

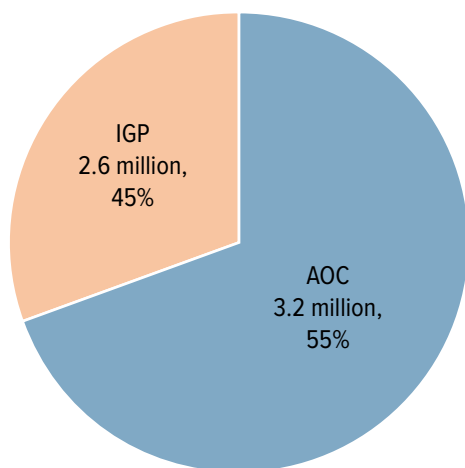
7. The Rhône Valley

The Rhône Valley is treated here as two regions, with the northern Rhône being continental in climate and predominantly planted with Syrah, while the southern Rhône has a Mediterranean climate and is planted with several significant varieties, especially Grenache Noir, Syrah, Cinsaut and Mourvèdre. Some white wines are also made, with Viognier, Marsanne and Roussanne in the north and blends usually based around Grenache Blanc in the south. The two main regions are separated by a gap of 50 kilometres (30 miles) where relatively few grapes are grown.

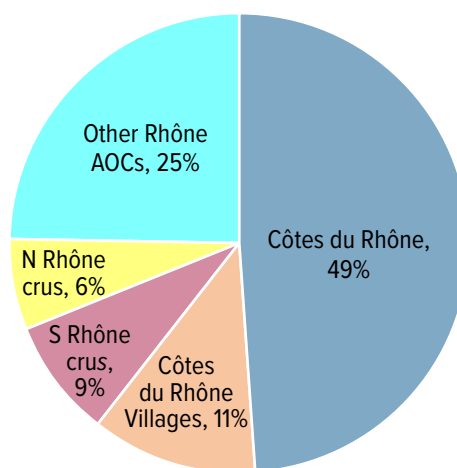
The River Rhône runs through both the northern and southern regions. In general, the northern appellations are close to the river, with vines planted on slopes above the river itself, creating a range of aspects depending on the course of the river. In the southern Rhône the area under vine is vastly greater than the north (65,000 ha in the south, 4,200 ha in the north) with many of the vineyards at considerable distances from the river.

The north is mainly made up of several clearly defined AOCs (known as crus) while the south has both individual crus, for example, Châteauneuf-du-Pape, while also providing large volumes of basic Côtes du Rhône AOC and *Indication géographique protégée* (IGP) wine. The appellations Côtes du Rhône AOC and Côtes du Rhône Villages AOC together produce around 60 per cent of all wine produced in the Rhône as a whole. In total in 2021, 76 per cent of the AOC wine produced in the Rhône Valley was red, 14 per cent was rosé and 10 per cent was white. 13 per cent of the total Rhône vineyard was certified organic, with more than 50 per cent more vineyard in the process of conversion, indicating rapid growth in organic growing.¹

**Production in the Rhône Valley hL, 2021
IGP and AOC wines**



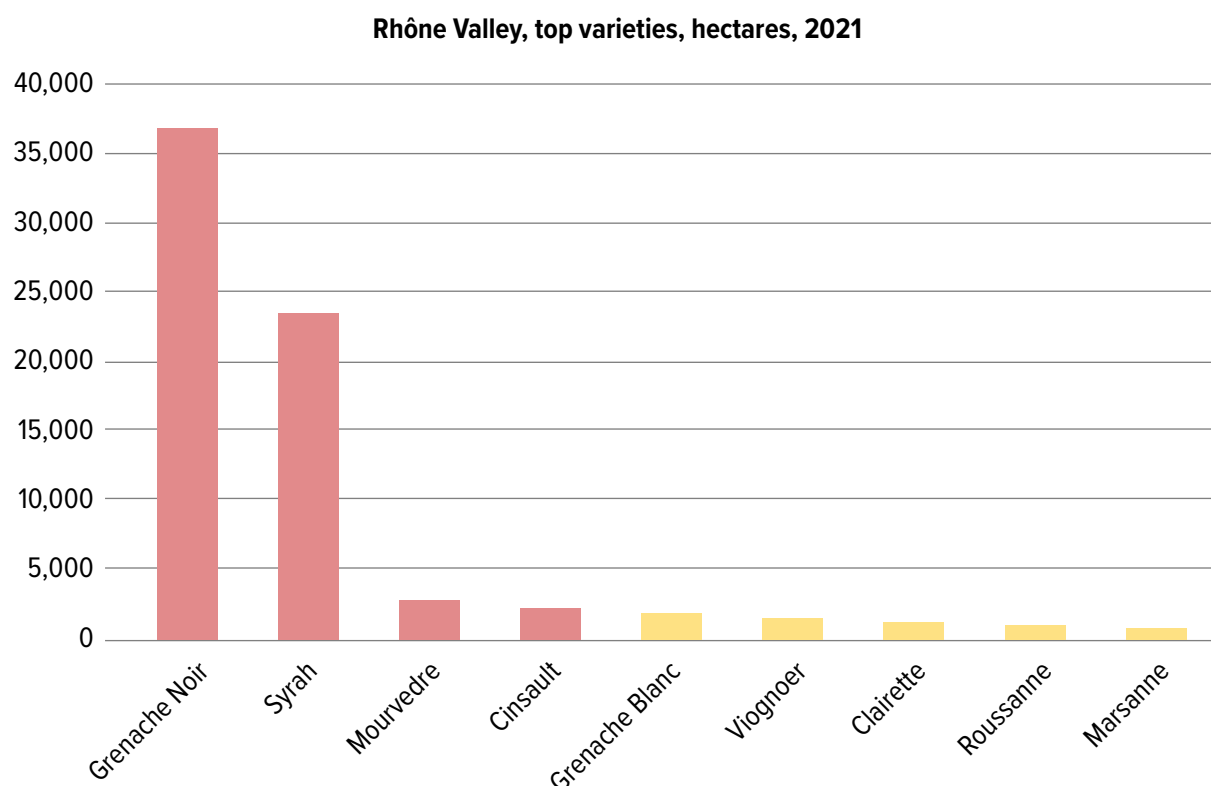
**Percentage of production by volume of AOC
wines, 2021**



Source: Inter Rhône.²

7.1. Grape Varieties

As the chart below shows, plantings in the Rhône valley are dominated by Grenache Noir (especially in the southern Rhône) and by Syrah. By contrast, the white varieties are much less planted.



