

Thermochemical treatments of biomass and agri-food sector by-products to increase their added value

Summary

This project aims to assess the feasibility of using by-products from the agri-food and biomass sectors (treatment plant sludge, fruit pulp and biomass fines) as renewable energy sources by treating them with thermochemical processes (pyrolysis and/or gasification).

Objectives

1. Determining the potential of different by-products for treatment by thermochemical processes and obtaining renewable energy.
2. Researching the robustness of the treatment in relation to seasonal changes in by-product production and by-product mixtures.
3. Reducing fossil fuel consumption in agri-food industries through the use of synthesis gas or bio-oil.
4. Determining the technical, economic and environmental feasibility of the technologies researched in the project.

Description of the actions planned in the project

1. Characterisation and selection of different types of waste for recovery.
2. Proof of concept for pyrolysis and gasification.
3. Study of the robustness of the selected thermochemical processes.
4. By-product potential and assessment of applications.
- 5.- Feasibility and results transfer.

Expected results and practical recommendations

Expanding the uses of biofuels based on the research to provide solutions and applications to diversify the energy mix in companies.

Leader of the Operational Group

ORGANISATION: SAT N 1596 NUFRI RESP LIMIT

Coordinator of the Operational Group

ORGANISATION: CATALONIA BIOENERGY CLUSTER

Other members of the Operational Group (grant recipients)

ORGANISATION: BOSCAT FUSTA, SL

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

ORGANISATION: EURECAT FOUNDATION

Subject area(s) of application

- Agricultural production system
- Agricultural practice
- Agricultural equipment and machinery

<input type="checkbox"/>	Livestock farming and animal welfare
<input type="checkbox"/>	Vegetable production and horticulture
<input checked="" type="checkbox"/>	Landscape / Territorial management
<input type="checkbox"/>	Pest and disease control
<input type="checkbox"/>	Fertilisation and nutrient management
<input type="checkbox"/>	Soil management
<input type="checkbox"/>	Genetic resources
<input type="checkbox"/>	Forestry
<input type="checkbox"/>	Water management
<input type="checkbox"/>	Climate and Climate Change
<input checked="" type="checkbox"/>	Energy management
<input checked="" type="checkbox"/>	Waste and by-product management
<input type="checkbox"/>	Biodiversity and environmental management
<input type="checkbox"/>	Food quality/processing and nutrition
<input type="checkbox"/>	Supply chain, marketing and consumption
<input checked="" type="checkbox"/>	Competitiveness and agricultural and forestry diversification
<input type="checkbox"/>	General

Geographical area(s) of application

PROVINCE(S)	REGION(S)
Catalonia	Catalonia

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

Participants' websites and newsletters.
 Participants' social media.
 Magazines and trade media (e.g. RETEMA, Industria ambiente)

Project website

More information on the project

PROJECT DATES	TOTAL BUDGET
Starting date: July 2021	Total budget: €165,360.00
	DACC funding: €76,471.20
Current status: Under way	EU funding: €57,688.80
	Own funding: €31,200.00

With funding from:

Project funded through Operation 16.01.01 (Cooperation for Innovation) through the Catalan Rural Development Programme 2014-2022.

Order ARP/113/2021 of 20 May, 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 ACC/1660/2021, of 27 May, announcing the call for the grant.



Generalitat de Catalunya
**Departament d'Acció Climàtica,
Alimentació i Agenda Rural**



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