28. Chile

Chile has established itself as an important producer of wines, making roughly similar volumes of wine to Argentina, Australia and South Africa. It has been particularly successful in exporting its wines, partly because the wine business is dominated by four large companies and helped by its focus on international varieties. It grows both cool climate and warm climate varieties successfully due to its dry and sunny climate and to cooling influences from the Pacific Ocean and altitude in the foothills of the Andes. Having established itself as a provider of well-priced, competently made, reliable wines, it is now also producing high quality wines and experimenting with a much wider range of styles.

Spanish explorers arrived in what today is called Chile in the second half of the sixteenth century hoping to find precious metals. They attempted to subjugate the indigenous peoples and to take possession of the land. They succeeded in wresting control of the northern part of Chile from the Incas. Some tribes, e.g., the Mapuche, were eventually pushed out of their lands and many were killed due to fighting, disease and deaths in the mines established by the Spanish. In neighbouring southern Peru, indigenous people and Africans were enslaved to work in vineyards controlled by Catholic missionaries.

The earliest vineyards were planted both in the north of Chile and also near Santiago and gradually spread southwards to the Southern Regions, where large amounts of cheap wine were soon produced. These early wines were unsophisticated by modern standards and made in an oxidative style from varieties such as País (known as Criolla Chica in Argentina) and Muscat.

However, in the 19th century a number of factors saw wine production expand significantly. Firstly, Chile gained independence from Spain. Chileans were then free to exploit the country's vast mineral resources, and some ploughed their new-found fortunes into vineyards. In 1851 one of them, Silvestre Ochagavía Echazarreta, imported vines from Bordeaux, bringing a French winemaker along with them. Meanwhile, an experimental nursery had been established in the 1830s, including stocks of European vines, meaning that when phylloxera ravaged Europe's vineyards later in the century, many European winemakers were drawn to Chile.

As a result, by the start of the 20th century, Chile had a booming wine industry, although the vast majority of production was of basic, cheap wine, much of which being consumed domestically. However, by the middle of the century, the Chilean wine industry had gone into decline: domestic demand declined while Chile was politically isolated from the outside world. About half of Chile's vineyards had been pulled up by the early 1980s, including some in what are now seen as Chile's top quality wine-producing regions.

However, things would soon change with the return to democracy and a free market. Producers began investing heavily in new technology in the 1980s and 1990s and shifted their focus to quality wine production for the export market. Large areas of new vineyards were re-planted. New vineyard areas were also established, for example in the Casablanca, San Antonio and Limarí Valleys. There has been further development in new coastal and mountain regions, and the traditional regions of Itata and Maule are currently being rediscovered for their winemaking quality.

In the past, Chile was sometimes accused of producing safe and reliable wines that were a little formulaic or uninspiring. The past decade has seen a move, in line with global trends, to

less extraction, less oak and a more elegant style of wine. In addition, Chile has established a number of outstanding quality wines that compete with the best in world markets and has expanded its range with aromatic white wines from cooler, southern areas. In the period 2017-2021, it was the seventh largest producer of wine in the world (average 11.6 million hectolitres of wine per year) making it part of a group with Australia and Argentina that were regularly the fifth to seventh largest producers in that period.[1]

28.1. The Growing Environment and Grape Growing

GEOGRAPHY AND CLIMATE

Chile is the narrowest and the second longest country in the world, extending around 4,300 km (2,500 miles) from north to south but with an average width of only around 175 km (100 miles).

Hemmed in by the Atacama Desert to the north, the Andes to the east, the Pacific Ocean to the west and the glaciers of Patagonia to the south, the main vineyard area is only around 1,000 km (600 miles) long, stretching from the Elqui Valley in the north (around 30°S) to the Malleco Valley (around 38°S) in the south, and rarely more than 100 km (60 miles) wide. However, in recent years, a number of vineyards have been planted in the Atacama Desert, and further south in Cautín and Osorno.

Despite covering around eight degrees of latitude, the climate across Chile's main wine regions is fairly consistent from north to south. Most have a warm, Mediterranean climate with a long, dry and sunny growing season, although it becomes cooler and wetter further south. The relatively low latitude means the sunlight is intense. Annual rainfall varies, with northern and inland areas being drier (as low as 80 mm per annum in Elqui) and coastal and southern areas being wetter (1,200 mm per annum in Bío Bío).

Like other Pacific countries, Chile is affected by the *El Niño* phenomenon, which occurs every two to ten years and brings much higher than average rainfall, and much lower rainfall or drought in *La Niña* years. This phenomenon, together with the fact that producers are increasingly planting in more climatically extreme parts of the country, means that variations between vintages can be significant.

Many of the vineyards are planted within valleys that run from east to west, so most of the climatic variation in Chile's wine-growing regions also occur from east to west. The Pacific Ocean and Andes provide a significant cooling influence at either end of the valleys, lengthening the growing season and allowing the grapes to retain acidity and aromas.

Along a significant stretch of the coast is a range of low mountains (about 300–800 m above sea level) forming a barrier against the influence of the ocean. The vineyard areas to the west of these mountains are fully exposed to ocean influences. The Humboldt Current flows up from Antarctica, bringing cold water and hence cool air. As warm air rises from the land during the day, this cool air is sucked inland. It also produces morning fog that moderates temperatures until it is burned away by the heat of sun but also increases humidity.

