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Título artículo: Influence of the thickness of oak alternatives on the composition and quality of red wines

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RESUMEN:

This work studies the influence of the thickness of oak alternatives on the composition and quality of red wines. A red wine was aged in control conditions and also in contact with oak chips, and with thin and thick oak staves for 12 months. As expected, all the wines aged in contact with all the oak alternatives were enriched in total polyphenols and had a higher colour intensity. In addition, the contact with all the oak alternatives enriched the wine in furfural and total furans, vanilla and total aldehydes and ketones, eugenol and total volatile phenols, and in β -methyl- γ -octalactones. However, the thickness of the oak alternative seems to play an important role in the composition and quality of the wine. Specifically, the wines aged in contact with the two types of staves had a more intense colour than the wine aged with oak chips, as well as a higher total phenolic index and higher eugenol concentration. Moreover, the β -methyl- γ -octalactones concentration was higher in the wine supplemented with thick staves. Finally, the wines supplemented with the two types of staves had a higher intensity of the spicy attribute than the wine aged with oak chips. The wine supplemented with thick staves had a higher intensity of candy/pastry, toasted, smoked, complexity, aromatic intensity, sweetness, structure, and persistence. Finally, the panel preferred the wine aged with thick staves followed by, in descending order, the wines aged with thin staves, oak chips, and the control.

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