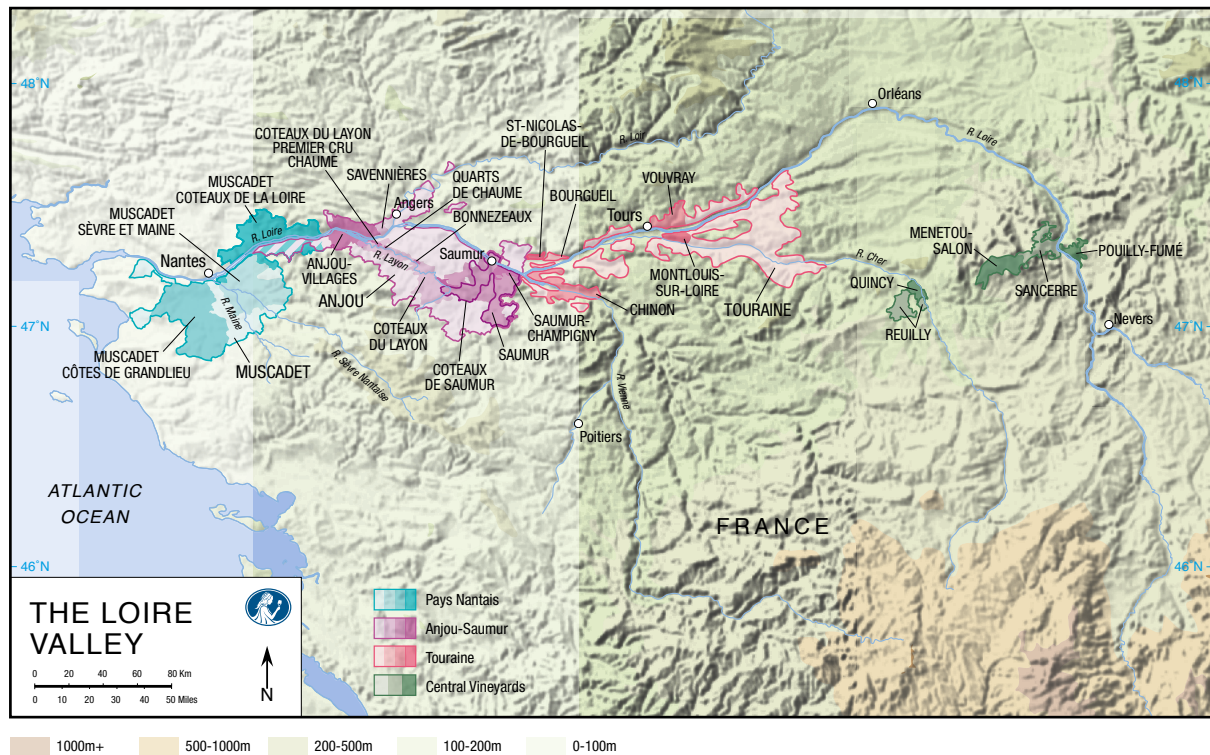


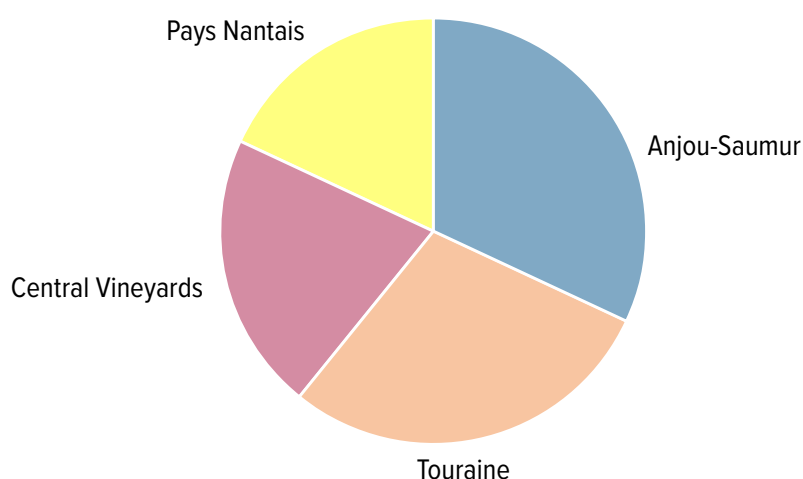
6. The Loire Valley

The Loire has a long history of winemaking and trading because of its ready access to the Atlantic, being the home of French kings until Louis XIV and its proximity to Paris, allowing wine to be transported by river before the coming of the railway.



The Loire River, France's longest river, has many distinct wine regions, stretching from Sancerre (400 km/250 miles from the Atlantic), moving downstream through Touraine and Anjou-Saumur and finally reaching the Atlantic Ocean in the Pays Nantais. As a result, it has a number of climatic zones and varieties typical of the various regions. For example, spring in the Pays Nantais arrives at least two weeks before it does in Sancerre. The key varieties are Melon in the Pays Nantais, Chenin Blanc and Cabernet Franc in middle Loire (Anjou-Saumur and Touraine, although the latter also grows Sauvignon Blanc) and Sauvignon Blanc (and to a lesser extent Pinot Noir) in the Central Vineyards, the area that includes Sancerre and Pouilly-Fumé.

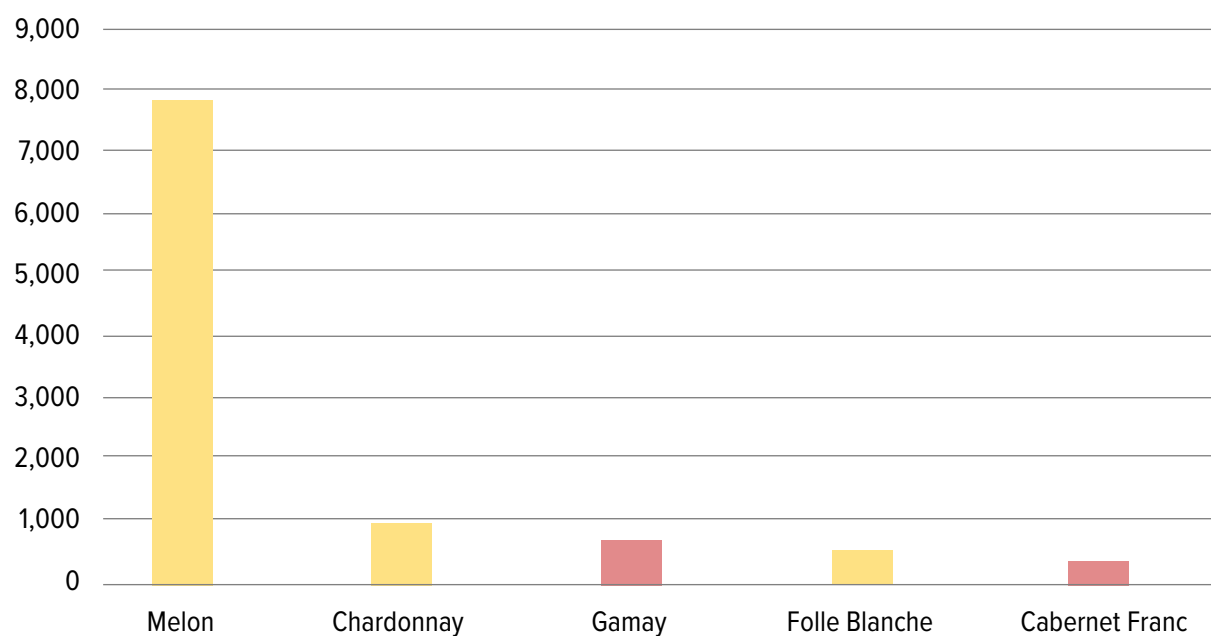
Loire valley, percentage of total Loire plantings by region, 2021

