

## INTRODUCTION

→ The effects of climate change produce an increase in sugar concentration and a decrease in acidity, without reaching the optimum grape phenolic maturity [1].

→ The aim of this work was to characterize 25 white grape varieties to find new strategies to fight against climate change.



Figure 1. Variety collection of ICVV (D.O.Ca. Rioja, Spain)

## MATERIALS AND METHODS

→ The Variety Collection that belongs to Instituto de Ciencias de la Vid y del Vino (ICVV), planted in 2010, it's made of 511 national and international grape varieties.

→ The 25 white grape varieties selected [2], were classified into 3 groups: Important varieties in Spain, Important varieties in D.O.Ca. Rioja, and International varieties.

→ The experimental design was of 3 repetitions for variety, with 3 plants for repetition. General parameters were determined using official methods [3].

→ The grapes were collected at their optimal technological maturity, approximately at 21.2 °Brix.

## RESULTS AND DISCUSSION

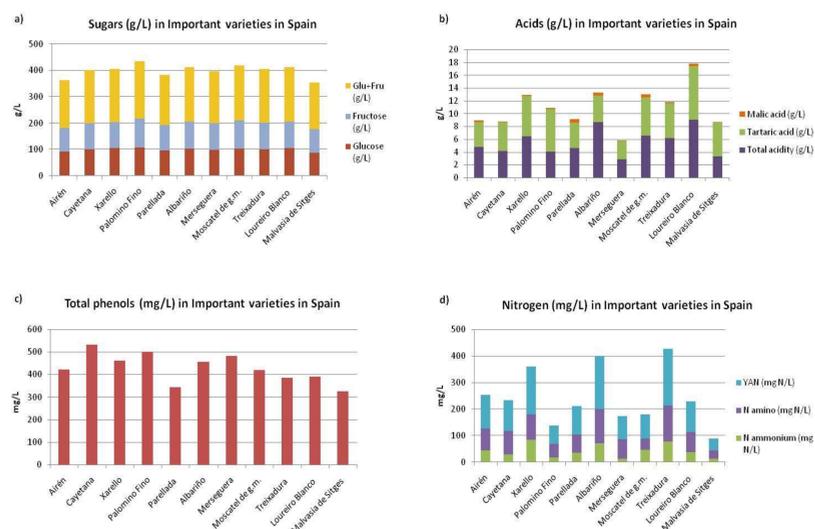


Figure 2. Sugars, acids, total phenols and nitrogen content in "Important varieties in Spain".

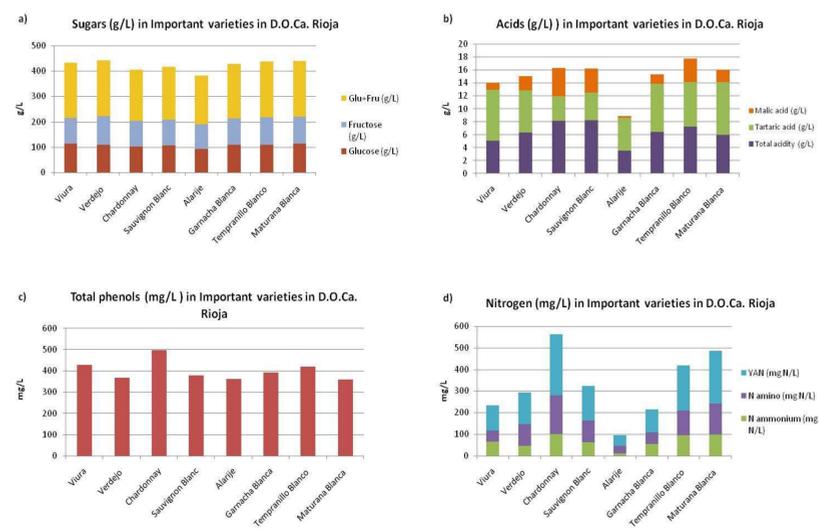


Figure 3. Sugars, acids, total phenols and nitrogen content in "Important varieties in D.O.Ca. Rioja".

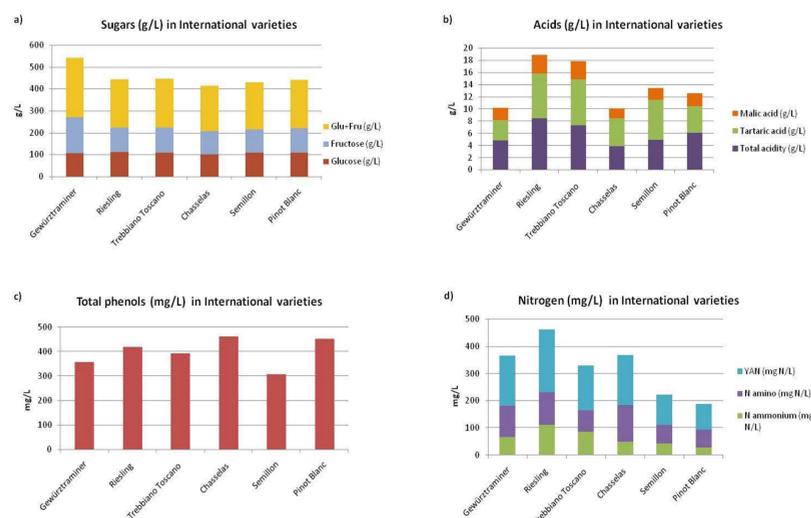


Figure 4. Sugars, acids, total phenols and nitrogen content in "International varieties".

## CONCLUSIONS

→ The characterization of 25 white grape varieties has provided an image of the heterogeneity of grape varieties present in national and international cultivation, removing the *terroir* factor.

→ We are working on the study of the phenolic, aromatic and nitrogen composition of all these grape varieties in order to know in detail their enological potential and possible adaptation to the new climatic scenario.

## REFERENCES

- [1] Mira de Orduña, R. 2010. Climate change associated effects on grape and wine quality and production. *Food Research International*, 43, 1844-1855.
- [2] Sáenz de Urturi, I., Marín-San Román, S., Garde-Cerdán, T., Baroja, E. 2021. Caracterización de 25 variedades de uvas blancas de la colección del ICVV. *Tierras*, 293, 56-61.
- [3] OIV. 2003. *Compendium of International Methods of Wine and Must Analysis*. Paris: OIV.