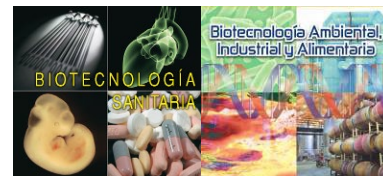


Poster

Use of *Lachancea thermotolerans* for the production of wines with higher acidity



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ABSTRACT

The high temperatures that we suffer more and more frequently due to climate change, negatively affect the ripening of the grapes and therefore the wines produced. The correct ripening of the grapes is very important for adequate levels of sugars and organic acids(1). *Saccharomyces cerevisiae* is the most used yeast for the vinification of white wines, which converts sugar to alcohol without acid production. Thus, we wanted to try other types of yeasts and check if better organoleptic results were obtained, mainly acidity, which in some way would counteract the negative effects produced by climate change(2).

To carry out this experiment, three microfermenters were used, each of them was inoculated with a different yeast, but the grape must was the same for all (grape must from Zalema grapes). Fermentation lasted a week. The obtained wine was filtered and bottled up. It should be noted that during the fermentation process, different parameters were checked and others were corrected, such as sulfur or nutrient levels(3).

We verified that in fact, although their analysis did not differ much, each wine presented slight organoleptic differences, added to the production of lactic acid that helps to combat the acidity deficiency produced by the climate change.

REFERENCES

- (1) Hewitt, S., Hernández-Montes, E., Dhingra, A., & Keller, M. (2023). Impact of heat stress, water stress, and their combined effects on the metabolism and transcriptome of grape berries. *Scientific Reports*, 13(1). <https://doi.org/10.1038/s41598-023-36160-x>
- (2) Sánchez-Suárez, F., & Peinado, R. A. (2023). Use of Non-*Saccharomyces* Yeast to Enhance the Acidity of Wines Produced in a Warm Climate Region: Effect on Wine Composition. *Fermentation*, 10(1), 17. <https://doi.org/10.3390/fermentation10010017>
- (3) Blouin, J., & Peynaud, E. (2003). *Enología práctica: conocimiento y elaboración del vino*. Mundi-Prensa Libros.