

Summary ESPP working meeting on recycled nutrients in EU Fertiliser Regulation revision

Brussels, 29th June 2016

Participants: see list annexed

DG presentation (see slides annexed)

Eric Liégeois and Vincent Delvaux, DG GROW welcomed this meeting as an informal discussion forum providing input to the Commission proposal. The formal Council and Parliament decision process, including consultation of EESC and Committee of Regions, is now underway. An EU Fertilisers Working Group meeting is planned **Monday 7th November 2016** to enable formal exchange between Member States, stakeholders and Commission. DG GROW is reflecting on how and when discussions to raise awareness about the future possible candidate Conformity Assessment bodies (could be in October 2016 if time allows).

They outlined key objectives of the proposed revised Fertiliser Regulation (FR) as follows:

- take into account innovations such as nutrient recycling, precision delivery and slowrelease fertiliser products, organic carbon and bio-stimulants which enhance nutrient uptake and soil quality. The FR respects the new regulatory approach and will facilitate innovation, by enabling flexible testing standards to show compliance, rather than the current system of rigid type-bound standards
- new materials/products will only be added into the FR (modifications of annexes) if a "real market" is demonstrated
- guarantee safety for food production. The text introduces legal responsibility for fertiliser manufacturers (not farmers as users) for possible impacts of their product throughout the food chain
- improve coherence between FR and other legislation (Waste, REACH, Animal By-Products (ABPs), see below). EU fertilisers, under the new FR (showing conformity to both CMC Component Material Category and PFC Product Function Category criteria), will de facto leave waste status, so avoiding current differing implementations of End-of-Waste criteria between Member States.
- "optional harmonisation". EU fertilisers can be placed on the market in any MS. However, MS can authorise additional national fertilisers. MS can also, if they wish, choose to apply mutual recognition and so authorise also in their own territory a national fertiliser from another MS.

Regarding definitions of CMCs

- the empty box for ABPs (CMC11) will be completed by DG SANTE, but only after the FR text is published. DG SANTE and ABP experts will define the "end point" in different ABP materials/processing chains beyond which the material can become a FR product, subject to conformity to FR requirements. However, ABP systems for sanitary safeguard and urgency procedures will continue to apply.



- For CMC6 (food industry by-products), the current FR proposal covers only a small number of listed, specific food-industry streams. DG GROW is aware that there are many others. Difficulty is that MS have varying positions regarding the "Waste" status of such flows. This list could be widened by Parliament/Council, subject to only adding materials which pose no contamination risks and which have a potential market for trade for nutrient recycling. Similarly, the definition of "mechanically processed" plant materials CMC2 could be widened.
- Also, it would make sense to specify that CMC6 materials can be used as input to CMC3 and CMC5 (composts and digestates)

On the above points, meeting participants suggested **need to clarify** in FR wording that:

- MS should not be able to maintain national End-of-Waste criteria for EU FR conform materials (Art 18): otherwise an EU FR fertiliser could still be a "waste" in the MS
- Can a MS authorise as a national fertiliser a product made of EU FR CMCs but which does not meet EU FR PFC contaminant criteria ?
- EU FR conformity should mean that not only an EU FR product can be placed on the market ("sold") in any EU MS, but also that it can be used in agriculture, horticulture and forests ("applied")

Stakeholder organisation proposals and other dossiers underway

Presentations were made summarising main positions and proposals of stakeholder organisations: ESPP, Copa Cogeca, European Biogas Association, European Compost Network, Fertilisers Europe, ECOFI, Eureau. See slides annexed.

ESPP also summarised the JRC 'STRUBIAS' work now launched to develop impact assessment and proposed criteria for integration of **struvite**, **ash-based materials and biochars** into the FRs (see in ESPP slides and in DG GROW slides)

ESPP and Koen Desimpelaere summarised the EIP-AGRI Focus Group on Agricultural Use of Recycled Nutrients (FG19) see ESPP slides attached. This is independent to the FR process, but of relevance. **ESPP invited input for the Focus Group experts' process on quality and monitoring standards for recycled nutrient products** (case studies/experience, examples of standards systems in operation, proposals for local testing or demonstration project (Operational Groups), R&D or dissemination needs ...

DG GROW also pointed to **Vanguard Initiative Bio-Economy pilot project** "**Biogas Beyond Energy**",¹ particularly concentrating on products from digestate of livestock manure, led by Lombardy Region (Gabriele Boccasile present).

¹ See Lombardy Region press release 21/6/2016 <u>http://www.regioni.it/dalleregioni/2016/06/21/lombardia-biogas-e-energia-fava-intesa-con-industrie-bioeconomia-importante-in-momento-di-crisi-464769/</u> and Bio-Economy pilot

http://s3vanguardinitiative.eu/sites/default/files/contact/image/vanguard_initiative_flyer_bio_1.pdf



Discussion of FR issues identified

During the afternoon (DG GROW no longer present due to other engagements), the following points were identified by participants as important for ensuring the FR workability for recycled nutrients:

STRUBIAS process: struvite, ash-based materials, biochars

important that JRC work progresses in order to enable validation by stakeholders and MS and integration into the FRs at the same time as or immediately after FR adoption
need for a pragmatic approach, avoid encyclopaedic inventory all information, rather pragmatic compilation of sufficient information to show real market and safety and to define operational criteria

Other new CMC categories

- Mineral N fertiliser products from biogas/digester ammonia stripping
- Mineral concentrates after membrane separation in liquid waste streams / manures (subject to having sufficient nutrient concentrations to have fertiliser value)
- Precipitated recovered phosphates (other than struvite)
- Processed manure (e.g. dried, pelletised, nutrient balanced) may be covered by currently empty box CMC11 = ABPs) with the essential requirement being sanitisation

PROPOSED ACTION: ESPP to consult to prepare a list of all possible 'candidate materials' which seem to be currently not covered by the FR annexes.

Objective is not necessarily to push for addition of all identified materials, but to have an overview of possibilities.

Criteria for adding future new CMC categories

The criteria for adding/modifying Annexes I- IV as written in Art. 42.1 pose questions as written. Absence of risk or likely trade may not be pertinent for a CMC which is used as a raw material for fertiliser production: these criteria are applicable to products placed on the market, not to raw materials². Participants note however that it should not be possible to simply "dilute" contaminants in CMCs (combining with other raw materials with lower levels of a given contaminant to achieve PFC contaminant limits).

PROPOSED ACTION: ESPP to request to clarify this with DG GROW and at STRUBIAS working group, in particular regarding ashes where different ashes can either be raw materials or directly fertilisers

² For example, an incineration ash may contain high heavy metal levels (hazardous waste) and be then converted into an inorganic fertiliser by a process on the incinerator site (energy use) in which the heavy metals are removed so that the product respect PFC1 contaminant limits. In this case, there is no trade and no risk after processing. If the ash is not admitted as a CMC, however, then the product cannot be sold as an EU fertiliser.



Widening of CMC6 food industry by-products

Current list is highly restrictive.

Some participants would prefer, rather than a list (which will inevitable forget some locally specific food industry), a definition specifying that **all food, animal feed, cosmetic industry and bio-energy by-products and sludges** should be included, unless they contain chemicals which are not authorised under these regulations.

One participant noted that organic residues from food industries have "waste" status by the Waste Framework Definition, not "by-product", posing issues of wording and of interaction with Waste Framework Definition

PROPOSED ACTION: ESPP to propose, after exchange with participants, a possible open definition wording, and to compile a list of proposed materials to add.

Traceability

General agreement of participants to the principle of requiring traceability for all CMCs, through to final fertiliser product, susceptible to contain organic contaminants from: sewage biosolids (which is currently excluded from FRs), animal manures (maintain existing traceability as defined in ABP Regulation)³, (separatively collected) household food wastes. NOTE: mechanically separated household organic wastes are excluded in proposed FR.

Traceability should be designed to be pragmatically feasible, e.g. lists of farms, not by individual time/batches (not possible in anaerobic digester with several day – week residence time), for concerned production line not for whole plant.

Traceability is considered by participants as important for user and consumer confidence, feasible if pragmatically defined (e.g. already done for Nitrates Directive manures) and susceptible to incite to improve quality management.

It would be necessary to clarify who is responsible for ensuring and controlling such traceability.

PROPOSED ACTION: define a joint proposal on traceability between a number of stakeholders to put to Council/Parliament. ESPP to take lead

Sewage sludge / bio-industry sludge / mechanically sorted municipal waste

There are different positions between stakeholders regarding acceptance of sewage biosolids as input materials, e.g. to composts, digestates.

For other input materials to composts and digestates, there is a need for more precise input materials list, with reference to waste codes. In particular, clarification is needed regarding food waste from households, because different MS apply different definitions.

