

3rd European Food Safety & Standards Conference

October 24-25, 2016 Valencia, Spain

Non-*Saccharomyces* yeasts *Lachancea thermotolerans* and *Schizosaccharomyces pombe* mixed cultures applications in wine food safety (biogenic amines and ethyl carbamate control) from high pH grape juice

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The classical way to make red wine is based on the use of *Saccharomyces cerevisiae* yeasts during alcoholic fermentation and *Oenococcus oeni* bacteria during malolactic fermentation. This traditional winemaking methodology produces commercial stable red wines from a microbiological point of view. However, when this methodology is applied in grape juices with high pH, like it is common in the south of Spain, can produce high levels of biogenic amines and ethyl carbamate that can seriously influence human health. This work explains the use of a new red winemaking biotechnology that uses the combination of *Lachancea thermotolerans* and *Schizosaccharomyces pombe* yeasts as an alternative to the conventional alcoholic and malolactic fermentations. *Schizosaccharomyces pombe* consumes malic acid while *Lachancea thermotolerans* produces lactic acid in order to avoid an unnecessary de-acidification in low acidic musts from warm viticulture areas such as the south of Spain. This methodology also reduces some malolactic fermentation hazards for human health such as biogenic amines and ethyl carbamate.

Biography

Santiago Benito is a University Professor in the Madrid Polytechnic University. He is the Director of the Madrid University Experimental Winery, a scientific center. He has published more than 25 papers in reputed journals and has been serving as an Editorial Board Member of repute.

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