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## ESPP workshops

### Phosphate as a Critical Raw Material for food security

**Wed. 19<sup>th</sup> November 2025 afternoon, Brussels & online**

Phosphates and sustainable agricultural resilience. Phosphate rock supply for Europe. Challenges for the P fertiliser industry in Europe. How can P-recycling reduce EU phosphate insecurity?

### P<sub>4</sub> (White Phosphorus) in 'Strategic' industries

**Thur. 20<sup>th</sup> November 2025 morning, Brussels & online**

Is P<sub>4</sub> (white phosphorus) a 'Strategic' Raw Material for Europe? Where are P<sub>4</sub>-based chemicals used in 'Strategic' technologies: renewable energies (PV, batteries), electronics, aeronautics? Why P<sub>4</sub>-derived chemicals should be in the new EU '[Critical Chemicals Alliance](#)'. P<sub>4</sub> supply projects in Europe.

Programme: <https://phosphorusplatform.eu/CriticalRawMaterialsWorkshops>

Registration [here](#) (places in Brussels limited, one-day and combined tickets available)

Proposals for presentations or posters are welcome at [info@phosphorusplatform.eu](mailto:info@phosphorusplatform.eu)

During the EU [Raw Materials Week](#).

**Wed. 19<sup>th</sup> November 10h30 – 12h: ESPP General Assembly (members only)**

## EU public consultations

### Consultation for Circular Economy Act: sign the joint stakeholder call now!

**Open to 6<sup>th</sup> November 2025:** the first stage in preparing the future EU Circular Economy Act, announced for end 2026.

**Sign the [joint call](#)** for the Circular Economy Act to be ambitious for nutrient recycling, to forward sustainability, EU job creation, competitiveness, and food system resilience. The Joint Call proposes 16 actions and policy changes for the Circular Economy Act.

See details in ESPP eNews n°99 [www.phosphorusplatform.eu/eNews099](http://www.phosphorusplatform.eu/eNews099)

EU public consultation on the Circular Economy Act [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14812-Circular-Economy-Act\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14812-Circular-Economy-Act_en)

ESPP draft response, for comment [www.phosphorusplatform.eu/regulatory](http://www.phosphorusplatform.eu/regulatory)

Joint call for nutrients in the EU Circular Economy Act” [www.phosphorusplatform.eu/regulatory](http://www.phosphorusplatform.eu/regulatory)

**Sign now!** Companies and organisations wishing to sign this Call please contact ESPP [info@phosphorusplatform.eu](mailto:info@phosphorusplatform.eu)

### EU consultation on facilitating transport of wastes for recycling

**Open to 31<sup>st</sup> October**, public consultation addresses which wastes should be “green listed” for transport between EU Member States to facilitate recovery and recycling.

See details in ESPP eNews n°99 [www.phosphorusplatform.eu/eNews099](http://www.phosphorusplatform.eu/eNews099)

ESPP draft input for comment [www.phosphorusplatform.eu/regulatory](http://www.phosphorusplatform.eu/regulatory)

Public consultation “Green-listing certain waste for the purposes of shipments to recovery between Member States”

[https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14712-Green-listing-certain-waste-for-the-purposes-of-shipments-to-recovery-between-Member-States\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14712-Green-listing-certain-waste-for-the-purposes-of-shipments-to-recovery-between-Member-States_en)

### Fertilisers industry REACH+ survey

**Survey open to fertilisers manufacturers:** to collect data from on whether the current REACH+ requirement of the EU Fertilising Products Regulation is preventing CE-marking of fertilisers. This will enable input to the Council and Parliament debate later this year on the simplification omnibus legislation which includes removing this FPR REACH+ requirement.

See details in ESPP eNews n°99 [www.phosphorusplatform.eu/eNews099](http://www.phosphorusplatform.eu/eNews099)

Survey open to fertilisers manufacturers: <https://www.surveymonkey.com/r/ESPP-FPR-REACH>

### Standards consultation on proposed EU Standard for composts

**Draft EU Standard “Compost and digestate – Determination of the content of macroscopic impurities and stones” is open for public comment.** This Standard has been developed by CEN to support implementation of the EU Fertilising Products Regulation, under mandate M/564 from the European Commission DG GROW. Comments can only be submitted via national standardisation bodies. At the current Enquiry stage, both technical and editorial comments can be accepted. However, at the future Formal Vote stage, only editorial comments can be accepted.

Draft EU Standard prEN 16202 ‘Compost and digestate – Determination of the content of macroscopic impurities and stones’ (WI 00223112), developed by CEN/TC 223 ‘Soil improvers and growing media’.

Information: [Lara.vanderWoude@nen.nl](mailto:Lara.vanderWoude@nen.nl)

Read the draft Standard here (free after creating a free account) <https://komport.evs.ee/Default.aspx?s=standardCommenting&doc=19496>

### EU consultation on Feed & Food regulations simplification

**Open to 14<sup>th</sup> October**, public consultation asks for input on how to simplify various aspects of human food and animal feed regulations, whilst maintaining safety. The ‘Call for Evidence’ asks for input on how to reduce administrative burdens and improve legal clarity on animal feed additives (of relevance for recovered phosphorus), BSE safety (see EFSA mandates article below), hygiene and ‘Control’ rules, animal welfare, plant protection products, biocidal products, maximum residue rules, genetically modified microorganisms for fermentation products. The Commission’s aim is probably to simplify how regulations and standards are implemented, rather than to recast the core regulations, and will not propose modifications concerning material authorisations without prior EFSA Opinion. Nonetheless, ESPP will input to ask for an overall review of the Animal By-Product Regulations, Animal Feed Regulation and TSE Regulation to facilitate recycling whilst ensuring health and environment safety.

