Grenache - a Barossa Experience

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The history of Grenache, and its use in other countries
It is commonly recognised that the Grenache variety has its origins in Spain and, in particular, the northern province of Aragon. History has recorded its spread from this area to the Rioja and then steadily towards the south of France, and from there to southern Italy and Sicily. Grenache probably owes its early dispersal to the strength and diversity of the kingdom of Aragon. It is interesting to note that the Roussillon area of southern France was ruled by Spain (the Kingdom of Aragon) for four centuries until 1859, and Sardinia probably inherited Grenache by virtue of its rule by Aragon from 1297 until 1713.

Grenache is still the most widely planted red grape variety in Spain, covering approximately 15% of the total vineyard area, and 40% of the area of vines in the Rioja (Robinson 1986).

Grenache grows well in conditions of extreme heat, aridity and wind, making it an obvious choice for the vast vineyards of the south of France and Spain. It is responsible for the popular rosés of Tavel in France, and is a major contributor to the French red table wines of Lirac, Gigondas, Cotes du Ventoux and Cote de Rhône. It is one of the principal varieties of Châteauneuf-du-Pape—and it is more than likely that it was the Grenache ingredient that determined this region’s unusual official requirement of a minimum alcohol requirement of 12.5% v/v. In Spain, it is one of the varieties used in the most famous wine of this country, Vega Sicilia. Grenache is also widely planted in Corsica and Sardinia. It is grown widely in Israel, and it was one of the principal varieties that contributed to the huge wine industry of Algeria. In 1991, Grenache was the third most planted black grape in California, after Zinfandel and Cabernet Sauvignon (Robinson 1986).

In Spain, as in Australia, Grenache is capable of producing wines of exceptional quality as long as yields are kept low (approximately 50 hl/ha, or in our terms, 3 t/acre). Château Rayas of Châteauneuf-du-Pape is planted exclusively to Grenache, and never has yields in excess of 20 hl/ha (1.25 t/acre).

In addition to its viticultural versatility, Grenache may produce wines of moderate to high alcohol, and it is in this area that its use is most popular for blending with other varieties.

Vine phenomenology
Grenache is an extremely productive variety, with vigorous, upright shoot growth. It is moderately resistant to powdery mildew, but is extremely susceptible to downy mildew. In areas of spring and summer rainfall it is sensitive to botrytis and the grape berry moth. It is very subject to coulure, suffering badly from poor set if weather conditions are either particularly wet and cold, or extremely hot, during flowering.

It is one of the first varieties to go through budburst, and therefore is susceptible to frost—as a result of spring frosts in 1994, crops in the Barossa Valley were reported to be 60–70% of the average. However, if the grapes are used for full-bodied table wines, it is one of the last varieties to be harvested. In the Barossa Valley, it is one of the last varieties to lose its leaves in the winter (Table 1).

Grenache is almost exclusively spur pruned around the world, and the Gobelet or bush vine training system is still common in the Barossa Valley—as it is in the Old World.

Although Grenache was probably brought to South Australia from the Busby collection, therefore probably originating in Montpellier in the south of France, it is possible that cuttings could have arrived from South Africa at around this time. In any case, it has been demonstrated by the South African viticulturist Perold that the South African Grenache is the same as that which is grown in Montpellier in France and the Rioja in Spain.

Although Grenache is grafted in Europe, it is generally planted on its own roots in Australia from mostly non-selected vine material, although there are some improved clones available through the Barossa Valley Vine Selection Society.

Previous viticulture and use of fruit
In 1968 there were a total of 735 growers in the Barossa Valley, 420 of whom had vineyards of 20 acres or less.

The area of vineyard planted to Grenache in the Barossa Valley has halved between 1979 and 1990 (Table 2). In particular, the contribution of Grenache to the total red grape yield in the region has fallen from 36% to approximately 30% in the same period (Anon 1968; Australian Bureau of Statistics 1994).