Source: InterLoire¹

6.1. Pays Nantais

This region takes its name from the city of Nantes and is situated close to the Atlantic Ocean. The principal grape variety is Melon (sometimes called Melon de Bourgogne or Muscadet). A significant volume of the Folle Blanche variety (known locally as Gros Plant) is also grown, making very acidic wines that are sold locally and nationally.

Pays Nantais: top varieties, hectares, 2020

Source: InterLoire²

THE GROWING ENVIRONMENT AND GRAPE GROWING

Climate and soils

The Pays Nantais has a cool maritime climate with cool springs, warm and humid summers and the threat of rain at any time through the growing season but especially in March/April (affecting flowering) and in September (affecting harvest). However, predominantly well-drained soils help to offset the regular rainfall. Despite the proximity of the Atlantic, spring frosts are a serious problem, setting back the whole region in 1991. This event led to the loss of what was a booming export market to the UK. Frost has been a serious problem in recent years. Producers are putting in more frost prevention measures, particularly wind machines as well as heaters and burning straw bales.

Melon

Melon has been the only allowed variety in the Muscadet appellations. It is quite a hardy variety, making it well suited to a cool region, but buds early. It ripens relatively early, reducing the threat of rain at harvest, and can produce high yields. It has good resistance to powdery mildew, but has tight bunches of fruit and is susceptible to downy mildew and botrytis bunch rot, both of which thrive in the humid climate. Timely and repeated spraying is required as necessary, adding some cost.

Melon makes a wine with high acidity, a light body and low to the low end of medium alcohol. The wines typically have low aromatic intensity (green apple), which is often made [sur lie](#) (see below). The wines are acceptable to good in quality, with some very good examples, and inexpensive to mid-priced.

From 2018, basic Muscadet AOC may include up to 10 per cent of Chardonnay.



Melon variety close to harvest time



Melon being harvested

Vineyard management

As noted, the humid climate means that growers must monitor vineyards closely and spray to prevent fungal diseases. With a marginal climate for ripeness, progress has been made in recent decades to improve canopy management. In order to facilitate ripeness, canopies are more open than they were and leaf removal is carried out to ensure maximum exposure of grapes to the sun and to reduce the risk of fungal disease. However, care has to be taken that fruit is not sunburnt on the side of the rows facing the sun in the afternoon. Similarly, attention is now paid to the ripeness of skins and seeds in determining the harvest date. However, in hot years, the danger is that sugar levels may reach unacceptably high levels before the skins and seeds are fully ripe.

WINEMAKING

Chaptalisation is permitted up to 12% abv potential alcohol and is practised in cooler years. Muscadet is typically fermented and aged in large, shallow underground glass-lined concrete vats, though stainless steel is also used. The idea is to keep the wine as neutral as possible and then to age the wine on the lees. Malolactic conversion is typically avoided, preserving the high acidity typical of the style.

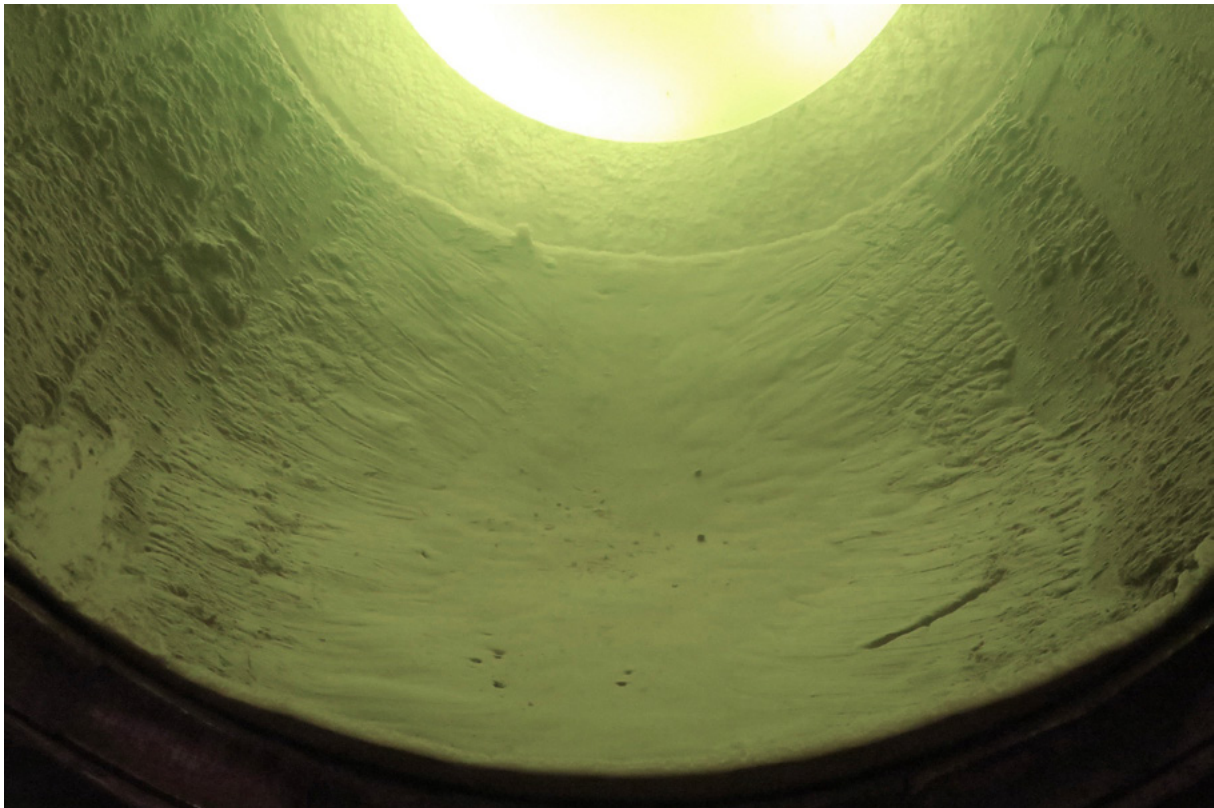
With efforts to raise the profile of Muscadet (see the *cru communaux* discussion in [Appellations, Wine Law and Regulations](#) below), winemakers are also experimenting. Examples include skin contact and fermentation in barrel, amphora or concrete eggs. These vessels add cost.



