

California

California is home not only to the vast majority of wine made in the USA but also to many of the country's most celebrated wines. Combinations of warmth, bright sun and cooling influences from ocean and altitude mean that California's winemakers are able to deliver a diverse range of premium styles from rich powerful Cabernets to elegant Pinot Noirs.

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CLIMATE AND GRAPE GROWING

The state of California extends for some 1100 kilometres from north to south, and there are vineyards throughout most of its length. Despite this, latitude plays a relatively small role in determining a vineyard's climate in much of California. The influence of the exceptionally cold California Ocean Current is much more crucial. North of Los Angeles (where most of the vineyards are located) the coast line of California is mountainous. These mountains shield much of the state from the cooling effect of the ocean; however, in areas that are affected, the cooling effect can be marked.

Cold air, often accompanied by fogs, is drawn in from the ocean in the evening, lowering night-time temperatures. In addition, the time it takes for the sun to burn off the fog in the morning means that the cooling influence extends well into the day. The cooling effect can be so dramatic in vineyards near the coast that, in some years, grapes can struggle to fully ripen. Where there are gaps in the mountains, the cooling effect can reach well inland. Valleys that lie at right angles to the ocean, such as those in Monterey and Santa Barbara Counties, act as funnels for the cold air.

By comparison, where there is no exposure to the ocean, such as in the Central Valley, the climate is hot.

The other factor that links all of California's wine regions is a lack of rain during the ripening season. Water shortages are a real concern and drip irrigation is widely practised. The scarcity of autumn rain has always allowed growers to leave the grapes on the vine long into the season. This extra 'hang time' results in very ripe grapes with very concentrated flavours and very high sugar levels. More recently, there has been a greater appreciation of freshness, and many growers are now picking slightly earlier.

GRAPE VARIETIES AND WINEMAKING

Black Varieties

Cabernet Sauvignon is the most widely planted black grape in California. Prime sites can produce extremely expressive wines that rival the quality of the best produced anywhere. Many of the wines are full-bodied, with very concentrated ripe cassis flavours and prominent spice aromas from new oak barrels. Some producers choose to make their Cabernet Sauvignon in a less rich style, with fresher blackcurrant flavours.



The fog that comes in from the Pacific Ocean plays a vital role in grape growing in many of the AVAs in California.



KEY

| |
|-------------|
| 4000 m+ |
| 2000–4000 m |
| 1000–2000 m |
| 500–1000 m |
| 200–500 m |
| 100–200 m |
| 0–100 m |



An air-conditioned barrel hall. Storing the barrels in racks makes it easier to select and move them.

Zinfandel is regarded as California's 'own' grape variety and it is made in a range of styles. It has a tendency to ripen unevenly, with the consequence that the harvested fruit can sometimes include both raisined and underripe grapes. The raisining can result in concentrated, full-bodied red wines with high alcohol levels, sometimes with small amounts of residual sugar. Flavours include red and black fruits, dried berries, and liquorice. Some can display a subtle herbaceous quality from underripe grapes. Large volumes of rosé Zinfandel are made from early-picked grapes. These wines, commonly referred to as White Zinfandel, are typically fruity, pale in colour, medium-sweet and low in alcohol.

Merlot is also widely planted, generally making approachable wines with soft tannins and ripe black fruit. San Joaquin in Central Valley has the largest plantings, making simple, inexpensive wines. Better-quality Merlots now come from cooler sites such as Monterey and the North Coast regions, especially Napa and Sonoma. These deeply coloured wines have soft, velvety tannins, a luscious body, high alcohol and classic varietal flavours of blackberry and plum.

Premium **Pinot Noir** can come from moderate regions such as Russian River Valley, Los Carneros and Santa Maria Valley. Styles range widely, according to the vineyard site and winemaking practices. Some are light in colour, with classic gamey and vegetal notes, although most show rich layers of ripe red fruit flavours (red cherry, strawberry) and notes of sweet spice from oak maturation.

Syrah is planted across the state and is typically made in a full-bodied, rich style. Some producers make leaner, more peppery styles.

