The Wingara Wine Group consists of two wineries, Deakin Estate near Red Cliffs in NorthWest Victoria, and Katnook Estate in Coonawarra in South Australia. Deakin Estate was first planted in 1967 and the winery established in 1980. Currently 350 ha of vines have been planted on the site. The brands Deakin Estate and Deakin Select are produced using fruit from the company’s vineyards and contract growers in the Sunraysia area.

The first vines at Katnook Estate were planted in 1967 and the winery was established in 1980. Currently 330 ha of vines are planted in the Katnook Estate vineyard. Most of the fruit for the Katnook Estate and Riddoch brands is sourced from estate vineyards.

Table 1: Climatic data for Deakin Estate, Red Cliffs and Katnook Estate, Coonawarra (Gladstones, 1992).

<table>
<thead>
<tr>
<th>Site</th>
<th>Degree days 10C to 19C</th>
<th>Av. Sunshine hours</th>
<th>Av. number rain days</th>
<th>Av. rainfall (mm)</th>
<th>Av. RH %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deakin</td>
<td>1,753</td>
<td>2,089</td>
<td>31</td>
<td>147</td>
<td>30</td>
</tr>
<tr>
<td>Katnook</td>
<td>1,337</td>
<td>1,593</td>
<td>68</td>
<td>257</td>
<td>48</td>
</tr>
</tbody>
</table>

Wingara Merlot

Wingara Wine Group produces three Merlot wines, two at Deakin Estate in Red Cliffs and one at Katnook Estate in Coonawarra. They have been described as distinctive Merlots, however a tasting of the Merlot section of the Adelaide Wine Show causes confusion about what a typical Merlot is. Comments were sought from the senior winemaker, Wayne Stebbens.

All three have distinctive varietal characteristics described as composty, earthy with champignons on the palate. The winemaker’s goal is to retain these characteristics rather than let berry characteristics show.

The Merlots’ characteristics relate more to texture and feel on the palate than distinctive fruit flavours. These textural characteristics are described in sensual terms such as satin, silk, and smoothness that leads to the soft easy drinking style.

The Katnook Merlot has stronger definition of these characteristics, more tannin, more weight and structure, and more fruit flavour; while the Deakin Merlots show some of these characters, but not as overtly. The Deakin Select is, as the name suggests, made from the parcels of fruit that best display these characters.

Wayne summarised Merlot as an early ripening red, in comparison to Cabernet, which is good in difficult harvest seasons.

While inexperienced palates find these and other descriptors difficult to identify, the next section relates how some viticultural differences have achieved noticeable flavour responses.

Viticulture

(a) Deakin Estate

The Merlot training system is all two wire vertical cordons, which are tightly mechanically pruned to avoid layering of shoots and bunches. Irrigation management aims to slow and stop vegetative growth at fruit set, then maintain leaf quality until harvest, maintaining dappled light exposure to the bunches but preventing sunburn.

The shoots of Merlot are less rigid than other red varieties grown, so they tend to hang down closer against the cordons. This helps create the light environment desired.

Yield

Vines grown in the Murray Valley can produce impressive yields as shown in Table 2. Some of the fruit from high yielding blocks has been of marginal quality, while others, for example block B, have been consistently directed into the Deakin Select label. The major observable difference between this and the other blocks is that the vines may slow their vegetative growth earlier in the growing season without serious viticultural intervention via RDI.

Young vines

Establishing young Merlot has been an issue in blocks B and C, however in the same years of planting, 1996 and 1997, Shiraz vines in block B also struggled to become established.

Table 2: Viticultural data for Merlot blocks grown at Deakin Estate.

<table>
<thead>
<tr>
<th>Block</th>
<th>Planted</th>
<th>Trellis</th>
<th>Soil</th>
<th>Irrigation</th>
<th>Harvest maturity</th>
<th>Yields (t/ha) High</th>
<th>Rootstock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot 40 A</td>
<td>1994, 1995</td>
<td>Two wire vertical cordon, sandy clay over limestone</td>
<td>Drip</td>
<td>Bé 3.5, pH 3.5 TA 5.0g/L</td>
<td>30</td>
<td>Own, Schwarzmann, Ramsay</td>
<td></td>
</tr>
<tr>
<td>Triangle B</td>
<td>1996, 1997</td>
<td>Sandy loam over limestone</td>
<td></td>
<td>Harvest is determined by tannin and flavour maturity</td>
<td>34</td>
<td>Schwarzmann</td>
<td></td>
</tr>
</tbody>
</table>
Extensive investigations and consultants’ reports have failed to reveal the reasons for slow growth in the first year.

