

TRAINING DAY 4



PINOT NOIR
NORTH AMERICAN PINOT NOIR
BEAUJOLAIS
OREGON
CABERNET FRANC
BORDEAUX
CABERNET SAUVIGNON
SOUTH AMERICA
WASHINGTON STATE

Winemaking in Burgundy enjoys a lengthy history, with Roman Empire records of production dating back to 200 AD. As early as the 6th century AD, vineyards at Gevrey, Vosne, Beaune, and Dijon were entrusted to early Christian monasteries. Most villages of Burgundy trace their modern origins to monastic orders, particularly the Cistercians, who steadily enlarged their vineyard holdings throughout the High Middle Ages. Today's vineyards in the Côte d'Or were generally converted to viticulture by the 12th century, as the monks began to discover the subtle variations in **terroir** that would form the basis of the modern appellation system in Burgundy.

By the mid-15th century, Burgundy wines had become a powerful symbol and an expensive export. The Valois Dukes, who ruled the region before it was annexed by France in 1477, ordered Gamay grapes to be ripped up in favor of the lower-yielding Pinot Noir. During this period, Nicolas Rolin, a nobleman in the Valois Court, founded the charity Hôtel-Dieu, which was the beneficiary of many donated vineyards in the following years. The **Hospices de Beaune** is today annually celebrated, auctioning off the wines procured from these accumulated vineyards for charity.

Some vineyards transitioned from ecclesiastical to private ownership in the centuries following the annexation of Burgundy by France, while others remained in the hands of clerics until the French Revolution. Nonetheless, nobleman and churchman alike saw their lands seized by 1791 as a result of the political upheaval. The Napoleonic Code was issued shortly thereafter, requiring inheritances to be split equally among heirs. This edict greatly fractured vineyard ownership over time, and laid the foundation for the current division of Burgundy holdings. Today's vineyards are a patchwork: the grand cru Clos Vougeot alone claims over 80 growers.

With fewer vines at their disposal, growers relied on **négociants**. The first houses appeared in the early 18th century and capitalized upon the ensuing fragmentation. *Négociants* were uniquely suited to the challenge of fractured vineyard ownership: they were able to purchase small, disparate lots of grapes or wine and combine them to make a commercially viable product. The growers themselves were often *bourgeoisie*, who leased the land in turn to farmers in **métayage** (sharecropping) or **fermage** (leasing) arrangements. Ultimately, *négociants* totally controlled the sale of Burgundy until the advent of domaine bottling in the 1930s.

Today, *négociants* are still a powerful force in Burgundy, but many domaines produce their own wines, often bottling a host of different wines in extremely limited amounts. One of Burgundy's most storied houses, Domaine de la Romanée-Conti, produces approximately 8,000 cases a year, spread throughout seven bottlings in most vintages. *Négociant* wines are generally less expensive than their domaine counterparts, but may lack excitement in comparison. On the other hand, *négociants* typically have more fruit at their disposal, and more options for correction in difficult vintages. Despite the maxim that domaines are inherently more expressive, lines in both quality and price blur: the Nuits-St-Georges *négociant* Maison Faiveley sources nearly 80% of its fruit from the family domaine, whereas newer *négociants* such as Remoissenet and Lucien le Moine are commanding domaine prices for miniscule output. Many very good houses, such as Domaine Leroy, Dujac, and Olivier Leflaive, offer both domaine and *négociant* production, often handled identically in the winery.

Pinot Noir is the dominant red grape of Burgundy. The red wines of the Côte d'Or and Côte Chalonnaise are usually solely comprised of Pinot Noir. The grape is subject to frequent mutation in the vineyard, and is extremely sensitive to yield pressures and subtle changes in soil.

Gamay is an important secondary grape of Burgundy, and is the foremost red grape in Beaujolais. Gamay contributes to the reds of Mâconnais, the "field blend" Bourgogne Passetoutgrains and the sparkling red Bourgogne Mousseux wines. Pinot Beurot (Pinot Gris) is permitted in many appellations as a minor grape for red blends, but is rarely encountered.

The Cote d'Or lies on a fault line composed of oolitic limestone and marl. In general, the marl-dominated soil produces better red wines, and the limestone-dominated soil produces better whites. This series of east-facing

slopes provides exceptional vineyard land on the broad slopes themselves, whereas the hilltops and flat land are less desirable for viticulture.

The split between Côte de Nuits and Côte de Beaune parallels a division in the wines. The Côte de Nuits is generally more suitable for red wines than whites, and contains all but one red grand cru. Conversely, the Côte de Beaune houses the great white wine villages of the Côte d'Or, and boasts all but one grand cru for whites. The two exceptions are Musigny and Corton, respectively. Both may produce grand cru wine of either color.

The Côte d'Or, including the Hautes-Côtes areas, covers less than a fourth of Burgundy's total acreage. More vineyard land is devoted to red grapes than white, and red wine production is nearly triple that of whites. Even the Côte de Beaune, home of Burgundy's greatest Chardonnays, produces less white than red wine.

Red Burgundy winemaking methods differ according to the producer, but the better wines are matured in oak barrels (the 228 liter *pièce*) for up to 18 months. The percentage of new oak varies greatly from one producer to another. Other winemaking decisions include de-stemming, pre-fermentation cold-soaking, and whether to employ a short, hot or long and cool fermentation. In the past, producers have generally elected not to de-stem their grapes and proceeded with whole-cluster fermentations to add tannin and body to the wines; today some producers de-stem entirely to promote softness in the wines. Cold-soaking the grapes prior to fermentation extracts added color, and temperature of fermentation can greatly affect the character of the wine. Finally, before bottling some producers will fine or filter the wine; others will choose to leave it in its natural state.

The Côte de Nuits stretches from the suburbs of Dijon in the north to the hamlet of Corgoloin in the south. This is Pinot Noir country, home to the grape's most celebrated interpretations. Village appellations for red wine include (from north to south) Marsannay, Fixin, Gevrey-Chambertin, Morey-St-Denis, Chambolle-Musigny, Vougeot, Vosne-Romanée, and Nuits-St-Georges. Of these, only Marsannay, Fixin, Morey-St-Denis, Vougeot and Nuits-St-Georges produce AOP white wine. The villages of Flagey-Echézeaux and Prémieux do not have their own AOPs, but may label their wines as Vosne-Romanée and Nuits-St-Georges, respectively. There are 24 grand cru vineyards in the Côte de Nuits. Of these, only Musigny grand cru wines may be white, and *blanc* production is currently limited to a single producer: Comte Georges de Vogüé.

Gevrey-Chambertin, just south of Fixin, is home to some of the Côte d'Or's greatest Pinot Noir vineyards, including the grand cru Chambertin and its namesakes, and top premier crus Clos St-Jacques, Lavaux St-Jacques and Les Cazetiers. With approximately 370 ha of Pinot Noir—including 50 ha in neighboring Brochon—Gevrey-Chambertin is the largest viticultural source in the Côte d'Or and home to the highest number of grand cru vineyards. However, there is a wide range in quality among the grand crus; second-tier grand crus, such as Charmes-Chambertin and Latricières-Chambertin, are often outperformed by Clos St-Jacques—an outstanding *climat* excluded from grand cru consideration in 1936. The wines of Gevrey, epitomized by Chambertin, are typically masculine, brooding, and impressively structured. Characterized by concentration and weight, classic examples show black fruits and deeper color than the corresponding wines of Vosne-Romanée and Chambolle-Musigny. Highly acclaimed estates based in Gevrey include Armand Rousseau, Claude Dugat, and Fourrier.

In contrast, the wines of Chambolle-Musigny are suffused with silky charm, emphasizing elegance over power. Wines, particularly those sourced from the grand crus Musigny and Bonnes Mares—the majority of which is located in Chambolle—and the premier cru Les Amoureuses, are marked by their delicate, pleasurable (even gulp-able!) character, yet they retain great intensity. Apart from highly regarded Georges de Vogüé, good estates include Barthod, Georges (and Christophe) Roumier, and Perrot-Minot. Morey-St-Denis is usually pigeonholed as a meeting-point between the two more pronounced styles, with elements of both. Nonetheless, the village boasts four grand cru vineyards, and contains the northern sliver of a fifth, Bonnes Mares. Dujac and Ponsot are among the commune's top addresses.

Further south, Clos de Vougeot, the largest grand cru in the Côte de Nuits, dominates the commune of Vougeot.

Completely enclosed by a wall dating to the 14th century, Clos de Vougeot is a ready target for critics, as its large size and sheer number of growers result in erratic quality. Both soil and slope change significantly throughout the vineyard, and the cru is divided into unofficial smaller *climats*, such as Grand Maupertuis, Petit Maupertuis and Musigni. As Clos de Vougeot accounts for over 80% of the commune's planted acreage, there is limited room for premier cru production, and only four exist: Clos de la Perrière, Les Petits Vougeot, Les Cras, and Le Clos Blanc. The grand crus of Vosne-Romanée vie with those of Chambolle and Gevrey for status as the Côte de Nuits' best examples of Pinot Noir. The best wines of the commune are models of precision and aristocratic finesse, yet they maintain richness. The grand crus themselves are generally of smaller size and production; La Romanée is the smallest AOP in all of France. Romanée Conti, monopole of the Domaine de la Romanée-Conti and the world's most expensive Pinot Noir, is nearly as tiny, although Richebourg and Romanée-St-Vivant, the only two grand crus in Vosne that have multiple owners, are larger in size. Consistently fine premier crus include Aux Malconsorts, Clos de Réas, Beaux Monts, and Cros Parantoux—a wine made famous by the late Henri Jayer, a pioneering (and galvanizing) winemaker who advocated softness, richness, color, and oak. His estate, now operated by his nephew Emmanuel Rouget, is a highly regarded house in Vosne. Romanée-Conti and Domaine Leroy are based in the commune, as are Michel Gros, Anne Gros, Jean Grivot, and Meó Camuzet—all in all, some of the more heralded names in red Burgundy.

The wines of Nuits-St-Georges, at their best, are sturdy and long-lived, yet they may be hard and angular in their youth. Those from the northern end of the commune (nearer Vosne-Romanée) tend to show a softer, fruitier character, whereas wines originating from the southern end (nearer Prémieux) are fuller and richer. Henri Gouges, Joseph Faiveley, Jean-Jacques Confuron, and Domaine de Perdrix are among the commune's stars. While Nuits-St-Georges has no current grand crus, some argue for the inclusion of the great premier cru vineyard Les Saint Georges. There is precedent: the last grand cru to be promoted was La Grande Rue in Vosne-Romanée, as recently as 1992.

