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**Effect of Glucosidases Enzyme Treatment on Aroma Compounds of the White
Muscat of Alexandria and Emir Wines**

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Abstract: The effect of an exogenous commercial enzyme with glycosidase activities on free and glycosidically bound aroma compounds of the white wines obtained from muscat of Alexandria and Emir cultivars was investigated. The fermenting must was divided into two equal parts towards the end of the fermentation and 40 mg/l of enzyme was added to one part. The aroma compounds of the wines were extracted with Amberlite XAD-2 resin and were identified by gas chromatography-mass spectrometry. Their concentrations were determined by gas chromatography. As a result of the enzyme treatment, the concentration of free aroma compounds (terpenes, volatile phenols, C-13 norisoprenoids and aromatic alcohols) increased, and due to the enzymatic hydrolysis, the concentration of glycosidically bound aroma compounds decreased. The increase of free aroma compounds in the enzyme treated wines was also confirmed by sensory analyses. These analyses showed that the enzyme treated wines were more aromatic than and preferable to the controls. In terms of aroma, it can be said that enzyme treatment improved the quality of the muscat of Alexandria and Emir wines.

Key Words: Aroma compounds, glycosydase enzyme, muscat of Alexandria wine, Emir wine

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