³ The traceability of manure is defined on the current ABP regulation. The "Commercial document" standardises the data (Annex 7 chap 3 of RCE 142/20011)



Effectiveness as a fertiliser / P solubility / nutrient content

Participants generally agreed that SOME minimum requirements should be fixed for nutrient availability for fertiliser PFCs – in order to ensure that a product is indeed a fertiliser. However, participants had differing positions as to which solubility tests should be required. Participants agreed that existing recognised phosphorus solubility tests should be used, but different MS have different test "traditions".

The tests currently cited in Annex III (labelling) are CEN standardised (water, formic acid, NAC).

Participants agreed that water solubility for P should be specified in labelling, because this is important information for farmers, but that low water solubility does not necessarily mean low plant availability in all conditions (e.g. struvite). NAC (neutral ammonium citrate) solubility was suggested by several participants as a good indicator of plant availability of phosphorus (c.f. P-REX tests).

Dry matter definitions / minimum nutrient limits for organic fertilisers, composts & digestates

Positions varied on this question:

- some participants suggest that minimum nutrients contents for the (organic-containing)
 PFC categories, in particular PFC1(A), should be defined as % dry matter (not fresh weight)
 because dry matter is in any case more coherent and reliable (water content can vary with drying over time).
- others consider that % wet weight should be maintained, as this is generally current practice
- some participants proposed "organic matter" rather than "organic carbon" as criterion.
- Some suggest that these criteria need to be revised to ensure that composts and digestates, solid and liquid, are not excluded. These will in any case mostly have to be declared as "organic soil improvers" because of the minimum nutrient limits.

Animal by products

There is a strong expectation from participants as regards completing the current empty box for CMC11 "Certain Animal By-Products". Important priority for a number of materials and sectors.

- Should cover (i) processed manure, e.g. appropriate hygienisation and (ii) mineral concentrates from manure (see above "new CMCs)
- Sanitised Category 2 & 3 animal by-products which are used directly as fertilisers or in fertiliser production

PROPOSED ACTIONS: concern of some participants that DG SANTE is not moving forward and not consulting on this. ESPP to coordinate action towards DG SANTE requesting preparation to be engaged now with objective to be ready and published at the same time as the FR.

ESPP to develop a concerted CMC11 list proposal.



Processed manure (Nitrates Directive)⁴

Participants consider that the Fertilisers Regulation revision is an important opportunity to clarify the application by MS and by the European Commission (Nitrates Directive PROPOSED ACTION Programmes) of what is covered or not by "processed manure" under the Nitrates Directive, in particular for:

- Solid and liquid mineral-form fertiliser products, which no longer behave in the soil/crop system like organic manure materials. An "End-of-Manure" processing point could be defined.
- Organic products which are produced in processes using partly manure input, partly other inputs (e.g. anaerobic digester using mixed feeds)

PROPOSED ACTION: establish a WORKING GROUP of concerned stakeholders to develop proposed wording and consult concerned Regions and authorities (inc. DG ENVI), then to propose to Council and Parliament. ESPP will initiate, with aim to find a volunteer 'coordinator'.

<u>REACH</u>

Need to explicitly clarify that CMC2 (mechanically processed plant material), CMC11 (ABPs), CMC4 and CMC5 (digestates), are not subject to REACH

Digestate categories - CMC4 Energy Crop Digestate, CMC5 Other Digestate

Participants agree with the principle of having a category of digestates made from "clean" plant materials, and possibly also manure, with lighter Conformity Assessment requirements and suggest to widen input materials for CMC4 to not only energy crops but also other crop residues and other green wastes (separately collected park and garden green wastes).

Specific wording and technical issues

Participants flagged as needing clarification or adjustment

- chemically synthesised organics
- bio-polymers
- "fossilised" carbon materials (exclude petrochemicals, but not peat)

- definition of "non-processed or mechanically processed biologically material" – make wider – use same wording in different CMCs

- biuret and other contaminant limits: testing should not be required in materials where contaminants can be justified to be not expected to be found

⁴ Processed manure: Art. 2(g) of the Nitrates Directive: "'livestock manure': means waste products excreted by livestock or a mixture of litter and waste products excreted by livestock, even in processed form". See SCOPE Newsletter n° 100 <u>http://www.phosphorusplatform.eu/images/download/ScopeNewsletter100.pdf</u>



Positive definition of "inorganic fertilisers"

The current definition of "inorganic fertilisers" as everything which is left over after defining "organic" and "organo-mineral" is considered by many participants as susceptible to result in problems, and not clear for users and the market.

Reference is made to Fertilisers Europe proposal⁵. This limits C in "inorganic fertilisers" to 1% as organic carbon.

NOTE: it needs to be verified that materials such as recovered struvite with >1% organic C could be sold as "organo-mineral fertiliser" taking into account that these are defined as "co-formulations".

⁵ Fertilizers Europe proposal for definition of "inorganic" fertiliser:

http://ec.europa.eu/transparency/regdoc/?fuseaction=feedbackattachment&fb_id=335A7E89-C10B-CF71-1052B67A4847DEC2 "An inorganic fertilizer shall not contain nutrients other than nutrients from animal or plant origin, unless processed into a mineral form. The maximum content of organic C in inorganic fertilizers should be limited at [1%] maximum. This excludes by convention carbon coming from coatings and from urea condensates",



List of participants at ESPP Fertilisers Regulation meeting 29th June 2016 Brussels

Martin	Alm	EFPRA - European Fat Processors and Renderers Association
Margot	Auvray	FEAD (European Fed. Waste Management & Env. Services)
Jennifer	Bilbao	Fraunhofer IGB / BioEcoSIM
Gabriele	Boccasile	Lombardy Region, Agriculture
Nathalie	Buijs	FEAD (European Fed. Waste Management & Env. Services)
Nicolas	De La Vega	European Biogas Association
Rob	De Ruiter	Ecophos
Dominique	Dejonckheere	COPA-COGECA
Vincent	Delvaux	EU - DG GROW
Koen	Desimpelaere	EU EIP-AGRI
Caroline	Douhaire	Leibniz Science Campus Phosphorus Rostock
Philippe	Ehlert	Alterra (Wageningen)
Philippe	Eveillard	UNIFA France
Daniel	Frank	DPP German Phosphorus Platform
Kevin	Grauwels	Flanders Government
Patricia	Grolleman	ICL Fertilisers
Julie	Guérin	FNADE French Fed Waste Management & Depollution Services
Bengt	Hansen	Kemira
Ludwig	Hermann	Outotec
Antoine	Hoxha	Fertilisers Europe
Pierre	Jaouen	Roullier Group / Timac Agro Int
Laurent	Le Corre	Brittany Region
Olli	Lehtovaara	CEPI / Metsä Group
Irmgard	Leifert	European Compost Network (ECN)
Eric	Liégeois	EU - DG GROW
Erik	Meers	NuCy / University of Ghent / BioRefine Cluster
Simon	Minett	Challoch Energy BVBA, Belgium
Alexej	Parchomenko	Masters thesis manure recycling Denmark
Mike	Parr	PWR biochar
Benoït	Planques	Italpollina / ECOFI
Kaisa	Riiko	BSAG (Baltic Sea PROPOSED ACTION Group)
Marie	Sagen	IWA (International Water Association)
Ruben	Sakrabani	Cranfield University
Oscar	Schoumans	Alterra (Wageningen)
Stefanie	Siebert	European Compost Network (ECN)
Emilie	Snauwaert	VCM Mestverwerking
Tiffanie	Stefani	Fertilisers Europe
Chris	Thornton	ESPP (European Sustainable Phosphorus Platform)
Bertrand	Vallet	EUREAU (European water industry federation)
Kimo	van Dijk	ESPP (European Sustainable Phosphorus Platform)
Koen	Van Keer	Yara
Wiebren	van Stralen	LTO Netherlands



Commission Proposal for a revised Fertiliser Regulation

ESPP workshop 29 June 2016

Eric LIEGEOIS - DG GROW



Why revising the Fertiliser Regulation 2003/2003?

- To create a level playing field between all fertilising products
- To better protect health and environment
- To facilitate nutrient recovery and reduce dependency from critical raw materials: make this industry more sustainable
- To reduce administrative burden and legal uncertainties (e.g. type listing, wastes status, animal-by-products status,...)



What are the trends observed in Fertilisers sector?

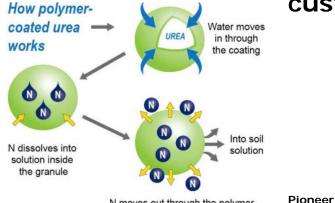


Precision farming: machinery, ٠ IT, GPS-assisted,...

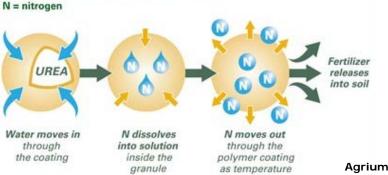
Crop-spraying drones can apply fertilizer more efficiently to save money and reduce environmental impact.