Source: InterRhône³

Note: hectares are for grapes of AOC wines only

BLACK GRAPE VARIETIES

Syrah

This vigorous variety needs careful training and tying in to protect it from the Mistral wind that blows through both the northern and southern Rhône. On the steep slopes of the top northern Rhône appellations individual plants are often tied to one or two poles as trellising is not possible, adding to cost. It is susceptible to mites and to botrytis bunch rot. In addition to common diseases, there is also a disease called Syrah decline or disorder in which the leaves turn red, the graft point breaks up and the vine dies.

Syrah is the only black grape variety used in the northern Rhône crus, whose wines are typically deep ruby in colour, medium to pronounced intensity aromas and flavours of violet, plum (red plum in cooler years and sites, black plum in warmer years and sites) and blackberry with black pepper and herbal notes. Acidity and tannins range from medium to high. Syrah adds structure, fruit and colour to southern Rhône blends.

Grenache Noir

This high-yielding variety needs a warm climate to ripen. It ripens late and therefore can be affected by early autumn rains. Its upright growth makes it very suitable to be trained as a bush vine, pruned short to contain its vigour, and it does well on dry, low fertility soils. It



Syrah pre-veraison, Hermitage AOC



Vines trained on poles

has good drought resistance but is prone to coulure (leading to reduced yields) and to the fungal diseases downy mildew, phomopsis and botrytis bunch rot. It is also prone to bacterial necrosis or bacterial blight, a disease that kills leaves and shoots and eventually the plant. The disease is combatted by planting only disease-free stock and avoiding contamination from pruning tools. The grapes can accumulate high sugar levels quickly, which can be an issue in dry wines but makes it very suitable for producing Vin Doux Naturel.

It typically forms the major component in southern Rhône blends that may also include Syrah, Mourvèdre and other local varieties. It contributes pale ruby colour, ripe red fruit (strawberry, red plum, red cherry), spicy and herbal notes, high alcohol, low to medium tannins and low acidity.

Mourvèdre

This is a late-budding and late-ripening variety that only thrives in warm to hot climates. It needs high temperatures at the end of the season to ripen fully and therefore can be under ripe if the late summer is not hot. It is not drought resistant and requires small but regular amounts of water, for example from deep calcareous soils that store water. It is best pruned short and can be grown either with a cordon system or on bush vines. It only produces low yields. It is prone to mites, leafhoppers and sour rot (a disease that affects ripening bunches due to insect or bird damage to grapes, which then become prone to bacteria and fungi). In the winery, it is strongly prone to reduction and therefore care has to be taken to make sure the must has adequate access to oxygen. It is typically aged in old oak, which adds a small amount of cost.

The wines are almost always used as parts of a blend in the Rhône, where Mourvèdre contributes deep ruby colour, intense aromas of blackberries, blueberries and violets, high alcohol and high, firm tannins. By contrast, it is the principal variety in the red and rosé wines of Bandol AOC in Provence.

Cinsaut

Also spelled Cinsault, this is a late-budding and high-yielding variety with good drought and heat resistance. To produce the highest quality wine, yields must be restricted. If grown on soils with excessive lime it can suffer from chlorosis. It is prone to Esca and Eutypa, and to mites and grape moths.

In the southern Rhône, Cinsaut is typically used as a small part of the red blend. It is typically made in a way that preserves its fruit flavours (mid-range fermentation temperature, aged briefly in stainless steel). It contributes light ruby colour, medium to medium (+) intense aromas of fresh red fruit (raspberry, red cherry), high alcohol and low to medium tannins. The lifted aromas of the variety are most prominent in the first year after the wine is made, making it highly suitable for early drinking reds and rosés.

Carignan

For the characteristics of this variety, see South of France: [Carignan](#).

WHITE GRAPE VARIETIES

Viognier

This is an early budding white variety and therefore prone to spring frost. It is normally grown on a trellis or on poles to prevent wind damage. Yields tend to be low and unpredictable, due to poor flowering and fruit set (coulure) reducing returns. Picking must be judged very accurately as the fruit needs to be fully ripe to have its typical pronounced aromas. However, if the grapes are left too long, they lose flavour and acidity and rapidly gain sugar, resulting in unbalanced wines that lack flavour.

The wines are medium lemon in colour with pronounced aromas and flavours of honeysuckle, apricot and peach, with medium to high alcohol and low acidity. Up to 20 per cent of Viognier is allowed in some northern Rhône red wines that are otherwise made with Syrah.

Marsanne

This is a late-budding white variety (helping it to avoid spring frosts) that is vigorous and productive. To produce high-quality wine, yields must be kept low to reduce the amount of fruit being ripened. It performs best on stony and low fertility soils (low fertility keeps the yields low) and therefore does well on the slopes of the northern Rhône Valley. It is prone to powdery mildew, mites and botrytis bunch rot.

The wines are medium lemon in colour, sometimes gold, with low intensity honeysuckle, lemon and apricot fruit, an oily texture, medium acidity, full body and medium to high alcohol. In the northern Rhône, it is either made as a varietal wine or blended with Roussanne. In the southern Rhône, it is usually part of a blend.

Roussanne

This is a late-budding white variety that grows best on low fertility, well-drained soils. It has poor resistance to wind and therefore sites must be chosen carefully. It is variable in the

amount of fruit it produces (due to coulure) and is very susceptible to powdery mildew, botrytis bunch rot and mites, lowering yields and requiring additional work in the vineyard, both of which add to cost. It is more difficult to grow successfully than Marsanne and therefore less commonly grown in the Rhône Valley.

The wines are medium lemon in colour, sometimes gold, medium to medium (+) intensity aromatics of pear with herbal notes, medium to medium (+) acidity and medium to high alcohol. Roussanne is similar in colour and structure to Marsanne but the wines tend to age quicker. In the Rhône Valley, it is normally blended with other varieties, especially Marsanne in the northern Rhône and Clairette and Grenache Blanc in the southern Rhône, although single varietal wines are made in both.

Grenache Blanc

This white variety is relatively early budding, but this is only occasionally a problem with spring frost as it is mainly grown in the mild south of France and in Spain. It has good wind resistance. For other grape growing issues, see [Grenache Noir](#). In the Rhône it is grown almost exclusively in the southern part, where it is mainly used to produce dry white blends and also a little Vins Doux Naturels (see D5: Fortified Wines), where its tendency to reach high potential alcohol levels is a benefit. It contributes low intensity ripe green fruit and some floral notes, high alcohol and low acidity.

