

Acorn

All you need to know about this extraordinary nut



Name of the product

Acorn/Glands/ **بلوط**

What is the product?

A nut providing from genus *Quercus*. Acorns from holm oaks (*Quercus ilex*), an abundant species in the mediterranean basin, are the most consumed. In Portugal, they are prevalent in the south regions of Alentejo and Algarve.

Benefits and virtues

Acorns contain plant sterols, also known as phytosterols, which consumed in the daily diet or as a food additive can reduce blood cholesterol levels by inhibiting their penetration into the small intestine.

They are also biologically efficient molecules in cancer prevention and with antifungal, antiviral and anticancer properties, that can protect cell membranes from oxidative damage by preventing the appearance of free radicals. In general, acorns can (and should) be used as a source of dietary energy, starch and fiber, providing an attractive low-cost food.



How is it used?

Can be consumed directly, raw, dried, boiled or roasted, processed into flour, oil, in the form of vegetable drinks, burgers, biscuits, pâtés, coffee and other preparations.

With what?

With meat, carbohydrates, vegetables, according to how acorns are prepared and presented.

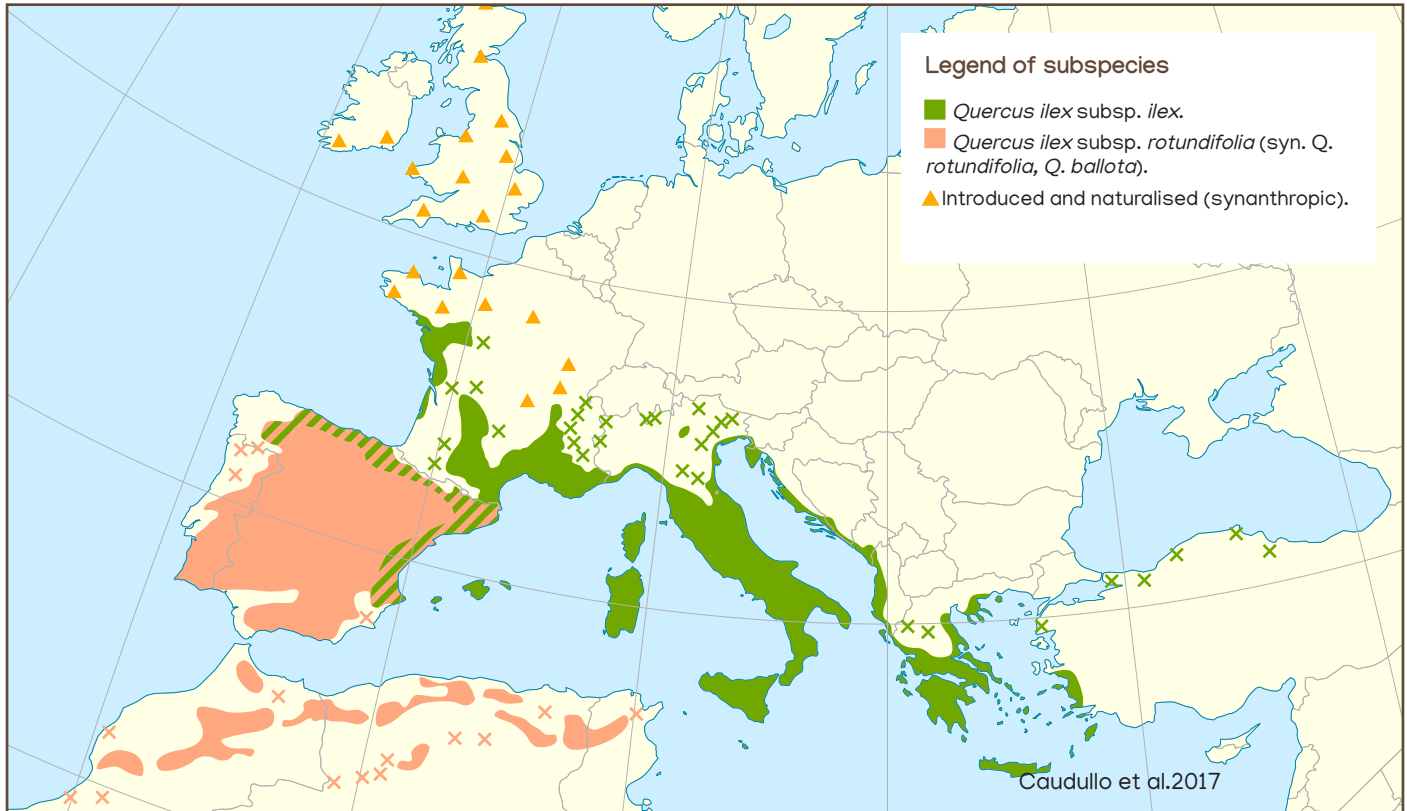
Famous dishes

Baked acorns and acorn bread. Use in desserts, e.g. in the making of ice cream or fried acorns with honey.

Innovative uses

Acorn flour can be an interesting substitute of wheat flour in bread production, fulfilling the purposes of innovation and valorization of traditional products. The edible fruit (kernel) and its waste (shell) could also be considered as an added-value ingredient for other purposes, including gluten-free formulations. Other innovative uses include, oil, vegetable drinks, burgers, cookies, pâtés, coffee, chocolates, fusion cooking. Acorn oil has great potential for cosmetics.

Distribution area of *Quercus ilex* around the Mediterranean Sea



Suggested websites

