



NUTRI•KNOW

STRUVITE (IT)

RENURE (BE)

POCKETBOER 2
(BE)

Grass2Algae
(BE)

MOPS (IE)

Duncannon Blue
Flag Farming (IE)

Biorefinery
Glas (IE)

Slurry
Concentrator
(ES)

Manure
Management
Tool (ES)

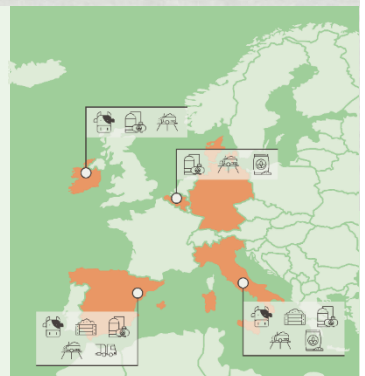
FERTICOOP-GO
(ES)

SOS_AQUAE
(IT)

GAS LOOP (IT)

Exchanging easy-to-understand nutrient management knowledge with farmers

NUTRI-KNOW aims to improve nutrient management practices in agriculture by establishing an ongoing cycle of knowledge exchange for the benefit of both farmers and the environment.



Struvite

GOi Struvite

Livestock manure and digestate treatment to reduce emissions and produce struvite

STRUVITE operational group designed and implemented a prototype, a farm-scale system, capable of recovering struvite from agricultural digestate.

Challenge

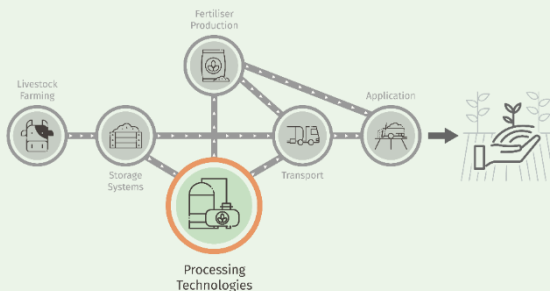
Recover nitrogen and phosphorus from agro-livestock digestate to redistribute nutrient surplus from high livestock areas to regions with a demand for chemical fertilisers.

Activity

- Laboratory analysis and testing for the development and implementation of the prototype treatment system.
- Evaluating the efficiency of the prototype in reducing the nitrogen and phosphorus content in digestate and recovering them as struvite.

Results

Results show the prototype struvite system effectively recovers phosphorus and nitrogen from agricultural digestate, proving technical feasibility. Tests involving acidification, basification, and microfiltration reveal reduced nitrogen and phosphorus levels in the supernatant-treated fraction, enhancing treatment efficiency. However, addressing the high solids and organic matter concentration in the digestate remains critical, despite undergoing solid-liquid separation and microfiltration.



Prototype for struvite recovery

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