

Change of focus for Chile

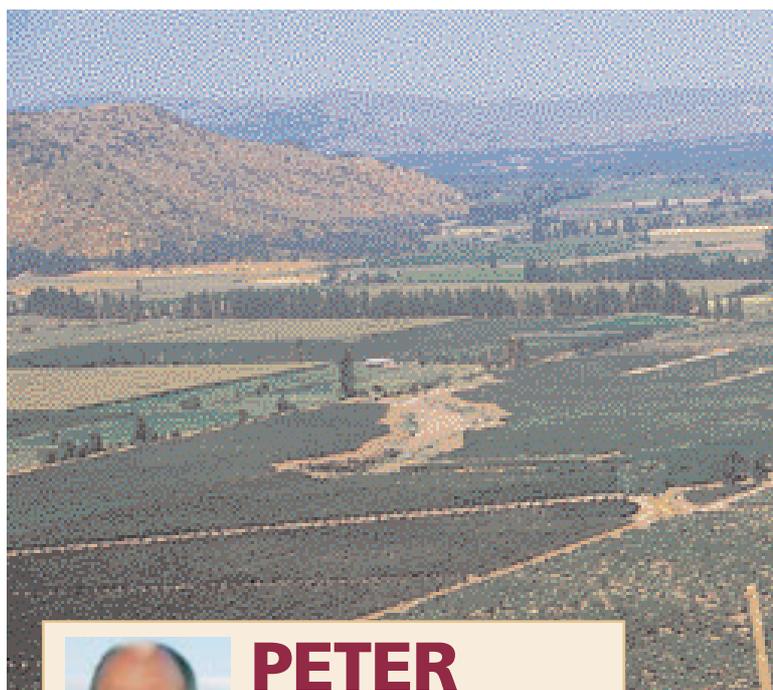
CHILE HAS 85,357 HECTARES¹ OF WINEGRAPES and 51,000 hectares of tablegrapes. Of the former, 70% are used for red wine. The first vines were planted in the mid 16th century by the first Spanish settlers. Although the industry flourished over the next 400 years or so, many vines were pulled in the 1980s due to the economic and political climate of that time. Since the late 1980s, there has been a resurgence in the industry with an increased focus on quality wine for export: since 1995, the winegrape area has increased by 60%.

Much of Chile has an ideal environment for viticulture: low growing season rainfall, abundant supplies of good quality water for irrigation, no phylloxera and a good climate. Most winegrape production is found between latitudes 32° and 38°S, particularly in the Central Valley, a 1,000 km long strip of prime viticultural land stretching south from Santiago. The Andes mountains (up to 6,000 metres high in this part of Chile) on the eastern side of the Central Valley are one of the major influences on macroclimate: they are the source of cold air at night creating significant diurnal variation. Another is the cold Humboldt current that flows from south to north along the coast of Chile: cold, humid air can penetrate inland through gaps in the coastal range.

Cabernet Sauvignon is the most important variety with 31% of the total area followed by Pais (18%), Merlot (12%), Chardonnay (8%), Sauvignon Blanc (8%), Muscat (7%) and Semillon (3%). The varieties with the largest increase in area in real terms in recent years have been Cabernet Sauvignon, Merlot, Chardonnay, Shiraz and Pinot Noir. Since the early 1990s it has been determined that most of the Sauvignon Blanc in Chile is actually another variety known as Sauvignonasse or Sauvignon Vert² which may be the same as the Tocai Friulano of Italy. Sauvignonasse is less aromatic than Sauvignon Blanc and is more prone to fungal diseases. Similarly, Merlot plantings are often a mixture of true Merlot and Carmenère. The latter is a minor variety originating from



New vineyard in the west of the region near Marchihue



PETER DRY

VINEYARDS OF THE WORLD

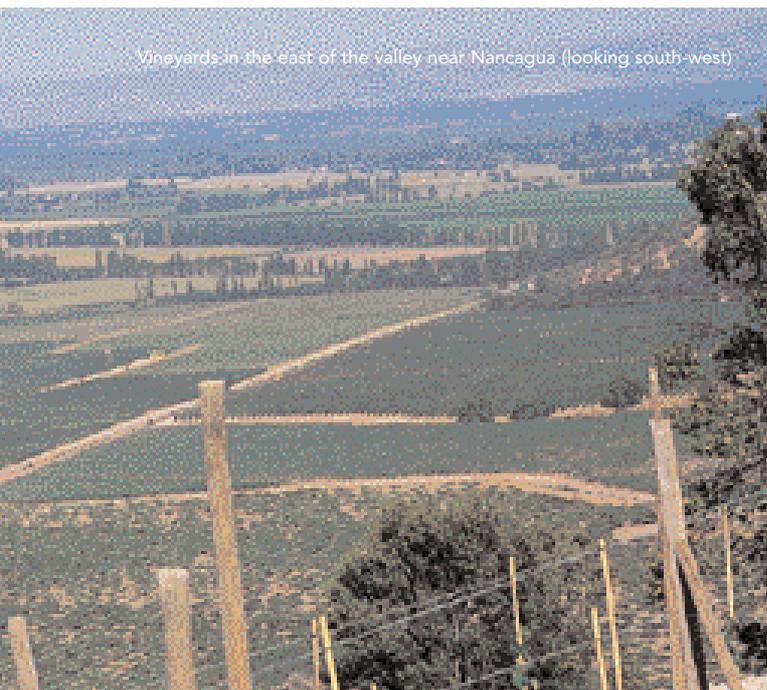
the Bordeaux region: it is said that it was widely grown there in the early 18th century. It is prone to poor set and thus low yields but can produce highly coloured wines of good quality, which confusingly may be labelled as Grand Vidure in Chile. The black-skinned Pais was probably introduced by the first Spanish growers; it is unique to Chile and only suitable for wines of low quality. During the 1990s the area of Pais has halved as it has been replaced by better varieties.

