Paragraph Level:

**Discover California Wine Regions**

California’s wine growing regions produces unique and diverse wines, with different flavors and characteristics being derived from the soil, climate and the winemakers that create them. Ranging from abundant sunshine to cool coastal air, plus a variety of soils and terrain, each region lends its own personal touch to the varietals grown there. A Chardonnay grown in the Central Valley can seem like an entirely differently grape when compared to a Chardonnay produced from Monterey grapes. This diversity means that within the state, there is a wine for every palate.

Every bottle of California wine on the market lists the geographical origin where the grapes were grown. In some cases it will be the state of California itself,  a county within the state, or a more specific growing region known as an American Viticultural Area, or AVA. For a wine to carry an AVA name on its label, at least 85% of the grapes must be grown in that AVA. If a county is listed on the label, that number is 75%. And any wine simply stating that it is from “California” indicates that 100% of the grapes are grown in the Golden State.

Within California there are more than one hundred AVA’s. An AVA is a geographical area recognized for grape growing that has distinguishable growing conditions, such as climate, soil, or elevation, that differ from surrounding areas. An AVA can be any size (there are no minimums or maximums) and may even cross state or county lines.  Many of us are familiar with the major wine growing regions such as Napa and Sonoma Valleys, but within each of these regions, there may be several AVA’s, both large and small. As we look at the state of California geographically, we’ll explore the major wine regions and the most important AVA’s in each region.

**The North Coast**

The North Coast is home to the grape regions that put California wine on the map and encompasses Napa, Sonoma, Mendocino, Lake, Solano, and Marin Counties. It’s a large wine growing region that is home to more than half of the state’s wineries and is also a designated AVA. Within this massive AVA, many smaller, highly regarded growing regions and AVA’s exist.

**Mendocino County**

Mendocino County is the northernmost growing area within the North Coast region. Foggy, cool and covered in redwood forests, Mendocino grows an abundance of Chardonnay, Cabernet Sauvignon, and Pinot Noir. However, because of the county’s diverse geography and climate, dozens of other varietals grow here ranging from more familiar varietals like Sauvignon Blanc and Syrah to more obscure like Colombard and Charbono. Mendocino County is home to 10 AVA’s with the most widely known being Anderson Valley (known for sparkling wines) and Mendocino AVA’s.

**Lake County**

Lake County, home to 5 AVA’s, sits just east of Mendocino and is named for the largest inland body of water in the state of California, Clear Lake. Lake County is known for its fine, affordable Cabernet Sauvignon and Sauvignon Blanc, but also produces quite a bit of Merlot and Chardonnay along with some other less common varietals.

**Sonoma County**

Sonoma County, home to 13 AVA’s and more than 500 wineries, grows more Pinot Noir than any other county in the state. Also found in abundance here are Chardonnay, Cabernet Sauvignon and Merlot with smaller, but still significant amount of Sauvignon Blanc and Zinfandel being produced.  Sonoma’s best AVA’s include the Russian River Valley, Los Carneros (which is also a part of Napa County), Alexander Valley, Dry Creek, Chalk Hill, and Knights Valley.

**Napa County**

Although easily the most famous wine region in California, Napa Valley produces just 4% of all California wine. It’s home to 16 AVA’s, 600 wineries, and arguably some of the best restaurants and finest wines in the country. Napa Valley’s most sought-after AVA’s include Carneros, Howell Mountain, Mount Veeder, Oakville, Rutherford, Stags Leap District, and Yountville. Napa is best known for Cabernet Sauvignon, but produces fine Chardonnay, Chenin Blanc, Merlot, Pinot Noir, Sauvignon Blanc, Riesling, and Zinfandel as well.

**Los Carneros**

Los Carneros, often simply called Carneros, is an AVA that straddles the county lines of Napa and Sonoma. Adjacent to the San Pablo Bay it’s an ideal growing region for Chardonnay and Pinot Noir and produces world-class sparkling wines from these varietals.

**The Central Coast**

The Central Coast covers a huge stretch of the California coastline and can be divided into two distinct growing regions, north and south. The north part of the Central Coast is home to the Livermore Valley, along with the Santa Cruz Mountains, Monterey, and Carmel Valley, among other smaller AVA’s. The north Central Coast region produces a wide variety of grapes with some areas favoring Pinot Noir and Chardonnay, others producing excellent Cabernet Sauvignon and Sauvignon Blanc, and still others planting varietals like Riesling, Viognier, and Gewurztraminer.

