

Programme

Opening by Ludwig Hermann, ESPP President (3 mins)

Objectives: identify dossiers for joint action, where data collection is needed, define how to take forward.

Overview & perspectives. Romke Postma, Laura van Scholl, NMI-AGRO Netherlands (5 mins)

EU Fertilising Products Regulation (FPR)

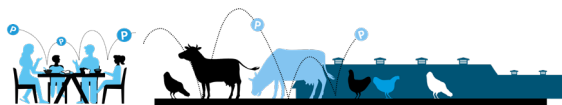
Post-processing of digestate (15 mins)

Animal By-Products (ABPs) (20 mins) - composts & digestates - ash derived products - biochars - precipitated phosphates

Animal Feed Regulation (20 mins). With **Arnaud Bouxin, FEFAC** (European Feed Manufacturers' Federation)

Recovered nitrogen (15 mins). With **Tiffanie Stephani, Yara.**

Other ongoing dossiers (10 mins): **algae, Organic Farming, EFSA Circular Economy study**



EU Fertilising Products Regulation 2019/1009 (FPR)

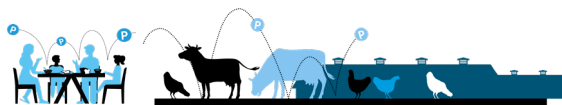
- **Enters into implementation June 2022**
- **Covers all “fertilising products”**: fertilisers (mineral & organic), plant materials, food industry by-products, composts, digestates, soil amendments, growing media, bio-stimulants, liming materials, etc.
- **First EU product legislation to confer “End-of-Waste” status**
- **Opens EU market for recycled fertilisers and for recycling technologies**
- **FPR compliance not obligatory: national fertilisers can still be sold**
- future markets will have both CE-mark and national fertilisers

Commission web page https://ec.europa.eu/growth/sectors/chemicals/specific-chemicals_en

Legal text <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R1009>



OJ L170 2019-1009
25_6_19 FPR.pdf



EU Fertilising Products Regulation 2019/1009 (FPR)

How does it work?

.... for a product to obtain EU-fertiliser status, it must:

- Contain only authorised “Component Material Categories” (CMCs, Annex II)
- Respect the criteria of one or more Product Function Categories (PFCs, Annex I)
- Be appropriately labelled (Annex III)
- Be “conformity certified” to the three above (Annex IV).

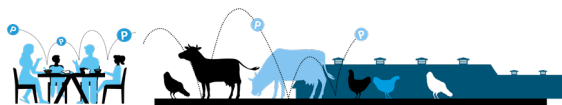
Not so simple ...

- *If a CMC is processed, it needs to be reassessed (e.g. yeast is CMC2 but yeast extract is not)*
- *A material only obtains End-of-Waste under the FPR when it becomes a certified EU-fertiliser*

Reference: Theodora Nikolakopoulou, DG GROW slides, 7/10/2020



P2 FPR overview
-Theodora Nikolakop



EU Fertilising Products Regulation 2019/1009 (FPR)

Post-processing of digestates and composts

The current wording of CMCs 3 (compost) and CMCs 4 & 5 (digestates) do not allow for post-processing.

Following ESPP raising this question last year, the Commission [proposed](#) (item 4.5) to the Fertilisers Expert Group* 22-23 Nov. 2021 the following amendment:

“An EU fertilising product may contain a solid or liquid fraction of digestate, provided that:

- a) the solid or liquid fraction is obtained by mechanical separation of digestate compliant with points 1 to 3; and*
- b) the additives needed for the mechanical solid/liquid separation comply with the requirement in point 1(d)(i) [i.e. REACH registration]. The total concentration of all additives shall not exceed 5 % of the digestate weight.”*



COM FEG 22_11_21
4.5 post processing d

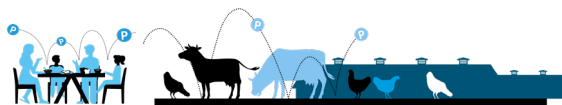
ESPP and EBA made input (15__11_2021, here: www.phosphorusplatform.eu/regulatory)

- include drying and concentration
- add ammonia stripping (“remove” or “separate” certain components, not add or modify)
- pasteurisation/sanitisation?
- define what processes are covered



