

Joint Feedback of EU research projects on the Draft amendment of Annex II of the Nitrates Directive

We welcome the opportunity to give feedback on the draft amendment of the Annex II of the Nitrates Directive.

We support the first significant amendment of the Nitrates Directive in more than 30 years. The implementation of the RENURE criteria is long awaited and is certainly a big step forward in aligning the Nitrates Directive with technological achievements that have been made since the introduction of the Nitrates Directive.

We are however concerned that some of the additional criteria and requirements -that are introduced in the draft proposal- will hamper the introduction of RENURE materials in the field. Our feedback and recommendations are brought forward to improve the proposed text for the amendment and to contribute to the overall goal of the Nitrate Directive, which is undisputed.

RECOMMENDATIONS FROM EUROPEAN RESEARCH PROJECTS [About the Research projects](#)

RENURE implementation should not be postponed by the evaluation of the Nitrate Directive

We are disappointed by the continuous postponement of the full implementation of the RENURE criteria. The RENURE report has been published in 2020, with clearly defined criteria for RENURE materials. Since then, implementation was delayed as no decision could be reached on how to bring these into practice as: part of derogations, part of the national action plans or with harmonised rules at the EU level.

By making the RENURE implementation part of the evaluation process of the Nitrates Directive, the implementation is postponed again, without any justification. The need for RENURE has been established years ago and has led to the SAFEMANURE project, which resulted in the RENURE criteria.

Because of this history and the criteria that have been formulated in the SAFEMANURE project, it is desired and judicious to implement RENURE in the short term. For that reason, we plea for implementation of the full unrestricted RENURE criteria apart from the evaluation of the Nitrate Directive.

We recommend a full implementation of the RENURE criteria independent of the evaluation of the Nitrates Directive.

Limitation of RENURE implementation to only three materials is unjustified

We disagree with the restrictive implementation of just three specific materials. These materials have been selected based on the criterion that they would *'reliably yield materials of a consistent quality in accordance with specified criteria'*. We are surprised that this new criterion has been put forward four years after the conclusion of the SAFEMANURE project and the JRC report on RENURE.

The newly introduced criterion is used to disqualify other RENURE materials derived from other treatments. This goes against the widely supported view that materials should be evaluated based on composition criteria and not based on the recovery process. The criteria proposed by the JRC and which are included in this draft amendment are drafted towards selection of materials on composition, not treatment. The reliability of quality control is safeguarded at the national level by the implementation of a control system and the introduction of quality standards.

Moreover, in the JRC report it has been concluded that ammonium scrubbing salts, mineral concentrates and most of the liquid fraction of digestates meet the proposed criteria consistently. No reason is brought forward as to why the liquid fraction of digestate is not taken up as one of the RENURE materials here.

We recommend that all materials meeting the RENURE criteria as formulated by the JRC/SAFEMANURE be included. The consistent quality of the RENURE materials is already guaranteed by the introduction of standards for consistent quality at the National level.

Criterion of consistent quality is not defined

The draft text introduces the criterion of “consistent’ quality”. However, no definition, requirements or criteria are given as to what constitutes consistent quality.

In the JRC report, consistent quality was described as *“this implies that, even despite possible variability in the composition of the input materials applied, the production process has been designed in such manner that compliance is consistently met on the criteria (e.g. TOC:TN).*

We recommend including a description or definition of ‘consistent quality’, in line with the definition of the JRC report.

No definition of “processed manure” is given, inconsistent usage of terminology

RENURE materials are limited to ‘processed manure’, without a definition of processed manure. Therefore, it is unclear if the term refers to ‘processed manure’ as defined under the Animal by-product regulation, or is intended as manure that has undergone treatment?

- In other pieces of EU legislation ‘processed manure’ refers to the conditions and technical requirements for the hygienisation of manure as laid down in Annex XI of the Animal By-Product Implementing Regulation (EU) 142/2011 (in effect heating at 70C or more during at least 1 hour or equivalent treatment). Only manure meeting the processing conditions and requirements of Annex XI may be called ‘processed manure’.
- In contrast, in the Nitrate Directive ‘manure in processed form’ is not defined but is understood to refer to livestock manure and derived products that have undergone any treatment, not limited to the hygienisation processing confirming to Annex XI of EU 142/2011.

To avoid confusion or differing interpretation and to establish a fair level playing field between countries, we recommend that the term ‘processed manure’ be replaced by either ‘processed manure meeting the requirements of Annex XI of EU regulation 142/2011’, or ‘manure-derived product’, as appropriate.

We also recommend clarifying the definition of “livestock manure” in the Nitrate Directive “livestock manure: manure and manure-derived products as defined in EC 2009/1069”.

Ammonium salts from scrubbing are not legally manure and should not be included as RENURE

Ammonium salts from scrubbing processes are not considered manure in other pieces of EU legislation, such as the Animal byproduct regulation 2009/1069 and the Fertilising product regulation EU 2019/1009. Scrubbing salts are not derived from manure but from off-gasses, which have lost all physical connection or resemblance with manure and are accordingly not manure. This view is also held by DG SANTE and followed by DG GROW. We have outlined this in our earlier [position paper](#)¹ and Joint feedback on Evaluation of ND². As these materials are not legally manure, they should not be restricted by the 170 kg N application limit and hence should not be considered as RENURE materials.

