IMPROVING AGRI-FOOD INDUSTRIES

OPERATIONAL GROUPS AND INNOVATIVE PROJECTS

Unión Europea
Fondo Europeo Agrícola de Desarrollo Rural
Europa invierte en las zonas rurales

GOBIERNO DE ESPAÑA
MINISTERIO DE AGRICULTURA, PESCA Y ALIMENTACIÓN

RED RURAL NACIONAL

COORDINATION:
National Rural Network Management Unit
Subdirección General de Dinamización del Medio Rural (General Sub-directorate of Rural Revitalization)
Dirección General de Desarrollo Rural, Innovación y Formación Agroalimentaria (General Directorate of Rural Development, Innovation and Agri-food Training)

EDITING AND CONTENT:
Subdirección General de Dinamización del Medio Rural (General Sub-directorate of Rural Revitalization)

#Es Rural Es Vital

MINISTRY
OF AGRICULTURE, FISHERIES
AND FOOD

June 2022

Edita:
© Ministry of Agriculture, Fisheries and Food,
General Technical Secretary
Publication Centre

Improving Agri-food Industries.
Operational Groups and Innovative Projects.
NIPO: 003221043

Catalogue of Publications by the General State Administration:
https://cpage.mpr.gob.es/

Distribution:
Paseo de la Infanta Isabel, 1
28014 Madrid
Teléfono: 91 347 55 41
Fax: 91 347 57 22
www.redruralnacional.es

www.mapa.gob.es
centropublicaciones@mapa.es

OPERATIONAL GROUPS AND INNOVATIVE PROJECTS

IMPROVING AGRI-FOOD INDUSTRIES

 # EsRuralEsVital

UNIÓN EUROPEA
Fondo Europeo Agrícola de Desarrollo Rural

GOBIERNO DE ESPAÑA
MINISTERIO DE AGRICULTURA, PESCA Y ALIMENTACIÓN

RED RURAL NACIONAL

TABLE OF CONTENTS

Extremadura

Catalonia

Islas Baleares

La Rioja

H2020 Programme

Introduction

This publication compiles information from **Operational Groups and Innovation Projects focused on improving agri-food industries** in Spain. **The National Rural Network (NRN)** has been entrusted with creating this publication to meet its purpose of disseminating and raising awareness about innovative initiatives and fostering the exchange and transfer of knowledge from the sphere of research to practical applications.

Innovation currently plays a primary role in local, national and European public policy.

The main instrument to promote innovation in rural areas is the **European Innovation Partnership for agricultural productivity and sustainability (EIP-AGRI)**. The EIP-AGRI aims to speed up innovation in the agri-food and forestry sector, and therefore in rural areas, as well as disseminating successful examples of experience in the territory through specific innovative projects. In addition, it seeks to match the range of science available to the demand from different sectors and help solve specific problems or make the most of opportunities in order to help increase competitiveness and improve living conditions in rural areas.

The Operational Groups (OGs) are groups of stakeholders from different sectors: agriculture, livestock, forestry, agri-food and forest-based industries, from public or private R&D&I centres, training and consultancy centres, technology centres, non-profit institutions, and more. These parties get together to solve a problem or make the most of an opportunity using an innovative, multisectoral and collaborative approach via an innovative project. Their work is subsidised by **EAFRD** through **national and regional rural development programmes** to set up the group and prepare its innovation project, as well as to implement it.

Furthermore, in the European context, there are other policies with synergies appearing out of their commitment to innovation in rural areas. The **Horizon 2020 research framework programme** covers matters related to the agri-food and forestry sectors. Under this umbrella, there are thematic networks and research projects.

This dossier gives the results from the exchange of experiences between Operational Groups and Innovative Projects on improvement in the management of agri-food industries organised by the NRN; and information units describing the Operational Groups and Innovative Projects, fostered by Measure 16 of the rural development programme in Spain in this matter, and Horizon 2020 projects, whether or not they participated in the conference, in order to help disseminate them and enable the various stakeholders to consult them.

Exchange of experiences between Operational Groups and Innovative Projects on the theme of improving agri-food industries

The National Rural Network (NRN) organised an exchange of experiences on 16 June 2020 between Operational Groups, innovative projects and Horizon 2020 groups that are working on the theme of Improving the Agri-food Industry. The exchange of experiences was held virtually with 90 attendees representing research centres, agricultural organisations, technical advisors, public administration, and development groups from across the country.

