Paso

L PASO DE ROBLES is Spanish for 'The pass of the oaks'. Although winemaking in the region dates from the time of the Spanish missions, it was not until 1856 that the first commercial vineyards were established. The region remained a viticultural backwater until the late 1980s when significant new development occurred, mainly because the region could offer suitable land at lower cost than the Napa and Sonoma regions.

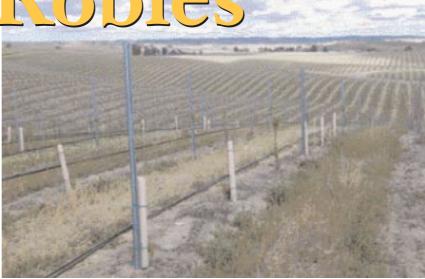
The vineyards in the Paso Robles AVA^I extend from San Miguel in the

north to Santa Margarita in the south (a distance of 45 km), but most vineyards are actually found between San Miguel and Atascadero (both on Highway 101), a distance of approximately 30 km, and the same distance in an east-west direction. The locals tend to refer to the 'west side' and the 'east side' of the region, i.e. the land west and east respectively of the north-south Highway 101. The historical fame of Paso Robles was founded upon the high quality Zinfandels produced from dry-grown vines on the wooded hills of the 'west side' so it is thus incongruous that most of the new development has taken place on the rolling grassland of the 'east side' that was formerly used for grazing.

In 2002, the region had a total of 7,000 ha of vineyards and the main varieties by planted area were Cabernet Sauvignon (35%), Merlot (17%), Chardonnay (13%), Zinfandel (10%), Shiraz (8%) and Sauvignon Blanc (4%). In 1971, Zinfandel was the main variety grown with 70% of the



A Southcorp vineyard near Creston on the 'east side



A new vineyard on the 'east side' at Paso Robles, with dual drip line set up for partial rootzone drying



area, however by 1991 it had reduced to 18% as a result of

new plantings of Cabernet Sauvignon and Chardonnay.

One of the features of this region is the enormous variation in mesoclimates within a relatively small area. To understand the source of this variability it is important to understand the geography of the region. Paso Robles is at the high point of the Salinas Valley which runs roughly northwest towards the Pacific Ocean. The wide Monterey Bay acts like a large funnel at the mouth of this valley—here the ocean water temperature is 13°C all year round. To the west, the valley is bounded by the Santa Lucia Mountains: these are up to 900 m high and stretch for 140 km along the coast from Monterey, with relatively few gaps. To the east lie the Gabilan Mountains with their gaps through to the very hot Central Valley. As the Central Valley heats up, cold air is sucked from Monterey Bay up the Salinas Valley and thence into the Central Valley. At the northern end of the Salinas Valley, the cold winds have a significant effect on the climate of Monterey, however the effect is greatly diminished at the southern end of Paso Robles. On the southern boundary of the Paso Robles region is another mountain range with the 460 m high Cuesta pass: this range prevents the influx of cold air from the south. On the other side of the Cuesta pass is the city of San Luis Obispo (20 km south

¹ American Vineyard Area

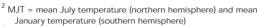
of Atascadero), and the AVAs of Edna Valley and Arroyo Grande with some of the coolest vineyard sites in California.

The other factors contributing to the mesoclimatic variation are the gaps in the Santa Lucia Mountains that allow influx of cold air from the sea, for example, principally along Highway 46 to Templeton and Highway 41 to Atascadero, and the differences in elevation. As a result it may be difficult to ripen Cabernet Sauvignon at sites near Templeton. Although the 'west side' may be generally cooler than the 'east side', there are some parts of the east that are just as cool as the west. The biggest differences between the 'west' and 'east' are the topography, rainfall and soil types.

Vineyards in the region are found mainly between 180 m and 300 m. On the 'west side', soils are typically slightly to strongly alkaline, often based on limestone. On the 'east side' they are more generally slightly acidic to neutral alluvial soils.

The climate is characterised by hot, dry summers and relatively mild winters. The climate station located at Paso Robles airport (250 m) is more representative of the 'east side' than the 'west side' with MJT² of 23.1°C and CTL³ = 15°C (similar to Rutherglen, Victoria; and Waikerie, South Australia). Occasionally winter temperatures may be sufficiently low for winter kill due to freeze injury. Average annual rainfall is 325 mm with growing season rainfall only 38 mm. However, on the 'west side' annual rainfall may range from 500 mm up to 1,200 mm. Fortunately, there are good supplies of ground water for irrigation on the 'east side'. Spring frosts may be a problem, occurring as late as mid May. Some 'east side' vineyards experienced 10 frost days in the 2001 season.

The oldest vineyards in the region are dry-grown, head-trained Zinfandel at $3.0 \text{ m} \times 3.0 \text{ m}$ spacing. Those planted



³ CLT = continentality (mean annual range)



A typical landscape on the 'west side'

during the period of great expansion in the late 1980s to early 1990s are trellised with a stake at every vine, one or two fruiting wires and two foliage wires and 3.0-3.3 m row \times 1.8-2.1 m vine spacing. The youngest plantings tend to be on VSP trellis at 2.4-3.0 m row \times 1.5-2.1 m vine spacing. There is also a relatively high proportion of Smart Dyson trellis system used in this region. Sixty-five to 75% of vineyards in the region are spur pruned. The main rootstocks are Teleki 5C in older vineyards and 1103P, 110R, 101-14, 140Ru and 420A in younger. Lime tolerance may be an important criterion for rootstock selection.

Typical yields for Cabernet Sauvignon are 13 to 18 t/ha on the irrigated 'east side' and 4 to 11 t/ha on the (often non-irrigated) 'west side'. Budburst is usually late March with harvest of Cabernet Sauvignon ranging from late September to mid October, depending on location.

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