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What does Coonawarra Cabernet Sauvignon typicity taste like?

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Background and Aims

Wine typicity is the embodiment of wine individuality and terroir expression.[1-2] It represents the manifestation of regional influences, from the variability in environmental grape growing conditions to the choice of viticultural and winemaking procedures. A wine can express typicity through sensory and chemical profiles that can be connected with its region of origin.[1, 3] Over the past 10 years, typicity has been in focus in the scientific research field and especially in connection with wine research.[1] The connection between the wine and its place of origin has been shown to be important for the Cabernet Sauvignon wine consumer, especially when that region is familiar to them.[4] That is also true for Coonawarra Cabernet Sauvignon wines due to their reputation in the market.[5]

This study aimed to better understand what sensory typicity means for regional Australian Cabernet Sauvignon wines, with a focus on Coonawarra. Over 2,500 wine reviews of Australian Cabernet Sauvignon wines were gathered from web-based sources of reputable wine writers with web-scraping software.[6] Using content analysis, the qualitative data obtained was transformed into quantitative data, to display the main characters deemed to be associated with a Coonawarra Cabernet Sauvignon sensory "profile" (along with those for Yarra Valley, Margaret River and Bordeaux in the complete study).[6] Results from the analysis of wine writers' reviews supported the selection of a representative set of commercial 2015 Cabernet Sauvignon wines that were tasted by an expert panel (comprising experienced winemakers and wine judges) under controlled conditions. Their tasting notes also underwent content analysis. Full details are reported in Souza Gonzaga et al. (2019)[6], with this technical note focusing on the 34 wines from Coonawarra.

Key outcomes

Results from the wine writers identified Coonawarra wines as having dark fruit and oaky characters, followed by minty, earthy, and red fruit, along with soft and medium body traits, among others (Figure 1). Encouragingly, analysis of the data from the experts revealed similar characteristics to the wine writers, with ripe fruits, savoury, and minty being significant characters, along with terms such as complexity, medium body, soft, drying, and acidic mouthfeel (Figure 2).

There was moderate agreement between the two sets of data (wine writers and experts) when characterising regionality. This can be viewed as a significant result, considering the distinctiveness of the conditions used for the collection of each set of data.
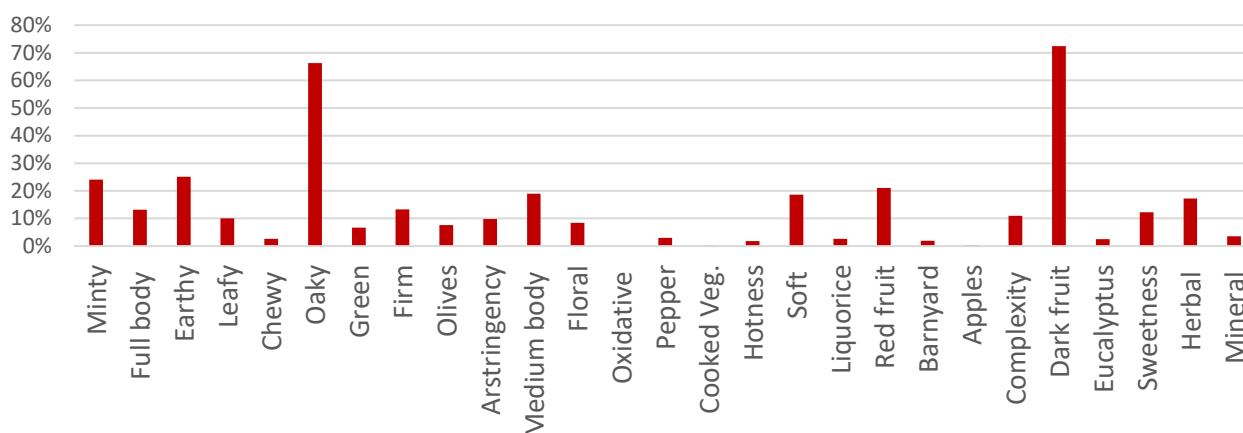
Figure 1. Relative percentage of the significantly different attributes (Chi-square, α ≤ 0.1) from content analysis of online reviews for Coonawarra Cabernet Sauvignon wines from 2001 to 2016**.**
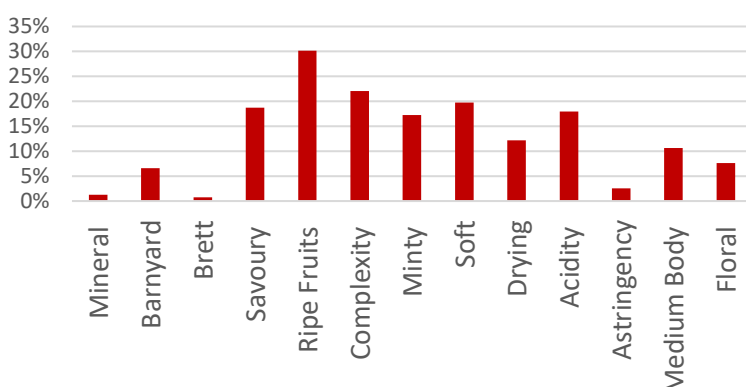

Figure 2. Relative percentages of the significantly different attributes (Chi-square, α ≤ 0.1) from content analysis of experts' tasting notes for 34 commercially available 2015 Coonawarra Cabernet Sauvignon wines.

The full results of the study can be found in Souza Gonzaga, et al. (2019).[6] In summary, the key outcomes were:

- Content analysis was identified as a valuable tool to assess large qualitative data sets (such as obtained from web scraping), and one that should be easily transferrable to the study of other wine varieties and without the constraints of necessarily undertaking a wine tasting (or for selecting wines for further study).
- Some sensory attributes were found to be significantly important for Coonawarra Cabernet Sauvignon wines between the two data sets (wine writers and expert panellists).
- Fruity and minty were common attributes of importance to the characterisation of Coonawarra Cabernet Sauvignon wines.

Further outcomes from the overall Cabernet Sauvignon sensory typicity project can be found in our other publications. [4,7,8]

Recommendations

Conveying the connection between wine and its place of origin to the consumer through unique sensory traits may be a valuable marketing and commercial tool for wineries. Knowing how the uniqueness is represented in terms of sensory attributes for a region such as Coonawarra is a key step in developing this strategy.

The combination of web-scraping and content analysis of large sets of data available on the internet was found to be a useful tool for summarising sensory traits and selecting wines for further study. It could equally be applied by producers to understand their place in the market according to the sensory representation of their region's wines, especially considering the relative alignment with results from expert tasters.

What's next?

This study formed part of a larger project on the characterisation of regional Cabernet Sauvignon uniqueness. Ongoing work involves comprehensive chemical analyses of such wines, with the objective of providing a deeper understanding of the compositional drivers for unique sensory traits.

Acknowledgements

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