Underground tank for Muscadet fermentation and lees ageing



Alternative fermentation vessels



Muscadet being aged *sur lie*

Sur lie

This technique is highly typical in the Pays Nantais and is a way of filling out the body of what would otherwise be very light-bodied wines. After the alcoholic fermentation is completed, one racking is allowed to remove the gross lees. After this, the wine remains in contact with the fine lees through the following winter and until bottling. Ageing on the lees also retains the freshness of the wine and may retain a small amount of carbon dioxide, which is part of the style of these wines.

APPELLATIONS, WINE LAW AND REGULATIONS

There are two larger appellations, Muscadet Sèvre et Maine AOC (at 6,400 ha the Loire's largest appellation)³ and Muscadet AOC, and two much smaller ones, Muscadet Coteaux de la Loire AOC and Muscadet Côtes de Grandlieu AOC.

The maximum yield for Muscadet AOC is 70 hL/ha. The other three AOCs and Muscadet *sur lie* is limited to 55 hL/ha. The wines are typically dry, with low intensity aroma of green apple and grassy notes, high acidity and a light body. The wines are typically acceptable to good quality (with some very good wines) and inexpensive in price.

The labelling term *sur lie* may be added in any of the four appellations. *Sur lie* wines must be bottled between 1 March and 30 November of the year following harvest and in the winery in which they were made; this later bottling in comparison to many white wines adds cost. These regulations also mean that *négociants* can only buy grapes, must or bottled wine, and not wine to be aged *sur lie*.

In addition, 10 Muscadet *cru communaux*, have been launched. These are small, defined areas, often on one type of bedrock. They include **Clisson**, **Gorges** and **Le Pallet**. If the grapes

are grown exclusively in one of these defined areas, the name can be added; for example, Muscadet Sèvre et Maine AOC Clisson. These wines have a lower maximum yield at 45 hL/ha. The wines have to be kept on the lees for 18 months (Le Pallet) or 24 months (Clisson, Gorges), adding cost. However, they cannot be labelled as *sur lie* as the requirement for long lees ageing means that they are bottled after the date required for *sur lie*. The wines are typically rounder and more complex with longer finishes.

WINE BUSINESS

Muscadet was a huge success in the UK market in the 1980s and, as a result, 13,000 ha were planted. However, the frost of 1991 saw production drop by two-thirds. This pushed prices up at a time when wines from non-European countries, especially Australian wines, were becoming popular. More recently, Muscadet has sought to reposition itself as a source of *terroir*-specific wines of high quality with good value for money. Exports of wines from the Pays Nantais are 15 per cent by volume.⁴

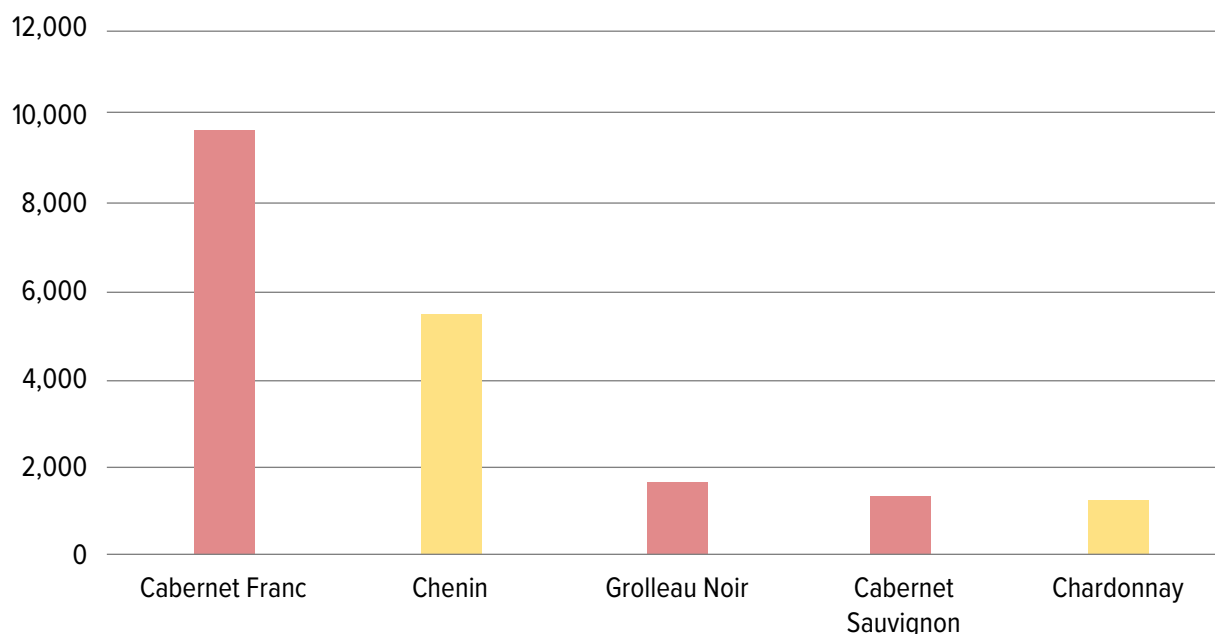
Négociants continue to play an important role, accounting for over half of sales, although this is less than in the past. Many smaller local *négociants* have been bought up by larger companies. Castel, Grand Chais de France and the Loire-based Ackerman now account for a large proportion of *négociant* sales.

The Pays Nantais promotes its wines together with those from Anjou-Saumur and Touraine via [InterLoire](#) (Interprofession des Vins du Val de Loire).

