Chile Located between the Andes to the east and the Pacific to the west, Chile has an unusual geography. However, it is this geography, which combines cooling influences from the Pacific and Andes along with plentiful sunshine, that explains why Chile has found success making a wide range of wine styles.

CLIMATE AND GRAPE GROWING

Chile's vineyards range over an area that covers more than 900 kilometres from north to south but rarely more than 100 kilometres from east to west. The area is broadly defined by four key geographical features. To the west is the Pacific Ocean and just inland are the coastal mountain ranges. To the east are the Andes, which also mark Chile's border with Argentina. North of Santiago the two ranges tend to merge, but south of the capital there is a large depression between the two mountain ranges that is commonly referred to as the Central Valley. In many places there are gaps in the Coastal Range caused by river valleys that drain the water from the Andes.

Generally speaking the vineyards of Chile have a warm Mediterranean climate. The dry, sunny growing season ensures that the grapes reliably ripen and fungal diseases are kept to a minimum. In most places the shortfall in rainwater can be made up for with irrigation. However, water for irrigation is in increasingly short supply. Conditions become cooler and wetter in the Southern Regions. *El Niño* and *La Niña* are weather patterns that can affect Chile's wine regions in some years. Rainfall levels can dramatically increase during *El Niño* years, whereas drought may occur in *La Niña* years. This cyclical weather phenomenon is experienced throughout the Pacific.

Along the north–south axis there are common features that moderate temperatures on the western and eastern edges of vineyard areas. The cold Humboldt Current flows up from Antarctica along the Chilean coast and the prevailing winds blow cool air inland along the river valleys. In areas very close to the coast this can also include fog. The cooling effect of these winds is strongest in the areas where the coastal mountains are at their lowest, and in the parts of the valleys that lie closest to the Pacific. In the vineyards in the foothills of the Andes there is another cooling effect caused by cold air that descends from the mountains overnight and can cause a large diurnal temperature range. Between the two mountain ranges, the climate is more sheltered and the large expanses of flat land are easier to cultivate. These two cooling influences are the reason for the new labelling terms introduced in 2012 (see section *Chilean Wine Laws* below).

Sustainable and organic grape growing and winemaking are widely practised by both large and small wine estates. A number of well-respected winemakers as well as the authorities have done much to promote this.

GRAPE VARIETIES AND WINEMAKING Black Grape Varieties

Black varieties have always accounted for the majority of the plantings in Chile. **Cabernet Sauvignon** is the most planted grape variety of either colour. The extent of the plantings means that it is made in a variety of styles from simple and fruity to full-bodied premium examples. These wines usually have very ripe black fruit aromas and flavours, often with a herbaceous character. It is frequently blended with Merlot, Carmenère or Syrah. Inexpensive

CHILEAN WINE LAWS

Within Chile's GI scheme the vineyard areas are divided into several **Denominaciones de Origen (DOs)**. There are four principal regions: Coquimbo, Aconcagua, Central Valley and Southern Region and these are divided into 13 better-known sub-regions that generally follow the valleys running west from the Andes to the Pacific. The system was based on Chile's administrative regions and as such the regions are very broad based and most of the sub-regions cover extensive tracts of land. Consequently many of the sub-regions contain multiple zones, each with a more uniform climate.

In 2012 a further degree of classification was announced, further dividing Chile's wine regions. The new classification categorises vineyard sites according to their distance from the coast rather than their latitude. The following terms may appear on wine labels: **Costa** (for coastal areas), **Entre Cordilleras** (the areas between the mountain ranges) and **Andes** (mountain areas). It is important to note that Costa, Entre Cordilleras and Andes are complementary terms that the producer can choose to use in addition to the D0. This is a new development and it remains to be seen whether these terms become widespread.

Chilean law also recognises certain other labelling terms: *Reserva*, *Reserva Especial*, *Reserva Privada* and *Gran Reserva*. Although loosely defined, these terms carry very little overall meaning but they can be a useful way of communicating the quality levels within a producer's portfolio of wines.

