

14:45 – 16:00

Parallel sessions 20 March 2024 (Part I)

<u>Lex4Bio</u> Agronomic performance of bio-based fertilizers and their potential to replace mineral fertilizers in the EU	<u>LemnaPro</u> Recovering nutrients from manure using duckweed - a ManuResource parallel session	<u>Eurofema</u> FPR implementation in practise: drivers for success and obstacles to overcome	<u>Abstracts</u> Manure and Sustainability
Auditorium	Provincieraadzaal	Sam Dillemans zaal	Nicole Van Goethem zaal
Availability of nutrient-rich side streams and potential of biobased fertilisers for crop growth and soil health in Europe Tampio, E., LUKE (FI)	Monitoring a duckweed pilot plant for pig manure treatment and feed production Lambert, M., UGent (BE)	Progress made and future issues to enhance circular use of manure based fertilizers Fock, L., Culterra & Eurofema (NL)	Slurry pH modification for sanitization purpose affects ammonia emissions during storage Chrysanthopoulos, S., Instituto Superior de Agronomia (PT)
Potential of bio-based phosphorus fertilizers to replace conventional fertilizer in Europe Bünemann, E., FiBL (CH)	Duckweed production on swine wastewaters under Mediterranean conditions and potential valorisation as green manure Abril, M., UVIC-UCC (ES)	Implementing FPR in production of organic fertilizers Haandrikman, J., MeMon (NL)	Effects of Acidification, Ammonia-stripping and Biochar on Greenhouse Gas Emissions from Cattle Slurry and Digested Slurry after Field Application Agostini L., Research Institute for Organic Agriculture (CH)
Agronomic performance of nitrogen-rich, bio-based fertilizers across European field trial sites Müller, B., Bioeconomy, Institute of Crop Science, University of Hohenheim (DE)	A testimony from duckweed experts Hendriks, L., and Beekelaar, H., Hoogheemraadschap De Stichtse Rijnlanden (NL)	Usage of Category 2 and 3 ABP as in input material for CMC3 and CMC5 of EU fertilizers and their conformity assessment procedure according to Module D1 of (EU) No. 2019/1009 Regulation. Varga, I., Certrust (HU)	The effect of farmer's cognition on the inconsistency between behavior and intention in manure application Bi X., Nanjing Agricultural University (CN)
Compliance methods to determine the agronomic performance of bio-based fertilisers Hernández Mora, A., BOKU (AT) & Agostini, L., FiBL (CH)	A testimony from duckweed experts Grootenhuis, H., and Minkjan,R., Rinus & Hans BV (NL)	CMC 10 in Module B assessments and the usage of the Coordination group to implement FPR Tettelaar, G., EFCI Register (NL)	Precision agriculture approaches for managing winter blockages to manure landfills Motta S., ERSAF -Regional agency for agriculture and forestry (IT)

16:15 – 17:30

Parallel sessions 20 March 2024 (Part II)

<u>Lex4Bio</u>	<u>CiNURGi</u>	<u>Nutribudget</u>	<u>Abstracts</u>
Stakeholders acceptance and potential effects of bio-based fertilizers on the environment, food safety and health	Circular Nutrients for a sustainable Baltic Sea Region	Assessing farm sustainability via Key Performance Indicators	Innovations in manure and digestate treatment
Auditorium	Provincieraadzaal	Sam Dillemans zaal	Nicole Van Goethem zaal
Survey on opinions and attitudes of selected stakeholders about bio-based fertilisers Magdalena, A., Mineral and Energy Economy Research Institute of the Polish Academy of Sciences (PL)	How to realize circularity at regional scale – a case study in southeast Sweden de M. Lima, P., RISE (SE)	Introduction Hendriks, C., WUR (NL)	Uncovering Amphetamine Residues in Manure: Addressing Analytical Challenges and Implications Larsson Y., Aarhus University (DK)
		A scientific reflection on current KPI systems Ros, G., WUR (BE)	
Contaminants and antibiotic resistance genes in bio-based fertilizers (BBFs): low risk for soils and crops Estoppey, N., Norwegian Geotechnical Institute (NO)	Eutrophication potential of manure management in the Baltic sea region de M. Lima, P., RISE (SE)	Round Table 1: “On-farm use of KPI’s”	More than an organic fertilizer : mealworm frass as a substitute to conventional fertilizers Bohuon E., Ynsect (FR)
		Round Table 2: “Methods to derive critical thresholds”	
Quantifying nitrogen and phosphorus losses from bio-based fertilisers in European agriculture through experimentation and modelling Jensen, L.S., Univ. of Copenhagen (DK)	Determining regional nutrient recycling potential as a basis for implementation and monitoring progress Laakso, J., Luke(FI)	Round Table 3: “Valorisation of KPI’s”	Development, calibration, and simulation of P precipitation/dissolution model in anaerobic digestion Del Valle Velasco C., Université Laval & INRAE (CA)
Life cycle assessment of BBF production – applying the Lex4Bio LCA-Convention Hermann, R., Proman Management GmbH (AT)	Reuse of phosphorus from wastewater in agricultural products – fertiliser effect and set up of cultivation tests Myrbeck, Å., RISE (SE)	Wrap up Ros, G., WUR (NL)	The practical impact of nitrogen stripping for dairy farms Van Dijk, K., WUR (NL)