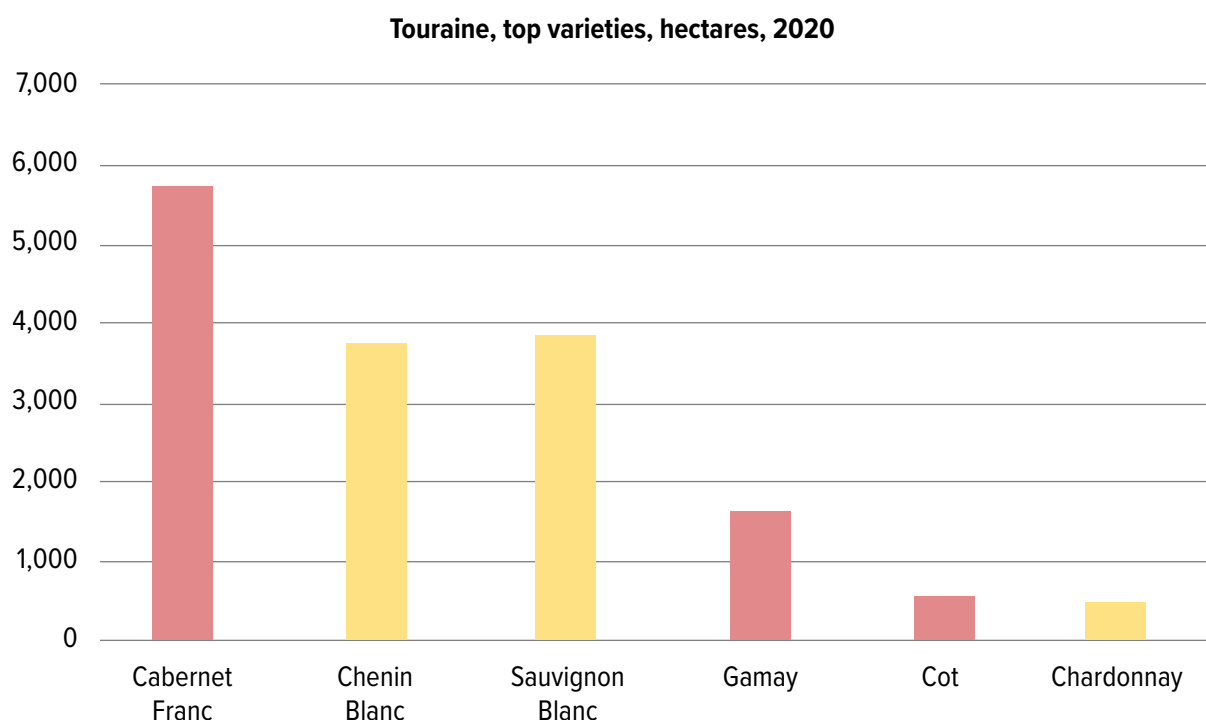
6.2. Anjou-Saumur and Touraine

The principal grape varieties in the middle Loire are Chenin Blanc for dry, off-dry and sweet white wines and Cabernet Franc for red wines and as one contributor to rosé wines. However, Sauvignon Blanc is a key white variety in Touraine.

Anjou-Saumur, top varieties, hectares 2021



Source: InterLoire⁵



Source: InterLoire⁶

THE GROWING ENVIRONMENT AND GRAPE GROWING

Climate and soils

The moderating influence of the Atlantic Ocean decreases progressively in Anjou-Saumur and then Touraine. In Anjou-Saumur, the maritime effect is more marked. Touraine has a continental climate with cold winters and warm summers, but this is not as extreme as in the Central Vineyards. Both Anjou-Saumur and Touraine have around 700 mm of rainfall, adequate for viticulture. However, the rains fall throughout the year: spring rain can affect flowering and fruit set, regular summer rain increases disease pressure and rain in late summer and early autumn can affect harvest. The best-exposed sites are generally used for still wines, as they need a greater level of ripeness than grapes for sparkling wines.

In Anjou, the River Layon and its multiple tributaries help to create the misty conditions ideal for the spread of botrytis at the end of the growing season, enabling the production of botrytis-affected wines.

There is a wide range of soils, including clay-limestone, flint-clay, sand, gravel and tuff. There is more schist and limestone in Anjou and more chalk in Touraine. Overall, key properties include the good drainage and water retention characteristics of limestone elements. Due to high lime content in the soils, rootstocks such as Fercal and Riparia Gloire de Montpellier are used to protect the vines from chlorosis.

Grape varieties

Chenin Blanc – Chenin Blanc buds early, making it prone to spring frosts. It is a vigorous variety and can carry high yields if allowed. It is prone to powdery mildew, botrytis bunch rot (as well as to the positive effects of botrytis for making sweet wines) and trunk diseases. It ripens late, making it vulnerable to the onset of autumn rains. As Chenin Blanc ripens unevenly, for the



Layon vineyard

best quality it has to be picked on several passes through the vineyard. This limits the amount of mechanical picking that can be employed. Where growers are seeking a wine with a high proportion of botrytis-affected grapes, multiple passes through the vineyard and picking by hand are necessary, adding to cost.

In the middle Loire it produces a wide range of styles: sparkling wine, dry, off-dry and sweet wines. Here, the dry and off-dry wines have medium intensity aromas of green apple and lemon (sometimes with a steely, smoky character), medium alcohol and noticeably high acidity, often balanced with some residual sugar for an off-dry style. They are typically good to very good in quality and inexpensive to mid-price, with some outstanding quality and premium priced options (e.g. Domaine Huet).

Cabernet Franc – This is an early budding variety, making it prone to spring frost. It is also prone to coulure and therefore to a reduction in yields. As a mid-ripening variety, it can often be picked before autumn rains begin. If it is not ripened fully, the wines can taste excessively leafy. Better canopy management (avoiding dense canopies, leaf removal) along with warmer summers has reduced the incidence of overly herbaceous Loire Cabernet Franc. It is winter hardy, which makes it a good variety for cool areas. In the middle Loire, the wines typically have medium to pronounced intensity red fruit (redcurrant, raspberry), floral (violet) aromas and, as noted, can have leafy aromas, a light to medium body, medium tannins and high acidity.

In the Loire Valley, Cabernet Franc tends to be used to make single varietal red wines or be part of a rosé blend. In eastern Touraine, the limit of the area where it will ripen fully, it is blended with Cot, the local name for Malbec.

Grolleau Noir – This is an early budding and mid-ripening variety. It is prone to botrytis bunch rot. It is used mainly as a blending variety in rosés, especially Rosé d’Anjou and Rosé de Loire.

Gamay Noir – For the characteristics of Gamay and the wine style, see Beaujolais: [Gamay Noir](#). It is generally made by carbonic maceration, as in Beaujolais. Some Gamay is found in Anjou; however, it is principally grown in Touraine as well as in the Central Vineyards.

Cabernet Sauvignon – Being a late ripening variety, Cabernet Sauvignon performs best in the Loire in temperate Anjou and here only really in the warmest sites where early budding is possible. For red wines, it is frequently blended with Cabernet Franc. It is also used in rosé blends.

WINEMAKING

Chenin Blanc is fermented at cool to mid-range temperatures. As a result, fermentation can last several months. Large old oak or stainless steel containers are typically used as fermentation vessels. Typically, malolactic fermentation is avoided, and wines are aged in neutral containers, not new *barriques*. The aim is to retain primary fruit aromas and flavours.

Cabernet Franc is typically crushed, fermented in concrete or old wood vats that allow punch downs and/or pump overs. Many producers prefer to use ambient yeasts and it is typical to age the wine in used oak barrels of a range of sizes. As with Chenin Blanc, the aim is to retain primary fruit aromas and flavours. Some more expensive wines may be aged in a proportion of new French oak *barriques*.

Many Loire rosés are made by direct press. Short maceration is used on some rosés. Winemaking then proceeds as it would for white wine with short ageing (3–4 months) in neutral containers.

APPELLATIONS, WINE LAW AND REGULATIONS

There is no regional generic appellation for the Loire such as Bordeaux AOC. However, there are three regional appellations in the middle Loire: Anjou AOC, Saumur AOC and Touraine AOC.

