

EUROCASTANEA

European Chestnut Network

by



EUROPEAN CHESTNUT WHITE PAPER

2022

THE CHALLENGES TO FACE TOGETHER

Eurocastanea shows a real ambition, a strong desire and a common action program that has the following goals :

- 1- Stopping the decline of the European chestnut orchard through an ambitious plantation program
- 2- Improving fruit quality and the health of orchards
- 3- Creating added value at all levels through innovation
- 4- Developing consumption in all its forms.



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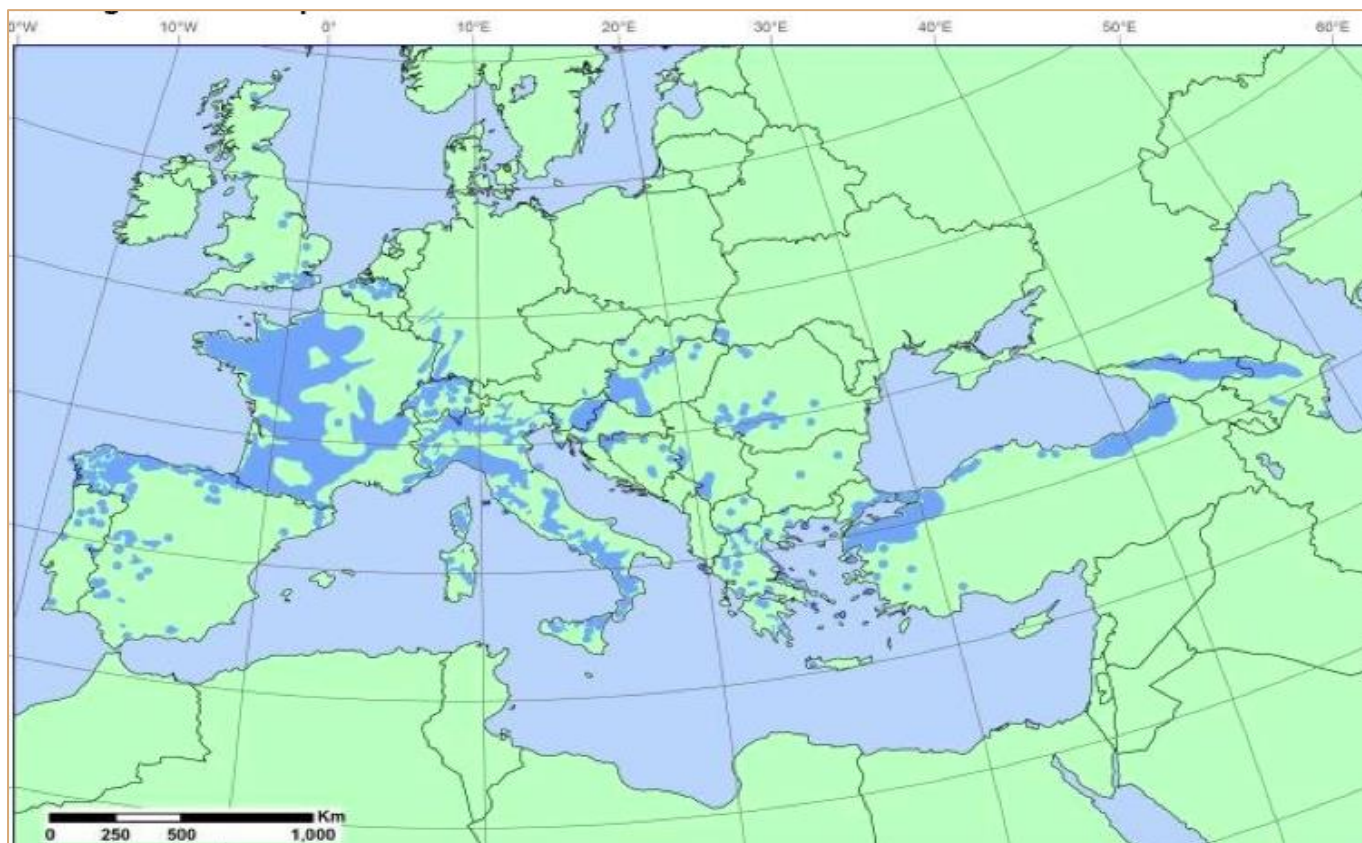
One of the threats to Japanese production is the decline in profitability due to competition from China and Korea

The challenges :

- Production will continue to decline
 - Need to differentiate from Chinese and Korean products through high quality
 - Need to invest in harvesting mechanisation
- Continuing the search for a Crenata-compatible carrier
Further research on easy-to-peel varieties (hybrids)

European production in detail

Chestnut areas in Europe



447 million inhabitants in the EU (27 countries)

834 million inhabitants in Europe (46 countries)

1 kg of chestnut per inhabitant

=

447,000 to 830,000 tonnes consumed

General data

The European production in 2020 (excluding Turkey) is between 150,000 and 160,000 tonnes.