“Food and feed safety – simplification omnibus”, EU public consultation open to 14<sup>th</sup> October 2025 [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14824-Food-and-feed-safety-simplification-omnibus\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14824-Food-and-feed-safety-simplification-omnibus_en)

## ESPP Members

### ESPP new Member: Filo Chemical Group

The Filo Chemical Group is a specialised distribution and trading company for phosphorus based and specialty chemicals, including P<sub>4</sub>, P<sub>2</sub>O<sub>5</sub>, PPA (polyphosphoric acid), phosphates and others. In a brief introduction FILO states: “Over more than 20 years, we have established strategic partnerships and exclusive representation with a range of manufacturers in Asia, Europe and North Africa. Our experienced business team has built close customer relations in Europe, Asia and North America with sales offices in The Netherlands, Italy, Japan, Sweden and the USA. We bring chemicals industry competence and in-depth knowledge of phosphorus chemicals markets, product knowledge and experience in different markets such as Food, Pharma, Detergence and Additives”. Through becoming a Member of ESPP, Filo Chemical intends to share knowledge and support ways to move to more sustainable phosphorus derivatives supply in Europe.



Vincent van der Meijden, General Manager Filo Chemical Group <https://filochemical.eu/>

### ESPP new Member: UK Centre for Ecology & Hydrology

The UK Centre for Ecology & Hydrology (UKCEH) is an independent, not-for-profit research institute delivering science to understand and address environmental challenges, including nutrient sustainability. UKCEH's statement: “Our work includes research on the global nitrogen and phosphorus cycles, providing evidence to support sustainable resource management and policy. UKCEH led the [Our Phosphorus Future](#) report, a NERC/UNEP supported global assessment of phosphorus use, challenges, and solutions across food, water, and waste systems. We also coordinate the GEF/UNEP-funded [uPcycle project](#), which develops pathways for phosphorus recovery and reuse, and led the global [International Nitrogen Management System \(INMS\) project](#), shaping policy and practice for sustainable nitrogen management. Our research underpins national to international policy, from informing EU strategies and regulatory frameworks to contributing to UN Environment Assembly resolutions on sustainable nitrogen and phosphorus management. We work closely with governments, global agencies, and stakeholders to ensure that science is translated into effective action. We are joining ESPP to strengthen collaboration across sectors, contribute science-based insights on phosphorus governance, and support collective action towards nutrient sustainability.”



UK Centre for Ecology & Hydrology (UKCEH) <https://www.ceh.ac.uk/>

uPcycle project <https://www.upcyclelakes.org/>

8th Global Sustainable Phosphorus Summit (SPS8) - 30 September - 3 October 2025, Accra (Ghana) <https://www.upcyclelakes.org/sps8africa>

### EasyMining Ash2Phos plant construction launched

The first full-scale Ash2Phos plant at Schkopau, near Leipzig, Germany, is expected to be processing 30 000 t/y of sewage sludge incineration ash by 2027, recovering feed-grade quality calcium phosphate. The plant is being built by a joint-venture company established in 2021 between EasyMining, developers and owners of the Ash2Phos technology, and Gelsenwasser, a major German utility and infrastructure company. Construction work was officially launched May 2025 with participation of the Minister for Science and Technology of the Saxony-Anhalt Region of Germany. The Ash2Phos process dissolves ash in hydrochloric acid and the non-dissolved residue can be valorised in construction materials. Phosphorus, iron and aluminium compounds dissolved from the ash are separated by specific precipitation – dissolution steps, resulting in a purified (animal feed grade) calcium phosphate, iron chloride and an aluminium salt which can be recycled for use in wastewater P-removal, and a cake in which heavy metals are concentrated for disposal. Around 90% of phosphorus in the ash is recovered. EasyMining regret that current EU regulations prevent the recycling of the recovered calcium phosphates to animal feed, and that EU regulations today focus too much on the origin of input materials not the quality of the recovered products.

“Phosphorus recovery tech emerging at scale”, *Fertilizer International* 527, July-August 2025

EasyMining Ash2Phos technology – ESPP nutrient recycling technology catalogue <https://www.phosphorusplatform.eu/techcatalogue>

### Energy benefits of coagulants used for chemical P-removal

Carbon footprint study by IVL\* Sweden for INCOPA\*\* (ESPP Member) shows that chemical P-removal has lower electricity consumption and higher biogas yield than biological P-removal. Tighter effluent P limits (down to 0.3 mgP/l, as will be largely required by the revised Urban Waste Water Treatment Directive 2024/3019) increase climate impacts as they require a final polishing step (usually filter systems). The study considers use of iron salts (ferric chloride, ferric sulphate) or aluminium salts (aluminium sulphate and polyaluminium chloride)\*\*\*, although the choice of coagulant has a relatively small impact on the total carbon footprint of wastewater treatment. The main differences in carbon footprint are from electricity consumption (higher for biological P-removal) and replacement of natural gas by methane production from anaerobic digestion

of sewage sludge (higher with coagulants, because they trap organics as well as phosphorus). Nitrous oxide emissions are a significant greenhouse impact but are assumed to be the same for biological and chemical P-removal.

