

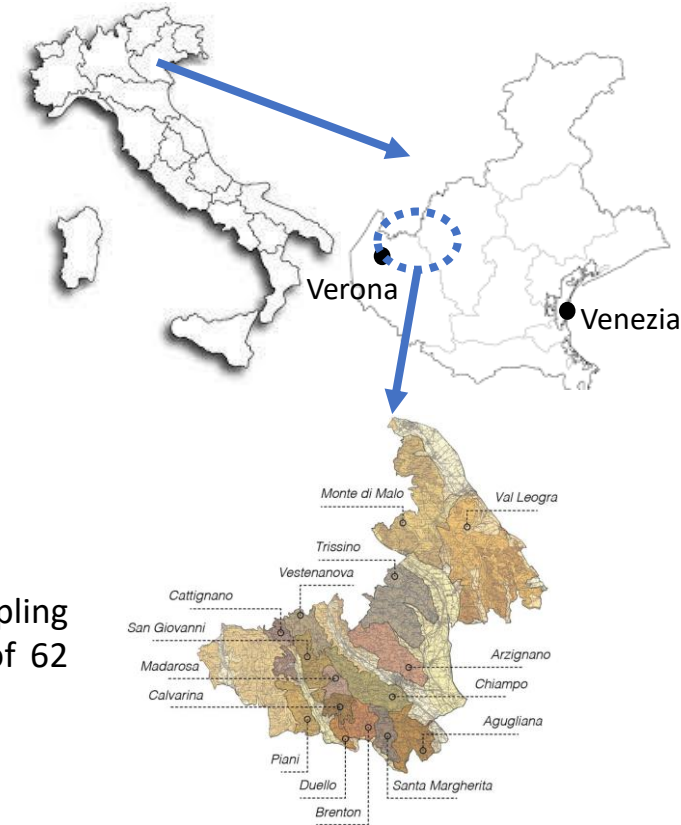
VOLATILE COMPOUNDS OF BASE WINES FOR THE PRODUCTION OF LESSINI DURELLO SPARKLING WINE

Davide Slaghenaufi, Giulia Reani, Giovanni Luzzini, Jessica Samaniego-Solis, Maurizio Ugliano

Department of Biotechnology, University of Verona, Italy

Introduction

Durello is a sparkling wine produced in the Lessini mountains near Verona. The wine is made from Durella grapes, a native white grape variety with a particularly high acidity. In spite of the small production area (375 ha for only 35 producers), there is a growing interest in this product. However, little is known about the aromatic profiles of these wines. The aim of this work was to characterize the aroma profile of Durella base wines suitable for the production of Lessini Durello sparkling wine.



Durello production area and cru area.

Materials and Methods

Wine samples:

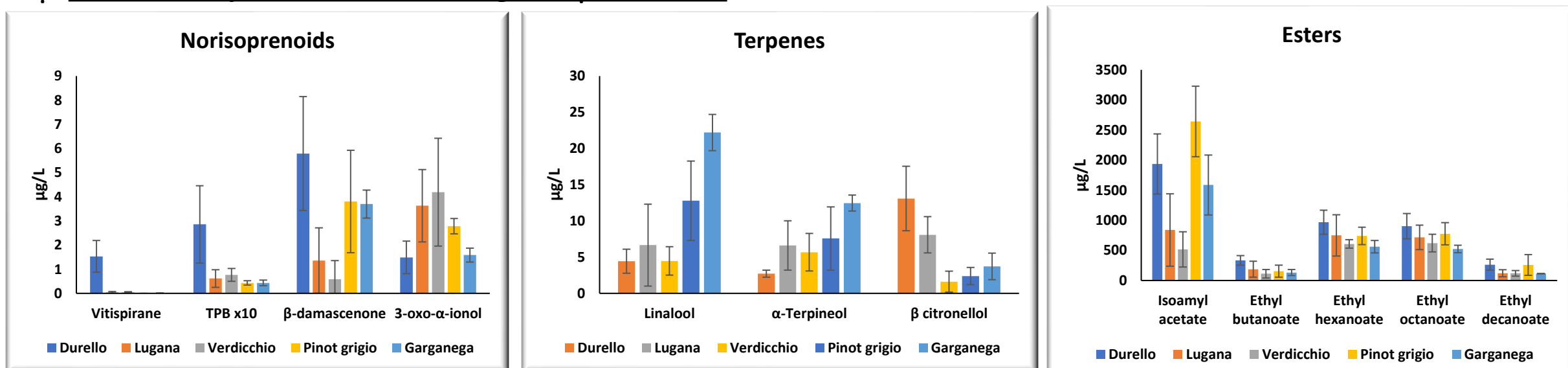
14 Durello base wines
6 Lugana
7 Pinot grigio
3 Garganega