The coastal range and the Andes effectively merge to the north of Santiago (in Coquimbo and Aconcagua), but to the south they part to create a large, dry, warm and sunny central valley between them where grapes for high volumes of inexpensive wines are grown.

Where there are gaps in the coastal ranges, fogs and cool breezes can enter the valley, moderating vineyards that lie just to the east of the coastal ranges. Planting on the slopes of the coastal ranges or on hills in the valleys can also provide cooling influences either through altitude or aspect, and vineyards here can yield higher quality grapes.

Morning fog in coastal Casablanca

In the east of the country, a number of vineyards are planted on or near the foothills of the Andes. Cool mountain air descending from the Andes overnight leads to high diurnal ranges, and altitude, where relevant, can also moderate temperatures.

SOIL

The river valleys offer fertile soils that are mainly alluvial in nature, with areas of clay, sand, silt and gravel. The soil on the slopes is less fertile; in the coastal ranges there is more gravel with sand and silt, while in the Andes the soil is mainly based on granite. There is little limestone in Chile – the most significant outcrops can be found in the Limarí Valley in the north. In recent years, there has been a remarkable advance in the understanding of *terroir* and soil, which has led to greater interest in single vineyard wines.

VINEYARD MANAGEMENT

Chile has approximately 145,000 hectares of vineyards planted for wine production.[2] The area under vine increased rapidly in the 1990s and early 2000s, but now has declined slightly.

Production has also increased greatly, from between three and six million hL in the 1990s to over 13 million hL in the 2020s. There can be marked fluctuations in production volumes year on year according to the effects of *El Niño*.

The normally dry and sunny growing conditions across most of Chile's main wine regions are ideal for producing healthy, fully ripe grapes. The intense sunshine means grapes ripen reliably with high levels of tannins and anthocyanins. In many areas, the dry conditions mean the risk from fungal disease is minimal and so there is little need for spraying. However, in coastal areas humidity means that fungal diseases can be an issue. Overall, sustainable and organic viticulture is widely practised in Chile and enthusiastically promoted by leading producers and trade bodies.

Due to the low rainfall in most of the country, just over 85 per cent of Chile's vineyards are irrigated.[3] The exception is in Itata, and to a lesser extent in Bío Bío and Maule, where vineyards can rely on rainfall and the old vines have deep root systems that can survive drought years. Like Argentina, Chile has access to supplies of pure water from melting snow brought down from the Andes by the many river valleys crossing the country. Where rivers are not present in a region (such as Casablanca) irrigation water may come from aquifers via wells. However, as a result of climate change, not only have average temperatures been rising in Chile but snowfall in the Andes is reducing, limiting access to water.

A series of droughts in the 2010s has reduced water resources significantly with areas such as the central part of the Aconcagua Valley being affected.[4] In addition, Chile is prone to earthquakes that can damage vineyards and wineries directly.[5]

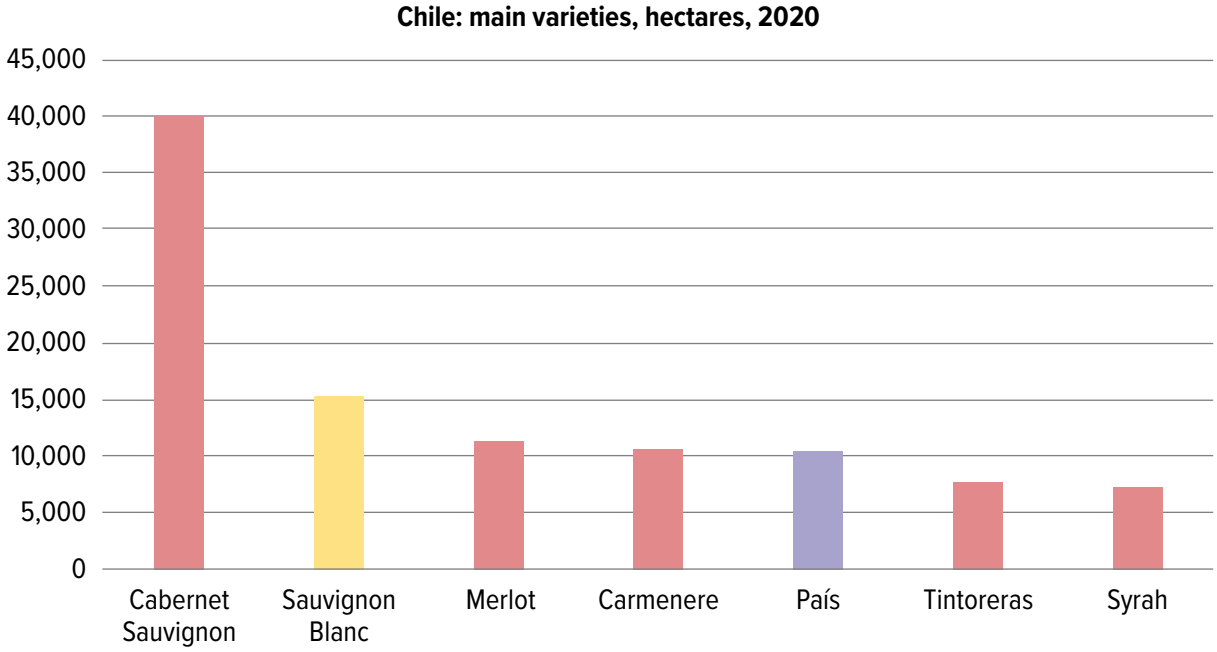
Forest fires are a particular hazard in Chile. Commercial forestry is a huge industry and large plantations (primarily of pine and eucalyptus) can fuel major fires. Even though vineyards are not usually directly affected, those near to the fires can be affected by smoke taint.