Objectives

The meeting was held with the following aims:

- To promote the creation of networks and synergies among those who work or have interest in the agri-food industry.
- To contribute to the exchange of information and results among the different Operational Groups and projects of EAFDR and the European research programme H2020 connected to this theme.
- To increase visibility of the innovation work carried out by the Operational Groups and innovative projects.

Conference held in two stages:

- An analysis was made of the work being carried out by the NRN as regards disseminating the work by the Operational Groups and the innovative projects. Furthermore, the innovative measures in rural development programmes promoted by EIP-Agri were also examined.

- With the aim of bringing about an exchange of innovative solutions in the sphere to encourage improvements in agri-food industries, the attendees saw presentations by nine Operational Groups and Innovative Projects from EIP-AGRI and the H2020 programme, given in three parallel sessions, after which the key points discussed in each room were shared.

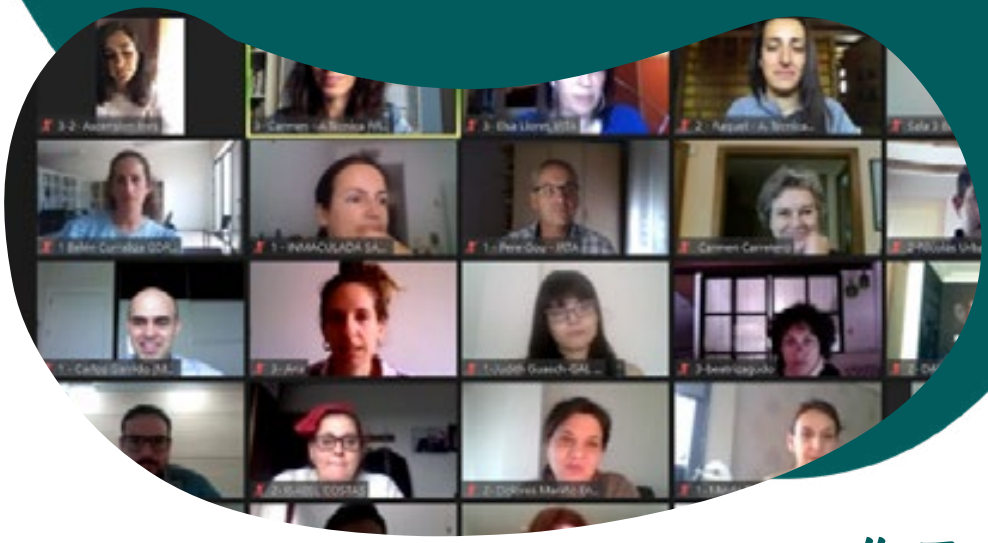
Key ideas:

- It was noted that the agri-food industry is developing new techniques for preserving food that will improve food safety while maintaining its organoleptic characteristics, facilitating the opening of new markets and increasing the competitiveness of the agri-food industry from Spain.

- The importance of effectively transmitting project results was underscored. For this reason, it's essential to organise conferences and workshops that spread innovations. Local entities can play an important role in this process.

- The Covid-19 crisis is affecting the sector across the board, even if the effects are predicted to be temporary. To address this, Operational Groups are redefining their activities in order to reach the objectives they set in the creation phase.

For more information about the conference, click here



EsRuralEsVital

Operational Group and Innovative Project

Detection and eradication of bitter almonds

1

RURAL DEVELOPMENT PROGRAMME
NRDP

YEAR CREATED
2016

PROJECT COORDINATOR
SAB - ALMENDRAVE

PARTNERS

Aeofruse
Descalmendra
Arboreto SAT
Borges Agricultural & Industrial Nuts
Crisol de Frutos Secos SAT
Mañan Soc. Cooperativa
Unió Nuts

almendrave@almendrave.com

Description

The Spanish almond market is experiencing a problem that puts the entire national almond sector in danger: bitter almonds mixed in with batches of sweet almonds. The bitter flavour poses an important commercial limitation and could create a lack of confidence in the product.

The project aims to develop systems that can be used at farm, production and industrial scale to detect and eliminate bitter almonds.

Expected results

- Improved competitiveness of primary producers for better integration in the agri-food chain.

"The presence of bitter almonds can lead buyers to reject entire lots, putting the prestige of the Spanish almond sector in danger".

Objectives

- Developing a field agronomical evaluation of bitter trees and marking their geolocation for possible elimination.
- Using laboratory tools to develop models that discriminate between bitter and sweet almonds so they can be separated.
- Validating innovative technology prototypes that allow for detection and elimination of individual bitter almonds.