Products improvements: slow-release, blends, customisation,... **Temperature-Controlled Diffusion**



N moves out through the polymer





What are the trends observed in Fertilisers sector?

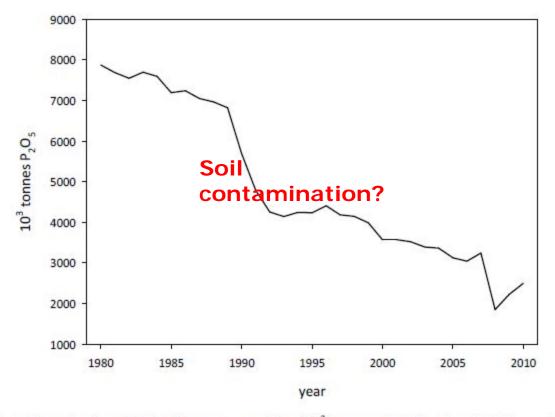


Figure 11 Evolution of mineral P fertilizer consumption (10³ tonnes P₂O₅) in the EU-27 member states + Norway from 1980 to 2010 (source: IFA DATA (2012)).



How can a Fertilisers Regulation make use of fertilisers more sustainable?

- Increase users' choice or companies' portfolio for more sustainable products, by stimulating:
 - Diversification of feedstock (bio-based, recycled)
 - New features: slow-release, nutrient polymers, inhibitors, chelating agents, plant biostimulants,...
 - Blends, organo-minerals

→ Levelling the playing field in access to market for all fertilising products

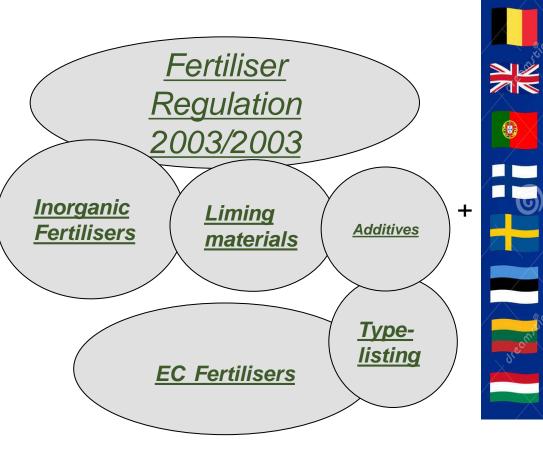


How can a Fertilisers Regulation make use of fertilisers more sustainable?(2)

- Strenghten informed choice of users: →labelling (help "advisors", support precision farming)
- Improve the environmental footprint of feedstock: → regulating levels of contaminants, impurities
- Improve the products' efficiency: → regulating minimum quality standards.



Today's situation in EU



28 National Fertilisers Regulations

Placing on the market of 'National Fertilisers'

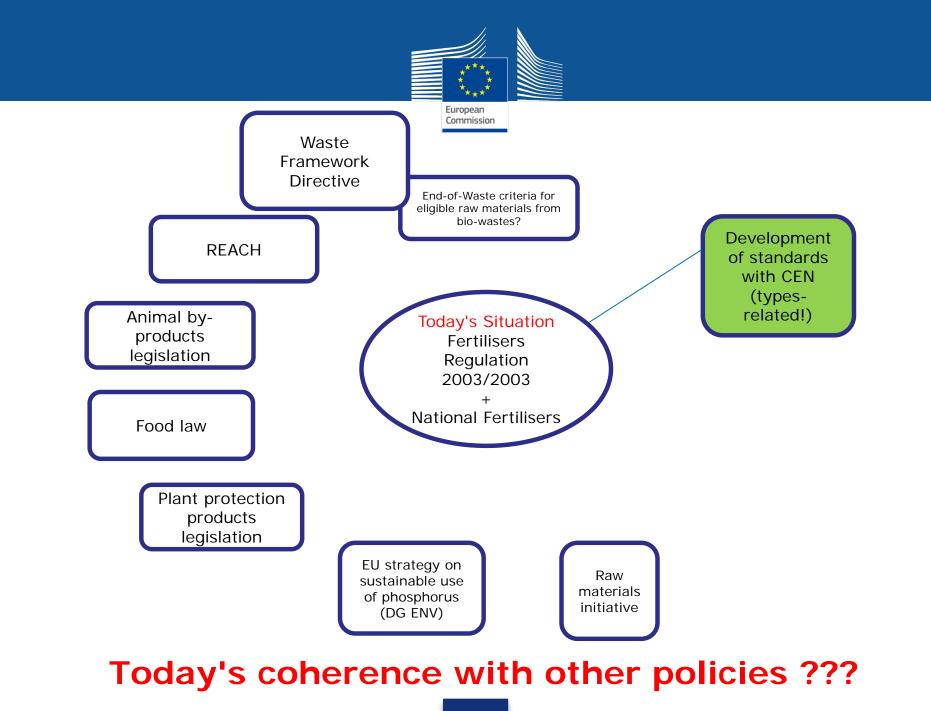
Scope open to other fertilising materials

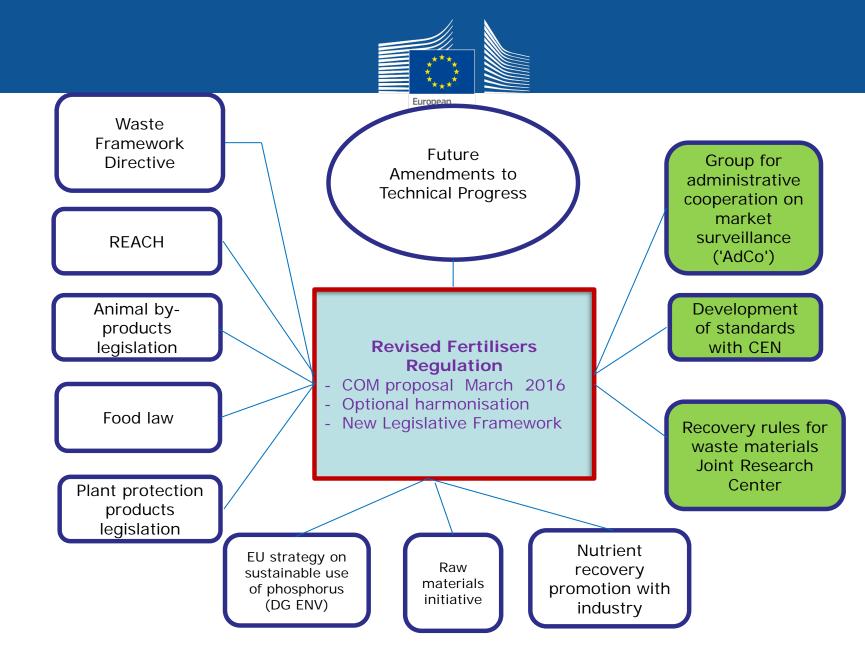
Mutual recognition !

#

ł

澎





Tomorrow's links established with other instruments



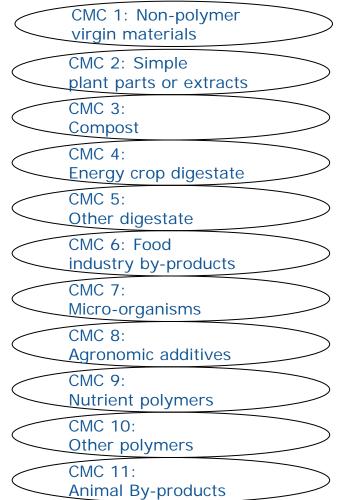
Optional harmonisation

- Member States may allow other fertilisers on their markets without the CE marking
- Harmonise rules at EU level for products :
 - where scientific consensus exists,
 - where need to freely circulate exists
- Less market disruptive: CE-products compete with national ones



2. Scope for new combinations

Component Material Categories



Product Function Categories (I) Solid (A) Organic (II) Liquid PFC1 - Fertiliser (I) Solid (B) Organomineral (II) Liquid (C) Inorganic (I) Macronutrient PFC2 – Liming material (II) Micronutrient PFC3 – Soil Improver (A) Organic (B) Inorganic PFC4 – Growing medium (A) Inhibitor PFC5 – Agronomic additive (B) Chelating agent (A) Microbial PFC6 – Plant Biostimulant (B) Non-Microbial PFC7 – Fertilising product blend



