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Vinefax information services

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1 Introduction

Vinefax is a weekly publication sent out on a Thursday evening to subscribers during the growing season of grape vines (October to April). One of the main aims of Vinefax is to inform readers of phenological timing of different growth stages (budburst, flowering, véraison and harvest) throughout the current season and to compare timing of the stages between seasons. Other information includes the occurrence of Botrytis cinerea infection periods as soon as they occur, weather summaries (rainfall, evapotranspiration and Growing Degree Days (GDD)), berry maturation rates from véraison until harvest and other general information, such as climate forecasts from NIWA and disease management advice.

The 2010-2011 season completed the fifteenth year of Vinefax publications.

2 Key results from this year

Thirty issues were sent out from 14 October 2010 to 28 April 2011. In addition to this, eight supplementary Vinefax emails were sent out when a Botrytis cinerea infection period had been recorded by the HortPlus™ MetWatch software. The supplementary emails inform readers of the severity and duration of the infection period, as well as the rainfall and temperature. This information is useful for management decisions regarding spraying regimes and for understanding potential disease pressure.

Vinefax accesses the meteorological data from 14 weather stations, which are spread throughout the Wairau Plains and the Awatere Valley. Eight of the weather stations are owned and operated by The New Zealand Institute for Plant & Food Research Limited (Brancott Valley, Blenheim, Rapaura, Renwick, Rapaura Central, Rapaura Upper, Awatere Seaview, Awatere Tohu) and the remaining six weather stations are owned by Constellation Wines (Rarangi and Waihopai Valley), Delegat's Wine Estate (Awatere Dashwood and Oyster Bay), Agersectus (Waihopai Bridge) and Matua Valley Wines (Awatere Redwood Pass Road) (Figure 1).

