

## **Producing premium naturally produced lower alcohol, lower calorie New Zealand Wines**

### **“Lifestyle Wines”**

Quarterly Report: 1 July 2014 to 30 September 2014

Reporting Date: 10 October 2014

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#### **1: Quarterly Report Summary:**



## **Producing premium, naturally-produced lower alcohol, lower calorie New Zealand Wines**

The second quarter of the ‘Lifestyle Wines’ PGP programme has seen planned progress across all projects.

### **Project 1. Market Access**

Preliminary research indicates that the Lifestyle Wines category is dynamic and fast growing – albeit off a small base – and the market opportunity has the potential to be leveraged significantly more than it has been to date. The percentage of category buyers and ‘potentials’ in key export markets remains an attractive prospect for the New Zealand wine industry.

The project has developed a reporting system to provide detailed analysis of the category, starting with the domestic market, but subsequently collecting data from other markets. Key information is also being captured from stock keeping units (SKUs) – the unique numerical identifying numbers that refer to specific stock items in a retailer’s inventory or product catalogue.

### **Project 2. Sensory Perception**

As part of the PGP programme, we want to gain an understanding of how lower alcohol content influences the sensory properties of NZ Sauvignon blanc wine. An initial investigation, using commercially available lower alcohol and standard (full-strength) 2013 Sauvignon blanc wines, found considerable diversity in the lower alcohol category for this

variety. On average, lower alcohol wines differed from standard wines, mostly in terms of flavour, taste and mouth-feel properties.

All of the sensory and instrumental data are currently undergoing statistical analysis, which is expected to be completed by the end of March 2015. This analysis will guide planning for the ongoing sensory characterisation of alcohol content.

### **Project 3. Vineyard Manipulations**

Researchers have now selected multiple trial sites for investigations into the vineyard activities and inputs that can affect grape quality parameters as they relate to the production of lower alcohol and lower calorie wine styles. A centralised and large scale research site ('golden site') within a commercial vineyard has been selected for detailed research on irrigation regimes for early harvest grapes, with the objective of determining an optimum irrigation programme to delay sugar accumulation in grapes by several weeks. All of the necessary soil moisture and vine sap monitoring equipment has been received, and Internet communication protocols are being established.

Chemical analysis of juices and wines is progressing from the 2014 harvest timing work.

### **Project 4. Winery Manipulations**

Reducing ethanol (alcohol) in wines is being explored on several fronts at once:

- Supplementing juices with metabolites that occur naturally in Sauvignon blanc juices.
- Harnessing native New Zealand yeasts to reduce ethanol content.

An extensive statistical analysis of Sauvignon blanc juice and wine data (for the 2013 vintage) identified several metabolites that showed positive and negative correlations with ethanol (alcohol) content in fermented wines. The potential of these metabolites to influence the alcohol levels will be investigated in the 2015 vintage.

Yeasts, particularly *Saccharomyces* yeasts, are responsible for the conversion of sugar in grape juice ('must') to ethanol in the final wine. Researchers are screening yeasts to identify candidates that naturally produce less ethanol per unit of sugar consumed. The top candidates will proceed to winemaking trials to identify yeasts that produce wines with reduced ethanol content while retaining desirable sensory properties.

### **Project 5. Communications and Tech Transfer**

Technical liaison for vineyard and winery projects has continued, with outreach largely conducted by Plant & Food researchers.

Two new communications channels devoted to the PGP programme were launched by New Zealand Winegrowers in the past quarter:

- A dedicated e-newsletter, (launched 04/08/2014) enables targeted communications from the project team and researchers to grantors.
- A dedicated area of the [nzwine.com](http://nzwine.com) website, able to be accessed by PGP participants following sign-in to the members' area, contains more detailed information on participants, governance, plans and budgets, and resources.

An inaugural workshop/seminar is scheduled for the 14/15 October 2014 in Blenheim, to (1) foster the working relationship among grantors' designated representatives, programme researchers and team members, and (2) inform/update participants on programme activities and related market information.