Production, which was still very high in European countries in the 19th century, fell sharply as a result of tree diseases, and collapsed from the 1960s onwards. The staple food of rural populations until then was replaced by potatoes and cereals.

Its decline follows the evolution of rural populations. Even if a part of the volumes produced is consumed locally, most of the volumes harvested are put on the market.

The chestnut is many eaten in two different ways :

- **Consumption of the fresh fruits:** this first mode of consumption is a niche and seems to be regressing.
- **Processed product:** fruits are peeled and processed before being eaten (chestnut flour, mashed chestnuts and creams, whole chestnuts (peeled or frozen), canned chestnuts, candied chestnuts, etc.).

Production location

The European chestnut production is located in medium-altitude zones, from 200 to 1 000 meters, in areas with natural impediments, where no other agricultural production could replace it.

Chestnut production plays a decisive role in the economic, social and environmental balance of these territories. When the chestnut trees are abandoned the landscape becomes a wasteland, the consequence being the end of any possibility of economic development of these difficult soils.

Family economy

In the vast majority of cases, this production is based on a traditional family economy. The rural exodus in these difficult territories still leads today to the abandonment of the chestnut orchards.

The types of orchards

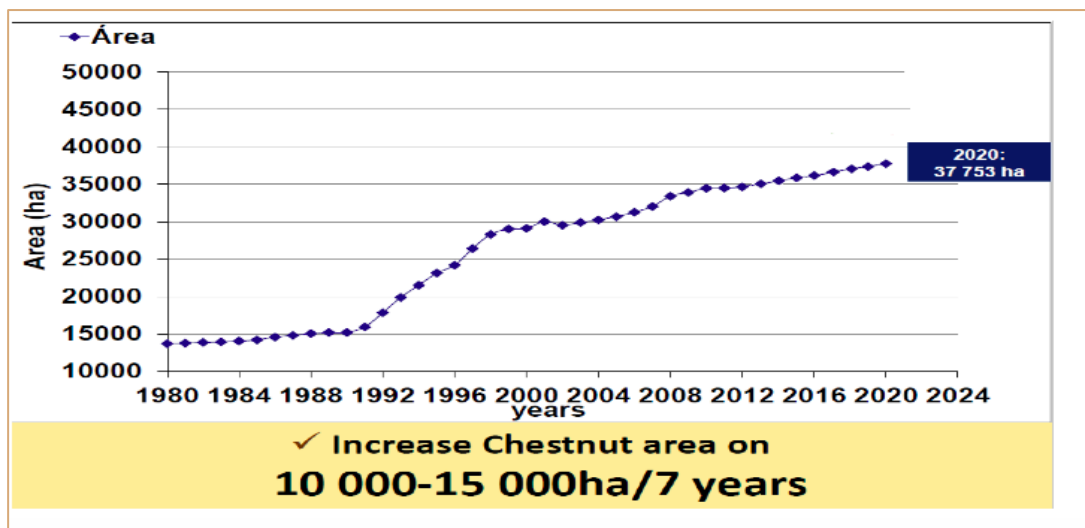
Most of the chestnut groves are old and suffer from natural dieback due to the age of the trees, diseases, especially the disease *Phytophthora* root rot (PRR) (*Phytophthora cinnamomi*), and since 2002, the arrival of an insect native to China, the gall wasp (*Dryocosmus kuriphilus*), which can cause a decline in production up to 80%.

Restructuring programs for these chestnut trees by severe pruning have made it possible to maintain or even restore production in many European regions. Although, overall the trees and the production areas continue to decline.

