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**EFFECT OF VINE FOLIAR TREATMENTS ON THE VARIETAL AROMA
OF MONASTRELL WINES**

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ABSTRACT

The effects of four vine treatments, comprising the application of eugenol and guaiacol (individually or as a mixture) or whiskey lactones on the concentration of glycosidically bound aroma precursors, determined as glycosyl glucose content by HPLC-IR, in Monastrell grapes and their wines were studied. The impact of treatments on the free varietal wine aroma determined by SBSE-GC-MS and descriptive analysis after alcoholic and malolactic fermentations and six months of ageing were also determined. A synergistic effect was observed between the eugenol and guaiacol on the glycosidically bound aroma precursor fraction. The rate of release of such aroma precursors was time and treatment dependent. The impact on wines varietal aroma at the end of the alcoholic fermentation was reduced by treatments, whereas the opposite effect was observed in the following samplings. At a sensory level, the wood/oak notes were appreciated in all wines; however, the typicity of the Monastrell variety was especially enhanced at the end of the malolactic fermentation, in the wines from whiskey lactone treatment.

Keywords: eugenol, glycosidically bound aroma precursors, guaiacol, Monastrell, wines, whiskey lactones

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