

Valorisation of the by-products derived from Piantone di Mogliano olives through the implementation of new IR drying processes

Riferimenti

Tipo di progetto

Gruppo Operativo

Acronimo

V.A.S.O.

Tematica

Gestione dei sottoprodotti agricoli

Information

Time frame

2019 - 2022

Durata

36 months

Partners (no.)

6

Regione

Marche

Comparto

Olivicoltura

Localizzazione

ITI32 - Ancona

ITI33 - Macerata

Costo totale

€504.489,80

Fonte di finanziamento principale

Programma di sviluppo rurale

Programma di sviluppo rurale

2014IT06RDRP008: Italy - Rural Development

Programme (Regional) - Marche

Parole chiave

Waste, by-products and residues management

Energy management

Food quality / processing and nutrition

Sito web

<http://www.soleebonta.com/index.php/it/progetto-va-s-o-id-27813>

Project status

completed



Objectives

Enhancing the by-products of olive processing: hazelnut and paté. For the first, through the creation of a line of integrated pitting with a prototype of IR dryer with low environmental impact. For olive paté, developing a line of baked products containing a significant percentage of by-product as an ingredient. Also IR drying some products with olive paté. Finally, give scientific evidence of the persistence of a high quantity of polyphenols both after baking and after IR drying.

Activities

The project aims to enhance the by-products of olive processing, using in all the planned activities olives of the Piantone di Mogliano cultivar (protection of biodiversity), through the application of an innovative technology with low environmental impact for IR ray drying of lignin (hazelnut) and developing, with olive paté, a soil improver for agricultural land, a cattle feed and a new line of functional bakery products (also dried by IR irradiation) rich in polyphenols and fiber.

Context

The olive sector is constantly recovering in the Marche Region: over a third of the tree crops are in fact olive groves and 80% of the Marche's farms grow olive trees. Moving towards more and more quality productions linked to the territory is causing a progressive recovery of biodiversity connected to local varieties. However, the search for quality determines a lower percentage of oil obtained from controlled-temperature production processes. The oil extracted is in fact between 10-15% of the total (in kg) of

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pressed olives. The remaining part, called sansa, is a waste to be disposed of. Pewters are already on the market to separate the woody residues of the olive core (c.d. nocciolino) from the liquid part of the pomace. Once dried, this by-product has a higher calorific value than pellets and is therefore an excellent fuel for boilers. The limits to the development of the hazelnut is mainly due to the high costs, in terms of energy and volumes due to economies of scale, for drying plants. The remaining liquid part of the pomace is very rich in polyphenols and fibers, but it oxidizes very quickly and can only be stored for a long time at low temperatures. Moreover the very high acidity (correlated to the presence of polyphenols) makes it impossible to take it in pure form as a food. For these reasons, this by-product is currently sold, with very low value, to biogas production plants. Being able to introduce it to the market as an ingredient for human and animal nutrition and as an organic soil conditioner for agricultural land could represent a significant source of increase in profitability margins not only for all companies in the olive sector, but also for farmers and bakers.

Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	Gastreghini Srl	Via Abbruzzetti 6 60035 Jesi AN Italy	0731 211006	gastreghini@soleebonta.it
Partner	Corradini Sas	Via Macina, 57/58 62010 Mogliano MC Italy	0733 556548	info@corradinisas.it
Partner	Azienda Agricola Corradini Corrado	Via Macina, 57/58 62010 Mogliano MC Italy	0733 556548	info@corradinisas.it
Partner	Caseificio il Faro SAS	Contrada Prati, 6 62010 Mogliano MC Italy	0734 901737	info@caseificioilfaro.it
Partner	Università Politecnica delle Marche	Piazza Roma, 22 60121 Ancona AN Italy	0712 204918	info@univpm.it

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Role	Azienda	Address	Telephone	E-mail
Partner	CIA Provinciale di Ancona	Corso Stamira, 29 60100 Ancona AN Italy	0712 00437	ancona@cia.it

Pratice abstract

Description

IR radiation has been applied in the food industry for many years. In this project we intend to apply to the drying processes of different biological materials: olive lignin and fresh bread, in order to eliminate emissions and reduce energy consumption to dehydrate, without compromising the quality of the products. In the bread-making market there are products with added polyphenols and / or fiber. The project intends to develop a line of bakery products naturally rich in polyphenols and fiber, deriving from the addition of by-products of olive paté. Its high acidity prevents its human consumption in pure form, so the main need for adaptation lies in the development of recipes for leavened that are safe, functional but also of high sensorial quality. The introduction of paté as animal feed has already been successfully applied to other cattle, while pomace as a base for compost, successfully used for intensive cultivation.

Link utili

Titolo/Descrizione	Url	Tipologia
www.soleebonta.it	http://www.soleebonta.com/index.php/it/progetto-va-s-o-id-27813	Link ad altri siti che ospitano informazioni del progetto
Facebook Gruppo Sole e Bontà	https://www.facebook.com/grupposoleebonta2/?fref=ts	Link ad altri siti che ospitano informazioni del progetto
InnovaMarche	https://www.innovamarche.it/gruppi-operativi/gruppi-operativi-2019	Link ad altri siti che ospitano informazioni del progetto
YouTube Gruppo Sole e Bontà	https://www.youtube.com/channel/UChDrwOPcpdizRUTvf8M0Jog	Materiali utili
Documenti e video del progetto	https://www.soleebonta.com/index.php/it/progetto-va-s-o-id-27813	Materiali utili

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