Several European regions have developed programs for new chestnut orchards using:

- **local varieties :** this is particularly the case in the northern regions of Portugal, which has seen its national production increase significantly over the past 10 years.
- **Hybrid varieties created in France by INRA** since the 1960's. The breeding program continues nowadays (collaboration between INRA, CTIFL and INVENIO). These varieties are called hybrids because they were created by crossing *Castanea sativa* (Europe), *C. crenata* (Japan) and *C. mollissima* (China). The objective is to obtain varieties more resistant to diseases. It will now be necessary to take into account their adaptation to climate change.
- A new orchard has been developed with the varieties **Marigoule** and **Bouche de Bétizac**, mainly in southwestern France and more recently in other European regions.
- **The mechanisation** (of the harvest in particular) and the technical itinerary are relatively well mastered. Currently-cultivated varieties produce large fruit for the fresh market. New varieties are being developed (like Bellefer) to supply the processing industry.
- **Planting new orchards from traditional varieties or new varieties** is an important alternative to the fall of European production for the future of chestnuts.

A way to renew the existing orchards

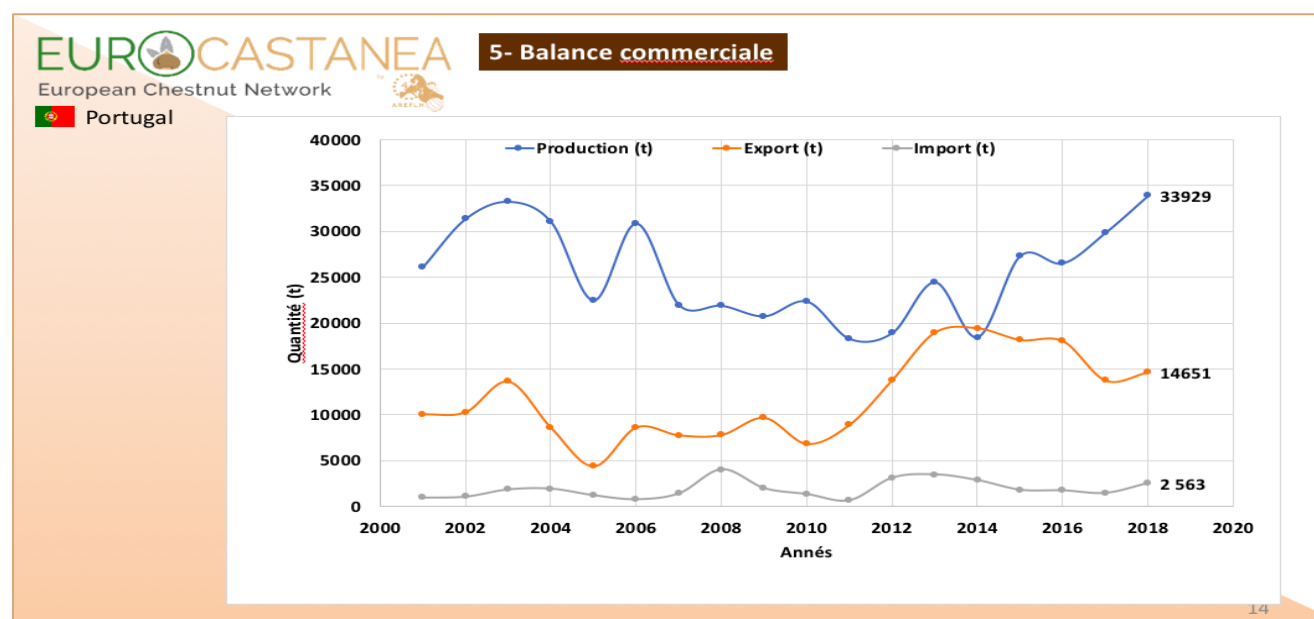


Source : REFCAST

Portugal – Trade of chestnut (2012 – 2017)

	2012	2013	2014	2015	2016	2017
Export (t)	13 820	18 992	19 459	18 186	18 041	13 757
Export (M€)	33.5	53.5	57.2	41.2	40.6	38.8
Export s(€/kg)	2.42	2.81	2.94	2.27	2.25	2.82
Import (t)	3 129	3 483	2 866	1 832	1 766	1 500
Import (M€)	6.7	8.4	7.2	3.6	3.1	3.7
Import (€/kg)	2.14	2.42	2.51	1.98	1.73	2.44

Source REFCAST



Source : REFCAST

In order to promote the organisation and support of the sector, an association has been organised: the Portuguese Chestnut Association (www.RefCast.eu).