Villages & Grand Cru Vineyards

- **Gevrey-Chambertin**
 - [Chambertin](#)
 - [Chambertin-Clos de Bèze](#)
 - [Charmes-Chambertin](#)
 - [Mazoyères Chambertin](#)
 - [Chapelle-Chambertin](#)
 - [Griotte-Chambertin](#)
 - [Latricières-Chambertin](#)
 - [Mazis-Chambertin](#)
 - [Ruchottes-Chambertin](#)
- **Morey-St-Denis**
 - [Clos St-Denis](#)
 - [Clos de la Roche](#)
 - [Clos de Tart](#) (monopole of Mommessin)
 - [Clos de Lambrays](#)
 - [Bonnes Mares](#) (divided between Morey-St-Denis and Chambolle-Musigny)
- **Chambolle-Musigny**
 - Bonnes Mares
 - [Musigny](#)
- **Vougeot**
 - [Clos de Vougeot](#)
- **Flagey-Echézeaux**
 - [Echézeaux](#)
 - [Grands-Echézeaux](#)

- **Vosne-Romanée**
 - [La Tâche](#) (monopole of DRC)
 - [Romanée-Conti](#) (monopole of DRC)
 - [La Romanée](#) (monopole of Liger-Belair)
 - [La Grande Rue](#) (monopole of François Lamarche)
 - [Richebourg](#)
 - [Romanée-St-Vivant](#)

The Côte de Beaune adjoins the southernmost edge of the Côte de Nuits and runs southward to the village of Cheilly-lès-Maranges. The impressive hill of Corton presides over the landscape of the northern Côte de Beaune. The villages of Aloxe-Corton, Ladoix-Serrigny, and Pernand-Vergelesses each lay claim to a portion of this huge grand cru vineyard. Between Corton, Corton-Charlemagne and Charlemagne, there are over 160 ha of grand cru land, and these appellations are subject to some of the same criticisms that dog Clos de Vougeot. Corton itself is predominantly planted with Pinot Noir, and is partitioned into many officially recognized *climats*. Some of these *climats*, such as Clos des Maréchaudes, share their names with premier cru vineyards down the slope; Les Paulands in Aloxe-Corton stretches from grand cru to premier cru to simple village AOP land at its lowest point. Only white wines are produced as Corton-Charlemagne AOP, a separate grand cru appellation on the hill of Corton. Charlemagne AOP is reserved for whites as well, but is rarely used: in 2008, 7 total hectoliters of wine were released under the appellation, approximately one quarter of the production of La Romanée. The Village and premier cru wines from the three surrounding communes are lighter in style, but can offer good value. The premier cru Ile de Vergelesses, Pernand-Vergelesses' namesake, is highly regarded.

Beaune, the commercial capital of the region, is a center of *fnégociant* activity—Joseph Drouhin, Bouchard Père et Fils, and Louis Jadot are headquartered here. While there are no grand crus, there is a multitude of premier cru sites (42) for both red and white wines. Les Marconnets, Grèves, Clos du Roi, and Clos des Mouches are among the commune's best vineyards. The Hospices du Beaune, annually celebrated on the third Sunday of November, auctions the holdings of both the Hôtel-Dieu and the Hospice de la Charité—58 ha of vineyard in total, split into dozens of cuvées, making the combined charity one of the larger landowners in the Côte d'Or.

The village AOPs of Pommard and Volnay are reserved for red wines, with Pommard generally showing a harder-edged, tannic structure to Volnay's softer fragrance and charm. After Corton, Pommard is usually the most full-bodied red wine of the Côte de Beaune. These wines can be every bit as rewarding and long-lived as the wines of the Côtes de Nuits, but they are often lighter and show less oak influence. Outstanding premier cru sources in Pommard include Les Rugiens (divided into Hauts and Bas sections) and the large Les Epenots—particularly the wines of Comte Armand's monopole Clos des Epeneaux, the central portion of the vineyard and one of the Côte de Beaune's best. Volnay's better premier crus include Taille Pieds, Les Caillerets, Clos des Chênes, and Marquis d'Angerville's monopole Clos des Ducs. Santenots is considered a premier cru of Volnay if planted with Pinot Noir, or a Meursault premier cru if planted with Chardonnay. Esteemed producers in Volnay include d'Angerville, Hubert de Montille, and Michel Lafarge.

South of Volnay is a trio of great white wine villages: Meursault, Puligny-Montrachet, and Chassagne-Montrachet. Although Meursault has no grand cru vineyards, its white wines are well regarded for their rich concentration and seductive texture. Often, Meursault wines will spend longer in cask than their counterparts in Puligny or Chassagne, rounding out acidity and deepening oak character. The best Meursault premier cru vineyards include Aux Perrières, Les Genevrières, and Les Charmes; top wines from these vineyards can approach grand cru quality. Coche-Dury, Guy Roulot, and Comtes Lafon are good sources. Beyond its premier crus, Meursault has a system of lieux-dits, or

“Deuxièmes crus”—named vineyards, such as Les Narvaux and Les Chevalières, that appear on labels but legally remain village wines. A neighboring village, Blagny, labels its white wines as Meursault-Blagny; Blagny AOP itself is reserved for red wines.

Puligny-Montrachet and Chassagne-Montrachet each lay claim to a portion of Le Montrachet, perhaps the world’s finest, most age-worthy example of Chardonnay—certainly the most expensive. While styles vary, Montrachet maintains a balance of richness and acidity and achieves more depth and body than any other white grand cru. Chevalier-Montrachet, located entirely in Puligny, is regarded as a close second in quality. Puligny-Montrachet wines in general are more taut than Meursault counterparts; focus and streamlined structure take the place of Meursault’s soft, round nature. The better premier crus include Les Pucelles, Les Damoiselles, Clavoillon, and Champs Canet; highly regarded producers include Domaine Leflaive and Louis Carillon.

Chassagne-Montrachet shares both Montrachet and Bâtard-Montrachet, a more variable grand cru, with Puligny. Criots-Bâtard-Montrachet, the smallest white wine grand cru in Burgundy, is wholly located within Chassagne. The commune produced more red than white wine through the mid-1980s, but the quality of its Chardonnay—similar in style to Puligny—now greatly eclipses that of the red wines. Les Chenevottes, Clos de la Maltroie, En Cailleret, Champsgain and Morgeot are among the better-known premier crus. Many critics champion the Ramonet estate as the commune’s best. All three villages—Chassagne, Puligny, and Meursault—may produce red or white wines at village or premier cru level.

Other village AOPs in Côte de Beaune include Chorey-lès-Beaune, Savigny-lès-Beaune, Auxey-Duresses, St-Romain, St-Aubin, Monthélie, Santenay, and Maranges. St-Romain and Chorey-lès-Beaune are the only two villages that are bereft of premier crus.

Villages and Grand Cru Vineyards

- **Aloxe-Corton, Ladoix-Serrigny, Pernand-Vergelesses**
 - [Corton](#)
 - [Corton-Charlemagne](#)
 - [Charlemagne](#)
- **Puligny-Montrachet**
 - [Montrachet](#) (shared between Puligny and Chassagne)
 - [Bâtard-Montrachet](#) (shared between Puligny and Chassagne)
 - [Chevalier-Montrachet](#)
 - [Bienvenues-Bâtard-Montrachet](#)
- **Chassagne-Montrachet**
 - Montrachet
 - Bâtard-Montrachet
 - [Criots-Bâtard-Montrachet](#)

THE COTE CHALONNAISE

The Côte Chalonnaise, or Région de Mercurey, lies within the Saône-et-Loire *département* between the Côte d’Or and Mâconnais. Vineyards in the region are not contiguous as they are in the Côte d’Or, occupying a series of undulating and scattered hillsides rather than one broad slope. The limestone soils are comparable to those further north. A slightly cooler, windier climate mandates a longer growing season, and the resulting later harvest is a drawback in cooler years. However, the region can produce whites and reds of great value in warmer vintages. While viticultural practices are in many ways identical to those of the Côte d’Or, new oak is a luxury many producers of the region cannot afford.

Although the Bourgogne Côte Chalonnaise AOP includes the rosé, white, and red wines of 44 communes, the five main villages of Bouzeron, Rully, Givry, Mercurey, and Montagny have their own appellations. Montagny and

Bouzeron produce exclusively white wine, whereas Rully, Givry and Mercurey may produce either white or red. The appellation of Bouzeron is the only village-level AOP in Burgundy for Aligoté—the sole grape authorized for the appellation. Bouzeron AOP is also the only commune appellation in the Côte Chalonnaise that does not permit premier cru bottlings. Prior to 2004, Montagny wines could be labeled premier cru if they exhibited a minimum 11.5% alcohol content; however, the commune's vineyards have since been divided between village and premier cru. Rully, a source of consistent Chardonnay, devotes more vineyards to production of Crémant de Bourgogne AOP sparkling wines than to its own still wines. Finally, both Givry and Mercurey produce far more red than white wine. Mercurey's output alone accounts for roughly two-thirds of the entire Côte Chalonnaise.

AOP Villages of the Côte Chalonnaise

- Bouzeron
- Rully
- Mercurey
- Givry
- Montagny

THE MACONNAIS

South of the Côte Chalonnaise, the Mâconnais is Burgundy's center for large-volume production of Chardonnay. The region's white wines are typically lean, high in acidity, and vinified in stainless steel. Only the best wines may see some percentage of new oak.

The regional appellation Mâcon AOP covers red, white and rosé wines. Reds and rosés are Gamay-based. Mâcon-Villages AOP wines are white and originate from one of 41 demarcated villages. If the wine is from a single village, the village name may be added in place of "Villages" on the label. Villages include Lugny, Charnay-lès-Mâcon, and Sologny.

Five separate village appellations exist for Pouilly-Fuissé, Pouilly-Loché, Pouilly-Vinzelles, St-Véran, and Viré-Clessé. Pouilly-Fuisse AOP includes the communes of Fuissé, Solutré-Pouilly, Vergisson, and Chaintré.

BEAUJOLAIS

Beaujolais—technically within the Rhône *département*—is considered a part of southern Burgundy, and sets the classic standard for Gamay wines. Beaujolais AOP wines may be red, white, or rosé. If planted prior to 2005, Aligoté may be utilized for Beaujolais blanc, but vintners must rely solely on Chardonnay to produce the wine in the future. Beaujolais Supérieur wines require a higher must weight and an additional half-degree of potential alcohol. 38 communes, including the northern cru villages, qualify for the superior "Beaujolais-Villages" designation.