Key Anjou appellations

Anjou AOC – This appellation allows a maximum yield of 60 hL/ha for red or white wines, resulting in some wines of low flavour intensity. Anjou Blanc must have a minimum of 80 per cent Chenin Blanc and Anjou Rouge a minimum of 70 per cent of Cabernet Franc and/or Cabernet Sauvignon. Higher quality reds from specifically designated areas are made as **Anjou Villages AOC**. This is for still red wine only, made entirely from Cabernet Franc and Cabernet Sauvignon, either singly or blended; in practice, they are mostly Cabernet Franc. Maximum yield is 55 hL/ha and the wines can only be released in September of the year after harvest. A significant number of good producers in Anjou prefer to forsake the appellation system and opt for Vin de France.

Coteaux du Layon AOC – This is a large appellation located on the slopes on both sides of the Layon River, which runs into the Loire. It specialises in wines made from botrytis-affected Chenin Blanc grapes. If botrytis fails to develop, the grapes may also be dried on the vine. The natural high acidity of Chenin Blanc allows lusciously sweet wines to be balanced. Maximum yields and minimum potential alcohol are given in the table below. Stricter regulations apply to **Coteaux du Layon AOC + named village**. The grapes need to be picked in several passes through the vineyard (*tries*) in order to pick only botrytis-affected grapes. The wines have pronounced aromas of cooked citrus and apple with honey notes. They are sweet, medium (+) bodied, medium alcohol with high acidity. Quality ranges typically from good to very good with mid- to premium prices.



Chenin Blanc with some botrytis-affected berries

Two places within the geographical area of Coteaux du Layon have a high-quality reputation for sweet wines and are appellations in their own right: **Bonnezeaux AOC** and **Quarts de Chaume AOC**. The regulations for Bonnezeaux are stricter than for Coteaux du Layon but less strict than for Quarts de Chaume. The higher potential alcohol and the lower maximum yield results in wines of very high flavour intensity and a rich texture. Quality ranges from very good to outstanding and prices are typically premium, with a few super-premium examples. Quarts de Chaume became the Loire's first grand cru in 2019 and **Coteaux du Layon AOC Chaume** became a premier cru. The following table is given as an indication of the stricter regulations across the appellations.

	Maximum yield, hL/ha	Minimum percentage potential alcohol
Coteaux du Layon AOC	35	14
Coteaux du Layon AOC + named village	30	15
Bonnezeaux AOC	25	15
Coteaux du Layon AOC Premier Cru Chaume	25	16.5
Quarts de Chaume Grand Cru AOC	20	18

All these sweet wines have proved to be difficult to sell due to a generally low demand for sweet wines. As a result, producers have switched to producing lower volumes of sweet wine and higher volumes of dry wine.



Old vines in Savennières with cover crop emerging

Savennières AOC – This is a small but prestigious appellation mainly specialising in fully dry wine made from Chenin Blanc. South-facing slopes, low-fertility, rocky schist soils and low yields all give concentration and ripeness. These wines have very high acidity and often reach high levels of alcohol. They can be very austere in youth and historically have required many years in bottle before they became approachable. As vineyard management has improved over the last few decades, and with generally warmer weather, some producers now make the wines in a concentrated but slightly more fruity, approachable style. The maximum yield is 50 hL/ha. Some producers are creating premium cuvées using a proportion of new oak barrels.

There are two smaller AOCs within the appellation area: **Savennières La Roche aux Moines AOC** and **Coulée de Serrant AOC**. They benefit from warm sites on slopes facing the Loire, resulting in riper fruit. They have lower maximum yield requirements (30 hL/ha for dry wines). Coulée de Serrant AOC is a monopole, owned exclusively and farmed biodynamically by Nicolas Joly, a figurehead of the biodynamic movement.

Anjou-Saumur is an important centre for the production of rosé wines:

Rosé de Loire AOC – This wine can be made from a range of varieties including Cabernet Franc, Cabernet Sauvignon, Gamay and Grolleau Noir. The maximum yield is 60 hL/ha and the wines are dry. The wine can also be produced outside Anjou-Saumur but rarely is.

Rosé d'Anjou AOC – This is mainly made from Grolleau, although other options include the two Cabernets, Cot and Gamay. The maximum yield is 65 hL/ha, which can lead to wines of low



Fermenting Chenin Blanc in barrels

flavour intensity. Typically, the wines are medium pink-orange in colour (some lighter examples are now being made), medium intensity red berry fruit, medium (+) acidity and medium alcohol; they are medium dry. The wines are inexpensive to mid-price and the quality acceptable to good, with some very good examples. This is a popular wine and the best-selling of the three AOCs.

Cabernet d'Anjou AOC – This must be made from Cabernet Franc and Cabernet Sauvignon. The maximum yield is 60 hL/ha. The wines are typically a deeper colour than most rosé (medium pink) and medium dry.

Key Saumur appellations

Saumur AOC – This appellation includes white, red and rosé still wines, as well as the sparkling wines dealt with in the unit on Sparkling Wine. The white wines are made from Chenin Blanc, the reds principally from Cabernet Franc and the rosés from Cabernet Franc and Cabernet Sauvignon. Maximum yields are the relatively high, 60 hL/ha for whites and 57 hL/ha for reds and rosés, leading to some wines with low flavour intensity.

Coteaux de Saumur AOC – Sweet Chenin Blanc wines are made as Coteaux de Saumur AOC with over-ripe grapes, with or without botrytis, picked in a number of passes through the vineyard. Maximum yields are limited to 35 hL/ha. The wines are lusciously sweet, balanced by high acidity.



Vineyards in Saumur-Champigny

Saumur-Champigny AOC – This is an appellation for red wines made principally from Cabernet Franc, minimum 85 per cent. Wines typically are pale ruby in colour and have medium to medium (+) intensity of redcurrant fruit, sometimes with leafy aromas, medium alcohol, high acidity and medium tannin.

Soils with chalk, flint and clay offer a helpful combination of good drainage and water-holding potential, which is valuable in dry periods. Maximum yield is the relatively high 57 hL/ha, leading to some wines with low flavour intensity. The wine may be released as early as December of the year of the harvest. Most wines are intended to be drunk young for their primary fruit. The wines of this appellation became very successful in the bars and bistros of Paris from the 1970s onwards with the Saint-Cyr-en-Bourg co-operative (now named after its founders, Cave Robert et Marcel) championing the Cabernet Franc grape in a light, accessible style. Most wines are good to very good quality and inexpensive to mid-price, with a few premium examples, such as Clos Rougeard.

Key Touraine appellations

Touraine AOC – This appellation covers the same wide range of wines as Saumur AOC: white, red, rosé and sparkling. However, for white wines the principal variety is Sauvignon Blanc, and for red wines the principal varieties are Cabernet Franc and Cot. Gamay is also grown, and

the name of the variety may be attached, i.e. Touraine AOC Gamay. Rosé may be made from a wide range of varieties including the two Cabernets, Cot, Gamay and Grolleau.