Les contraintes de production plus importantes

- La sécheresse des sols entre août et fin septembre. La pluie ne suffisait pas – petit calibre
- Les pourritures – *Gnomoniopsis castanea* (déjà a affecter les productions précoces). Les pleuve de septembre peut l'aider
- Le cynipidé seulement va influencer dans petit situations
- Le punaise de la châtaigne 20-30%

Récolte de châtaigne dans le verger:

- difficulté accrue à recruter de la main-d'œuvre

Réduction de la consommation:

- dans la rue
- dans les fêtes

Augmentation des coûts industriels:

- Risc de contamination des travailleurs
- Maintenir une plus grande distance entre les travailleurs

Production in Hungary

According to official statistics, there are about 467 ha of chestnut orchards in Hungary. The site conditions for chestnut trees in Hungary are limited because the Hungarian soils have too high a limestone content and their pH is therefore high. Hungarian growers mainly use Hungarian breed cultivars, the most planted cultivar is 'Koszegszerdahelyi 29' followed by 'Iharosberényi 2' and 'Iharosberényi 29'. The use of foreign breed cultivars is increasing because Hungarian growers prefer early maturing cultivars with large fruits.

Production in Germany

The quantity of chestnuts sold by Germany in 2020 was 425 metric tons. In 2019, Germany sold 632 metric tons of chestnuts. In 2019 alone, the demand for chestnuts from Germany (nut category) increased, fluctuating by 30.579% compared to 2018. Between 2017 and 2019, chestnut exports increased by 19.02%, earning the country \$5.52 million for the year 2019.

Production in Croatia

The volume of chestnuts exported by Croatia in 2020 was 105 tonnes. In 2019, Croatia sold 22 tonnes of chestnuts. In 2019 alone, the market for Croatian chestnuts (nut category) decreased, registering a -50% change compared to 2018. Between 2017 and 2019, chestnut exports increased by 46.67%, earning Croatia USD 0.04 million in 2019.

Emerging producing countries

The productions of the following countries are not yet reported by the FAO, however, thanks to exchanges between chestnut professionals from around the world, we are aware of smaller productions in regions seldom talked about.

Australia

Source : Australian Chestnuts

The 2017 fresh chestnuts production was 1 200 tons, available from mid-March to July.

The main region is Victoria in the south-east of the country with Italian varieties and French hybrids.

Both fresh and transformed products are marketed nationwide.

The varieties :

- Buffalo Queen
- Bouche de Betizac
- Red Spanish
- De Coppi Marone
- Purtons Pride





Intensive orcharding in the Victoria region

The Australian chestnut industry is fairly static, with production increasing only slowly. The 2022 crop is estimated to be around 1,300 tonnes.

Chestnuts are mainly grown in north-east Victoria with some smaller pockets around Tumbarumba in New South Wales, Adelaide Hill in South Australia and in southern Western Australia.

There is little or no export or processing of Australian chestnuts, so 99% is sold as fresh chestnuts and most of the crop is sold in Melbourne and Sydney. A number of large growers successfully store chestnuts and the season has been extended in recent years and now fresh chestnuts are sold from mid-March to September each year.

The main problem limiting the development of the chestnut industry in Australia is that demand is static or even declining. Many consumers are unfamiliar with chestnuts and reluctant to try them. The majority of consumers are immigrants from Asia and Europe. Younger consumers have a wide variety of food choices and show little interest in chestnuts, particularly fresh fruit which can be time consuming to prepare.

