

**Designação do projeto:**

Sistema de Incentivos à Produção de Conhecimento Científico e Tecnológico da Região Autónoma da Madeira – PROCiência 2020,

Código do projeto:

M1420-01-0247-FEDER-000024

Objetivo principal:

Reforçar a Investigação, o Desenvolvimento Tecnológico e a Inovação

Região de intervenção:

Investimento produtivo relacionado com a cooperação entre grandes empresas e PME para o desenvolvimento de produtos e serviços de «TIC» e do comércio eletrónico e para fomentar a procura de competências TIC

Beneficiário:

Madeira Wine Company, SA

Data de aprovação:	20/12/2018
Data de início:	01/07/2018
Data de conclusão:	30/06/2020
Custo total elegível:	1.179.389,07 EUR
FEDER:	651.722,87 EUR
Apoio Público Regional:	115.009,92 EUR

Objetivos:

IMPACT III - Impacto da Tecnologia na Qualidade do Vinho Madeira

Atividades (resultados esperados/atingidos):

1. Condições de armazenagem, incluindo temperatura e humidade, tendo em conta os valores da implantação dos armazéns.
2. Estudo das perdas e relação com a perda de água
3. Estudo geral da qualidade dos vinhos armazenados
4. Correlação com a qualidade enológica
5. Estudos específicos sobre a qualidade dos vinhos
6. Compilação e tratamento de dados
7. Protótipo que permita a visualização imediata e remota das características dos vinhos em armazém

Fotos



FRUCTOSE DILUPLICATION IN THE SOTOLON FORMATION IN FORTIFIED WINES: PRELIMINARY RESULTS

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Abstract: Fructose is a naturally occurring monosaccharide present in many beverages. In previous studies, the effect of fructose on the formation of sotolon in fortified wines was investigated. The aim of this study was to evaluate the effect of fructose on the formation of sotolon in fortified wines, which may be related to a chemical process during the aging (curing) or headspace in fortified wine (curing).

GOAL: Evaluate the formation of sotolon in fortified wines (FW) prepared at different concentrations and subjected to barrel aging at 18°C for 12 months, in order to identify the main formation pathway of sotolon in fortified wines.

SCOPE: Fructose was added to FW at concentrations of 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 mg/L.

EXPERIMENTAL: FW were prepared at different concentrations of fructose and subjected to barrel aging at 18°C for 12 months. The formation of sotolon was determined by HPLC-MS/MS.

RESULTS: The formation of sotolon increased with the increase of fructose concentration. The main formation pathway of sotolon in FW was identified as the reaction between fructose and sotolonol.

CONCLUSIONS: Fructose is a key factor in the formation of sotolon in FW. The main formation pathway of sotolon in FW is the reaction between fructose and sotolonol.

IMPACT OF TEMPERATURE AND HUMIDITY CONDITIONS IN CANTERO AGEING OF MADEIRA WINES: PRELIMINARY RESULTS

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Abstract: Madeira wine is a well-known fortified wine (18-20% ABV) from the island of Madeira, Portugal. The production of Madeira wine involves a long aging process in wooden barrels. The aim of this study was to evaluate the impact of temperature and humidity conditions on the aging of Madeira wine in wooden barrels.

GOAL: To determine the impact of temperature and humidity on Madeira wine aging process.

SCOPE: Madeira wine was aged in wooden barrels at different temperatures (18°C, 20°C, 22°C, 24°C, 26°C, 28°C, 30°C) and humidity conditions (50%, 60%, 70%, 80%, 90%, 100%).

EXPERIMENTAL: Madeira wine was aged in wooden barrels at different temperatures and humidity conditions for 12 months.

RESULTS: The impact of temperature and humidity on Madeira wine aging process was evaluated. The results showed that temperature and humidity conditions significantly affect the aging process of Madeira wine.

CONCLUSIONS: Temperature and humidity conditions significantly affect the aging process of Madeira wine. The results showed that temperature and humidity conditions significantly affect the aging process of Madeira wine.

Vídeos ou outros suportes audiovisuais:

- Escolha um bloco modular.
- Escolha um bloco modular.
- Escolha um bloco modular.