Clairette

This vigorous white variety grows well in low fertility, dry soils and is therefore well suited to the southern Rhône and its low rainfall. To contain the vigour, it needs to be pruned short and excessive buds removed, but it grows very upright and has the advantage of being relatively wind resistant without staking. It ripens late and therefore can be prone to early autumn rains. It needs careful handling in the winery as it oxidises easily.

This variety principally goes into white blends in the southern Rhône, adding freshness and fruit with white flower, fennel, apple and grapefruit notes, has high alcohol and low to medium (–) acidity.

Bourboulenc

This late ripening variety has loose bunches and thick skins, giving it the resistance to botrytis bunch rot, giving it the disease resistance necessary for late ripening. It grows well in warm, dry locations, and hence is well suited to the conditions in the southern Rhône. The wine is typically used in white southern Rhône blends contributing lemon flavour, medium (+) acidity and medium alcohol.

7.2. Winemaking

In general, the winemaking in the Rhône Valley is traditional, with a preference for concrete vats for fermentation (although stainless steel and large wooden vessels are also in use) and for small and large wooden vessels for maturation. Grenache Noir is prone to oxidation and premature loss of colour if it is exposed to too much oxygen and therefore is typically fermented and aged in concrete vats or stainless steel tanks. By contrast, Syrah is prone to reduction and therefore has to be pumped over more often and is often aged in oak to provide gentle oxidation, adding to cost. Some high-quality producers in the northern Rhône use a proportion of new French oak barriques, but this is less prevalent than in the 1990s.

PRODUCTION OF RED CRU-LEVEL WINES

Grapes are harvested by hand and transported in small crates, ensuring whole, unbroken bunches arrive at the winery. Grapes may be destemmed, chilled and cold soaked for 1–3 days to extract colour.

Alternatively, grapes may be left as whole bunches (or partially destemmed) and vinified as such, to promote more intense aromatics. Producers carry out fermentation in stainless steel, large concrete tanks or open-top wooden fermenters, and may choose either cultured or ambient yeast. Fermentation is generally at warm temperatures to enhance extraction of colour, flavour and tannin and, for the same reason, maceration on the skins may last for 20–30 days with punch-downs, pump-overs or rack and return. A period of maturation before bottling, likely 12–24 months, is common, with large oak vessels used for Grenache Noir and small barrels for Syrah and Mourvèdre, typically with a proportion of 20–30 per cent new.

PRODUCTION OF INEXPENSIVE HIGH-VOLUME RED WINES

For inexpensive wines, grapes will typically have been harvested by machine. Inevitably some of the grapes will be crushed in this process and therefore it is important to process the entire volume quickly to avoid bacterial infection. Hand picking and carbonic maceration is an option for some to enhance colour and fruit intensity and produce wines with low tannins, suitable for early drinking. Large producers may use flash détente or thermovinification to gain a low-tannin, fruity style quickly. Cultured yeast will typically be used to ensure quick, reliable fermentation to dryness. Fermentation may occur at mid-range temperatures to retain fruit flavours and avoid the extraction of high levels of tannin. For the same reason, maceration times may be kept short. The wines may be stored in stainless steel for a few months before bottling.



Stainless steel fermentation tank



Wooden fermentation tanks

ROSÉ WINEMAKING

The wines, for example in Tavel (see [Appellations](#) in 6.4. Southern Rhône) are typically made through a short maceration, where the grapes are pressed after cold maceration on the skins for 12–48 hours. Fermentation is then completed as for a white wine. The period of maceration provides the required depth of colour, flavour intensity and light tannins. The wines are typically aged in oak or concrete large vats or stainless steel, although some producers will age some top wines in small old oak barrels to add texture.

This method is sometimes referred to as the *saignée* method, but in this case the idea is to make only rosé wine from the grapes and all of the juice extracted from them. It is not the case that must is drawn off to make rosé as a by-product of concentrating what will become a red wine.

WHITE WINEMAKING

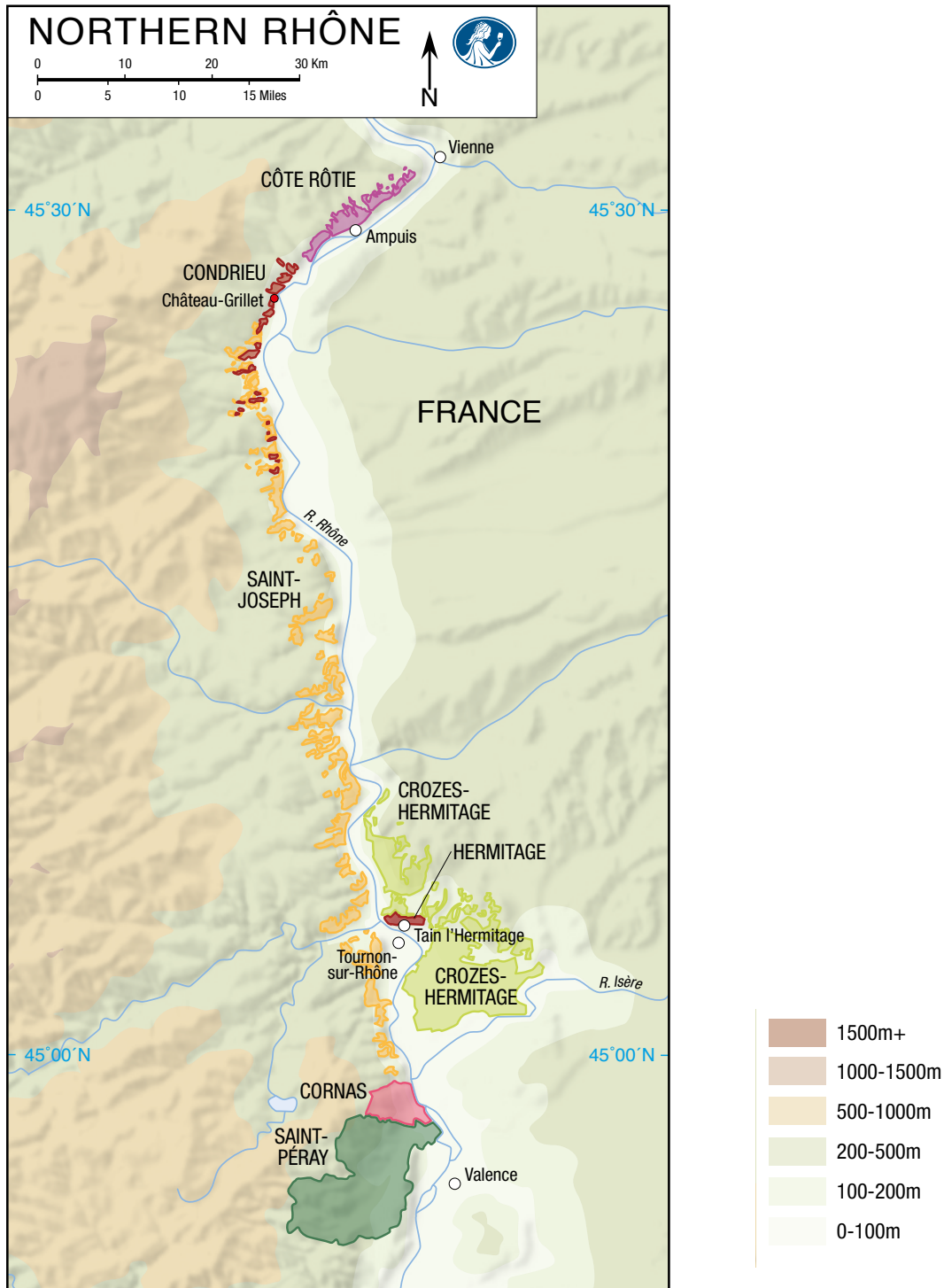
Most white wines are fermented at mid-range temperatures to retain fruit. Malolactic conversion is sometimes avoided to retain natural acidity. Most wines are aged in large old oak or stainless steel vessels. The natural full body of the white Rhône varieties means that lees stirring is sometimes avoided, although some do stir the lees for a yet fuller-bodied style (e.g. M. Chapoutier's Hermitage).