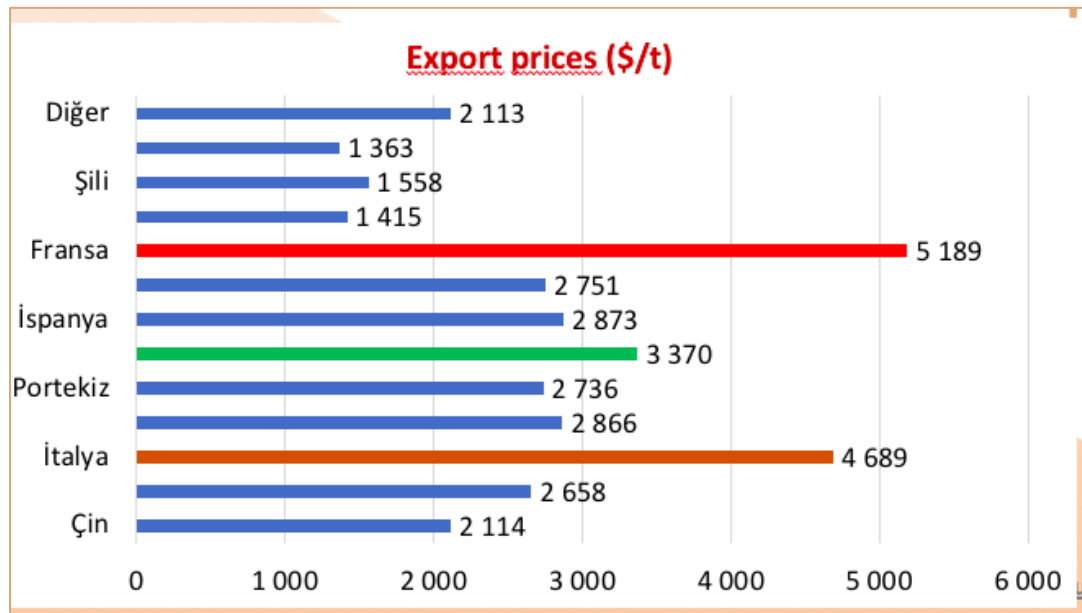
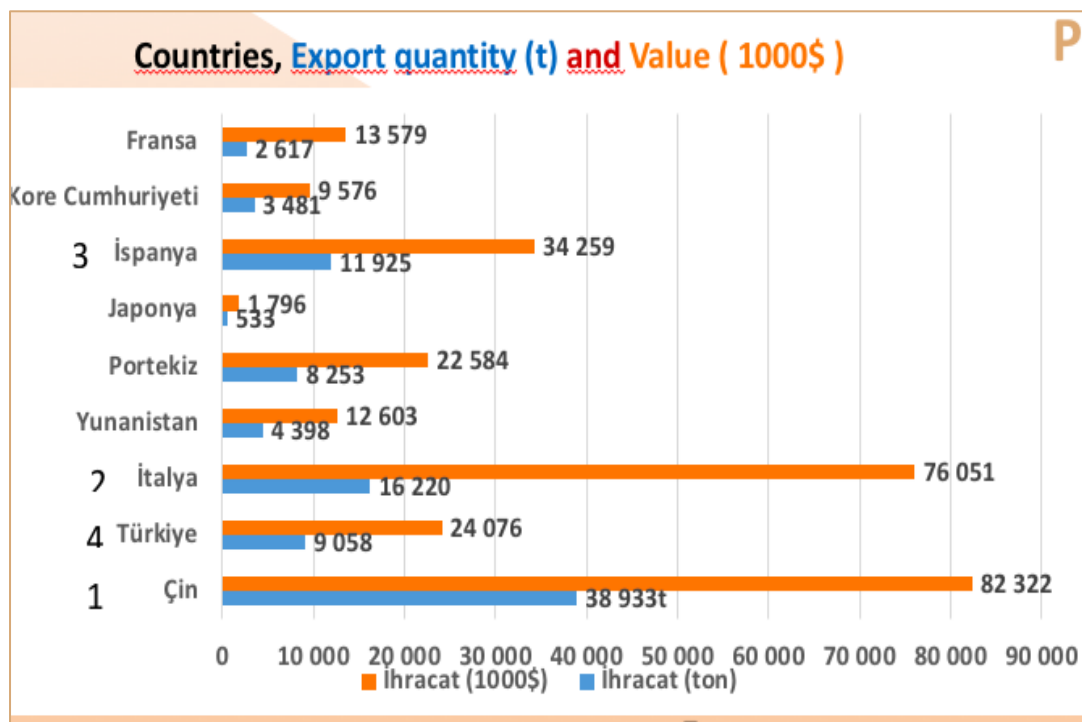
Many consumers will see fresh chestnuts in the shops but do not know how to cook them.

The association undertakes an annual marketing programme to try to educate consumers but its impact is limited.

However, the main problem facing the chestnut industry here is the incidence of internal rots, particularly in the early harvested varieties. If rotted chestnuts are among the first to reach the market, some wholesalers (and many other consumers) stop buying chestnuts for the whole season. Consumer confidence is absolutely

