

# Growing high quality Shiraz in Central Victoria

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## Introduction

I have a confession to make: the raw ingredients that we have to work with make us look very good. We are far from perfect with our vineyard management, we don't get it right every year, and there are always compromises in the balance between reducing costs and increasing quality. Our key advantage is that we are not making a silk purse out of a sow's ear. Our other advantage is that we are value-adding and so, to a point, we can absorb greater production costs.

## The basics – viticulture 101: site selection, vine material, block design

These are the elements more than anything else that have given us an advantage. I don't know how much luck was involved and how much we can put down to experience and intuition in the establishment of the first vines at Mount Langhi Ghiran. I'm not sure that they would even have been aware that a vineyard had been planted there in the 1800s.

So what did they get right?

**Site:** It is very clear to me that the Mount Langhi Ghiran site is outstanding for producing a recognisable style of Shiraz. The key factor is that the site is cooler than the surrounding Grampians and Pyrenees districts. The same is true for Dalwhinnie, which I think is a good example of a successful site selection. At Langhi the climate is partly a factor of the overall elevation which is on average 350 m but also due to the mountain air flows we pick up from Mount Langhi

Ghiran and Mount Cole and the open valley those mountains form.

**Vine material:** Luck or good management? Our main stock is from the old vineyards at Bests and/or Seppelts Great Western. We have experimented with some clones of Shiraz and we are convinced that the selection that comprises what we call our Old Block is the preferred clone for our style.

**Block design:** For a vineyard planted in the 1960s our Old Block is quite big at six hectares. It was established by cuttings with over 15,000 sticks. I can't imagine what was left of the vineyard they raided for the sticks. Anyway, I think that this is the area that has seen most change in the life of this vineyard to now. The block design is east west orientation and folds over a low-lying ridge falling away to each corner. The influence the design has then is that the fruit doesn't ripen uniformly across the block and we need to work with that.

**These are the basics** and while we can mitigate against less than satisfactory block design you can't easily change the site you select or the clone you select. There is an abundance of information available on site selection and there is really no excuse in not getting an optimal result on your site selection. You can also do your own homework on clonal selection and follow that up with the use of quality source material. These are the basics that you should have put in place to grow high quality Shiraz

**Management:** Looking at management, it is quite conventional. Single wire VSP although it is arch cane. Permanent sod, herbicides for the undervine strip, a fungicide program that relies mostly on

## Central Victoria zone

In terms of wine production Central Victoria is a term that is often used quite loosely although it does relate to a specific area according to our Geographical Indications. It is used loosely to describe that area of Victoria renowned for the production of Shiraz but also loosely because people have only a vague idea of where Central Victoria might be.

The first map below shows the wine zones in Victoria according to the Geographical Indications of Wine Australia. The wine zone of Central Victoria includes the GIs of Heathcote, Bendigo, Goulburn Valley and Upper Goulburn. The other zones that are of interest to us are the Western Victoria zone and the Port Phillip Zone. In Western Victoria we have the Pyrenees, Grampians and Henty GIs and in Port Phillip we have Geelong, Sunbury, Macedon and Yarra Valley.

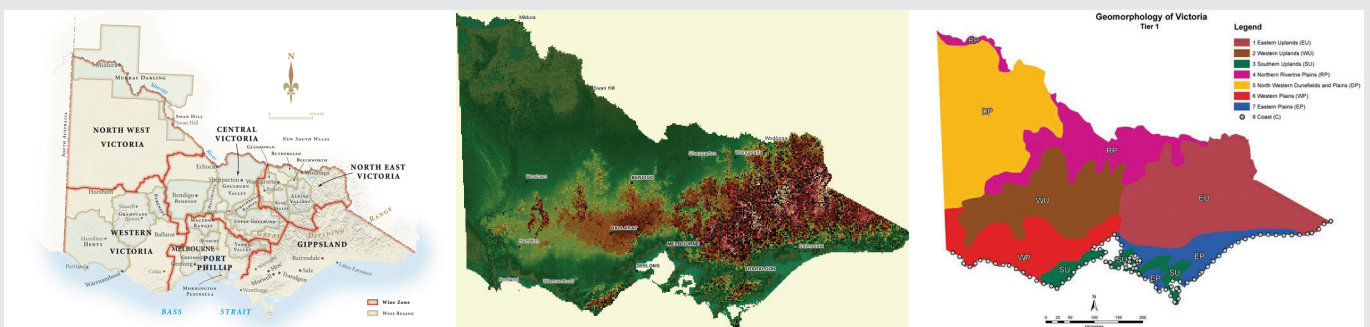
When referring to Central Victorian Shiraz we often mean a different thing to the GIs and their zones and for this purpose I have included the second and third maps below.