GO
Detección y Erradicación de Almendra Amarga

Operational Group and Innovative Project

Pacano (Pecan): Innovation in cultivation and processing adapted to climate change

2

RURAL DEVELOPMENT PROGRAMME
RDP - Andalucía

YEAR CREATED
2018

PROJECT COORDINATOR
Grupo de Desarrollo Rural Valle del Guadalhorce

PARTNERS

José Miguel Pastelero

Pastelería Dulcinea

Pecan del Sur

Fundación para las Tecnologías Auxiliares de la Agricultura

https://grupooperativopacano.wordpress.com
info@valledelguadalhorce.com

Description

The hardy pecan has been cultivated in the Guadalhorce Valley for more than 30 years, however, in this area, little is known about techniques, facts or previous experiences with the crop. The tree's fruit, the pecan, has a nutritional composition characterised by a high concentration of lipids and calories. These lipids are made up of heart-healthy fatty acids.

This project seeks to develop the economic, social and environmental profitability of pecan growing and processing in Andalusia to make it an innovative alternative for irrigated zones in this region. To do so, different stages of the food chain will be studied and evaluated including farming, storage and processing.

In particular, information will be collected on the development of this crop and its uses, taking into account different storage methods, with the goal of designing handling protocols that reduce the presence of contaminants in bulk pecans. Different preservation and processing techniques will be studied including using healthy pecan butter to create new products.

Objectives

- Creating a working group to oversee all activities.
- Defining the pecan's qualities.
- Developing new products made from pecans such as healthy butters and snacks targeting the healthy baked goods sector.
- Studying storage techniques in order to commercialise and package pecans.

Expected results

- Introduction of the hardy pecan into Andalusian agriculture.
- Commercialisation of the pecan.

"The pecan offers great versatility in the kitchen and it's healthy thanks to its elevated content of fatty acids like omega-3, which confers significant health benefits".

Operational Group and Innovative Project

Innoquesar: innovation applied to integrated traceability and the artisanal cheese sector's value chain

3

RURAL DEVELOPMENT PROGRAMME
NRDP - Asturias

YEAR CREATED
2019

PROJECT COORDINATOR
CTIC Centro Tecnológico

PARTNERS

Asincar

READER Asturias

ADRIOA

carmen.bouzas@ctic.es

Description

Asturias is the largest cheese-producing area in Europe, with more than 40 varieties of artisanal cheeses made mainly by small family dairies in rural areas.

The vast majority of these companies keep track of their processes and food traceability with paper records. Such a system is not very efficient to keep economic and financial control or to quickly get the necessary information to respond to a possible health alert or take business strategy decisions.

Innoquesar is going to foster modernisation and the take-up of Industry 4.0 tools in these small dairies. To do so, it will put a computer app at their disposal for integral management of their procedures.

Furthermore, a virtual twin of an exemplary cheese factory will be created, so that these improvements can be seen at work with immersive virtual reality.

Objectives

- Demonstrating the advantages of installing sensors in the cheese making process to improve how each stage is managed.
- Overcoming resistance to change and promoting adaptation to Industry 4.0 by small family businesses.
- Promoting a productive and competitive agri-food production sector.
- Improving management and financial oversight in these small businesses.

Expected results

- Small rural businesses know how Industry 4.0 could benefit them.
- Accelerated modernisation of small dairies through adoption of computer and Industry 4.0 tools.

"One of the principal difficulties has been the low or no rate of technology adoption on the part of people in the sector".

INNO QUESAR
Innovación aplicada a la trazabilidad integral y cadena de valor del sector quesero artesanal

FEADER

Operational Group and Innovative Project

MINPAHS: Improving the natural smoking process and preventing pollutants from passing to food

4

RURAL DEVELOPMENT PROGRAMME
NRDP - Asturias

YEAR CREATED
2019

PROJECT COORDINATOR
ASINCAR Centro Tecnológico

PARTNERS

Embutidos Maybe, S.A.
Arango e Hijos, S.L.
Productos Álvarez, S.L.
Consejo Regulador IGP Chosco de Tineo

mayte@asincar.com

Description

Smoked food is a tradition in areas where the climate doesn't allow food products to be dried for storage. The process used in the agri-food industry is direct smoking, which consists of burning wood to obtain embers which then generate the necessary smoke.

