

INNOVATIVE TECHNOLOGY FOR TEMJANIKA WINE PRODUCTION WITH HONEY ADDITION BEFORE FERMENTATION

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In this study, addition of honey before fermentation (20 and 40 g L⁻¹ added honey) of Temjanika white grapes was performed in order to study the influence of the honey on the wine quality. Fast and accurate analytical technique, Fourier-transform infrared spectroscopy (FT-IR), was used to determine the chemical composition of wines produced with honey and compared with the control wine (produced without addition of honey). Basic parameters such as alcohol, density, glycerol, pH, total acidity, total sugars, individual carbohydrates (glucose, fructose and saccharose), individual organic acids (tartaric lactic, malic, citric and acetic) as well as total phenolic content and total antioxidant activity have been determined. Results showed that wine fermented with 20 g L⁻¹ honey added before fermentation presented highest content of almost all parameters, with exception of antioxidant activity, which concentration was slightly highest in the controlled wine. Concerning organic acids, tartaric acid was the dominant organic acid in wines, as was expected, followed by malic and citric acid. In general, wines presented satisfactory values for alcohol, pH, total acidity, glycerol and acetic acid, confirming that the wines are stable, with satisfied quality.

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