

# The vine post

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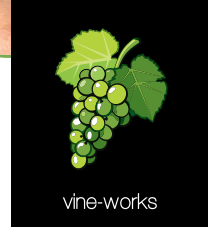
## Reviewing frost protection analysis.

As we approach the end of another viticultural season, now is the time to reflect on the past years and review any insights into your individual vineyard's characteristics and foibles. The beauty of viticulture is that every site, every block and every vine is unique. With these differences we are able to blend wines of extraordinary depth and complexity, tailoring each parcel of grapes to our requirements. However, in order to fully understand and appreciate the intricacies of each area, it is important to monitor many facets, including but not limited to: the microclimate, growing degree days, (GDDs) and level of rainfall.

Every vineyard should have a weather station installed to collect meteorological data and these figures should be regularly analysed. Vine-Works have worked closely with Trak365 for many years and continue to be impressed with the quality and quantity of data attained in the Trak365 weather station. As well as having a main hub, Trak365 utilise multiple wireless endpoint sensors which can be distributed evenly throughout your vineyard and tailored to focus on any problem areas. Collecting a wide spread of data creates a comprehensive overview of your entire site, allowing analysis not just for frost protection, but also disease prevention.

In a study at Albury Vineyard, Trak365 observe that "knowing the temperature and humidity throughout the year is also important as temperature affects the growing time for the vines on a daily basis and humidity/temperature combinations can be indicators for potential outbreaks of fungal or insect infestation. Other factors, such as sunlight hours and wind speed and direction also provide input in determining the overall quality of the harvest, which is currently provided by the weather station, the biology of the soil and blended with the more granular temperature/humidity measurements."

The endpoint sensors are small and compact which means they can be easily installed anywhere in the vineyard and are not at risk of being accidentally destroyed by passing tractors or trimmers. If positioned correctly, the endpoints reflect true data, showing exactly what your canopy is experiencing. As well as viewing real-time data, the Trak365 weather station securely stores all your vineyard's information. Having access to historical data is especially



useful for noticing trends occurring in specific areas, (and for future owners should you ever decide to sell). Regularly analysing the data can ensure you optimise your vineyard's potential and treat each area accurately and efficiently.

During those crucial potentially frosty nights, Trak365 puts your mind at rest as the endpoints continuously update the weather station with data. You can view this live data on their cloud-based platform and set SMS/email alerts for specific changes in temperature/humidity. Often these can occur in areas of the vineyard you may not immediately consider as possible risk.

James Trott at Dillions Vineyard uses Trak365 to gain accurate, granular weather data to help focus his frost protection programme on the coldest parts of the vineyard. Knowing in advance where to place his bougies enables James to save time and money and optimise the life-span of the bougies. Once James' bougies have been lit, he can continue to monitor the Trak365 platform and make improvements instantly. You can literally see the vineyard warming up which provides much needed reassurance.

When initially calibrating your weather station, you can program parameters so the endpoints refresh their data every few seconds, minutes or hours. For much of the year, you won't require a to-the-minute live feed, however during frost risk periods these are essential. The Trak365 weather station can automatically increase its refresh rate when a specified temperature is recorded. This is one less thing for you to worry about!

For those looking for a cost-effective, more environmental and sustainable approach to frost protection and disease management, Trak365 are the go-to for granular data collection. Excitingly, in the future Trak365 will be collaborating with VidaCycle who will be incorporating the data into their Sectormentor app and giving insights into the data's interpretation. Eventually we'll be able to predict accurate harvest dates!

