



SOUTH AMERICA

CHAPTER SEVENTEEN

CHAPTER SEVENTEEN

SOUTH AMERICA

LEARNING OBJECTIVES

After studying this chapter, the candidate should be able to:

- Recognize the importance of latitude and elevation for grape growing in South America.
- Describe the influences of the Andes on grape growing in Argentina and Chile.
- Discuss the major wine regions of Argentina and Chile.
- Recall the significant grape varieties grown in Argentina and Chile.
- Understand the general status of the wine industry in Brazil and Uruguay.

The majority of the South American continent lies in the tropics, but the Southern Cone at the bottom of the continent pushes south through the temperate winegrowing latitudes. Three major wine-producing countries are found here: Argentina, Chile, and Brazil. Argentina and Chile, moreover, are major wine exporters, sending bottled wine all over the world. Although its production is much smaller, Uruguay also produces wine for export. In this chapter, we take our first look at the wine producers of the Southern Hemisphere.

ARGENTINA

Argentina occupies the largest portion of suitable viticultural land in South America and makes the most wine. The huge cosmopolitan city of Buenos Aires is the primary market for Argentine wine, but

the country's wine industry has become increasingly export-oriented. One of the keys to understanding Argentina's wine industry and culture in general is to know that the bulk of its population is of European origin. A large percentage of Argentina's population originated in Italy and Spain. As it is in those two countries, wine is an important part of Argentine culture and daily life.

GEOGRAPHY AND CLIMATE

Argentina is a wedge-shaped country lying between the long chain of the Andes Mountains to the west and the Atlantic Ocean to the east. The soaring Andean ridgeline, which also forms the border with Chile, creates a formidable barrier to the prevailing westerly winds and results in a significant rain shadow that keeps western Argentina very dry. The combination of dry air, plentiful irrigation water from Andean snowmelt, high elevations, and almost unlimited sunshine produces exceptional winegrowing conditions in Argentina's western foothills.

The climate in the Argentine wine regions is continental. Summers are hot, but the lack of humidity causes nighttime temperatures to drop rapidly, helping to retain acidity in the grapes. Winters are cold but not typically severe. However, the vineyards are often shaken by the fierce Zonda winds, which can damage leaves and fruit and, when followed by a cold front, bring the risk of frost damage. Around the time of the harvest, the greatest threat is posed by hailstorms, which can severely damage vineyard crops.

GRAPE VARIETIES

Historically, the wine industry of Argentina focused on a group of grape varieties—including the light red/pink-skinned grapes Criolla Grande, Criolla Chica, and Cereza—descended from the original vines (known as *País* or *Mission* grapes) brought into South America from Europe in the sixteenth century. As the wine industry of Argentina matured, many of these vines were replaced; however, they still account for nearly a third of all plantings in the country.

LEADING GRAPE VARIETIES OF ARGENTINA

Red Grapes

Malbec

Bonarda Argentina

Cabernet Sauvignon

Syrah

Tempranillo

Merlot

Pinot Noir

Tannat

Cabernet Franc

Petit Verdot

Pink-skinned Grapes: Cereza, Criolla Grande, Criolla Chica.

White Grapes

Torrontés Riojano

Torrontés Mendocino

Torrontés Sanjuanino

Chardonnay

Moscatel de Alejandria

Chenin Blanc

Sauvignon Blanc

Viognier

Pedro Giménez

Figure 17–1: Leading Grape Varieties of Argentina

In decades past, the Criolla family of grapes was used primarily to produce inexpensive bulk wines; nonetheless, this too is evolving as the industry seeks to preserve the heritage of these vines and extend their use in higher-quality wines.

These days, Argentina is best known for two key grape varieties: Malbec and Torrontés. Malbec, a French grape from the area around Bordeaux, has become the country's signature red grape variety. Argentine Malbec tends to be deeply colored—often inky and opaque—and have corresponding fruit flavors of blackberry and plum.

The key white grape, Torrontés, produces a light-bodied wine with pronounced fruity and floral aromas. Torrontés has recently been

determined to be at least three distinct varieties: Torrontés Mendocino, Torrontés Riojano, and Torrontés Sanjuanino. Of these, Torrontés Riojano is by far the most widely grown.

The remaining inventory of grape varieties planted in Argentina is long and diverse, with international varieties well represented. The leading reds include Bonarda Argentina (recently proven to be genetically identical to the grape known as *Douce Noire* in France and *Charbono* in California), Cabernet Sauvignon, and Syrah. Leading white grapes include Chardonnay, Moscatel de Alejandria, Sauvignon Blanc, Chenin Blanc, and Viognier. Pedro Giménez, while widely grown, is used primarily in the production of bulk wine, fortified wine, and blends.