While the southern sector of Beaujolais is flatter, with clay-based soils, the northern topography is marked by the granite hillsides of the craggy *monts de Beaujolais*. The resulting wines are riper, fuller-bodied and more complex. Within this northern region are the 10 crus of Beaujolais: St-Amour, Juliéna, Moulin-a-Vent, Chénas, Fleurie, Chiroubles, Morgon, Régnié, Brouilly, and Côte de Brouilly. Wines from the northern crus vary enormously in style, from the light, lithe, nearly ephemeral style produced in Chiroubles to the dark and surprisingly tannic wines of Moulin-à-Vent. The best wines from these 10 appellations may be ageworthy, and they represent one of the only real values in modern Burgundy. In 2011, when even Grand Cru appellations in the Côte d'Or witnessed a relaxing of regulations on maximum yields, vigneron in the crus of Beaujolais actually tightened their *rendement de base*, and throughout Beaujolais producers overwhelmingly continue the tradition of hand-harvesting. Unfortunately, the overall image of Beaujolais has been tarnished by the popularity of Beaujolais *nouveau* wines, released to less and less

fanfare on the 3rd Thursday of November, a few weeks after the harvest. The release of Beaujolais *nouveau* wines, first authorized in 1951, gained worldwide popularity by the 1970s and made a household name out of Georges Duboeuf, the region's largest producer. As a grape, Gamay easily lends itself to the fruity, fresh style of *nouveau*: the wines are pleasant, if never complex.

In Beaujolais, carbonic maceration and its variant, semi-carbonic maceration, are techniques used in the production of red wines. To induce carbonic maceration, a winemaker will seal whole clusters or whole berries of red grapes in a tank and pump in carbon dioxide. In the absence of oxygen, intact whole berries undergo a short intracellular fermentation, metabolizing individual stores of glucose and malic acid to produce alcohol and carbon dioxide without the aid of yeast. During carbonic maceration, tannins and anthocyanins move from the skins to the flesh of each grape, giving the juice color. The grape can develop an alcohol level of approximately 2% before it dies and the cellular activity ceases. The grapes may then rupture due to an internal build-up of carbon dioxide, or the winemaker may simply press the juice off the skins; either way, the wine ferments to dryness with the normal activity of yeast. Semi-carbonic maceration is more common in the region: in this technique, carbon dioxide is not added to the fermentation vat but produced naturally. Whole clusters at the bottom of the tank crush under the weight of those above and begin fermenting normally. As the carbon dioxide released by standard fermentation blankets the whole berries above, they begin to ferment internally. Certain tell-tale aromas—bubblegum, banana, or "pear-drop"—are often cited as evidence of carbonic maceration, yet it is more likely that these aromatics result from certain yeast strains or, simply, youthfulness. Regardless, wines produced with some degree of carbonic maceration are often fruity and highly floral, and tend to exhibit a softer tannic structure than those produced solely through the work of yeast. The semi-carbonic technique is favored among producers of Beaujolais *nouveau* as it tends to suppress the dominant yeast notes in an extremely young wine, but it is also implemented by many producers in the northern crus. In fact, carbonic maceration, once considered a phenomenon of Beaujolais, has been enthusiastically adopted in other areas of France (the Rhône and Loire Valleys), Spain, and even California.

Coteaux du Lyonnais AOP is perhaps an hour's drive south of Beaujolais and only a few minutes from Vienne in the Northern Rhône Valley, but its climate and wines have more in common with its northern neighbors than Côte Rôtie and Condrieu. Red and rosé wines are produced from Gamay; white wines contain Chardonnay, Aligoté, and Pinot Blanc. In the *bouchons* of Lyon—the capital of the Rhône *département*, France's third-largest city, and a well-known gastronomic destination—a glass of Gamay, slightly chilled, is often the perfect foil for traditional fare: andouillette sausages and *salade lyonnaise*.

Cru Villages of Beaujolais

- St-Amour
- Juliéna
- Chénas
- Moulin-a-Vent
- Fleurie
- Chiroubles
- Morgon
- Régnié
- Côte de Brouilly
- Brouilly

United States

By volume most Pinot noir in America is grown in California with Oregon coming in second. Other regions are the states of Washington, Michigan, and New York.

California wine regions known for producing Pinot noir are:

- Sonoma Coast
- Russian River Valley AVA

- Central Coast AVA
- Sta. Rita Hills
- Monterey County / Santa Lucia Highlands
- Santa Cruz Mountains AVA
- Carneros District of Napa and Sonoma
- Anderson Valley
- Livermore Valley
- San Luis Obispo County / Arroyo Grande Valley, Edna Valley

Oregon wine regions known for producing Pinot noir:

- Willamette Valley AVA

Although Oregon Pinot noir pioneer David Lett of Eyrie Vineyards is widely credited for first having planted Pinot noir in Oregon in 1965, Richard Sommers of Hillcrest Vineyards should be regarded as the first to plant and produce Pinot noir.[17] Sommers who graduated from UC Davis in the early 1950s brought Pinot Noir cuttings to Oregon's Umpqua Valley in 1959 and planted them at HillCrest Vineyard in 1961. These first Pinot Noir cuttings came from Louis Martinis Sr.'s Stanley Ranch located in the Carneros region of Napa Valley. The first commercial vintage from these grapes was the noted 1967 Pinot Noir although test bottlings were made as early as 1963.[*citation needed*] In the 1970s several other growers followed suit. In 1979, David Lett took his wines to a competition in Paris, known in English as the Wine Olympics, and they placed third among pinots. In a 1980 rematch arranged by French wine magnate Robert Drouhin, the Eyrie vintage improved to second place. The competition established Oregon as a world class Pinot noir producing region.

The Willamette Valley of Oregon is at the same latitude as the Burgundy region of France, and has a similar climate in which the finicky Pinot noir grapes thrive. In 1987, Drouhin purchased land in the Willamette Valley, and in 1989 built Domaine Drouhin Oregon, a state-of-the-art, gravity-fed winery. Throughout the 1980s, the Oregon wine industry blossomed.

OREGON

Oregon's Willamette Valley, which runs southward from the Columbia River and Portland for nearly 150 miles, is synonymous with quality Pinot Noir production. Fellow Californians Charles Coury, Dick Erath, and Dick Ponzi joined David Lett of Eyrie in the Willamette Valley in the late 1960s, seeking a more marginal climate for the grape. After Lett's 1975 South Block Reserve Pinot Noir achieved outstanding results in French competition, the Burgundy *négociant* Maison Joseph Drouhin purchased property adjacent to the Eyrie Vineyard in 1987, vindicating the up-and-coming region. Today, the valley's Pinot Noir wines are a steppingstone between California and the Côte d'Or: lighter in style and earthier than the former, riper and more forward than the latter. The mild, temperate, rainy climate of the valley invites further comparisons to the Burgundy, and vintages are more variable than in Sonoma or Santa Barbara. An effort to understand subtle site differences in the young region resulted in the creation of six sub-AVAs: Dundee Hills, Eola-Amity Hills, Ribbon Ridge, McMinnville, Yamhill-Carlton District, and Chehalem Mountains. Chehalem Mountains AVA contains the valley's highest-elevation vineyards. Soil structure in the Willamette Valley owes its origins to ancient volcanic activity and the Missoula Floods, a more recent period of intense flooding that coincided with the end of last ice age. These cataclysmic floods erupted periodically over thousands of years as glacial dams melted and refroze, depositing a wealth of alluvial soils, known as Willamette Silt, over older volcanic and sedimentary bedrock. Jory, a well-drained volcanic topsoil, characterizes the vineyards of the Dundee Hills AVA, whereas a fine loam, ash-covered soil known as Willakenzie dominates Ribbon Ridge. Willakenzie, in general, is renowned for a denser style of wine and darker fruit, whereas Jory soils provide more elegance. Beyond Pinot Noir, other prominent grapes in the valley include Pinot Gris—vinified in dry and off-dry styles—Chardonnay, Pinot Blanc, and Riesling.

While the Willamette Valley connects Portland in the north with Eugene, the Southern Oregon AVA stretches

southward from Eugene to the California border, encompassing the AVAs of Umpqua Valley, Rogue Valley, Applegate Valley, and Red Hills Douglas County. With the exception of the southern Walla Walla Valley, these appellations comprise the warmest, driest growing region in the state. A wide range of varieties is planted, including Syrah, Cabernet Sauvignon, Pinot Gris, Gewürztraminer and Chardonnay. Southern Oregon is still an underdeveloped wine region, lacking a nearby large market (i.e. Portland or San Francisco) to drive interest and investment. To the east of Portland, the Columbia Gorge, Columbia Valley, and Walla Walla Valley AVAs cross the Washington state line. The small Columbia Gorge AVA is centered in Oregon, whereas the giant Columbia River Valley AVA is primarily located in Washington. A single vineyard is planted on the Oregon side of Idaho's arid Snake River Valley AVA.

Varietal wines from Oregon, with the exception of white and red Bordeaux varieties, major Rhône grapes, Zinfandel, Sangiovese, Tannat and Tempranillo, must contain a minimum 90% of the stated varietal, rather than the standard 75%. Thus, Oregon Pinot Noir and Pinot Gris must be composed of a minimum 90% of the respective grape. Oregon also maintains stricter state laws for labeling by region: a wine labeled by an AVA within Oregon must contain a minimum 95% of grapes grown in the respective appellation, rather than the 85% mandated by federal law.

AVAs of Oregon

- Willamette Valley
 - Chehalem Mountains
 - Ribbon Ridge
 - Yamhill-Carlton District
 - Dundee Hills
 - McMinnville
 - Eola-Amity Hills
- Southern Oregon
 - Red Hills Douglas County
 - Umpqua Valley
 - Applegate Valley
 - Rogue Valley
- Columbia Valley (shared with Washington)
 - Columbia Gorge (shared with Washington)
 - Walla Walla Valley (shared with Washington)
- Snake River Valley (shared with Idaho)

CABERNET FRANC

Cabernet Franc, the most important red grape of the Anjou-Saumur and Touraine region, is a close relative of Cabernet Sauvignon. It ripens earlier than its more famous cousin, making it better suited to the cooler climate of the Loire. It probably originated in Bordeaux, where it is mainly used for blending, but it is so well suited to conditions in the Loire Valley that it stands alone in such famous wines as Chinon, Bourgueil and Saumur-Champigny.

Cabernet Franc, also called Breton locally, came to the region no later than the 14th century. It was praised by Rabelais, the great epicurean writer who was born near Chinon, and Cardinal Richelieu selected it for exclusive planting at St Nicolas de Bourgueil, where it has been grown ever since. It is only in recent years, however, that its particular affinity for the climate of the Loire Valley has been widely recognized and planting has increased markedly as a result. The success of Cabernet Franc in the Loire Valley has sparked interest elsewhere, and winemakers in cooler climates in the New World (notably in New York State) have planted the grape with very good results. However, as with Chenin Blanc and Sauvignon Blanc, international standards for Cabernet Franc are set in the Loire Valley.

Cabernet Franc can make lighter bodied, less tannic wines than many other red grapes and they are generally ready to drink soon after bottling. However, a reputation for refreshing, youthful wines should not obscure the fact that there are full bodied wines made from Cabernet Franc that are capable of aging magnificently over many years. In its youth Cabernet Franc has the aroma of red raspberries and cherries, but it develops more complex notes as it ages.