White Varieties

Chardonnay is the most planted grape variety of either colour. Throughout the state, there is a wide variation of production styles: the inexpensive, high-volume wines from the Central Valley tend to be fruity with low to medium acidity and sometimes a toasty note from oak staves or chips. In the past, high-quality California Chardonnay had a reputation for being very full-bodied, high in alcohol and low in acidity, with obvious flavours of oak, hazelnut and butter underpinning the peach and banana fruit flavours. Today, there is a wide variety of premium Chardonnay being produced in the state, including restrained examples with less oak from cooler regions such as Los Carneros and Russian River Valley.

The best **Sauvignon Blanc** comes from California's coastal regions, giving wines with high acidity and ripe citrus flavours. Affordable, fruity, everyday wines come from warmer regions such as the Central Valley. The term Fumé Blanc is sometimes used to indicate an oaked style of Sauvignon Blanc, but some producers use this term for unoaked wines.

REGIONS AND WINES

The majority of California wine is produced primarily in the Central Valley where the soil is very fertile and

irrigation is used to increase yield. In the premium wine regions located primarily along California's coast, great attention is paid to managing quality in the vineyard and producing wines reflective of each area.

The principal vineyards of California are grouped into five regions, three of which contain the majority of the well-known County Appellations and AVAs. These three regions, North Coast, Central Coast and Central Valley, will be covered below.

NORTH COAST

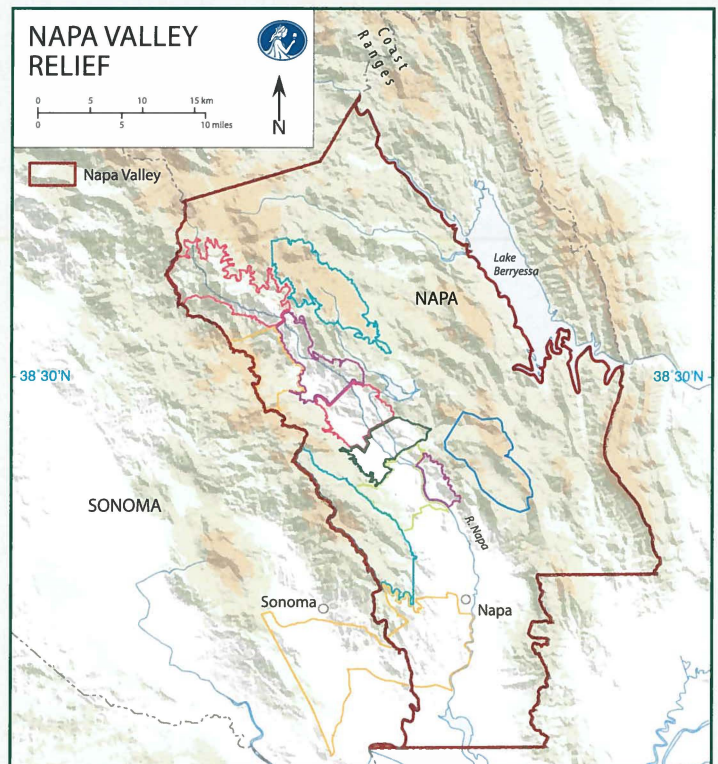
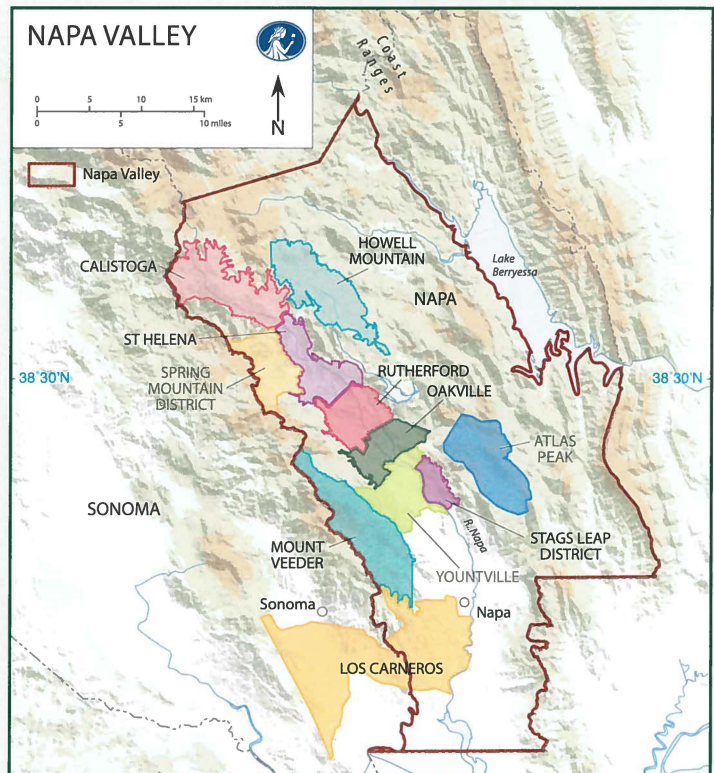
California's North Coast comprises the vineyards to the north of San Francisco Bay. The climate of the vineyards here is strongly influenced by the ocean, bringing fog and cool breezes that flow through the gaps in the coastal ranges and river valleys. This affects the average temperatures and diurnal temperature ranges that determine grape plantings.