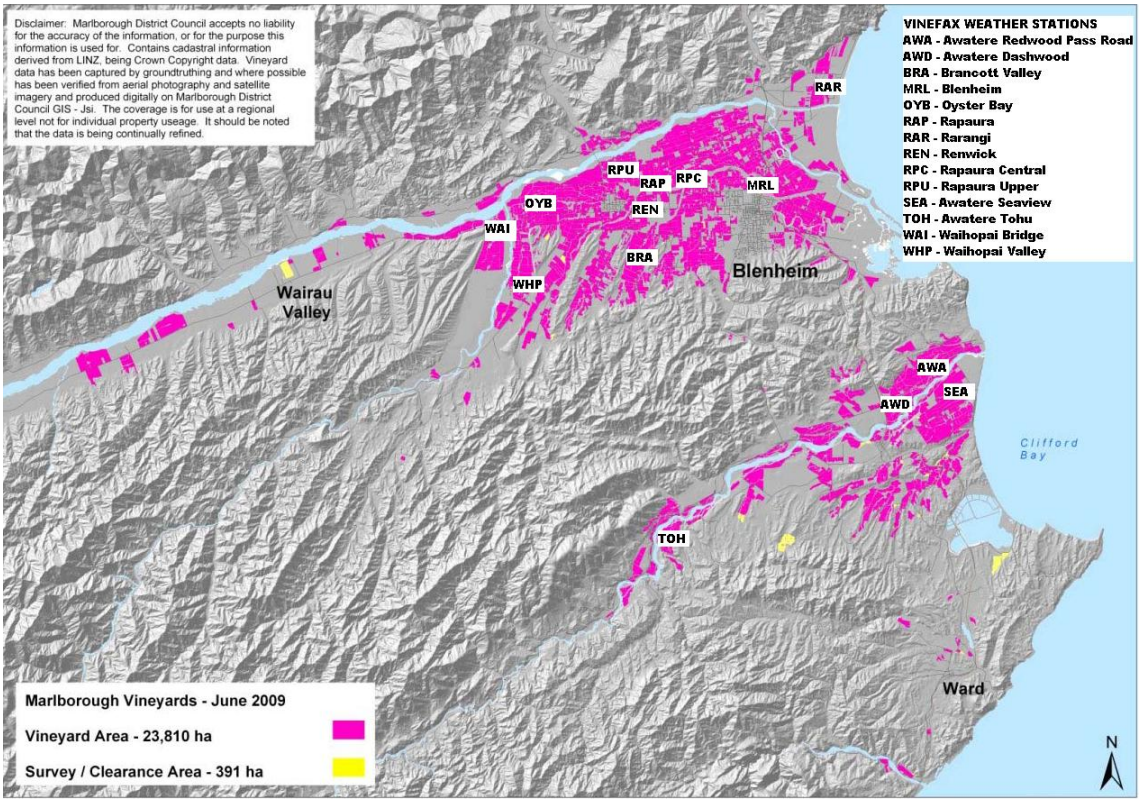

Figure 1: Marlborough viticulture area showing the location of Vinefax weather stations used to monitor climatic variability and Botrytis cinerea infection periods.

The VineWatch table included in Vinefax summarises the temperature and growing degree-day data from the 14 weather stations. This enables readers from nearby vineyards to monitor their blocks for rainfall and GDD accumulation, especially those that do not have any form of weather data collection system. The summary also allows sub-regional differences to be monitored.

Regular dissemination of information includes:

- Growing Degree Day Seasonal Comparison for the Blenheim weather station – this looks at the GDD sum for the past seven days, the GDD sum from the previous week and the total accumulated GDD starting from 1 July. A comparison with the same period from the three previous seasons and the long-term average (LTA) is also made. This enables readers, at a quick glance, to see how advanced or delayed the current season is
- A GDD summary graph is inserted fortnightly, whereby the individual seasons are compared with the LTA, based on the deviation of GDDs from the LTA. Feedback from readers has been very positive regarding this form of information, as it helps them when making management decisions and in predicting the timing of certain events
- Rainfall and evapotranspiration comparisons for Blenheim are included on a weekly basis, as well as the accumulated amount of each, with a comparison from the previous three seasons and LTA
- Soil moisture in the top 5 cm to 35 cm of the soil at the Blenheim weather station is reported on. This information may help with irrigation strategies, as it provides a link with rainfall and evapotranspiration, if growers do not use private irrigation scheduling services. Growers can use the information to mitigate events such as water stress

- Phenological stages of the grapevine – During budburst, flowering and from véraison to harvest, tables are included on the rate of development of each these stages compared with previous seasons for the same time dates
- Fruit maturity development on a weekly basis from véraison to harvest.

Other points of interest included this season were:

- Other useful web sources for grape and wine information, such as the Australian Grape and Wine Research and Development Corporation, http://www.gwrdc.com.au
- Unusual weather conditions, such as the increased likelihood of ex-tropical cyclones affecting the weather in the North Island.
- Rainfall and Botrytis cinerea infection periods, with graphical outputs
- Other disease risks such as downy and powdery mildew
- Other Plant & Food Research outputs regarding disease management on grapes such as "Canopy Management - A powerful tool to reduce botrytis" and development work on the Botrytis Prediction model
- After the VineWatch table, the inclusion of jokes, which are often well received!

3 Key funding sources and collaborating companies

Vinefax is a subscriber-based service. The total number of people receiving Vinefax in the 2011 season was 209 compared with 189 in 2010. Some of these recipients were individual grapegrowers; others were from larger corporate organisations, or part of the grape and wine research community.

Currently Pernod Ricard and Cloudy Bay fund the cost of phone line rentals to the weather stations located on their properties. Delegats Wines, Constellation Wines, Agersectus and Matua Valley Wines allow Vinefax to access the meteorological data from their weather stations at no cost. Data from all these stations are then used for weekly summaries and seasonal progression in a summary table called VineWatch.

The annual cost, excluding GST, remained the same in 2010-2011 as in 2009-2010, at $350 for up to two recipients, $650 for up to four recipients and $850 for five or more recipients.

Information included in the phenological summary tables is collected as part of the Marlborough Research Centre “Phenological Monitoring” project. Thanks to Pernod Ricard, Villa Maria and Delegats Oyster Bay for allowing collection of this information to take place on their properties.

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