACETALDEHYDE. Wines too heavily endowed with acetaldehyde are often described as *oxidized,* a reference to a particular flavor that is a virtue in good SHERRY but a fault in young table wines. Before the 1950s high aldehyde levels were often a serious problem in white table wines in California; see OXIDATION.

ACETIC ACID, the chief flavor constituent in VINEGAR and almost always detrimental to good wine if the concentration is detectable. The most common volatile acid, it usually develops when wine is exposed to oxygen. Acetification was the chief quality problem in California wine production before World War II.

ACID. Acids give wine its tartness. Good wine demands a flavor balance between alcohol and acid. There are several acids in the grape before fermentation, chiefly tartaric, malic, and citric. Other acids, chiefly acetic, lactic, and succinic, develop during fermentation.

A standard gauge of the acidity of wine is its pH* number. Distilled water has a pH of 7.0. Lower numbers indicate an acid, higher an alkaline solution. Most California wine runs from a pH of 3.0 to 3.5. In early years before Prohibition, winegrowers in California often let grapes ripen so long that sugars were too high and acids, which diminish during ripening, were far too low, particularly in the white wines. At that time, wines overly high in acid were corrected by adding deacidification agents, such as calcium carbonate. This is rarely done today. In recent years producers have paid close attention to acid levels, which may legally be corrected today in the cellar. TARTARIC ACID is usually added if the winemaker wants to lower the pH.

A constant problem in California wineries, today and in early years, is the formation of ACETIC ACID and its volatile ester, ethyl acetate, which gives wine a taste and smell of vinegar. The use of SULFUR DIOXIDE in California wineries, beginning in the 1890s, has made such acescence, or volatile acidity, far less common. In recent years attention to cleanliness in the winery has made it possible to reduce the use of sulfur dioxide.



Adamson bought his spread in 1870 and had 140 acres in vines when this drawing was made in 1878. His name became a tragic footnote in California history: His first wife died in 1883 after an abortion, an event that led to a strict state antiabortion law.

There is often a tendency during and after primary FERMENTATION for the MALIC ACID in wine to be converted to lactic acid and carbon dioxide, the so-called malolactic or secondary fermentation. This process was not well understood by California winemakers until the 1960s, resulting in spoiled wine when the process took place after bottling. California winemakers today use maolactic fermentation in the production of many red wines because it raises the pH, softening the acid. Where tartness is a goal, such as wine in a Beaujolais style, the conversion is inhibited. For white wines today, particularly Chardonnay, some wineries promote malolactic fermentation for the special flavors that result. Other wineries inhibit the process to promote a tarter wine with a fresher flavor. See also LACTIC ACID.

Jancis Robinson, ed., *The Oxford Companion to Wine* (Oxford: Oxford University Press, 1994) 4.

ADAMS, LEON D. (1905–95), a journalist, publicist, historian, and cofounder of the WINE INSTITUTE. His *Commonsense Book of Wine,* published in 1958, helped sweep away some of the meaningless rituals and taboos that had hindered the American public's acceptance of table wine as a part of everyday life. His *Wines of America* has gone through many editions since it was published in 1973, and is still the most thorough work on the subject, particularly on the California wine industry. The first two editions included a comprehensive treatment of the history of wine in California, a topic subsequently abbreviated.

Leon Adams, *California Wine Industry Affairs* (Regional Oral History Office, Bancroft Library, 1990).

L. Morton, "On the Road with Leon Adams," *Wines & Vines,* November 1995, 20–25.

ADAMSON, CHRISTIAN P. (1830–18). A native of Denmark, Adamson was a pioneer settler in the Rutherford area of Napa Valley. His winery, which dates from 1884, has been restored and can be seen just west of the Silverado Trail on Highway 128 in Napa Valley. See also FROG'S LEAP.

ADELAIDA CELLARS (BW 5162), a small winery in the Paso Robles area of San Luis Obispo County, it was founded by John Munch in 1981. At first Munch concentrated on producing SPARKLING WINE under the Tonio Conti label. In 1990, with new partners, Munch built a new winery east of Paso Robles. Specializing in Cabernet Sauvignon, Zinfandel, and Chardonnay, the winery produces about 7,500 cases of still wine annually.