CHILE

medium-bodied and fruity Merlot has been very successful on export markets, but fuller-bodied, more complex versions can also be found. Carmenère is a late ripening variety that is most successful in the warmest and sunniest sites. The wines are usually full-bodied, often with high levels of tannin. Carmenère can have overtly herbaceous aromas when not fully ripe but good examples achieve a balance between black fruit character and herbal aromas. It is often thought of as Chile's signature grape variety. Syrah is planted in a wide variety of sites and comes in a variety of styles. Wines from the cooler coastal or northerly regions such as Elqui Valley are lighter in body with peppery notes, whereas wines from hotter climates, such as Colchagua Valley, display a greater intensity of black fruit flavours and fuller body. Pinot Noir is showing considerable promise in cooler locations such as the San Antonio and Casablanca Valleys.

White Grape Varieties

Plantings of white varieties in Chile are dominated by two international varieties: Sauvignon Blanc and Chardonnay. Sauvignon Blanc performs particularly well in cooler vineyard sites such as those of the Casablanca and San Antonio Valleys, which yield excellent wines with high acidity and intense fruity flavours. The wines tend to focus on ripe apple, citrus and tropical flavours, and sometimes display herbaceous notes. Some examples have added richness and texture from lees stirring and oak. To date most Chardonnays have been made in a modern international style with ripe fruit and oak flavours. However, the quality and range of styles produced is constantly growing. The Limarí Valley in particular produces wines with structure, elegance and restraint, with Aconcagua Valley, Casablanca Valley and many other regions also producing fine wines. Muscat of Alexandria is the third most planted white variety. It is mostly used for the production of the grape brandy Pisco. There are small plantings of aromatic varieties such as Viognier, Riesling and Gewurztraminer making fresh, fruity wines from cool regions such as the Bío Bío and Itata Valleys.

REGIONS AND WINES Coquimbo Region

Coquimbo borders onto the Atacama Desert and is currently the most northerly of Chile's principal wine regions. There are three winemaking sub-regions here, **Elqui Valley, Limarí Valley** and Choapa Valley. Vineyard plantings are relatively small compared with the more southerly regions but quality tends to be high. All three valleys have slightly different features but they all benefit from brilliant sunshine and marked cooling influences either from sea breezes or mountain air. Some vineyards are now being planted at very high altitudes. The biggest challenge here is the lack of water. Irrigation is essential but expensive because water is less plentiful here compared with some other regions. Nevertheless, Elqui Valley has already developed a reputation for Sauvignon

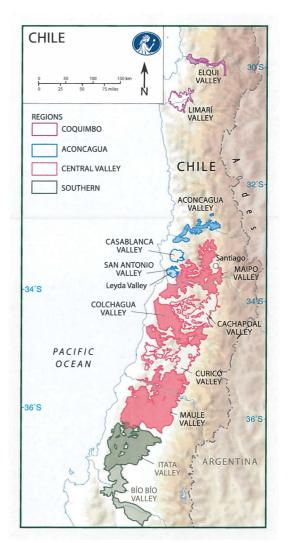


Blanc and Syrah and Limarí Valley is producing some of Chile's best Chardonnay.

Aconcagua Region

Although well known, this is the second smallest wine region in Chile. It is divided into three sub-regions.

The Aconcagua Valley sub-region is a steep sided



Morning mists that come in off the Pacific Ocean have an important cooling effect in Casablanca Valley.

KEY

6000 m+

4000-6000 m

2000-4000 m

1000-2000 m

500-1000 m

200-500 m

 $0 - 200 \,\mathrm{m}$

A view across Colchagua Valley showing the extensive plantings on the valley floor.



narrow valley that enjoys some cooling influences from the ocean and the Andes Mountains. Nonetheless, the vineyards on the fertile valley floor between the coastal mountain range and the Andes offer some of the warmest growing conditions in Chile. It is a classic red wine area where Cabernet Sauvignon has long been the dominant grape variety although in recent years Syrah, which was pioneered in Chile in this valley, has become increasingly important, together with Carmenère. Reds have traditionally had rich, ripe fruit flavours with high alcohol and tannins. In recent years producers have been looking to reduce alcohol levels and find more freshness and complex fruit flavours. As a result, plantings are less focused on the fertile valley floor and have spread either onto the slopes or towards the coast.

