

Vines: Is an oldie necessarily a goodie?

Grape and wine producers often seek to understand the value of 'old' vines. Here are answers to two questions on this topic the AWRI is often asked.

Q. Is there any evidence old vines make better wine than young ones?

A. There is no hard evidence to support the proposition old vines produce better wine than young vines.

The issue is clouded because vine age *per se* cannot, in general, be readily separated from both the genetic material and the vineyard management system.

'Old' vineyards in Australia tend to be managed differently to 'young' vineyards. For example, in the Barossa, the former are generally ungrafted, non-selected or mass selected, vines on low trellises with no or limited irrigation etc. whereas the latter are typically clonally-selected, perhaps grafted onto rootstocks, on higher trellises with more irrigation and so on.

Therefore, because an 'old' vineyard produces 'better' wine, or a different style, to a 'young' vineyard, may be much more a consequence of these other factors than vine age alone.

Until someone does that definitive experiment where the only variable is vine age, we will not know for sure. However, there might be some characteristics possessed by 'old' vines which may enable them to consistently produce better wine than 'young' vines.

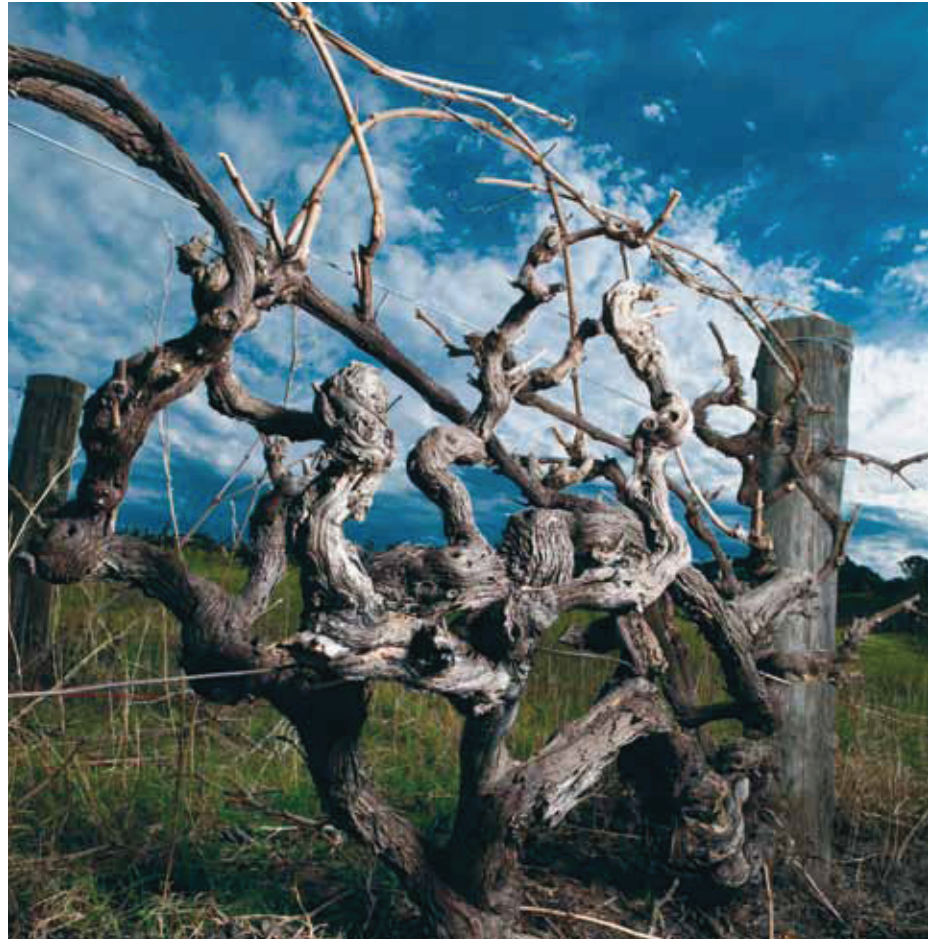
For example, it is generally observed 'older' vines are more balanced and more in harmony with their environment, having had more time to develop a larger mass of permanent wood, particularly if cordon-trained.

They might also have a more exploitative root system. More wood will mean more carbohydrate reserves and it is known these reserves are not only important in spring but also during ripening. Furthermore, the root system probably plays a major role in the determination of vine balance.

Another point to consider is that, in many cases, 'old' vineyards are found on the best sites and thus have been retained because they have been successful.

There might have been other vineyards planted at the same time as the existing old ones but because they were not successful for one reason or another they were pulled out and the land remained vacant – until someone came along much later and planted a 'new' vineyard on that less-desirable site.

So, until an experiment is conducted where the only variable is vine age, it's all speculation.



Can you catch the Chardonnay clone?

Q: I have some old vines in my vineyard, is there a way to identify the Chardonnay clone?

A. Unfortunately, without accurate documentation from when the vines were first propagated, there is no simple and reliable method for the identification of individual grape clones.

Clones are selected on desirable attributes such as phenology (bunch architecture and weight, berry size etc.), productivity, flavour, aroma or disease resistance or other performance characteristics.

However, the evaluation of grapevine physical attributes to identify a specific Chardonnay clone from the many possibilities would be difficult and unreliable.

Some clonal differences may be due to virus load, and the virus status of a vine can be an indication of the clone. The clones identified by Waite Diagnostics

as having a specific virus 'finger print' are: Cabernet Sauvignon (clone SA125), Chardonnay (clone Mendoza [Gin Gin]), Viognier (clone HTK and 1968 Montpellier) and Merlot (clone D3V14).

While the genetic identification of *Vitis vinifera* varieties is possible through DNA analysis, researchers around the world are still developing methods to help in the genetic identification of clones.

At the AWRI, genome assembly and comparative genomic analysis are beginning to shed light on the relationship between Chardonnay clones and how genetic variation gives rise to phenotypic variation.

Hopefully, we will soon have genetic markers allowing us to distinguish between grapevine clones in a simple and reliable test.

Grape and wine producers can seek additional information through contacting the Australian Wine Research Institute on email: viticulture@awri.com.au or phone: (08) 8313 6600. 