Introduction

Casablanca Valley is a cool climate valley located in Central Chile and is specialized in white wines production, such as Sauvignon Blanc and Chardonnay (SAG, 2016). These wines have been widely recognized, mainly due to the climatic conditions of the valley, which give sensorial properties to wine that are highly desired by consumers. Casablanca Valley is located near to the Pacific Ocean and can be subdivided into two zones: “high zone” and “low zone” (Saavedra et al., 2011), the last one more closer to the ocean which give differences in grape chemical composition between the different clones of this cultivar. For this reason, the aim of this study is to evaluate the chemical composition in three Sauvignon blanc grape skins clones in the Casablanca Valley.

Methodology

The assay was carried out in three clones of cv. Sauvignon Blanc, Clone 242, Clone 1 Davis and Clone 107. Vineyards located in the upper (high zone) and lower (low zone) part of the Casablanca Valley were chosen. In each selected vineyard, a completely randomized design with five replicates is used. Berries will be sampled every 15 days from veraison until commercial harvest in the following sample dates: 0, 15, 30 and 45 DAV (days after veraison). The low molecular weight phenolic profile was analyzed by using High Performance Liquid Chromatography (HPLC-DAD).

Results

According to a total phenolic compounds analysis (280 λ), at commercial harvest, low zone demonstrate higher phenolic concentration than high zone.

All clones during ripening decreased their titratable acidity, but it should be noted that Clone 1 Davis showed the lowest titratable acidity and higher pH values compared to the other two clones.

Conclusion

Geographical location modifies the flavonol composition in grape berry skins in the three Sauvignon Blanc clones. But also, the genetic factor between clones showed differences in concentration of different flavonols of Sauvignon Blanc.

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References