Chile has remained phylloxera free, thanks to its geographical barriers and strict quarantine rules. As a result, there are considerable plantings of old, ungrafted vines, particularly old bush vines of País, Muscat, Carignan and Cinsault in Itata and Maule. However, many vineyards were planted only relatively recently and grafted vines are becoming more common to protect against nematodes. Although Chile has traditionally seen a wide variety of training systems, VSP is now by far the most common.

Mechanisation is easy in the flat vineyards and is being increasingly introduced in the Central Valley, as finding manual labour becomes more challenging. However, overall the proportion of vineyards machine-harvested is low.

28.2. Grape Varieties and Winemaking

Black varieties dominate Chilean vineyards, accounting for around three-quarters of plantings. The most planted varieties in Chile are shown in the chart below.



Source: Wines of Chile.[6]

Until the 1990s, the most commonly planted grape variety was País.[7] Traditionally used to make inexpensive wine for the domestic market, around 75 per cent of País vines have been pulled up since the 1980s. However, in recent years it has undergone a revival, with some good quality wines being made from old-vine stock in Maule, Itata and Bío Bío.

Since the 1990s, there has been a significant shift in focus to international varieties, particularly the Bordeaux varieties. However, there have been some issues with vine identification in Chile. Carmenere was confused with Merlot and called Chilean Merlot until

it was identified in 1994. Similarly, the majority of the vines called Sauvignon Blanc by the Chileans were almost certainly Sauvignonasse and occasionally Sauvignon Gris and have only recently been correctly identified.

Recently, the trend has been for greater diversity. Although the top four grape varieties make up almost 60 per cent of plantings in the country, wine producers are increasingly experimenting with a broad range of different varieties, from aromatic whites such as Muscat, Viognier, Riesling and Gewurztraminer, to black Mediterranean varieties such as Carignan, Cinsault, Grenache and Mourvèdre.[8]

There has also been an increasing diversity in wine styles. Chile has become a leading supplier of inexpensive, fruity wines made in temperature controlled, stainless steel tanks and intended for early drinking. However, it is also capable of making good and very good quality wines in the mid-priced category and outstanding wines that sell at premium and sometimes super-premium price points. A growing number of producers, including some of the largest wineries, are experimenting with less new oak, greater use of old oak, concrete and, occasionally, amphorae; also with the use of whole bunches and gentler extraction for reds and use of extended skin contact and lees contact for whites. Rosé and sweet wines are increasingly being produced as well.

KEY BLACK GRAPE VARIETIES

Cabernet Sauvignon

Cabernet Sauvignon is by far the most widely planted grape variety in Chile and produces many of Chile's finest and most expensive wines, either as a single variety or in a blend with Merlot, Carmenere or Syrah. Mid-priced and premium wines tend to be full-bodied with high but ripe tannins and pronounced dark fruit, particularly blackcurrant, often with a herbaceous (mint or eucalyptus) character. Maturation in at least a proportion of new oak tends to bring toasty, spicy notes. The best sites traditionally for Cabernet Sauvignon have been those near the Andes, where poorer soils (than found on the valley floor) have helped to keep vigour in control, and cool nights have slowed ripening and helped retain acidity. Cabernet Sauvignon is also used to produce large amounts of inexpensive, simple, fruity wines, particularly in the flatter parts of the Central Valley. They may still show some dark fruit and herbaceous character, but with less structure, complexity and intensity.

Merlot

Inexpensive Chilean Merlot, mainly from the Central Valley, has done very well on export markets with its soft tannins, medium body and dark fruit flavours. It is also widely used in blends. However, more complex, fuller-bodied examples with riper fruit characteristics are also made by producers who seek to keep yields low.

Carmenere

Carmenere (sometimes spelled Carménère or Carmenère) was only officially identified in Chile in 1994, having been planted as Merlot for many decades previously. Often used in blends, it is found increasingly as a single-varietal wine and good and very-good quality examples tend to be full-bodied with high levels of tannins, medium acidity and flavours of ripe black fruits (blackberry), herbaceous characteristics (bell pepper, eucalyptus) and notes of spice, roasted coffee or dark chocolate when oaked.

Site selection is important for Carmenere. It ripens two to three weeks later than Merlot and needs warm (but not too hot), sunny sites, otherwise it can be overly herbaceous with harsh tannins. However, if it is allowed to get too ripe, the wine can be overly alcoholic. Research into clonal selection, site selection and harvesting dates, and less extraction and new oak usage in the winery, mean that styles of Carmenere are likely to keep evolving.

Syrah

Despite only being first planted in the mid-1990s, Syrah plantings have increased rapidly. Grown in different locations, it produces a variety of styles: from the cooler-climate style of San Antonio, Casablanca, Limarí and Elqui with higher acidity, fresh black fruit and notes of pepper and clove, to the warmer-climate style of the Colchagua Valley, fuller-bodied with more intense, riper black fruit flavours.

Pinot Noir

Pinot Noir in Chile is improving rapidly, especially in cooler areas such as Casablanca and San Antonio. The best wines show red fruits with herbal characters and medium to high alcohol levels.