ARGENTINE WINE LAWS

Argentina has a three-level appellation system that was enacted in 1999:

- *Denominación de origen controlada* (DOC), the highest level
- *Indicación geográfica* (IG), for quality wines below the DOC level
- *Indicación de procedencia* (IP), for table wines and regional wines

Argentina's DOC laws are European-style regulations, controlled and enforced by a local *consejo*, or council. The DOC regulations spell out geographic boundaries, permissible grape varieties, planting densities, and other requirements. However, only two DOC regions—Luján de Cuyo and San Rafael, both subregions of Mendoza—have been declared thus far; the system is still in its developmental stages.

The wine industry is also regulated by the Instituto Nacional de Vitivinicultura (INV). This regulating body places strict controls, including pricing requirements, on the best wines of Argentina. These wines, known as *vinos finos*, account for about 20% of all

wine produced in the country. Vinos finos must be produced using premium grapes—a criterion that typically excludes wine produced from the Cereza or Criolla grape varieties. For vinos finos, the INV stipulates that all varietal wines must contain a minimum of 85% of the stated grape variety. New regulations that took effect with the 2011 vintage define the terms *Reserva* and *Gran Reserva*, and allow their use only on the labels of vinos finos. Reserva wines must have been aged a minimum of six months for white wines and one year for reds. The Gran Reserva designation requires a minimum aging period of one year for whites and two years for reds.

ARGENTINE WINE REGIONS

Jujuy: The Jujuy region, located in the extreme northwest of Argentina, is tucked deep into the Andes Mountains and as such contains some of highest-elevation vineyards in the world. One such vineyard—the Moya Vineyard at 10,922 feet (3,330 m) above sea level—has recently been named the highest vineyard in Argentina. The Jujuy region experiences very little rain, abundant sunshine, and a wide diurnal temperature swing. Commercial vine acreage is limited, totally a mere 65 acres (26 ha).

Salta: Salta—home to approximately 8,300 acres (3,365 ha) of vines—is known for its high-elevation vineyards which range from 5,000 to 10,200 feet (1,530 to 3,110 m) above sea level. The sub-region of Cafayate is home to a majority of the region’s vineyards and is particularly well-known for high-altitude Torrontés Riojano in addition to Malbec and Cabernet Sauvignon. The Molinos subregion of Salta is home to another ultra-high elevation vineyard, *Altura Máxima* (“Maximum Height”)—10,206 feet (3,111 m) high and planted to Malbec.

Tucumán: Tucumán—a sun-drenched, high-altitude, densely populated region—is home to just over 280 acres (113 ha) of vines. The area’s vines are located primarily in the Calchaquí Valley (*Valles Calchaquíes*)—a geographic feature that stretches across parts of Catamarca and Salta as well. Cabernet Sauvignon, Merlot, and

Torrontés Riojano make up the majority of the plantings.

Catamarca: Catamarca has nearly 6,200 acres (2,500 ha) planted to vine. Of these, nearly 40% are native Criolla grape varieties (some of which are used for bulk wine or table grapes). However, quality wine production—including unique wines based on Criolla varieties—is rapidly expanding. Torrontés Riojano is the leading export variety, followed by Cabernet Sauvignon, Malbec, and Syrah. The majority of the Catamarca's vineyards are located in a succession of high-elevation river valleys tucked between mountain ridges—where warm days, cool nights, and sunshine are abundant.

La Rioja: La Rioja, located south of Catamarca, is a relatively small producer known for warm days and cool nights, as well as a tendency for drought conditions. The majority of the vineyards are planted in the Famatina Valleys, located to either side of the Famatina mountain range. The region is planted 51% to red grapes, including Cabernet Sauvignon, Malbec, Bonarda, and Syrah. However, Torrontés Riojano is by far the single most widely-planted grape of the region and accounts for just over 32% of all plantings.

San Juan: San Juan, the next province to the south, is a warm and dry region. San Juan contains close to 17% of the country's vines, making it the second largest grape-producing province in the country (after Mendoza). San Juan's 82,200 acres (33,250 ha) of vines are somewhat equally divided between red, white, and Criolla varieties. Syrah, Malbec, Bonarda, and Cabernet Sauvignon are the leading red varieties. A range of white grapes, led by Torrontés Sanjuanino, are planted; other white grapes important to San Juan include Torrontés Riojano, Chardonnay, Torrontés Mendocino, Chenin Blanc, Sauvignon Blanc, and Viognier.

