

Unveiling the potential of novel yeast protein extracts in white wines clarification and stabilization

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Abstract

Grapes of Tempranillo, Garnacha Tinta and Merlot at very high maturity level were used for red microvinifications using a conventional *Saccharomyces cerevisiae* strain (Lalvin EC 1118®) and new *S. cerevisiae* strain generated using adaptive evolution-based strategies (IONYS™WF). All microvinifications were performed by triplicate and at low (16°C) and at high (27°C)

temperatures. The results show that all the wines fermented with IONYS™WF, independently of the fermentation temperature and grape cultivar have significant lower ethanol content (average 0.60 %), higher glycerol content (average of 5.6 g/L), higher titratable acidity (average of 1.3 g of tartaric acid/L) and lower pH (average of 0.1 units) than their corresponding controls. It seems therefore that IONYS™WF strain can be a useful tool to mitigate the excess of ethanol and the lack of acidity that unfortunately many wines present nowadays. Moreover, the high glycerol production can also be an interesting contribution inasmuch as this compound increases mouthfeel and smooth astringency.

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