Colchagua is a sub-region of the Rapel Valley³. The vineyards are mainly located in river valleys, between Peralillo in the west and San Fernando in the east, a distance of less than 50 km. San Fernando (latitude 34° 30') is 130 km south of Santiago. The topography is generally flat with the exception of some vineyards to the west of Peralillo on the eastern slopes of the coastal range. On the valley floor, soils tend to be deep and relatively fertile.

Colchagua has 13,360 ha of winegrapes (86% for red wine) and 2,494 ha of tablegrapes. The main red varieties are Cabernet Sauvignon (58% of the planted area), Merlot (20%) and Carmenère (8%) with smaller areas of Syrah (=Shiraz) and Malbec. Chardonnay is the main white variety with 50% of the area followed by Semillon (22%), Sauvignonasse/Sauvignon Blanc (19%) and Chenin Blanc (2%). In recent years there has been significant expansion of winegrape plantings in the region; the main varieties planted have been Merlot, Cabernet Sauvignon, Chardonnay, Pinot Noir and Syrah.

Most vineyards are owned by small growers but recently there has been the development of some large plantings. For example, in Rapel as a whole, 33% of vineyards are less than

Vineyards in the east of the valley near Nancagua (looking south-west)



5 ha, 41% between 5 and 20 ha, 17% between 20 and 50 ha and 9% larger than 50 ha. Rainfall for most of this region averages 500 to 600 mm annually and is strongly winter-dominant. More than 95% of the vineyard area is irrigated. The traditional method of flood or furrow irrigation is most common but there is increasing use of drip irrigation, particularly in new vineyards. The exploitation of lower potential sites on slopes has been made possible by the introduction of drip irrigation. Water is mainly sourced from the rivers that originate in the Andes and flow to the Pacific Ocean. It is normally reticulated in open channels. Typical irrigation amounts are 3 to 4 ML/ha.

The traditional pergola trellis (parronal) is still widely used: it is 1.9 metres high and vines are spaced 3 metres \times 3 metres or 4 metres \times 4 metres. This trellis is preferred on deep fertile soils in order to achieve balance. For winegrape varieties, yields of 20–30 t/ha are common. Newer vineyards, particularly where the fruit is destined for wine of higher quality, are more likely to have a vertically shoot-

positioned trellis (VSP) with yields around 10–12 t/ha for Cabernet Sauvignon. The fruiting wire is at 70 cm to 80 cm and foliage wires are either fixed or moveable. Trellis posts (up to 1.8 metres out of the ground) tend to be 'thin' by Australian standards: the introduction of mechanical harvesting has resulted in considerable breakage (one vineyard claimed to be replacing 15 to 20% of posts annually). Vine spacing is 2.5 metres \times 1.0 to 1.8 metres for VSP. Both shoot thinning and bunch thinning may be used for high quality fruit. The parronal is very labour intensive, requiring 600 to 700 labour-hours annually, double the amount for VSP.

Both manual spur pruning and cane pruning are used (the latter particularly for Carmenère). Harvest is mainly by hand but the use of mechanical harvesting is increasing: some large vineyards have more than 80% of the fruit picked by machine. The major disease problem is oidium. Downy mildew was found for the first time in 1997.⁴ Cabernet Sauvignon ripens from late March to early April. In recent years, growers have been paid US\$600 per tonne, but in 2001 the price decreased to US\$400 per tonne.

In the western part of the region, several large irrigated vineyards have been planted since the mid-1990s, just 30 to 40 km from the sea. Traditionally the vineyards on the eastern slopes of these coastal ranges have been non-irrigated even though the annual rainfall here may be only 400 mm. On the flat land, the soils are silty loams with granitic sands on the slopes.

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REFERENCES

1. 1999; excludes 10,400 ha of vineyard used for production of spirit known as 'pisco'.
2. Not be confused with the variety known as Sauvignon Vert in California which appears to be actually Muscadelle (Oxford Companion to Wine).
3. The other sub-regions are Cachapoal (6,238 ha of winegrapes) and Cardenal Caro (1,879 ha).
4. The first recorded appearance of downy mildew in Chile in the late 1990s was coincidental with that in Western Australia.

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