The smoking process has various objectives depending on the product, including eliminating humidity, fermenting, or imparting sensory qualities. No checks are made during the process, not even to check the composition of the smoke being generated and released into the atmosphere.

This project seeks to identify the parameters that provoke changes to products during smoking and the optimal conditions for generating an end product that meets preestablished specifications, and install sensors for these parameters to control and standardise the smoking process.

Objectives

- Learning the condition of the products during the entire process and establishing reference parameters for each product.
- Establishing control measures for the installation of sensors.

Expected results

- Optimisation of combustion and control of process parameters to minimise the emission of pollutants.

"To improve traditional smoking processes, it's very important to generate data and control the process's parameters".

ASINCAR

Operational Group and Innovative Project

RESUPEQ: Repurposing whey from small cheesemakers

5

RURAL DEVELOPMENT PROGRAMME
RDP - Asturias

YEAR CREATED
2019

PROJECT COORDINATOR
ASINCAR Centro Tecnológico

PARTNERS

IPLA-CSIC

S.A.T. Los Caserinos

Dulce Grado, S.L.

AQA

jesus.m@asincar.com

Description

The cheesemaking process produces whey, a by-product that is highly contaminating to water and the environment. However, whey is a high-quality source of nutrition and calories. It can be an important source of carbohydrates, protein, vitamins and minerals for human consumption. However, whey has a high water content, which increases the cost to transport it and makes commercialisation unviable.

The RESUPEQ project seeks to develop products for human consumption that make use of cheesemaking whey without requiring a large investment.

Objectives

- Identifying treatments required to stabilise and store whey for its use as an ingredient in products safe for human consumption.
- Establishing production processes and selecting ingredients.
- Determining the nutritional properties of the final products.

Expected results

- Repurposed whey adapted for human consumption.

"The most interesting part of the project is the collaboration we're seeing among all the participants, the synergies, and the interaction between technology centres and companies".

Operational Group and Innovative Project

CAMIDECOL: Categorising honeys and defending the hive

6

RURAL DEVELOPMENT PROGRAMME
RDP - Asturias

YEAR CREATED
2018

PROJECT COORDINATOR
ASINCAR Centro Tecnológico

PARTNERS

Asturias Apícola S.L.

Promiel Asturias

SERESCO

santiagopf@asincar.com

Description

The honey sector in Asturias is booming, and the percentage of professional beekeepers is increasing. Hive production is affected by different forces, from diseases and theft of hives to attacks by wild animals and abrupt changes in climate, among others.

Categorising Asturian honeys is also challenging because there is wide variation in their taste and appearance and they are also influenced by the pollen source.

The CAMIDECOL project seeks to develop a prototype monitoring system in different locations and hives using sensors that document the physical characteristics of the area.

Objectives

- Establishing prototypes for comprehensive monitoring of the hive.
- Communicating and analysing data for specific strategies that limit production losses.
- Developing a descriptive organoleptic profile and accurate categorisation for different Asturian honeys to increase their commercial value.

Expected results

- Sustainable and efficient production that respects bees and the environment.
- Expanded beekeeping that also protects the environment.

"The sector holds a lot of potential for monitoring and improving operations".

Operational Group and Innovative Project

MATSOS: More sustainable plastic material in the meat sector

7

RURAL DEVELOPMENT PROGRAMME
RDP - Cataluña

YEAR CREATED
2017

PROJECT COORDINATOR
INNOVACC

PARTNERS

Embotits Salgot SA | Embutidos Monells SA | Matadero Frigorífico del Cardoner SA | IRTA

COLLABORATING COMPANIES
ENPLATER GROUP

KLÖCKNER PENTAPLAST

innovacc@olot.cat

Description

The European strategy on plastic proposed a series of actions in 2018 to make the transition toward a circular economy that reduces waste and increases the rates of recycling and reuse. To achieve 100% reusable, recyclable or compostable plastic containers commercially available by 2030, investment must be made in sustainable solutions that make efficient use of resources without compromising the shelf life and safety of packaged foods.

The MATSOS project seeks to find more sustainable plastic materials to store fresh, cooked and cured meat products.

Objectives

- Carrying out a study and analysis of materials, packaging systems and characteristics of products currently on the market to identify next steps in obtaining more sustainable plastic.
- Designing, fabricating and categorising new material structures.
- Studying the packaged products over time and determining their shelf life in marketplace conditions.
- Sharing results with the sector.