The conclusions of this IVL study confirm those of a previous study by authors from several Swedish universities (no industry funding), Högstrand et al. 2024. This study concluded significant differences in greenhouse gas emissions between biological and chemical P-removal, due to considerably higher methane emissions from the bio-P treatment process, as well as higher energy demand and lower biogas production.

\* IVL = Swedish Environmental Research Institute

\*\* INCOPA is the European Inorganic Coagulants Producers Association, a Sector Group of Cefic, the European Chemical Industry Federation [www.incopa.org](http://www.incopa.org)

\*\*\* carbon footprints of iron and aluminium salt coagulants are taken from IVL report U6780 (Johansson K, 2003 "Carbon footprints of inorganic coagulants") – not publicly available – summary published by INCOPA here [https://www.incopa.org/wp-content/uploads/2024/10/INCOPA-ExecutiveSummary\\_A4-Booklet-30102023.pdf](https://www.incopa.org/wp-content/uploads/2024/10/INCOPA-ExecutiveSummary_A4-Booklet-30102023.pdf)

"Carbon footprint assessment of chemical and biological phosphorus removal. Effluent limits of phosphorus according to the updated Urban Wastewater Treatment Directive", 26 pages, IVL, March 2025 <https://www.incopa.org/wp-content/uploads/2025/04/U6957-Carbon-footprint-assessment-of-chemical-and-biological-phosphorus-removal.pdf>

"Dynamic process simulation for life cycle inventory data acquisition – Environmental assessment of biological and chemical phosphorus removal", S. Högstrand et al., J. Cleaner Production 479 (2024) 144047 <https://doi.org/10.1016/j.jclepro.2024.144047>

See also ESPP [SCOPE Newsletter n°138](#) page 3 and [SCOPE Newsletter n°156](#) page 3.

## EU Fertilising Products Regulation (FPR)

### NMI report on possible additional materials as FPR inputs

**Report to the EU Commission assesses 20+ secondary materials for possible authorisation as inputs to EU FPR CE-Mark fertilising products: 14 are proposed to take forward to evaluate, but 8 are rejected for inadequate data.** The report assesses materials or processes for possible inclusion in FPR Annex II (CMCs = Component Material Categories). Materials proposed to take forward for evaluation include:

- Pulp & paper limes
- Vivianite from waste water treatment
- Source-separated human urine
- Feed and food industry streams (as inputs to compost, digestate)
- Potassium chloride salts from municipal household solid waste incineration
- Buffered coir
- Oil seed residues after solvent extraction
- Salts from the food industry
- Wood fiberisation residues
- Bark humous
- Alternative composting process (tunnel composting)
- Ashes from 2-stage combustion
- Sewage sludge as inputs for pyrolysis (biochars)

Materials rejected, in most cases because of inadequate data include:

- × Ammonium salts from fire-extinguisher refilling
- × Micro-nutrients from battery recycling
- × Paper industry sludges
- × Recovered mineral oils (used for anti-dusting of fertilisers)
- × Plant biomass and algae grown in wastewaters
- × Iron hydroxide from drinking water treatment
- × Residues after acid or alkaline extraction from seaweed
- × Plasma treatment of digestate
- × Ammonia recovery from wastewaters via ion-exchange
- × Lime-treated biomass

ESPP response noted that materials are considered to have 'inadequate data' even when significant EU funds have been spent on development of recycling processes and testing of recovered nutrients (LIFE, Interreg, Horizon), for example for fire extinguisher ammonia salts or algae grown in wastewaters. If the European Commission validates this report, then it seems that a recycled nutrient product cannot hope to be 'evaluated' for (possible!) inclusion into the FPR unless it is already widely produced and placed on the market. So presumably is already widely authorised under National fertilisers regulations. In which case, companies may not wish to "pay twice" to then apply for EU FPR Conformity Assessment.



Also, the materials currently being evaluated for possible assessment, are selected from those put forward by operators in the 2022 EU survey, and even if included for assessment, and then positively assessed, will not be included in possible FPR amendments until 2027 to be optimistic. That is five years. New materials appearing since 2022, resulting from innovation in the Bio-Economy or other sectors, will have to wait for a possible future second EU survey, before restarting the whole assessment process, so maybe a decade before possible inclusion into the FPR.

ESPP suggests such a ten-year delay means that the FPR is structurally failing to respond to innovation, to the needs of SMEs and to the development of the Bio-Economy.

ESPP hopes that this structural failure of the FPR to respond to Circular Economy innovation will be addressed in the current 'Evaluation' of the Regulation (see below). In the short term, ESPP requests that the following be addressed:

- ✓ ESPP submissions to the 2022 survey not considered in the report: biorefinery residue streams as inputs to digestates, both macro- and micro-nutrients from battery recycling, leaching of phosphates from biochars, pre-processing of input materials for CMCs.
- ✓ High-purity nutrient salts recovered from wastes under CMC15 (which currently excludes wastes as inputs): this would address developing recycling routes such as batteries, fire extinguishers, nitrogen or potassium recovery, without narrowly limiting to certain specific processes, whilst ensuring quality and safety criteria.
- ✓ Include a general authorisation for pre- and post-processing, to resolve current exclusions of materials simply because they have been pasteurised to ensure safety in transport, or because processes have been modified or have several stages.
- ✓ Authorise all residue streams from biorefineries (producing from plant materials: biofuels, biochemicals, biofibres, feed, food & beverage, etc), subject to criteria to ensure safety (no contact with or use of biocides, chemicals Classified for health or environment risks) – both as inputs to composts, digestates, biochars, etc, but also directly as CMCs (widening of CMC2). This would enable the FPR to respond to rapid development, innovation and local specificities of the Bio-Economy.