Some wines are matured in oak, adding a layer of complexity and occasionally also fermented in oak for better fruit-oak integration. Both fermenting and maturing in small oak barrels adds cost.

7.3. The Northern Rhône

THE GROWING ENVIRONMENT AND GRAPE GROWING

This region has a moderate continental climate with cold winters, warm summers and adequate rainfall falling mainly in the autumn and the winter. The cold Mistral wind blows from the north and reduces the incidence of fungal disease. It also decreases vine vigour and leads to lower yields and higher concentration in the wines, but lower production. The distance between the most northerly and southerly vineyards is over 65 kilometres (40 miles), a distance that can result in better ripening in the southern part of the region.



Many of the better vineyards are on steep slopes that increase the interception of sunlight and promote better drainage. However, most work has to be done by hand, raising cost.

APPELLATIONS

The appellations are reviewed travelling from north to south.

Côte-Rôtie AOC

This small AOC, the most northerly of the Rhône appellations, produces only red wines. The vineyards are on steep slopes, often terraced, that mostly face east and south-east, making for high sunlight interception, and are sheltered from the winds from the north. The high levels of sunlight and heat, rapid drainage and poor, stony soils result in fully ripe grapes. The steepness of the slope makes it necessary to do much of the work by hand and erosion is a constant problem. Many vines are on terraces, which need to be repaired from time to time. Individual vines are single- or double-Guyot trained and are tied to one or two poles (known locally as *échalas*).

Because of a lack of commercial interest and the hard work involved, the plantings in this appellation had shrunk to just 70 ha in the early 1970s. The appellation was revived by Etienne Guigal and his son Marcel, and their single-vineyard Côte-Rôties (initially La Mouline and La Landonne) and the high scores given to these wines by Robert Parker. Côte-Rôtie now has 250 ha planted, and the wines are typically very good to outstanding in quality and are sold for premium and super-premium prices.

All wines are red and made from Syrah, with up to 20 per cent of Viognier permitted in blends, although in practice this is often zero and normally no more than 8 per cent. The Syrah



Côte-Rôtie

vines are most commonly propagated by mass selection, with rootstock 3309 preferred by most growers. This is regarded as being relatively productive and the vines produce grapes with a good depth of colour. Typical planting densities are 10,000 vines per hectare, creating competition between the vines, reducing yields and producing concentrated fruit in the wines. The maximum allowed yield is 40 hL/ha.

When both grape varieties are used, they must be co-fermented. Winemaking emphasises the aromatic potential of the wines, with most choosing to destem and then cold soak the fruit, but use of a percentage of stems in the ferments is increasingly common. Warm fermentation temperatures are typical, for full extraction. Where Viognier is used, it adds floral and fruity aromas. Natural yeast are frequently used (for greater perceived *terroir* expression) and malolactic fermentation takes place in cask. Maturation is either in small barrels (usually 225 L barriques, on the model of Guigal's single-vineyard wines) or in larger wooden vessels, with demi-muids of 500–600 L being favoured by many for less overt oak notes in young wines.

Stylistically, the wines are known for their pronounced aromas and are typically softer and less full-bodied than the wines of the other top appellations, Hermitage and, latterly, Cornas.

Condrieu AOC

This appellation is situated close to the northern end of the northern Rhône vineyard area. The wine must be 100 per cent Viognier and the maximum yield is restricted to 41 hL/ha, ensuring medium to pronounced flavour intensity. The river turns south-west at this point, meaning the vineyards are often south-facing, enhancing fruit ripening. The vines are grown on steep, low fertility, rocky slopes, often in terraced vineyards, with constant challenges from soil erosion and wind. This small appellation (197 ha) surrounds the single-estate 3.5 ha AOC, **Château-Grillet AOC**, which created the reputation of Viognier (some of it *domaine*-bottled from the 1830s onwards) as one of France's great wines before the variety came back into fashion in the 1980s.

Most Condrieu is fermented in stainless steel or large wooden vessels, but a few producers use the more expensive small barrels that produce wines with enhanced texture and flavour. Producers can choose whether or not to allow malolactic conversion to take place, depending on the vintage, but this is normally carried out. Wines are typically aged on the lees for 10–12 months, often with lees stirring. The wines are typically very good to outstanding in quality and premium to super-premium in price. They are the model for high-quality Viognier around the world.

Saint-Joseph AOC

This is a long appellation that runs from Condrieu to Cornas, nearly the entire length of the northern Rhône wine region (50 kilometres/30 miles). The historical heart of the region is around the *lieu-dit* (named site) Saint-Joseph, at the southern end, opposite Tain L'Hermitage. The appellation was extended in 1994, which included some sites not on hillsides that normally produce lower quality wines. Confidence within the appellation has grown and today the debate is whether to reduce the appellation and limit it to hillside slopes only. Jean-Louis Chave is a highly regarded producer based in the AOC who has done much to raise the prestige of the appellation, as has Domaine Gonon.

Nearly 90 per cent of the wines are red. The maximum yield is restricted to 40 hL/ha. While Marsanne and Roussanne are allowed in small proportions in the red wine, in practice it is rare to include white grapes. Stainless steel and large wooden tanks are the most common

fermentation vessels and ageing is generally in larger wood tanks or large barrels and occasionally barriques. The quality and price of Saint-Joseph covers a wide range from good wines at mid-price to very good to outstanding wines at premium and super- premium prices.

