

PORC-CAMB Innovative solutions to reduce environmental pollution to improve animal welfare on pig farms

Summary

High concentrations of ammonia in the air can cause problems in the skin, eyes, throat and lungs of both animals and humans. It can cause blindness, lung damage and even death in extreme cases. A great deal of ammonia is disseminated into the air on pig farms, where slurry with high levels of ammonium accumulates under slats. Despite the adequate ventilation levels, this ammonia has a major impact on the pigs' welfare.

Objectives

The main objective of this project is to improve the welfare of livestock on pig farms by mitigating ammonia emissions.

Description of the measures planned in the project

- 1) Study of the current situation and comparison with present animal welfare standards.
- 2) Study of mitigation of ammonia emissions according to the established treatment (addition of acid and addition of zeolites under the *slats* on farms).
- 3) Monitoring of animal welfare parameters, comparing the two types of established treatment.
- 4) Productivity, statistical and technical-economic study of the established treatments.

Expected results and practical recommendations

A significant reduction in ammonia emissions and an improvement in the welfare of the animals on the pig fattening farms where the pilot tests will be carried out is consequently to be expected. This will:

- Improve production and economic ratios during pig fattening.
- Improve the quality of the end product obtained.
- Minimise health problems/diseases in animals.
- Improve consumer perception of animal housing conditions.

Leader of the Operational Group

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Coordinator of the Operational Group

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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)
BARCELONA GIRONA	BAIX EMPORDÀ ALT EMPORDÀ GARROTXA GIRONÈS PLA DE L'ESTANY OSONA

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

<https://www.innovacc.cat/2019/11/21/projectes-presentats-en-la-linia-de-grups-operatius-2019-del-darp/>

<https://www.innovacc.cat/2020/06/29/6-projectes-presentats-en-la-linia-de-grups-operatius-2019-del-darp-obtenen-resolucio-favorable/>

Project website

More information on the project

PROJECT DATES	TOTAL BUDGET
Start date (month-year): July 2020	Total budget: €205,863.66
Completion date (month-year):	DARP funding: €84,132.21
Current status: Underway	EU funding: €63,468.15
	Own funding: €58,263.30

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/1531/2019, of 28 May, announcing the call for the grant.