The southern part of the Central Coast stretches from Paso Robles in the north to the Santa Maria and Santa Ynez Valleys in the south. The grape varietals here range from the Rhone varietals, like Syrah, Grenache and Mourvedre, to Italian varietals like Barbera and Sangiovese, to Burgundian varietals of Pinot Noir and Chardonnay. You’ll also find the quintessential American grape, Zinfandel, grown here.

**The Northern Central Coast**

**Livermore Valley**

The Livermore Valley lies east of the San Francisco Bay and has been home to vineyards since the early 1880’s, when pioneer winemakers C. H. Wente and James Concannon first planted here. Both wineries are still in operation and still family run. While this region grows several different varietals, 80% of California Chardonnay can be genetically traced to the Livermore Valley.

**Monterey County**

Winemaking didn’t become serious business in Monterey County until the late 1950’s when urbanization in the Livermore and Santa Clara Valleys. Coupled with information released by UC Davis that cooler coastal climates would be ideal for producing fine wines, Monterey County winemaking was born. This region produces world class Pinot Noir and Chardonnay, but 40 other varietals thrive here as well. Notable AVA’s include Arroyo Seco, Carmel Valley, and Chalone.

**Santa Cruz Mountains**

The Santa Cruz Mountains is a magical combination of mountains, marine influence, unique micro-climates, and varied soils that produce fantastic California wines. Many varietals are grown here by an eclectic group of winemakers.

**The Southern Central Coast**

**San Luis Obispo County**

San Luis Obispo County has a variety of terrain and micro-climates that produce a diverse group of wines. From the damp, foggy hillsides of Arroyo Grande to the ocean breeze tempered Edna Valley, this area is known for its Rhône blends, heritage Zinfandels, Pinot Noirs and Chardonnays.

**Paso Robles**

One of California’s oldest wine growing regions with the first vineyards planted in the 1790’s. Paso’s rolling hills and valleys feel little of the coastal winds or marine fog, which has a considerable effect on grape-ripening. 80% of the wines produced here are red varietals, with the most notable being Rhone grapes, Zinfandel, Cabernet Sauvignon, and Merlot.

**Santa Barbara County**

This area was immortalized in 2004 by the film Sideways, which celebrated the area’s signature Pinot Noir. The most well-known AVA’s include the Santa Maria and Santa Ynez Valley’s and the Santa Rita Hills and produce top notch Chardonnay, Syrah, Riesling, Cabernet Sauvignon, Zinfandel, and of course, Pinot Noir.

**The Central Valley**

While California’s coast areas get the glory for producing some of the country’s finest wines, the Central Valley is the workhouse of California’s wine industry, producing some three-quarters of the state’s grapes.  This massive region encompasses Sacramento, Yolo, San Joaquin, Madera and Fresno counties and is often the source of wines simply labeled “California”.

**The Sierra Foothills**

Home to some of the state’s richest history, California’s quaint gold mining towns offer beautiful rolling hills, old vines and delicious wines. Amador County is the center of the wine making movement here and produces top quality zinfandel, Italian stars Barbera and Sangiovese, along with Rhone favorites like Syrah and Viognier.

**Southern California**

Southern California is beginning to expand its presence in the states wine profile with wineries in every county with the lower part of the state. A wide variety of grapes grow from the cooler coastal communities to the warm inland valleys, with Malibu, the Temecula Valley, and San Diego County producing some standout wines.

<https://weolive.com/discover-california-wines-regions/>

We hear of the conversion of water into wine at the marriage in Cana as of a miracle. But this conversion is, through the goodness of God, made every day before our eyes. Behold the rain which descends from heaven upon our vineyards, and which incorporates itself with the grapes, to be changed into wine; a constant proof that God loves us, and loves to see us happy.

~ *Benjamin Franklin*

Wine to me is passion. It's family and friends. It's warmth of heart and generosity of spirit. Wine is art. It's culture. It's the essence of civilization and the art of living.

~ *Rob ert Mondavi, Autobiography, "Harvests of Joy"*

Wine has been to me a firm friend and a wise counsellor. Wine has lit up for me the pages of literature, and revealed in life romance lurking in the commonplace. Wine has made me bold, but not foolish; has induced me to say silly things, but not do them. If such small indiscretions standing in the debit column of wine1s account were added up, they would amount to nothing in comparison with the vast accumulation on the credit side.

