

Automated cutting of meat and meat products to prevent accidents at work and improve productivity and hygiene

Summary

Development and testing of the following prototypes are planned:

- Automation of the meat cutting process at existing band saws for all types of meat industries, but in slaughterhouses and cutting plants in particular. The aim is to optimise the process involved in cutting semi-frozen and deep-frozen meat by designing an automatic band saw with a hygienic design to make the process safer and more efficient for both the operator and the product.
- Automation of the cutting of cured meat products, primarily for the ham production industry. The aim is to optimise the process involved in cutting cured meat by implementing a micro-cutting disc on a conveyor belt directly to the slicer, in order to optimise the processing from both a productive and safety perspective for the operator, and in terms of product quality.

Objectives

This project involves the objectives listed below:

1. Automated cutting of fresh and frozen meat and meat products.
2. High capacity and maximum output when cutting meat and meat products.
3. Improved safety for people working in these cutting areas.
4. An appropriate hygienic design for the cutting system to prevent cross-contamination and improve food safety.

Description of the measures planned in the project

WP1. Design, construction, implementation and validation of an automated band saw system for cutting fresh and frozen meat.

Task 1. Design and construction of a prototype

Task 2. Installation of the equipment in the plant

Task 3. Efficiency study of the automated system

WP2. Design, construction, implementation and validation of an automated micro-cutting system through the middle of the cured ham on a direct slicing conveyor belt.

Task 4. Design and construction of a prototype

Task 5. Installation of the equipment in the plant

Task 6. Study of the efficiency of the automated system

WP3. Analysis of results, reports and dissemination.

Task 7. Analysis of results

Task 8. Dissemination of results

Expected results and practical recommendations

The project aims to validate two innovative automated cutting systems, which will give the meat companies involved in this project and all meat companies in general greater precision when cutting fresh and frozen meat and processed meat products, appropriate hygiene to prevent cross-contamination and improve food safety, and a significant improvement in the safety of people working in these cutting areas.

Leader of the Operational Group

ORGANISATION: FRIGORÍFICS COSTA BRAVA, SA

CONTACT E-MAIL: info@costabrava.com

Coordinator of the Operational Group

ORGANISATION: INNOVACC

CONTACT E-MAIL: eudald.innovacc@olot.cat

Other members of the Operational Group (grant recipients)

ORGANISATION: ESTEBAN ESPUÑA, SA

CONTACT E-MAIL: etorres@espuna.es

Other members of the Operational Group (not recipients of the grant)

ORGANISATION: IRTA

CONTACT E-MAIL: teresa.aymerich@irta.cat

Subject area(s) of application

- Agricultural production system
- Agricultural practice
- Agricultural equipment and machinery
- Livestock farming and animal welfare
- Vegetable production and horticulture
- Landscape / Territorial management
- Pest and disease control
- Fertilisation and nutrient management
- Soil management
- Genetic resources
- Forestry
- Water management
- Climate and Climate Change
- Energy management
- Waste and by-product management
- Biodiversity and environmental management
- Food quality/processing and nutrition
- Supply chain, marketing and consumption
- Competitiveness and agricultural and forestry diversification
- General

Geographical area(s) of application

PROVINCE(S)	REGION(S)
GIRONA	LA GARROTXA LA SELVA

Dissemination of the project (publications, seminars, multimedia, etc.)

<https://www.innovacc.cat/2019/07/19/ajuts-obtinguts-per-a-7-projectes-pilots-de-grups-operatius-del-darp-2018/>

<https://www.innovacc.cat/2019/07/19/automatitzacio-de-tall-de-carn-o-derivats-carnis-per-eliminar-riscs-daccidents-laborals-i-millorar-productivitat-i-higiene-3/>

https://www.innovacc.cat/wp-content/uploads/2019/06/0-Presentaci%C3%B3-AG-10juny2019_compressed.pdf (PAGE 37)

Presentation to the Extraordinary General Assembly of 18/12/2019 (PAGE 47)

Project website

<https://www.innovacc.cat/2019/07/19/automatitzacio-de-tall-de-carn-o-derivats-carnis-per-eliminar-riscs-daccidents-laborals-i-millorar-productivitat-i-higiene-3/>

More information on the project

PROJECT DATES	TOTAL BUDGET
Start date (month-year): July 2019	Total budget: €190,800.00
Completion date (month-year):	DARP funding: €77,976.00
Current status: Underway	EU funding: €58,824.00
	Own funding: €54,000.00

With funding from:

Project funded through Operation 16.01.01 (Cooperation for Innovation) through the Catalan Rural Development Programme 2014–2020.

Order ARP/133/2017 of 21 June, approving the regulatory bases for grants for cooperation for innovation by promoting the creation of European Association for Innovation operational groups in the areas of agricultural productivity and sustainability and the execution of innovative pilot projects by those groups, and Resolution ARP/1282/2018, of 8 June, announcing the call for the grant.



Generalitat de Catalunya
Departament d'Agricultura,
Ramaderia, Pesca i Alimentació



Fons Europeu Agrícola
de Desenvolupament Rural:
Europa inverteix en les zones rurals