In addition to the basic Touraine AOC, there is the possibility of adding the name of one of six subzones, e.g. **Touraine AOC Amboise**. This allows differences between the varieties used, reflecting what is grown locally. Thus, Touraine AOC Amboise Blanc is made from Chenin Blanc, not Sauvignon Blanc. It can also affect the maximum yields set. For example, while Touraine AOC Blanc allows 65 hL/ha, Touraine AOC Amboise Blanc is limited to 55 hL/ha.

Vouvray AOC – This is the most important white wine appellation in Touraine. The wines must be made from a minimum of 95 per cent Chenin Blanc and are typically 100 per cent. The maximum yield is 52 hL/ha. The best vineyards are the slopes that overlook the Loire, promoting ripening due to good sunlight interception and with the river acting as a moderating influence on temperatures. The soils are flinty, clay and limestone over a tuff, enabling good drainage. Away from the Loire the percentage of clay increases, making the soils colder and inhibiting ripening. Dry Vouvray is made in every vintage; some demi-sec in most years, while sweet is rarer. This contrasts with Anjou, where sweet wines can be made in almost every vintage. Unless clearly marked on the label it can difficult to know whether a Vouvray is dry or sweet.

Montlouis-sur-Loire AOC – This appellation faces the Vouvray appellation from across the south bank of the river making very similar wines from 100 per cent Chenin Blanc with a maximum yield of 52 hL/ha. The vineyards run from the Loire Valley across to the Cher. Due to an influx of newcomers over the past 30 years, in part due to vineyards being cheaper than in Vouvray, Montlouis, which used to be less well known, has become a very dynamic appellation with a significant proportion of estates run organically or biodynamically.

Within Touraine, there are three important appellations for red wines.

Bourgueil AOC – This appellation specialises in red wines, although rosé wines are also made. The principal variety is Cabernet Franc and only 10 per cent of Cabernet Sauvignon is allowed. The maximum yield is 55 hL/ha. While this could result in wines of light flavour intensity, many wines are of high quality and lower yields.

Saint-Nicolas-de-Bourgueil AOC – This appellation generally makes Cabernet Franc in a lighter style than Bourgueil AOC. The wines are similar in style and price to Saumur-Champigny AOC.

Chinon AOC – This appellation is best known and highly regarded for red wines.



Cabernet Franc

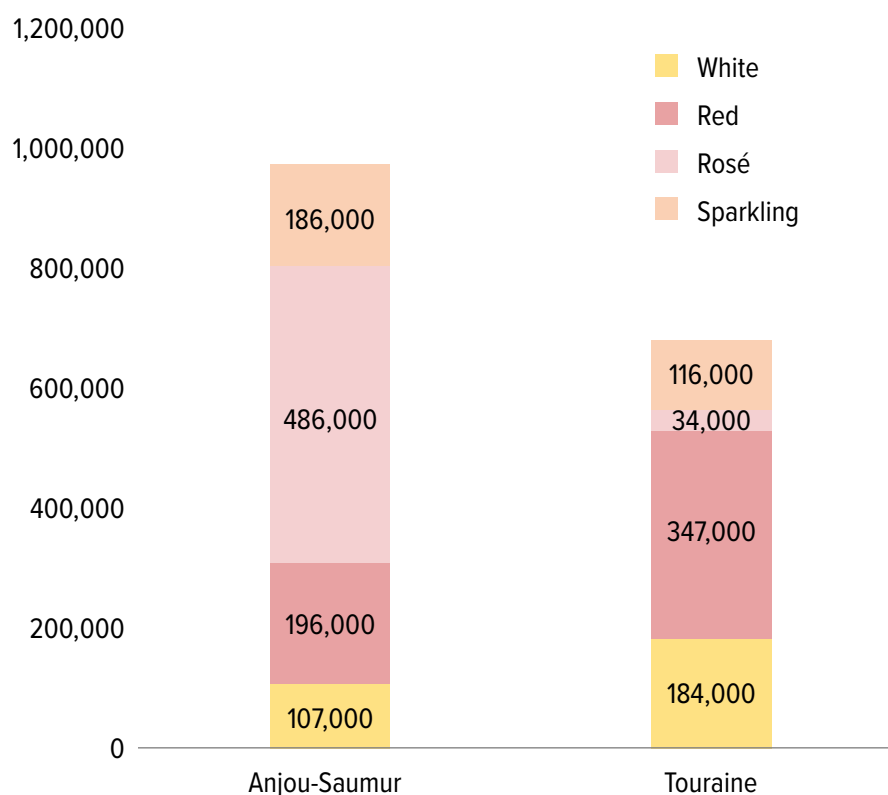
White wines from Chenin Blanc and rosé wines are also made. The principal variety is Cabernet Franc and only 10 per cent of Cabernet Sauvignon is allowed. As in Bourgueil AOC, the maximum yield is 55 hL/ha. While this could result in wines of low flavour intensity, many wines are of high quality and lower yields.

The wines range from light fruity, early to drink examples from a short maceration on the skins (6–8 days) to much more structured and powerful wines with a longer maceration period (2–3 weeks) which are not released onto the market until up to two years following the vintage, adding cost. In general, the most structured and concentrated wines are made with grapes grown on clay and limestone soils, rather than those from vines on sandy or gravelly soils, which typically produce lighter styles.

While most Cabernet Franc wines are made to be drunk young, the wines made with longer maceration periods (especially from good vintages) can age for 20 years and more, due to very good flavour intensity of fruit, high acidity and medium to medium (+) tannins. Most wines are good to very good quality and inexpensive to mid-price, with a few premium examples.

All three appellations (Bourgueil, Saint-Nicolas-de-Bourgueil and Chinon) have three types of soil: sand, gravel and clay-limestone. Wines produced from grapes grown on sandy soils are said to produce the lightest wines, which are the earliest to be ready to drink, while those from clay-limestone are said to be the most structured and long lived.

Wine production by category, Anjou-Saumur and Touraine, hL (2018 harvest)



Source: Vins du Val de Loire.⁷

Both Anjou-Saumur and Touraine export just under 20 per cent of their production.⁸