Napa County

The **Napa Valley AVA** runs north to south for about 50 kilometres, but is only about 5 kilometres wide. It has the most expensive vineyard land and some of the most prestigious wineries of California. To the west, the Mayacamas Mountains form the boundary with Sonoma County. On its eastern side, the Vaca Mountains separate the Napa Valley from the northern part of the Central Valley. Vineyards are found on both the valley floor and on each valley side and are divided into a number of smaller AVAs.

The county is subject to a number of cooling influences, providing a diverse range of climates and leading to the production of a range of different wine styles.

The most significant influences are the morning fogs and cool afternoon breezes from San Pablo Bay (the northern extension of the San Francisco Bay) that moderate the temperatures of the vineyards to the south of the valley. **Los Carneros AVA** is the most southerly vineyard area on the valley floor and extends into Sonoma County. It is cool enough to be a source of high-quality Pinot Noir and Chardonnay, which are used to make still wines as well as traditional method sparkling wines. Moving north along the valley floor the climate becomes warm enough to ripen Cabernet Sauvignon and the AVAs of **Stags Leap District**, **Yountville**, **Oakville** and **Rutherford** are all principally renowned for making premium wines from this grape. With the least influence from the San Pablo Bay, Rutherford is the warmest during the day, and its red wines are often considered to have the most power and structure. Merlot is also widely planted throughout these AVAs, and Chardonnay and Sauvignon Blanc are the main white varieties, showing ripe tropical fruit flavours. In the north of the valley **Saint Helena AVA** and **Calistoga AVA** often receive the warmest daytime temperatures and can produce some of the most concentrated, full-bodied wines in the valley. Cool air



KEY



Vineyards in Los Carneros overlooking San Pablo Bay.



through the Chalk Hill gap in the Mayacamas Mountains can provide some relief from oppressive afternoon temperatures and much cooler night-time temperatures help to retain acidity in the grapes. Although Cabernet Sauvignon is the focus here too, Zinfandel and Syrah are also grown.

Many of the vineyards on the valley sides lie above the fog layer, and are instead cooled by their altitude. Aspect also has an important effect on vineyard climate. West facing vineyards such as those of **Howell Mountain AVA** and **Atlas Peak AVA** get full exposure to the hot afternoon sun, and therefore tend to be warmer than those facing east (**Diamond Mountain District AVA**, **Spring Mountain District AVA** and **Mount Veeder AVA**), giving fuller-bodied wines with higher alcohol levels. Overall the red wines of the valley sides tend to have greater levels of tannin, and less richness on the palate than those of the valley floor. Cabernet Sauvignon is the principal variety but Merlot, Cabernet Franc and Zinfandel are also grown depending on the location. Chardonnay is the main white variety and displays citrus and stone fruit with higher levels of acidity than those of the valley floor.

Sonoma and Mendocino Counties

Sonoma County is larger than Napa County, with a greater variety of climates. Due to a break in the coastal ranges (known as the Petaluma Gap) the **Russian River Valley AVA** has very cool, foggy conditions and is best known for high-quality, elegant Pinot Noirs and Chardonnays, as well as sparkling wines from the same grape varieties. The AVAs to the north of Russian River

Valley are perceptibly warmer. **Dry Creek Valley AVA** is planted densely both on its hillsides and its floor. The hillsides above the fog layer are home to high-quality old vine Zinfandels, whereas the valley floor vineyards are better suited to Sauvignon Blanc. Rhône varieties and Cabernet Sauvignon are also popular. **Alexander Valley AVA** is warmer still and its wines tend to be more fleshy and full-bodied than those of the other Sonoma AVAs. In particular, it has built a reputation for soft-textured, full-bodied Cabernet Sauvignons, but in addition a range of international varieties perform well.