ADLER FELS (BW 5024). Before David Coleman and his wife, Ayn Ryan, started this winery in the hills above Sonoma Valley in 1980, he designed wine labels and she was a sales representative for CHATEAU ST. JEAN. Annual production is about 15,000 cases, principally of white wines. They occasionally make a sparkling Gewürztraminer/White Riesling labeled Mélange à Deux.

AETNA SPRINGS WINE RANCH (BW 5352), a small winery in Napa's Pope Valley,

founded by Paul and Sally Kimsey in 1986. Their total production of about 1,000 cases consists mainly of Cabernet Sauvignon, Merlot, and Chardonnay.

AGING WINES. Originally in California wines were not aged lest they spoil. By the 1860s aged California wine was considered that which had rested in cask or tank for at least a year. The problem of bottling a wine that was not yet chemically stable induced premium producers to keep their wines for at least two, perhaps three, years in cask, barrel, or tank, before shipping or bottling them. Charles LEFRANC, the founder of New Almédan Vineyards, was often cited, particularly by his son-in-law, Paul MASSON, for having said, "I shall sell no wine before its time."

The idea of bottle aging wines, particularly red Bordeaux and vintage Ports, for long periods of time gradually caught on with European connoisseurs in the last half of the nineteenth century and was adopted by some Americans. Californians started talking about the effects of bottle aging for such wine in the 1890s. Some producers and consumers of California wines from red Bordeaux grapes, particularly Cabernet Sauvignon and Malbec, pointed with pride to their cellared 1886s and 1890s in later years. It was also found that Zinfandels made in the style of long-lasting red Bordeaux also improved for many years. Sweet wines and ANGELICA were also commonly held in the barrel for extended periods.

Since the 1950s a growing element of American winelovers has focused its attention on bottle aging table wines, both red and white. California producers, particularly in the coastal valleys north of Santa Barbara, often aim at styles that cater to this interest. In the 1970s some producers made "monster" red wines that may never be ready to drink, so powerful were their TANNINS.

Styles today in California red table wines tend to favor earlier drinkability, but with enough acid and tannin to encourage some bottle aging. This is still particularly true for wines from red Bordeaux and Rhône varieties of grapes and, of course, from Zinfandel. Some consumers and producers believe that certain Chardonnays and Sauvignon blancs will improve in the bottle for a decade or more. Late-harvest white wines, particularly those from grapes infected by BOTRYTIS CINEREA, are also considered candidates for the cellar. Even so-called Vintage Ports from California appear to improve with age.

AGUARDIENTE, from the Latin, *aqua ardens,* fiery water, was, during the mission and rancho period of California history, the name used for distilled spirits made from the wine of the Mission grape. This was the hard liquor most commonly available to Americans here during the Gold Rush period. The term is Spanish and may refer to any form of distilled spirits.

AHERN, ALBERT. See FREEMARK ABBEY WINERY

AHLGREN VINEYARD (BW 4764). Dexter and Valerie Ahlgren founded this small winery in the Santa Cruz Mountain in 1976. Producing about 3,000 cases from grapes grown in the California coastal valleys, they have developed a good reputation for their Cabernet Sauvignon.

ALAMBIC. See BRANDY

ALAMBIC, INC. See GERMAIN-ROBIN

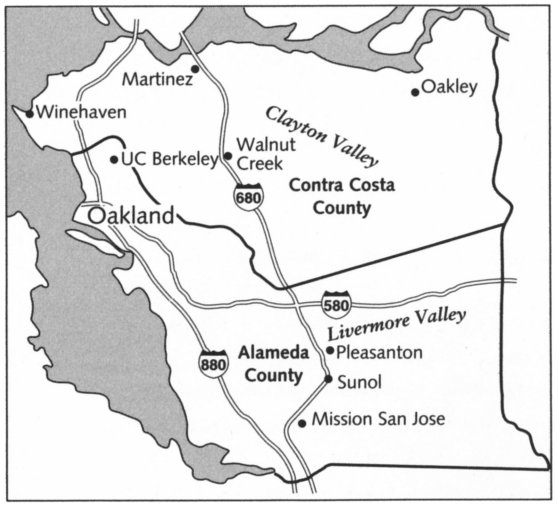
ALAMEDA COUNTY. Two important winegrowing areas developed here on the east side of San Francisco Bay in the nineteenth century. The first was in the foothills facing the Bay, around the old MISSION SAN JOSE* in Washington Township. The other was the LIVERMORE VALLEY,* a few miles to the east.