Hermitage AOC

The hill of Hermitage has been producing wine since the Greco-Roman era. Located above the town of Tain L'Hermitage, this most famous of all northern Rhône appellations is named after the twelfth century crusader and latterly hermit, Gaspard de Stérinberg. It is a small appellation (137 ha) virtually all planted, with one-third being devoted to white wine production. On the left bank of the river, as it flows south, the appellation is a south-facing slope, catching the sun and having protection from cold winds. The hot, dry vineyards with thin, stony soils result in wines of pronounced flavour intensity, high tannins in red wines and longevity. The most famous *climats* for Syrah are at the western end of the hill that records the highest temperatures, for example, Le Méal. Erosion is a constant problem, with some parts of the vineyard having to be terraced, and much vineyard work has to be done by hand, raising cost.

Yields are limited to 40 hl/ha (45 hl/ha for whites), which is seldom achieved, and many producers have old vines, giving low yields and highly concentrated wines.

Red winemaking is traditional: a proportion of stems is often included in ripe vintages; warm fermentation temperatures used for maximum extraction of flavour and tannins; and lengthy oak ageing (typically 12–18 months). A proportion of new oak is common but not always used and medium to large wooden vessels are common.

White wines are typically a blend of a majority of Marsanne with some Roussanne or pure Marsanne. Fermentation is either in old wood vats, new or old oak barrels or in stainless steel. Maturation takes place in oak, with a minority proportion being new, or stainless steel depending on the style preferred by producers. The wines are typically aged on the lees for 10–12 months. After long bottle ageing, the best of these wines can develop rich, creamy and



Hermitage



Steep slope in Hermitage

nutty flavours with outstanding complexity. In addition, in very ripe years a rare *Vin de Paille* is made (a sweet wine made by drying the grapes off the vine).

The holdings are dominated by the *négociant* houses of Chapoutier and Jaboulet, with significant holdings owned by the co-operative Cave de Tain (it owns 15 per cent of the appellation)⁴ and by Jean-Louis Chave. While Chapoutier has pioneered an approach focusing on individual parcels, Chave is a long-standing supporter of blending across the appellation. The wines, both red and white, are typically very good to outstanding and mostly super-premium in price. The reds in particular are a model of the world's most structured and long-lived Syrah wines.

Crozes-Hermitage AOC

The largest of the northern appellations, Crozes-Hermitage covers nearly 1,700 ha on the left bank of the Rhône. It surrounds the town of Tain L'Hermitage and the hill of Hermitage itself and extends almost equally to the north, east and south of these. The north sector of the AOC has a continental climate, with marked Alpine influences; it can be extremely cold in winter, with a strong influence from the Mistral. It has a long growing season and high diurnal range, resulting in wines of moderate sugar accumulation and retained acidity. The southern sector is more temperate, although there can be heavy rainfall in the late autumn and through the winter.

The AOC was created in 1937 and extended, in the manner of Saint-Joseph, in 1956, now to 1,700 ha. There is a difference between the relatively steep slopes to the north of Tain and the flatter vineyards to the south, which used to be dominated by orchards and farmsteads. In general, the soils are deeper and more fertile than in neighbouring Hermitage and the resulting wines have lower concentration, although the maximum yield is restricted to 45 hL/ha. Machine harvesting is possible on the flatter land, reducing cost. While much of the appellation produces mid-priced good to very good wine, there are also a number of premium-priced high-quality wines, pioneered by Jaboulet's Domaine de Thalabert.

Carbonic and semi-carbonic maceration can be used to enhance the fruitiness of some wines made to be drunk young, but today this is rare. Traditional fermentation on the skins

is common in wines intended to be aged. Destemming is widely practised, with fermentation mainly in concrete tanks or stainless steel and maturation in these tanks or large oak vessels. Generally, wines are made for early drinking with medium tannins. The whites make up 9 per cent of the production. They are made from Marsanne and Roussanne, with more of the former planted. Top examples of white wines will be aged in old wood, and occasionally a proportion of new barrels. The wines are mainly good to very good in quality and mid-priced to premium, with some outstanding wines.

Cornas AOC

This is the most southerly of the northern Rhône appellations for red wine production, a natural south and east facing amphitheatre with some steep slopes. A warm Mediterranean climate, good protection from cold winds and the excellent aspect mean that this is often the first Syrah to be picked in the northern Rhône. Only red wine is made within the AOC and must be from 100 per cent Syrah. Maximum yield is restricted to 40 hL/ha. It is a small appellation of 145 ha, now mainly planted.

The wines had a reputation for tannic intensity. While some producers use small barrels to soften tannins, the current trend is back towards robust and long-lived wines. Significant producers include Domaine Alain Voge, Domaine Vincent Paris and Domaine Auguste Clape. The wines are typically very good to outstanding in quality and premium to super-premium in price.

Saint-Péray AOC

This is the most southerly of the northern Rhône appellations, with a slightly cooler climate than its immediate neighbours. It is devoted to white wines grown on limestone and granitic soils, ensuring good water-holding capacity and drainage. Marsanne accounts for the vast



Vineyard in Saint-Péray

majority of plantings, with some Roussanne. The maximum permitted yield is 45 hL/ha. The wines are fermented in stainless steel or in oak barrels and aged in the same or in large old oak vessels. Higher quality wines are typically aged on the lees for 10–12 months. Some producers choose to stir the lees to add body to the wines. The wine is typically good to very good in quality and mid- to premium priced. In addition to still wine, traditional method sparkling wine is made from the same varieties, although it is increasingly rare.

Collines Rhodaniennes IGP

This category ('hills of the Rhône') is used for red, white and rosé wines made from grapes grown outside of the AOCs in the northern Rhône. Higher yields are allowed (maximum 80 hL/ha). It allows producers to make wines from other grape varieties than those allowed by the AOC rules and for top producers in the northern Rhône cru to offer less expensive wines than their AOC wines, typically mid- to premium priced.

