

ESPP input to EU consultation on Organic Farming 18/11/2022

Consultation open to 21/11/22 https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13368-Organic-production-authorized-products-substances-updated-list_en on modification of Annex II of the Regulation 2021/1165 listing materials authorised for use in Organic Farming

ESPP (European Sustainable Phosphorus Platform) welcomes this proposed inclusion of recovered struvite and precipitated phosphates in EU organic production.

This corresponds to the general principles of organic farming (2018/848 art.5(c)) “the **recycling of wastes and by-products** of plant and animal origin as input in plant and livestock production”.

This will help address the **phosphorus deficit in organic farming** which can limit productivity and compromise the Green Deal targets for expansion of organic production (see Reimer et al. 2020 summarised in www.phosphorusplatform.eu/eNews049).

This corresponds to the positive EGTOP Opinions 2016 (“[Final Report on Fertilisers II](#)”) and June 2022 (“[Final Report on Plant Protection \(VII\) and Fertilisers \(V\)](#)”).

ESPP welcomes the wording specifying that **recovered precipitated phosphates for organic production must “meet the requirements laid down in Regulation (EU) 2019/1009” (EU Fertilising products Regulation FPR)**. This will ensure quality requirements and limits to organic carbon and contaminants. It should be clarified however:

- Whether or not this means that Conformity Assessment has been carried out (FPR Annex IV)? This would imply significant costs, not maybe necessary if the material is being used in a local recycling circuit or under national fertiliser rules.
- Whether this means meeting FPR Annex II CMC12 requirements only, or also Annex I PFC and Annex III labelling requirements?
- Does this wording cover also the “derivates” defined in FPR Annex II CMC12?

To avoid ambiguity, ESPP suggests to add: “*Recovered struvite and RECOVERED precipitated phosphates*” and to retain the word “struvite” which is well-recognised.

ESPP also suggests that the wording “**factory farming**” is unclear. Does this include livestock in stables for part of the year? Does it include intensive livestock production where the animals or birds have access to some space outside? Is there some ‘threshold’ of livestock per m2 of stable or per m2 of outside area?

ESPP regrets that this proposed amendment does not cover the following recycled nutrient materials (see detailed document attached) and requests an EGTOP Opinion on these:

- Renewable calcined phosphates (cf. positive EGTOP Opinion 2016 (“[Final Report on Fertilisers II](#)”))
- Other phosphorus fertilisers recovered from ashes as defined in FPR CMC 13
- Potassium fertilisers recovered from municipal waste incineration ashes
- Recovered elemental sulphur
- Bio-sourced adsorbents used to treat wastewaters
- Phosphorus-rich pyrolysis and gasification materials (inc. biochars)
- Algae and algae products grown to treat wastewater
- Vivianite
- Recovered nitrogen from off-gases.

ESPP questions the current wording of Annex II of Regulation 2021/1165 which states: “*Fertilisers, soil conditioners and nutrients(1) listed in this Annex may be used in organic production, provided that they are compliant with - the relevant Union **AND** national legislations on fertilising products ...*”. This suggests that a material may only be used if it is authorised under BOTH national AND EU fertilising products regulations. We assume that this is not what is intended, and that in fact materials may be used if:

- respecting EU Fertilising Products Regulation 2019/1009
- OR respecting relevant NATIONAL fertilising products regulation
- OR if they are used under national waste or equivalent regulation (e.g. “farmyard manure”)
- OR possibly two or three of the above.

In the case of EU 2019/1009 or national fertilisers regulations, it should also be clarified whether “*compliant with*”, here, means having obtained certification by a Notified Body (or equivalent process under national regulation) or whether it means is conform to the criteria of the regulation (self-declaration). This is significant, because the certification process can represent a significant cost, so could be an obstacle to nutrient recycling in Organic Production.

