AROMATIC PROFILE, ANTIOXIDANT ACTIVITY AND CONCENTRATION OF TOTAL POLYPHENOLS IN SPARKLING WINES PRODUCED WITH NON-CLASSICAL VARIETIES

Vinicius Caliari¹, Jean Pierre Rosier², Marilde T. Bordignon Luiz¹, 1-UFSC, 2-Epagri-Estação Experimental de Videira, UFSC-Universidade Federal de Santa Catarina Av. Admar Gonzaga, 1346 - Itacorubi 88034-001 – Florianópolis, – SC, Brasil

Over recent years, a new market strategy in the oenological industry based on the diversification of wine production and on the exploitation of the characteristics and peculiarities of non-classical grape varieties is emerging. Among the different techniques of winemaking stands out in particular the preparation of sparkling wines produced by the traditional method (second fermentation and aging in the same bottle). In southern Brazil, mainly in State of Santa Catarina, varieties Goethe, Niagara, Moscato Embrapa and Villenave are being used in the preparation of sparkling wines with great consumer acceptance. The aim of this work was to characterize these sparkling wines, in relation to aromatic profile antioxidant activity and total polyphenols. For aromatic profile, 23 compounds were determinated by GC-FID with external calibration and confirmation of the peaks by GC-MS, for antioxidant activity was used DPPH and Folin-Ciocalteau for the concentration of total polyphenols. The highest concentration of totals polyphenols and antioxidant activity was in the sparkling wine from Moscato Embrapa 104, 89 mg.L⁻¹ and 0.51 mMol.L⁻¹ TEAC, and the lower with Villenave with 71.56 mg.L⁻¹ and 0.22 mMol.L⁻¹ TEAC, with significant difference at p < 0.05. The analyses of aromatic profile showed high levels of aromatic compounds like linalool with descriptor odor of roses with 169,6 μg.L⁻¹ in Moscato Embrapa and α-Terpineol with 140,1 μg.L⁻¹ in Goethe. The varieties showed high concentrations of terpenes demonstrating their potential for sparkling wines with fruity and floral characteristics.