Mendoza: Perfectly situated at the best latitude for wine production, Mendoza accounts for nearly 75% of Argentina's vineyard acreage and is home to many of the internationally renowned Argentine wineries. Mendoza takes advantage of the Andes, with most of its vineyards planted between 2,000 and 4,000

feet (610 to 1,220 m) above sea level. Over 61% of Mendoza’s 372,500 acres (150,760 ha) of vines are planted to red grapes, led by Malbec, Bonarda, Cabernet Sauvignon, Syrah, and Tempranillo. Chardonnay, Torrontés Riojano, and Sauvignon Blanc are the leading white grapes. Mendoza is divided into five large sub-regions—Uco Valley, Primera Zona, Northern Oasis, East Mendoza, and South Mendoza. Both of Argentina’s Denominación de Origen Controlada (DOC) wines—Luján de Cuyo DOC (Primera Zona) and San Rafael DOC (South Mendoza)—are located in the Mendoza Province.

Córdoba: The Argentina province of Córdoba—located almost in the geographic center of the country, to the east of La Rioja—has a long history of viticulture and wine production. Jesuit missionaries hailing from Spain settled in the province in the early 1600s and established several estancias (working ranches) complete with schools, churches, orchards, and vineyards. The Jesuits produced wine until 1767, when the Spanish crown expelled the Jesuits from Argentina. At this point most of the vineyards of Córdoba were abandoned, and wine production stagnated in the area until the 1870s when a strong wave of Italian immigration brought the industry back to life. Córdoba—located east of the Andes—contains a series of moderate-elevation mountain ranges in its western portion and an extensive plain covering much of the east. Leading grape varieties include Merlot, Pinot Noir, Malbec, Chardonnay, and Sauvignon Blanc.

Table 17–1: Wine Regions of Argentina

WINE REGIONS OF ARGENTINA			
Area	Province	Subregions	
North*	Catamarca	Belén, Pomán, Santa María, Tinogasta	
	Jujuy	Quebrada de Humahuaca, Tilcara*, Tumbaya*	
	Salta	Cachi, Cafayate/Cafayate Valley, Molinos, San Carlos	
	Tucumán	Amaicha del Valle*, Colalao del Valle*, Tafi	
Cuyo	Mendoza	Northern Oasis*	Guaymallén, Lavalle/Desierto de Lavalle, Las Heras
		Prima Zona*	Agrelo, Barrancas, Los Compuertas, El Paraíso, Godoy Cruz, Luján de Cuyo DOC, Luján de Cuyo, Lunlunta, Maipú, Russel
		Uco Valley	La Consulta, Los Chacayes, Pampa el Cepillo, Paraje Altamira, San Carlos, San Pablo, Tunuyán, Tupungato, Vista Flores
		East Mendoza*	Canota, Junín, La Paz, Reducción, Santa Rosa
		South Mendoza*	General Alvear, San Rafael DOC, San Rafael
		Distrito Medrano	
		La Rioja*	Famatina
	Arauco, Castelli*, Castro Barros, Chilecito, Felipe Varela, General Lamadrid, La Costa Riojana*, La Rioja Argentina, San Blas de los Sauces, Sanagasta, Vinchina		
	San Juan	25 de Mayo, 9 de Julio, Albardón, Angaco, Barreal, Calingasta, Caucete, Chimbass, Iglesia, Jáchal, Pedernal Valley, Pocito, Pozo de los Algarrobos, Rawson, Rivadavia, San Martín, Santa Lucia, Tulum Valley, Ullum, Valle Fértil, Zonda Valley, Zonda	
	Valles Calchquies (multi-region, multi-province GI)		
Valles del Famatina (multi-region, multi-province GI)			
Center*	Córdoba*	Colón, Colón Caroya, Córdoba Argentina, Cruz del Eje, San Javier	
	Entré Ríos	Victoria	
	San Luis		
Patagonia	Chubut*	16 de Octubre Valley*, Los Altares*, Comarca Andina Paralelo 42*, Paso del Sapo*, Piedra Parada*, Río Chubut Lower Valley*, Río Pico Valley*, Sarmiento, Trevelin	
	La Pampa*	Río Colorado Upper Valley*	
	Neuquén	Añelo, Confluencia, Río Limay Valley*, San Patricio del Chañar*	
	Río Negro	Avellaneda, General Conesa, General Roca, Pichimahuida, Río Colorado Valley*, Upper Río Negro Valley	
Atlantic*	Buenos Aires*	Balcarce*, Chapadmalal, Médanos*, Tandilia Hills*, Ventania Hills*, Villa Ventana	
*Indicates that as of December 2022, the area has not been officially declared a Geographical Indication; all other areas have been registered as official geographical indications by the INV			
Source: Wines of Argentina (November 2022), <i>Instituto Nacional de Vitivinicultura (via Argentina.gob.ar)</i>			