*NMI report for the European Commission (DG GROW) "Technical study on new materials and processes under the FPR. First Interim report; Assessment of market perspective". <https://circabc.europa.eu/ui/group/36ec94c7-575b-44dc-a6e9-4ace02907f2f/library/13adf8bb-4b43-493a-84bf-cf7ee62a592d/details>*

*An online workshop for companies and organisations who contributed to the Commission's 2022 Survey is organised, to discuss this NMI report: 1<sup>st</sup> October 14h-16h (Brussels time) <https://www.eventbrite.nl/e/workshop-new-materials-and-processes-under-the-fpr-market-perspective-tickets-1734017315469>*

## Evaluation of the EU Fertilising Products Regulation (FPR)

**The official Evaluation of the FPR is ongoing, led by public policy consultants [CSES](#). An online workshop will be organised by the European Commission 15<sup>th</sup> October (details will be published [here](#)).**

ESPP input to the public consultation welcomed the cited aim of the FPR to enable large-scale production of circular fertilisers, but underlined that today the FPR is failing to achieve this: few recycled fertilisers are CE-Mark. Establishing why, and how to resolve this, should be the Evaluation priorities.

The FPR does however provide EU-recognised criteria for recycled fertiliser products, so enabling the roll-out across Europe of nutrient recycling technologies generating such products.

ESPP underlined that the cost and complexity of FPR Conformity Assessment are an important obstacle to uptake of the CE-Mark, and so also to recycled fertilisers in certified Organic Farming. Because secondary material flows are often small and fragmented, localised, variable, Conformity Assessment is burdensome and disproportionately expensive. There is no level playing field with virgin fertilisers which benefit from a regime of industry responsibility rather than third-party audit (REACH) and self-declaration (FPR Module A).

ESPP also suggests that the FPR is failing to respond to innovation and SME needs in the fast-developing Bio-Economy, because narrowly defined lists of input materials do not cover new or evolving secondary material flows from biofuels, bioplastics, biofibres ... Input materials should be controlled principally by quality and safety criteria, not by definitions of input origins, which cannot keep up with innovation and new processes (Bio-Economy, battery recycling, circular economy ...).

ESPP underlined that the FPR may need to reconsider its structural approach, to fast-track EU recognition of National fertilisers, subject to overall EU safety and quality specifications (PFC criteria), possibly without End-of-Waste in order to retain traceability and producer responsibility, and so farmer and food-chain confidence. The FPR continues to exclude secondary material streams and fertiliser products which have demonstrated their agronomic value and safety under National authorisations. Companies are today registering products under National fertilisers regulations not the FPR, because they do not consider the FPR accessible for their products, and are unlikely to want to pay twice for both National and EU certification.

*Public consultations (closed 19<sup>th</sup> September 2025): [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14365-Fertilising-Products-Regulation-evaluation\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14365-Fertilising-Products-Regulation-evaluation_en) ESPP input is online here: [www.phosphorusplatform.eu/regulatory](http://www.phosphorusplatform.eu/regulatory)*

*An online workshop will be organised 15<sup>th</sup> October: details will be published here [www.phosphorusplatform.eu/events](http://www.phosphorusplatform.eu/events)*

## Policies impacting nutrient recycling

### EFSA mandates may lead to no longer separate Cat.1 ABP (BSE-risk) materials

**European Commission mandates ask EFSA to assess whether it is risk-justified to continue separating and incinerating (most) Category 1 ABP materials. The answer could lead to Cat.1 ash largely ceasing to exist.**

EFSA does not take decisions on legal obligations for management of Cat.1 material, but provides scientific advice to the European Commission, who may then take decisions after consultation (comitology, Member States). In this case, if EFSA conclude that BSE risks (mad cow disease = bovine spongiform encephalopathy - prion transmission) are low, considering current occurrence rates in the EU, then the Commission may move to end the legal obligation to separate and incinerate (most) materials currently classified as Cat.1 Animal By-Products. Cat.1 ash would then no longer be generated in significant tonnages. ESPP notes that EFSA may conclude that BSE risk remains significant, or the Commission may not follow EFSA's opinion with such a decision. The article below is a simplified summary: for more precise information, please refer to the texts of the two EFSA mandates and of relevant EU regulations.

The mandates to EFSA (European Food Safety Agency) from the European Commission, both issued and accepted by EFSA on 1<sup>st</sup> July 2025, specify delivery by 31/3/2026 (monitoring) and 31/12/2026 (SRM) respectively. Both mandates may not be readily understandable to non ABP (Animal By-Product) specialists and refer to alignment of EU Regulations with the current version of the WOA (World Organisation for Animal Health) Terrestrial Animal Health Code ([here](#)). One mandate concerns the definition of SRM = Specific Risk Materials. These materials are those which current EU Regulations\* specify as potential risks for BSE prion transmission. This risk-based specification is based on EFSA opinions and the BSE risk status of the European Member State. This specification of SRM and other BSE prevention measures have been stepwise relaxed over time as BSE occurrence has diminished and nearly disappeared (only five atypical cattle BSE cases in Europe in [2023](#)). SRM is currently specified in annex V of the TSE-Regulation, in particular the brain, eyes and spinal cords of all cattle in Europe, despite nearly the whole of Europe\*\* being classed today as “negligible BSE risk”. The WOA Code does not require this in countries with “negligible” BSE risk.