KEY WHITE GRAPE VARIETIES

Sauvignon Blanc

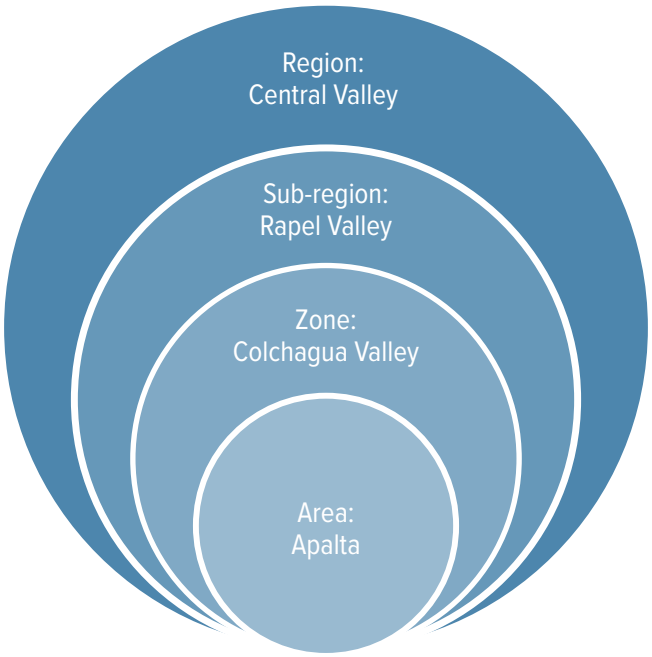
Sauvignon Blanc is Chile's most planted white grape. It thrives particularly in cooler areas such as Limarí, Casablanca and San Antonio, where it can produce very good quality wines with high acidity and flavours that range from citrus to tropical, sometimes with a hint of wet stones or a herbaceous character. Some producers use lees contact and oak ageing to increase complexity. Large amounts of good quality, inexpensive Sauvignon Blanc are also made throughout the Central Valley.

Chardonnay

Cool coastal areas, particularly Limarí, have also become increasingly recognised as a source of very good quality Chardonnay. The wines tend to show medium (+) to high acidity with citrus and stone fruit flavours. Large amounts of inexpensive Chardonnay are also produced, particularly in the Central Valley, with ripe tropical fruit flavours. The wines can either be oaked or unoaked.

28.3. Wine Law and Regulations

In 1995, Chile created a system of *Denominaciones de Origen* (DOs). Five main regional DOs were created (Atacama, Coquimbo, Aconcagua, Central Valley and Southern), largely along political boundaries – a sixth, Austral, was added later. These regions were further divided into a number of sub-regions that tended to follow river valleys. For example, the Central Valley Region was sub-divided into the Maipo, Rapel, Curicó and Maule Valleys. Later, smaller zones were created in a number of sub-regions; for example, the Colchagua and Cachapoal Valleys in Rapel Valley. There are now also a growing number of smaller DOs called 'areas'. They either belong to a zone, for example Apalta is part of Colchagua Valley, or sub-region (where no zone exists), for example the area Puente Alta is part of the sub-region of Maipo Valley (see the diagram above).



As previously explained, Chile has a much greater diversity in climate and soils from east to west than from north to south. To reflect this, a further set of designations was introduced in 2011, splitting the valleys into *Costa* (for areas with coastal influence), *Andes* (for areas influenced by the mountains) and *Entre Cordilleras* (for the areas in between). These new designations sit on top of the existing DO system, meaning wines can be labelled, for example, Aconcagua Costa or Maipo Andes. Nevertheless, producers have been slow to adopt the new system.

To qualify for DO status, 75 per cent of the grapes used must come from that region, or 85 per cent for wines being exported to the EU (to comply with EU rules). Varietally-labelled wines must contain at least 75 per cent of that variety (or 85 per cent for exports to the EU). DO wines must have a minimum alcohol level of 11.5% abv.