To the west of these AVAs is the extensive **Sonoma Coast AVA**. The climate here is greatly influenced by the cold Pacific Ocean and the vineyards are often planted on south facing slopes to help maximise ripening.

Towards the south of Sonoma County, **Sonoma Valley AVA** runs parallel to Napa Valley. Similar to Napa Valley, it is cooled by the breezes and fogs from the San Pablo Bay. The region produces high-quality Chardonnays, but is also known for its old vine Zinfandels.

North of Sonoma County the large and very diverse region of **Mendocino County** includes the very cool **Anderson Valley AVA**, a source of grapes for aromatic white wines such as Riesling and Gewürztraminer, as well as sparkling wines. In comparison, the larger Mendocino AVA experiences much warmer, drier conditions, protected behind coastal hills that rise up to 900 metres. The wines here are full bodied with soft tannins and are often made from Cabernet Sauvignon, Zinfandel and Syrah.

CENTRAL COAST

Santa Cruz Mountains and Monterey

The **Santa Cruz Mountains AVA** is a diverse region in the north of the Central Coast that includes hillside locations with infertile soils. Some of California's most elegant Cabernet Sauvignons are produced in this moderate climate, as well as some high-quality Chardonnays and Pinot Noirs.

Monterey AVA, which follows the path of the Salinas Valley, is strongly influenced by the cold Pacific Ocean. Chardonnay and Pinot Noir have been heavily planted closer to the coast where strong cool winds blow in on a daily basis. Further along the valley the cool winds become less evident and Merlot, Cabernet Sauvignon and Syrah are grown. There are a number of AVAs on the slopes surrounding the Salinas Valley within Monterey County. In particular the Santa Lucia Highlands AVA is noted as a source of high-quality Chardonnay with citrus and tropical fruit flavours and balanced acidity.

San Luis Obispo and Santa Barbara Counties

San Luis Obispo and Santa Barbara Counties are located in the southern part of Central Coast. Here, the mountains lie east–west, rather than north–south, thus encouraging the flow of cool ocean breezes onto the mainland.

Paso Robles AVA in San Luis Obispo County has notable plantings of Cabernet Sauvignon, Merlot and Syrah. It has two distinct zones. The east experiences hot, sunny weather and has deep fertile soils producing supple fruity wines for high-volume brands. The west is cooled by marine air, and has gained a reputation for high-quality Zinfandel and Rhône varieties.

Further south the exposed coastal **Santa Maria Valley AVA** of Santa Barbara County is significantly cooler, and well suited to growing premium Pinot Noir and Chardonnay grapes. In low-lying areas fog can cover the vineyards during the day, encouraging a slow ripening process, and yielding wines with concentrated fruit flavours balanced by high acidity. Conditions are slightly warmer in the Santa Ynez Valley AVA, which produces red wines from both Syrah and Bordeaux varieties.



A large fan used for frost protection in Napa.

Sta. Rita Hills AVA in the far west of Santa Ynez is much cooler and strongly influenced by the ocean. Like Santa Maria Valley it specialises in Pinot Noir, backed up by Chardonnay and a number of aromatic varieties.

CENTRAL VALLEY

The vast Central Valley area encompasses the Sacramento and San Joaquin Valleys, and produces the vast majority of Californian wine, much of which is used in high-volume, inexpensive brands. The climate is mostly hot and dry and irrigation is widely practised. New grape varieties such as Rubired and Ruby Cabernet were bred in California to make the most of these conditions. Cabernet Sauvignon, Merlot and Chardonnay are widely planted as well as Colombard, Chenin Blanc and Barbera.

Lodi

The Lodi AVA straddles the Sacramento and San Joaquin Valleys, in the middle of the Central Valley. Although it is geographically within the Central Valley, the AVA lies east of the huge Sacramento Delta and thus benefits each day from the cooling breezes from San Francisco Bay. Most varieties are grown, but Lodi is also home to some of the oldest and best Zinfandel vineyards in the state.