In the Animal By-Product-Regulation 1069/2009, SRMs are defined to be Category 1 ABPs by art. 8(b)(i) and so have to be disposed of by incineration or similar (e.g. cement kilns).

The other mandate concerns monitoring requirements. The WOA Code requires monitoring only of cattle showing clinical BSE symptoms, whereas the EU currently requires testing for those dying on farm of unknown causes or over a certain age and of those normally slaughtered > 2 ½ years of age.

EFSA are asked to assess whether the current EU requirements, stricter than WOA, bring “added value in terms of risk mitigation”, BSE detection, BSE occurrence in cattle and vCJD (BSE-variant Creutzfeldt-Jakob Disease) in humans. If EFSA conclude that the stricter EU requirements do not bring proportionate benefits, and if the European Commission, then decides to lighten EU regulatory requirements, most of the material currently classified as Cat.1 from meat processing and from fallen stock on farms could cease to be Cat.1. In case of fallen stock, the material instead will probably be rendered with Cat.2 material to cat 2 MBM allowed to be used as fertiliser. In slaughterhouses the material will become either food grade material or Cat.3 material which is then rendered into PAP (processed animal protein). Today PAP is valorised in pet food, animal feed and fertilisers (feeding of animal proteins to bovines will still be forbidden under art. 7 (1) of the TSE Regulation\*). Cat.1 material will then only come from disposal of pets, zoo animals and (pet) horses, and will result in small amounts of MBM. The quantity of Cat.1 ash (currently estimated by ESPP to contain c. 30 000 tP/y of phosphorus) will largely cease to exist.

\* TSE Regulation [999/2001](#) “laying down rules for the prevention, control and eradication of certain transmissible spongiform encephalopathies”

\*\* all EU countries are today classed as “negligible” BSE risk, except Greece (“controlled”). For Greece, this may possibly be resolved soon.

Article prepared with support from Martin Alm, EFPPA, to whom duly many thanks for his competence and patience.

EFSA mandates 1/7/2025:

“Request for a scientific opinion on the potential BSE risk of aligning the EU requirements for Specified Risk Material (SRM) removal with the revised WOA Code Chapter 11.4” <https://open.efsa.europa.eu/questions/EFSA-Q-2025-00442>

“Request for a scientific opinion on the possible alignment of the BSE monitoring and surveillance requirements laid down in Regulation (EC) No 999/2001 with the revised Terrestrial Code Chapter 11.4. of the World Organisation for Animal Health (WOAH)” <https://open.efsa.europa.eu/questions/EFSA-Q-2025-00443>

### Commission ‘Renure’ Nitrates Directive proposal moves towards adoption

**The EU Nitrates Committee has now approved—without modification—the Commission’s proposals on so-called RENURE materials.** This follows over a year of discussion, with one Member State voting against and one abstaining. The proposal will now undergo a three-month scrutiny period in the European Parliament and Council. If no objections are raised, it can then be formally adopted by the Commission.

The Commission’s stated objectives are to strengthen economic resilience and EU strategic autonomy by reducing dependence on volatile mineral fertiliser markets, while maintaining farm productivity and food security. The proposal would allow certain processed manure-derived fertilisers to be partially excluded from the Nitrates Directive limits on manure spreading in Nitrate Vulnerable Zones. The limits on total nitrogen application remain unchanged.

The proposal specifies three processing routes to qualify as RENURE:

- Ammonia stripping to produce ammonium salts
- Reverse osmosis to produce mineral concentrates
- Struvite precipitation

At the same time, possible additional environmental risks—particularly autumn applications on arable land—will need to be addressed through national action programmes.

ESPP considers that the Commission's proposed 'Renure' criteria fail on quality, clarity, pollution. They will not facilitate transport of excess nutrients away from livestock hotspots because they are imprecise and allow materials with significant organic content or which are very dilute and do not have sufficient economic value to justify transport costs (dilute 'mineral concentrates' or scrubbing solutions, struvite containing nearly 6% organic carbon). Also, the proposal does not include clear definitions so will result in varying Member States interpretations and in obstacles to investment (legal uncertainty), whereas it could have referred to the clear definitions and criteria of the EU Fertilising Products Regulation: CMC12 for struvite, CMC15 for recovered ammonia salts, PFC1(C)(I)(b) "Liquid Inorganic Macronutrient Fertiliser" for mineral concentrates. See [ESPP eNews n°99](#).