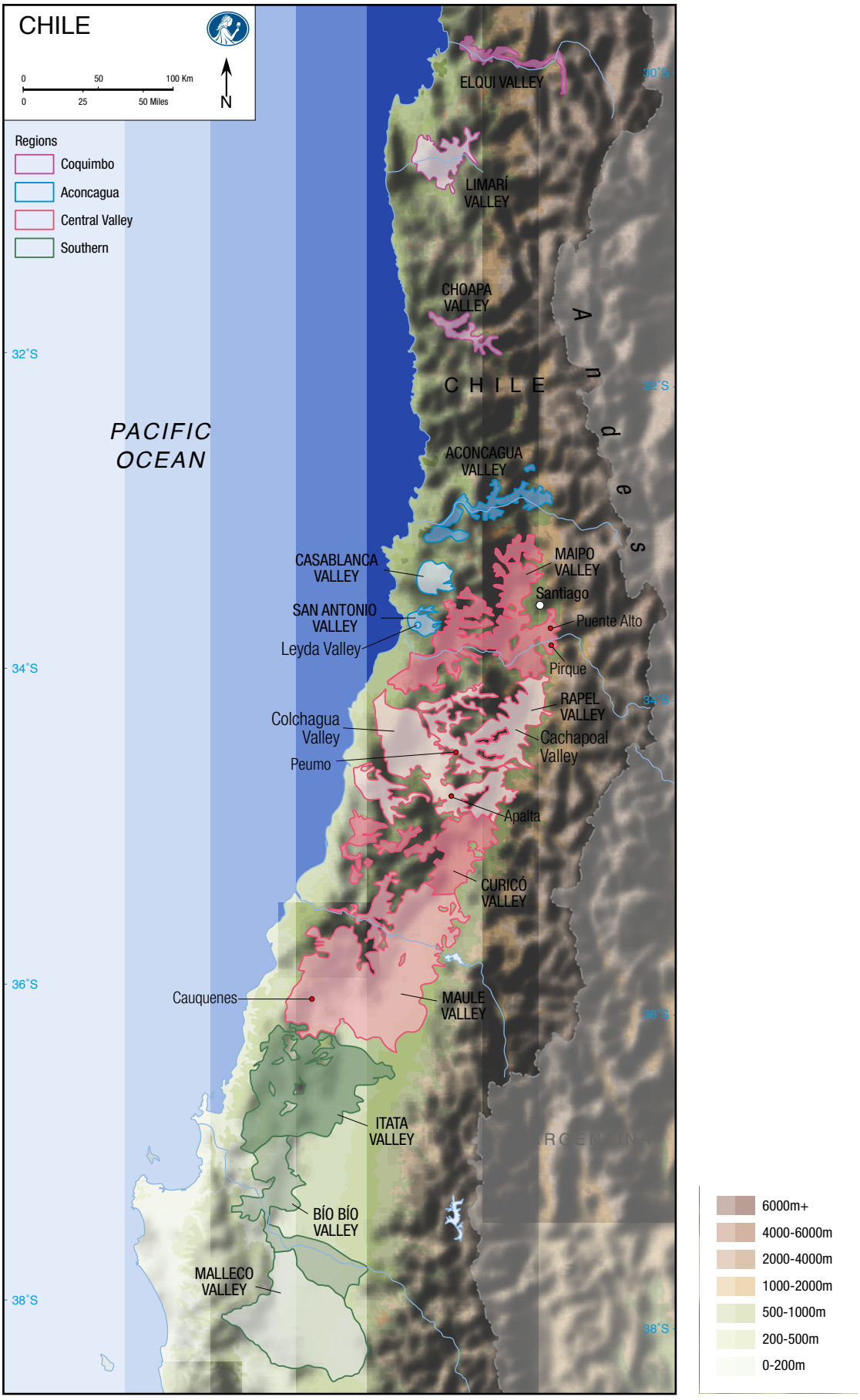
There are a number of legally recognised labelling terms: *Superior*, *Reserva*, *Reserva Especial*, *Reserva Privada* and *Gran Reserva*. These have very little meaning except that they have higher minimum alcohol levels (12% abv for *Reserva* and *Reserva Especial*; 12.5% abv for *Reserva Privada* and *Gran Reserva*) and red wines labelled *Reserva Privada* and *Gran Reserva* must have been aged in oak for a minimum of six months. Some producers use these terms to distinguish between wines in their portfolio, although many now do not use these terms and use different branding and label design to indicate wines of different price and quality levels.

28.4. Principal Wine Regions

The four main wine-producing regions, from north to south are Coquimbo, Aconcagua, Central Valley and Southern.

COQUIMBO REGION

Traditionally, table grapes and those destined for Pisco (grape brandy) were grown here, but since the 1990s winemakers have started to recognise its potential for producing high-quality wine. The three DOs are Elqui, Limarí and Choapa, although the latter is still only producing very small quantities of wine.


CHILE
0 50 100 Km
0 25 50 Miles
N
Regions
Coquimbo
Aconcagua
Central Valley
Southern
ELQUI VALLEY
LIMARÍ VALLEY
CHOAPA VALLEY
CHILE
Andes
PACIFIC OCEAN
ACONCAGUA VALLEY
CASABLANCA VALLEY
MAIPO VALLEY
Santiago
SAN ANTONIO VALLEY
Puente Alto
Leyda Valley
Pirque
RAPEL VALLEY
Colchagua Valley
Cachapoal Valley
Peumo
Apalta
CURICÓ VALLEY
Cauquenes
MAULE VALLEY
ITATA VALLEY
BÍO BÍO VALLEY
MALLECO VALLEY
30°S
32°S
34°S
36°S
38°S
6000m+
4000-6000m
2000-4000m
1000-2000m
500-1000m
200-500m
0-200m

The dry climate in Elqui means irrigation is essential for vines to grow.

At this low latitude (Elqui Valley is around 30°S), summer temperatures are high and the sunlight is intense. The cooling influence of both the mountains and the Pacific Ocean are therefore essential to delay fruit ripening, producing wines that show intense fruit flavours, balanced by fresh acidity. Alcohol levels can be high.

The Humboldt Current brings morning fogs and cooling breezes to the region. However, it brings little or no rainfall: Coquimbo is situated on the edge of the Atacama Desert, the world's driest desert, and the average rainfall is less than 100 mm per year. Irrigation is therefore essential, but reduced snowfall in the Andes in recent years has led to water shortages and is threatening the region's future as a wine-producing region just as it is starting to gain an international reputation.

The difficult growing conditions and difficulty in accessing the area (the coastal ranges and Andes are merged here) mean that the focus tends to be on smaller-production wine, which can reach premium prices.

Elqui

The Elqui Valley is currently the northernmost of Chile's principal wine regions, around 400 km (250 miles) north of Santiago.

