

## By-Products for Biorefineries

### Riferimenti

Tipo di progetto

Gruppo Operativo

Acronimo

COBRAf

Tematica

Gestione dei sottoprodotti agricoli

### Information

Time frame

2019 - 2021

Durata

32 months

Partners (no.)

20

Regione

Toscana

Comparto

Colture oleaginose

Localizzazione

ITI14 - Firenze

ITI17 - Pisa

ITI18 - Arezzo

Costo totale

€337.186,83

Fonte di finanziamento principale

Programma di sviluppo rurale

Programma di sviluppo rurale

2014IT06RDRP010: Italy - Rural Development

Programme (Regional) - Toscana

Parole chiave

Farming/forestry competitiveness and diversification

Waste, by-products and residues management

Sito web

<http://www.cobraf.it>

Project status

completed



### Objectives

Starting the agro-industrial sectors in Tuscany since the co-products of 4 oilseed crops (hemp, safflower, linseed and camelina) with the creation of a technical platform and regional logistics.

Therefore, develop an articulated system of biorefineries that allows maximum exploitation of the biomass of oil crops that can be used in rotation. The system involves the use of various parts of biomass and production residues for the development of innovative and more sustainable bioproducts for at least 6 sectors of the Tuscan industry: food, cosmetics, pharmaceutical, construction, wood, automotive (camper).

### Activities

1. Introduction of innovative oleaginous crops (hemp, safflower, flax and camelina);
2. Optimization of sustainable cropping techniques and the transfer of relevant knowledge;
3. Development of new systems for collecting and drying the seeds;
4. Introduction of new systems for processing seeds and straws for semi-finished products;
5. Development of new derivative products (bioactive compounds, products for cosmetics, non-toxic adhesives, hemp fiber composite for panels and blocks), cannabidiol (CBD) for pharmaceutical use;
6. Development of regional agro-industrial supply chains integrated with a better distribution of the value for farms

### Context

The partner farms operate in various Tuscan territories (Pisa, Arezzo, Florence, Pistoia); their traditional products, cereals above all, are affected by the economic crisis aggravated by the drought of the 2017 season,

which has led to a record drop in durum wheat production. Some companies have started to introduce innovative crops in rotation with cereals with the dual objective of diversifying income opportunities and favoring an improvement in soil quality and agri-ecosystem resilience. The critical success factor is obviously the profitability of the new crops. To this end, the COBRAFF project has identified 4 oleaginous species - camelina, hemp, safflower and flax - of considerable health interest. These products are destined to the nutraceutical and cosmeceutical sectors, which are growing rapidly in Italy and in the world. The residual oil extraction panels are also of interest for innovative applications, such as adhesives for the wood panel industry. The flax and hemp straws, rich in fiber, suitably worked are used in various manufacturing applications.

The preparatory phase of the COBRAFF project has confirmed the interest of the Tuscan industry, in particular food, pharmaceutical, cosmetics, construction, camper industry. But there are critical issues to be addressed:

- the poor experience of the agricultural world in the cultivation of these species, especially with integrated and biological agriculture methods;
- the lack of adequate systems of first transformation: in Tuscany there are several innovative technologies in the field of oil extraction, but without relation to the local agricultural world. In addition, throughout the whole of Central Italy, a plant for the first processing of hemp and flax straws is lacking.

## Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	Chimica Verde Bionet	Via Ristoro D'Arezzo 78/81 52100 Arezzo AR Italy	0575 401898	info@chimicaverde.it
Partner	Università di Pisa - Dipartimento di Scienze Agrarie, Alimentari e Agroambientali	Via del Borghetto 80 56124 Pisa PI Italy	050 2216090	disaaa@agr.unipi.it
Partner	Manifattura Maiano Spa	Via Maiano 207 50013 Capalle FI Italy	055 894071	maiano@maiano.it
Partner	Unibloc srl	Località Bellavista 25 53036 Poggibonsi SI Italy	0577 9783	nfo@unibloc.it

<b>Role</b>	<b>Azienda</b>	<b>Address</b>	<b>Telephone</b>	<b>E-mail</b>
Partner	Ricerche Sperimentali Montale Srl	Strada Statale Fiorentina 360 51100 Pistoia PT Italy	0573 98401	
Partner	Azienda Agricola Stella Dei	Italy	335 7789140	
Partner	Società Coop. Agr. Il Rinnovamento Agricolo	Località Molino Del Rotone Snc 56032 Buti PI Italy	0587 758053	domenico.dalessio@tiscali.it
Partner	CREA-AA Agricoltura e Ambiente	Via della Navicella 4 00184 Roma RM Italy	055 2492256	aa@crea.gov.it
Partner	CREA-CIN - Centro di Ricerca per le Colture Industriali	Via di Corticella 133 40128 Bologna BO Italy	051 6316811	cin@crea.gov.it
Partner	Legambiente Toscana	Via Giampaolo Orsini 44 50126 Firenze FI Italy	055 681 0330	info@legambientetoscana.it
Partner	Effegi Srl	Via Leopoldo di Toscana 1/B 52048 Monte San Savino AR Italy	0575 848091	carla@gallorini.eu
Partner	Consorzio Forestale delle Cerbaie	Via di Ferretto 3 50054 Fucecchio FI Italy	0571 1695293	info@consorzioforestalecerbaie.it
Partner	Accademia dei Georgofili	Logge Uffizi Corti 50122 Firenze FI Italy	055 212114	accademia@georgofili.it

Role	Azienda	Address	Telephone	E-mail
Partner	Azienda Agricola Musu Davide	Via Poggio alla Farina 53 56043 Fauglia PI Italy	346 3835557	
Partner	Tecnowall srl	Via Sardegna 15 53036 Poggibonsi SI Italy	0577 988285	info@tecnowall.it
Partner	ERATA - Ente Regionale di Assistenza Tecnica in Agricoltura	Via degli Alfani 67 50121 Firenze FI Italy	055 293354	fedtosca.erata@confagricoltura.it
Partner	Azienda Agricola Roghi Mauro	Ripa dell'Olmo 94 52100 Arezzo AR Italy		
Partner	Eco Officina Agraria Srl	Via di Castelsecco 34 52101 Arezzo AR Italy	349 9720709	
Partner	Consorzio Polo Tecnologico Magona	Via Magona 57023 Cecina LI Italy	0586 632142	
Partner	Agroils Technologies spa	Viale Mazzini 18 50132 Firenze FI Italy	055 4599260	info@agroils.com

### Link utili

Titolo/Descrizione	Url	Tipologia
Video del progetto	<a href="https://www.youtube.com/watch?v=SwzgWreM818">https://www.youtube.com/watch?v=SwzgWreM818</a>	Materiali utili
Sito web del progetto	<a href="http://www.cobraf.it">http://www.cobraf.it</a>	Sito web

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Titolo/Descrizione	Url	Tipologia
Setting up phase	<a href="http://www.chimicaverde.it/cobrafcoprodotti-bioraffinerie/">http://www.chimicaverde.it/cobrafcoprodotti-bioraffinerie/</a>	Sito web

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