NLF: Conformity assessment procedures

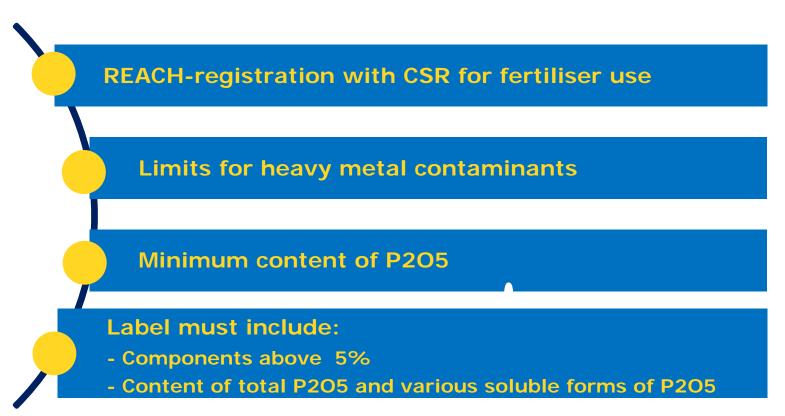
- Procedure depends on component material and product function (Annex IV, Part 1)
- Four modules (Annex IV, Part 2)
 - Module A: Internal production control
 - Module A1: Internal production control plus supervised product testing
 - Module B + C: EU-type examination and conformity to type based on internal production control
 - Module D1: Quality assurance of the production process



Illustrative example 1:

how to obtain a CE Mark for inorganic fertiliser (PFC 1(C)) composed of superphosphate (CMC 1)

Main product requirements:

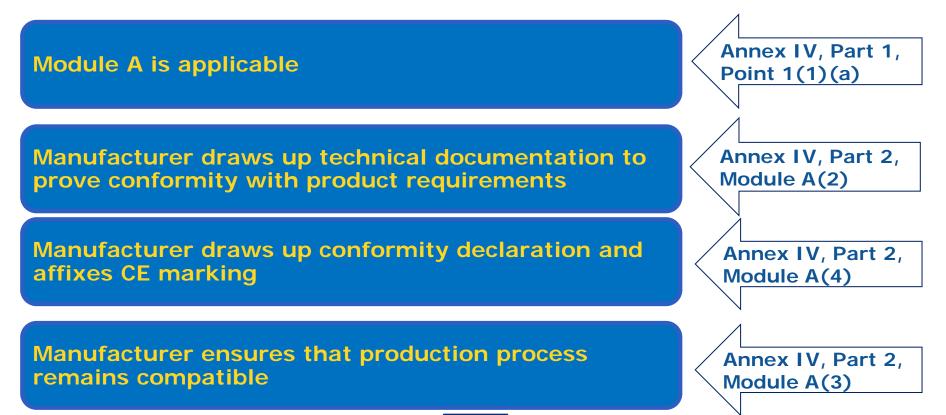




Illustrative example 1:

how to obtain a CE Mark for inorganic fertiliser (PFC 1(C)) composed of superphosphate (CMC 1)

Conformity assessment:

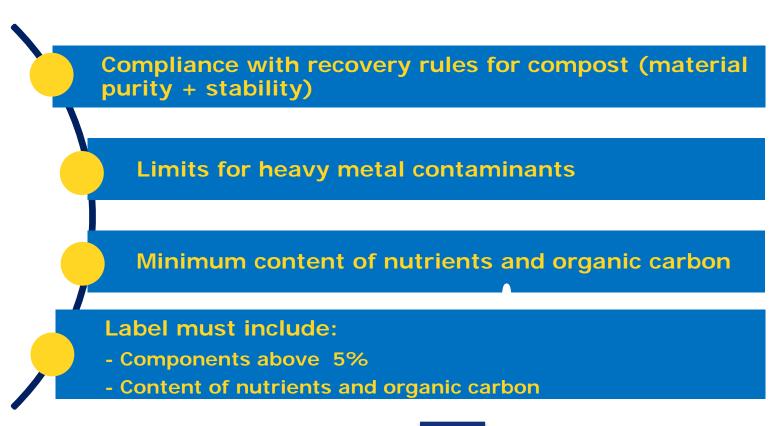




Illustrative example 2:

how to obtain a CE Mark for organic fertiliser (PFC 1(A)) composed of compost (CMC 3)

Main product requirements:





Illustrative example 2:

how to obtain a CE Mark for organic fertiliser (PFC 1(A)) composed of compost (CMC 3)

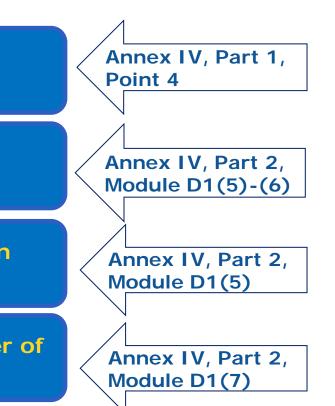
Conformity assessment:

Module D1 is applicable

Manufacturer operates a quality system under surveillance of notified body

Quality system includes input material inspection and output material sample testing

CE marking indicates of the identification number of the notified body





Preparing the future

- 1. Development of recovery rules for struvite, biochar and ash-based products
- 2. GROW mandated JRC IPTS (Seville, ES)
- 3. Kick-off meeting on 6 and 7th July 2016
- 4. Contract will last until end 2018
- 5. Inclusion of JRC recommendations in Annex II and amendments to Annex IV via delegated acts



<u>"Commission Proposal for a new Regulation</u> for making available on the market of CE marked/EU Fertilising Products"

- Adopted on 17th March 2016: proposal + impact assessment reports: <u>http://ec.europa.eu/DocsRoom/documents/15949</u>
- Public consultation after adoption: <u>http://ec.europa.eu/transparency/regdoc/?fuseaction=fee</u> <u>dbackreport&doc_id=3092157</u>
- On-going co-legislative process (Council, EP, National Parl+EESC+CoR)



Conclusions

- Level playing field, scale up industrial production of organic fertilisers
- Eliminating the regulatory barriers for placing on the market CE-marked fertilising products
- Alternative feedstock, cleaner feedstock, lowered environmental footprint (cadmium, biodegradable plastics)

Closing the loop between organic waste and fertilisers

The benefits of the proposed EU regulation



inorganic and organic fertilisers across the EU





ESPP meeting on EU Fertiliser Regulation revision project Brussels 29th June 2016

Morning:

- overview of proposal: DG GROW Eric Liégeois, Vincent Delvaux
- positions of: ESPP, Fertilizers Europe, ECOFI, European Biogas Association, COPA-COGECA, European Compost Network, EUREAU

Afternoon:

- discussion of technical issues of proposed Fertiliser
- **EIP AGRI Focus Group on agronomic use of recycled nutrients (information)**
- JRC criteria process for struvite, ashes, biochars (STRUBIAS)





Fertiliser Regulation: additional comments sent by email

- Acceptance in Europe of crops grown outside EU using non Fertiliser Regulations conform waste-derived materials
- Compost using animal by-products (CMC3 / APB Regulation)



Fertiliser Regulation: documents

Summary of proposed Regulation, in ESPP's SCOPE Newsletter n° 120 <u>http://www.phosphorusplatform.eu/images/scope/ScopeNewsletter120.pdf</u>

Complete EU Commission proposed text http://ec.europa.eu/DocsRoom/documents/15949

ESPP comments <u>http://www.phosphorusplatform.eu/platform/2015-09-09-</u> <u>10-54-12/regulatory-activities</u>

All stakeholder comments published by EU http://ec.europa.eu/transparency/regdoc/?fuseaction=feedbackreport&doc_i d=3092157



- **ESPP** is favourable to the project
- important for nutrient circular economy and return of carbon to soil
- subsidiarity is positive: Member States can continue to authorise local products
- flexible and open approach will enable innovation
 but CMC/PFC complexity: risk of loopholes, accidental exclusions



Traceability

ESPP proposes obligatory traceability and labelling for any product susceptible to contain organics (= not if incinerated) from

- sewage sludge
- manures
- household food wastes derived organics
- \rightarrow Refer to art. 6(5) 6(7) packing specifications
- ightarrow Could be coherent with Annex IV Conformity Assessment
- \rightarrow No contradiction to internal market / CE mark



Effectiveness as a fertiliser

Art 42(1)(b) specifies that new PFC or CMC should be "sufficiently effective" ... but this is not defined

ESPP proposal:

- Either show solubility in water or neutral ammonium citrate (>80% ?)
- Or provide demonstration trials and specify for what crops, what soil pH



Digestates

No justification for having a specific CMC for "Energy crop" digestates

 \rightarrow Conflicts between food and energy crop production

Conformity Assessment Procedures (modules A and D1) should be "lighter" for digestates using ONLY the following input materials:

- energy crops
- other non processed crop by products
- manures



Clarify criteria for adding new CMCs or PFCs

Art. 42.1 specifies three conditions for modifying Annexes I – IV

- Likely significant trade
- Evidence of no risk
- "sufficiently effective"

This is not applicable as written: e.g.

- a new CMC may not be susceptible to trade if used near site of production

- risk of a CMC can only be assessed as function of its use, after processing to PFC

ESPP proposes to specify separately criteria for additions to Annex I (PFCs) and Annex II (CMCs)



Coherence with REACH

Add "digestate" to REACH Annex V, Entry 12: → exclusion from REACH of composts, biogas AND DIGESTATES.

