Nutri2Cycle

Transition towards a more carbon and nutrient efficient agriculture in Europe

J





Newsletter - June 2021

Nutri2Cycle updates

Duckweed has been investigated for its ability to close CNP loops

Recently, two scientific publications on the cultivation of this interesting plant have been published.Wastewater and manure treatment has become an important aspect in improving the sustainability and circularity of conventional agriculture. A frequently used method to remove excess nutrients from manure is by subsequently centrifugation of manure and biological treatment of the liquid fraction. As a result, N and P are strongly reduced from the liquid fraction of manure.

Continue reading and check out the publications here.

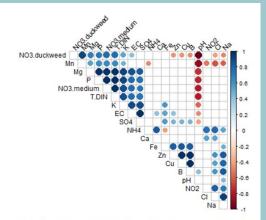


Fig. 3. Correlation matrix of different parameters of the growing medium with the nitrate content of duckweed (NO3.duckweed). All non-significant correlations are removed, and the size of the correlation is indicated by colour (Blue = positive and Red is negative).

Nutri2Cycle updates

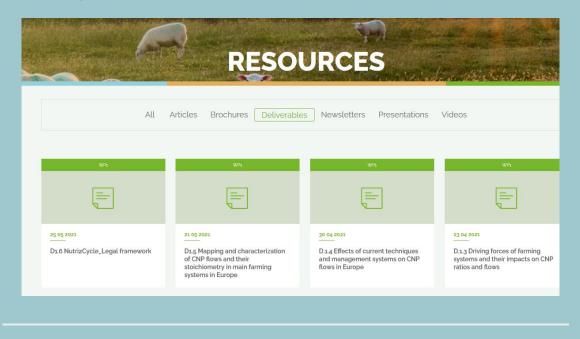
Updates from ISA



ISA team recently launched a new field experiment at Cholda Farm (Santarem, Portugal) under the research line "Use of organic materials for fertilization of maize growth under conventional or no tillage practice" of the Nutri2cycle project. The use of organic fertilisers decreases the use of mineral fertilisers like rock phosphate. Besides, the application of organic fertiliser helps to sequester carbon in the soil and close the carbon cycle. Continue reading here

Nutri2Cycle updates

Nutri2Cycle Deliverables are now online



Deliverables from the first work package one are now online. You can download them now and learn about the "Mapping current CNP flows in European farming systems: Baseline determination & Toolbox development".

- <u>Protocol for the mapping, analysis and benchmarking of CNP flows and their stoichiometry in</u> <u>farming systems</u>
- the driving forces of farming systems and their impacts on CNP flows and stoichiometry in Europe
- the effects of current techniques and management systems on CNP flows and their stoichiometry in Europe
- the mapping and characterization of CNP flows and their stoichiometry in main farming systems in Europe
- the effects of the current legal framework on CNP flows and their stoichiometry in Europe

Nutri2Cycle updates

Nutri2Cycle at ManuResource Conference



ManuREsource is an international conference stimulating the exchange of experiences between regions on the policy measures taken for coping with manure surpluses, both in terms of manure management in a broad sense, and more specifically in terms of manure treatment.

This conference also aims to give an overview of the current developments and innovations in manure treatment technologies and to explore various valorisation strategies for manure, like energy production and nutrient recovery.

Read more about ManuResource here.

Nutri2Cycle survey

Share your opinion with Nutri2Cycle

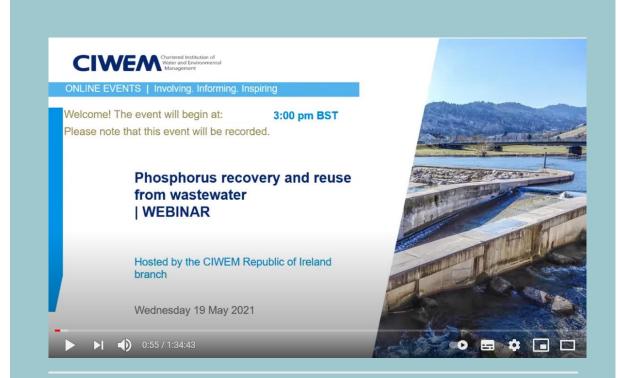


We would like to get a better view on your preferences and priorities as a consumer: what do you know about eco-labels and are you prepared to pay extra for these products? And to what extent can innovations in the agricultural sector contribute to a better environment and climate? Your answers will help us to implement the transition towards a circular agriculture.We invite you to complete a <u>short survey</u> and distribute it within your network.

Nutri2Cycle updates

TEAGASC at CIWEM

Last month, TEAGASC team chaired and made a talk at the CIWEM webinar. Patrick Forrestal presented results and update from Nutri2Cycle demonstration trial on going at grassland and arable site. His topic of talk was "Reuse of recovered P from wastewater the need and the field research". Watch the full video beow and learn about the research conducted at TEAGASC.



Nutri2Cycle highlights

- Download and share Nutri2Cycle brochure
- Check project updates on the website
- Share with us your news on nutrient recycling developments!

PhD student

Catarina Esteves

Catarina Esteves is a Ph.D. candidate within the H2020 EU Nutri2Cycle project. As an agriculture engineer, she was enrolled in a master's degree in Agronomic Engineering focusing on the production of fruits, vegetables, and wine. Read more about her research <u>here</u>.



News from N2C National Task Forces



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Read the latest updates of events, publications and news and photos from Nutri2Cycle National Task forces <u>here</u> and be notified of the activities conducted at national level.

Highlighted scientific publications

- Effect of the growth medium composition on nitrate accumulation in the novel protein crop Lemna minor
- <u>Agronomic and Environmental Performance of Lemna minor Cultivated</u> on Agricultural Wastewater Streams—A Practical Approach
- Performance and environmental accounting of nutrient cycling models
 to estimate nitrogen emissions in agriculture and their sensitivity in life
 cycle assessment
- Lemna minor Cultivation for Treating Swine Manure and Providing <u>Micronutrients for Animal Feed</u>

Newsletters published by the National Task Forces (in local languages)

- Italy NTF Newsletter
- Portugal NTF Newsletter

Nutrient recycling events!



ManuResource 2021 0 | 24-26.11.2021 's Hertogenbosch, The Netherlands See details



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