7.4. The Southern Rhône

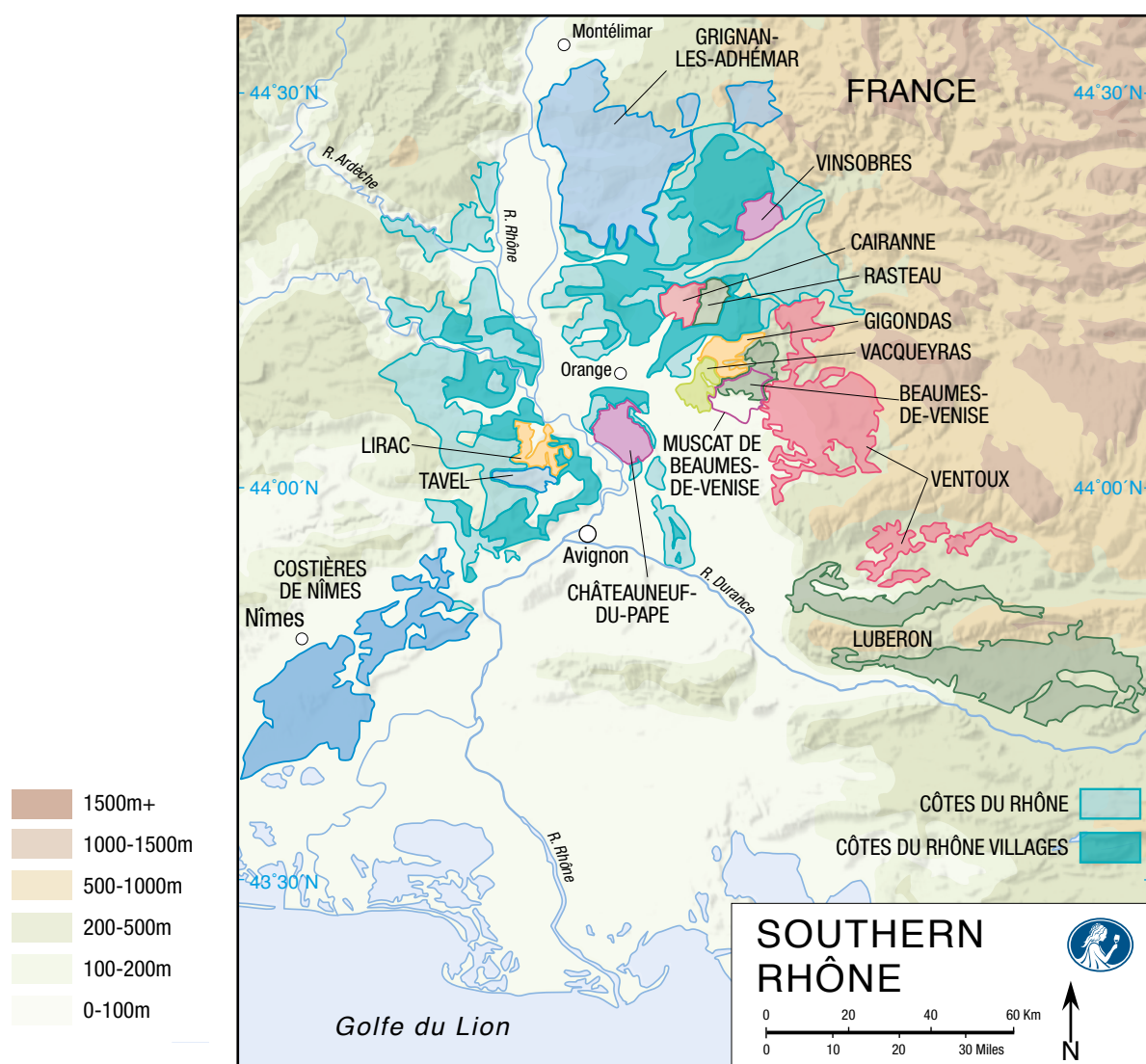
THE GROWING ENVIRONMENT AND GRAPE GROWING

The southern Rhône has a warm, Mediterranean climate with mild winters and very warm, dry summers. Overall rainfall is adequate for grape growing; however, drought is an increasing problem in some summers. Irrigation is permitted if drought is severe within strict rules, see [Wine Law and Regulations](#). The land is flatter here than in the northern Rhône and therefore there is little protection from the Mistral wind. As a result, low bush-trained vines are common for suitable varieties, especially for the Grenache Noir, the most planted variety in the south. Syrah is usually grown tied to wires on trellises to give it protection from the wind.



Châteauneuf-du-Pape vineyard with irrigation installed

APPELLATIONS



The hierarchy of appellations in the southern Rhône is:

- Côtes du Rhône AOC;
- Côtes du Rhône Villages AOC;
- Côtes du Rhône Villages AOC + named village, currently numbering 22 villages, e.g. Côtes du Rhône Villages AOC Séguret;
- individual appellations for the top villages of the southern Rhône, known as cru: Châteauneuf-du-Pape AOC, Gigondas AOC, Cairanne AOC etc.

Outside this hierarchy, there are other Rhône appellations such as Ventoux.

In the southern Rhône, with the exception of Châteauneuf-du-Pape, the AOC regulations typically require that the red wines are Grenache Noir-dominant blends with Mourvèdre and Syrah along with other permitted varieties, for example Carignan and Cinsaut. The regulations for red, rosé and white wines:

- distinguish between principal, complementary (i.e. the main blending varieties) and other permitted varieties;
- state the total minimum proportion of principal (and, where applicable, complementary) varieties which must be used.

Some AOCs distinguish between a minimum percentage of a variety in the vineyard and in the final blend, giving the producer some flexibility. For example Côtes du Rhône AOC requires 70 per cent of the principal varieties in the vineyard but only 60 per cent in the final blend.

In this study guide, the percentages quoted are for the blend of the final wine, not the percentage of the varieties planted in the vineyard.

Côtes du Rhône AOC

This vast appellation covers all vineyard land suitable for grape growing in the southern Rhône (except for the [other Rhône appellations](#)) and, in principle, the northern Rhône too. In practice, the vast majority of the wine comes from the south as producers in the north can usually sell their wines under more valuable appellations. It is the second largest appellation by hectares planted in France, after Bordeaux AOC.

	Principal varieties	Other permitted varieties
Red and rosé wines maximum yield 51 hL/ha	Grenache Noir, Mourvèdre, Syrah. Together these must make a minimum of 60 per cent of the volume of the final blend. Further, if the grapes come from the southern Rhône (as they mostly do), Grenache Noir must be a minimum of 30 per cent and the combination of Mourvèdre and Syrah a minimum of 20 per cent.	Many local minor varieties are permitted, including Carignan and Cinsaut.
White wines maximum yield 51 hL/ha	Bourboulenc, Clairette, Grenache Blanc, Marsanne, Roussanne and Viognier together must make up 80 per cent of the final blend.	Many local minor varieties are permitted, including Piquepoul Blanc.