The **Casablanca Valley** and **San Antonio Valley** sub-regions are two neighbouring sub-regions that

share similar characteristics. They are very varied areas offering a host of different soils and aspects and, most importantly, they both lie between the coastal mountains and the Pacific. They offer growers noticeably cooler sites thanks to morning fogs and afternoon winds that blow in off the ocean. As a result, plantings of white varieties dominate. Sauvignon Blanc has gained the greatest reputation particularly in San Antonio Valley and its particularly cool Leyda Valley zone, but Chardonnay is also widely planted and is capable of making fine wines here. Pinot Noir is the most planted black variety and can produce wines with red berry fruit and herbal notes in the coolest sites. Syrah is also successful, particularly in Casablanca Valley, where it is planted in the warmer vineyard sites in the east, giving well-structured wines with a peppery edge.

Central Valley Region

The Central Valley runs south from the capital Santiago to the sub-region of Itata Valley. This vast warm flat region is where the majority of Chilean vineyards have always been found. Grapes ripen easily and a lot of production is focused on inexpensive fruity wines often made from Merlot and Chardonnay. The Central Valley is divided into four sub-regions: Maipo Valley, Rapel Valley, Curicó Valley and Maule Valley. Rapel is itself subdivided into two zones: Cachapoal Valley and Colchagua Valley.

The **Maipo Valley** sub-region is the classic heartland of the Chilean wine industry due to its proximity to the capital city Santiago. It is almost completely surrounded by mountains and very little coastal influence reaches the main grape growing area to the south of the capital.



A hillside vineyard in Aconcagua Valley, with the Andes in the background. Note the fruit has been exposed to help with ripening. Many of the more premium sites are located in the Andean foothills, which are cooled by the descending air, lending elegance and structure to the red wines. Maipo Valley has a reputation for Cabernet Sauvignon that can often have a particular minty character to it.

The Rapel sub-region is a large and varied area. The more northerly **Cachapoal Valley** zone is a warm area cut off from the ocean breezes. Carmenère ripens well on the valley floors and Cabernet Sauvignon and Syrah perform well in the cooler eastern end of the valley. The **Colchagua Valley** zone is a larger and more varied area than Cachapoal Valley. The central part of this valley is warm and open to some ocean influence. It is well known for full-bodied reds, particularly Cabernet Sauvignon, but also Syrah and Carmenère. As the area has expanded, vineyards have increasingly been planted on the valley slopes and some areas, notably Apalta, have gained a premium reputation. Further to the west the cooling Pacific influence becomes greater and some high-quality white wines can be produced.

The **Curicó Valley** and **Maule Valley** sub-regions form the southern end of the Central Valley. The warmth and fertile soils make these the most important sources of fruit for inexpensive blended red and white wines. The vineyards in Maule Valley are cooler than those of Curicó Valley and the wines retain a higher acidity, which can be a useful ingredient when blending. There are increasing efforts to exploit the wealth of dry-farmed, old vines that exist within the western hills of this region. Carignan has become the star variety here, producing full-bodied, intensely concentrated wines from these ancient lowyielding bush vines.

Southern Region

This region has three sub-regions: Itata Valley, Bío Bío Valley and Malleco Valley. The climate in the vineyards of the Southern sub-regions becomes noticeably cooler and wetter the further south they are located.

Plantings in the two larger sub-regions of Itata Valley and Bío Bío Valley are dominated by País and Muscat of Alexandria and the resulting output is mainly consumed locally, but Bío Bío Valley has started to show great promise for Pinot Noir, Chardonnay and aromatic varieties. There is increasing interest among producers for fruit from high-quality white and black varieties for their acidity and aromatic qualities. The full potential of these regions has yet to be explored.

Malleco is the smallest and currently the most southerly sub-region. There are only a small number of producers making Chardonnay and Pinot Noir, but it is increasingly attracting interest from premium producers.