ESPP-EBA note COM
FEG Nov-2021 4.5 Pos

* Fertiliser Experts Group meeting documents: www.circabc.europa.eu > European Commission > Internal Market, Industry, Entrepreneurship and SME's > Commission Expert Group on Fertilising Products = <https://circabc.europa.eu/ui/group/36ec94c7-575b-44dc-a6e9-4ace02907f2f>



EU Fertilising Products Regulation 2019/1009 (FPR)

Animal By-Products (ABPs) in EU-fertilisers

In composts and digestates (CMCs 3 and 5)

At present, **ABPs including manure are EXCLUDED** from composts and digestates;

FPR, Annex II, CMC5, 1 “An EU fertilising product may contain digestate obtained through anaerobic digestion of ... (b) derived products referred to in Article 32 of Regulation (EC) No 1069/2009 for which the end point in the manufacturing chain has been determined in accordance with the third subparagraph of Article 5(2) of that Regulation”

Commission FAQ v20/7/2021 ([HERE](#)) §8.14

“there is a precondition: an end point in the manufacturing chain for that derived product (for use in fertilising products) has to be determined under the ABPR. For the moment, none of these products (processed manure included) have an end point defined under the ABPR.”

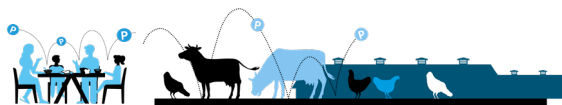
EFSA evaluation is underway (mandate M-2020-0088 of 5/5/2020 <https://open.efsa.europa.eu/questions/EFSA-Q-2020-00401>)



COM FAQ online
v20_7_21.pdf



EFSA mandate FRP
M-2020-0088 date 5_!



EU Fertilising Products Regulation 2019/1009 (FPR)

Animal By-Products (ABPs) in EU-fertilisers

In STRUBIAS materials:

- **Precipitated phosphate salts and derivatives** [https://eur-lex.europa.eu/legal-content/AUTO/?uri=PI_COM:C\(2021\)4743](https://eur-lex.europa.eu/legal-content/AUTO/?uri=PI_COM:C(2021)4743)
- **Thermal oxidation materials and derivatives** [https://eur-lex.europa.eu/legal-content/AUTO/?uri=PI_COM:C\(2021\)4751](https://eur-lex.europa.eu/legal-content/AUTO/?uri=PI_COM:C(2021)4751)
- **Pyrolysis and gasification materials** https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=PI_COM%3AAres%282021%2944211 ggg

As for composts and digestates above, **ABPs including manure are currently excluded**, until End-Points are defined:

- **for ashes:** EFSA Opinion on Cat2 and Cat3 ABP ashes is underway (mandate M-2020-0088, see above)
 - EFSA indicated to ESPP 28/7/21 that work is concluding and further data is not needed
- **for precipitated phosphates:** ESPP considers NOT relevant
 - no commercial production identified to date, except from digestate which has already passed ABP End-Point (sanitised)
 - ESPP letter 16_4_2021 and table of identified operators 23_4_21
- **pyrolysis and gasification materials** (inc. biochars):
 - NOT currently engaged by EFSA
 - develop a dossier for manure biochars for EFSA: processing conditions, evidence of safety, ...?



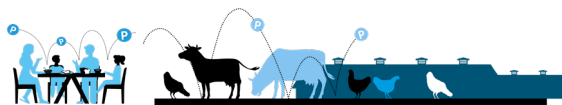
EFSA -ESPP ash
28_7_21.pdf



ESPP - SANTE -
GROW ABP End-Point:



ESPP table P
precipitation manures



Animal Feed Regulation

- **Arnaud Bouxin, FEFAC** (European Feed Manufacturers' Federation www.fefac.eu):
User industry considerations regarding recovery of nutrients from waste streams in animal feed

Animal Feed Marketing and Use Regulation 767/2009 ([here](#))

Art. 6.1: "Feed **shall not contain or consist of materials** The list of such materials is set out in Annex III."

