

## Sustainable production of organic common wheat (*Triticum aestivum* L) for the production of bread products that provide greater digestive tolerance for consumers (BLATECOsalud)

### Summary

Organically grown wheat for baking may be an excellent option for the sector, since it allows adding value to the crop that in turn makes the crop more profitable, with consequent benefits for farmers. At the same time, this provides the opportunity to obtain a final product that is highly valued by consumers.

However, promoting the consumption of these products requires first solving a problem that is increasingly being discussed in the cereal industry: hypersensitivity to gluten. The increase in the number of people with health problems related to consuming this set of proteins means that more and more people are eliminating or reducing gluten from their diet. Genetic improvements in the cultivation of common wheat during the last century have enabled significant increases in yields and improvements in the bread-making properties of this cereal, mainly seen in its alveographic parameters (W, P, L, P/L ratio, etc.). Some consumers make a connection between these changes and the increase in the number of people with bread-related allergies and intolerances.

This fact is forcing us to determine the origin and the factors causing such intolerance. This in turn raises the question of whether the new wheat varieties selected are richer in gluten or if the proteins have different properties that makes them less digestible. Consumers often believe that products made from old varieties and populations could be alternatives that may diminish this problem.

Such is the context that gives rise to this project, which proposes to plant varieties of organic and indigenous common wheat with a basis in practices that respect the plant and the sun, with the aim of producing flours and bread with proven intestinal tolerance to gluten.

### Objectives

We introduce the present operational group - BLATECOsalud - with the main objective of promoting the sustainable production of high-quality, organically farmed common wheat. At the same time, this operational group seeks to encourage agronomic practices that increase respect for the environment and improve cereal quality in order to produce bread products that are better received by buyers.

Various specific objectives are established in order to meet the main objective:

1. Improve the sustainability of farms by reducing the application of plant protection products, while at the same time increasing the biodiversity of pollinating and auxiliary insects and also improving soil microbiota.
2. Determine the influence of the variety of common wheat on the nutritional value of the flour.
3. Test the reception of the new products among consumers.
4. Encourage the cultivation of old populations and varieties through proper management that allows them to be profitable while at the same time improving their quality.

### Description of Activities Planned for the Project

We have selected the plots, the seed and the wheat producer that fits the project. The producer will sow the wheat according to established guidelines. The product obtained will be used to produce flour and bread, to be tested by a tasting panel and allow conclusions to be drawn. The entire work process of the project will be recorded on video which can later be shared.

### Expected Results and Practical Recommendations

By following the proposed production system it will be possible to obtain flours that allow us to make bread that is easier to digest and to demonstrate this in the consumer panel.

### Operational Group Leader

ENTITY: GRUP BOIRA BARS I RESTAURANTS SLU

### Operational Group Coordinator

ENTITY: ANGEL SEGARRA RUIZ

### Other members of the operational group (grant recipients)

ENTITY: MAS CASADEMONT SC

### Other members of the operational group (non-grant recipients)

ENTITY: IRTA

ENTITY: ASPEGI (Association of Organic Producers of Girona)

### Subject Area(s) of Application

- Agricultural production system
- Agricultural practice
- Agricultural equipment and machinery
- Livestock and animal welfare
- Plant production and horticulture
- Landscape / Territory management
- Pest and disease control
- Fertilisation and nutrient management
- Soil management
- Genetic resources
- Forestry
- Water management
- Climate and climate change
- Energy management
- Waste and byproduct management
- Biodiversity and natural environment management
- Food quality / processing and nutrition
- Supply chain, marketing and consumption
- Agricultural and forestry competitiveness and diversification

General

### Territorial Scope

PROVINCE(S)	COUNTY(IES)
Girona	Baix Empordà, Pla de l'Estany and Gironès

### Communication about project (publications, workshops, multimedia, etc.)

There are plans for presenting the project at conferences in September - October 2024

### Project Website

### Additional Project Information

PROJECT DETAILS	TOTAL BUDGET
Start Date: July 2021	Total Budget: €210,442.62
Current Status: In progress	DACC funding: €97,319.79
	EU funding: €73,416.68
	Own funding: €39,706.15

### Financed by:

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*Order ARP/113/2021, of 20 May, approving the regulatory bases for innovation cooperation grants by fostering the creation of operational groups of the European Agricultural Innovation Partnership in the field of agricultural productivity and sustainability and the implementation of innovative pilot projects by these groups, and Resolution ACC/1660/2021, of 27 May, making the call for the aforementioned grant.*