Fine old Cabernet Franc wines can, in the words of one Loire Valley winemaker, be reminiscent of the aromas of a forest after a rainstorm. Young Cabernet Franc is an ideal red wine for summer. It is sufficiently fruity that it can be refreshing when served slightly chilled, yet it has enough structure to stand up to the flavors of a barbecue. Older, bigger wines are delicious with roasted meats and are probably the ideal accompaniment to the traditional roast leg of lamb with flageolet beans.

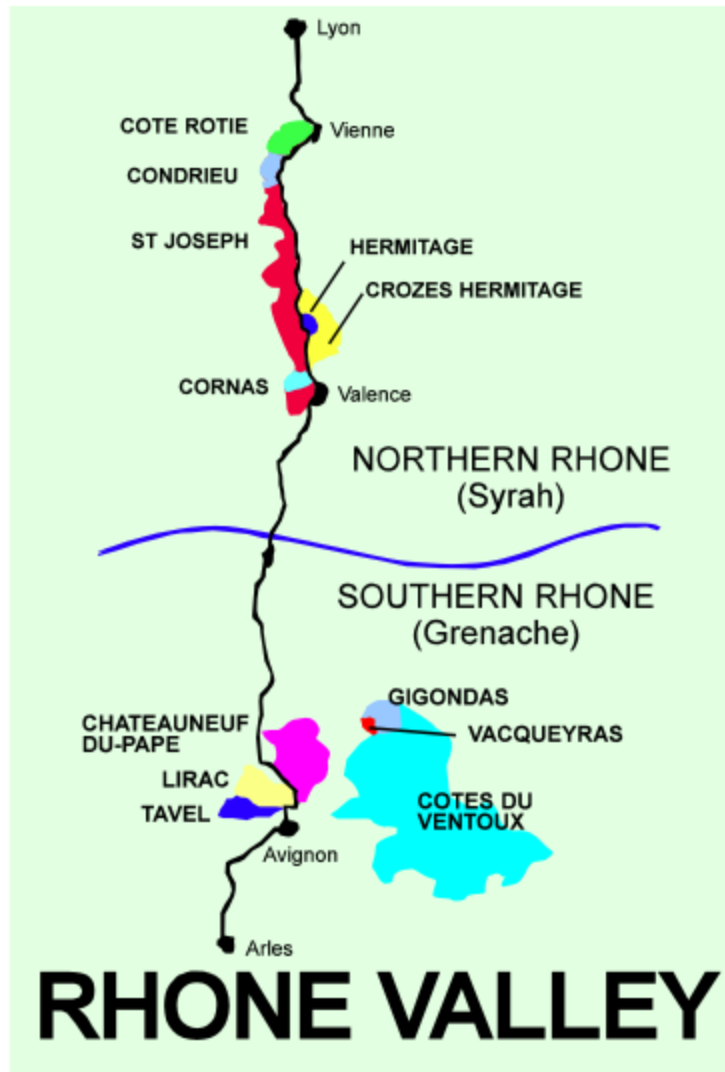
What follows is a list of style categories, and appellations, that feature Cabernet Franc:

Dry Rosé

- Bourgueil
- St Nicolas de Bourgueil
- Chinon

Earthy Red

- Saumur-Champigny
- Bourgueil
- Chinon



RHONE VALLEY

While the Rhône River is dotted with vineyards from its headwaters in Switzerland to its mouth on the French Mediterranean coast, the “Rhône Valley” properly refers to two clusters of appellations along the banks of the river in Southern France. The Northern Rhône, or *Rhône septentrionale*, occupies a narrow band of vineyards hugging the river just south of Beaujolais, from Vienne to Valence. The vineyards of the Southern Rhône, or *Rhône méridionale*, funnel outward south of Montélimar toward Avignon, near the river’s Mediterranean basin. While these two separate stretches are often considered collectively, the Northern and Southern Rhône are climatically and viticulturally distinct.

The Rhône Valley and its environs boast a long history of enological importance. The introduction of winemaking in France can be traced to the Greeks, who established vine cultivation at their Massalia settlement—modern-day Marseille—in approximately 600 BCE. The Northern Rhône’s picturesque, hallmark terraces were first constructed by Roman workers.

Winemaking continued in the Rhône Valley after the fall of Rome, but the trade of wine declined greatly during the Dark Ages. As in Burgundy, the Catholic Church was primarily responsible for reviving the culture of the vine in the ninth century. In 1309, the Southern Rhône suddenly became the center of Christian Europe as Pope Clement V moved his court from Rome to Avignon. His successor, Pope John XXII, began construction of the now-ruined summer papal palace—Châteauneuf-du-Pape—and planted the surrounding vineyards. The Roman Catholic Popes presided in Avignon until 1378, and Châteauneuf-du-Pape remained property of the papacy until 1791. However, the wine sourced from the papal vineyards—*vin d'Avignon*—was not bottled as “Châteauneuf-du-Pape” until the 19th century.

In the 17th century traders carried Rhône wines to the Loire Valley, and by the 18th they were being exported via the Loire to England. The “manly” wines of Hermitage were amongst the most famous in France in the 18th and 19th centuries, and many merchants of Bordeaux blended it with their own reds to strengthen the wines. The Southern Rhône was the first quality region in France to be struck by phylloxera when it first appeared in 1863. As wine fraud took hold in France during the decades of grafting and replanting following the epidemic, the growers of Châteauneuf-du-Pape prepared and imposed a set of rules for production. These rules became the prototype for the Appellation Contrôlée system, and in 1936 Châteauneuf-du-Pape became the first AOC (now AOP) in France. In the late 20th century, the wines were often overlooked in favor of Burgundy and Bordeaux; today, they are achieving critical acclaim and a renewed public interest.

While the Southern Rhône’s climate is firmly Mediterranean, the Northern Rhône is more continental. Some 75 miles north of Avignon, the Northern Rhône benefits from its southerly position but experiences greater seasonal temperature shifts, more rainfall, and fewer annual hours of sunshine than the southern appellations. The cold, dry Mistral wind, a defining climatic element of the Southern Rhône and Provence, blows down from the Massif Central and affects the Northern Rhône in winter and spring. Although the wind is strong enough to strip the vines—many trees in the valley grow leaning southward, bent by the wind—it dries the vineyards, preventing mold and mildew from taking hold. Heat-retaining granitic and schistous soils define much of the North: the steeply sloped vineyards of Côte-Rôtie, Condrieu and Hermitage are carved out of this bedrock.

In the Northern Rhône, the Syrah grape achieves its classic status. The wines are full-bodied, firm, savory, and manifest a host of signature secondary aromas including smoke, grilled meat, olive, lavender, and peppercorn. The wines are typically fermented and aged in large oak foudres, although some producers are now experimenting with new *barriques*. There are five appellations for syrah: Hermitage AOP, Crozes-Hermitage AOP, Cornas AOP, Côte-Rôtie AOP, and St-Joseph AOP. In Cornas, Syrah is bottled as a 100% varietal wine. The other appellations allow a small percentage of white grapes to be blended—and often fermented together—with the Syrah grape. In Côte-Rôtie, up to 20% Viognier may be added. In Crozes-Hermitage and Hermitage, producers have the option of adding a combined total of 15% Marsanne and Roussanne. St-Joseph producers may add up to 10% Marsanne and Roussanne. Co-fermentation offers the almost counterintuitive advantage of stabilizing red wine color and moderating tannin extraction. Generally, a smaller percentage of white grapes than the allowable maximums are used, if at all.

Côte-Rôtie, the northernmost appellation in the Northern Rhône Valley, is home to some of France’s steepest vineyards. On parts of the slope, the gradient is a precipitous 55° or more. Côte-Rôtie, the “roasted slope”, rises up a southeasterly aspect behind the riverside town of Ampuis, home to E. Guigal, the largest producer in the appellation. While Côte-Rôtie has grown to include other communes, the two slopes nearest Ampuis—the Côte Brune and Côte Blonde—are considered the heart of the appellation’s terroir. The wines derived from these two hillsides are said to mirror their feminine namesakes: Côte Blonde yields softer, alluring wines whereas the wines of Côte Brune are stronger and more assertive. La Landonne, a cru bottled as a vineyard designate by Guigal, René Rostaing and others, fetches prices that can equal those commanded by the first growths of Bordeaux. Rising up from the village of Tain-l’Hermitage, the south-facing hill of Hermitage produces equally compelling Syrah. Four major producers dominate the terraced hill: the singular Jean-Louis Chave and the négociants Delas, M.

Chapoutier and Jaboulet. “La Chapelle”, Jaboulet’s premier wine, is named for a small hillside chapel that stands in commemoration of Gaspard de Stérimberg, the legendary Crusader-turned-hermit who lived a life of asceticism atop the hill. The chapel is located within the *climat* of L’Hermitage. Other important *climats* of Hermitage include le Méal, les Bessards, Gréffieux, Beaume and Péléat. Behind the hill of Hermitage are the vineyards of Crozes-Hermitage. The red wines of Crozes-Hermitage are generally lighter and less ageworthy, although the better wines can approach Hermitage in quality.

In Cornas, the Syrah wines are traditionally rustic, impenetrable in their youth and slow to develop in the bottle. The vineyards of Cornas are amongst the warmest in the Northern Rhône. The sun’s warmth is magnified by the naked granite soil (*gore*) in the vineyards, and the appellation is shielded from *le mistral*. The land is divided among four quarters, or *lieux-dits*: Les Reynards, La Côte, Les Chaillot, and Les Mazards. At just over 100 hectares of planted land, Cornas is physically the smallest red wine appellation of the Northern Rhône, although Hermitage produces less wine. Auguste Clape has long been considered the standard-bearer for the traditional wines of the appellation, eschewing destemming for whole cluster fermentation and new oak *barriques* for the old *demi-muids* of the region.

North of Cornas, St-Joseph produces variable wines. The appellation’s borders have been greatly enlarged from the original delimited area near the commune of Tournon-sur-Rhône, opposite the hill of Hermitage. Today the AOP extends through Condrieu in the north to St-Péray in the south. Along with Crozes-Hermitage, St-Joseph provides a basic level of quality in the Northern Rhône.

Cornas and Côte-Rôtie may produce only red wine; St-Joseph, Crozes-Hermitage and Hermitage also produce small amounts of white wines, from the Marsanne and Roussanne grapes. Near Valence, the cool St-Péray AOP exclusively produces Marsanne and Roussanne wines, which may be made in *méthode traditionnelle mousseux* style. Often but not always blended, the more delicate Roussanne adds acidity and waxy minerality to Marsanne’s broader, oily texture and marzipan character. In Hermitage, producers have the traditional option of drying either grape for the rare dessert wine *vin de paille*, a style revived by Gérard Chave in the 1970s and more recently by Chapoutier.