*"Commission welcomes Renure agreement in Nitrates Committee", European Commission, 19<sup>th</sup> September 2025*  
[https://environment.ec.europa.eu/news/commission-welcomes-renure-agreement-nitrates-committee-2025-09-19\\_en](https://environment.ec.europa.eu/news/commission-welcomes-renure-agreement-nitrates-committee-2025-09-19_en)

102<sup>nd</sup> meeting of the Nitrates Committee <https://ec.europa.eu/transparency/comitology-register/screen/meetings/CMTD%282025%291514/consult?lang=en>

## Sweden calls to allow nutrients recovered from wastewater in animal feeds

**Sweden's State proposals for simplification of EU legislation (July 2025) include allowing mineral recycled nutrients from wastewaters in animal feed, subject to a prior EFSA safety assessment (European Food Safety Agency).** The proposal is to modify the Animal Feed Regulation (EC) No 767/2009, Annex III, points 1 and 5, which effectively prohibit the use in animal feed of nutrients recovered from sewage or manure "irrespective of any form of treatment" or any processing. ESPP understands that Sweden's proposal, which refers to "recycled minerals" targets nutrients recovered from wastewater incineration ashes. A risk assessment by the Swedish National Veterinary Authority (SVA) concludes that pathogen risk is negligible in calcium phosphates recovered from sewage sludge incineration ash by the EasyMining Ash2Phos process (ESPP member): see ESPP [eNews n°84](#).

*"Simplification proposals. A list of simplification proposals for EU legislation from the Swedish government", Swedish Government, July 2025*  
<https://www.regeringen.se/contentassets/04cfa7f8cfe844d0bd855f232cbf9ebb/forenklingssatgarder/>

## German UBA report on legality of including P-recovery costs in wastewater fees

**100 page legal report from the German Federal Environment Agency (UBA) concludes that costs for P-recovery, as required by German law, can be charged by municipalities to wastewater fees.** UBA notes that the German sewage sludge ordinance (AbfKlärV updated 27<sup>th</sup> September 2017) makes P-recovery from sewage or sewage sludge incineration ash obligatory from 2029 for sewage works of > 100 000 (2032 for wwtps > 50 000 p.e.), but also requires to recover phosphorus, before these deadlines, as far as technically feasible and economically reasonable. For sewage works < 50 000 p.e. after the deadline, the alternative of valorisation on agricultural land remains possible but with stringent limitations. For details see ESPP [SCOPE Newsletter n° 129](#). The UBA report looks at the state of development and implementation of P-recovery processes, concluding that a number of processes are market-ready but that there is still today very limited full-scale operating experience. The legality of charging P-recovery costs to water users, in wastewater fees, is analysed in detail, looking at municipal, water and waste laws and at case law across German Regions Federal states (Länder). The report concludes that costs incurred by municipalities can generally be transferred to public utility fees where they concern fulfilment of a relevant legal obligation (as is here the case) and also under some conditions where they concern achieving this with lower environmental or societal impact (as is here the case). The report concludes that P-recovery costs can generally be considered to be chargeable to wastewater fees for costs incurred after the deadline, but also for most costs incurred before that date (e.g. development, planning, preparation, testing for P-recovery after the deadline, but also possible P-recovery implementation and operation before these deadlines). German legislation also offers the option to store sewage sludge incineration ash (separate landfill), for retrieval and later P-recovery. The report suggests that there may be legal problems in passing on costs for such storage in wastewater fees (it could be considered an unnecessary cost), and that the costs of later retrieval and P-recovery cannot be passed on to "future" water users (so would need to be somehow estimated, capitalised and charged on wastewater fees today). The report underlines that its conclusions are an 'opinion' and are not binding, and that courts may in the future define different legal positions.

*"Gutachten zur Auslegung von mit der Phosphorrückgewinnung in der Klärschlammverordnung in Verbindung stehenden gebührenrechtlichen Festlegungen", German Federal Environment Agency (Umwelt Bundesamt UBA), Texte 120/2025, Projektnummer 186179 FB001875, prepared by Rechtsanwälte GKMP Pencereci Partnerschaftsgesellschaft mbB and Aqua & Waste International GmbH, Augst 2025, 103 pages, in German with 2-page 'Abstract' in English* <https://www.umweltbundesamt.de/publikationen/gutachten-zur-auslegung-von-der-phosphor>

## Proposed ban on PFAS (inc. TPFE) filtration membranes

**ECHA will finalise EU restrictions on PFAS by end 2026. The proposal would effectively ban use of fluoropolymers (e.g. TPFE) in membranes and filters, with some application exemptions including for 6.5 years in water treatment.** The ECHA (European Chemicals Agency) evaluation of PFAS was launched in March 2023. A public consultation in 2023 led to over 5 600 responses. Analysis of these responses has led to consider 8 further use sectors, in addition to the 14 initially identified. This is taken into account in the updated 'Background Document' which will provide the basis for the RAC and REAC Scientific Committee opinions. This document conclusion starts by stating:

"All PFASs ... are either very persistent themselves or degrade into very persistent PFASs in the environment. As a consequence, if releases are not minimised, humans and other organisms will be exposed to progressively increasing amounts of PFASs until such levels are reached where effects are increasingly likely."

The current restriction proposal would prevent manufacturing, use or placing on the market, as such or included in articles or mixtures, of all PFAS as defined by OECD\*, with exemptions for some applications considered essential and where alternatives are not considered to be available (in some cases for a limited time only = horizon date).

The restriction and horizon dates for PFAS membranes in gas separation and water treatment would mean that TPFE and other PFAS membranes would need to be replaced by other materials in e.g. nutrient separation, reverse osmosis nutrient recovery, nitrogen recovery or other nutrient recovery processes.