The wine region follows the route of the River Elqui from the plains near the coast, through low rolling hills and into the foothills of the Andes. The lack of coastal mountains and the route carved by the river means that the morning fog can reach further inland than in the other regions. Syrah and Sauvignon Blanc have shown well in the fog-affected areas, the cooling influence leading to wines with relatively high acidities and fresh fruit flavours.

Elqui is also home to Chile's highest vineyards: plantings extend up to 2,200 m above sea level at the eastern end of the valley. The even more intense sunlight and wide diurnal range are producing deep-coloured, intensely fruit flavoured, yet fresh Syrah. Other Rhône varieties are starting to show promise, as is Malbec.

Limarí

Around 100 km (60 miles) south of Elqui, the Limarí River cuts a narrow, steeply-sided valley through the coastal mountains. The west of the region is cooled by morning fog and cool breezes that enter from the bay to the north (where there are no coastal mountains) and up the valley cut by the river. Some producers are exploring the far east of the valley, where sites in the foothills of the Andes can be found at 1,500 m and higher; altitudes provide a cooling influence. Unusually for Chile, there are pockets of calcareous soils. These retain moisture well, which is extremely useful in the desert-like conditions and in the years of drought when water accessibility is an issue.

Chardonnay is the most planted grape variety, producing in a full range of styles from lighter-bodied wines with high acidity at the coastal end of the valley to riper, fruitier styles further inland. Producers are also experimenting with Pinot Noir on these soils, but, so far, Syrah has proved the most successful red wine, again in a range of styles along the valley. The warmer eastern end of the valley floor provides good growing conditions for Cabernet Sauvignon, Merlot and Carmenere.

ACONCAGUA REGION

Aconcagua has three important sub-regions – the Aconcagua, San Antonio and Casablanca Valleys – that offer a greater variety of soils and mesoclimates than any other in Chile. The central part of the Aconcagua Valley is hot and dry, whereas the vineyards along the Pacific coast are some of Chile's coolest, where white wine production dominates.

Aconcagua Valley

The distinction between the new *Andes, Entre Cordilleras* and *Costa* sub-divisions is perhaps clearer in the Aconcagua Valley than elsewhere and, as a result, producers here have been among the first to adopt them on their labelling.

The central part of the valley is hot and dry, although moderated by high diurnal range. Rainfall is around 250 mm per year here and irrigation is essential. It has built a reputation for ripe, full-bodied red wines with high levels of alcohol and tannins, particularly from Cabernet Sauvignon and Merlot, although Syrah and Carmenere are on the increase.

Vines planted on the valley floor in Aconcagua Valley.

However, as producers look to produce fresher, more complex wines with lower levels of alcohol, they have started to move away from the valley floor to cooler sites on the valley sides and at the eastern and western ends of the valley. These tend to produce smaller-volume wines, which command mid and premium prices.

In *Aconcagua Costa*, morning fogs and ocean breezes are relatively unimpeded by hills and create conditions that are ideal for producing fresh white wines, particularly from Sauvignon Blanc and Chardonnay, as well as Pinot Noir and cool-climate style Syrah.

In *Aconcagua Andes*, vineyards rise up to around 1,000 m above sea level. The days are sunny and warm, but cold air descends from the mountains at night, leading to a large diurnal range. It generally produces red wines with pronounced ripe fruit flavours balanced by fresh acidity.

Casablanca Valley

South of the Aconcagua Valley, this sub-region extends only around 30 km (20 miles) inland. Low hills to the west of the region do little to diminish the impacts of the ocean, while higher hills to the north and east restrict cool, humid air from escaping, creating one of Chile's coolest wine-producing regions. There is climatic variation, however, with the most westerly and low-lying areas being the coolest.

Casablanca is not near enough to the coast to receive much moderation at night and such cold nights mean that, in low-lying vineyards, spring frosts can be particularly severe.

The valley's first vineyards were planted in the 1980s, but it has quickly established a reputation for white wines, particularly Sauvignon Blanc and Chardonnay. There are some high-quality red wines, too: Pinot Noir with red berry (strawberry) and herbal flavours and, from the warmer, sheltered spots, typical cool-climate Syrah with spicy, peppery characteristics. Due to relatively small production, wines from this region tend to be mid- to premium-priced.

A wind fan for frost prevention in Casablanca Valley.

San Antonio

San Antonio is located to the south of Casablanca Valley. It is an area of undulating hills to the west of the coastal range. It is heavily influenced by the ocean, but its hills give a range of sites with greater or lesser exposure to the ocean to the west and a variety of aspects and soil types. Alongside Pinot Noir, Syrah and Chardonnay, Sauvignon Blanc is the flagship variety in San Antonio. Sauvignon Blanc wines show high acidity, medium body and flavours of citrus fruits alongside herbaceous notes and sometimes aromas of wet stones.

Leyda Valley – The first vineyards were only planted in this zone within San Antonio in the late 1990s, but it has since become well known for the quality of its production. Located a few kilometres/miles from the coast, the combination of foggy mornings, cool breezes and bright afternoon sunshine during, allow the grapes' flavours to ripen while retaining acidity. Sauvignon Blanc, Pinot Noir, Chardonnay and Syrah are the main varieties.

CENTRAL VALLEY

The vast majority of Chile's wine comes from this large region, stretching south from Santiago between the coastal ranges and the Andes. Largely sheltered from maritime influences by the coastal ranges, grapes grow prolifically here on the warm, fertile, well-irrigated plains, making the Central Valley the perfect location for producing the ripe, fruity, inexpensive red wines which have made Chile so successful on the export market.