Expected results

- Development of more sustainable plastic packaging designed to be recycled without compromising the shelf life of the meat products studied.

"Improving the sustainability of plastic packaging can compromise characteristics sought by the consumer, such as transparency, so those characteristics must be introduced or improved".

Operational Group and Innovative Project

Creating an integrated management platform for pork sector data

8

RURAL DEVELOPMENT PROGRAMME
RDP - Cataluña

YEAR CREATED
2015

PROJECT COORDINATOR
FECIC

PARTNERS

PORCAT

administracio@fecic.es

Description

The pork sector is positioned as the top earner within Catalonian agriculture and food industry sectors. However, in spite of its evolution toward a more international market, the sector hasn't changed the way it documents and manages procedures. To be able to offer a comprehensive guarantee in terms of food quality and safety, it's important to connect the different registries and data generated throughout the food chain.

The project seeks to create a large database that collects and centralises different registries, audits and certifications that already exist in the pork sector, first, to give better visibility to the entire production chain, and second, to underscore the value of the data, which can be used to improve operator competitiveness.

Objectives

- Aligning audits, registries, certifications, and more, whether conducted by public or private entities, during fattening, transport and slaughter.
- Initiating the process of identifying all the existing data among different operators and administrations.

Expected results

- Creation of an integrated management platform for the pork sector that offers options related to requests, traceability, farm register and health management.

"The platform has the capacity to offer a series of additional services beyond simply entering data, and it can store large volumes of information".

PORCAT

Operational Group and Innovative Project

Promoting the cultivation of Catalonian beans through innovative preserves bearing the Mongeta del Ganxet PDO seal

9

RURAL DEVELOPMENT PROGRAMME
RDP - Cataluña

YEAR CREATED
2018

PROJECT COORDINATOR
Fundació Miquel Agustí

PARTNERS

Conserves Ferrer S.A.

Cooperativa Agrícola el Progrés-Garbí

Consell Regulador DOP Mongeta del Ganxet

Institu de Recerca i Tecnologies Agroalimentàries (IRTA)

recerca@fundaciomiquelagusti.cat

Description

The Ganxet bean is a high-quality legume appreciated by consumers. However, it is rarely available as a preserve because the techniques used (especially sterilisation) alter its organoleptic characteristics, making it more like other preserved beans, and when consumers can't distinguish the superior quality of Ganxet beans, they aren't willing to pay a higher price.

The project seeks to reduce the effects of heat treatment to maintain the objective sensory differences between an excellent raw material in preserved form and a lower quality one. To do so, they will develop solutions at different levels, from the type of germplasm used to growing and environmental conditions to preservation methodology.

Objectives

- Optimising the cultivation and heat treatment of preserved Ganxet beans.
- Achieving a product recognised for its sensory qualities that maintains the characteristics of the PDO Ganxet bean even after heat treatment.
- Allowing companies that are part of the project to enter the preserved bean market, nationally as well as internationally, and profit from the PDO stamp attached to this bean.

Expected results

- Development of a series of recommendations to optimise the cultivation of new varieties of Ganxet beans in the geographic area of activity.
- Development of preservation protocols adapted to the raw material that allow it to retain its full sensory potential.
- Development of tools for indirect phenotyping using near infrared spectroscopy, which facilitates rapid testing without damaging the raw material.

"The Operational Group formed to carry out this project is made up of producers, processors, distributors and researchers dedicated to the Ganxet bean".

Operational Group

FRILAMB: Demonstration of the supercooling technique to increase the shelf life of fresh lamb

10

RURAL DEVELOPMENT PROGRAMME
RDP - Extremadura

YEAR CREATED
2017

PROJECT COORDINATOR
Agroalimentaria S.L.

PARTNERS
Corderex
Extrequipa
Universidad de Extremadura

beatriz@eagroup.coop

Description

Today, refrigerated lamb has a short shelf life of approximately seven or eight days, which prevents it from being exported to markets such as the Middle East. Exported lamb must be frozen, which reduces the price, quality and product differentiation at its destination.

This project seeks to develop a technique to lower the temperature of the meat significantly, to the border between refrigerated and frozen. This means the temperature must be kept stable during transportation and storage.

Objectives

- Analysing the heat transfer coefficients of lamb meat.
- Developing a packaging system for the product.
- Designing a tunnel freezer for use with the supercooling technique.

Expected results

- Solutions to challenges posed by the freezing process.
- Increased competitiveness of livestock farmers.