Northern Rhône Appellations

- Côte-Rôtie
- St-Joseph
- Hermitage
- Crozes-Hermitage
- Cornas
- Condrieu
- Château Grillet
- St-Péray
- Crémant de Die
- Clairette de Die
- Coteaux de Die
- Châtillon-en-Diois

The Southern Rhône accounts for about 95% of all wine produced in the Rhône Valley and it is overwhelmingly devoted to red wine. Unlike the Northern Rhône, wines from the southern appellations are generally blends. Grenache—a Spanish import—is the most-planted red grape, offering richness of body, sweet fruit, and warmth. Mourvèdre and Syrah constitute a significant percentage of plantings, adding structure and depth of color to the blend. Cinsault provides finesse and freshness, and is often utilized for rosé wines as well. Carignan is the last major red grape of the Southern Rhône, but acreage is on the decline.

The climate of the Southern Rhône is distinctly Mediterranean; the landscape shifts to become rugged *garrigue* scrubland. The Mistral blows fiercely across the flat southern valley, requiring many growers to plant their vines at an angle, so that the wind might blow them upright over time. Hot summers are tempered by significant diurnal swings, and mild winters follow usually heavy autumnal rains. A wealth of alluvial soils exists in the Southern Rhône, deposited over limestone subsoil in the river's course. Sand, gravel, and clay have been left in the river's wake, and larger stones have been dumped in the valley's mounds by post-ice age glacial melt. In Châteauneuf-du-Pape, these deposited "pudding stones" are called *galets*. Made of quartzite and smoothed by the river, the *galets* serve to store heat, releasing it to warm the vines at night.

Châteauneuf-du-Pape AOP offers red and white wines, and is the premier southern appellation. With thirteen accepted varieties, Châteauneuf-du-Pape embodies the Southern Rhône's blending philosophy. While Grenache is generally the principal variety in red wines from the appellation, Château de Beaucastel Rouge is dominated by Mourvèdre and is famously produced from a blend of every authorized variety. On the other end of the spectrum, Château Rayas often releases their Châteauneuf-du-Pape Rouge as a 100% varietal Grenache. Regardless of the individual producer's *encépagement* and *assemblage*, the red wines generally show more ripeness, richness, and alcohol than their northern counterparts. At 12.5%, the required minimum potential alcoholic strength is the highest in France for dry AOP wines, and can result in surprisingly high-alcohol wines, reaching 15% or more in some producers' top-end *cuvées*. Additionally, AOP regulations mandate that producers declassify or discard at least 2% of harvested grapes (*le rapé*), a process that serves as a safeguard against under-ripeness.

Château La Nerthe released the first estate-bottled Châteauneuf-du-Pape in 1785. Today, a papal crest embossed on the shoulder of the bottle marks all estate-bottled wines from the appellation. Knowledge of a producer's individual style is key, as so many elements contribute to the character of the final wine. The appellation's size is a factor: in comparison to Cornas' 100 hectares, Châteauneuf-du-Pape has over 3000. Thus, the soil of the appellation is vastly varied beyond the iconic *galets*; distinct pockets of alluvial sediment exist for gravel, calcareous clay, and sand. Traditional producers tend to use old oak *foudres* for extended aging, and some may even bottle a vintage from cask as it is sold, creating great variation in individual bottlings of the same wine. Carbonic maceration, *barrique* aging and new vinification techniques allow experimentation. In addition, each producer's *assemblage* is critical to the style. While the appellation's regulations predate every other region in France, Châteauneuf-du-Pape is just beginning to modernize itself and explore its viticultural diversity.

The Grapes of Châteauneuf-du-Pape

- Grenache (Noir/Blanc/Gris)
- Mourvèdre
- Syrah
- Cinsault
- Counoise
- Picpoul (Noir/Blanc/Gris)
- Terret Noir
- Bourboulenc
- Clairette/Clairette Rosé
- Roussanne
- Vaccarèse
- Picardan
- Muscardin

While Châteauneuf-du-Pape is the most prestigious appellation, Côtes du Rhône AOP is the Southern Rhône's largest appellation and the base designation for wines from the entire Rhône Valley. While the Northern Rhône may

release its generic Syrah-based blended wines as Côtes du Rhône, the wines issue overwhelmingly from the south, where Grenache is the principal component. Over two-thirds of the Rhône Valley's wines are released as Côtes du Rhône AOP. Most of the wine is red, although whites and rosés are allowed. Côtes du Rhône-Villages AOP is a superior designation for red, white and rosé wine from a delimited area within the Southern Rhône. With the upgrade of Rasteau's dry reds to AOP status in 2010, 17 communes may append their names to the appellation. Grenache, Mourvèdre, and Syrah are the principal red grapes for Côtes du Rhône-Villages.

Côtes du Rhône-Villages Geographic Designations

- Cairanne
- Chusclan
- Laudun
- Massif d'Uchaux
- Plan de Dieu
- Puyméras
- Roaix
- Rochegude
- Rousset les vignes
- Sablet
- St-Gervais
- St-Maurice
- St-Pantaleon-les-vignes
- Séguret
- Signargues
- Valréas
- Visan

Several former Côtes du Rhône-Villages communes have been awarded distinct appellations. In 1971, the Gigondas AOP was created for red and rosé wines sourced from the commune's red clay alluvial soils. The red wines contain a minimum 50% Grenache, typically blended with smaller proportions of Syrah and Mourvèdre. Other Rhône grape varieties—excluding Carignan—are permitted to be present as a maximum 10% of plantings in the Gigondas vineyard. The wines are similar in style to Châteauneuf-du-Pape and can offer great value. In 1990, Vacqueyras AOP joined Gigondas as the second former Côtes du Rhône village to be promoted to full appellation status. The rustic Vacqueyras wines are usually red, although a small amount of white and rosé wine is produced. A minimum 50% Grenache is required for the red wines. Beaugues-de-Venise AOP and Vinsobres AOP joined the other appellations in 2005 and 2006, respectively, producing red wines based on a minimum 50% Grenache. All four appellations share Châteauneuf-du-Pape's 12.5% minimum potential alcohol requirement for red wines.

On the western shore of the Rhône, opposite Châteauneuf-du-Pape, is Lirac AOP. Spread over four communes, the wines can be very similar to the Côtes du Rhône-Villages wines, and are made in red, white, and rosé versions. Grenache Noir and Blanc are prevalent in Lirac, although the white wines may see a significant proportion of Clairette and Bourboulenc added. Despite its sandier soils, the commune of Lirac in 1863 unwittingly served as France's doorway to the phylloxera incursion. Just south of Lirac, the Tavel AOP is the only communal appellation in France exclusively dedicated to rosé wines. Tavel has long been regarded as the premier French rosé appellation, although its reputation for age worthiness is often exaggerated. The wines are based on Grenache and made in a dry style.

Other appellations of the Southern Rhône include Luberon AOP, Ventoux AOP, Côtes du Vivarais AOP, and the outlying Pierrevet AOP, north of Provence. Each of these regional appellations produces red, white, and rosé wines from a large complement of Rhône varietals. To the west, Costières de Nîmes AOP adjoins the regions of the Southern Rhône Valley, Provence, and Languedoc. Formerly considered an appellation of Languedoc, INAO authorities transferred oversight of the Costières de Nîmes AOP to officials in the Rhône Valley in 2004. Wines of all

three colors are made. Clairette de Bellegarde AOP, a single-commune appellation within Costières de Nîmes, produces white wines from the Clairette grape.

Appellations of the Southern Rhône

- Côtes du Rhône
- Côtes du Rhône-Villages
- Gigondas
- Vacqueyras
- Vinsobres
- Beauges-de-Venise
- Rasteau
- Châteauneuf-du-Pape
- Lirac
- Tavel
- Muscat de Beauges-de-Venise
- Grignan-les-Adhémar
- Côtes du Vivarais
- Luberon
- Ventoux
- Pierrevert
- Costières de Nîmes
- Clairette de Bellegarde

Provence, the birthplace of French wine, lies to the east of the Rhône basin on the sun-drenched Mediterranean coast. Steeped in rich culinary tradition and flooded with tourists, the region finds a ready audience for its pale-hued, dry rosés. Côtes de Provence AOP, under which three-quarters of Provençal wine is bottled, is dedicated to rosé production. While red and white wine is made, rosés account for over 75% of the appellation's output. The rosés must be blended from at least two varieties; they are given color through a short period of skin contact, *saignage*, or—in the case of the palest of wines—immediate pressing of whole grapes. Blending of white and red wines is not an approved method for still rosé production here or elsewhere in France. Cinsault, Grenache, Mourvèdre, Syrah, and the local, *garrigue*-scented Tibouren represent the bulk of both red and rosé blends. While many rosés may be bottled in a traditional, hourglass-shaped *skittle* bottle, this is not necessarily a mark of quality.

Although Provençal rosé occupies the public imagination, the red wines of Bandol AOP are the true stars of the region. Bandol produces rosés and Clairette-based whites, but the red blends harbor the most potential. Bandol is the only appellation in France to require focus on the Mourvèdre grape: a minimum 50% is blended with Grenache, Cinsault, and—to a lesser extent—Syrah and Carignan. The resulting wines are full-bodied, plummy, dense, and often show an animal character. The wines must spend 18 months in oak prior to release, and often need years in the bottle to demonstrate their full potential. Domaine Tempier, Château de Pibarnon and Château Pradeaux are excellent sources.

The island of Corsica (Corsica) has long been a steady contributor to Europe's surplus wine lake, although many of the island's lowest quality vineyards have been uprooted. More productive vines, such as Carignan and Alicante

Bouschet, have been torn out in favor of higher quality grapes. Nielluccio (a variant of Sangiovese), Sciacarello and Vermentino are indigenous to the island, demonstrating Corsica's close connection to Italy. Nielluccio and Sciacarello are blended with Grenache, Barbarossa, and a host of Rhône grapes for the red and rosé wines of the generic, island-wide Vin de Corse AOP. White Vin de Corse wines are blends of Vermentino and Ugni Blanc. Ajaccio AOP and Patrimoine AOP are the island's two communal appellations. Muscat du Cap Corse AOP wines are *vin doux naturel*.

Appellations of Provence

- Côtes de Provence
- Coteaux d'Aix-en-Provence
- Les Baux de Provence
- Coteaux Varois en Provence
- Bandol
- Bellet
- Cassis
- Palette

Appellations of Corsica

- Vin de Corse
- Muscat du Cap Corse
- Patrimoine
- Ajaccio

On the southern coast of France, Languedoc stretches in a crescent shape between Provence to the east and Roussillon to the south. Gaillac and the other regions of Southwestern France lie due west of Languedoc. The vine has always flourished in the Mediterranean climate of Languedoc, but wine quality has surged in the area only recently. When considered collectively, Languedoc-Roussillon has more acres planted to the vine than any other winegrowing region in the world, and is the only region in France to surpass Bordeaux in plantings. In 2006, when France recorded a production total of approximately 56 million hectoliters, Languedoc-Roussillon contributed 16 million hectoliters—nearly 30% of the national total. While Languedoc-Roussillon plantings—particularly those that do not qualify for anything beyond basic *Vin de France*—are on the decline, the region is still responsible for a large percentage of Europe's low-end wine surplus.