Neuquén: The Neuquén Province is located south of Mendoza and considered part of Argentine Patagonia. The majority of the vineyards of Neuquén are located in the basins of the Limay and Neuquén rivers, in the southeastern part of the province. This is an area of moderate elevation—averaging between 886 feet (270 m) and 1,363 feet (415 m)—with a typically windy and dry climate. Days tend to be warm-to-hot, followed by brisk, desert-like cold nights. Nearly 85% of the vines in Neuquén are planted red grape varieties, led by Malbec, Cabernet Sauvignon, Merlot, and Pinot Noir. Nevertheless, the white wines of the region—led by Chardonnay, Sauvignon Blanc, and Semillon—enjoy an excellent reputation.

La Pampa: Located to the northeast of Neuquén and in the center of the country, La Pampa is a gently undulating plain—at an average elevation of 1,000 feet (305 m)—with 60-mile (96-km)-long fan-shaped valleys running from west to east. La Pampa experiences a moderate continental climate with mild autumns and springs, warm summers, and cold winters. Malbec accounts for nearly 50% of the region's 680 acres (275 ha) of vines. Other leading grapes varieties include Cabernet Sauvignon, Merlot, Cabernet Franc, Pinot Noir, and Chardonnay.

Río Negro: The vineyards of the Río Negro Province—planted across a series of west-east valleys located along the Colorado and Negro Rivers—are actually some of the *lowest* elevation vineyards in Argentina. Vine plantings stretch from the inland valleys in the western section of the province (where they top out at 1,214 feet/370 m in elevation) and continue to the east, almost to the point where the rivers meet the Atlantic Ocean (at 13 feet/4 m of elevation). Río Negro contains nearly 3,750 acres (1,515 ha) of vines; leading grapes include Malbec, Merlot, Pinot Noir, and all three versions of Torrontés.

Chubut: Chubut, located to the south of Río Negro, is currently the southernmost wine-producing province in Argentina. It also boasts one of the southernmost vineyards in the world—Sarmiento—which sits below the 45th parallel (South). Many of the vineyards of Chubut

are planted in the steppes (relatively flat, grassland areas) close to the Atlantic Coast. Nearly 60% of Chubut's 180 acres (73 ha) of vines are planted to red varieties. Pinot Noir is the leading grape, followed by Chardonnay, Merlot, Malbec, and Torrontés Riojano.

Main Wine Areas of Argentina



Figure 17–2: Argentine wine regions

Buenos Aires: In recent years, as Argentine wine producers have begun to extend the limits of the country's viticulture to the east, the province of Buenos Aires has joined the ranks of emerging wine regions. The province currently contains less than 400 acres (160 ha) of vines in total, with Sauvignon Blanc and Chardonnay as the leading grape varieties; a diverse selection of red grapes, including Pinot Noir, are grown as well. In the southeast of the province, the Chapadmalal GI—located near the town of Mar del Plata and about 200 miles (320 km) south of the city of Buenos Aires—currently contains the easternmost vineyards in the country, some of which are planted just a few miles from the Atlantic Ocean. This ocean-influenced region is much cooler and receives more rainfall than many of Argentina's other vineyard areas.

CHILE

Chile stretches along South America's Pacific Coast for almost 2,700 miles (4,350 km), with viticulture involved in nearly 800 miles of that length (mostly between the latitudes of 30°S and 40°S). Like Australia and a few eastern European countries, Chile produces far more wine than its modest domestic market can absorb, and much of its wine is specifically intended for sale to consumers in other countries as a national revenue source. Two-thirds of Chile's total production is exported.



Figure 17–3: The Valley of the Moon in Chile's Atacama Desert

GEOGRAPHY AND CLIMATE

Located on the western edge of South America, Chile occupies more than half of the continent's Pacific coastline. The country is very narrow, rarely more than a hundred miles wide over most of its length, and squeezed between the ocean and the Andes. In the north is the Atacama Desert, one of earth's driest places, and in the south is the frozen archipelago of Tierra del Fuego. Thanks to these natural barriers and Chile's strict quarantine laws, the country holds the distinction of being considered phylloxera-free.

The capital city of Santiago and the majority of the vines are found in the long Central Valley that lies between low coastal mountains and the Andes. Here, the conditions are very similar to those of some of the prime winegrowing areas of California. Stretched along the Pacific Ocean, Chile has a cold ocean current flowing along its shores from the polar seas, called the Humboldt Current. The prevailing westerly winds bring cool, moist air inland. Areas directly influenced by these breezes have low average temperatures and less sunshine. In most of the Central Valley, however, the coastal hills block the fog and chilly air, so the vineyards are warm, dry, and sunny throughout the growing season. The climate is Mediterranean, and most of the rain falls during the winter. Summer temperatures rarely exceed 90°F (32°C), and humidity is low.