Specify that Art. 2(7)d of REACH ("recovered substances") applies to any product covered by the revised Fertiliser Regulation which is not produced from virgin materials



New CMCs

Criteria definition underway: struvite, ash-based materials, biochars - objective should be JRC criteria preparation and submission to Member States in time to add into Annexes 'immediately' after Regulation publication - keep it simple, not collect 'all' data, only demonstrate effectiveness and safety

New materials for which criteria should be launched:

- \rightarrow 'mineral' N fertilisers recovered from organic waste treatment, gas scrubbing
- \rightarrow Dried / pelletised / nutrient balanced animal manures
- \rightarrow Other precipitated phosphates (K-struvite, brushite ...)

Sewage derived products:

→ safety (contaminant), traceability, Conformity Assessment specifications





Other comments on technical wording and definitions

- Definition "non processed or mechanically processed" biological material
- Specify concentrations as dry mass
- Definition of organic content of PFC1(C) "inorganic" fertilisers
- Food industry by-products -> input materials for CMC5 digestates
- Polymers -> admit bio-polymers, polymers for granulation, flocculation ...
- Contaminant limits for pharmaceuticals should apply to inorganic fertilisers if they are recovered from relevant sources



Other comments on technical wording and definitions

- Definition "non processed or mechanically processed" biological material
- Specify concentrations as dry mass
- Definition of organic content of PFC1(C) "inorganic" fertilisers
- Food industry by-products -> input materials for CMC5 digestates
- Polymers -> admit bio-polymers, polymers for granulation, flocculation ...
- Contaminant limits for pharmaceuticals should apply to inorganic fertilisers if they are recovered from relevant sources



Fertiliser Regulation: struvite, ash, biochars (STRUBIAS)

- ESPP proposed criteria published <u>www.phosphorusplatform.eu/regulatory</u>
- DG GROW mandate to JRC to prepare draft criteria (insert into annex II CMCs)
- JRC work launched. Expert group designated to support this work (STRUBIAS)
 First meeting 6-7 July
- **Draft "Background document" JRC 21/6/16: 130 pages, 30 general questions:** *E.g.*: "Q2. What are the major limitations that restrict the collection of crop residues ? What is the expected cost of their collection" or "Q30. What are the other drivers and mechanisms for the determination of mineral P-fertiliser prices in Europe?"

ESPP proposals:

- collect sufficient information to justify effectiveness, market <u>potential</u>, safety NOT try to be exhaustive
- > Draft pragmatic operational criteria, not write a thesis
- Fix objective to complete criteria and consult Member States <u>before</u> publication of Regulation



EIP-AGRI Focus Group FG19 "Recycled Nutrients"

- **ESPP + 60 organisations proposed "Agronomic use of recycled nutrients"** See SCOPE Newsletter n° 114 <u>http://www.phosphorusplatform.eu/images/scope/ScopeNewsletter114.pdf</u>
- Theme selected by EIP-AGRI. 20 experts selected (inc. ESPP). Launch 5/2016.
 Work < 1 year. <u>https://ec.europa.eu/eip/agriculture/en/content/focus-groups</u>
- Expected Focus Group outputs
 - "mini-papers" (written by expert group, published by EIP-AGRI)
 - proposals for EIP-AGRI Operational Groups
 - identify R&D needs possible input to Horizon 2020
 - dissemination needs and other actions

Possible mini-papers suggested to date: 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.

→ ESPP lead for mini paper on quality and monitoring standards for recycled nutrient products. Input and expert contacts welcome info@phosphorusplatform.eu



info@phosphorusplatform.eu

www.phosphorusplatform.eu 🔰 @phosphorusfacts





european farmers

european agri-cooperatives

Fertilisers Regulation ESPP Meeting Brussels, 29th June 2016

Dominique Dejonckheere

FER(16)5935

Who are Copa and Cogeca?

Copa [23 million European farmers and family members] and **Cogeca** [22,000 European agricultural cooperatives]. Copa and Cogeca work together in **a joint secretariat** based in Brussels

Mission

To ensure a viable, innovative and competitive EU agricultural and agri-food sector, capable of meeting growing demand for food/non-food/bioenergy

How?

By promoting the views of European farmers and agricultural cooperatives to influence EU decision-makers, the media and public opinion



Review of the Fertilisers Regulation

Farmers should not have to bear the costs of this fertilisers review

- A cadmium level below 60 mg/kg P2O5 puts pressure on fertiliser prices – this argument backs Copa and Cogeca's proposal to cut import duties to zero
- CE marked organic fertilisers of non-agricultural origin can compete against organic matter from agricultural sources and further complicate the implementation of the nitrates directive



Review of the Fertilisers Regulation

Farmers need high-quality and safe fertilisers with appropriate labelling. Soil quality and consumer confidence must not be endangered in order to get rid of municipal waste

- End-of-waste criteria for digestate must provide a solid basis for their safe use
- EU end-of-waste criteria must not be less stringent than the stricter criteria already in place at national level



Review of the Fertilisers Regulation

We promote further incentives and investments to recycle nutrients in particular in the use of livestock manure

This would be in response to increasing scarcity of phosphorus and in fighting climate change



Copa and Cogeca's position

- Establish a positive definition of inorganic fertilisers and a limited list of CE marked inorganic fertilisers, together with their EU specifications
- Set a cadmium limit that is not below 60mg + a transitional period
- Review the EC's proposal on coated fertilisers + set a transitional period
- Establish a Constitutive Material Category (CMC 11) for processed manure and mineral concentrate
- Set higher safety and quality standards for organic and organomineral fertilisers (xenobiotic compounds, P solubility, at least 3% N)
- ✤ Set a minimum for phosphate solubility and labelling



Thank you for your attention

www.copa-cogeca.eu



Agenda title | Title of presentation | Name | tt.mm.yyyy | 7

EBA's position on proposal to revise the Fertilisers Regulation

Nicolas de la vega European Biogas Association ESPP 29th June EU Fertiliser Regulation Meeting



Impact on digestate sector and overall reaction

Impact of revision on digestate market:

- Biggest share to remain local and national
- Yet, big opportunities to develop:

 Economies of scale and technology
 Trade in border regions local not always national
 Improve economic value and consumer's confidence

EBA welcome's overall proposal, including new PFC, CMC, labelling and conformity



EBA recommendation 1: Product Function Categories

Assessment current text: Quality requirements in current text exclude digestate from PFCs. Big barrier to Circular Economy!

Recommendation:

- PFC 1 (A) Org. fertilisers: set NPK and C to DM
- PFC 3 (A) Org. soil improvers: set C to DM; divide in liquid and solid subcategories

Impact:

- Coherent with safety requirements already set in DM
- Better account of organic substances' value
- No impact on safety or labelling (in FM)



EBA recommendation 2: Expand CMC4

Assessment current text: most agri AD plants using low risk residues to fall under most stringent conformity assessment (Module D1) –Admin burden

Recommendation:

 Energy Crop Digestate CMC4: Add 'manure' and 'crop residues' as input materials

Impact:

- Significant admin reduction for most in-farm AD installations by using method of internal conformity assessment (Module A)
- More compatible with Circular Economy and Energy Union priorities
- No impact on safety, as strong conditions on apply PFC and CMC



Facilitating a level playing field for digestate in EU legislation

Digestate in REACH:

- Current situation: Digestate not formally excluded and likely to cause heavy burden on producers if applied.
- Recommendation: add digestate to Annex V Entry 12 of REACH along with compost and biogas; Commission to propose technical amendment

Nitrates Directive:

- Current situation: diverging and often disproportionate national interpretations of 'animal manure' in 170 kg/h limit
- Recommendation: Commission to give guidance to MSs, keeping in mind technical developments in manure processing and pro-rata principle



Thank you

Nicolas de la Vega European Biogas Association

Renewable Energy House Rue d'Arlon 63-65 B - 1040 Brussels

+32 24.00.10 – 82 delavega@european-biogas.eu www.european-biogas.eu



ECN's Position on the Proposal for an Fertilising Products Regulation / COM(2016) 157

ESPP- Technical Meeting on the Proposal of the New Regulation on Fertilising Products 29 June 2016 / Brussels



ECN – European Compost Network

Dr. Irmgard Leifert /Board Member of ECN e.V.

ECN - Redesign of ECN's Logo / May 2016





European Compost Network ECN e.V. Excecutive Director Dr. Stefanie Siebert

Email: info@compostnetwork.info Website: www.compostnetwork.info



EU Transparency Register: 26513411360-51

ECN – Mission and Visions

Vision

ECN's vision is living well within the limited resources of the planet respecting the organic cycle.