Annex III: "Prohibited materials ... - 1.1 **Faeces, urine ... irrespective of any form of treatment or admixture** - 1.5: All waste obtained from the various phases of the treatment of the urban, domestic and industrial waste water ... irrespective of any further processing of that waste and irrespective of the origin of the waste waters".



Regulation 767-2009
animal feed Marketing

ESPP has proposed to DG SANTE (7_7_2021 www.phosphorusplatform.eu/reuglatory):

A = chemicals produced from **ashes** (sewage sludge or manure incineration ashes):
e.g. phosphoric acid. **Should be considered "safe"**.

G = nitrogen recovered via **gas stripping**: **Data needed. EFSA dossier?**

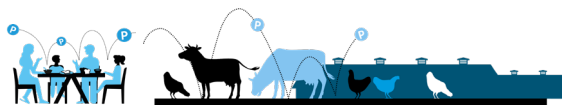
B = biomass grown in sewage sludge or manure (e.g. algae). **Case-by-case assessment needed.**



ESPP DG SANTE
20_10_20.pdf



ESPP DG SANTE
7_5_21.pdf



Recovered nitrogen

➤ Tiffanie Stephani, Yara.

Nitrogen recovery routes:

Ammonia stripping by: increasing pH by adding e.g. caustic soda - bubbling air through the digestate - increasing temperature - decreasing pressure (vacuum) - gas membrane separation. **Other** : membrane / nanofilter, adsorption, ion-exchange.

ESPP estimate potential for N-recovery from sewage: 75 000 tN/y ([input to JRC 10_10_21](#))



ESPP input JRC EoW consultation 10_10_20

EU Fertilising Products Regulation: Proposed CMC-WW (now CMC 15)

(COM proposal v22/11/2021): “a recovered **high purity material**, which is **ammonium salt**, sulphate salt, phosphate salt, elemental sulphur, calcium carbonate or calcium oxide, or mixtures thereof, of a purity of at least 95 % dry matter of the material. ... recovered from waste generated from (a) a **production process [not involving ABPs]** or (b) a **gas purification or emission control process designed to remove nutrients from off-gases** derived from one or more of the following input materials and facilities ... (vi) **manure** ... (vii) **livestock housing facilities [in both cases]** on condition that **the resulting high purity material has undergone hygienisation** ...”

Animal Feed Regulation (see above)

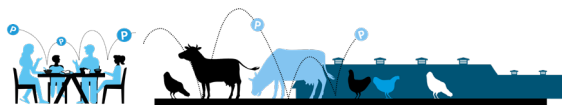
Currently prevents placing recovered ammonium salts on the market as a commodity chemical.



COM FEG 22-23_11_21 item 4.1

To discuss:

- collect data and prepare dossier to EFSA with objectives:
- inclusion in FPR of recovered ammonium salts, without hygienisation
- exemption from Animal Feed Regulation Art. 6.1 prohibition



Other ongoing dossiers

Biomass grown with waste inputs

E.g. algae grown in wastewaters, digestates

See ESPP - EABA – Eureau letter to EG ENVI 17_11_2021

- is End-of-Waste status needed?
- are ABP End-Points needed?



ESPP EABA Eureau
letter COM EoW algae

Manure-recovered nutrients in Organic Farming

Updated ([15 7 2021](#)) Annex II to Organic Farming Regulation 2018/848 allows use as fertiliser / soil conditioner of farmyard manure, dried, composted, fermented manure but “**factory farming origin forbidden**”
to See FiBL “Reflections” [paper](#) 29_9_2021



FiBL Leschenne
Speiser recycled P po



Organic Farming
inputs annex 2021_11t

EFSA study 2021-2022

European Food Safety Agency “Food and feed safety vulnerabilities in a circular economy”

Stakeholder call <https://www.efsa.europa.eu/en/stakeholders/calls-for-stakeholders#questions>

Workshop slides 29/10/21 <https://www.efsa.europa.eu/en/events/stakeholder-workshop-food-and-feed-safety-vulnerabilities-circular-economy>

→ ESPP proposed input for discussion: routes for nutrient recycling to feed and food chain, regulatory blockages, literature list, comments on workshop slides



ESPP draft letter EFSA
CE study 16_11_21.pdf

Other ?