

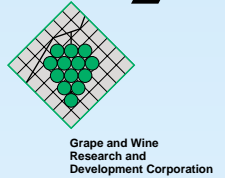
# Getting started in the management of vineyard variability



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*Most growers know that their vineyards are variable and they know roughly where the better and poorer performing bits are. Precision Viticulture (PV) lets them see exactly where these areas are and also quantifies how different they are - and to most growers this is usually a surprise.*

**The first step: Make the decision to collect some data**

**Cheapest entry point is to obtain some remotely sensed imagery (Figure 1).**



Figure 2.

For those who really want to understand what is making their vineyard tick, they may wish to get a high resolution soil survey done (eg using EM38), preferably accompanied by elevation mapping (Figure 4). This may be complemented by targeted sampling of soil and/or plant tissues (eg Figure 2).

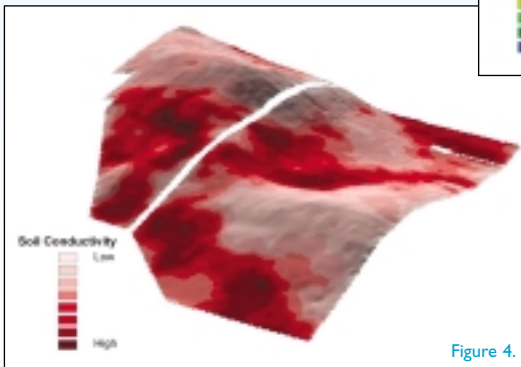


Figure 4.

To deliver some real value this needs supplementing by some on-ground data – careful inspection of the vines and fruit (Figure 2), and ideally some yield mapping (Figure 3).

Figure 3.

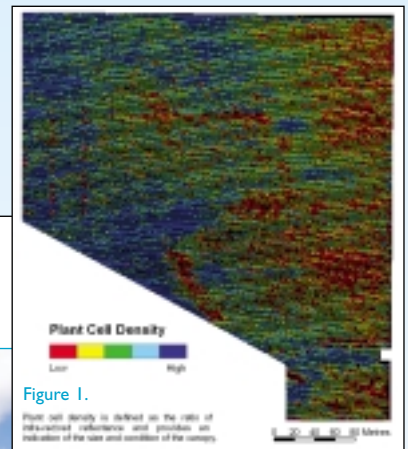
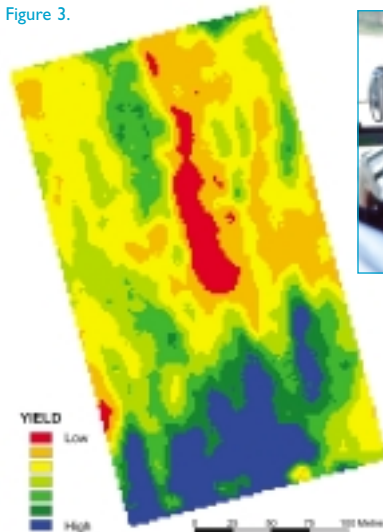


Figure 1.

Plant cell density is defined as the ratio of abstracted reflectance and provides an indication of the size and number of the canopy.

**But is it all worth it?** At a cost of around 0.5-2% of the price received for fruit, but with the potential to increase the value of wine production by over 15% through targeted management (Bramley et al, Aust. NZ. Grapegrower & Winemaker 2003, Annual Technical Issue), we think the answer is **‘Yes’**!

**So the first key steps to getting started in Precision Viticulture are to recognise that your vineyard is variable, and more importantly, to see that rather than being a problem, this presents an opportunity.**

More information is available at:

- [www.clw.csiro.au/staff/BramleyR/publications.html](http://www.clw.csiro.au/staff/BramleyR/publications.html)
- [www.provisor.com.au](http://www.provisor.com.au)
- [www.crcv.com.au/research/programs/one/project1.1.1.asp](http://www.crcv.com.au/research/programs/one/project1.1.1.asp)

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