The north–south Central Valley is cut longitudinally by several rivers running westward from the mountains to the ocean. These rivers, besides providing ample snowmelt water for irrigation, divide the long Central Valley into a series of smaller valley basins that get progressively cooler from north to south.

GRAPE VARIETIES

Many of Chile's vines were brought from Bordeaux during the mid-1800s, including Cabernet Sauvignon, Sauvignon Blanc, and Merlot. Cabernet Sauvignon is by far the most widely planted grape variety, and many people believe that Chile is ideally suited for the production of world-class, high-quality Cabernet Sauvignon. Other grapes from France, such as Syrah and Chardonnay, are also well represented.

Carmenère also arrived in Chile from Bordeaux in the 1800s. Pre-phylloxera, Carmenère was a regular ingredient in the typical Bordeaux red blend, but very little (if any) was used in the re-planting of France that followed the crisis. However, Carmenère thrived in Chile—so much so that it was often mistaken for a particular style of spicy Merlot—and referred to at times as *Merlot Chileno*. In 1994, however, Professor Jean-Michel Boursiquot of the Montpellier School of Oenology determined that much of what was considered to be Chilean Merlot was, in actuality, Carmenère.

In the vineyard, Carmenère is often the last grape to be picked, as it requires a lengthy season to reach full maturity. Therefore, it is not well suited to Bordeaux, but in the right areas it can produce great wines. Chilean Carmenère is rich in color, redolent of red fruits, spice, and berries, and has softer tannins than Cabernet Sauvignon.

The majority of Chile's wine grape acreage is devoted to red varieties, but plantings of Sauvignon Blanc and Chardonnay are notable. Although recent research had shown that much of Chile's Sauvignon Blanc vines were actually a less aromatic grape known as Sauvignon Vert (also known as Sauvignonasse or, in Italy, Friulano),

most of these vines have since been replaced with true Sauvignon Blanc. However, the two varieties are still not always clearly differentiated, both being referred to simply as Sauvignon.

LEADING GRAPE VARIETIES OF CHILE	
Red Grapes	White Grapes
Cabernet Sauvignon	Chardonnay
Merlot	Sauvignon Blanc
Carmenère	Viognier
Syrah	Semillon
Cabernet Franc	
Carignan	
Cinsault	
País (Listán Prieto)	
Pinot Noir	

Figure 17–4: Leading Grape Varieties of Chile

CHILEAN WINE LAWS

Chile's wine labeling system came into effect in 1995 and is largely similar to the system in the United States. Chile has a set of geographic place-of-origin laws, the *Denominación de Origen* (DO) system, which is essentially identical to the United States' system of American Viticultural Areas in that there are no subcategories for lower-quality wines as there are in Europe. Under Chilean wine law, the minimum requirements for place of origin, vintage, and variety on a wine label are all set at 75%. However, many export-oriented wineries use the higher 85% standard in order to be eligible to export their wines to the European Union.

CHILEAN APPELLATIONS

Chile defines its place-of-origin designations (DOs) based primarily on the progression of valleys southward through the middle of the country. The largest of the DOs are referred to as viticultural regions; these are further sub-divided into subregions, zones, and areas. In addition, geographical districts based on Chile's east-west geography—Costa (Coast), Entre Cordilleras (Between the Mountains), and Andes—have recently been approved for use on Chilean wine labels. These designations, designed to reflect the overwhelming influence of the Pacific Ocean and the Andes Mountains on Chilean viticulture, may be appended to existing DOs if a minimum of 85% of the grapes are grown in the stated district.

From north to south, the six main wine regions of Chile—known as Viticultural Regions or *Regiones Vitícolas*—are Atacama, Coquimbo, Aconcagua, the Central Valley, Del Sur (Southern Regions), and the Austral Region.

Atacama

Chile's northernmost viticultural region—the Atacama—sits on the border of one of the driest spots on earth: the Atacama Desert. This area can go years without rainfall and is unlikely to ever see more than 15 mm (0.6 inches) of rain per year. Despite this, irrigation makes agriculture possible in parts of the region, and two areas in particular—the Huasco and Copiapó Valleys, both named after rivers—have a history of grape growing and olive orchards. Typically, most of the grapes are used for table grapes or distilled into pisco; however, the area is seeing increasing interest in wine grape projects involving Chardonnay, Pinot Noir, and Sauvignon Blanc.