Many of the quality appellations are clustered within the western side of Languedoc. Fitou is one of the region's oldest appellations, dating to 1948. The Fitou AOP is divided into two distinct, noncontiguous sectors: Fitou Maritime and Fitou Montagneux. The wines are red blends, usually dominated by Carignan. Both sectors of Fitou are embedded within the larger Corbières AOP, which produces reds, rosés, and a small amount of whites from extremely varied soils and microclimates. One subzone, Corbières-Boutenac, has achieved full appellation status for Carignan-based red wines. North of Corbières is Minervois AOP, a designation for red, white and rosé wine. Like Corbières, Minervois is divided into several distinct subzones. The center of the appellation, Minervois-La Livinière, received its own appellation in 1999 for red wines.

The eastern half of Languedoc is dominated by the regional appellation Languedoc AOP. Formerly Coteaux du Languedoc AOC, this appellation encompasses all of Languedoc-Roussillon, extending from the Spanish border to the city of Nîmes. Languedoc AOP covers the production of red, rosé and white wine, and currently encompasses sixteen sub-appellations: Terrasses du Larzac, La Clape and Pic-St-Loup are among the most prominent. The

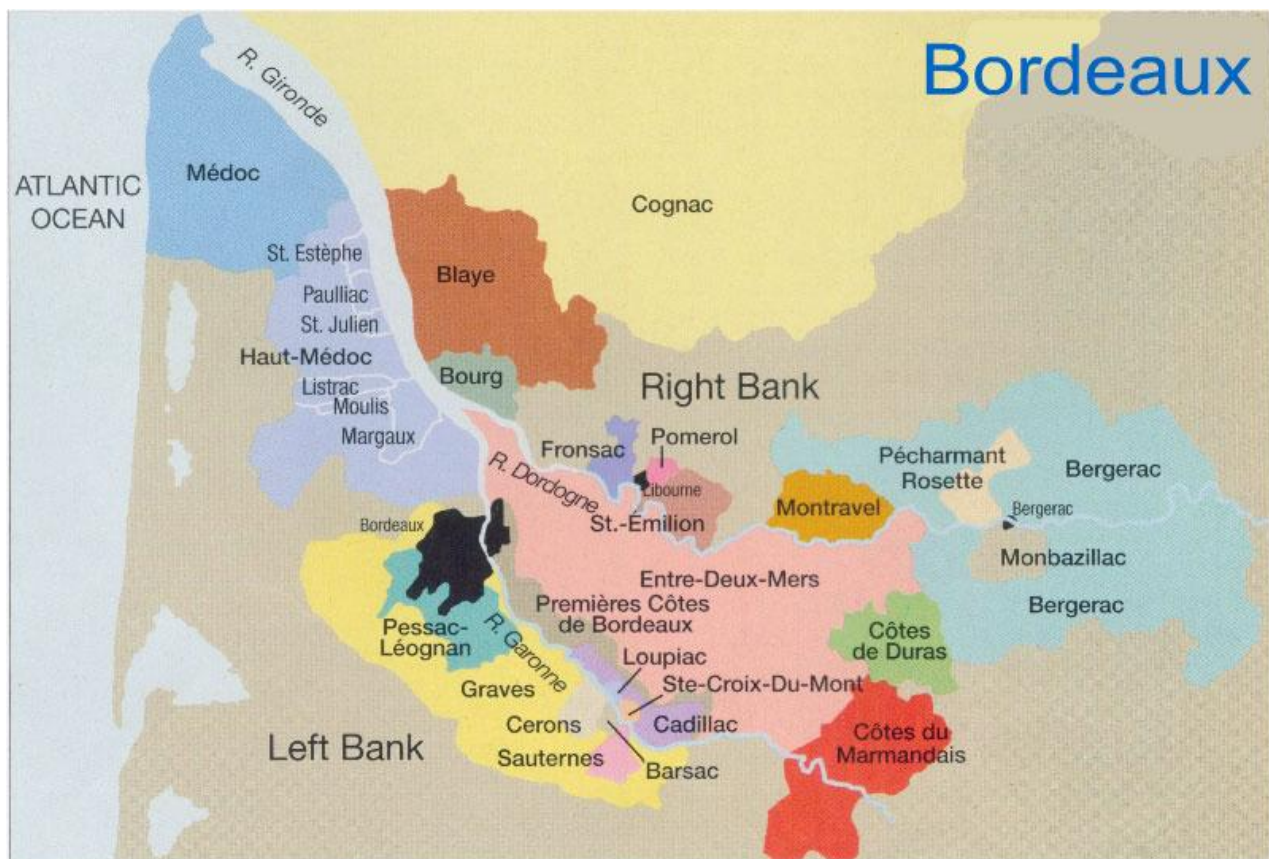
Languedoc AOP reds are generally a minimum 50% combined Grenache, Syrah, Mourvèdre, and Lladoner Pelut; however, varietal makeup and percentages vary by subappellation.

The appellations of Southwest France—*Sud-Ouest*—draw considerable influence from Bordeaux, Spain, and Southeastern France.

South of the Bordeaux satellites of the Dordogne are numerous wine regions; the most important are Cahors AOP, Madiran AOP, Jurançon AOP, and Gaillac AOP. On the Lot River, Cahors offers robust, sometimes-rustic red wines produced from a minimum 70% Malbec, with Tannat and Merlot. The wines of Madiran in Gascony are tannic, concentrated reds—so tannic, in fact, that it was a Madiran winemaker, Patrick Ducournau, who developed the technique of micro-oxygenation in the early 1990s to soften the blow of Tannat. Cabernet Franc, Cabernet Sauvignon, and the local Fer are the secondary grapes of Madiran.

Jurançon produces distinctive white wines in the Pyrénées-Atlantiques *département*, principally from the Gros and Petit varieties of Manseng. The Petit Manseng grape is better suited to sweet *passerillage* wines, and Gros Manseng provides the tangy dry whites of Jurançon Sec AOP. Petit Courbu, Camaralet and Lauzet are secondary grapes for both styles. Other AOPs in the Basque-influenced Pyrénées-Atlantiques *département* include Irouléguay and Béarn.

BORDEAUX



Standard Bordeaux AOP wines may be red, white, rosé, or claret—a darker, more aromatic style of rosé that evokes the original claret wines shipped to England in the Middle Ages. Dry white wines are generally labeled “Sec”.

Bordeaux AOP wines provide a base level of quality and may be produced throughout the entire Bordeaux region. While wines of greater character are generally produced in one of the more specific appellations of the Médoc, Graves, Right Bank, Côtes de Bordeaux and the Entre-Deux-Mers, Bordeaux AOP provides a framework for understanding of the region's style.

Six grapes are allowed for Bordeaux AOP red wines: Cabernet Sauvignon, Merlot, Cabernet Franc, Petit Verdot, Malbec, and Carmènere. Varying soils throughout the region, coupled with the different speeds of ripening for each grape, invest the Bordeaux estate in the practical wisdom of the *assemblage*, or blend. Merlot, the most widely planted grape in Bordeaux and the earliest grape to ripen, prefers clay-based soils, as they delay its natural vigor. Cabernet Sauvignon, on the other hand, performs admirably in well-drained gravel, which allows the vine's root system to dig deeply while slight water stress adds concentration to the fruit. The grape has difficulty ripening in colder limestone and clay soils. Cabernet Franc excels in limestone-based soils, which promote acidity and freshness in the wines. Once appropriate soils are identified, an overall *encépagement* of mixed grapes that flower and are harvested at different times gives the estate a form of insurance. Cabernet Sauvignon, for instance, may avoid late spring frosts that can spell disaster for Merlot as it buds later, but the grape may fall prey to heavy fall rains after the Merlot is safely harvested.

The blend in Bordeaux is not just a matter of practicality: the red grapes of Bordeaux are complementary in character, and serve to add complexity when combined in appropriate proportions. The highly pigmented, tannic Cabernet Sauvignon gives the wine structure, power, and longevity. Merlot contributes a fleshy, juicy texture that can soften the austerity of Cabernet Sauvignon. Cabernet Franc, a more tannic grape than Merlot but less muscular or weighty than Cabernet Sauvignon, imparts herbal spice and red fruit aromatics. As soil and climate are important considerations, the weight of the blend hinges on location. On the Left Bank (Médoc and Graves) Cabernet Sauvignon comprises approximately two-thirds of the blend and Merlot, Cabernet Franc and the other varieties make up the remainder. Merlot and Cabernet Franc typically dominate blends on the Right Bank, at three-quarters and one-quarter respectively. These proportions may vary greatly depending on the exact commune and château. The inky Petit Verdot, the last grape in Bordeaux to ripen, is occasionally added on the Left Bank in minute quantities for color, depth and exotic perfume; it is essentially non-existent on the Right Bank. Malbec, known as Pressac on the Right Bank, performs similarly to Merlot in the blend and is infrequently encountered in Bordeaux. Carmenère is virtually extinct in the region.

Sémillon, Sauvignon Blanc, and Muscadelle dominate the basic Bordeaux AOP white blend, while Ugni Blanc, Merlot Blanc, and Colombard are restricted to a maximum proportion of 30%. Sauvignon Blanc offers pungency, high acidity, and citrus flavors. In Bordeaux, the sharpness of Sauvignon Blanc can be leavened with Sémillon and rounded with oak; the best white wines (whether dry or off-dry) achieve creamy, waxy texture while emitting unique aromas of honey and beeswax. The fragile Muscadelle is added sparingly, as its lovely, intense floral character can quickly overtake the wine's balance.

The Bordeaux family of grapes has a natural affinity for oak. Although producers bottling under the basic Bordeaux AOP may only age their time for a short period in used barrels of larger size, a top château in one of the commune appellations will often age its red wines for up to two years in *barriques* (225-liter capacity barrels), a large percentage of which will be new each vintage. White wines from a top Graves estate will also be aged in new oak, although the percentage of new wood varies greatly by producer. The best white wines typically spend a year to 16 months in barrel.

