



In the vineyard

with **Nick Hoskins**
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All too often, I receive calls from would-be investors/developers who haven't the foggiest idea about the steps required before grafted vines are ordered from Riversun. While it's true that timing is important to guarantee your nursery selections (a topic covered elsewhere in this issue), such decisions must follow those that determine site development.

The very first question a developer should address is, Where will the fruit and/or wine be sold? If fruit is to be contracted, the grower may be locked in to a winery's requirements for specific combinations of variety (or clone) and rootstock. Deciding what to grow will also be influenced by the intended site and region. Increasingly, however, vineyards are being developed in new and sometimes marginal areas, which present additional challenges. A thorough assessment of climate, water and soils is imperative, and most of this work must be done before purchasing the land.

Are long-term weather records available on site or close by? If not, how are you going to analyse the necessary data? Temperature and rainfall between February and April are the critical factors, although wind should also be considered as it can have a major impact on vine vigour. In most regions, you'll also require a frost-risk assessment, and a microclimate study is worthwhile. The latter measures temperatures and compares on-site readings to the nearest weather station. A report detailing the severity and the expected number of frost events, along with recommendations on the best

form of frost control, is provided.

Water is often the biggest issue facing vineyard development. Taking water from a bore, stream or river requires resource consent, which will need to be organised well in advance. Water source is particularly important: volume and pump tests must be conducted in mid-summer when water flow is at its lowest. Choose an irrigation provider based on their track record, and ask for referrals to gain some feedback on customer satisfaction. Major suppliers will normally verify and comment on a design at no cost.

Vineyard layout and the irrigation system should be designed around the physical properties of soils at the site. An electromagnetic (EM) map will provide valuable information on soils' moisture-holding capacity and will define the boundaries of each soil type. Soil pits can then be dug within each boundary, from which soil and subsoil samples should be taken and tested. Some newer developments are already showing problematic soil chemistry, with issues such as high sodium or high pH. Without testing, subsoil problems may not become apparent until roots reach that subsoil

horizon; by then, the problems are difficult (if not impossible) to fix.

Once this information has been analysed,

the fun part begins – designing your vineyard in terms of row orientation, block size and irrigation zones. And yes, you can also start thinking about the varieties, clones and rootstock combinations you want.

Feel free to call Nick on 027 248 7724 if you have any questions regarding vineyard development.

For more information on vineyard design, visit: www.riversun.co.nz – Riversun's website now offers a searchable database on varieties and clones available for grafting, and our links page provides access to businesses that can assist with frost protection, mapping services and irrigation design and componentry.