\* The restriction proposal states: "Any substance that contains at least one fully fluorinated methyl (CF<sub>3</sub>-) or methylene (-CF<sub>2</sub>-) carbon atom (without any H/Cl/Br/I attached to it). OECD definition of PFAS", with some exceptions, conform to the OECD definition [https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/07/reconciling-terminology-of-the-universe-of-per-and-polyfluoroalkyl-substances\\_a7fbcba8/e458e796-en.pdf](https://www.oecd.org/content/dam/oecd/en/publications/reports/2021/07/reconciling-terminology-of-the-universe-of-per-and-polyfluoroalkyl-substances_a7fbcba8/e458e796-en.pdf)

"ECHA update on the per- and polyfluoroalkyl substances (PFAS) restriction process", 27 August 2025 <https://echa.europa.eu/-/echa-announces-timeline-for-pfas-restriction-evaluation>

ECHA 'Background Document' for proposed PFAS restriction, update 24 June 2025 <https://echa.europa.eu/hot-topics/perfluoroalkyl-chemicals-pfas>

## US Sustainable manure management webinar

**Nearly 100 participants for Sustainable Phosphorus Alliance webinar on phosphorus in manure, including update on the Newtrient evaluation of 500+ dairy manure management technologies, based on operational farm experience, and research into manure phosphorus flows data and improving use of secondary materials in animal feed.**

"Sustainable Phosphorus and Manure Management", US Sustainable Phosphorus Alliance webinar. 12<sup>th</sup> August 2025. Watch past SPA webinars, register for future webinars: <https://phosphorusalliance.org/resources/webinars-and-videos/>

## Newtrient manure processing technology operational evaluation catalogue

**Jeff Porter, Newtrient** [www.newtrient.com](http://www.newtrient.com) (which brings together dairy farmers' cooperatives and industries across the USA), summarised takeaways from the company's catalogue of over 500 dairy manure processing technologies, evaluated by independent experts based on farmers' experience of on-farm operation, according to criteria of commercial viability, industry value, transparency, customer service,.

He underlined the importance of solid-liquid separation (phosphorus tends to be in the solid fraction), including dealing with fine solids. Separation can be achieved upstream by in-stable systems (such as slatted floors, pre-separation belts), by use of centrifuges (with achieve 4-5x better separation than screen or screw filters) and membranes as a second stage. Better separation tends to come with higher costs.

Other interesting technologies include anaerobic digestion; chemical P-precipitation (followed by filter system for P-removal); combustion, gasification or pyrolysis.

All technologies imply costs, but may be necessary to deal with local excess manure in intensive livestock production regions, and can reduce manure transport costs or bring some revenues from recycled nutrients. However, no one technology fits all, and appropriate solutions always depend on the specific farm and local context and objectives.

## Manure P flows research

**Mahmoud Sharara, North Carolina State University**, and **Becca Muenich, University of Arkansas**, discussed the challenges of developing coherent data bases for manure phosphorus flows and manure management routes. Manure represents more than half of the total phosphorus going to land in the USA (fertilisers, other secondary sources). They presented research findings and work underway to consolidate data from farm surveys, livestock unit permitting and other sources and to develop remote sensing to identify which fields are receiving manure. Aims include to detect local P misbalances between application and crop needs, and so P loss risks, at the catchment scale. A case study was presented to highlight opportunities for low-input technologies to facilitate manure P redistribution.

**Jerry Shurson, University of Minnesota**, indicated that suboptimal management of livestock manure in high animal density production regions is a major concern for phosphorus pollution in surface waters in the USA. He noted that >40% of food-system phosphorus losses to soil and water in the USA are from livestock (citing Suh & Yee 2011, fig. 3, see [SCOPE](#)



[Newsletter n°83](#)). The dietary phosphorus requirements for livestock and poultry are well-defined, and diets can be precisely formulated to meet the phosphorus requirements and avoid overfeeding – and so minimise the phosphorus content in manure. However, unlike dairy and beef cattle, swine and poultry are unable to utilize the indigestible portion of phosphorus (phytate) that is naturally present in varying amounts in all grain- and oilseed-based ingredients without the addition of commercially available phytase enzymes to their diets. For example, the three most common ingredients used in U.S. swine diets are corn (34% digestible P), soybean meal (48% digestible P), and corn dried distiller's grains with solubles DDGS (65% digestible P) ([NRC 2012](#)). Nutritionists formulate swine and poultry diets on a digestible phosphorus basis rather than a total phosphorus basis to meet phosphorus requirements and use phytase enzyme to improve P uptake.

In contrast, feeding high amounts of DDGS to finishing beef cattle can result in feeding much more phosphorus than the animal requires. This occurs in many beef feedlots across the U.S. because DDGS is an economical and high energy ingredient and the goal is to maximize energy intake, resulting in high manure phosphorus excretion. A similar problem is emerging due to excess use of soybean meal in swine diets relative to the amount needed to meet amino acid and phosphorus requirements, and is causing increased phosphorus excretion in swine manure. This results from incentives to produce more soybeans to provide oil for the renewable diesel industry, driving soybean meal costs lower and encouraging higher dietary inclusion rates.

Dietary phosphorus use efficiency can be improved, and manure P losses can be reduced, by formulating animal feeds to avoid overfeeding phosphorus relative to the phosphorus requirement, and by using multi-phase feeding programs to get the right amount of digestible phosphorus fed to the right animals at the right time while minimising feed wastage.

