



PRESERVING WINE TYPICITY IN A CLIMATE CHANGE SCENARIO: EXAMPLES FROM THE WILLAMETTE VALLEY, OREGON

Elizabeth Tomasino* and Aubrey DuBois

Oregon State University, Corvallis, United States

*Corresponding author: elizabeth.tomasino@oregonstate.edu

Abstract

Aims: Wine typicity is defined as a reflection of varietal origins, cultures and traditions of the wine. These aspects are many times also extremely important when considering a wines quality. However, as climate change occurs the typicity of wines may also change. With the long history of winemaking it is possible to define a wines typicity and how it has changed as climate alters.

Methods and Results: This work investigated the typicity of Pinot noir wines from the Willamette Valley in Oregon over five consecutive vintages, 2012-2016. Wines were selected that contained 100% Pinot noir from the specified sub-regions and the wines were made specifically to display typicity. Sensory analysis was conducted after the wines were in bottle for two years. Expert wine panellists participated in descriptive analysis to characterize the wines each year. While not all wines or panellists were available every year we had more than 80% similarity across all five sensory panels over the five-year study. Results showed that Pinot noir wines from the subregions did have overarching characteristics, including those subregions that were known to be more variable based on topography and soil. The climate across the five vintages was varied. Oregon is traditionally considered a cool climate area but two vintages, 2014 and 2015 were significantly warmer and dryer than normal. Comparing the other vintages to these two as well as to historical information about Oregon Pinot noir show how climate does and does not affect wine typicity. Result showed characteristics that spanned all five vintages and agreed with historical information, while other characteristics were found to vary depending on the vintage.

Conclusions: While climate change has the potential to alter some aspects of typicity it was found it does not alter all aspects of wines typicity. Additionally, there are practices that can be used to mitigate climate change impacts to maintain typicity.

Significance and Impact of the Study: Any understanding of how climate change can potentially alter wine typicity is needed to help the wine industry make decisions on their viticultural and winemaking practices as well as help determine long term strategies.

Keywords: Typicity, Pinot noir, climate change, mitigation