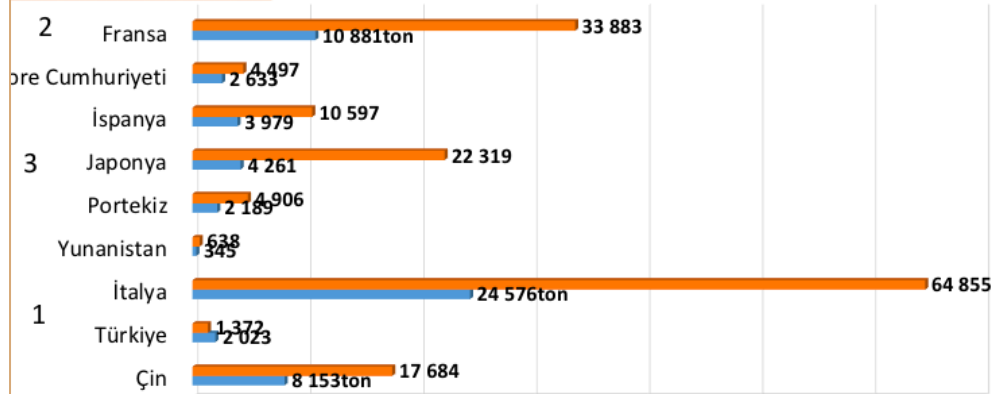
Turkey

Source : Ervin Edan



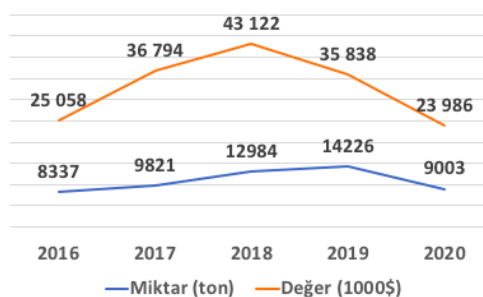
Countries, Import quantity (t) and Value (1000\$)

Production



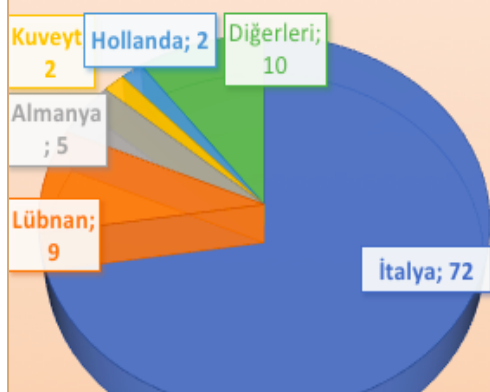
Export quantity (t) and Value (1000 dollar)

Yıllar	Miktar (ton)	Değer (1000\$)
2016	8.337	25.058
2017	9.821	36.794
2018	12.984	43.122
2019	14.226	35.838
2020	9.003	23.986

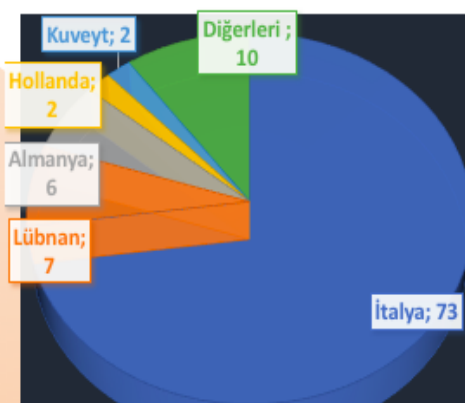


Turkey's Exports by Countries, Quantity (%), Value (%)

Quantity (%)



Value (%)



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9- EUROCASTANEA NETWORK PRESENTATION

The European chestnut network is composed of:

- AREFLH (Assembly of European Horticultural Regions) which provides the secretariat of the network,

And the national organisations from the main producing countries in Europe:

- The Red Estatal del Castaño (Spain)
- The National Union of Chestnut Producers of France, SNPC
- Refcast - Associação Portuguesa da Castanha (Portugal)
- Centro di Studio e Documentazione sul Castagno, CSDC (Italy)
- ARGE Zukunft Edelkastanie (Austria)
- Cooperative Melia, Grèce

The network has the following missions:

- To represent, defend and promote the common interests of producers, manufacturers and commercial operators of the chestnut sector in the European and world economy.
- To organise dialogue, consultations, studies and joint action among its members.
- To strengthen the representation of the chestnut sector to the European institutions, regional and national public authorities.
- To promote the renovation of the European chestnut orchards.
- To organise the every year the European Chestnut Congress
- To organise technical missions, to stimulate communication programs, to promote cooperation in scientific, technical or economic issues.



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WHITE PAPER OF THE EUROPEAN CHESTNUT

Document published by
EUROCASTANEA in
collaboration with the various
partners and experts of the
network

eurocastanea@areflh.org
www.eurocastanea.org