Coquimbo

Chile's northernmost fine wine region is the Coquimbo. The Elqui Valley subregion, located in the north, skirts the southern edge of the Atacama Desert. While the Elqui Valley has historically specialized in table grapes and other fruits, new high-altitude vineyards are producing Cabernet Sauvignon, Merlot, Carmenère, Chardonnay, and Sauvignon Blanc. In addition, the Elqui Valley is

increasingly seen as one of the country's best producers of Syrah.

The subregion of the Limarí Valley was planted with vines as early as the mid-sixteenth century and has recently seen a renewed interest in high-quality viticulture. Cooling Pacific Ocean fogs and the influence of the Humboldt Current combine to make this an ideal location for mineral-driven whites, with Chardonnay taking the lead. Another subregion, the Choapa Valley, is located at Chile's narrowest point, where there is virtually no distinction between the Andes and the Coastal Mountains. This small region has desert-like conditions, often receiving less than 5 inches (12.7 cm) of rain per year. The Choapa Valley is now producing small amounts of Cabernet Sauvignon and Syrah.

Wine Areas of Chile



Figure 17–5: Chilean wine regions

Aconcagua

The Aconcagua region, named after the river that runs through it, has three subregions: Aconcagua Valley, Casablanca Valley, and San Antonio Valley. The Aconcagua Valley subregion is the warmest region, with a distinctly Mediterranean climate. Coastal plantings feature white grapes, while the much hotter interior is home to Cabernet Sauvignon, Merlot, and Syrah.

Conversely, the Casablanca Valley is quite cool, as it is the most coastal wine area within Chile. Its proximity to the ocean provides it with the benefits of a maritime climate, including frequent morning fogs. Not surprisingly, Casablanca specializes in white varieties, which make up 75% of all plantings, particularly Chardonnay and Sauvignon Blanc. The area is also gaining a reputation for its Pinot Noir.

Also close to the Pacific Ocean, the San Antonio Valley in Aconcagua's south possesses a cool climate, allowing a slow ripening of the grapes.

Pinot Noir, Chardonnay, Syrah, and Sauvignon Blanc are the leading varieties. The Leyda Valley, a zone located within the San Antonio Valley, is highly regarded for wines with minerality and complexity due to the granitic soils and very breezy climate.

The Central Valley (Valle Central)

The large Central Valley encompasses more than 80% of Chile's current winegrowing area and is the most general of the appellations. As demarcated viticulturally, it runs from the capital city of Santiago south about 230 miles (370 km). The Central Valley includes the following subregions, from north to south:

- Maipo Valley, surrounding Santiago, is the historical heart of the country and the center of Chile's winemaking culture. Not surprisingly, this area has some very old vines. The urban sprawl of the capital has pushed much of the winegrowing out of this area, but it is still an important source for well-balanced

reds. Maipo's specialty is Cabernet Sauvignon, with lesser plantings of Merlot, Chardonnay, Carmenère, Sauvignon Blanc, and Syrah.

- Rapel Valley, comprising the Cachapoal and Colchagua Valleys, is overwhelmingly focused on red wine production. Cachapoal has a warm, but not hot, climate and is largely a producer of Cabernet Sauvignon, Merlot, Syrah, and Carmenère. To the south, Colchagua produces full-bodied, premium reds from Cabernet Sauvignon, Syrah, and Carmenère.
- Curicó Valley is located farther inland and thus has no maritime influence. Originally planted in the mid-1800s, the area experienced renewed interest and foreign investment during the 1970s. Curicó is more evenly planted with red and white varieties, particularly Sauvignon Blanc, Cabernet Sauvignon, and Carmenère.
- Maule Valley is located at the southern end of the Central Valley, where the valley floor broadens. This is one of Chile's largest subregions in terms of vineyard acreage and also one of its oldest. The Maule Valley enjoys a cooling ocean influence and the mild, dry climate permits many producers to practice organic viticulture. As is true in much of Chile, Cabernet Sauvignon is the leading grape variety of the Maule Valley; Malbec, Cabernet Franc, and Carmenère thrive here as well. The region is also developing a reputation for dry-farmed, old vine Carignan—as promoted by the dozen or so winery members of the *Vignadores de Carignan* (VIGNO) organization. Another specialty of the area is a rustic style of wine known as *pipeño*—often produced using the once-maligned País (Mission) grape variety—which by some accounts is the area's second most planted variety.