~ Duff Cooper, "Old Men Forget"

Wine is a living liquid containing no preservatives. Its life cycle comprises youth, maturity, old age, and death. When not treated with reasonable respect it will sicken and die.

~ Julia Child

When you ask one friend to dine, Give him your best wine!

When you ask two,

The second best will do!"

~ Henry Wadsworth Longfel1ow

The first written reference to Champagne was English, not French! In 1676, Etherege wrote in praise of "sparkling Champagne" which "Quickly recovers/ Poor laughing lovers,/ Makes us frolic and gay, / and drown all our sorrows." The use of the adjective "sparkling" implies that some time prior to this the wines of the Champagne district were not necessarily sparkling.

Bessie Braddock, a well-known socialist in England, attended a dinner party at which she was seated next to Winston Churchill who had had quite a bit to drink. She said to him, "Winston, you are drunk!" He replied, "Madame, I may be drunk, but you are ugly, and tomorrow I will be sober."

"Never buy the cheapest wine in any category, as its taste may discourage you from going on. The glass, corks, cartons, and labor are about the same for any wine, as are the ocean freight and taxes for imported wines. Consequently, if you spend a little more, you are likely to get a better wine, because the other costs remain fixed. Cheap wine will always be too expensive."

---Alex Bespaloff, New Signet Book of Wine, 1986

"Great news!" she said after speaking to our doctor. "I have it on the highest medical authority that you will still be alive in 10 years! You know what this means?" she asked. "Of course I know what it means," I replied. "It means we don't have to drink up all our 1985 and 1986 Chateau Latour at supper tonight for fear I might die with several outrageously priced wines undrunk. For the first time in years, we can g to bed sober."

--- based on Russell Baker, *New York Times,* 12 May 1990.

"Between 5/22/85 and 5/4/88, the French writer Jean-Paul Kauffmann was held chained and often blindfolded in a Beirut basement [by a] Shiite Muslim fundamentalist group. A lover of Bordeaux, Mr. Kauffman recited daily the list of the 61 greatest chateaux drawn up in 1855. He strove to conjure up the aroma of a Chateau Margaux or a Leoville­ Poyferre. Occasionally a small miracle would occur, and the scent of black currants and plum would permeate the dusty heat of Lebanon."

---­ Roger Cohen, "Ways of Doing Time," *New York Times,* 5/4/97.

"I know never to take a wine for granted. Drawing a cork is like attendance at a concert or at a play that one knows well, when there is all the uncertainty of no two performances ever being quite the same. That is why the French say, 'There are no good wines, only good bottles."'

--- Gerald Asher, *On Wine,* 1982.

"When men drink, then they are rich and successful and win lawsuits and are happy and help their friends. Quickly, bring me a beaker of wine, so that I may wet my mind and say something clever."

--­ Aristophanes, *The Knights,* 424 B. C. E.

Presenting the cork is wine nonsense, a ritual invented by captains and sommeliers. The wine snob doesn't resent ritual. There is infinite ritual in the etiquette of serving wine. But most of it at least hints at style or purpose. Placing an unsightly cork on the tablecloth hints at absurdity.

--- *The Official Guide to Wine Snobbery,* Leonard S. Bernstein, 1982.

"Writing in my sixty-fourth year, I can truthfully say that since I reached the age of discretion I have consistently drunk more than most people would say is good for me. Nor did I regret it. Wine has been for me a firm friend and a wise counselor. Often...wine has shown me matters in their true perspective, and has, as though by the touch of a magic wand, reduced great disasters to small inconveniences. Wine has lit up for me the pages of literature and revealed in life romance lurking in the commonplace. Wine has made me bold but not foolish; has induced me to say silly things but not to do them."

--- Duff Cooper, *Old Men Forget.*

"It seems to me that there are three things that have changed in the wine world. First, the wine rich got richer and the wine poor got poorer. By which I mean that wine prices have polarized beyond belief. Twenty years ago I drank the greatest wines of the world all the time. (I was a wine merchant and a restaurateur, and it was my job, darn it.)"

--- the late Lee Evans of Australia, 1996.

"Wine experts can't resist making predictions. In 1990, wine lover Richard Nixon prophesied that the Chinese would someday match the French in the quality of their wines; this despite a Chinese carte des vin that featured sweet red wine and a grape called Cow's Nipple. In the mid-1980s, a well-known New York wine merchant asserted that an $8 Cabernet from Chile was as good as Lafite, and auction prices would eventually reflect this little-known fact. Wine coolers too, as I recall, were expected to expose a vast new market to the pleasures of wine drinking The coolers bombed, [a nice bottle of Lafite will set you back $250 or

more], and Chilean cabernet is still mostly eight bucks."