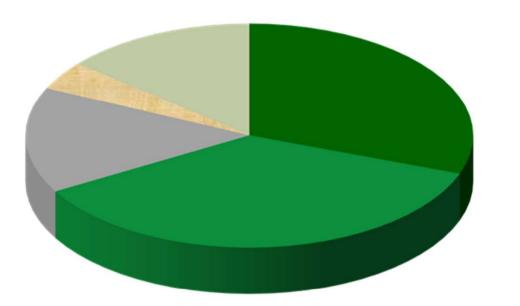
Mission

Ensure that we protect soils for the next generations by:

- Being Ambassadors of the organic cycle
- Promoting separate collection and biological treatment of organic resources
- Promoting production and use of quality assured compost and digestate
- Supporting the circular economy and creating local jobs



ECN - Status of Membership



■ Biowaste Organisations (22)

Companies (26)

Academic Institutes (11)

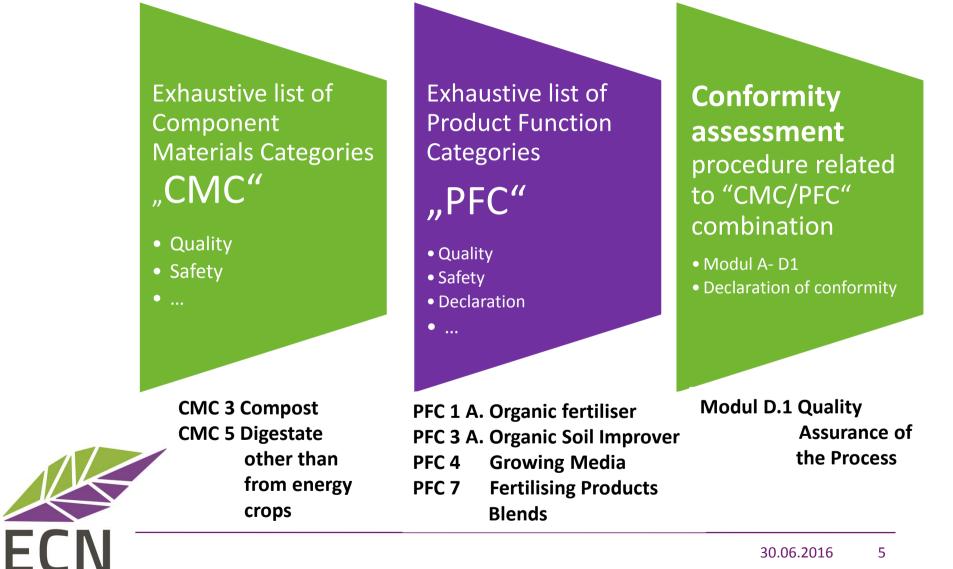
Governments (3)

Non-profit Environmental Organisations (10)

ECN represents more than 3.000 treatment plants with more than 30 M tpa treatment capacities in 27 European countries.



NFR – New structure and allocation of compost and digestate from biowaste



ECN – Position on the New Fertiliser Regulation (NFR) / 05 May 2016 1)

General support on the objectives of the NFR

- Boosting organic matter (biowaste) recycling from biowaste within CE Package
- Integration of organic fertilising products into the goals and scope of the NFR
- Introducing harmonised EU rules for products diverting from organic waste materials
- Creating access to CE marking and free trade for organic fertilising products across EU
- Maintaining the existing "Optional Harmonisation" scheme, free choice to opt for compliance with national rules for fertilising products restricted to national markets or
 - CE marked fertilisers with unrestricetd access to EU market





ECN – Position on the New Fertiliser Regulation (NFR) / 05 May 2016 (2)

• General support on the objectives of the NFR

- Adoption of the most requirements and specifications for compost and digestate set in the <u>JRC Report "End-of waste criteria (EOW) for</u> <u>biodegradable waste subjected to biological treatment (compost &</u> <u>digestate): technical proposal (2014)</u>
- Building up the quality-assurance procedure as integral part of EOW into the conformity assessment procedure for CE marked fertilising products from compost and digestate
- Determining the EOW-status for compliant products from biowaste sources fulfilling all requirements of the NFR



ECN- Requets for clarification in the NFR regarding to compost and digestate (1)

- NFR <u>Article 18</u>: EOW-Status according to Article 6 (1) of Directive 2008/98/EC for CE marked fertilising products
 - Referring to Article 6 No 4 "Where criteria have not been set at Community level under the procedure set out in paragraphs 1 and 2, Member States may decide case by case whether certain waste has ceased to be waste taking into account the applicable case law...."
 - Determining if/in what case national EOW status of compost and digestate produced from approved input materials listed in the NFR, can be used on national markets only
 - Parliamentary procedure: Amendments of the criteria set in the Annexes of the NFR for compost and digestate shall be adopted in accordance with the regulatory procedure with scrutiny set in Article

39(2) of Directive 2008/98/EC



ECN- Requets for clarification in the NFR regarding to compost and digestate (2)

- In <u>Article 45</u> "Amendments to Regulation (EC) No 1069/2009 linked to Annex II, CMC 11 "Certain Animal By-products"
 - Determination of an *"End point in the manufacturing chain"* for organic fertilisers and soil improvers referred to in Article 32 (EC) No 1069/2009
 beyond which they are no longer subject to the requirements of the ABPR
 - Clarification is needed, if either ABPR treatment parameters are predominant over the proposed time/temperature files in the proposed NFR
 - Legal certainty is required due to existing national exemptions from ABPR by treating biowaste from households for compost /digestate production



➡ ECN welcomes the initiative of the DG GROW discussing these most relevant issue with DG SANTE

ECN- Requets for clarification in the NFR regarding to compost and digestate (3)

- Input material for CE marked fertilising products CM3/CM5 Annex II
 - *Biowaste according to Directive 2008/98/EC*
 - ABP of categories 2 and 3 according to (EC) No 1069/2009
 - Living or dead organisms or parts of them, which are processed or unprocessed only by manual, mechanical...dissolution... extraction...
 - <u>Exemptions</u>:
 - Organic fraction of mixed municipal household waste separated through mechanical, physical-chemical, biological and/or manual treatment
 - Sewage sludge, industrial sludge (?), dredging sludge
 - ABP category 1 according to (EC) No 1069/2009

ECN calls for a defined, authorized input list on organic materials for producing compost and digestate for CE marked fertilising products

ECN requests a guidance documents with waste codes, material origins and material specifications (referring to ECN- QAS / JRC Report EOW, Tab. 14)



Input materials for producing compost/ digestate

ECN-QAS Manual, 2014

JRC Report on EOW criteria for compost and digestate, 2014

A			QUALITY MANUAL		Page 8
ECNIQAS		INPUT MATERIALS			ANNEX C II 2
EWC code		Waste type	Specification of perm materials	htted	Remark
	canteen waste			with diverting	for catering waste
20 01 25	Edible oil and fat			Only edible oil and fat of animal origin is covered by ABPR ¹¹ In this case it is included in the obtinition of catering waste	
20 01 38	Wood other than mentioned in 20 01 37			Natural wood. Not allowed if contains veneers, other coatings or preserving substances.	
20 01 99	Other tractions not otherwise specified		Separately collected biowaste from households and similar institutions	Bio-bin; brown-bin collection; If it contains catering/ kitchen waste: ABPR ¹⁰ Individual national regulations with diverting treatment regularments for catering waste must be considered	
20 02 Garder	and park wast	es (including	cemetery waste)		
20 02 01	Biodegradable waste		Garden and park waste Algae, pond waste Landscape gardening waste, green waste from cemeteries		
20 03 Other I	municipal wast	s			
20 03 02	Waste from markets		Separately collected vegetable and other biowaste		



Input material sources	Examples/Specifications ²		
Parks, gardens, cemeteries and other green spaces ¹	Examples: Leaves, grass, branches, fruit, flowers, plants and plant parts		
Households ¹	Examples: Bio-waste from households: Fruit and vegetable remainders, coffee and tea remainders, food remainders, plants and soil attached to plant parts		
	Bags for source-separated household waste shall be biodegradable (consisting of paper or biodegradable plastics according to EN 13432 or EN 14995).		
Caterers and restaurants ¹	Examples: Fruit and vegetable remainders, coffee and tea remainders, food remainders.		
Food and beverage related retail premises ¹	Examples: Bio-waste from markets, food and feed remainders		
Food and beverage processing plants ¹	Examples: Food waste, food washing waste, sludge from food and feed processing plants not containing pollutants		
Horticulture ¹	Examples: Leaves, grass, branches, fruit, flowers, plants, plant parts bark, weeds, mushrooms, soil attached to plant parts and peat		
Forestry ¹	Examples: Bark, wood, wood chips, sawdust		
Agriculture ¹	Examples: Straw, harvest remainders, silage, plant material, energy crops ³ and catch crops ³ Manure as defined in ABP Regulation (EC) No 1069/2009		
Fishery and aquaculture ¹	Examples: Slaughter waste and fodder residues from traditional fisheries and aquaculture industry, crustacean shells and similar residues, seaweed		
Animal by-products Category 2 and 3	See the ABP Regulation (EC) No 1069/2009 and implementing Regulation (EU) 142/2011 for allowable input materials		
¹⁰ If this category includes animal by-products the Regula followed. ²⁰ Only 'source-separated' input materials; digested or comp			

