



MANAGING QUALITY OF AROMATIZED WINE PREPARED BY CO-FERMENTATION OF GRAPE MUST AND BY-PRODUCTS OF ESSENTIAL ROSE OIL INDUSTRY

Anton Slavov^{1✉}, Hristo Spasov², Rada Dinkova³, Petko Denev⁴

¹Department of Organic and Inorganic Chemistry, Technological Faculty, University of Food Technologies, 26 Maritsa Blvd., 4000 Plovdiv, Bulgaria

²Department of Wine and Beer Technology, Technological Faculty, University of Food Technologies, 26 Maritsa Blvd., 4000 Plovdiv, Bulgaria

³Department Food Preservation and Refrigeration Technology, Technological Faculty, University of Food Technologies, 26 Maritsa Blvd., 4000 Plovdiv, Bulgaria

⁴Institute of Organic Chemistry with Centre of Phytochemistry, Bulgarian Academy of Sciences, 139 Ruski Blvd., 4000 Plovdiv, Bulgaria

✉antons@uni-plovdiv.net

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ABSTRACT

Aromatized rosé wines with addition of essential rose oil industry wastes during fermentation of grape must were prepared. Six variants: W1-W6 with added 0.05%, 0.1%, 0.25%, 0.5%, 1%, and 2% *Rosa damascena* Mill. waste, respectively, and control wine were prepared. Slight differences in the color shades were observed: the lower the added rose waste, the more intensive peony color was obtained and this observation was confirmed with the increase of the hue angle value – 46.21±0.84 for the control and 54.95±0.70 for the W6. The polyphenol content increased significantly from 355.01±10.14 to 576.08±12.08 µmol GAE L⁻¹ for the control and W6, respectively. The major phenolic acids determined were 3,4-dihydroxy benzoic (up to 65.1±1.1 mg L⁻¹ in W6), gallic (up to 25.9±0.9 mg L⁻¹ in W6) and chlorogenic acid (up to 11.7±0.6 mg L⁻¹ in W5). The GC-FID analysis revealed slight increase of higher alcohols for W5 and W6. β-Caryophyllene, β-citronellol, phenethyl alcohol, rose oxide, and geraniol content increased significantly compared to control. The sensory evaluation revealed most of the panelists preferred W1 and W2 although some of the testers liked better the variants with higher amounts of added waste. The results suggested that rose waste successfully could be utilized for preparation of new aromatized wines with distinctive rose aroma.