--- Stephen Tanzer, Forbes, May 6, 1996

On drinking the wines of Bordeaux: "The French drink them young, so Socialist government won't take them. The English drink them old, so they can show their friends cobwebs and dusty bottles. The American drink them exactly when they are ready, because they don't know any better."

--- Anonymous

An urbane, middle-aged acquaintance who has discovered fine wine, is hurrying to make up for lost time. He wants to know everything before the sun sets today. "What periodicals should I buy?" he asks, reeling o a prospective subscription list that would drown the Library of Congress My acquaintance, who perhaps does not yet fully appreciate what he is up against, easily gets to the bottom of his wine glass, but he will never get to the bottom of what there is to know about wine.

--- Howard G. Goldberg, NY Times, October 7, 1987.

"In Europe we thought of wine as something as healthy and normal food and also a great giver of happiness and well-being and delight. Drinking wine was not a snobbism nor a sign of sophistication nor a cult; it was as natural as eating and to me as necessary."

--- Erne t Hemingway, *A Moveable Feast.*

"Champagne, if you are seeking the truth, is better than a lie detector. It encourages a man to be expansive, even reckless, while lie detectors are only a challenge to tell lies successfully."

--- Graham Greene

"Before Noah, men having only water to drink, could not find the truth. Accordingly they became abominably wicked, and they were justly exterminated by the water they loved to drink. This good man, Noah, having seen that all his contemporaries had perished by this unpleasant t drink, took a dislike to it; and G-d, to relieve his dryness, created the vine and revealed to him the art of making wine. By the aid of this liquid, he revealed more and more truth."

--- Attributed to Benjamin Franklin in *Bottled Wisdom,* compiled and edited by Mark Pollman, 1998

**Wine History:** Baron James Rothschild sent the famous composer Rossini (The Barber of Seville, William Tell, etc.) some splendid grapes from his hothouse. Rossini, in thanking him, wrote, "Although your grapes are superb, I don't like my win. e in capsules." Rothschild read this as an invitation to send him some of his celebrated Chateau-Lafite, which he did.

--- Lillie de Hergermann-Lindencrone, *In the Courts for Memory.*

"Mr. Tulkinghorn sits at one of the open windows, enjoying a bottle of old port. Though a hard-grained man, close, dry, and silent, he can enjoy old wine with the best. He has a priceless bin of port in some artful cell r under the Fields, which is one of his many secrets. When he dines alone in chambers, as he has dined today, and has his bit of fish and his steak or chicken brought in from the coffeehouse, he descends with a candle to the echoing regions below the deserted mansion, and, heralded by the remote reverberation of thundering doors, comes gravely back, encircled by an earthy atmosphere and carrying a bottle from which h pours a radiant nectar, two score and ten years old, that blushes in the glass to find itself so famous, and fills the whole room with the fragrance of southern grapes."

--- Charles Dickens, *Bleak House.*

"Name me any liquid except our own blood that flows more intimately and incessantly through the labyrinth of symbols we have conceived to make our status as human beings, from the rudest peasant festival to the mystery of the Eucharist. To take wine into our mouths is to savor a droplet of the river of human history."

--- Clifton Fadiman, *NY Times,* 3/8/87

**Types of White Wines**

**Chardonnay**

Chardonnay was the most popular white grape through the 1990's.

It can be made sparkling or still. Food pairings: a good choice for fish (even salmon) and chicken dishes.

**Sauvignon Blanc**

Food pairings: a versatile food wine for seafood, poultry, and salads.

Sauvignon blanc is grown in the Bordeaux region where it is blended with semillon

**Semillon**

Food pairings: Semillon goes with fish but there are many better matches. Serve dry Semillon with clams, mussels, or pasta salad. The wine varietal features distinct fig-like character. Sémillon is often blended with sauvignon blanc to delimit its strong berry-like flavors.

**Moscato**

The moscato variety belongs to the muscat family of grapes - and so do moscatel and muscat ottonel.

Food pairings: Moscato shows best on its own: without food but sweet wines will pair with dessert. Often sweet and always fruity, with a characteristic grapefruity and musky aroma.

**Pinot Grigio**

Food pairings: versatile

pinot grigio is planted extensively in the Venezia and Alto Adige regions of Italy.