However, producers seeking to produce more complex, elegant wines have begun to exploit the variety of soils and conditions offered by the valley sides, the Andean foothills and the parts of the valleys closest to the Pacific. However, these sites tend to be suitable only for smaller-production wines and so prices can reach premium or even super-premium levels.

The Central Valley is split into four sub-regions, some which have been further broken down, meaning most wines are labelled with their particular region of origin. Nowadays, only inexpensive, high-volume wines made from grapes sourced from a number of different sub-regions tend to be labelled as Central Valley.

Maipo Valley

The northernmost of the Central Valley sub-regions, Maipo surrounds the capital, Santiago. Vines have been grown there almost since the capital was established in the mid-1500s and it is home to many of the family-owned wineries that were established in the 19th century and continue to dominate the Chilean wine industry.

The coastal ranges shelter the area from any maritime influence, meaning growing conditions are warm and sunny. (By comparison, Casablanca and San Antonio are situated directly on the other side of the coastal range to Maipo and have much cooler climates.) Plantings are dominated by black grapes, and the region is particularly known for its Cabernet Sauvignon, which, from valley floor sites, tends to have high but soft tannins, intense aromas of cassis and often a minty character. These wines range from good to very good in quality and are usually inexpensive to mid-priced. Very good quality Carmenere and Syrah are also produced, whereas Merlot is mainly grown for inexpensive wines.

Maipo is almost entirely surrounded by mountains, and producers are increasingly planting vineyards at altitude (some up to 1,000 m above sea level) at the eastern end of the valley. This area, called the Alto Maipo, and its sub-regions, Puente Alto and Pirque, have become known as a source of very good and outstanding quality wine, some of which sell at super-premium prices. Nights cooled by mountain breezes result in a wider diurnal range, producing fresher, more elegant styles of wine, mainly Cabernet Sauvignon and Bordeaux-style blends.

Rapel Valley

The Rapel Valley runs south from Maipo. The main viticultural area has been sub-divided into two zones named after the two rivers that merge to form the Rapel River: the Cachapoal Valley and the Colchagua Valley. As a result, the Rapel name is rarely seen on labels.

Cachapoal Valley – The more northerly of the two zones, Cachapoal is also the warmer as it is largely cut off from maritime influences by the coastal ranges. The warm, fertile valley floor generally produces large volumes of inexpensive red wine, particularly from Cabernet Sauvignon, Carmenere and Syrah. However, the area around **Peumo** is recognised for producing very good full-bodied, concentrated Carmenere. Peumo's location within the

Valley floor vineyards in the Rapel Valley

winding valley of the Cachapoal River means it is sheltered from cold weather from the Andes, yet experiences winds funnelled from the coast, which reduces frost risk and ensures a long, warm growing season for late-ripening Carmenere. The highest quality Cabernet Sauvignon and Syrah tend to be grown at the cooler, eastern end of the valley in the Andean foothills.

Colchagua Valley – The Colchagua Valley zone is larger than Cachapoal, extending from the Andes to the Pacific coast. As a result, it produces a wide variety of wines. Again, the warm, fertile central part of the valley produces large volumes of inexpensive, full-bodied, fruity red wines, but, as elsewhere, viticulture has expanded into cooler and/or less fertile areas, allowing Colchagua to develop a reputation for producing some of Chile's finest-quality and most expensive wines.

Even within the centre of the valley there are hilly areas that have proven suitable for the production of very good and outstanding quality wines, which can sell for premium and super-premium prices. Apalta is one such example. A south-facing amphitheatre, it captures cool breezes from the west, provides south-facing slopes that slow grape ripening and is based on poor soils that reduce vigour. Cabernet Sauvignon, Syrah and Carmenere, often blended, can produce ripe but structured wines.

At the most western end of the Colchagua Valley, the vineyards are fully exposed to the coast, and the cooler conditions are ideal for Sauvignon Blanc, Chardonnay and Pinot Noir. A little further inland, just east of the coastal ranges, conditions are warmer but coastal breezes provide a moderating influence. Black grape varieties such as Syrah and Carmenere are able to ripen fully.

Curicó Valley

The Curicó Valley's main reputation is for inexpensive, high-volume red wines produced in the warm, fertile lands in the central part of the valley. Several rivers flowing through the region mean that irrigation water is easier to source here than in some other regions.

Curicó's summers are warm and dry, largely sheltered from any coastal influence. A range of grape varieties are grown, although Cabernet Sauvignon, Sauvignon Blanc, Merlot and Chardonnay are the most planted.

It is another diverse region with a wide variety of soils and climates and, while some producers are exploring different varieties and styles of wine, Curicó's potential is yet to be fully explored.

Maule Valley

At the southern end of the Central Valley, the Maule Valley has more vineyard plantings than anywhere else in Chile. It has traditionally been known as a producer of high volumes of inexpensive wines. Although it still produces these wines from warm, fertile sites in the central part of the valley, Maule is increasingly becoming known as a producer of very good quality red wines, particularly from dry-farmed vineyards and old vines.

Maule has a similar climate to Curicó, although being further south it is slightly cooler with higher rainfall that tends to fall mainly in the winter. This can be enough to sustain the vines over the summer, and a number of producers choose to dry-farm. As a result of the cooler climate, Maule's red wines can be lighter in body and higher in acidity than many of the wines produced from the valley floor vines in more northerly Chilean regions.