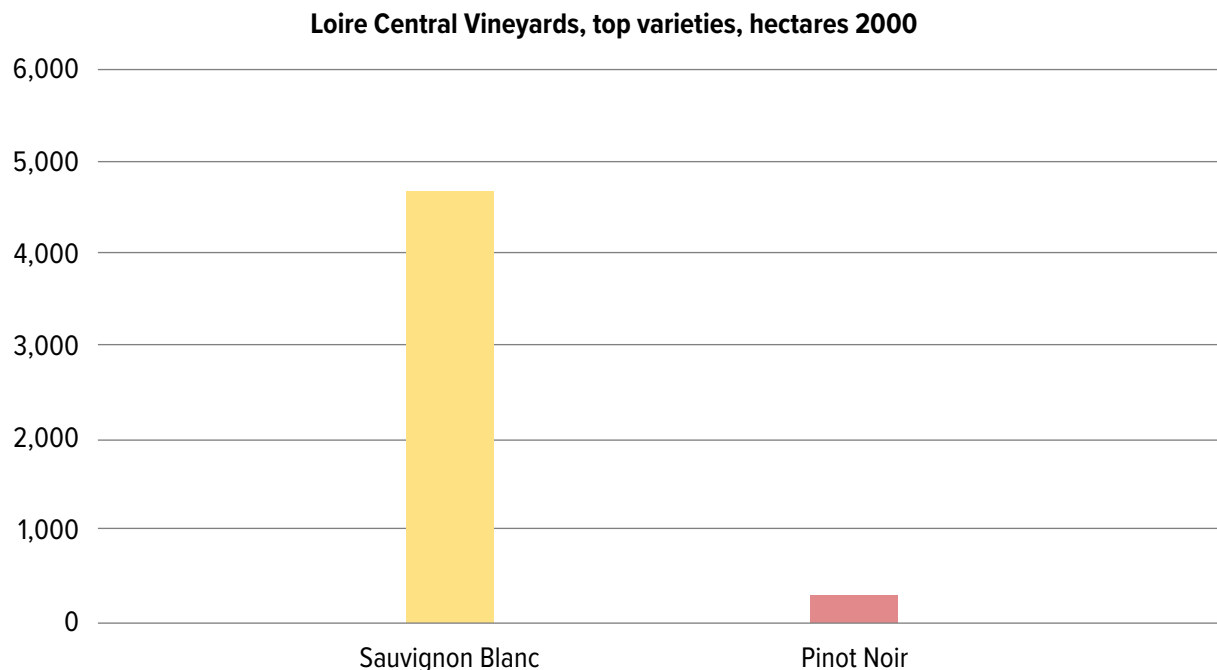
WINE BUSINESS

As can be seen from the chart above, Anjou-Saumur produces around twice as much wine as Touraine. The volumes of production by category are very different between the two:

- Rosé production in Anjou is more than 10 times rosé production in Touraine.
- Anjou-Saumur makes significantly more sparkling wine than Touraine.
- Touraine makes significantly more white and red wine than Anjou-Saumur.

6.3. Central Vineyards

The Central Vineyards is a name given to the eight AOCs that are the furthest east of the main grape growing areas of the Loire Valley, so called as they are situated roughly halfway between the river's source and mouth. Sancerre and Pouilly-Fumé are the best-known AOCs, with the most hectares under vine. They have a continental climate. The principal grape varieties are Sauvignon Blanc for white wines and Pinot Noir for reds and rosés.



Source: Bureau interprofessionnel des vins du Centre

THE GROWING ENVIRONMENT AND GRAPE GROWING

Climate

As noted, this region has a continental climate with cold winters and warm summers. Spring frosts are a threat, as are summer hailstorms. Long growing-season day lengths (compared to Bordeaux and even more so to Marlborough, New Zealand) combined with low light intensity and low heat makes for restrained flavours in the final wines.⁹ Rainfall is surprisingly high for a continental region, at around 750 mm per year. This reduces the chances of drought but increases the threat from fungal diseases.



Old Sauvignon Blanc vines, Sancerre

Grape varieties

Sauvignon Blanc – This is a late budding and relatively early ripening variety, making it suitable to be grown in cool climates and regions with a threat of early autumn rains. It grows vigorously and is therefore best grown on poor soils. The canopy has to be carefully managed to avoid shading (which would lead to under-ripe, overly green fruit flavours). It is prone to powdery mildew, botrytis bunch rot and to trunk diseases (e.g. Esca) including, if cordon-trained, to the fungal disease Eutypa dieback.

Wines made from Sauvignon Blanc typically have pronounced intensity aromas of grass, bell pepper and asparagus with gooseberry, grapefruit and wet stone flavours (cooler areas) to riper, passion fruit (warmer areas). They typically have medium body and alcohol and high acidity.

In the vineyard, row orientation and canopy management can affect the flavour profile of the fruit. Fruit grown in shadier conditions will result in more green pepper and grassy notes, while fruit grown with more sunlight will have more tropical fruit flavour. Picking date is also important, with the growers having to judge optimum ripeness but before the acidity drops and the flavours become over-ripe.

In the Loire's Central Vineyards, 80 per cent of plantings are Sauvignon Blanc.¹⁰

Pinot Noir – For more details on [Pinot Noir](#), see Burgundy. In the Loire's Central Vineyards, 15 per cent of plantings are Pinot Noir.¹¹ The wines are typically medium ruby in colour, light to medium intensity of raspberry and strawberry fruit, high acidity and medium alcohol. The wines are mid-price to premium.

WINEMAKING

In the winery typical fermentation temperatures in the Central Vineyards for white wines are slightly higher than in non-European countries (upper part of cool to lowest part of mid-range, rather than cool) for more restrained fruit expression than is typical for example in New Zealand. Malolactic conversion will often be blocked, but some producers choose to allow it depending on style and vintage. Higher quality wines may be aged in old oak casks to fill out the body of the wine, but typically without the addition of new oak flavours. Thus, in Sancerre, François Cotat use old oak and extensive lees work to produce a wine for long ageing, while others, such as Henri Bourgeois, include a heavily oaked wine in their range.



Oak options in Sancerre

APPELLATIONS, WINE LAW AND REGULATIONS

Sancerre AOC – Sancerre produces white from Sauvignon Blanc only and red and rosé wines from Pinot Noir only. This is the largest of the Central Vineyards appellations and the most commercially successful. Historically, the area was planted with Pinot Noir but, post-phyloxera, the area was replanted with Sauvignon Blanc. From the 1950s and 1960s onwards, the wines were successfully promoted, initially in Paris and then in the rest of France and around the world.



Les Monts Damnés, Sancerre

The steep hillside slopes (200–400 m), the river and the nearby forests provide moderating influences against frosts in spring. Maximum yields are set at 65 hL/ha for white wines, 63 hL/ha for rosés and 59 hL/ha for reds. While the maximum yields are high, Sauvignon Blanc can produce wines with sufficient flavour intensity at this level, but reduced yields are needed to produce wines with flavour intensity from Pinot Noir.

In Sancerre, the white wines typically have medium intensity aromas of grapefruit and gooseberry, medium alcohol and high acidity. They rarely have new oak flavours. They are good to outstanding in quality and mid-price to premium price, with a few super-premium examples (e.g. Didier Dagueneau or François Cotat).

There are three types of soil:

- **Caillottes** – very shallow soils (25–40 mm) over limestone; fruit grown on these soils are said to produce the most aromatic wines that are first to be ready to drink and to have less potential for ageing in the bottle.
- **Terre blanches** – the same Kimmeridgian limestone and marl that is to be found in Chablis. Fruit is slow ripening on these soils, which include some of Sancerre's most famous vineyards (Côte des Monts Damnés and Cul de Beaujeu) and are said to produce the most structured wines that need long maturation before they are ready to drink and age well.
- **Silex** – flinty soils that accumulate heat and lead to early ripening, e.g. Les Romains, next to the Loire. Fruit grown on these soils are said to produce wines with stony or smoky aromas.