14:30 – 15:45

Parallel sessions 21 March 2024 (Part I)

<u>FERTIMANURE</u>	<u>BSMO</u>	<u>NovaFert and FER-PLAY</u>	<u>Abstracts</u>
FERTI-Manure Management Package – Tools for a most efficient management of animal manure	From innovative stables to better manure and improved crop yields	Regulatory barriers and incentives for manure-based circular fertilisers	Innovations in manure and digestate treatment
Auditorium	Nicole Van Goethem zaal	Sam Dillemans zaal	Eugeene van Mieghemzaal
FERTIMANURE TMF Nutrition Tool – <i>Calculates the optimal combination of manure, BBFs and mineral fertilisers to meet the nutrient requirements of a specific crop-soil combination taking into account the soil fertility status, regulatory limitations and/or price of fertilizing products</i> Schoumans, O., WUR (NL)	BSMO project overview: From innovative stables to better manure and improved crop yields de Jong, D., WUR (NL)	Nitrates Directive Meers, E., UGent (BE)	Dynamic ammonium retention for nutrient separation from manure digestate van der Wal M., Eindhoven University of Technology (NL)
FERTIMANURE Decision Support System – <i>Supports users in making well-informed decisions regarding which FERTIMANURE pilot they could use to produce a specific BBF considering their farm manure production and the pilot’s treatment capacity, life cycle environment performance and economic performance (CAPEX and OPEX)</i> Egas, D., BETA Tech Center (ES)	Manure products from innovative stables Verdoes, N., WUR (NL)	Various regulatory incentives for manure-based circular fertilisers Sever, L., EBA (BE)	Enhancing Biogas Production and Mitigating Ammonia and Methane Emissions through Biological Acidification of Cattle Manure Meiresonne J., HAS University of Applied Sciences (NL)
FERTIMANURE Logistics Tool – <i>Calculates the economically optimal logistics and manure management strategies taking into consideration the regional nutrient requirements and limitations of a specific crop-soil combination and regional manure production</i> Vingerhoets, R., UGent (BE)	The use of slurry versus separated manure products in crop production van Dijk, W., WUR (NL)	Summary Market Pull” event of 13/03/2024 in Brussels organized by ESPP Hermann, L., Proman	Duckweed for pig manure treatment and feed production Lambert M., UGent, Inagro (BE)
FERTIMANURE Regulatory Tool – <i>Evaluates the alignment of the produced BBFs with the EU Fertilising Products Regulation</i> Thevenin, N., RITTMO (FR)	Emissions and costs/benefits analysis from manure chains with ‘new’ manure products		Effect of periodic H2 injection on biogas production from cattle slurry Laaksonen I., Natural Resources Institute Finland (FI)

16:00 – 17:15

Parallel sessions 21 March 2024 (Part II)

