

A web-based portal for the analysis of wine tannin and pigment

R Dambergs^{1,2}, N Srimgeour², E Robinson², E Wilkes², P Smith², and P Godden²

¹*The Australian Wine Research Institute, Tasmanian Institute of Agriculture, Private Bag 98, Hobart, Tasmania, Australia*

²*The Australian Wine Research Institute, Adelaide, Australia*
Corresponding author: bob.dambergs@awri.com.au

Abstract

Web-based predictive calibrations for tannin, total pigment, total phenolics, anthocyanins and pigmented tannin have been developed for use with red ferments and wines (<http://tannin.awri.com.au/>). The calibrations use UV-Vis wavelengths measured on samples that have been diluted in acid or in high sulphite model-wine buffer. UV-Vis instruments are widely distributed throughout the industry and are simple to use, which decreases the technology barrier to use of spectroscopy-based rapid analytical methods. Use of the internet to upload and access data reduces turnaround times significantly and maximizes availability to users in geographically disperse regions. Data that is generated automatically populates a database that is searchable (data remains anonymous) to allow benchmarking and context for the data and the database currently has information data for approximately 6,000 red wines from Australia and other countries. Detailed knowledge of phenolic profiles during fermentation or after a wine is pressed, can help support decision-making in many ways, including ferment management, pressing decisions, blending decisions, better understanding consumer preferences and monitoring effects of climate change.