

## Boosting 2019 wine grape crop by applying best practices

Presenters during the recent Winetech Vinpro Information Days noted that wine grape producers can utilise new technology and research to prepare their vines properly for the 2019 harvest following one of the harshest droughts in nearly a century.



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It was agreed the good winter rainfall and cold weather most regions experienced during the past few months may have a positive effect on the upcoming harvest, but producers can boost their 2019 wine grape crop by applying best practices. The information days were held in Paarl, Malmesbury, Stellenbosch and Worcester.

### It starts with the soil

“By applying precision farming in your vineyard you can cut input costs, improve quality and increase profitability. Measure the status of your soils and rehabilitate those that are too shallow, too wet and too sandy,” said Vinpro soil scientist Johan de Jager.

Even growth should be top of mind when a producer maps out a vineyard block. Soil mapping is important to determine the respective soil types and their relevant usage, as well as to ensure more focused application of ameliorants that contribute to homogeneity such as lime, which in turn can reduce costs. Soil maps can be combined with terrain analyses to determine the most suitable rootstock or cultivar.

Another useful tool to measure soil boundaries more accurately and view soil differences even before making a profile pit, is electromagnetic soil scanning. Jacobus Els of Revolute Systems explained how the electromagnetic induction (EMI) tool is dragged across a piece of land and sends out electromagnetic pulses which can indicate the location of sandy soils, clay soils, rocky reefs or boulders. The amount and position of profile pits can therefore be made with greater certainty to analyse specific problem areas in more detail.

### Build reserves

“Reserves are crucial for the initial growth and eventual fertility of the grapevine,” said Dr Albert Strever, senior lecturer at Stellenbosch University’s Department of Viticulture and Oenology.

Many wine grape producers are concerned about the effect of the drought on the reserves of grapevines and the effect these decreased reserve levels will have on the upcoming harvest. Dr Strever said although reserves are only embedded from the flowering stage onward, the post-harvest period that precedes it is more important. “A larger crop and drier season increases the importance of the six to eight weeks after harvest with regard to building reserves. Vineyards should receive sufficient water and nutrients at this stage,” he said.

Reserves are at their best when growth and yield are balanced. Be sure to allocate the bud load per vine according to the vigour during pruning and manage canopies so that vines receive enough light to increase reserve build-up. Do not apply too much nitrogen that will lead to vigorous growth and dense canopies.

### **Renew, restore via compost**

Compost can act as a regenerative aid for soil and vines, said Emma Moffat, viticulturist at Stellenbosch University’s Department of Viticulture and Oenology. Research indicated growth and yield improved significantly through a combination of root pruning and mixing compost in the working rows.

Although the input cost related to this practice was high, the production during times of drought, and specifically in dryland vineyards, increased to such an extent that a higher cumulative income was achieved.

### **Guide to improve water usage**

Whether in times of drought or not, efficient water usage can have a significant effect on quality, costs and profitability.

Renowned researcher Dr Philip Myburgh shared practical tips from his new, comprehensive *Handbook for the irrigation of wine grapes in South Africa*. The book, based on local and international research over the past 50 years, includes practical recommendations regarding irrigation scheduling and the adaptability of the grapevine to changes in climate.

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