Statistics are not available from 1990 to the present, but with the increased plantings of Cabernet Sauvignon and Shiraz in the early 1990s and the decline of Grenache, coupled with no new plantings of Grenache, it is estimated that Grenache could represent as little as 25% of total red grape plantings in the Barossa Valley in 1995.

As with most agricultural commodities, the trigger for the success or otherwise of a grape variety is price received per tonne. Prices for Barossa Grenache from 1988 to 1995 are shown in Table 3. Clearly, the increase in price has arrested the decline in area of Grenache in the short term. It has been reported that some wine producers have paid up to $1,000/t for selected parcels of Grenache, particularly those from extremely low yielding vines.

The Barossa Valley still produces approximately 6000 t of Grenache in an average year, although it is possible that only a small percentage (approximately 500 t) would be suitable for making high quality dry red table wine.

Table 1. Phenological data: Grenache in the Barossa Valley.

<table>
<thead>
<tr>
<th>Phenological stage</th>
<th>Average date stage reached</th>
<th>Range of dates stage reached</th>
</tr>
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<tbody>
<tr>
<td>Budburst</td>
<td>9 September</td>
<td>25 August–18 September</td>
</tr>
<tr>
<td>Flowering</td>
<td>21 November</td>
<td>8 November–2 December</td>
</tr>
<tr>
<td>Fruit set</td>
<td>30 November</td>
<td>18 November–11 December</td>
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<tr>
<td>Maturity</td>
<td>20 March</td>
<td>16 March–2 April</td>
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There is anecdotal evidence that despite price increases, Barossa Valley bush Grenache vines were ripped out in 1995. This is perhaps because vineyards need to be dry grown, hand pruned and hand harvested in order to achieve the low yields associated with quality, making the cost of production much higher than for varieties which may be managed with mechanised techniques. Due to historically low prices for Grenache, growers have responded by irrigating, mechanically pruning and harvesting, with the net result that the variety, by virtue of its extreme fruitfulness, is probably being grown at a profit, although resultant grape and wine quality is average to poor.

Most of the Grenache vines removed over the past 15 years in the Barossa Valley were in low yielding vineyards, where irrigation water was not available. It was traditional to plant varieties such as Grenache or Mataro in these low fertility sites, which would not support traditional Barossa varieties such as Shiraz, Pedro or Riesling.

The traditional use for Grenache in the Barossa Valley was for the production of fortified wines. Its moderately high yields of very high sugar content grapes made it ideal for the production of fortified wine, and it has contributed to some of Australia's finest tawny port styles. As the demand for fortified wine in Australia has decreased, Grenache has been used for sparkling wine bases, the large-scale planting of Grenache in the Barossa Valley is extremely unlikely, due to its inability to produce high quality table wine under high potential site and irrigated conditions, and difficulty in machine harvesting the variety.

The triggers for change in the perception of Grenache table wine

One of the first Australian producers to market varietal Grenache on a large scale was Geoff Merrill from Mount Hurtle Vineyards. His Grenache was, and continues to be, a light red/rose style, with some residual sugar—quite distinct from the full-bodied dry table wines currently being produced from this variety.

There are a number of possible reasons for the increased popularity for full-bodied Grenache. I suggest that consumers have been looking for softer wine styles, in particular Merlot and Mataro blends, and are moving away from heavily oaked, astringent Cabernet Sauvignon from cooler areas. The emergence of cafe-style eating throughout Australia has created a place for Grenache, with its generally softer palate and fine tannin structure, offering a wine style which is ideally suited to Mediterranean cuisines. The tendency for Grenache to produce slightly 'bitter' tannin means that it is well suited to full flavoured 'oily' food styles. Some makers have chosen to blend Grenache with Shiraz or Mataro.

When the 1992 Turkey Flat Grenache was released in 1993, there were approximately six varietal Grenaches on the Australian market. At the time of writing, there were approximately 45 labels showing Grenache as the principal variety.