TABLE I. WINE GRAPES IN ALAMEDA COUNTY, SELECTED VARIETIES

	PERCENT OF TOTAL		(ACRES)					
YEAR	RED	WHITE	CABERNET SAUVIGNON	CHAR-DONNAY	GREY RIESLING	SAUVIGNON BLANC	SÉMILLON	TOTAL
1920								2,625
1930								3,600
1940								3,829
1950								3,313
1960								2,910
1970	27	73	16	153	170	117	361	1,868
1976	28	72	25	130	285	101	322	1,936
1982	22	78	57	191	444	125	183	1,748
1988	27	73	243	700	114	264	103	1,795
1997	37	63	199	635	29	93	74	1,433

NOTE: Until 1961 statistics for acreage under various varieties of grapes were not published.
SOURCE: California Agricultural Statistics Service, Sacramento, Calif.

The older area, mostly in today's city of Fremont, dates from the founding of the mission in 1797. It became one of California's most famous premium wine districts in the 1880s. But, with the expansion of the East Bay suburbs since the 1950s, winegrowing has almost come to an end here. The Livermore winegrowing area dates from the 1880s and developed quickly into a premium district now best known for its white wines. This area too has seen suburban pressures on its vineyard acreage since World War II. Wine grapes have been grown in other areas in the county, particularly the Suñol area between Livermore and Mission San Jose. In the East Bay before World War II there were commercial vineyards among the orchards around Hayward, San Leandro, and Castro Valley.



Alameda County

Wine grape growing in Alameda County peaked in the 1890s at close to 7,000 acres. Of those, about 2,100 acres were in the East Bay, the rest in the Livermore Valley. In the 1930s, after Repeal, there were about 3,000 acres of grapes in the county and 32 wineries, six of them in the East Bay. The decline continues; between 1986 and 1994, the wine grape crop in the county had been reduced by half.

Since the 1960s the proliferation of the urban winery has been noticeable in Alameda County. In 1995 five of the county's fifteen bonded wineries were small operations in the East Bay producing premium wines from numerous Northern California grape sources.

In 1994, the wine grape crop in the county was 56 percent of the crop in 1989.

ALCOHOL. When grapes ferment, the enzymes created by yeast cells convert grape SUGAR into alcohol and carbon dioxide. In a wine fermented "dry," there is virtually no sugar left. Wines can be fermented until the alcohol content is about 16.5%, at which point the fermentation process is cut off by the action of the alcohol. Some residual sugar may remain in the wine.

Normally California table wines have an alcohol level between 10% and 14%. The fermentation of sweet wines can be cut short by the addition of alcohol, leaving residual sugars, as are found in ports and sweet sherries. These are often termed FORTIFIED wines.

Modern production techniques enable winemakers to make what are called "light, sweet wines." The fermentation is stopped in order to retain a small quantity of residual sugar and still have a low level of alcohol.

During the 1930s, table wine in California was required to have an alcohol content of at least 10 percent. This was higher than federal requirements and was supported by producers in California to help insure biological stability in wine that was shipped long distances. Scientific and technical developments since World War II made it possible to lower the alcohol levels. Since 1979 it has been legal to produce so-called soft or light wines with alcohol levels as low as 7 percent. This change has made it possible to produce white wines, particularly White Rieslings, in a low-alcohol German style. In the early 1980s wines made in this style were a short-lived fad.

The alcohol level of wine affects the federal tax rate on producers. Wine with alcohol levels above 14 percent are taxed at a significantly higher rate, a rate that is applied to all fortified wines. Some wines meant to be consumed as table wines occasionally exceed 14 percent and so, legally, may not be labeled as table wines although that is what they are. Most of these wines are made from Zinfandel, a few from other varieties.

Recent inventions have also made it possible to lower the alcoholic content of a wine to improve its flavor. The machines are very expensive but have caused quite a stir in the wine industry for the high quality of their products.

Processes have also been developed to produce wine from which all alcohol has been removed. With a rising awareness of health and the social consequences of excessive alcohol consumption, such "wines," and unfermented wine grape juice, have become more popular in America. See ARIEL.

ALDERBROOK WINERY (BW 5112) in the Dry Creek area of Sonoma was founded in 1982 and for years concentrated on white wine. Total annual production is now up to 30,000 cases. In 1992 the original partners sold the 63-acre ranch to G. W. Gillemot, a partner in SCHRAMSBERG. Since then Zinfandel and Merlot have become a larger part of the production mix.

