Evaluation of the aroma stability of tropical white wines from Brazil

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Abstract

Several factors can affect the formation of volatile compounds responsible by the wine aroma, such as viticulture practices, climatic conditions, winemaking process and aging. This study aimed to evaluate the aroma stability of tropical withe wines elaborated with Sauvignon Blanc grapes produced in the Lower-middle Sao Francisco River Valley, Northeast of Brazil, located in a tropical semi-arid region. Grapes were harvest in June 2009, elaborated by the traditional methods, stabilized, bottled and analyzed in triplicate by gas chromatography with flame ionization detector at 0 and 12 months after bottling. Twenty six compounds considered important to the wine aroma were quantified by internal standardization. The compounds 2-phenylethanol, diethyl succinate, isovaleric acid and isobutyric acid changed significantly with aging, while the others volatiles remained stables. These data are the first results obtained about aroma stability of white wines elaborated in semi-tropical conditions. Complementary researches must be conducted to discover if these compounds and others not identified in this study were lost with the aging or if they are used in the formation of others volatile compounds, and the impact of these mechanisms in the aroma profile of the Sauvignon Blanc tropical wine.

Keywords: *Vitis vinifera* L., wine, aromatic composition, tropical semi-arid climate, winemaking process.