



veski
sustainable agriculture fellow

Dr Pangzhen Zhang

Inspiring
Innovation



research project

Defining the distinctiveness of Victorian Wine using quality markers and climate modelling: now and into the future

project summary

Dr Pangzhen (Pange) Zhang is a researcher and viticulturist at the University of Melbourne.

The **veski** sustainable agriculture fellowship has enabled Dr Zhang to work in wide and close collaboration with the Victorian viticulture industry to develop a 'pepper' map with information on how to maximise the 'peppery' flavour, known as rotundone, found in high quality Victorian Shiraz.

The project aims to enable the industry to model and predict the quality of wines based on climate change data and future predictions, with the potential for findings to contribute to increased sustainability of an industry experiencing difficult economic times.

The **veski** sustainable agriculture fellowship is further supporting the industry translation of this important research through the integration of the climate-fruit quality model into an APP, to provide industry with access to the relevant data and information to help Victorian grape growers estimate their rotundone concentration at each vintage based on the climate data in their region.

The project aims to provide information for future production by combining the climate-rotundone model and Australian Bureau of Meteorology climate projection to estimate rotundone production over the coming 50 years.

Based on this modelling, a specific vineyard management protocol is being designed to maximise rotundone production under different climate scenarios.

Dr Zhang has established an excellent working relationship with the local industry, including the Australian Wine Research Institute, CSIRO, Australian Grape and Wine Authority, Wine Victoria, Rathbone Wine Group and Mount Langi Ghiran Winery.

Data is currently being processed for integration into the prototype phone APP which will be available to grape practitioners and wine industry professionals via Google Play Store and the Apple Store, providing a practical tool to help guide their daily horticultural practices, and increase their awareness of the effect of climate change.

It will also be available for ordinary consumers to better understand the Victorian wine industry, and which could potentially promote Victorian wine as high quality premium wine. This would further promote domestic and international sales of Victorian wine, as the APP will be available not only to domestic but international wine consumers.