ALEATICO, a rare Italian variety of grape noted for its sweet wines. It was imported to California before Prohibition but never caught on. It was grown here and there in southern California and the Central Valley after Repeal, mostly to give a little muscat flavor to inexpensive port. This is a variety that shows some promise in California. In 1990 MONTEVIÑA WINERY planted two acres and in 1992 began producing a medium-sweet Aleatico.

ALEXANDER VALLEY is a major winegrowing area in Sonoma County and received APPELLATION status in 1984. The district runs south from the Mendocino County line, along the Russian River, to Healdsburg, and extends east to Knight's Valley. It includes about 7,000 acres of wine grapes.

The valley itself, which is much smaller than the official viticultural area, was part of the Sotoyome Mexican land grant made to Henry Fitch in 1841. Cyrus Alexander (1805–72) received a large part of that grant in 1847 and

he planted the first vines here. He is buried in the family cemetery, today part of the ALEXANDER VALLEY VINEYARDS, land purchased from his heirs in 1962.

Winegrowing began here in earnest in the 1880s as wheat and sheep-grazing land between Healdsburg and Cloverdale was converted into a gigantic vineyard. Until recent years the Alexander Valley designation was reserved for the land southeast of Geyserville, out to Knight's Valley. Thus, the ITALIAN SWISS COLONY and all the winegrowing operations to the north were considered to be in Geyserville or Cloverdale. In the old days the wineries of Horace Chase (of STAG'S LEAP fame), S. L. Osborn (Lone Pine Ranch), and O. H. Michelson (Alexander Valley Winery) were dominant. In 1896 400,000 gallons of wine were produced in this area. Following Prohibition, the area supported a complex mixed agriculture of fruit, grazing, and fodder crops until the 1970s, when viticulture became prominent. By the 1980s the area was an established part of Sonoma's production of premium wine, noted particularly for Cabernet Sauvignon and Chardonnay.

Gerald Asher, "Alexander Valley," *Gourmet,* November 1994, 74–86.

ALEXANDER VALLEY FRUIT & TRADING COMPANY (BW 5379), a small winery whose name and colorful, old-fashioned label express the diversity of this family operation. Steve and Candy Sommer started in 1983, making up gift packs from local products. They received their winery bond in 1987. The tiny emporium is on Highway 128 just west of Jim Town. Annual wine production is about 7,500 cases.

ALEXANDER VALLEY VINEYARDS (BW 4685). Harry Wetzel bought this 140-acre estate in 1962 from heirs of the family of Cyrus Alexander, the pioneer white settler of the valley. Wetzel and his family renovated the historic buildings on the property and began planting vines, mostly Chardonnay and Cabernet Sauvignon, in 1964. They sold their grapes until 1975 when their winery had its first vintage. Since then production has risen to over 55,000 cases a year.

ALICANTE BOUSCHET, a French hybrid grape (Petit Bouschet × Grenache) developed in 1886 by Henri Bouschet. Its purpose was to supply dark color to poorly colored red wines, but it adds little to their flavor. The French term for such dark-juice grapes is TEINTURIER, or dyer.

Henri's father, Louis Bouschet, had developed one of this vine's parents, the Petit Bouschet, in 1824. This vine entered northern California vineyards in the early 1880s, probably first imported by Charles MCIVER of Mission San Jose. The Alicante Bouschet was introduced in the 1890s and became the most popular dyer grape planted in the years before Prohibition. By 1919 there were about 18,000 acres in California, mostly in the Central Valley. When PROHIBITION* came in 1920, the popularity of the Alicante Bouschet as a shipping grape for eastern home winemakers soared. By 1932 there were 39,000 acres, still concentrated in the Central Valley. But their high prices during the dry years also promoted much planting of the variety in the coastal valleys. The total acreage gradually dropped to 19,000 acres in 1949. Between 1960 and 1997 acreage in California dropped from 10,000 to 1,600 acres, more than 90% of which was in the Central Valley. Since the 1970s a few premium producers have brought out a varietal Alicante Bouschet as a table wine.

ALLHOFF, MARTIN (?–1867), a native of the Rhineland, was a pioneering winegrower in El Dorado County who had his first vintage in 1858, five barrels of CATAWBA. He had previously worked at Nicholas Longworth's cellars in Cincinnati. After he committed suicide, his