

Accepted Manuscript

Investigation of 'stone fruit' aroma in Chardonnay, Viognier and botrytis Semillon wines

Tracey E. Siebert, Sheridan R. Barter, Miguel A. de Barros Lopes, Markus J. Herderich, I. Leigh Francis

PII: S0308-8146(18)30353-4

DOI: <https://doi.org/10.1016/j.foodchem.2018.02.115>

Reference: FOCH 22499

To appear in: *Food Chemistry*

Received Date: 25 October 2017

Revised Date: 19 February 2018

Accepted Date: 21 February 2018

Please cite this article as: Siebert, T.E., Barter, S.R., de Barros Lopes, M.A., Herderich, M.J., Leigh Francis, I., Investigation of 'stone fruit' aroma in Chardonnay, Viognier and botrytis Semillon wines, *Food Chemistry* (2018), doi: <https://doi.org/10.1016/j.foodchem.2018.02.115>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Investigation of ‘stone fruit’ aroma in Chardonnay, Viognier and botrytis Semillon wines

Tracey E. Siebert^{a,b}*, Sheridan R. Barter^a, Miguel A. de Barros Lopes^b, Markus J. Herderich^a

and I. Leigh Francis^{a,b}

^a The Australian Wine Research Institute, PO Box 197, Glen Osmond (Adelaide) SA 5064, Australia

^b University of South Australia, School of Pharmacy and Medical Science, City East Campus, Adelaide, SA 5000, Australia

Corresponding author's email: tracey.siebert@awri.com.au

Abstract

Despite numerous studies, the identity of the compounds that are responsible for ‘stone fruit’ aroma in wine has not been conclusively established. This study focussed on wine varieties that often display peach and apricot characters, such as Chardonnay, Viognier and botrytis-affected sweet Semillon wines. Wines with high and low ‘stone fruit’ aroma were evaluated by gas chromatography-olfactometry-mass spectrometry (GC-O-MS) using extracts representative of the aroma of the wine in a glass. No aroma-active zone was described as ‘stone fruit’ aroma across all three wine varieties. However, for the individual varieties, terpenes, such as linalool and geraniol, in the Viognier wines, several esters in the Chardonnay wines, and γ -nonalactone in the botrytis Semillon were associated with ‘stone fruit’ aroma. Notably, this is the first study assessing the aroma profile of Viognier wine by GC-O. In addition, an extension study of Viognier grape monoterpene profiles clarified its classification as an aromatic variety.

Keywords

* Corresponding author at: The Australian Wine Research Institute, P.O. Box 197, Glen Osmond (Adelaide), SA 5064, Australia.
E-mail address: tracey.siebert@awri.com.au (T. E. Siebert).

Download English Version:

<https://daneshyari.com/en/article/7585287>

Download Persian Version:

<https://daneshyari.com/article/7585287>

[Daneshyari.com](https://daneshyari.com)