

A FIRST APPROACH TO THE CHARACTERIZATION OF A TRADITIONAL ALCOHOLIC DRINK "AGUARDENTE DE ZIMBRO"

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Aim

➔ This work intends to achieve a first characterization of this product concerning its technology, and its sensory properties and physico-chemical characteristics. A few number of commercial samples of this product and other alcoholic beverages made with juniper were analyzed. It was also done the descriptive sensory analysis of the beverages. Based on the results the three Portuguese commercial beverages "Aguardente de zimbro", which are currently in the market, seem to be made from three different alcoholic distillates (grape marc spirit, wine spirit and arbutus spirit).

Material and Methods

Five commercial samples of distillates flavoured with juniper berries

Samples: Z₁ - Spirit; berries juniper
Z₂ - Spirit; berries juniper and vanilla
Z₃ - Spirit Stored in wooden oak barrels; berries juniper
Z₄ - London Gin
Z₅ - Gin



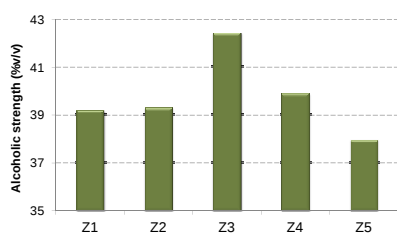
Analytical determinations

➔ Some analytical determinations were done on the juniper beverages samples, namely alcoholic strength, dry matter, total acidity, fixed acidity, volatile acidity, pH, chromatic characteristics, methanol, acetaldehyde and ethyl acetate.

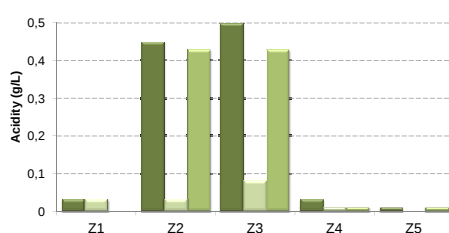
➔ The sensory evaluation was done by 10 trained panelists that were asked to describe the colour, aroma and flavour of the product. The panelists were also asked to score the overall quality.



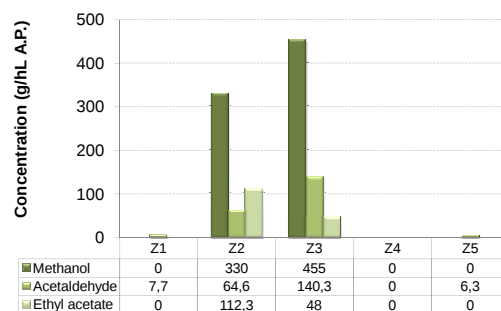
Results and discussion



Results of the alcohol content in volume of the samples studied



Results of the total acidity, fixed acidity and volatile acidity of the samples studied



Results of the methanol, acetaldehyde and ethyl acetate of the samples studied

⇒ The traditional Portuguese distillates with juniper (Z₁, Z₂ and Z₃) have similar characteristics of smoothness, roughness, persistence, and alcohol.

⇒ In a similarity sensory test done by the panelists the sample Z₁ is quite different from the Z₂ and Z₃, in accordance with physico-chemical results.

⇒ Z₁ sample has been probably produced by using a different kind of distillate, not usual in the traditional process. Concerning the overall quality the sample Z₃ was the best scored

Conclusion

➔ In the Portuguese market it was found three different products, which seem to me made by using different technologies. Therefore, more information must be collected on the artisan producers in order to establish the "traditional profile" of this alcoholic drink. Further research is needed in order to understand the image and acceptability of these drinks for the consumer

Color parameters of the samples studied.

Samples	L*	a*	b*	c*	h*
Z ₁	98.5	0.02	8.78	8.85	96.87
Z ₂	98.5	-1.76	10.43	10.58	99.58
Z ₃	91.2	-0.45	28.77	28.78	90.89
Z ₄	100.8	-0.04	-0.23	0.23	258.76
Z ₅	100.1	-0.04	0.05	0.06	134.28