Table 17–2: Appellations of Chile—Denominaciones de Origin

GEOGRAPHICAL INDICATIONS OF CHILE			
Viticultural Region	Subregion	Zone	Area
Atacama	Copiapó Valley		
	Huasco Valley		
Coquimbo	Elqui Valley		La Serena, Paiguano, Vicuña
	Limarí Valley		Ovalle, Punitaqui, Monte Patria, Río Hurtado
	Choapa Valley		Illapel, Salamanca
Aconcagua	Aconcagua Valley		Quillota, Zapallar, Hijuelas, Catemu, Panquehue, Llaillay, San Felipe, Santa María, Calle Larga, San Esteban
	Casablanca Valley		
	San Antonio Valley	(no zone)	Marga-Marga Valley
		Leyda Valley	San Juan, Santo Domingo, Cartagena, Algarrobo, Lo Abarca
Central Valley	Maipo Valley	(no zone)	Isla de Maipo, Talagante, Melipilla, Alhué, María Pinto, Colina, Calera de Tango, Til Til, Lampa, Santiago, Pirque, Puente Alto, Buin
	Rapel Valley	Cachapoal Valley	Rancagua, Peumo, Coltauco, Requínoa, Rengo, Machalí
		Colchagua Valley	Lolol, Litueche, Paredones, Pumanque, Apalta, Nancagua, Santa Cruz, Palmilla, Peralillo, Marchigüe, La Estrella, San Fernando, Chimbarongo, Los Lingues
	Curicó Valley	Teno Valley	Vichuquén, Licantén, Rauco, Romeral
		Lontué Valley	Sagrada Familia, Molina
	Maule Valley	Claro Valley	Curepto, Empedrado, Talca, Penciahue, San Rafael, San Clemente
		Loncomilla Valley	San Javier, Villa Alegre, Parral, Linares, Longaví, Retiro, Colbún
		Tutuvén Valley	Cauquenes
	Itata Valley		Colemu, Portezuelo, Chillán, Quillón
Southern Regions	Bío-Bío Valley		Mulchén, Yumbel
	Malleco Valley		Traiguén
Austral Region	Cautín Valley		
	Osorno Valley		
Source: Wines of Chile (December 2022), <i>Diario Oficial de la Republica de Chile</i> (May 25, 2018)			

Del Sur (Southern Regions)

Chile's Southern Regions (Del Sur) viticultural region lies just south of the Central Valley. Here, the climate transitions from a warm and Mediterranean to cooler and rainier, reflecting the area's maritime influence. The region—long dedicated to País and Moscatel—represents just over 10% of total plantings of the country. However, as with other areas, the wine industry in the Southern Regions has

begun to evolve.

The Itata Valley is the northernmost subregion of the Del Sur and borders the Maule Valley (to the north). País and Moscatel are still the most widely planted grapes in the area, however, Cabernet Sauvignon, Merlot, and Syrah are being planted next to restored vineyards of old-vine Carignan. To the south, the Bío-Bío Valley—with higher rainfall and humid, marine-inspired breezes—is being planted with Riesling, Chardonnay, and Sauvignon Blanc. The southernmost subregion, the Malleco Valley, has limited plantings (for now)—by some counts, the area has less than 50 acres/20 ha—planted mainly to Chardonnay and Pinot Noir.

Austral Region

The Austral Region—with its two subregions, the Cautín and Osorno Valleys—is at the southernmost extreme of winegrowing in Chile. The area is just beginning to be used for commercial viticulture and contains only a smattering of plantings (primarily Sauvignon Blanc, Chardonnay, and Pinot Noir). The Austral area has far more rainfall most of Chile's other wine regions—up to 1,800 mm (70 inches) of rain a year—and is considered a marginal (if not experimental) location for viticulture. Nevertheless, several producers—some citing concerns of a future affected by climate change—are actively investing in the area.



Figure 17–6: Vineyards in Chile’s Elqui Valley

BRAZIL

Brazil is the largest country in South America in terms of landmass, and currently ranks third in terms of wine production. Brazil has traditionally had hundreds of small, family-owned wineries producing light, fruit-driven wine for local consumption. However, in recent years, Brazilian wine has seen significant growth due predominantly to increasing investments in vinifera-based vineyards and modern winery facilities. As a result, more and more Brazilian wineries are producing high-quality wine for export.