30.06.2016 11

ECN- Requets for clarification in the NFR regarding to compost and digestate (4)

- Annex II / Preface CMP and input material compliance with maximum limit values in Annex I of NFR
 - For avoiding misuse of not suitable input materials and "dilution-effects" input materials has to comply with the limit values in Annex I

- Article 4 Nr. 2 "Product Requirements" / Nr. 2
 - Additional requirements of food and feed safety within the EC (No) 178/2002 – for all aspects not covered by Annex I, II for CE marked fertilising products
 - Implementing specified use constructions for CE fertilising products



ECN- Requets for clarification in the NFR regarding to compost and digestate (5)

- Article 20-28 "Notification of Conformity Assessment Bodies",
 - New conformity assessment in the NFR for secondary raw materials based on an independent *"conformity assessment body"* (= *"notified body"*) for verifying and attesting the compost/digestate product quality and the producers quality system
 - Member states shall designate a *"notifying authority" to* control the quality of work of conformity assessment bodies
 - Requirements -relation to notified bodies (Article 23 No 3) bodies belonging to business association or professional federation are allowed, if independent and no conflict of interest exists
 - ECN-QAS certificate for compost and digestate well established as benchmark for national QS schemes, but without accreditation



ECN QAS / acknowledged national QS systems – equivalent and structural fit as notified body for conformity assessment?



Announcement of the DG GROW for workshop concerning QS

ECN – Requests for amendments in the NFR (1)

- Introduction of different requirements for maximum limits for heavy metals to the different categories for fertilising products
 - Cadmium (Cd) 3,0 ppm (dm) for mineral organic fertiliser < 5 % P₂0₅ (m) 1,5 ppm (dm) for organic fertiliser > 2 % P₂0₅ 3,0 ppm (dm) for organic soil improver
 - 1,5 ppm (dm) for inorganic soil improver
 - 3,0 ppm (dm) for growing media
- → ECN calls in general for the same heavy metals thresholds for all PFCs,
 - Sole exemption should be set for the use of native, unprocessed bark as component for growing media or organic soil improver by 3 ppm Cd.
 - → ECN calls for **deletion of Cr VI only for CMC 3 and CM5**, because it is not existent in compost and digestate
 - ECN calls for deletion of PAH 16 only for CM3 and CM5,

because separate collection of biowaste is sufficiently safe



ECN – Requests for amendments in the NFR (2)

- Hygienic parameters " Escherichia coli or Enterococcacae" for CMC 3 and CMC 5 / PFC 1 A /PFC 3A / PFC 4
 - As process parameter within the ABPR mainly to cross-check the effectiveness of the sanitisation step of treatment – but not for the finalised status of the end products
 - Problem of reinfection in natural occurring environments
 - ⇒ ECN propose to delete Escher. coli or Enterc. for compost and digestate
 - ➡ ECN propose to introduce analytic of seeds/weeds in CMC3 and CMC5
- "Organic Carbon" content of 15 % by mass in solid organic fertilizers, 15% in liquid organic fertilizers and 7,5 % in soil improvers



 ECN propose to replace the criterion "Organic Carbon" to "Organic matter" with a minimum value of 15 % in dry matter as it is set in the JRC Report for compost and digestate (ref. analytical method)

ECN – Requests for amendments in the NFR (3)

- Minimum nutrient content of PFC 1 A Organic fertilizer
 - Solid: 2,5% N // 2% P₂O₅ // 2% K₂O (by mass)
 - Liquid: 2 % N // 1% P₂O₅ // 2% K₂O (by mass)
 - ➡ ECN calls for <u>introduction the dry matter- basis</u> for the "minimum nutrients content/quantities" in organic fertilisers generally.

- Assigned purpose: a better classification of materials in PFC 1.A (I) solid and (II) liquid "Organic fertiliser" and a better comparability of nutrient contents in different organic fertiliser products



ECN – Requests for amendments in the NFR (4)

• Labelling requirements

• Checking of tolerances rules for organic soil improvers versus organic fertilizers for nutrient contents, Corg/Norg, granulometry, quantity

Phytohygienic parameters

- ECN proposal for an introduction of the analytical parameter "seeds and weeds" –referring to JRC report - for CMC 3 and CMC 5
- Analytical methods / CEN standards / "Common or technical specifications"
 - Implementing a list of harmonised methods and standards by EU COM /CEN in progress

• Stability criteria for digestates



Adding a third alternative method: "Organic acid content of maxmimum 1500 mg/l" as a well established method by BGK QS (ref. JRC Report)

ECN – Positions on the NFR

Agreements	Clarification	Amendments
Scope of NFR including organic fertilising products	-Article 45 "Amendments to (EC) No 1069 /2009", "End point of manufacturing chain" for biowaste from separate collection from households paticullary -HIGH Priority	Annex I / Limit values for heavy metals for all PFCs equal Exemption: Cd /bark and CrVI in compost/digestate, PAH 16 in CM3 and CMC 5
"EOW" status for organic waste diverted materials	Article 16 No 4 "EOW status" Differentiation from existing national EOW status and products -HIGH PRIORITY	Annex I / Hygienic criteria / Deletion of Escheria c. or Enterc. for CMC 3 and CMC 5 in PFC 1A , 3A, 4 / Implementation "viable seeds and weeds": max. 2/litre compost/digestate
Access of CE-marked Fertilising products form organic origin to the EU market	Article 20-28 Notification, Notifying authorities, Notified body, requirements	Annex I / Organic Carbon content / Replace with "organic matter" 15 % dm for PFC 1A solid /liquid and 3 A
Quality Assurance procedure /Conformity Assessment	Annex II /CM3 /CM5 Nr.1, Kind, origin of eligible input materials for CE marked Fertilising Products (waste codes classification) -HIGH PRIORITY	Annex I / Minimum nutrient contents in PFC 1 Solid and liquid organic fertilizers / Replace basis fresh mass to dry matter
	Annex II CMC /Preface / CMC and input material compliance with limit values in Annex II and I	Annex III / Labelling requirements Differences between org. fertiliser and org soil improver / and list of approved analytical methods
	Article 4 Nr. 2 Product requirements to food and feed safety ref. (EC) No 178/2002	Article 42 " Amendments of Annexes" via "delegated acts" by EU COM

Thank you!

More informations: www.compostnetwork.info Info about ECN-QAS: www.ecn-qas.eu





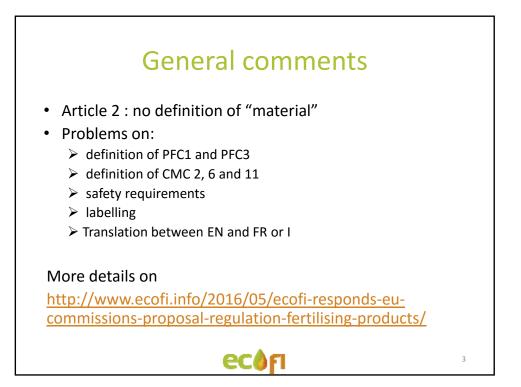
European Consortium of the Organic-Based Fertilizer Industry

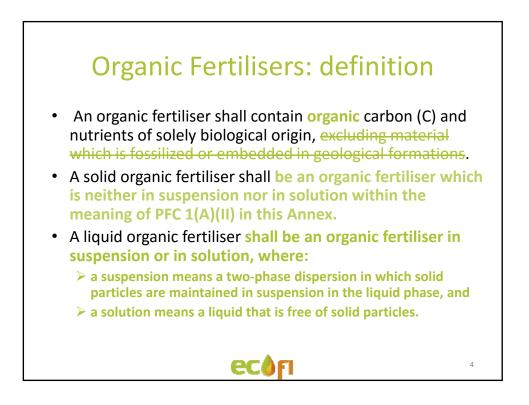
Comments submitted on the draft EU regulation on fertilising products

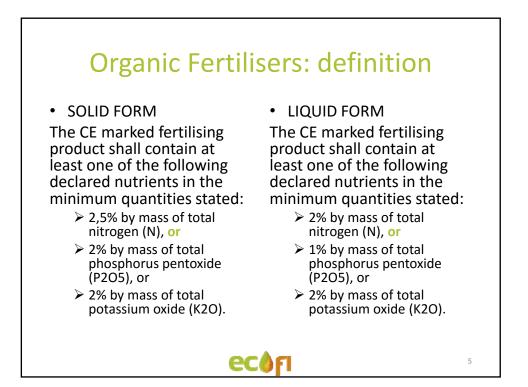
29 June 2016 – ESPP meeting on recycled nutrient products in the proposed EU Fertiliser Regulation revision

