*ESPP (European Sustainable Phosphorus Platform) is launching a **new monthly News**, to provide regular updates on nutrient management success stories, regulatory developments, science and reports.*

*This will be in addition to the **SCOPE Newsletter**, which will provide, as to date, in-depth coverage of science publications, conferences and regulation.*

This is the "Beta" first edition of this monthly News, pending finding a more attractive and readable layout. It is sent initially to all SCOPE Newsletter subscribers. We hope that you will find this useful. If other people wish to subscribe, it is free at www.phosphorusplatform.eu If you have comments or news on nutrient management to share, please contact info@phosphorusplatform.eu

*For list of events, see below the news section of this email. Next ESPP meeting: **EU Fertiliser Regulation workshop 29th June Brussels**: Discussion of proposed Regulation text, application to recovered nutrient products, composts, digestates.*

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Ostara inaugurate 900 t/y struvite recovery in Amersfoort

On 17th June, Ostara and Vallei Veluwe water board officially inaugurated the 900 tonnes/year Pearl struvite recovery unit at Amersfoort sewage works, treating sewage from 300 000 population equivalent and sewage sludge from 1 million. With EU LIFE supportOn 17th June, Ostara and Vallei Veluwe water board officially inaugurated the 900 tonnes/year Pearl struvite recovery unit at Amersfoort sewage works, treating sewage from 300 000 population equivalent and sewage sludge from 1 million. With EU LIFE support, the water and sewage treatment plant is energy neutral, and uses thermal hydrolysis (ELIQUO) and WASSTRIP to increase soluble phosphorus release. Objective is to recover 40% of works input P as struvite. Robert F. Kennedy Jr. inaugurated the Ostara unit, noting that the company will have units operating in 14 sewage works worldwide by end 2016. The recovered struvite is sold by Ostara as Crystal Green performance fertiliser prills, with granulometry size grades, hardness, low-dusting and salt index conform to fertiliser industry SGN specifications.

Launch of EU work on fertiliser criteria for struvite, ash and biochars

The European Commission's JRC (Joint Research Centre) has launched the official process, mandated by DG GROW, to prepare EU "fertiliser criteria" for struvite, ash-based materials and biochars. A first meeting of the group ("STRUBIAS") of around 30 experts selected by the Commission to advise this criteria process will take place 5-6 July. ESPP, DPP and Fertilisers Europe are designated to this expert group. The criteria elaborated by JRC will then be submitted to the European Commission for addition as an annex to the revised EU Fertiliser Regulation (once this has been adopted and promulgated). These annexes will be integrated into the Regulation by European Commission without requirement to consult European Council or Parliament. Contact info@phosphorusplatform.eu to input.

EU Fertilisers Regulation proposed revised regulation summary in SCOPE Newsletter n° 120 - EU publication of comments received by deadline of 12th May 2016: ESPP comments 12th May 2016 - ESPP input to struvite, ash and biochar EU fertiliser criteria definition

US Congress proposal for tax credits on manure nutrient recycling

A draft Bill submitted to the US Congress proposes a 30% investment tax credit (ITC) for biogas production and for manure nutrient recovery installations. The bill would also open to new Clean Energy Bonds. The bill would open ITCs for biogas production which do not generate electricity (e.g. for production of natural gas energy) and would facilitate funding, and so implementation, of nutrient recovery on farms.

US Congress proposed Bill H. R. 5489 " To amend the Internal Revenue Code of 1986 to make qualified biogas property and qualified manure resource recovery property eligible for the energy credit and to permit new clean renewable energy bonds" "Biogas Industry Applauds Agriculture Environmental Stewardship Act", 16th June 2016

EU consultation: food & agriculture research

*EU Commission **public consultation open to 28th August 2016** on Horizon 2020 (R&D funding) 2018-2020 on food security, sustainable agriculture, forestry, water and bio-economy (Societal Challenge 2). This is open to individual citizens and all organisations. Online is a 9-page scene setter text and a simple questionnaire. The scene setter outlines the Horizon 2020 priorities which govern this 2018-2020 Work Programme (including sustainable food security – resilient and resource efficient value chains, rural renaissance – innovation and business opportunities and biobased innovation: all of which are very relevant for nutrient use optimisation and phosphorus recycling. Open questions ask to indicate key challenges, desired outputs and impacts, innovation needs, science and social gaps, game changers – accelerators and horizontal issues (social, sustainability). European Commission Research & Innovation "Public consultation on Horizon 2020 'Food Security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy' Work Programme 2018-2020", open to 28/8/2016*

