

Cookies

This site uses cookies to offer you a better browsing experience. Find out more on [how we use cookies](#) and [how you can change your settings](#).

I accept cookies

I refuse cookies



Fertigation with pig manure digestate

Geographical location	European Union
Keywords	pig farming manure anaerobic digestion bioenergy biogas renewable energy resource Fertilisation and nutrients management fertigation slurry circular economy
Agricultural sectors	Pigs
Main funding source	Other EU research funds
Project acronym	LIFE Smart Fertirrigation
Project type	Research project
Starting date	2015
End date	2019
Project status	ongoing
Website	Website of the project

Title (in English): Fertigation with pig manure digestate

Language: English

Objective of the project (native language):

NA

Objective of the project (in English):

Intensive pig farming produces a lot of manure which is complicated to dispose of, and spreading the manure as fertiliser is not an option. One of the current practices to solve this problem is digesting the manure to reduce its volume and produce bioenergy that can be reused in pig farms. The resulting digestate is a valuable fertiliser, but currently this technique is not fully exploited.

LIFE Smart Fertigation project is testing processes to treat the digestate and produce both solid and liquid fertilisers that can be used for fertilising land, and in fertigation systems. The project also tries to reduce the phosphorous content of the manure by using supplements to the pigs' diet so that they can digest phosphates more efficiently.

Description of activities (in English):

The process that LIFE Smart Fertigation project is testing to produce fertilisers from manure digestate consists of a coarse and a fine filtration to

separate the solid from the liquid fraction of the digestate. The solid fraction is then dried using the extra heat of the digestion process so that it can be used as fertiliser. The resulting liquid phase can be directly injected in fertigation systems, since all the solids have been removed to avoid clogging. In addition, the project has tested a phytase enzyme to be added to pig feed so as to reduce phosphorous content of the manure pigs produce, thus reducing pollution problems.

EU contribution: 1,491,973

Contact person:

Andrés García Martínez

Contact e-mail: life@copiso.com

Project coordinator

Organization/Institution name (original language): COPISO SORIA

Contact person: Andrés García Martínez

E-mail: life@copiso.com

Partner category: Farmer

► Project partners

▼ Practice summary

▼ Further details

Additional comments:

The project has proven the following benefits:

- The fertiliser produced saves 50% of liquid fertiliser expenses and 70% of inorganic fertiliser expenses in the plots where it has been tested.
- Fertilisation with the produced fertiliser saves 3600 t of CO2 in comparison with inorganic fertilisers.
- 20% increase of nutrient uptake by the plants fertilised with the produced manure in comparison with inorganic fertiliser.
- 30% reduction of phosphorous content in the tested pig slurries.
- Reduction of nutrient contents in the wastewater produced by pig slurries and thus reduced wastewater treatment needs.

The solutions that were tested save energy and wastewater treatment costs, increasing farm profitability. In addition, the fertiliser produced generates new sources of income for farmers.



EIP-AGRI SERVICE POINT +32 2 543 73 48 servicepoint@eip-agri.eu

