

# Local production of high-quality flour with a high whiteness index

## Summary

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This project is designed to meet the demand for local, high-quality flour that can create an opportunity for the production of high-quality wheat in Catalonia. The main objective is the production of high-quality soft wheat to manufacture white flour for the preparation of flour-based food products in the region's main cereal-producing areas.

This project will improve the competitiveness of soft wheat, while offering a high-quality, local agricultural product with high added value within the agri-food chain. Through the application of sustainable management guidelines aimed at maximising cultivation efficiency, the aim is also improve the profitability of the farms involved, while facilitating the diversification of their production. The success of the project will make the sector more competitive and bring to market new local, high-quality white flour.

## Objectives

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1. Assess the suitability of the soft wheat plant material available to produce white flour for the preparation of food products.
2. Determine the impact of cultural practices of the luminosity and whiteness of soft wheat flour.
3. Study the effect of the flour extraction level on its final colour.
4. Establish pilot plots for the production of soft wheat for the specialist flour production industry.
5. Transfer the results to the winter and spring cereal production industry.

## Description of initiatives outlined in the project

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The project plans to produce new high-quality, local white flour, based on the assessment of various plant varieties to determine which meets the characteristics of the target flour. It also plans to determine the effects of nitrogen fertilisation practices and of the flour extraction process at the bakery, in addition to the definition of management guidelines or protocols.

## Expected results and practical recommendations

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Identification of the cereal varieties that produce white flour and incorporation of other assets like high production capacity, resistance to foliar diseases, high hectolitre weight, and high quality flour characterised by W values in excess of 200.

Identification of the impact of nitrogen fertilisation and anti-fungal treatments on the luminosity and colouring of soft wheat flour.

Validation of the results from the experimental plots at pilot plots.

Identification of the balance between the flour extraction rate, which is adopted by the flour industry, and the resulting colour index, for the main varieties of interest to the production of white flour.

Effective dissemination of the most innovative results of the project on the industrial and scientific levels.

## Task force leader

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Entity: **PANIFICADORA ALIMENTARIA SL**

Contact e-mail:

**jclotet@casatarradellas.es**

Typology of entity:

**Agri-food company**

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## Task force coordinator

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Entity: **PANIFICADORA ALIMENTARIA SL**

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Typology of entity:

**Agri-food company**

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## Other task force members (grant beneficiaries)

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Entity: **Associació de Productors de Conreus Extensius de Girona**

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**admin@apcegi.com**

Typology of entity:

**Forestry company**

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Entity: **Joan Llorens Torres**

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Typology of entity:

**Agri-food company**

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Entity: **Montserrat Lleopart i Coll**

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Typology of entity:

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## Other task force members

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Entity: **Fundació Mas Badia**

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**joan.serra@irta.cat**

Typology of entity:

**Other actors in the sector**

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## Subject area(s) of application

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Farming/forestry competitiveness and diversification

## Geographical area(s) of application

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### Province(s)

Lleida  
Girona  
Barcelona

### Region(s)

Segarra  
Osona  
Pla de l'Estany  
Gironès  
Selva  
Baix Empordà  
Alt Empordà

## Dissemination of the project *(publications, conferences, multimedia...)*

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It is planned to present the innovative elements and results of the project at industry fairs, conventions and specific seminars, and also through the dissemination methods used by each of the companies (personalised emails sent to customers, conventions, catalogues, commercial documents, newsletters, etc.) in order to increase and multiply the scope of communication.

Moreover, the subcontracted research centre, the Mas Badia Foundation, will actively participate in the dissemination of the results through the centre and through the scientific and technological platforms on which it participates. The results of this project will be published in specialist journals. Accordingly, the knowledge generated within the framework of the project will be shared with the scientific community. Additionally, talks and presentations will be given at national and international congresses.

## Project website

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## More information on the project

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### Project dates

Starting date (month-year): June 2018

Completion date (month-year):

Current status: *Underway*

### Budget approved

**Total budget:** €196,105.63

*DARP funding:* €80,144.30

*EU funding:* €60,459.74

*Own funding:* €55,501.59

### With funding from:

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



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

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*Order ARP/133/2017, of 21 June, approving the regulatory bases of grants for cooperation for innovation through the promotion of the creation of European Association for Innovation task forces in terms of agricultural productivity and sustainability and the execution of innovative pilot projects by these groups.*

*Resolution ARP/1868/2017, of 20 July, calling for applications for grants for the year 2017.*

Project ID: 015\_2017