Pouilly-Fumé AOC – Sauvignon Blanc only, same maximum yield as Sancerre. Pouilly-Fumé and the other appellations listed below are on flatter land than Sancerre and hence are much more prone to frost damage in the spring. Some growers have installed wind machines as a means of protection. It has the same range of soils as Sancerre. The wines are of similar price and quality to Sancerre.

Broadly, Pouilly-Fumé tends to be a little rounder and less aromatic than Sancerre and often needs a little more time – six months to a year in bottle – to really start to show.

Reuilly AOC – White wines from Sauvignon Blanc only, red from Pinot Noir only, rosé from Pinot Gris and Pinot Noir, same maximum yields as Sancerre for the three categories of wine respectively.

Quincy AOC – White wines only from Sauvignon Blanc (minimum 90 per cent) and Sauvignon Gris, same maximum yield as Sancerre.

Menetou-Salon AOC – The same range of wines and maximum yields as Sancerre. The vines are planted on gentle south-facing slopes, making them more vulnerable to frost than in neighbouring Sancerre. The wines of Reuilly, Quincy and Menetou-Salon are typically good to very good in quality and inexpensive to mid-priced.

There is recurrently no *cru* system in the appellations of the Central Vineyards. However, individual vineyard sites are growing in importance, with more and more producers releasing wines from single vineyards. Famous sites include Les Monts Damnés (Chavignol) and Les Belles Dames (both in Sancerre).

6.4. Wine Business

The appellations of the Central Vineyards promote their wines together via the Bureau Interprofessionnel des Vins du Centre (BIVC).

STRUCTURE OF THE INDUSTRY

Family owned businesses continue to be very important in the Loire. Many estates trace with pride the number of generations in the family that have tended vines and made wine. There is also a steady flow of French people from outside the valley choosing to change from working in large cities like Paris and opting to set up as wine producers.

For the Loire Valley as a whole, *négociants* are very important, selling 50 per cent of all wine by volume. (The top 10 *négociants* account for 82 per cent of all sales within the *négociant* sector.) Estates sell 41 per cent and co-operatives under 10 per cent.¹²

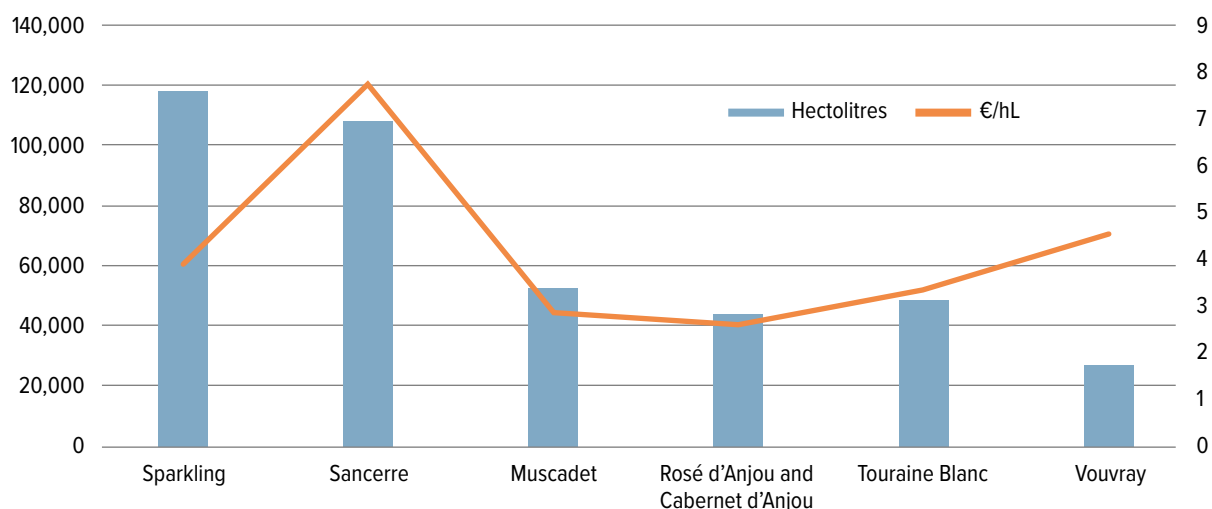
The distinction between *négociants* and estates has become somewhat blurred over the last 20 years. *Négociants* have increasingly opted to vinify their wines themselves rather than relying mainly on buying finished wine. The large *négociant* companies have wineries spread across the Loire from the Pays Nantais to Sancerre. Some have also bought prestige estates; examples include Grand Chais de France buying Château des Fesles (Bonnezeaux) and Château de Cléry (Muscadet Sèvre et Maine) and Ackerman buying Château de Varière (Anjou) and Château de Sancerre.

Equally, an increasing number of family estates has a *négociant* side to their business. This tendency has accelerated with the recent frosts and hail damage, which have severely reduced their crop, so buying in grapes, juice or wine can be a way of keeping their clients and avoiding severe financial problems.

MARKETS

For Loire AOC wines the largest channel in France is the specialist wine retail and hospitality sector (just under 44 per cent of all sales by volume) and then supermarkets (36 per cent). Exports are 20 per cent, with the top markets being US, UK and Germany.¹³

Volume and value of exports of selected Loire AOCs in 2021



Note: Sparkling is the total of Crémant de Loire, Vouvray Mousseux and Anjou Mousseux
Muscadet is the total of the four Muscadet AOCs

Source: Statistiques exportations des vins du Val de Loire 2021, InterLoire¹⁴

In terms of exports, Sancerre outperforms all the other still wine appellations by both volume and value, achieving a price that is nearly half as much again as the average price of all white wines.

In the graph above, the top six appellations or groups of appellations are aggregated (e.g. all the Muscadet AOCs) and compared with Sancerre AOC.

ORGANIC, BIODYNAMIC AND NATURAL WINE

The Loire Valley has a number of well-known proponents of organic and biodynamic vine growing. Nicolas Joly was the founder of the [Renaissances des appellations/Return to Terroir](#) group, now a worldwide group of biodynamic producers but with more producers in the Loire than in any other region. The total production of certified organic wine is below the French average, but this perhaps is not surprising given the cool and damp climate. The Loire Valley is also a centre of natural winemaking, with wines often being produced as Vin de France.

References

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- 2 *Economie du vignoble du Val de Loire. Les chiffres clés*, 2019, InterLoire and Wines of the Centre-Loire region, Bureau interprofessionnel des vins du Centre (BIVC, retrieved 6 December 2022, no longer publicly available)
- 3 Muscadet & Terroirs, Vin de Nantes (retrieved 12 October 2022)
- 4 *Economie* and BIVC as above
- 5 As above
- 6 InterLoire, Private communication, 30 November 2022
- 7 [The Loire Valley Vineyards and their Vines, 2019](#), Vins des Loire (retrieved 23 March 2020, no longer publicly available)
- 8 *Economie* and BIVC as above
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- 11 As above
- 12 *Economie* and BIVC as above
- 13 As above
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