"The Operational Group is working to be able to export and sell lamb meat with the same quality and safety guarantees in Middle Eastern countries, where large quantities of lamb are consumed".

Operational Group and Innovative Project

Hamburgers: Brown ones and green ones 11

RURAL DEVELOPMENT PROGRAMME
RDP - Galicia

YEAR CREATED
2017

PROJECT COORDINATOR
VERINBIOCOOP S.C.G

PARTNERS

AGACA

CRAEGA

Centro Tecnológico de la carne

sede@verinbiocoop.com

Description

Galicia is home to 100 producers of organic extensive beef cattle, made up largely of native species. The Rubia Gallega breed is common and widely available in the marketplace. The Morena Gallega breed is currently in danger of extinction because it doesn't meet market or consumer standards for morphology, meat yield, meat color, or other characteristics. However, it provides high-quality cuts of meat.

This project aims to make raising beef cattle breeds in danger of extinction profitable, focusing on organic production of the Rubia Gallega breed. Full advantage will be taken of these animals to offer gourmet, differentiated products with high added value.

Objectives

- Focusing efforts on increasing the size of native cattle herds, especially in extensive organic operations.
- Making it profitable to sell organic meat from native breeds.
- Uniting local livestock producers to reach consumers interested in the environment and local, organic products.

Expected results

- Promotion of raising native breeds in danger of extinction.
- Maintenance of woodland health through extensive system of cattle raising.

"The native breeds at risk of extinction have great potential for use in gourmet products, given their excellent organoleptic properties".

Operational Group and Innovative Project

Tres Fuciños (Three pigs): New management systems and implementation of a Celtic pig classification system

12

RURAL DEVELOPMENT PROGRAMME
RDP - Galicia

YEAR CREATED
2017

PROJECT COORDINATOR
Tres Fuciños

PARTNERS
ASOPORCEL
CTC
AGACA

administracion@tresfucinos.gal

Description

Most Celtic pig products currently on the market come from animals that were raised in different ways (different feed, growth rates, and age at slaughter, and more). This is because there is generally no coordination between pork processing operations and pig farming. As a result, processed products vary in their characteristics and don't take full advantage of the richness of the raw material with which they're made.

The project seeks to change this situation. Since its members are both farmers and processors, it is well positioned to hone farming guidelines to guarantee an optimal, quality processed product.

To achieve this, three types of feed will be evaluated and compared against conventional feed while varying the age of the groups.

Objectives

- Evaluating meat and carcass quality from the perspective of conformation and fat content.
- Developing a fast, simple and efficient means of classification to make efficient use of resources and increase the yield from cuttings of this type of carcass.

Expected results

- Establishment of norms for standardised classification of this native breed carcasses.
- Establishment of criteria for commercialisation.
- Increased competitiveness, development and consolidation of Celtic pig production.

"Celtic pig carcasses offer a large percentage of lean meat, and a different distribution of fat and slower growth than other breeds. Because the carcass classification system commonly used is based on the characteristics of other breeds, the Celtic pig tends to receive negative ratings".

Operational Group

The Majorcan Carob Tree

13

RURAL DEVELOPMENT PROGRAMME
RDP - Illes Balears

YEAR CREATED
2017

PROJECT COORDINATOR
Conselleria de Agricultura

PARTNERS

Productos Martín

juanaverger@esgarroverdemallorca.com

Description

The agricultural and food qualities of the carob tree – few pests and diseases, sustainable, adapts easily to drought and poor soils – have led to an increase in its cultivation. The carob tree is used to make bran for animals, thickeners, preservatives, and molasses, among other products. The Balearic Islands are one of the largest producers of carob trees at the national level and have a large number of unique varieties.

This project seeks to promote research and development for the organic Majorcan carob tree. Specifically, it is focused on gathering morphological and chemical information on six Majorcan varieties in order to analyse the market potential for each of them. The varieties to be studied were: Burgadera, Duraió, Roja, Pic d'abella, Vera and De la mel.

Objectives

- Observing the morphological differences, yield, and fiber and sugar content of the studied varieties.
- Developing an experimental field for growing the varieties under study.

Expected results

- Increased knowledge about the six main Majorcan varieties.
- Determination of the market potential of each of the six varieties.

"This represents the first analysis of the predominant varieties of carob tree in Majorca".