**Rootstocks**
Merlot has been grown on a variety of rootstocks, as seen in Table 2. This is in response to the presence or possibility of root knot nematode in areas that have been re-developed. However, block B is not susceptible to root knot nematode, but has been grafted to Schwarzmann in case of future nematode infestation. It produces some of the best Merlot grapes.

**Response to RDI**
Over the past five years Wingara has carried out extensive trials in an effort to investigate the application of RDI and PRD to improve grape quality, including a small trial in an area of Merlot in block A. The trial vines are on own roots grown on a deep layer of sandy loam over limestone. The vines’ vegetative growth slowed gradually shortly after fruit set, and were then able to be held with little growth, dappled light exposure to the bunches, and no extreme stress for the rest of the season. The fruit from these vines exhibited better flavour characters and was of noticeably higher quality than the control.

**Berry size**
Over six years, the Merlot in block A have shown a decrease in bunch number per vine due increased shading causing loss of fruitfulness of the lower cordon. However, yields have remained relatively stable due to increased bunch or berry size. While the increase in berry size may be of concern, management of the light environment can produce the characters desired in this environment.

**(b) Katnook Estate**
Historically block A has consistently produced material for the Katnook Merlot. More recently, grapes from block B have also met the required standard. The blocks are different in nearly all aspects of soil, trellis, spacing, age, and irrigation requirements.

**Rootstocks**
The early Merlot plantings were slow to develop. The vines did not progress as well as other varieties planted in the same blocks at the same time. Experience has shown Merlot to have extremely variable fruit set, as indicated by the high and low yields for block A in Table 3.

To overcome the slow initial progress and variable fruit set, the new Merlot blocks were grafted, however the use of rootstocks did not appear to affect establishment. Vines grafted onto Vitis vinifera stock have appeared to progress as well as those grafted on non-vinifera rootstocks, and fruit set on either combination has been comparable. The most recently planted block has been totally grafted onto Teleki stock to achieve adequate fruit set, moderate vigour and phylloxera tolerance.

**Issues**

**Paradox**
In both Sunraysia and Coonawarra, the best grapes of a number of varieties are grown on vines with low inputs. These vines are mechanically pruned with little labor input from winter pruning through to harvest. Block B in Coonawarra is the exception, possibly due to the older age of vines in the other blocks. As the vines in blocks B and C age, input may possibly be reduced leading to an improvement in the grape quality.

**Merlot style**
Merlot is a variety that is difficult to allow detection of subtle varietal characteristics, especially in the field prior to harvest. This ability is further confused by the Katnook Merlot made from the vintage in which yield was 19.8 tonnes per ha. Although this is reputedly not a good Merlot, the author found it to be sublime with a few years age. If this is an average Merlot, then the ability to identify great Merlots will indeed be difficult.

**References**

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**Table 3: Viticultural data for Merlot blocks grown at Katnook Estate.**

<table>
<thead>
<tr>
<th>Block</th>
<th>Planted</th>
<th>Trellis</th>
<th>Soil</th>
<th>Irrigation</th>
<th>Harvest maturity</th>
<th>Yields (t/ha)</th>
<th>Rootstock</th>
</tr>
</thead>
<tbody>
<tr>
<td>KE4</td>
<td>A 1985</td>
<td>Single cordon mechanically hedged</td>
<td>sandy loam over limestone</td>
<td>Drip</td>
<td>Bē 13.0, pH 3.6 TA 6.0g/L Harvest is determined by tannin and flavour maturity.</td>
<td>19.8 3.3</td>
<td>Own</td>
</tr>
<tr>
<td>Wal</td>
<td>B 1996, 1997</td>
<td>VSP</td>
<td>Shallow rendzina over limestone</td>
<td>Overhead</td>
<td></td>
<td>21.0 5.2</td>
<td>Own</td>
</tr>
<tr>
<td>Rich</td>
<td>C 1995</td>
<td>VSP</td>
<td>Deeper rendzina over limestone</td>
<td>Drip</td>
<td></td>
<td>17.8 3.4</td>
<td>Mixed</td>
</tr>
</tbody>
</table>