

Área: **Fermentação e Biotecnologia (Divisão J)**

PROFILE OF HIGHER ALCOHOLS IN FRUIT WINES PRODUCED BY DIFFERENT *SACCHAROMYCES CEREVISIAE*

Whasley Ferreira Duarte (UFLA); Giuliano Dragone (Uminho); Disney Ribeiro Dias (Unilavras); José Maria Oliveira (Uminho); José António Teixeira (Uminho); Rosane Freitas Schwan (UFLA)

Resumo

Higher alcohols are secondary yeast metabolites, and can have both positive and negative impacts on the aroma and flavour of wine. Concentrations lower than 300 mg/l of higher alcohols contribute to the aroma, while concentrations above 400 mg/l negatively influence the wine quality. The formation of these compounds is influenced by several factors like temperature, presence of nitrogen compounds and the type of yeasts used for the fermentation. The aim of this study was to evaluate the profile of higher alcohols in alcoholic beverage produced from the fermentation of raspberry must by different yeast. The pH of the must was adjusted to 4.0 by the addition of CaCO₃ and the initial sugar concentration to 16 Brix (adjusted with sucrose syrup). Batch fermentations were carried out at 22° C. Higher alcohols were determined by gas chromatography (GC-FID). Five higher alcohols (1-propanol, 2-methyl-1-propanol, 2-methyl-1-butano, 3-methyl-1-butanol and 2-phenylethanol) were identified and quantified. 3-methyl-1-butanol was the alcohol found in highest quantity. The highest concentrations were 140.9 and 149.4 mg/l for the yeast UFLA CA1162 and UFLA CA15, respectively. The beverage produced by the yeast UFLA CA155 showed the highest concentration of 2-phenylethanol (29.1 mg/l). 1-propanol was found in similar values (21 mg/l) in raspberry wine fermented by the yeast UFLA CA11 and UFLA CA1174. The highest and lowest total concentrations of higher alcohols were 284.5 and 161.8 mg/l for the beverage produced by the yeast UFLA CA1162 and UFLA CA11, respectively. It can be concluded that raspberry wine with a total higher alcohol concentration similar to that considered desirable (300 mg/l) in alcoholic beverages can be produced by using the yeast UFLA CA1162.

Acknowledgements: CAPES and CNPq

Palavras-chave: *Saccharomyces cerevisiae*, higher alcohols, fruit wine