

AWRI using new technique for sensory analysis

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Pivot profiling is a new sensory technique that is starting to have a big impact in the world of Australian wine. In less than a year, the Australian Wine Research Institute (AWRI) and the National Wine And Grape Industry Centre (NWGIC) has validated the fledgling concept, incorporated it into the Wine Australia-funded Shiraz terroir projects, and even used it to impress high-profile international audiences.



International sommeliers take part in a pivot profiling session through the Somms of the World program

And its real potential lies in giving wine companies and wine regions the ability to do some of their own sensory analysis and develop data to enhance their wine stories.

Pivot profiling is a rapid data collection method that asks people not to assess and describe each wine in isolation but to compare it to a control wine (the pivot). Not only does that change the dynamic of the process, it also changes the type of judges who are best suited for the method.

‘Generally, in sensory science you don’t use professionals as judges because their foundational knowledge of the product can bias the way they approach it’, said AWRI Senior Scientist Wes Pearson.

‘That’s definitely the case with wine. For example, a consumer would look at a wine and just describe its colour, where a winemaker would be thinking about why it’s that colour. That subconscious bias that winemakers have affects the way they assess wines and doesn’t normally reconcile with what we’re looking for in sensory analysis.

‘What is great about pivot profiling is that it plays into the strengths of a wine professional, whether it’s a winemaker or a sommelier. They are making a comparison, not making an assessment, then using their own language to describe it. So, we get the benefit of them having that developed language but we don’t get the negative of the bias.’

The method is quite new. It was first introduced in a French study with Champagne a couple of years ago and Mr Pearson is aware of only two follow-up studies, one on ice cream and the other on beer. However, Wes and his colleagues could immediately see its potential to complement the more rigorous descriptive analysis technique.

‘Descriptive analysis is the gold standard and the method we predominantly use in our research, but it is time-consuming and expensive because you need to recruit, train and maintain judges in order to obtain reliable data. With pivot profiling, judges need no training at all so you can use winemakers or other wine professionals and still get dependable results.’

To road-test the technique in a wine setting, the team presented the same set of wines to the 50 international sommeliers who visited Australia as part of Wine Australia’s *Somms of the World* program (that coincided with The World’s 50 Best Restaurants 2017) and then to a group of winemakers. To its delight, the two groups characterised the wines in very similar ways to each other, and to a traditional panel using descriptive analysis.

Just as importantly, the characterisations were quite different from those generated from an alternative rapid method that is not based on comparisons.

‘The results exceeded our expectations and we thought “we’re onto something here”’.

- Wes Pearson, AWRI Senior Scientist

This success has led to the method being used with the Shiraz Terroir Project’s regional tastings to help characterise the wines and better understand their sensory profiles. To date, sessions have been held in the Barossa, McLaren Vale, Hunter Valley, Heathcote, Canberra and the Yarra Valley.

‘The two parts came together perfectly. We want to further investigate the technique, how it works and how effective it is, and we want to get information on the sensory characteristics of Shiraz from different regions. With that information, you can go in a lot of directions. What’s driving sensory characteristics? Why does a wine smell and taste the way it does? What’s driving the chemistry behind that? How does climate play a role?’

Feedback on the new technique has been positive, and the visiting sommeliers enjoyed the experience so much that Wine Australia asked the team to run a similar session during a tasting for the wine trade in New York.

‘It went incredibly well and next year we are planning to go to London and Hong Kong and back to the US,’ Mr Pearson said.

‘The sommeliers loved it because it was different from their usual tasting experience and challenged them to think about the wines in different ways. Wine Australia was happy to be able to present a fantastic line-up of wines to an impressive list of influential people, and it allowed us to get some good data and test the technique in a different setting, as well as engage with a segment of the sector that we don’t normally get to work with.’