<p><u>Renu2Cycle</u> Recycled nutrients to close the nutrient cycle</p>	<p><u>BioDEN</u> A biorefinery approach to exploit digestate as key feedstock in the energy - nutrient nexus</p>	<p><u>Abstracts</u> Manure as a resource</p>	<p><u>Abstracts</u> Manure and Sustainability</p>
<p>Auditorium</p>	<p>Sam Dillemans zaal</p>	<p>Eugeene van Mieghemzaal</p>	<p>Nicole Van Goethem zaal</p>
<p>Recycled nutrients to close the nutrient cycle <i>Introduction to the NWE Interreg project ReNu2Cycle. This project works on the market introduction of recycling-derived biobased fertilizers (BBF), and aims to link science and practice by a Living Lab approach. ReNu2Cycle also has a strong focus on policy measures and regulations influencing the uptake of these BBF in the EU market.</i> Bugaeva, W., IZES gGmbH (DE)</p>	<p>Introduction Vergote, T., Biogas-E (BE)</p> <hr/> <p>Increasing energy yields by alternative digester operation such as side-stream vacuum stripping or post-digestion. Appels, L., KU Leuven (BE) and Bayrakdar, A., Marmara University (TR)</p>	<p>Use of calf manure as alternative for mineral fertilizers in floriculture Naeyaert H., Inagro vzw (BE)</p>	<p>Environmental effects of using ammonium sulphate from animal manure scrubbing technology as fertiliser Rietra R., WUR (NL)</p>
<p>Processed manure in the FPR CMC 10, game changer or challenge? <i>In this session we will focus on the question whether the opening of the FPR to processed manure as a component for EU fertilising products is a game changer, or if the criteria are posing challenges that will have to be solved before this can become a common practice?</i> van Schöll, L., NMI (NL)</p>	<p>Ammonia removal from anaerobic digestate via integrated air stripping and subsequent recovery using citric acid and sulfuric acid. Appels, L., KU Leuven (BE)</p>	<p>Evaluating Agronomic and Environmental Performance of Bio-Based vs. Synthetic Fertilisers: Compilation of 4-year Field trials Shrivastava V., UGent (BE)</p>	<p>Nitrogen and phosphorus recovery through struvite formation in digestate from animal manure Soldano, M., CRPA - Centro Ricerche Produzioni Animali (IT)</p>
<p>Legal status of ammonium salts from stripping/scrubbing <i>Ammonium salts from stripping and scrubber water from manure treatments are valuable fertilisers. These ammonium salts are regulated under national regulations (NL, Be, De) and in the EU-FPR as a pure recovered material (CMC 15). However, because of discrepancies in the definitions of manure and processing in the Animal by-product regulation and the Nitrate Directive the legal status of the salts remains unclear.</i></p>	<p>Phosphorus recovery from liquid and solid fractions of digestate. <i>Liquid fraction of digestate: struvite precipitation or adsorption onto Fe-modified biochar. Solid fraction of digestate: leaching with alternative acids (such as ammonium salts from the scrubbing experiments, waste acid and citric acid) and consequent precipitation as struvite.</i></p>	<p>Agronomic quality assessment using ryegrass of the bio-based fertilizers obtained from pig slurry in the FERTIMANURE Spanish on-farm pilot Singla Just B., 1BETA Tech. Center (TECNIO Network), University of Vic - Central University of Catalonia (CAT)</p> <hr/> <p>Co-digestion of cattle manure and straw – effects on digestate carbon stability Tampio E., Natural Resources Institute Finland (FI)</p>	<p>Strategies to mitigate ammonia emissions to the atmosphere from outdoor storage from livestock manure Cerrillo M., IRTA (CAT)</p> <hr/> <p>Innovative approaches: designing business plans and models to foster sustainable manure practices Vugrin, N., IPS (ES)</p>

<p><i>This uncertainty obstructs marketing and hence the development of innovative manure treatment plants. We will propose solutions to the status quo and show pro and cons.</i></p> <p>Meers, E., UGent (BE)</p>	<p>Bayrakdar, A., Marmara University (TR) and Guedes Silveira, T., Ghent University (BE)</p>		
	<p>Product and value chain assessment</p> <p><i>Agro-environmental value of biofertilisers through pot trails and soil incubation tests.</i></p> <p><i>Technical, economic and ecological assessment of six technology cascades.</i></p> <p>Guedes Silveira, T., Ghent University (BE) and Deraedt, L., Biogas-E (BE)</p>		
	<p>Wrap-up</p> <p>Vergote, T., Biogas-E (BE)</p>		