

**Selection of 80 newly isolated autochthonous yeast strains from the Tikveš region of Macedonia and their impact on the quality of red wines produced from Vranec and Cabernet Sauvignon grape varieties**

**ABSTRACT**

The main objectives of this study were to (i) isolate newly autochthonous yeast strains from the Tikveš region of Macedonia and (ii) test their impact on the quality of red wines from Vranec and Cabernet Sauvignon grape varieties. The newly isolated yeast strains were obtained by spontaneous fermentation of grape must from Vranec and Cabernet Sauvignon varieties collected from ten different micro-regions in Macedonia. The grapevines from both varieties grown in "Barovo" micro-region were the richest sources of yeast strains. In addition, the molecular identification and typing of strains were also carried out. The monomeric anthocyanins, polyphenolic content and other oenological characteristics of the wines were also compared with the wines from commercial yeast strain "SiHa". The Vranec wine from yeast strain F-8 and Cabernet Sauvignon wine from yeast strain F-20 had significantly ( $p < 0.05$ ) higher concentrations of monomeric anthocyanins and total phenolic compounds than other wines.

**Keyword:** Cabernet Sauvignon wines; Monomeric anthocyanins; Phenolic compounds; Strain biotyping; Vranec wines; Yeast diversity