Maule is one of Chile's oldest wine-producing regions, with significant stocks of old bush vines, notably País and Muscat of Alexandria, many of which are between 100 and 200 years old. Traditionally, these grapes have been used to make inexpensive wines for the local

Maule has started to become well known for its bush-vine plantings

market. However, interest in these vines has been revived recently and some good and very good quality examples of País, in particular, are now being produced. These are generally pale in colour, medium-bodied with medium acidity and aromas of strawberry and raspberry, often accompanied by spicy or herbal notes. The level of tannins in País is generally low or medium (–), but they can be rough in nature, so gentle extraction and techniques such as carbonic maceration are often used in production.

Maule also has more Carignan than any other region in Chile, with many old bush vines dating back to when the variety was first introduced in the 1940s. It is undergoing a revival, thanks largely to VIGNO, a self-regulating growers' association that promotes old-vine, dry-farmed Carignan, particularly from the area of **Cauquenes** in the south of the region towards the coast. The wines show raspberry, cherry and black plum fruit, often with spicy notes, and medium (+) to high acidity and tannins. They are often of very good quality and premium-priced.

Elsewhere in Maule, there have been considerable new plantings of the more commonplace Chilean varieties, such as Cabernet Sauvignon, Merlot and Carmenere. Plantings are also expanding into the foothills of the Andes, where cooler conditions mean white grapes can successfully be grown.

SOUTHERN REGION

The Southern Region consists of three sub-regions (from north to south): Itata, Bío Bío and Malleco. The coastal hills diminish as you move further south and, with fewer hillsides to protect the inland regions from the Pacific Ocean, the climate gets cooler and wetter. In Bío Bío, for example, the average rainfall regularly exceeds 1,000 mm and summer temperatures rarely exceed 30°C (86°F). Fungal disease can be a problem, although ocean breezes, coupled with good canopy management, can mitigate the risk. Despite cooler days, the higher latitude (36°–38°S) means days are longer during the growing season, helping the grapes ripen.

Itata Valley

Itata is one of Chile's oldest wine-producing regions. It has long produced mainly very cheap grapes for blending, but has recently been enjoying a revival, with many leading producers purchasing or establishing vineyards amidst concerns over climate change and water shortages.

Grapes from Itata being fermented in traditional amphorae (tinajas)

Although the newcomers are planting more modern grape varieties, such as Chardonnay, Pinot Noir, Merlot and Cabernet Sauvignon, Itata is dominated by its old bush vines (which comprise over three-quarters of its vineyards) of Muscat of Alexandria and País, which are being rediscovered as sources of high-quality, distinctive wines, especially when dry-farmed. Itata also has some old-vine Cinsault, which is producing some good and very good quality wines showing medium-level alcohol, fresh acidity and red and black fruit flavours with liquorice notes and a saline edge.

Bío Bío Valley

Bío Bío also has some dry-farmed, old bush vines with a mix of traditional varieties in the region (such as País). There are also many modern vineyard plantings with international varieties, which have risen significantly this century. As well as Pinot Noir and Chardonnay, producers see the potential to produce elegant aromatic white wines from Sauvignon Blanc, Riesling and Gewurztraminer.

Malleco Valley

The most southerly of Chile's established wine-producing regions, Malleco is currently home to only a handful of producers. The cool climate means that early ripening varieties such as Chardonnay, Sauvignon Blanc and Pinot Noir are dominant, and the wines are marked by high acidity.

28.5. Wine Business

Chile is the fourth largest exporter of wine in the world by volume.[9] Around 70 per cent of its production is exported: in 2020, that equated to 8.5 million hL at a value of over 1,595 million euros.[10] However, this presents low average value per unit volume, with only Spain and South Africa out of the major exporting countries demonstrating an even lower value to volume ratio. Current campaigns by promotional body Wines of Chile are focused on the promotion of mid-priced, premium and super-premium wines to encourage the image of Chile as a producer of premium wines. The focus on exports is vital as domestic consumption is relatively low for a producer country, at 16 L per capita in 2021.[11]

The economy, one of the strongest in South America, is generally heavily focused on exports, and Chile has signed a number of free trade agreements, notably with China and South Korea (which allow tariff-free trade). This approach has had a significant impact on Chilean wine exports, with China now being its largest export market.[12] The next most important export markets are the USA, Japan (which also benefits from a trade agreement with reduced import tariffs) and the UK. Exports to other South America countries are also significant, with Brazil as Chile's fifth largest market, helped by the MERCOSUR free trade area.

Although smaller wineries are being established, especially in the newer wine regions, about 80 per cent of Chilean wine is still produced by four companies – Concha y Toro, Santa Rita, Santa Carolina and San Pedro – all of which can trace their origins back to Chile's first wine boom in the 1850s.[13] These companies own numerous vineyards in different regions. However, they also source grapes from a significant number of smaller growers. As well as numerous brands and wineries in Chile, these four companies also have wineries in Argentina.

Chile has also attracted many foreign investors over time, such as Torres, Mouton Rothschild, Lafite Rothschild and Jackson Family Wines, who were attracted by relatively cheap land and running costs, although the high cost of importing materials and equipment has also to be taken into account.

At the other end of the spectrum, there has been an emergence of very small wineries and producers in the last decade. A number of them are part of MOVI (Movimiento de Viñateros Independientes), a group of small producers making quality wine that promote themselves together in the domestic and export markets.

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