Operational Group

FINALMEAT: Integrated innovation in meat production

14

RURAL DEVELOPMENT PROGRAMME
RDP - La Rioja

YEAR CREATED
2018

PROJECT COORDINATOR
Ctic Cita

PARTNERS

Asociación de Ganaderos de las 7 villas

Bravo Food design

Industrias Cárnicas Sáriz

mrioja@ctic-cita.es

Description

High-quality meat is achieved through innovation in raising beef calves, above all in controlling their feed and through new slaughtering practices that improve quality parameters currently impacted by the methods used.

The project FINALMEAT seeks to develop and promote competitiveness of the livestock sector in La Rioja. To do so, it has taken on designing a prototype meat snack, using high-quality meat and food processing and ingredients technology.

Objectives

- Evaluating native La Rioja cattle according to parameters related to meat quality, such as breed, age and diet.
- Innovating to improve cattle slaughter conditions that affect meat quality, starting with animal well-being.
- Validating the results through an analysis of meat quality parameters.
- Developing a new meat product and validating its sensory appeal.

Expected results

- Focused attention by the La Rioja livestock sector on new lines of business based on high-quality raw materials associated with a specific location.
- Improved cattle slaughter conditions to preserve meat quality, starting with animal well-being.
- Reduced gap between what research has to offer and the needs of the livestock and meat sector, creating added value.

"This initiative will benefit the La Rioja livestock sector. The project's tools will help the sector improve cattle quality and slaughter conditions, which will result in meat of higher quality".

Horizon 2020 Project

FieldFOOD: Integration of PEF in making higher quality, safer, more competitive foods

15

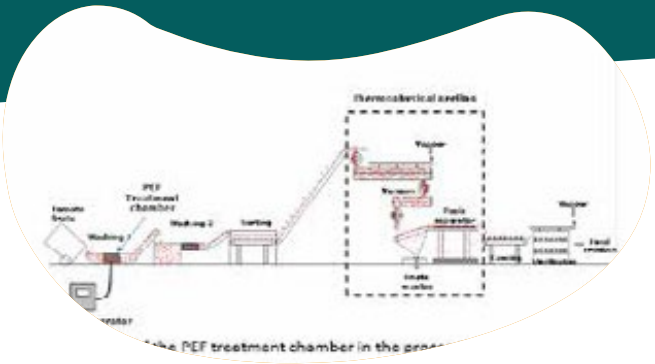
HORIZON 2020 PROJECT

YEAR CREATED
2015

PROJECT COORDINATOR
Universidad de Zaragoza

PARTNERS

TU Berlín | ProdAl | University College Dublin | EFFoST | Agrinarsa | The Apple Farm | Diesdorfer Susmost – Weinkelterei & Edeldestille GmbH | F.P.D. Srl | Bodegas Aragonesas S.A. | Energy Pulse Systems LDA | CIRCE



info@infoam-eu.org

Description

Technological innovation is a driving force in maintaining and improving competitiveness of the European food industry in the world market. The development of innovations capable of having a market effect is increasingly attractive for the agri-food industry.

Pulsed electric field (PEF) technology is an innovative food processing technology. This process allows pasteurisation of heat-sensitive liquids using low energy and reducing deterioration of food quality to a minimum. However, in spite of its advantages, this technology's applications are limited.

The FieldFOOD project seeks to facilitate and accelerate the industrial use of PEF through a range of activities and demonstrations of real and industrial prototype food products.

Objectives

- Conducting an analysis of the process to integrate PEF technology.
- Designing portable, modular, low-cost pulse generators.

Expected results

- Improved process performance and increased productivity across the industry.
- Reduced environmental impact of food processing through an increase in energy efficiency.

"New-generation PEF technology allows the production of healthier and safer foods at lower cost".

The NRN is the hub connecting all of the people and entities related to the rural environment with the aim of raising awareness of Rural Development Programmes and providing access to them. At the same time, its purpose is to make the population aware of the importance of the rural environment for our present and our future.

The unit responsible for the NRN is the Subdirectorate General for Rural Revitalization within the Directorate General of Rural Development, Innovation and Agri-food Training of the Ministry of Agriculture, Fisheries and Food.

 # EsRuralEsVital

IMPROVING AGRI-FOOD INDUSTRIES

Unión Europea
Fondo Europeo Agrícola de Desarrollo Rural
Europa invierte en las zonas rurales

GOBIERNO DE ESPAÑA
MINISTERIO DE AGRICULTURA, PESCA Y ALIMENTACIÓN

RED RURAL NACIONAL