<https://freixodomeio.pt/partilha-do-alimento/producao/agrofloresta-do-montado/a-bolota/a-bolota-para-consumo-humano/>

<http://www.moinhodepisoes.com/>

<https://www.landratech.com/>

References

– Vinha, A. F., Barreira, J. C. M., Costa, A. S. G., & Oliveira, M. B. P. P. (2016). A New Age for *Quercus* spp. Fruits: Review on Nutritional and Phytochemical Composition and Related Biological Activities of Acorns. *Comprehensive reviews in food science and food safety*, 15(6), 947–981. <https://doi.org/10.1111/1541-4337.12220>

– Caudullo, G., Welk, E., & San-Miguel-Ayanz, J., 2017. Cho-

rological maps for the main European woody species. Data in Brief 12, 662–666. DOI: 10.1016/j.dib.2017.05.007

Authors

Ana Fonseca ¹, Inês Conceição ², Joana Amaral Paulo ², Susete Marques ²

¹ Montado Freixo do Meio, Montemor-o-Novo, Portugal

² Forest Research Center and Laboratory TERRA. Instituto Superior de Agronomia, University of Lisbon, Portugal

Editors

Ibtissem Taghouti, Mariem khalfaoui and Issam Touhami
National Research Institute of Rural Engineering, Water and Forests – Tunisia

Rue Hédi EL Karray El Menzah IV, 1004 Tunis



This project is part of the PRIMA Programme supported by the European Union.



The PRIMA programme is supported under Horizon 2020 the European Union's Framework Programme for Research and Innovation.

The PRIMA programme is supported under Horizon 2020 the European Union's Framework Programme for Research and Innovation



Forest Science and Technology Centre of Catalonia (CTFC) Coordinator - Spain



Università di Padova - Dipartimento Territorio e Sistemi Agro-forestali (UNIPD) - Italy



Instituto Superior de Agronomia (ISA) - Portugal



Cooperativa de Usuários do Freixo do Meio, CRL (HFV) - Portugal



Promotora d'Exportacions Catalanes (PRODECA) - Spain



National Research Institute of Rural Engineering, Water and Forests (INRGREF) - Tunisia



Slovenian Forestry Institute (SFI) - Slovenia



Agriculture Extension and Training Agency (AVFA) - Tunisia