

Designação do projeto/Project title: GO – Biofortification of grape with zinc to the production of white and red wine

Código do projeto/Project code: PDR2020-101-030728

Objetivo principal/Main objective: Grape Zn biofortification for wine production to improve product quality.

Região de Intervenção/Intervention region: NUTS II

Entidade beneficiária/Beneficiary entity: Instituto Superior de Agronomia, Universidade de Lisboa

Proponente/Proponent: Faculdade de Ciências e Tecnologia da Universidade NOVA de Lisboa

Outros parceiros/Other partners: Instituto Superior de Agronomia da Universidade de Lisboa, Instituto Nacional de Investigação Agrária e Veterinária, I.P., Adega Cooperativa de Palmela, Empresa Ana Luisa Nunes de Oliveira da Silva, Casa Agrícola Nunes Oliveira da Silva Lda., Empresa José Manuel Iria Coutinho, Agricultural University of Plovdiv (Bulgaria), Company Agredo EOOB (Bulgaria), Osijek University (Croacia), University of Nottingham (UK), Network "Zinc-Net Cost Action TD1304".

Data de aprovação/Approval date: 14-06-2017

Data de início/Beggining: 01-11-2017

Data de conclusão/Ending: 31-03-2021

Custo total elegível ISA/Eligible total cost ISA: 26535.42 € (ISA/ULisboa)

Apoio financeiro da União Europeia/European funding support: FEADER – 19901.67 € (ISA/ULisboa)

Site do projeto/Project site: https://sites.fct.unl.pt/bio_uva_zinco_vinho/

Resumo e Objectivos/Abstract and objectives: Grape and wine productions are of utmost importance in economic terms. Portugal presents an average production of grapes ca. 8-10 ton/ha. Regarding wine, Portugal is also a large consumer ranking 3rd in the consumption *per capita*.

Agronomic biofortification has been used as a practice to enrich some minerals in the edible plant parts, with positive impact to health, namely Zn that has important roles, e.g., as antioxidant, enzyme regulator, positive impact on prostate problems, etc. Grape biofortification being already known at international level, together with the knowledge that *Vitis vinifera* L. plants have a high Zn mobilization rate, but also that along the fermentation within the wine production process some Zn elimination occurs. Still, this question could be (partly) overcome under low temperature fermentation procedures. Considering this, it is proposed to select the good *Vitis vinifera* L. cultivars for biofortification of Zn through leaf spraying, the best solution (Zn-Oxide; Zn-sulphate) and doses to be used, as well as to study the possible changes in the organoleptic value of the wine.

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