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Original Article

Antioxidant activity and phenolic content of Portuguese wine aged brandies

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ABSTRACT

The antioxidant activity and the phenolic composition (total polyphenols, phenolic acids and hydrolyzable tannins) of Portuguese brandies were analyzed with regard to the kind of wood (chestnut and Limousin oak), the barrels toasting level (light, medium and heavy), and the ageing time (first 4 years of ageing). In the experimental conditions, the botanical species affects significantly the antioxidant activity of the brandies. Those aged in chestnut wood present higher antioxidant activity than those aged in Limousin oak, which confirms the remarkable quality of the former. The antioxidant activity of the aged brandies is not significantly influenced by the wood toasting level, owing to the strong variability induced by this cooperage operation. During the ageing period, the antioxidant activity of the brandies undergoes a highly significant increase. The most significant correlations between antioxidant activity and phenolic composition of brandies were found for phenolic acids, mainly for gallic acid and ellagic acid.

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