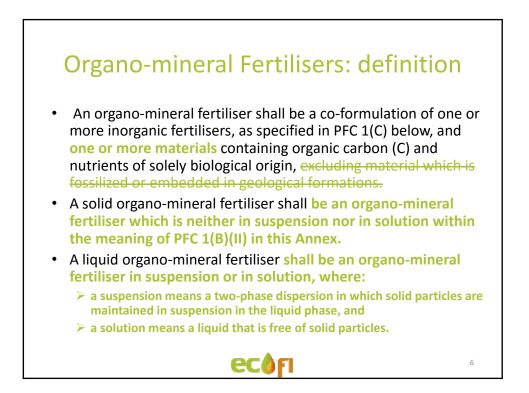
Benoît PLANQUES -- ITALPOLLINA S.p.A. - Regulatory Manager

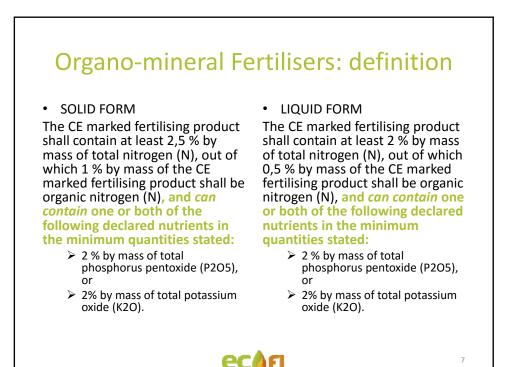


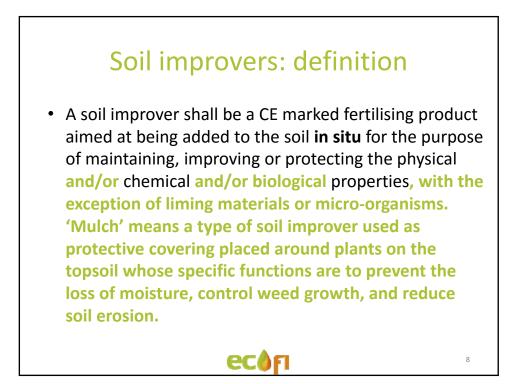


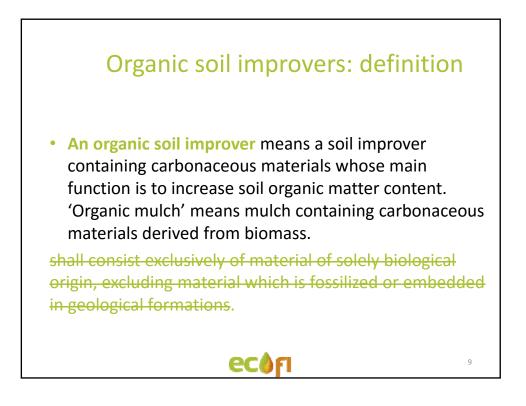


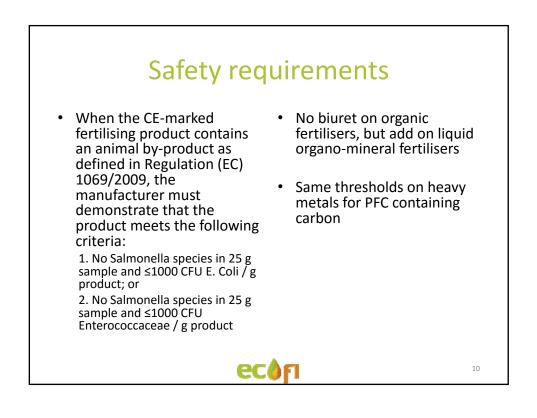












11



1. A CE marked fertilising product may contain plants, plant parts or plant extracts having undergone only physical, mechanical or biochemical processing. The process may include further concentration, purification and/or blending, provided that the chemical nature of the components is not intentionally modified/altered by chemical and/or microbial processes.

2. For the purpose of paragraph 1, plants are understood to include algae and exclude blue-green algae.

3. Other plant extracts and materials other than those specified in CMC 2 as well as components structurally similar and functionally identical to components found in plants would fall into CMC 1.









EurEau position on Fertiliser Regulation

EurEau

Bertrand Vallet

Policy Officer



Compost and digestates

- Main point: no exclusion of input materials for CMCs, especially compost and digestates
- 20-30% of EU demand of phosphate fertilisers difficult to attend without sewage sludge.
- Exclusion of sewage sludge for compost and digestate: why?
 - Certain sewage sludge are good enough to comply with requirements
 - Innovation could bring solution for not yet compliant sewage sludge
- Traceability and source control are more and more implemented.

Plant description



- Treatment facility (either biogasplant or composting plant) is having multiple treatment lines and may treat both sewage sludge as well as biowaste.
- Future legislation should allow this practice to continue.
- Both CE-fertilizer and national fertilizer in the same treatment plant with identification and control of separate treatment lines.
- Problematic for sewage sludge not to be accepted anymore in CE-fertilizers production plants.



Technical specification

- Detailed requirements regarding temperature and time for hygienisation.
- Cold climate: difficult to meet but with sufficient long storage time at lower temperatures, the same quality requirements can be achieved.
- Regulation should not set strict time-temperature requirement but give the requirement for the quality of the end-product.



Remaining question

- Market development: does regulation will be enough?
- ~ REACH Exemption for recovered products like for compost?



Thank you for your attention

Bertrand Vallet

Policy officer

bertrand.vallet@eureau.org



Rue du Luxembourg 47-51, B-1050 Brussels, Belgium Tel: +32 (0)2 706 40 80 Fax: +32 (0)2 706 40 81 BE 0416 415 347 <u>secretariat@eureau.org</u> www.eureau.org

EurEau. Water Matters.

www.eureau.org





Our position

ESPP 29 June 2016



Tiffanie Stephani – Fertilizers Europe

1) Quality of mineral fertilizers matters

Yes to Circular Economy with a few pre-conditions



The use of waste that poses risks to the environment and does not serve agronomic purposes should not be facilitated!

Regardless of the products concerned, **2 key criteria**: (1) agronomic efficacy & (2) minimum nutrient content

New Regulation is also about mineral fertilizers!



New Regulation is about **food production**: Mineral fertilizers feed plants in order for European farmers to achieve **better yields**

New Regulation should establish a clear **definition for inorganic fertilizers**

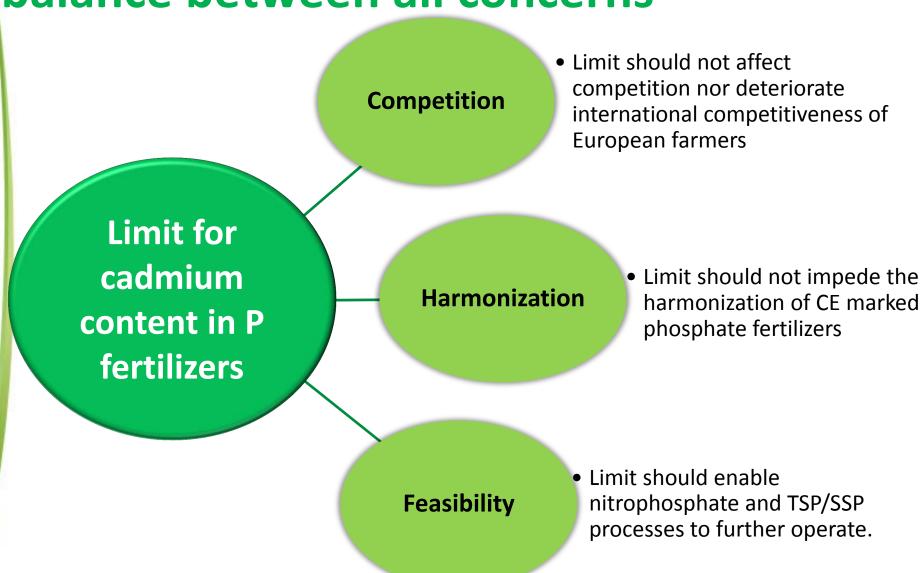
The regulation should guarantee the **effectiveness** and the **quality** of mineral fertilizers (nutrient availability, P solubility)



2) Availability of key mineral fertilizers at stake

Cadmium in P fertilizers: find a balance between all concerns





Controlled Release Fertilizers (CRF) Let's not impede innovation!



Our request

An impact assessment

We need **time** to do the required **degradation testing** for current (and experimental) systems.

Common development of industry standard for testing + setting criteria

5 years time needed for setting criteria, testing & development