Pairing with food is more difficult because Alsatian winemakers leave the grapes on the vine much longer. The perfume in Alsatian Pinot Gris makes it especially well suited for Thai or spicy Chinese cuisine.

**Gewürztraminer**

Food pairings: gewürztraminer is ideal for sipping. It can fit Asian food, pork and grilled sausages. Fruity flavors with aromas of rose petals, peaches, lychees, and allspice. A Gewürztraminer seems generally not as refreshing as other types of dry whites.

**Riesling**

Food pairings: dry versions go well with fish, chicken and pork dishes.

The crispiness of a Riesling works very well with tuna and salmon while the acidity level intermingles with the slight smokiness of the eel and cuts through the layers of spicier Japanese foods. Riesling wines are much lighter than Chardonnay wines. The aromas generally include fresh apples.

<http://frenchscout.com/types-of-white-wines>

**Types of Red Wines**

**Syrah (or Shiraz)**

Food pairings: meat (steak, beef, wild game, stews, etc.)

Syrah excels in California, in Australia, and in France’s Rhone Valley.

While shiraz is used to produce many average wines it can produce some of the world’s finest, deepest, and darkest reds with intense flavors and excellent longevity.

**Merlot**

Easy to drink. The softness of Merlot has made it an "introducing" wine for new red-wine drinkers Typical taste in varietal wine: typical scents include blackcherry, plums and herbal flavors. The Merlot type of wine is less tannic (rough) than Cabernet Sauvignon.

**Cabernet Sauvignon**

Food pairings: best with simply prepared red meat.

Widely accepted as one of the world’s best varieties. Typical taste in varietal wine: full-bodied, but firm and gripping when young. Cabernet sauvignon is planted wherever red wine grapes grow except in the Northern fringes such as Germany.

**Malbec**

Food pairings: all types of meat-based meals, foie gras. Argentine Malbec suits Mexican, Cajun, and Indian dishes, if you insist on having wine with such meals. Malbec’s characteristics vary greatly depending on where it is grown and how it is transformed. Generally it produces an easy-drinking style, well colored wine that tastes of plums, berries, and spice.

**Pinot Noir**

One of the noblest red wine grapes. Pinot noir is difficult to grow, rarely blended, with no roughness.

Food pairings: excellent with grilled salmon, chicken, lamb and Japanese dishes (notably sushi rolls).

The structure is delicate and fresh. The tannins are very soft; this is related to the low level of [polyphenols](http://frenchscout.com/polyphenols).

**Zinfandel**

Perhaps the world’s most versatile wine grape, making everything from blush wine (White Zinfandel), to rich, heavy reds.

Food pairings: very much depends on the freshness/heaviness of the wine; tomato-sauce pasta, pizza, and grilled and barbecued meats.

Typical taste in varietal wine: often a zesty flavor with berry and pepper.

**Sangiovese**

Food pairings: a good choice for Italian and other Mediterranean-style cuisines.

Districts: sangiovese produces the Chiantis of Italy’s Tuscany region and, of late, good wines from California.

Typical taste in varietal wine: the primary style is medium-bodied with fresh berry and plum flavors.

**Barbera**

Food pairings: barbera wines are versatile: they match many dishes, including tomato sauces.

Districts: another classic red of Italian origin. Widespread in California.

Typical taste in varietal wine: juicy black cherry and plum fruit, a silky texture and excellent acidity.

