

# Wine Australia fact sheet

## Viticulture - Innovation in vineyard production



**Viticulture in Australia is characterised as much by the people who grow and manage the vines as by the varieties and the land upon which grapes are grown.**

All commercial varieties grown in this country can be found in other parts of the world, covering the same variations of soil types and climate.

What sets the Australian grower apart is flexibility to quickly adopt new practices and respond to market signals. This capacity has led to a reputation for being able to “over deliver” on expected quality, particularly in the popular price segments of export markets. At the same time, consumers of the finest and most expensive wines can be satisfied by our viticulturists and winemakers that they represent unique style and regionality.

Among important developments in Australian viticulture practice have been mechanised harvesting to not only increase operational efficiency but enhance the quality of fruit by picking quickly and during the cooler times of the day. The use of irrigation techniques is also undertaken to control the growth of vines.

Managing vine growth begins at site selection. A deep gravely soil, for instance, means roots can dig deeply

and top growth will be very vigorous. A shallow soil over compacted clay or rock, on the other hand, will mean slow and difficult growth that can only be avoided by breaking into this layer with a ripping machine.

The next choice is variety and whether to have own-rooted vines or those grafted onto rootstocks that are resistant to salinity, pests and diseases, water shortages and other impediments. Choices that mean easier management and better control over the health and development of the young vines normally are taken.

By questioning conventional practices growers can bring about change for the better, an illustration being the convention of spacing vines 1.5 metres apart or even closer in cool areas on vigorous sites. This was once believed to be a way of fostering competition between vines which would slow growth but today most growers have gained by extending the vine spacing to spread growth laterally.

In addition there are methods of vine training that take buds along more than one level and wires for lifting shoots upward to improve aeration. Such canopy management techniques have an added benefit in reducing humidity and the likelihood of fungal disease infection.

Vineyard layout, vine canopy management and regular monitoring for pests and diseases make Australia a very efficient and safe grape growing country. Also helping is the sunny, stable climate and relatively low incidence of persistent rain in the growing season.

Being dry, by the standards of most of the world’s grape growing regions, means supplementary irrigation is necessary for efficient and reliable production for the vast majority of producers.

Irrigation provides added power to manage: the rate of growth during spring and summer; the balance of fruit and vegetative growth; balance between acid and sugar; and the accumulation of flavour and colour in grape berries.

Drip irrigation and moisture monitoring to provide a picture of vine uptake of water and flow through the root zone have had a big influence on water use efficiency as well as quality.

Another important part of viticulture in Australia is the relationship between growers and wineries near harvest to determine optimum maturity of each variety. Growers and winemakers work closely together leading up to vintage constantly checking sugar and acid level and fruit ripeness. Mechanical harvesting,

usually at night for fresh cool deliveries, is coordinated to ensure the best possible start is made to winemaking.



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