Beginning in 2002, Brazil has awarded geographical indication status to certain wineproducing areas. There are currently only a few regions so designated, however, this is sure to change in the future. The classifications are as follows, starting with the highest:

- Denominação de Origem (DO)
- Indicação de Origem (IO)

Brazil has six main wine-producing regions. Four of these are located in the state of *Río Grande do Sul*, which is found in the southeastern portion of the country and considered to be Brazil’s main wine-producing state. The major wine-producing regions of Brazil are as follows:

Serra Gaúcha: This area, located in the state of *Río Grande do Sul*, is considered to be the cradle of Brazilian wine production. It is responsible for over 85% of the country’s wine. This area was settled, in large part, by Italian immigrants who brought the culture and industry of wine with them. While Serra Gaúcha is largely focused on red wines, its sparkling wines are increasing in quality and reputation. Leading vinifera grape varieties include Merlot, Cabernet Sauvignon, Cabernet Franc, and Tannat. Malvasia and Moscato are planted for use in Charmat method sparkling wines;

grapes used for classic method sparkling wines include Chardonnay and Pinot Noir.

The Vale dos Vinhedos DO—Brazil's first (and to date, only) DO—is a subregion of Serra Gaúcha. The DO regulations require the use of vinifera grapes, with Merlot and Chardonnay specified as flagship varieties. Several regions with IO status—including Montes, Pinto Bandeira, Monte Belo do Sul, and Farroupilha—are also located within Serra Gaúcha.

Campanha: This small area, also located in the state of Río Grande do Sul, is situated on the southern border of the country, very close to Uruguay. These are some of the oldest vineyards in Brazil. The warm climate of the area combined with soils of mainly granite and limestone make this an ideal region for ripening sturdy red grapes such as Cabernet Sauvignon, Tempranillo, and Tannat.

Serra do Sudeste: Viticulture is fairly new to this area, being introduced in the 1970s but only seeing large-scale plantings since the early 2000s. Most grapes grown in this area are transported to wine producing facilities in Serra Gaúcha. Serra do Sudeste is located within the state of Río Grande do Sul.

Campos de Cima da Serra: This region, also within the state of Río Grande do Sul, is located directly to the north of Serra Gaúcha. The area, which has a relatively cool climate and long growing season, is planted mainly to Cabernet Sauvignon, Cabernet Franc, and Tannat, as well as aromatic white grapes such as Riesling, Pinot Gris, and Gewurztraminer.

Planalto Catarinense: This area is located to the north of Río Grande do Sul in the state of Santa Catarina. Planalto Catarinense currently contains just 741 acres (300 ha) dedicated to vinifera vines. At elevations of 2,900 to 4,600 feet (900 to 1,400 m) above sea level, these are the highest-elevation vineyards in the country. Leading grape varieties include Cabernet Sauvignon, Merlot, Pinot Noir, Chardonnay, and Sauvignon Blanc.

Vale do São Francisco: A sixth region, Vale do São Francisco (Valley of Saint Francis), is located in the northeastern part of Brazil in the state of Bahia. The vineyards in this region are located at 9° south latitude, with a climate classified as tropical semi-arid. This allows the vines to produce two harvests a year, making vine management quite challenging. The region produces single-variety wines and red blends, along with sparkling wines produced by both traditional and tank methods.

URUGUAY

Uruguay—located between Argentina and Brazil—is South America’s fourth largest wine producer. The country falls just within the boundary edge of the temperate zone in terms of latitude, and much of the interior of the country experiences high humidity and subtropical temperatures, which makes winegrowing a challenge. While vineyards are found throughout the country, most are located in the southern part of the country (near the Río de la Plata estuary) or in the east, along the Atlantic coastline.

The Canelones District—located just north of the southern coastline and the capital city of Montevideo—is among the leaders. Over 60% of the country’s commercial vineyards and a majority of the producers are located in this area. Other important areas include the up-and-coming Maldonado Region, located east of Montevideo on the Atlantic Coast and near the famous seaside resort town of Punta del Este. There are over a dozen producers in Maldonado, known for its rocky soils, cool climate, and a wine tourism route. The Colonia District, located in the southwest of the country along the Río de la Plata estuary, is considered one of the historic centers of wine production in Uruguay as well a leading region for Cabernet Sauvignon.

The majority of the wine grapes grown in Uruguay are vinifera, and the leading grape variety is Tannat—a hearty, tannic red grape first brought here from the French and Spanish Basque Country. It is

estimated that Tannat accounts for nearly 25% of the total vineyard area of the country. Tannat is sometimes known here by the name *Harriague* in honor of Pascual Harriague (1819–1894), a Frenchman who helped to spread the grape throughout Uruguay.

Albariño was introduced to Uruguay in the early 2000s and is seen as having great potential, particularly in certain spots along the Atlantic Coast where the climate can be compared to that of Galicia. Other leading varieties include Cabernet Sauvignon, Cabernet Franc, Merlot, Chardonnay, Sauvignon Blanc, and Viognier. Black Muscat is widely grown and used to produce rosé, much of which is consumed domestically or exported to Brazil.