## Western Uplands

The Western Uplands is a composite of low lying landscapes compared to those of the Eastern Uplands, and can be described as a broad, elongated and dome-like eastwest drainage divide of low relief, with an average elevation of only 300 m (Joyce et al. 2003).

While the DEM is unremarkable, the geomorphology map which is the same information manipulated to represent geomorphological boundaries is very useful for understanding viticultural regions in Victoria. The Western Uplands is a good approximation for what is often loosely referred to as the Central Victoria Shiraz production area. It includes from west to east, Grampians, Pyrenees, Bendigo, Heathcote and Macedon Ranges. Excluding the Macedon region, of the 21 GIs in Victoria this group of regions are the known Shiraz producing regions and they are unified by this Western Uplands geological feature.

The Western Uplands offers the right combination of latitude and altitudes for quality wine production (Ararat 37°24' – Bendigo 36°75'). And although access to water remains a limiting factor, this map gives you an idea of the untapped potential for grape production out of this region of Victoria.



Source: Victorian Resources Online: <http://vro.depi.vic.gov.au/dpi/vro/vrosite.nsf/pages/vrohome>

Sulphur and a modified RDI for irrigation. Our overall principle for vineyard management is to use an IPM approach. And while the term IPM is old hat, as long as you keep abreast of the research and learnings, it is by nature a progressive management approach and not as prescriptive as some others.

If I were to nominate some key areas for attention in Central Victoria it would be the management of irrigation scheduling, and the need to develop expertise in all facets of irrigation management.

The key underpinnings for me are soil health, vine health and canopy health – which sounds obvious. For our acid soils we need to work on our pH to ensure it is at least approaching pH 6.0. Our main long term vine health issue is eutypa. As for canopy health – it is set up by our pruning, maintained by our spray program and irrigation program and nutrition.

### **Adaptation**

- **1980s trellis modifications, irrigation.** Irrigation installed with a 4l/hr dripper at each vine. Trellis was a single wire with posts and wire at 1.0 metres height. ‘New’ trellis installed in the 1980s used star pickets with vine clips to allow for foliage wires.
- **1990s shoot trimming, leaf plucking, shoot positioning, irrigation upgrade**
- **Now precision viticulture (harvesting), smaller blocks, dealing with extreme heat**

### **Adaptation – harvesting**

**Early harvesting:** When I began at Mount Langi Ghiran I saw from our winemaker’s notes (Trevor Mast) that he had often recorded the maturity data as each 1.5 tonne bin came into the crusher. It was also common for Trevor to interrupt the harvest once the analysis showed that the Baumes were decreasing, if not the harvest would continue. It is common for the northern half of the old block to ripen before the southern half and so harvest at that point would be halted until the

southern half was ready for harvest. Over time this knowledge was used in combination with what was tasted in the field and it became a matter of routine to simply divide the block in two and harvest as if we had two blocks. The harvest differential could be as much as two weeks.

**Hand harvesting:** The next stage was hand harvesting instead of machine harvesting. In 2003, a very hot year, we machine harvested the block and dealt with some very high alcohols as a result. It was a harsh lesson all round and we changed as a result. During the drought in particular we were driven by the need to guarantee the production of a ‘Langi Shiraz’ and to optimise the volume of that production – at the same time we needed to respond to the issue of climbing alcohols and combat sweet and sour fruit development. Our main tool for accomplishing that task lay in the careful selection of only the best fruit through hand harvesting.

**Parcel selection and differential harvesting:** a natural evolution of our approach to hand harvesting was the ability to act on the perceived differences in ripening in various pockets of the vineyard. This has led us to carry out further data collection using precision viticulture methods. The combination of observation and measurement has resulted in a more prescriptive differential harvesting of the Old Block at Langi.

**Small blocks:**

### **Innovation**

**Destemmer harvesting:** The winemakers love the results that you get with this technology but it might end up having wider implications long term regarding fruit receipt. Certainly for Shiraz it is conceivable that with this fruit you can bypass the need for a crusher and go straight to fermenter.

**Accumulation of knowledge:** Precision Viticulture and the accumulation of knowledge.