**Vitis cultural and oenological techniques**

It would appear that there have been significant viticultural changes made to the production of Grenache grapes for full-
bodied, dry red table wine, with the emphasis being on low yields (5-7 t/ha), and high fruit exposure, intended to optimise fruit colour. Bush vines are considered ideal for this purpose. In my experience, Barossa Valley Grenache produces maximum colour and flavour structure at extremely high sugar levels—in the vicinity of 17° Baumé (Bé). High yielding, irrigated sites are not able to achieve sugar levels of this nature in average years, and often produce wine of high pH and low acidity, with resultant light, unstable colour.

There have been no significant changes in the winemaking techniques applied, except that Grenache fruit is more likely to be treated with more care than previously. In the case of Turkey Flat Grenache Noir, no sulphur dioxide (SO2) is added prior to fermentation. The grapes are destemmed, and any acid adjustment is made. The must is then inoculated with active dried yeast: either Lalvin L2226 or EC1118. Fermentation usually takes 5-6 days, at a temperature of 20-25°C. The cap is either plunged, or if other winemaking facilities are used, pumped over continuously in a Ducellier auto-fermenter. The marc is drained and pressed at approximately 3°Be, and the pressings blended with the free-run.

The wine is then racked before being aged in second or third use, freshly shaved, American and French oak hogsheads. A conscious effort is then made to avoid new oak characters with the view that a subtle oak addition to the wine style is desirable. Malolactic fermentation, which may be induced by inoculation with a bacterial culture, occurs in barrel.

The wine is racked and returned to barrel after malolactic fermentation, at which time the concentration of SO2 is adjusted to 30–60 mg/L.

Review of the market: level of interest and future demand for Grenache in Australia and overseas
During discussions with other industry members of the Australian industry, it is not uncommon to find winemakers who comment that they 'don't like Grenache'—and who therefore are not interested in making wine from this variety. For those wine companies who rely heavily on the Australian wine show circuit as a promotional tool, Grenache is unlikely to be chosen. It does not offer rewards, as it does not fit into the common classes available, with the exception of those for light bodied, dry red wines. Grenache is therefore seen to be more a consumer's, rather than a winemaker's wine style.

In my opinion, Grenache is more a function of the quality of the vineyards and its fruit than Shiraz or Cabernet Sauvignon. It is curious that winemakers who discuss a recent decision to make Grenache cite great emphasis on the vineyard. Although it is possible to manipulate the vineyard to a certain extent in the case of Shiraz (i.e. irrigated vineyards can produce moderate to high yields and still produce high quality dry table wine), this is not the case with Grenache. The tendency for the latter to have high fruitfulness means that it will always respond to any viticultural changes such as light pruning or irrigation, and produce large quantities of low quality fruit.

Although it may be possible to produce high quality Grenache grapes in areas such as north-east Victoria, it would appear that the existing mature Grenache vines in Australia will, at least for the medium- to long-term, be the source of the high quality Grenache wines. It would also appear that there will continue to be a marked difference in quality in Grenache wine—which can, in most cases, be attributed to the vineyard.

The demand for high quality Grenache red table wines should increase in the medium- to long-term. It is a style that fits well into both the consumer profile of 'ready to drink' styles, and can be a moderately profitable wine for wine companies (relatively short ageing periods in second- to third-hand oak barrels).

Grenache has a long history in the Old World wine countries for producing and contributing to high quality dry table wines, and there is no reason why this situation will not continue in Australia.

Appendix. List of synonyms for Grenache in several areas.

Spain:
Garnacho
Lladoner
Tinto
Tinta
Tinto A ragonès
Granaccia
Carignan Rosso
Roussillon Tinto
Uva di Spagna
Tintilo de Rota
Tinto M enudo
Tinta M encida
Tentillo

France:
Grenache Noir
Granacha
Alicante
Bois jaune
Carignane Rousse
Sans Parel
Roussillon
Rivesaltes
Redondal
Rouvaillard
A ragonais
Ranconnat

Sardinia:
Cannonau

Sicily:
Granaccia

Source: Robinson (1986)

References