The **Côtes du Rhône Villages AOC** for red wines has similar rules but requires the final blend to have a minimum of 66 per cent of at least two of the three principal varieties and must include Grenache Noir. Maximum yields are 44 hL/ha for Côtes du Rhône Villages AOC and 41 hL/ha for **Côtes du Rhône Villages AOC + named village**. Maximum yields are lower in the southern Rhône crus: 35 hL/ha in Châteauneuf-du-Pape, 36–38 hL/ha in the red wines of the other villages.

The red Côtes du Rhône AOC wines are typically medium intensity ruby, medium intensity red plum and blackberry fruit, no oak flavours, medium acidity, medium tannin (or low tannin if made by carbonic maceration), medium alcohol. The wines are typically good quality and inexpensive in price.

Gigondas AOC

This appellation (AOC granted 1971) well-established for red wines has vineyards up to 600 m above sea level. It is in part shaded by the Dentelles de Montmirail mountains, reducing the temperature in the mornings. This extends the period of maturation and increases the flavour in the resulting wines. The slightly lower temperatures and the cooling effects of the Mistral have become increasingly valued, as Grenache Noir in the warmer temperatures of recent decades has resulted in high alcohol wines. The final blend here is based on the principal variety Grenache Noir (at least 50 per cent) and at least one of Syrah or Mourvèdre. From 2023, white wine based on the Clairette variety (minimum 70 per cent), will be allowed within the AOC.

Vacqueyras AOC

This AOC (granted 1990) is not quite as high as Gigondas, rising to 440 m, giving diurnal variation but not threatening ripeness in cooler years. Small amounts of white and rosé wines are made within the AOC. The final blend here is based on principal variety Grenache Noir (at least 50 per cent) and at least one of Syrah or Mourvèdre.

These two appellations make wine that is typically good to very good in quality and mid- to premium priced.

Vinsobres AOC

This is the most northerly of the southern Rhône crus, promoted to being a separate AOC in 2006. (Like most of the southern Rhône crus, it had previously been a named village within Côtes du Rhône Villages AOC.) It is dominated by plantings of Grenache Noir, although in recent decades, more Syrah has been planted and grown, contributing flavour intensity, structure and colour. The wines are exclusively red. The final blend here is based on principal variety Grenache Noir (at least 50 per cent) and at least one of Syrah or Mourvèdre.

The vineyards are on south and south-east facing slopes of 200–500 m, resulting in good sunlight interception, good drainage and some protection from the Mistral. The higher slopes are cooler, lengthening the period of ripening and increasing flavour intensity. As is usual in the region, some older plots of Carignan and Cinsaut are increasingly valued for their high-quality fruit.

Vinsobres and all the other more recent crus listed below make wine that is typically good to very good in quality and mid- to premium priced, although with more mid-priced than premium-priced wines.

Rasteau AOC

Promoted to AOC in 2010 for its red wine, Rasteau AOC produces red wine and a small amount of Vin Doux Naturel. The final blend here is based on principal variety Grenache Noir (at least 50 per cent) and at least one of Syrah or Mourvèdre. Vines are planted on low south-facing slopes (100 m) in a warm enclave, sheltered from the Mistral, resulting in ripe, full-bodied wines. As elsewhere in the warmer parts of France, irrigation is allowed here within the limits set.

Most of the wine is fermented in large vats, especially concrete, and matured in large oak vessels. Some higher quality Syrah is aged in small barrels, at additional cost. The wines are typically good to very good in quality and mid- to premium priced.

Cairanne AOC

This new AOC, created 2015, is not as steep as Gigondas or as warm as neighbouring Rasteau. It produces mainly red wines in a fruity and approachable style. The final blend here is based on principal variety Grenache Noir (at least 40 per cent, lower than the preceding AOCs) and at least one of Syrah or Mourvèdre. The small amount of white wine produced is has a reputation for high quality.

Beaumes-de-Venise AOC

Best known for its Vin Doux Naturel, this AOC has also included unfortified still red wine from 2005. Most of the vineyards are on slopes, some slightly shaded by the Dentelles de Montmirail. The final red blend here is based on principal variety Grenache Noir, which with Syrah must together must make up 50 per cent of the blend.



New concrete fermentations tanks

Châteauneuf-du-Pape AOC

This historic village and appellation name each owe their original fame to being the summer residence of the Pope in the fourteenth century when the papacy had been relocated to the nearby city of Avignon. It is also historic in the sense that in 1923 Baron du Roy of Château Fortia drew up a set of rules (the prototype for the first AOC in France) to protect the name from being used by others outside of the region, which were initially approved in 1936. The rules delimited the region where the grapes had to be grown, stipulated the use of 13 grape varieties (18 if you count the colour variants of five of them) and a minimum alcohol level of 12.5% abv without chaptalisation, that at the time was a challenging requirement. The appellation allows red and white wines to be made. More than 90 per cent of the wine produced is red and the rest white.⁵

Today, the red wine is principally made from Grenache Noir with Mourvèdre and Syrah, and the white wine from Grenache Blanc, Clairette, Bourboulenc and Roussanne. Note that Marsanne and Viognier, two major white varieties of the northern Rhône, are not permitted for AOC wines. Mourvèdre is attracting increasing interest for its intense black fruit; however, it can only succeed where there is sufficient moisture in the soil. The grapes must be picked by hand. Because there is no stipulation of principal varieties and minimum percentages to be used, it is possible to make single varietal wines (e.g. Château de Beaucastel's Châteauneuf-du-Pape Roussanne Vieilles Vignes). This large AOC (more than 3,000 ha) includes limestone, clay, sandstone and sandy soils, the clay content being particularly helpful in its water-holding capacity in a region with dry summers. In 2021, 27 per cent of the vineyard was certified organic. Low fertility and generally fast-draining soils are highly suitable for growing vines and for reducing vegetative growth, leading to smaller crops of ripe grapes. Average yields for the decade to 2021 are just under 30 hL/ha.⁶ Large pebbles (*galets roulés*) radiate heat at night, adding to the warming effect. In the past, this warming effect was valued, but it is less so now as a warming climate is contributing to high sugar levels. Many producers blend across *lieux-dits* and soil types for added complexity and to create volumes that are commercially viable. In general, growers believe that wines from grapes grown on sandy soils are finer and lighter in style than the more structured wines from grapes grown on soil with the large pebbles.

Red Châteauneuf-du-Pape is medium ruby in colour, medium (+) to pronounced intensity of ripe red plum and blackberry fruit with spice notes and sometimes new oak notes. The wines have medium acidity, high alcohol and tannins vary from medium (–) to high, depending on varietal mix, winemaking style and vintage. Because of the size of the appellation and the number of producers, there is a range of quality but the majority are good to outstanding in quality and mid-priced to super-premium.