Proposed list of “new” recycled nutrient materials for consideration for addition to Annex II of EU Regulation [2021/1126](#)

Proposed addition of struvite and calcined phosphates to Annex II of EU Regulation 2021/1126

References:

EGTOP Opinion of 2/2/2016 on recovered struvite and calcined phosphates

https://ec.europa.eu/agriculture/organic/eu-policy/expert-advice/documents/final-reports/final-report-egtop-on-fertilizers-2_en.pdf

EGTOP Opinion of June 2022 on recovered struvite and precipitated phosphates https://agriculture.ec.europa.eu/farming/organic-farming/co-operation-and-expert-advice/egtop-reports_en

EU Organic Farming inputs list Regulation 2021/1126 <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R1165&from=EN>

EU Fertilising Products Regulation 2019/1009 (FPR) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R1009>

FPR CMC12 (STRUBIAS criteria for “Precipitated phosphates and derivates”) [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)

FPR CMC13 (STRUBIAS criteria for “Thermal oxidation materials and derivates”) [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)

Joint IFOAM – ESPP letter to DG AGRI on struvite and calcined phosphates, 17th June 2020 https://www.phosphorusplatform.eu/images/download/Joint-letter-ESPP-IFOAM-EU-recovered-phosphates-17_6_20.pdf

European Commission proposal to add “Recovered struvite and precipitated phosphate salts” submitted to public consultation to 21/11/2022 https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13368-Organic-production-authorized-products-substances-updated-list_en

Proposed text for Annex II of Regulation 2021/1165		Explanation
Name	Description, specific conditions and limits	<i>Not intended for inclusion in the Regulation Annex – for information only</i>
<i>Comment: requirements that a material respects (certain) criteria from the EU Fertilising Products Regulation (FPR) should not be understood to mean that the product must have the EU-label because (i) the product may not respect other criteria of the FPR and (ii) the producer may choose to market the product as a National Fertilisers (not as an EU-Fertiliser) for reasons of local market recognition or because of the complexity/cost of the EU FPR Conformity Assessment obligations (Annex IV).</i>		
Recovered struvite and recovered precipitated phosphates		European Commission proposal submitted to public consultation to 21/11/2022 https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13368-Organic-production-authorized-products-substances-updated-list_en
Renewable calcined phosphates Renewable phosphates from thermal oxidation.		<i>The term used in the EGTOP Opinion is “calcined phosphates”, but this is not legally defined. It is proposed instead to use the terminology of the FPR Annex II CMC 13 (STRUBIAS) + “Thermal oxidation materials and derivates”</i>
	Produced by thermal treatment of ash produced during the	<i>This is the description used in the EGTOP Opinion, adapted to limit to ONLY “sewage sludge or similar”, in order to respect the spirit of the EGTOP Opinion (page 17, 3rd paragraph).</i>

	<p>combustion/incineration of municipal sewage sludge or similar.</p> <p>Products respecting the FPR CMC13 criteria with inputs other than 1e, 1f, 1h and 1j and 2.</p>	<p><i>The input materials included are:</i></p> <ul style="list-style-type: none"> - CMC 13 - 1e = sewage sludge, as per the EGTOP Opinion - 1f = wastewater from food processing etc, which is comparable to sewage sludge but with less concerns about contaminants - 1h and 1j = necessary processing chemicals and auxiliary fuels needed to effective incineration/combustion operation. - 2 = animal by-products. This is coherent in that 2021/1165 already lists 'bone meal' and 'degelatinised bone meal'
	<p>ChromiumVI should be below 0.5 mgP/kg</p>	<p><i>The FPR fixes a limit of 2 mgCrVI/kg (PFC 1(C)). EGTOP suggested "non detectable", but this is undefined and will vary with technological progress. We suggest a feasible limit which is an order of magnitude lower than the FPR limit.</i></p>
	<p>The product shall respect the following criteria of the EU Fertilising Products Regulation 2019/2009:</p> <ul style="list-style-type: none"> · Annex II CMC13 (Thermal oxidation materials or derivates, subject to the remarks above) · Annex I PFC 1(C) Inorganic fertiliser · Specifically, Annex I PFC 1(C)(I)(a)(i)-2(b) · Annex III Part II (PFC 1 Fertiliser) (4b) 	<p><i>As for recovered struvite above, reference to both CMC13 and PFC 1(C) is necessary to ensure respect of FPR contaminant limits and reference to Annex III Part I (4b) is necessary to ensure plant availability. Additionally reference to Annex I PFC 1(C)(I)(a)(i)-2(b) ensures simply that the product contains at least 12% P₂O₅. This is necessary to ensure that the "Thermal oxidation material" is indeed a "phosphate", in that the FPR category "Thermal oxidation materials" can cover products with near zero phosphorus content, such as liming materials.</i></p>
	<p>Product with < 25% water P solubility.</p>	<p>Including "derivates" (as defined in the FPR Annex II CMC 13 STRUBIAS) opens to products such as calcium phosphate recovered from sewage sludge incineration or gasification ash or from meat and bone meal ash (e.g. EasyMining Ash2Phos PCP, Kopf Syngas recovered calcium-X-phosphate). These are comparable for sustainability and safety to the specific "calcined phosphates" product considered in the EGTOP Opinion.</p> <p>However, "derivates" (as defined in the FPR Annex II STRUBIAS) can include water soluble products. Conform to the Organic Farming legislation requirement for "low solubility", a maximum 25% water solubility as per the FiBL reflections paper 2021.</p>
	<p>Factory farming origin manure forbidden</p>	<p><i>Similar wording as for other entries of Regulation 2021/1165 Annex II. "Manure" is specified to clarify that for example struvite recovered from processing of animal by-products such as bones is acceptable, irrespective of whether the bones are from Organic or factory farming, which is coherent with the inclusion of "Products or by-products of animal origin" including "Bone meal or degelatinised bone meal" in 2021/1126 (this entry does not have the mention "not from factory farming").</i></p>

