

POM-ZERO: apple production minimising the use of phytosanitary chemicals**Summary**

One of the current problems in apple production is the presence of residue on fruit, hindering its sale in certain markets while generating a degree of distrust among consumers, ultimately affecting sales. In this context, with current production systems where production and quality are key factors, achieving the goal of zero residue apple production is difficult. In most commercial apple orchards, alternative techniques to conventional chemical treatments are primarily used, but the dependence on phytosanitary applications is still considerable, hence the number of treatments using health protection products is still very high. In this context, use of biological pest and disease control combined with new cropping systems, such as use of mesh or alternative methods that are already widespread, such as mass capture or sexual confusion, are a step toward much more sustainable apple production with the ultimate goal of production with a higher overall quality and minimal environmental impact.

Objectives

The aim of this project is to produce residue-free apples with yields and qualities equal to those obtained in conventional or integrated production by improving the pest and disease management system in commercial apple orchards, integrating the latest developments prioritising cultural measures and biological or more sustainable products in order to significantly reduce chemical phytosanitary product treatments. Achieving this goal means promoting the use of alternative methods to plant protection products as well as biodiversity.

Description of the measures planned in the project

The project consists of applying and evaluating a global strategy for defence from disease and pests in order to obtain quality production with minimal residue. The actions include all the necessary measures for sanitary defence from disease and pests in commercial apple orchards to achieve quality production with minimum phytosanitary residue, using techniques with a minimal impact on the environment and which are safe for the human health. In this context, biological control methods and other alternative methods to phytosanitary treatments are prioritised.

Expected results and practical recommendations

The aim is to obtain production equivalent to that obtained using conventional disease and pest control strategies but with a significant reduction in the number of conventional plant protection product treatments and a lower residue content in the fruit. At the same time, the project hopes to achieve healthier production with a lower environmental impact, given that very few active substances will be used, while low or zero toxicity materials are prioritised.

Leader of the Operational Group

ORGANISATION: GIROPOMA COSTA BRAVA, SL

CONTACT E-MAIL: acreixell@giropoma.com

Coordinator of the Operational Group

ORGANISATION: GIROPOMA COSTA BRAVA, SL

CONTACT E-MAIL: acreixell@giropoma.com

Other members of the Operational Group (grant recipients)

ORGANISATION: PARETA RUBAU SL

CONTACT E-MAIL: jmpareta@gmail.com

ORGANISATION: SERRATER S.L.

CONTACT E-MAIL: serrater@activain.com

ORGANISATION: CAN RESTA SCP

E-MCONTACT E-MAIL: marc.resta@gmail.com

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

ORGANISATION: Mas Badia Foundation

CONTACT E-MAIL: joan.bonany@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)
Lleida Girona Barcelona	Garrigues Noguera Urgell Pla d'Urgell Segrià Baix Llobregat

	Baix Empordà Alt Empordà La Selva
--	---

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

One of the most important aims of the project is to inform producers of the results. Therefore, a number of transfer seminars will be held aimed at technicians and producers in the sector.

Project website

--

More information on the project

PROJECT DATES	TOTAL BUDGET
Start date (month-year): July 2019	Total budget: €122,222.44
Completion date (month-year):	DARP funding: €49,916.40
Current status: Underway	EU funding: €37,656.22
	Own funding: €34,649.82

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