Stony soils with visible clay seam



Stony soils

White wines are made from Bourboulenc, Clairette, Grenache Blanc, Roussanne and other local varieties. Some high-quality wines may be fermented in oak barrels for additional complexity, while others prefer to preserve freshness and primary fruit character. Wines are matured either in tanks or oak barrels, occasionally with a proportion of new oak. The recent trend has been to make the wines lighter, more floral and fresher in style.

Lirac AOC

This long-established AOC lies across the river from Châteauneuf-du-Pape and makes mainly red wines and some rosés (like neighbouring Tavel to the south) and white wines. For red wines, the principal varieties are Grenache Noir, Mourvèdre, Syrah and Cinsaut, which together must make up a minimum of 90 per cent of the final blend. High sunlight hours and well-drained, infertile soils make for good conditions for growing and ripening grapes. Significant producers included Domaine de la Mordorée, who also typify the connection with Châteauneuf-du-Pape across the river, having vineyards in that appellation.

Tavel AOC

This appellation, uniquely in the Rhône Valley, is dedicated solely to rosé wines. The AOC lists 12 principal grape varieties (black and white), but the final blend must include Grenache Noir. None of the principal varieties may contribute more than 60 per cent, with the rest being made up from the allowed 12 varieties. The maximum yield is 46 hL/ha. The wines are medium intensity pink-orange in colour, much darker than most other rosés, with medium to medium (+) intensity of strawberry and raspberry fruit, medium (+) to full body and medium alcohol, but at the top end of that band (e.g. 13.5% abv). The wines are good to very good in quality and mid-to premium priced.



Tavel rosé



Tavel co-operative

During the last two centuries, Tavel rosé had a very high reputation as France's best rosé and a wine well suited to gastronomy. This reputation is now challenged by the paler Provençal styles. Some Tavel producers have made paler wines (like rosé makers around the world) but the classic deeper colour remains the usual style.

Other Rhône appellations

These appellations, sometimes referred to as satellite appellations, surround the main Côtes du Rhône growing area in the southern Rhône. There are seven in total. The largest by production level are Costières de Nîmes, Grignan-les-Adhémar, Ventoux and Luberon.

Costières de Nîmes AOC – This appellation lies between the Rhône and eastern Languedoc and is in effect the south-west limit of the Rhône wine region. The vines are grown on south-west facing slopes, making for good sunlight interception, and are ventilated by breezes from the Mediterranean. Half of the production is red wine, just over 40 per cent is rosé, with a very small proportion of white wines.⁷ The principal varieties for red wine are Grenache Noir, Mourvèdre and Syrah, which together or singly must make up a minimum of 50 per cent of the final blend. The maximum permitted yield is 60 hL/ha. Recent decades have seen a movement from being dominated by co-operative wineries towards smaller, privately-owned estates. Most wines are good to very good in quality and inexpensive to mid-price with a few wines at premium prices.

Grignan-les-Adhémar AOC – This appellation is at the northern end of the southern Rhône. It produces mainly red blends (minimum 50 per cent of principal varieties Grenache Noir and Syrah) in a slightly lighter style than the areas to the south at inexpensive and mid-price points, plus white and rosé wines. Most wines are good to very good in quality and inexpensive to mid-price.

Ventoux AOC – This large and increasingly-planted appellation in the south-east of the southern Rhône is on the southern and western slope below the high Mont Ventoux, an important cooling influence due to the altitude and cool air coming down from the mountain giving freshness to the wines. Vines are grown up to 450 m. Almost 54 per cent of production in 2021 was red wines, 40 per cent rosé and 6 per cent white wines.⁸ The principal varieties are Grenache Noir, Syrah, Mourvèdre, Carignan and Cinsaut for reds wines that together must be 50 per cent of the final blend (and at least two varieties must be included), making a range of blends a possibility. The appellation allows up to 60 hL/ha maximum yield, leading to some wines with light concentration. The appellation exports about a quarter of its production and co-operatives are very important in the area, which also has a wave of new winemakers (e.g. Domaine de Fondrèche). Most wines are good to very good in quality and inexpensive to mid-price, with a few wines at premium prices.

Luberon AOC – This appellation is in the south-east of the Rhône Valley and borders onto Provence. Vines are planted on gentle slopes or flat land. The principal varieties are Grenache Noir, Syrah and Mourvèdre. The final blend must include at least two of these, which singly or together must make up a minimum of 50 per cent of the blend. The maximum yield for red wine is 55 hL/ha. Most wines are good to very good in quality and inexpensive to mid-price, with a few wines at premium prices.

IGP wines

In the southern Rhône, in addition to AOC wines, IGP may be made from Rhône varieties or international varieties. Thus, for example, in the *department* Gard, home to Costières de Nîmes AOC, Merlot is the third most grown variety and Cabernet Sauvignon the fifth most grown variety.

7.5. Wine Law and Regulations

Grape varieties and maximum yields have been noted above under the individual appellations. The general prohibition of irrigation for AOC wines in France has been amended so that AOCs may apply for permission to irrigate under strict conditions. Proof of water stress to vines is required, no irrigation is permitted after *véraison*, and in no circumstances can irrigation be used to exceed the maximum yield allowed by individual AOCs.⁹

7.6. Wine Business

While the northern and southern Rhône are dealt with separately as wine-producing regions, from a commercial point of view many major companies and the largest *négociants* are based in the north but operate across the region as a whole. Examples include Guigal, Jaboulet and Chapoutier. Co-operatives are much more important in the south than in the north; for example, Cellier des Princes, based in Châteauneuf-du-Pape. Similarly, the Cave de Tain in Tain l'Hermitage is an important co-operative, especially for the wines of the northern Rhône, where it sells around 40 per cent of all Crozes-Hermitage AOC wines.¹⁰

Sales of Rhône wines by volume are divided between France (63 per cent in 2021, divided between supermarkets (40 per cent) and specialist wine retail and hospitality (23 per cent) and export (37 per cent). Exports are growing, with the top three markets by volume being Belgium, UK and USA, though USA is the highest by value.¹¹

As the value of wine has risen, more growers are making and bottling their own wines, rather than selling them to a *négociant* or taking grapes to a co-operative. For example, Côte-Rôtie has over 50 growers undertaking their own bottling and has a higher ratio of *domaines* relative to the number of *négociants* than many other communes. There is a small *en primeur* and investment market for the region's very top wines, especially Côte-Rôtie, Hermitage and Châteauneuf-du-Pape.

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