## Phosphorus and health

### Misleading online information on food phosphates

**A spate of food influencer posts on e.g. [Facebook](#), [Instagram](#), ... suggest that the inorganic phosphate salt STP used as a food additive is toxic, and indeed that all phosphorus in diet is toxic ...** For STP (sodium tri polyphosphate), the 'argument' is that it is used in industrial cleaning products and can then be labelled as "harmful". This is like saying table salt is toxic because it is used for desalting roads, or phosphoric acid used in fizzy drinks is toxic because at high concentrations it is corrosive and dangerous. A chemical, such as table salt, can be dangerous if swallowed or inhaled in large quantities (inhalation often because of particles not toxicity) but harmless at lower levels in food. TSP is an authorised (GRAS Generally Recognised as Safe) food additive, used to prolong shelf life of a range of processed foods, so reducing food waste. It made up 20 – 40% by volume of domestic laundry and dishwasher detergents for decades with no identified health impacts, until it was removed in the 1990's to reduce phosphorus loads to sewage works or surface waters. The online videos not only say that "phosphate is toxic to your body" whereas the recommended daily requirement for health is 1 gP/day. It is true that in modern diets in much of the world daily phosphorus intake is significantly higher than this level (1.3 – 2.7 gP/day in Europe, of which c. 0.15 gP/day from phosphate food additives – most come from meat and vegetables). The European Food Safety Agency (EFSA 2013) concluded that there is evidence that increased blood phosphate levels may be linked to health impacts (CVD cardiovascular disease) but that there is no evidence current population high diet P levels lead to increased blood phosphate (excess P is excreted by the kidneys, except in people with kidney deficiencies).

EFSA Opinion on "Health risks associated with phosphate additives" 2013, see ESPP's [SCOPE Newsletter n°99](#)

"Health influencers mislead on cereal ingredient", ATPFactCheckers 27<sup>th</sup> August 2025 <https://factcheck.afp.com/doc.afp.com.722Y2KF>

### Phosphorus and bone health

**Statistical analysis of US population monitoring data suggests that high blood phosphorus levels in women is correlated to poor bone health (risk of osteoporosis).** The correlation was not found in men, non-white populations. Increased blood P levels (serum P) in healthy individuals, without kidney problems, as phosphorus is permanently excreted by the kidneys (see Trautvetter et al. 2018 in [SCOPE Newsletter n°129](#), Fulgoni et al. in ESPP [eNews n°70](#)). The study is based on analysis of data from nearly 5 600 persons in the US NHANES (National Health and Nutrition Examination Surveys 2015-2018) after adjusting for confounding variables. Pelvic BMD (bone mineral density), an indicator of bone health, showed a positive correlation to serum up to around 1 – 1.5 mmolP/l, but a negative correlation (significant for women, not for men) above this (median serum P was around 1.8 mmolP/l). The authors note that phosphorus is a key constituent of bone structure (which is based on calcium phosphate), but that high serum P levels may indicate calcium / phosphate misbalance or issues with P homeostasis hormones (PTH, vitamin D, ...) which can cause release of P from bones.

"Association between serum phosphorus levels and pelvic bone mineral density in U.S. adults aged 18–59 years", T. Jiang et al., *Musculoskeletal Disorders* (2025) 26:665 <https://doi.org/10.1186/s12891-025-08838-y>

### Revised kidney patient guidance on P and K targets food additives

**Updated patient guidance from the American Society of Nephrology (ASN) highlights the "significant" dietary contribution of P and K food additives, because their bioavailability is higher than natural food P and K content.** Careful control of dietary phosphorus and potassium uptake are essential for kidney disease patients, because their kidneys cannot eliminate excess of these ions as in healthy individuals. Phosphorus food additives are used to prolong shelf life and improve

texture of processed meats and fish, as a baking powder, in processed cheeses. Potassium and phosphorus food additives have tended to replace sodium additives in order to reduce general population sodium intake ("salt", related to blood pressure risks). The updated guidance is based on work by a convened group of experts to review published literature and expert opinions. ASN underline that although presence of P and K food additives is indicated on food products, there is rarely information as to the actual content of K or P. For phosphorus, ASN notes that US national diet survey data (NAHNES) indicate that P food additives represent c 0.15 gP/person/day but ASN then suggests that this may be an underestimation and refers to two 2012-2013 studies which suggest 0.6 – 0.7 gP/person\*. The revised guidance for both P and K emphasises strongly to avoid processed foods (pre-prepared meals, snack foods, store-bought bakery products (cakes, biscuits), prepared meats, processed dairy products, etc.), to avoid cola fizzy drinks (contain phosphoric acid), avoid herbal and nutritional supplements containing P or K and to look at food labels to identify presence of P or K food additives. ASN also continues to push for mandatory accurate labelling of P and K food additives on food products and for studies of the bioavailability of P and K food additives and on the actual P and K content of foods containing food additives (to improve the accuracy of dietary tables).

\* ESPP note: the 0.15 gP/person/day from food additives corresponds to estimates in the UK based on 1980's data, see [SCOPE Newsletter n°103](#), whereas the higher number seems incompatible with EFSA (European Food Safety Agency) estimate of 1.4 gP/day total P intake in diet (EFSA 2019, see [ESPP eNews n°34](#))

"ASN Kidney Health Guidance on Potassium and Phosphorus Food Additives", A. Biruete et al., *Journal of the American Society of Nephrology (JASN)* September 2025 [DOI](#).

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