EU Innovation Deals call

*EU Commission call **open to 15th September 2016,** first phase Expressions of Interest. Innovation Deals are a new EU concept, based on the Netherlands "Green Deals" (see example of North Sea Resources Roundabout in SCOPE Newsletter N° 120). The aim of an Innovation Deals is "in-depth understanding and clarification of how an EU rule or regulation applies. If a rule or regulation is confirmed as an obstacle to innovations … the Deal will make it visible and feed into possible further action". The Deals "will allow innovators to swiftly address legislative obstacles, shortening the time … to market uptake". The Deals take the form of voluntary cooperation between the EU, innovators, and national, regional and local authorities and are without*

EU funding. Five Deals will be selected from this call for Expressions of Interest, plus up to ten via Horizon 2020 circular economy calls CIRC-01 and CIRC-02. A simple application form (20 line description of proposal) and proposal template are available online.
European Commission (DG Research & Innovation) "Innovation Deals for a Circular Economy. Pilot phase within the scope of the Circular Economy" call open to 15/9/16. application form - 1-page presentation template - selection criteria

EIP-Agri Focus Group on Agricultural Use of Recycled Nutrients

Following the proposal submitted by ESPP and 60+ organisations across Europe (SCOPE Newsletter n° 114) to launch, the EU's EIP-Agri Innovation Partnership has selected the theme Recycled Nutrients for its 19th Focus Group. The first meeting took place 31st May – 1st June. The 20 selected experts include ESPP. Expected outputs of the Focus Groups are "mini-papers" (to be written by the expert group and published by EIP-Agri), proposals for EIP-Agri Operational Groups, which will summarise issues and identify R&D needs (possible input to Horizon 2020) and of dissemination needs and other actions. Possible mini-papers suggested to date cover themes such as: quality and monitoring standards for recycled nutrient products, logistics and flows, end-user requirements (farmers, food industry), P-recovery technologies, regulations, on farm nutrient management tools and practice, soil organic matter, nutrient use efficiency, LCA and environmental impacts of nutrient recycling. Contact info@phosphorusplatform.eu for further information or to input.

ESPP in UN FAP nutrient LEAP TAG group

The United Nations FAO (Food and Agricultural Organisation) LEAP (Livestock Environmental Assessment and Performance) Partnership has selected 31 world-level experts for its "Nutrient cycles accounting and Impact assessment Technical Advisory Group" (TAG), including ESPP's Kimo Van Dijk. The TAG aims to define nutrient assessment and accounting frameworks for benchmarking environmental performance of livestock production, feeding and processing chains, methods for accounting soil nutrients stock changes, for emissions and for life cycle analysis, proposing indicators to assess phosphorus as critical resource. The first FAO Nutrient TAG meeting will take place in July. Contact info@phosphorusplatform.eu to input.

Monopotassium phosphate largely ineffective as fungicide

Monopotassium phosphate MKP solution was tested as a fungicide in vitro on apple scab Venturia inaequalis (conidia germination, germ tube elongation) and in the orchard. MKP showed to be relatively ineffective (c. 20% effectiveness), compared to boric acid or commercial fungicide. Previous literature has however shown that MKP can be an effective fungicide against powdery mildew on rose or pepper. None of the treatments had adverse impacts on leaves or fruit.
"Efficacy of Boric Acid, Monopotassium Phosphate and Sodium Metabisulfite on the Control of Apple Scab", Journal of Phytopathology 2016, A. Arslan

Lactic acid can reduce feed P need in dairy cows

A 37 day study of 16 early-lactating cows shows that treatment of feed concentrates with lactic acid can improve efficiency of animal feed phosphate use. 5% lactic acid treatment of feed concentrates resulted in the same metabolic and energy efficiency (lower food intake, maintained body weight and milk yield) as 0.8% calcium monophosphate. The authors conclude that the lactic acid feed treatment improves energy and mineral status and can thus reduce feed phosphate requirements, in lactating cows fed high levels of concentrates (47% in this study). There are possible concerns of rumen acidosis, identified in this study but without adverse physiological or performance effects.
"Metabolic responses, performance, and reticuloruminal pH of early-lactating cows fed concentrates treated with lactic acid, with or without inorganic phosphorus supplementation", A. Khol-Parisini, E. Humer, H. Harder, E. Mickdam, Q. Zebeli, J. Dairy Sci.

99:1–14, 2016

Eutrophication in Brittany

France's national radio, France Info, criticises the failure to act on agricultural nutrients emissions which continue to cause algal blooms on Brittany's beaches. The 2-minute report and online article "Green Algae in Brittany: Inconvenient Truths" accuses the State and the Brittany Region of covering up health impacts, removing funding from independent scientific investigation and using funding intended to reduce nutrient emissions to subsides increasing the size of pig farms.