http://frenchscout.com/types-of-red-wine

**Wine Paragraphs**

1. Viticulture experienced one of the highest growths among agricultural commodities in terms of acreage and value over the past 30 years and is now a global multibillion-dollar enterprise (Brostrom and Brostrom, 2009; Daane et al., 2018). This growth is related to factors such as increased international trade, improved global incomes, changing policies, technological innovations in production, storage, and transportation, by-product processing and utilization leading to development of novel and healthy products, and greater awareness of the health benefits of foods rich in antioxidants like grapes.
2. Wine quality is often thought to be partially limited by the degree of grape uniformity at harvest. Thus, the ability to adjust vineyard conditions during each season may provide a new means of enhancing grape (and wine) quality. Even where conditions cannot be adequately adjusted to achieve across vineyard grape uniformity, PV can identify sections that are comparatively similar. Thus, where the financial returns are adequate, selectively harvesting small, uniform plots is possible. This can be done either by arranging the harvest date to conform to predetermined fruit quality, or by physical separation at harvest of the collected fruit, based on location. This option is now facilitated by GPS-directed movement of mechanical harvesters throughout the vineyard.
3. Viticulture and viticultural landscapes are among the oldest permanent cultivation systems on Earth and have been exported from the Mediterranean into all climatically suitable areas. These are predominantly the humid subtropics with winter rain and temperate latitudes with mild winters. Today, wine grows in California, Chile, South Africa, Southwest and South Australia, as well as many other similar places. During the millennia, growing and cultivation of grapevines and maturing wine have developed further—from the spicy and resinated, thickened syrup of ancient times, which was mixed with water for drinking, to the popular beverage of the Middle Ages, to the prosperity drink in the second half of the 20th century, and the predominantly mass-produced goods for the last 30 years.
4. In viticulture and winemaking there is a lot of discussion about different types of ripeness. A grape is either ripe or it isn’t, one might think. There are a number of terms thrown around about when grapes are ripe for making wine; these include physiological ripeness and phenolic ripeness.
5. Physiological ripeness refers to all the elements of ripeness of the grape berry. Elements include sugar and acid balance, key varietal flavor and aroma compounds and phenolic composition. Phenolic ripeness refers to the phenolic composition of grapes. It is widely accepted that the elements of ripeness often develop in an asynchronous manner. This means that grapes may achieve the target sugar ripeness but lack the varietal aroma or phenolic ripeness the grower or winemaker was seeking.
6. In cool climate viticulture, grapes attain ripeness in cool conditions at the end of the season (September or October in the Northern Hemisphere, March or April in the Southern Hemisphere). In warm climate viticulture, grapes ripen in the warmest part of the summer (July or August in the Northern Hemisphere, January or February in the Southern Hemisphere). Viticultural regions belonging to the first category are called 'alpha zones' by Jackson and Lombard (1993), while regions belonging to the second category are called 'beta zones'. Terroir expression, it is suggested, is obtained in cool ripening conditions and is accordingly high in alpha zones. In beta zones, it is similarly suggested that terroir expression is weak or nonexistent.
7. Grapes are one of the world's most popular fruit crops, with approximately 77.44 million metric tons of production in 2016 from 7.1 million ha of land dedicated to its cultivation. China, Italy, and the United States are the leading grape producers (FAO, 2016). California is the principal grape producer in the United States; it produced 6.73 million metric tons in 2016, accounting for 87% of total grape production in the nation.
8. About 10,000 vine varieties are available in the world. Of all grapes,13 varieties are grown in more than one-third of the world's vine area and 33 varieties in about 50% of the vine area. Some varieties which are grown in multiple countries are called international varieties. For example, Cabernet-Sauvignon is one of the most cultivated wine grapes in the world, covering > 5% world vine area (OIV, 2017). Many countries in the world are specialized in wine production, such as Italy, France, Spain, and Argentina, while a few countries, such as China, India, and Turkey, are more focused on table and dried grapes.
9. With regard to European sparkling wines, climatic conditions are extremely varied. For example, the climate of the Champagne region is cool, due to the influence of the Atlantic, coupled with continental influences. The average yearly temperature is 10 °C, rainfall exceeds 750 mm, and the average sun exposure is 1750 h/year. This equates to the most northerly limit of grape cultivation. In contrast, grape cultivation in the Cava region spans the area between the Mediterranean coastline and elevated regions, close to 800 m above sea level. The central region, at an altitude of 200–300 m, is where the largest vineyard hectarage is located. It provides a bright, sunny climate, with mild winters and summers that are not excessively hot. Rain fall is spread out throughout the year (∼ 540 mm/year).
10. The training system is also one of the crucial factors in obtaining high quality grapes and sparkling wine. Desirable traits control production, avoid fungal diseases, and permit mechanical harvesting. Although some vineyards still use traditional system, such as the gobelet, use vertical trellis training (VSP) systems, as well as Royat's spur pruning system, or Guyot's cane pruning, depending on the variety, terrain, and climate, are becoming increasingly preferred.
	1. For example, for Macabeo, used for the elaboration of sparkling Cava wines, Cordon Royat pruning is performed. It is a cordon trained, spur pruned system (two buds/spur), permitting a higher yield. In contrast, for Pinot Noir, Guyot pruning is performed (two canes forming an arch with four or five buds and a renewal spur). It involves the use of an overhead frame. Other varieties can use mixed pruning (Double Guyot, cane and spur). This type of pruning is applicable to Xare·lo, used in producing Cava D.O.

Source: <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/viticulture>