The Médoc AOP covers the entire wine-producing left bank of the Gironde Estuary, a 50-mile stretch northward from the city of Bordeaux. The Médoc AOP encompasses the Haut-Médoc AOP and the more prestigious communal appellations. While the term "Médoc" is often used to indicate left bank wines in general, the actual appellation is typically used by those châteaux who do not qualify for a more precise appellation; namely, those located in the marshy region north of St-Estèphe. In this northern region (the Bas-Médoc) vineyards are sparser and intermingled

with forest, pasture and mixed agriculture. Drainage channels (*jalles*) criss-cross the low-lying, remote landscape and prevent the Médoc from reverting to swampland. Absent are the conspicuously grand châteaux of the Haut-Médoc, replaced by more modest farmhouses and estates. The Médoc is overwhelmingly devoted to red wine production: approximately 123 acres in the entire appellation are planted with white grapes. AOP wines must be red. Médoc AOP wines are often at their best after five years, but do not have the longevity or concentration of wines from further south. Merlot is grown in a higher proportion here than in the Haut-Médoc, as it performs more reliably in the waterlogged, clay-heavy soils of the Bas-Médoc. In warmer vintages, these wines can show good value and offer pleasant but simple fruit and earth flavors. They usually lack a new oak component, a financial concession for châteaux and co-operatives producing inexpensive bottles.

The Haut-Médoc AOP covers a narrow corridor of land on the left bank of the Gironde in the southern Médoc. In the Haut-Médoc, the best vineyards are characterized by well-drained gravelly soils, perfectly suited to the cultivation of Cabernet Sauvignon. The Dutch unearthed gravel mounds (*croupes*) during their drainage work in the 1600s, and the better châteaux are usually located upon these deeper banks of gravel, primarily located within the communes of Saint-Estèphe, Pauillac, St. Julien, Listrac-Médoc, Moulis-en-Médoc, and Margaux. Thus, the Haut-Médoc and its commune appellations are home to some of the world's most distinguished, pedigreed producers of Cabernet Sauvignon-based wines, enshrined in the famous, enduring 1855 Classification of Bordeaux. Commissioned by Emperor Napoleon III and carried out by the region's *courtiers*, this classification ranked the top properties of Bordeaux by price prior to international exposure at the Universal Exposition in Paris later that year. All of the properties classified for red wine—with the exception of Château Haut-Brion in Graves—were Médoc châteaux, categorized by price into first through fifth growths.

Unlike the *grand cru* vineyards of Burgundy, the properties of Bordeaux hold status rather than the land itself, so a vineyard may be classified or declassified as it changes ownership. The name of an estate holds the status. While proponents suggest, in self-fulfilling fashion, that a château's standing accords its wines the appropriate pricing to continue operating at its level, many critics today argue that the 1855 Classification is outmoded, and that some châteaux perform over or (drastically) under their assigned station. Regardless, the politics and historical significance of the classification render it almost impervious to criticism and nearly immovable. The only significant change to this classification occurred in 1973: after years of tireless self-promotion, Baron Philippe de Rothschild saw a "monstrous injustice" corrected as Château Mouton-Rothschild was elevated from second growth to first, taking its place among the world's most expensive wines.

Grand Cru Classé Properties

- *1er (Premier) Cru*: 5 (originally 4)
- *2ème (Deuxièmes) Cru*: 14
- *3ème (Troisièmes) Cru*: 14
- *4ème (Quatrièmes) Cru*: 10
- *5ème (Cinquièmes) Cru*: 18

Two additional, if less notable, designations mark châteaux of quality in Bordeaux: **Cru Artisan** and **Cru Bourgeois**. Cru Artisan, a designation that has been in use for nearly a century and a half, was formally recognized in 2002. From the 2005 vintage forward, 44 small producers throughout the Médoc's appellations have the right to use the designation, denoting their place as exceptional stewards of the land and craft of winemaking, without the financing or apparatus of large-scale operations. Cru Bourgeois, an embattled classification originally introduced in 1932, divided 444 properties into three categories: *Cru Bourgeois Exceptionnel*, *Cru Bourgeois Supérieur*, and *Cru Bourgeois*. The classification was not official until 2003, when only 247 châteaux retained their status. The resulting legal action nullified the entire classification. *Cru Bourgeois* has been reinstated for the 2008 vintage, but it is no longer a specific classification; rather, the term acts as a guarantor of quality and châteaux must apply for it regularly, submitting their wines to a blind tasting panel. The higher designations of *Cru Bourgeois Exceptionnel* and *Cru Bourgeois Supérieur* have been eliminated.

St-Estèphe AOP is the northernmost commune appellation in Haut-Médoc. The wines are sturdy and full-bodied reds with a slightly higher percentage of Merlot, due to a higher proportion of clay amongst the gravel. St-Estèphe does not contain any first growths, and it hosts only five classified growths overall. Château Cos d'Estournel, a "super-second" growth, is the most notable, making powerful wines in a polished modern style.

Pauillac AOP is considered classic claret, and boasts three first growths: Château Lafite Rothschild, Château Mouton-Rothschild, and Château Latour. In Pauillac the gravel topsoil of the Haut-Médoc is at its deepest point, and the Cabernet Sauvignon-based wines are structured and long-lived. Lafite and Latour represent the pinnacle of Pauillac: Latour produces wines of brooding depth and concentration and Lafite emphasizes aromatics and elegance.

St-Julien AOP produces less wine than the other communes, but the quality is very good: approximately 80% of the AOP is *cru classé* wine. There are no first growths, but St-Julien has five second growths, including the "super-second" of Château Léoville Las Cases and Château Ducru-Beaucaillou. Both can produce wine on par with premier cru estates. St-Julien reds typically demonstrate an elegant style.

Listrac-Médoc AOP and Moulis-en-Médoc AOP are lesser appellations without classified growths, but can be the source of good value—especially in better vintages. Château Chasse-Spleen in Moulis is the most famous estate of either commune.

Margaux AOP is the largest communal appellation of the Haut-Médoc, and is spread throughout five villages: Soussans, Margaux, Cantenac, Labarde and Arzac. The village of Margaux itself rests on thin, sandy gravel deposited over limestone, although the croupes in this appellation are typically shallow in comparison with those of St-Julien or Pauillac. Overall, the appellation contains a greater diversity of soil types than its northern counterparts, with more clay in the outlying areas. Margaux has a larger number of classified growths than any other commune (21) and includes one first growth, Château Margaux. Although Margaux's second growths are often underperformers, the third growth Château Palmer is an excellent estate, commanding high prices. The wines of Margaux are often described as "feminine", with an emphasis on floral bouquet, exotic character and finesse.

Médoc Appellations

- Médoc AOP
- Haut-Médoc AOP
- St-Estèphe AOP
- Pauillac AOP
- St-Julien AOP
- Listrac-Médoc AOP
- Moulis-en-Médoc AOP
- Margaux AOP

The wines of Graves have a longer history than those of the Médoc. While the land to the north was still unworkable, disease-ridden swampland, Graves wines were successfully exported to England: Samuel Pepys famously noted "Ho-Bryan" in 1663 as the first recorded example of a "name brand" château. Château Pape-Clément remains the first identifiable vineyard estate in the region, a papal gift awarded to Bordeaux in 1305. As late as 1785, Thomas Jefferson considered the red wines of Graves to be superior to those of the Médoc, but by 1855 the wines had clearly fallen in favor, as evidenced by the inclusion of only one Graves estate in the famous classification.

In Graves, the soil is similar to the Médoc but becomes sandier toward the south. This mixture of sand, gravel and light clay is known as *boulbenes*. Unlike the Médoc appellations, both red and dry white wines may be labeled as Graves AOP. White wine accounts for approximately 25% of production. Apart from the inclusion of Château

Haut-Brion among the first growths of the Médoc, the red wines of Graves were first classified in 1953, with white wines added in 1959. 13 estates were classified *cru classé* for red wines, and 9 for whites. 16 châteaux in total are included, although Château La Tour Haut-Brion (classified for red wine) produced its final vintage in 2005, and Château Laville Haut-Brion (classified for white wine) produced its final vintage in 2008. Both properties now supply fruit for a second red wine and a new white wine under the Château La Mission Haut-Brion label.

In 1987, the communal sub-appellation Pessac-Léognan AOP was created in northern Graves, effectively becoming the prestige appellation for both red and dry white wines while sidelining the producers of the southern Graves. All *cru classé* properties are located within the communes of Pessac-Léognan AOP: Pessac, Léognan, Cadaujac, Canéjan, Gradignan, Martillac, Mérignac, Saint-Médard-d'Eyrans, Talence, and Villenave-d'Ornon.

While sweet whites may be produced throughout Graves as Graves Supérieur AOP, three smaller sweet wine appellations—Cérons, Barsac, and Sauternes—are located within the region. The wines of Sauternes AOP are some of the world's most expensive and acclaimed dessert wines. Produced from Sémillon, Sauvignon Blanc and Muscadelle, the wines achieve great complexity in good years due to the development of *Botrytis cinerea*, known as *pourriture noble*, or the “noble rot”.

Due to the unique climactic conditions of Sauternes and Barsac (and to a lesser extent Cérons) the *Botrytis* mold may attack the grapes, dehydrating them so that sugar, acidity, and glycerol content are heightened. The wines achieve an intense spiced complexity that would be impossible to duplicate through normal dehydration; with time the mold-afflicted grapes can imbue a bouquet of honey, saffron, dried fruit and ginger spice. Sauternes lies at the conflux of the Ciron and Garonne rivers, and in promising years cool morning mists blow off the Ciron and encounter the warmer waters of the Garonne, producing autumn afternoon humidity perfect for incubating the *Botrytis* spores. The noble rot is fickle, however, and does not attack grapes evenly, requiring the producer to pick the grapes individually, in separate trips through the vineyard (*tries*), a fabulously expensive proposition available only to the better estates.

The wines of Sauternes were classified alongside those of the Médoc in 1855, and were divided into second growths and first growths, with one château achieving the rank of Premier Cru Supérieur: Château d'Yquem. Yquem's wines are legendary, and the château can afford to send its pickers on more than a dozen *tries* if necessary. Yquem will not produce a Sauternes AOP wine in poor years, such as 1992 or 1974. The estate also intermittently produces a dry white wine, “Y”, or “Ygrec”, labeled as Bordeaux or Bordeaux Supérieur.

Sauternes AOP covers five villages: Sauternes, Barsac, Fargues, Preignac, and Bommès. The wines of Barsac may be sold as either Barsac AOP or Sauternes AOP. The grapes are harvested at a minimum must weight of 221 grams per liter, and the finished wines must contain at least 45 grams per liter of residual sugar. Often they are aged in a moderate-to-high percentage of new oak for up to two years prior to release, although the unclassified Château Gilette releases the remarkable “Crème de Tête” after a decades-long maturation in concrete vats.

Graves Appellations

- Graves AOP
- Graves Supérieur AOP
- Pessac-Léognan AOP
- Cérons AOP
- Barsac AOP
- Sauternes AOP

Although winemaking existed on the right bank of the Dordogne River long before the Médoc was drained—Château Ausone's name is an homage to Ausonius, a 4th century Roman poet who may (or may not) have planted his vines at the site of the current estate—the wines of the Right Bank, particularly St-Émilion AOP and Pomerol AOP, did not reach the commercial level of the Médoc wines until the post-war modern era. These two communes produce red wine blends dominated by Merlot and, to a lesser extent, Cabernet Franc. Cabernet Sauvignon is rarely a major component, with the notable exception of Château Figeac in St-Émilion. St-Émilion contains a diversity of soils

broadly categorized into two types: the *côtes* and *graves*. As a simplification, the hillside *côtes* are steep limestone slopes and *graves* is a gravelly limestone plateau resembling soils of the Médoc.

