



INFLUENCE OF METEOROLOGICAL CONDITIONS ON THE QUALITY OF GRAPES AND AROMA-RELEASING ENZYME ADDITION ON THE CHEMICAL COMPOSITION, AROMATIC COMPLEX AND ORGANOLEPTIC PROFILE OF RED WINES

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ABSTRACT

In the period 2013 – 2015 the influence of the meteorological conditions of the year on the harvest quality and aroma-releasing enzyme addition before the alcoholic fermentation on the chemical composition, aromatic profile and organoleptic features of red wines were investigated. The objects of the study were the clone Pamid 5/76, candidate-clones Gamza 52-9-4 and Gamza 52-9-5 and the varieties Kaylashki Rubin and Trapezitsa (obtained by interspecific hybridization). The sugar accumulation dynamics in the grapes was monitored during the ripening phase, in order to determine the time of technological maturity. The latest ripening variety was Kaylashki Rubin, and it demonstrated the most gradual sugar accumulation and acidity reduction. The experimental wines had different composition and organoleptic characteristics, depending on the potential and specifics of the variety and the harvest. Kaylashki Rubin wines had the highest alcohol content and sugar-free extract and the lowest - Pamid 5/76. The amount of total phenolic compounds and anthocyanins in wines was increasing in the order Pamid 5/76 < Trapezitsa < Gamza 52-9-4 < Gamza 52-9-5 < Kaylashki Rubin. The positive effect of the added aroma-releasing enzyme on the content of esters in wines and their aromatic characteristics was confirmed. No effect of the enzyme addition on the amount of total aldehydes and higher alcohols was observed. No correlation was found between the studied components of the aromatic composition of the wines and their tasting evaluation.