Volatile compounds analysis:

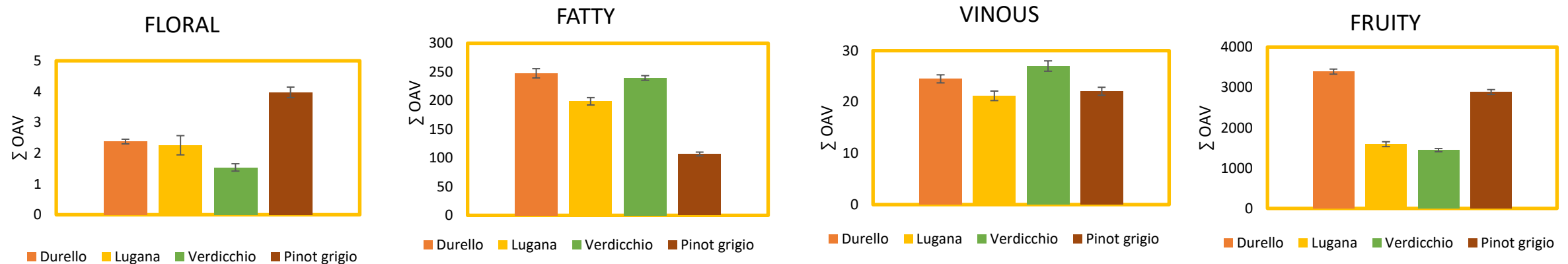
Solid Phase Microextraction (SPME) and Solid Phase Extraction (SPE) sampling techniques coupled to GC-MS analysis allowed to identify and quantify a total of 62 volatile compounds

Results

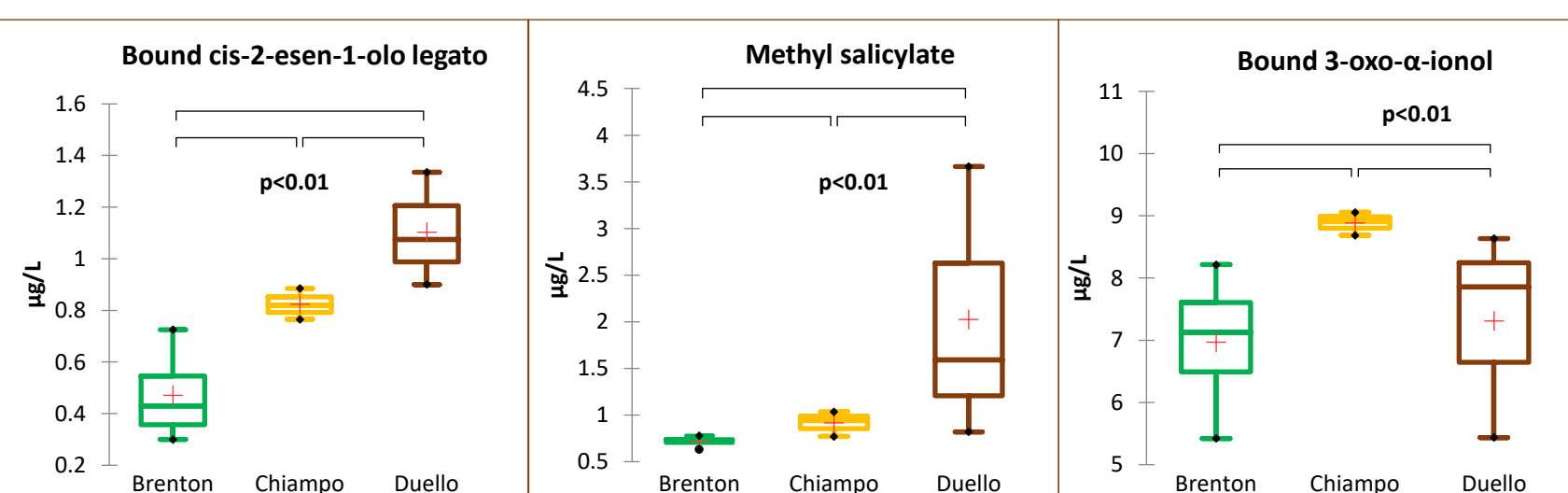
✓ Volatile compounds characterizing of Durello wines



✓ Aromatic series



✓ Influence of geographical origin



CONCLUSIONS

Base wines for the production of Durello sparkling wine were characterized by high concentrations of norisoprenoids and esters which can contribute to the fruity aroma of wine. Analysis of a subset of Durello wines from three different regions within the Lessini Mountains, namely Brenton, Chiampo and Duello, showed that the three areas could be differentiated based on content of methyl salicylate, and the glycosidic precursors of cis-2-hexen-1-ol and 3-oxo-α-ionol.

These results can be particularly useful for winemakers