As the *courtiers* of Bordeaux seldom shipped the wines of the Right Bank overseas in the 19th century, they did not include the region's wines in the 1855 Classification. However, St-Émilion created its own three-tier ranking of châteaux in 1954 (published in 1955) with revisions made in 1969, 1985, 1996, 2006, and 2012. Unlike the Médoc Classification, the St-Émilion Classification intended revisions every decade and based such changes in stature on a peer-reviewed tasting of the wines, but the continued integrity of the system appeared fragile when legal challenges from a group of demoted châteaux scuttled the 2006 revisions. The matter percolated in the French courts for several years, resulting in a 2009 compromise that allowed promoted châteaux to retain their new status while ignoring any demotions. With the announcement of a new and rather generous classification in September 2012—conducted by an outside source, the INAO, rather than the local producers' syndicate—the producers of St-Émilion hope to leave the tarnishing episode behind.

2012 Classification of St-Émilion

Cru Classé: Number of Properties:

<i>Premier Cru Classé A</i>	4
<i>Premier Cru Classé B</i>	14
<i>Grand Cru Classé</i>	64

Compared to St-Émilion, Pomerol is a tiny AOP, measuring just five square miles and 1,930 acres of vineyards. The soil of Pomerol is dominated by sand, clay and gravel, with a subsoil of iron pan and rich clay (*crasse de fer*). Merlot is particularly successful in Pomerol's clay-based soils, as evidenced by the wines of Château Pétrus, where the subsoil clay rises very close to the surface. Pétrus and the other great wines of this small commune have a reputation for being hedonistic, plump, and opulent. Approachable sooner than their counterparts in the Médoc, the wines are generally comprised of 70-80% Merlot and 20-25% Cabernet Franc, known as "Bouchet" in Pomerol. There is no classification in Pomerol; regardless, the best properties—Château Pétrus, Vieux-Château-Certan, Château Lafleur, Château Le Pin, and Château Trotanoy—can achieve extravagant prices on par with *premier cru* Médoc wines.

There are four satellite appellations for St-Émilion: Lussac, St-Georges, Montagne, and Puisseguin. Pomerol's neighboring red wine districts include Lalande-de-Pomerol AOP, which contains the communes of Lalande-de-Pomerol and Néac, Fronsac AOP, and Canon-Fronsac AOP.

Right Bank Appellations

- St-Émilion AOP
- Lussac-St-Émilion AOP
- Montagne-St-Émilion AOP
- Puisseguin-St-Émilion AOP
- St-Georges-St-Émilion AOP
- St-Émilion Grand Cru AOP
- Pomerol AOP
- Lalande-de-Pomerol AOP
- Fronsac AOP
- Canon-Fronsac AOP

CHILE

Chile stretches for nearly 3000 miles up the west coast of South America, separated from the remainder of the continent by the Andes Mountains. Viticulture occupies around 800 of these coastal miles, with most major regions of production to the south of the capital city, Santiago. From north to south, the regional Denominations of Origin (DOs) of Chile are Atacama, Coquimbo, Aconcagua, the Valle Central (Central Valley), and Sur (the Southern Regions). Even with moderating maritime influence, Chile's climate varies enormously from the northern to southern latitudes. The northernmost regions of Atacama and Coquimbo are dry and desert-like, with grapes historically destined for Pisco production or the table. The country's most suitable vineyards for fine wine are mostly situated in the Central Valley to the south of Santiago, where the proximity of the Andes cools nighttime temperatures, and along the coast, where the cold, maritime Humboldt Current cools the vines. Although the Coastal Mountains (between the Central Valley and the Pacific) provide some shelter, the Humboldt Current forces cool sea air inland through the river valleys to affect the Central Valley vineyards during the day. While neither zone is as dry as the deserts to the north, irrigation is still essential in both the Central Valley and Aconcagua. In the country's southernmost areas of viticulture, rainfall is higher and the overall growing season is cooler and shorter. Significant variations in altitude exist in most of Chile's major regions, as vineyard plantings climb from the coast into the Coastal Ranges, and from the valleys into the Andean foothills.

Leading grape varieties in Chile after Cabernet Sauvignon and País include Merlot, Sauvignon Blanc (and Sauvignon Vert), Chardonnay, Carmenère, Syrah, Sémillon, Pinot Noir, and Cabernet Franc. Muscat of Alexandria retains a large share of plantings, but the grape is used chiefly for distillation. Red grapes account for approximately 73% of the total acreage in Chile.

ARGENTINA

Argentina is the most important wine-producing country in South America, the world's fifth largest producer, and in 2008 the world's seventh largest exporter of wine. The country's vineyards are mostly confined to the western sector of the country, in the plains and foothills near the Andes, where they experience a continental climate. In the rain shadow of the Andes, Argentina's wine producing regions are very dry, a condition exacerbated by the Zonda, a fierce, dusty, hot afternoon wind that blows down from the mountains in the late spring and early summer, sometimes adversely affecting flowering. The general lack of humidity in most Argentinean winegrowing regions keeps vineyards free of fungal problems, and snowmelt provides plentiful water for irrigation—in those years that the Andes receive heavy winter snowfall. Unfortunately, the little moisture that does precipitate in the vineyards often comes in the form of dangerous spring and summer hail. As expected in a continental climate, summer temperatures can reach 100° F and above, although the country's higher elevation vineyards—some of the world's highest vines (3,000 meters above sea level) are located in Salta, at Donald Hess' Colomé estate—serve to mitigate such extreme highs and prolong the growing season. As Argentinean vineyards are generally situated on the slopes of the Andean foothills and plains, the average national elevation for vineyards is approximately 900 meters above sea level. The lack of major nearby urban centers keeps Argentinean vineyards rather free from the effects of pollution; the Maipo, just across the mountains, is covered in Santiago's smog by comparison.

In descending order of importance, the country's most important red grapes include the flagship Malbec, Bonarda, Cabernet Sauvignon, Syrah, Merlot, and Tempranillo. Argentina's Bonarda, the country's second most planted grape, is genetically distinct from the Northern Italian grape of the same name, but recent DNA studies have identified it as Savoie's Corbeau—a variety known as Charbono in the United States. The country's most planted white grape is Pedro Giménez, a variety unrelated to Spain's Pedro Ximénez, a blending grape often mainly suitable for bulk wines or grape concentrate. The distinctive, floral Torrontés is second among white grapes, followed by Chardonnay and Chenin Blanc. The Mendoza Chardonnay clone, developed at the University of California at Davis, has become popular throughout the country; despite being prone to *millerandage* the resulting grapes have a greater skin-to-juice ratio. Pink-skinned varieties, including Cereza, Criolla Chica, and Criolla Grande, occupy nearly 30% of the nation's

vineyard acreage.

Mendoza, the center of the Argentinean wine industry, is broadly divided into Northern, Central (Upper), Southern, and Eastern sectors, and the Uco Valley—a western subregion and home to the province's highest vineyards. Soils in the region are generally comprised of loose, alluvial sand over clay, a structure that, when coupled with the gale-force Zonda wind, helps to keep phylloxera and other diseases at bay. As in Chile, almost all vines in Mendoza are planted on their own rootstock. The climate is desert-like, and irrigation is absolutely necessary, whether in the traditional form of furrow irrigation—a technique developed centuries ago by the Incas, in which the rivers' water, swelled by Andes snowmelt, is directed through the vineyards in channels—or by more modern methods of drip irrigation. Red grapes account for over half of the entire province's acreage; Malbec, the most planted grape, covers around 16,000 hectares of vineyard. Despite being planted in Cahors, Bordeaux, and the Loire Valley, the grape achieves its most classic and identifiable varietal expression in Mendoza, offering brambly black and red mountain fruit tones, rich and robust texture, and sweet floral tones.

South of Mendoza, the winemaking provinces of Patagonia are Rio Negro and Neuquén. These are smaller regions of production, and markedly cooler than those to the north. White grapes, such as Torrontés and Sémillon, perform well in the provinces' chalky soils and longer growing seasons, although cool-climate, elegant versions of Malbec, Cabernet Sauvignon, Merlot, and Pinot Noir are promising. Bodegas Chacra, spearheaded by the family behind Tuscany's Sassicaia, rapidly emerged as Patagonia's most famous estate in the mid-2000s, selling super-premium Rio Negro Pinot Noir. Bodega Noemía de Patagonia, another premier producer in the province, is winning acclaim for Malbec. La Pampa, an adjacent province to the north of Rio Negro, is an emerging area for wine.

WASHINGTON STATE

Washington, despite a relatively short history of viticulture, has emerged as the nation's second largest producer of premium wines, accounting for approximately 5% of the nation's total production. With the exception of approximately 80 acres of vineyard near Seattle in Puget Sound AVA, the state's wine regions are all located to the east of the Cascades, where the mountains' rain shadow effect makes irrigation commonplace—rainfall is often less than ten inches a year. Eastern Washington experiences a true continental climate, with hot summers and cold winters; frost and winter freezes are serious concerns for growers. Columbia Valley AVA is the largest appellation in the state, covering eleven million acres—nearly a third of Washington's landmass. A number of smaller regions within the Valley have gained AVA status: Red Mountain, Yakima Valley, Walla Walla Valley, Wahluke Slope, Snipes Mountain, Rattlesnake Hills, Lake Chelan, Horse Heaven Hills, Naches Heights, and Ancient Lakes of Columbia Valley. Yakima Valley, approved as Washington's first AVA in 1983, contains over one-third of the state's vineyards, and Chardonnay is the appellation's most planted grape. Within the eastern edge of Yakima Valley, the Red Mountain AVA—Washington's smallest—has developed a reputation for noteworthy Cabernet Sauvignon. White grape varieties overall still slightly outnumber reds, led by Chardonnay and Riesling—a varietal that has achieved more success in the state than elsewhere in the country. Cabernet Sauvignon and Merlot have recently overtaken Riesling to become the state's two most planted varieties, and Merlot in particular thrives, showing a distinctively full, sweet and luscious character. Over 650 bonded wineries are currently in business in Washington.

AVAs of Washington

- Puget Sound
- Columbia Valley (shared with Oregon)
 - Yakima Valley
 - Rattlesnake Hills
 - Red Mountain
 - Snipes Mountain
 - Naches Heights (est. 2011)
 - Ancient Lakes of Columbia Valley (est. 2013)

- Walla Walla Valley (shared with Oregon)
- Horse Heaven Hills
- Lake Chelan
- Wahluke Slope
- Columbia Gorge (shared with Oregon)