"Algues vertes en Bretagne : des vérités qui dérangent", Inès Léraud, France Info, 2 minutes plus online article

P-recycling from urban wastes in the Netherlands

A report by Wageningen UR for the Netherlands Ministry for Economics gives data for urban P-flows, information on recent P-recycling development and future perspectives. Only 12% of P in urban waste and wastewater is recycled, mainly from industrial wastewater (2 300 tP/y), particularly food industry sludge. P-recovery in sewage works is developing with struvite recovery, but quantities today are small. A significant increase in P-recover from waste water will result from the SNB – HVC – EcoPhos contract which will concern half of Netherlands sewage sludge from 2018. Today, 2 400 tP/y are lost to surface waters in wwtp discharges. Perspectives discussed include reducing food waste, installing kitchen sink grinders to send food waste to sewage works, source separation of urine in several projects, reducing wwtp discharge concentrations, separating storm waters from wwtp input and incinerating meat and bone meal ash in processing routes where P-recovery is possible.

"Phosphorus recycling from the waste sector", PRI Report 641, Wagening UR, 2016, F. de Ruijter, W. van Dij,, J. van Middelkoop, H. van Reuter

Twists in Nutrient Recycling

The Järki project, Finland, has published an assessment of nutrient use in agriculture, recycling potential and markets and of relevant regulation, covering the EU level and seven country cases (Netherlands, Belgium, Germany, Italy, Denmark, Sweden and Finland). The report notes major regional differences in nutrient flows across Europe, and also that EU legislation is implemented differently between Member States and national regulations are also different: e.g. Nitrates Directive, fertiliser spreading, manure processing, livestock production BAT, sewage sludge regulation, national fertiliser regulations, National Ceiling Emissions Directive for ammonia ….

"Twists in Nutrient Recycling", L. Hari, K. Riiko, BSAG and Nature and Game Management Trust Finland. English summary 11 pages Full report in Finnish 60 pages

Biofuels need nutrient recycling

US study shows that nutrients will be a limiting factor for algae biofuel production, unless they are recycled in the process and also recycled nutrients are used as input. The US EISA (Energy Independence and Security Act 2007) targets for biofuel production are considered, assuming a 19 billion litres/year target for algae-based biofuels, based on Chlorella and Nanochloropsis. Catalytic hydrothermal gasification (producing methane and hydrogen from algae) offers the highest potential for nutrient recycling in the biofuel production process. Secondary sources of nutrients are estimated to be sufficient to supply the "new" nutrient input necessary, beyond in-process recycling.

"Implications of widespread algal biofuels production on macronutrient fertilizer supplies: Nutrient demand and evaluation of potential alternate nutrient sources", C. Canter, P. Blowers, R. Handler, D. Shonnard, Applied Energy 143 (2015) 71–80

Events

- ***EU Fertiliser Regulation workshop 29th June Brussels****: Discussion of proposed Regulation text, application to recovered nutrient products, composts, digestates. Register info@phosphorusplatform.eu*
- *Nutrient recycling 11th July Denver, USA: **WEF/IWA Nutrient Removal and Recovery conference** 11-14 July. Opening plenary session on P-recovery success stories presented by ESPP 11th July. Workshop on Nutrient Recovery at WWTPs 10th July http://www.wef.org/Nutrient-WEFIWA*
- *30th June, Logrono (La Rioja) Spain, Struvite recovery workshop and PHORWater **LIFE+ pilot plant visit** http://phorwater.eu*
- *14th July, Madrid, **PHORWater LIFE+ Spain struvite recovery and P-recovery regulation workshop** http://phorwater.eu*
- *16-20 Aug, Kunming, Yunnan, China, 6th **Sustainable Phosphorus Summit** http://sps.ythic.com/*
- *5-9 Sep, Lake District, UK, Germany, **International Organic Phosphorus Workshop** http://www.soilpforum.com*
- *12-16 Sept, Rostock, Germany, **8th International Phosphorus Workshop (IPW8)** http://www.wissenschaftscampus-rostock.de/*
- *13 Sept. Brittany France, **COOPERL international workshop on pig manure treatment and nutrient management** - further details pending. With visit to SPACE International Livestock Trade Fair www.space.fr*
- *27 Sept. London, **CIWEM conference New Developments in Sustainable Phosphorus Management**: Taking the P out of Pollution http://www.ciwem.org/events/new-developments-in-sustainable-phosphorus-management-taking-the-p-out-of-pollution/*
- *28-29 Sept. Vejle (near Billund) Denmark, Denmark EPA **International Seminar on Slurry Acidification** http://www.conferencemanager.dk/acidification*
- *27-28 October, Copenhagen, **Nordic Phosphorus Conference** https://dakofa.com/conference/conference*
- *13-15 March, Tampa, Florida, **Phosphates 2017** http://www.crugroup.com/events/phosphates/*

Full events listing online at:

http://www.phosphorusplatform.eu/events/upcoming-events

To add your event, please contact info@phosphorusplatform.eu

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