<p>(Recovered) elemental sulphur</p>	<p>Elemental sulphur and salts of sulphate recovered from gas purification or gas control processes, as defined in the EU Fertilising Products Regulation 2019/2009 Annex II CMC15.</p> <p>The product shall also respect the criteria of the EU Fertilising Products Regulation 2019/2009 Annex I PFC 1(C) Inorganic fertiliser.</p>	<p><i>“Elemental sulphur” is already listed in 2021/1126, but recovered sulphur products may be a mixture of elemental sulphur and sulphur salts.</i></p> <p><i>The FPR limits for contaminants and pathogens are considered adequate to ensure health and environmental safety in Organic Farming. However, the FPR specifies limits for different contaminants in different places, some in CMC15, some in PFC 1(C). It is therefore necessary to specify respect of both CMC15 and PFC 1(C).</i></p> <p><i>It is probably not necessary to modify the Regulation Annexes 2021/1126, if COM can confirm that recovered elemental sulphur is included under the existing line “Elemental sulphur” with appropriate tolerance for presence of low levels of other sulphur compounds.</i></p> <p>For example, see ESPP Fact Sheet “Fertipaq Sulphur” 7/2021</p>
<p>Bio-sourced adsorbents used to treat wastewaters.</p>	<p>Material generated by adsorption of nutrients from wastewaters onto bio-sourced materials.</p> <p>The bio-sourced material shall be listed for use in Organic Farming in 2021/1126 Annex II.</p> <p>The product shall respect EU Fertilising Products Regulation 2019/2009 Annex I PFC 1(A) Organic fertiliser or I(C) Inorganic fertiliser.</p> <p>The product shall also respect EU Fertilising Products Regulation 2019/2009 Annex II CMCWW.</p>	<p><i>Reference to PFC 1(A) or 1(C) ensures that the material has fertiliser value.</i></p> <p><i>The FPR limits for contaminants and pathogens are considered adequate to ensure health and environmental safety in Organic Farming. However, the FPR specifies limits for different contaminants in different places, some in CMCs, some in PFC 1. It is proposed to respect both CMCWW (which has a comprehensive and demanding list of contaminant limits) and PFC 1.</i></p> <p>For example, see ESPP Fact Sheet “Phos4You crabshell adsorbent” 6/2021. However, this example would currently be excluded, because 2021/1126 includes “Mollusc waste. Only from organic aquaculture or from sustainable fisheries” but NOT crab waste.</p>

<p>Phosphorus-rich pyrolysis and gasification materials (inc. biochars), applied as a fertiliser.</p>	<p>The product shall respect the criteria of the EU Fertilising Products Regulation 2019/2009 Annex II CMC14 “Pyrolysis and gasification materials”.</p> <p>The product shall also respect EU Fertilising Products Regulation 2019/2009 Annex I PFC 1(A) Organic fertiliser.</p> <p>Factory farming origin manure forbidden</p>	<p>2021/1126 already lists biochar as a soil conditioner “Biochar – pyrolysis product made from a wide variety of organic materials of plant origin and applied as a soil conditioner. Only from plant materials, when treated after harvest only with products included in Annex I”.</p> <p>Phosphorus-rich biochar, e.g. from municipal sewage, would provide a renewable phosphorus source for Organic Farming, and would be coherent with the EGTOP Opinion of 2/2/2016 which considers acceptable all products from municipal sewage if the production process ensures pathogen safety and minimises contaminants. However, the EU FPR STRUBIAS CM14 criteria (“Pyrolysis and gasification materials”, which includes biochars) currently exclude sewage sludge as an input for biochar, whereas EGTOP specifically stated (in the same Opinion) that struvite and calcined phosphates should be admitted for Organic Farming only after inclusion into EU fertilisers regulation. The FPR CMC14 allows as inputs for biochar production: food processing wastes, biomass, biowastes and certain animal by-products, which can be considered to be acceptable for Organic Farming because they are listed in Regulation 2021/1126. It is therefore proposed to refer to the FPR CMC 14 criteria as appropriate to define input materials and ensure contaminant and pathogen safety.</p> <p>The FPR limits for contaminants and pathogens are considered adequate to ensure health and environmental safety in Organic Farming. However, the FPR specifies limits for different contaminants in different places, some in CMC14, some in PFC 1. It is therefore necessary to specify respect of both CMC14 and PFC 1.</p> <p>Reference to PFC1(A) ensures that the biochar is indeed a fertiliser (not a “soil conditioner”, as already included in 2021/1126), because the PFC 1(A) criteria specify minimum nutrient contents.</p> <p>FPR CMC14 authorises biochars from manures, which is a potentially significant route for recycling phosphorus and other nutrients, so the exclusion of “factory farming” should be indicated. It is specified that this exclusion applies only to “Manure”, to clarify that for biochars from processing of animal by-products such as bones is acceptable, irrespective of whether the bones are from Organic or factory farming, which is coherent with the inclusion of “Products or by-products of animal origin” including “Bone meal or degelatinised bone meal” in 2021/1126 (this entry does not have the mention “not from factory farming”).</p> <p>For example, see ESPP Fact Sheets “Pyreg biochar” 6/2021</p> <p>ESPP Fact Sheet “TerraNova” is not covered, in that this is not a biochar but a derivate, produced by chemical processing of a (sewage sludge) biochar.</p>
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<p>Algae and algae products grown to treat wastewater.</p>	<p>As far as directly obtained by the processes specified for “Algae and algae products” in 2021/1126. Algae grown as part of a system to treat municipal sewage or wastewaters from processing of foods, beverages, pet foods, animal feeds or dairy products. The product shall respect EU Fertilising Products Regulation 2019/2009 Annex I PFC 1(A) Organic fertiliser. The product shall also respect EU Fertilising Products Regulation 2019/2009 Annex II CMCWW.</p>	<p>“Algae and algae products” are already included in 2021/1126 but only for “from organic or collected in a sustainable way” (that is, harvested in nature). Growth of algae to treat wastewaters enables sustainable algae production, by recycling secondary nutrients to the algae biomass, and the algae systems are also effective in reducing pathogens and decomposing organic contaminants.</p> <p>The acceptance of algae grown in sewage treatment would be coherent with the EGTOP Opinion of 2/2/2016 which considers acceptable all products from municipal sewage if the production process ensures pathogen safety and minimises contaminants. Pathogen and contaminant safety is ensured by respect of the EU FPR criteria.</p> <p>Reference to PFC 1(A) ensures that the biochar is indeed a fertiliser (not a “soil conditioner”, as already included in 2021/1126), because the PFC 1(A) criteria specify minimum nutrient contents.</p> <p>The FPR limits for contaminants and pathogens are considered adequate to ensure health and environmental safety in Organic Farming. However, the FPR specifies limits for different contaminants in different places, some in CMCs, some in PFC 1. It is proposed to respect both CMCWW (which has a comprehensive and demanding list of contaminant limits) and PFC 1.</p> <p>For example, see ESPP Fact Sheet “Sabana microalgae” 12/7/2021</p>
<p>Vivianite</p>		<p>No action needed because “Inorganic micronutrient fertilisers” are already listed in 2021/1165 (e.g. iron)</p>
<p>Recovered nitrogen from off-gases</p>	<p>As defined in CMC15 of the EU Fertilising Products Regulation. Factory farming origin manure forbidden</p>	<p>EGTOP 6-8 June 2018: “Novel fertilisers obtained by stripping of ammonia” recommended not to include in Annex 1. Although the application concerned use for nutrition of algae, the opinion seems to be general. An updated Opinion could be requested from EGTOP taking into account other uses and different possible recovered products.</p>