We recommend that ammonium salts should not be included in the proposal for RENURE materials as they are products recycled from off-gasses which are legally not manure, hence, ammonium salts are not RENURE.

We also recommend that the text of the amendment clearly mention that -in alignment with the Animal by-product regulation (following [the opinion of DG SANTE](#)³) and the Fertilising product regulation (opinion DG GROW)- ammonium salts derived from scrubbing off-gasses of manure or manure treatment processes are considered recycled fertiliser products and not manure or manure-derived products.

Ammonium salts from scrubbing are not defined

In case our recommendation of the legal definition of scrubbing salts is not followed we would like to bring attention to the following.

The term “scrubbing salts” it is not defined in the draft text. Therefore, it is unclear which materials and processes fall under this term “scrubbing salts”.

- In the JRC report, scrubbing salt is defined as “a recovered N substance from manure as manufactured through the partial conversion of N in manure into volatile NH₃ (“stripping”)

¹ *Joint Position of European Projects On the need for an unambiguous definition by the European Commission regarding the waste/manure status of ammonium salts derived from off-gas cleaning associated to treatment of manure or manure-derived products* <https://www.nmi-agro.nl/2022/10/04/joint-position-of-european-projects/>

² *Joint Feedback of the EU research projects on the Nitrates Directive Evaluation* <https://www.nmi-agro.nl/wp-content/uploads/2024/02/ReNure-and-Ammonium-Salts-Joint-position-on-Nitrates-Directive.pdf>

³ *European Commission DG for health and Food Safety Letter to Csrss concerning safe recycling of nutrients in Animal By Products (ABPs) and manures Ref. Ares(2022)4033785 - 31/05/2022. Response to question raised by the ESPP on 25th of April 2022 to Stella Kyriakides, European Commissioner for Health and Food Safety and: Thierry Breton, European Commissioner for Internal Market* https://www.phosphorusplatform.eu/images/download/SANTE_Gallina_reply_ESPP_ABPs_ash_31_5_22.pdf

followed by recapturing (“scrubbing”) the extracted ammonia into soluble ammonium using a low pH solution”.

- The FPR includes scrubbing salts as: a high purity material shall be recovered from waste generated from: “...”
 - (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: “...”
 - (viii) manure within the meaning of Article 3, point 20, of Regulation (EC) No 1069/2009 or derived products thereof; or “...”

We recommend amending the draft text to avoid confusion and different interpretations, and to establish a fair level playing field between countries. A description of what is included as ‘scrubbing salts’ should be given, clearly indicating that the scrubbed off-gasses could be derived from manure and manure-derived products, resulting from different treatments including stripping.

Setting pathogen limits for RENURE materials in the Nitrates Directive is redundant

The proposal introduces limits for pathogens for RENURE materials. These pathogen limits are comparable to the limits set in the Animal by-product regulation for manures that are processed to limit the biological risks (processing according to Annex XI of EU 142/2011).

The Animal by-product regulations lays down rules for the handling and use of manure to prevent and minimise risks to the public and animal health. This includes the use of manure and manure-derived products as a fertiliser or soil improver. The RENURE products are manure-derived products (with the exception of ammonium scrubbing salts). As such, the health risks from pathogens in RENURE materials are regulated and controlled by the requirements of the Animal by-product regulation.

Pathogens in RENURE materials do not pose a risk for the contamination of water with nitrates. As such, setting pathogen limits for fertilising materials is out of the scope of the Nitrates Directive.

This has also been very clearly stated in the JRC report on RENURE; *“The proposals are mainly based on the principles that the regulation of (animal) health related aspects as well as the envisaged end-use and legal status of the RENURE material fall beyond the mandate of this project, and by extension the ND”*

We recommend that the pathogen limits are removed from the proposal text. The risks are already covered by the Animal by-product regulation and moreover are not in the scope of the Nitrate Directive.

Additional criteria should be based on composition and not on origin

The proposal addresses additional measures that should be taken to avoid losses to air during storage and usage of RENURE materials. The composition of RENURE materials is comparable to certain synthetically derived fertilisers with comparable risks of losses to air. We do not see a justification to take measures for RENURE materials specifically. We argue that measures to avoid losses to air should be based on composition of fertiliser materials, not on origin. So, if additional measures are needed to avoid losses to air during storage, these should also apply to synthetically derived products.

We recommend that the proposed measures for the storage and usage to avoid losses to air should be based on the composition of the materials, not on the RENURE origin. Measures should also apply to comparable synthetically derived fertiliser materials.

Introduction of new application rate for RENURE is unjustified.

A new application rate for RENURE materials is introduced, set at 100 kg N per hectare. No justification is given for this. The draft text mentions the following consideration:

“(8) In addition to the impact on water quality, nitrogen emissions from manure and livestock affect air quality. The use of RENURE fertilisers should go hand in hand with continuous efforts to mitigate the overall environmental impacts. It is therefore necessary to have appropriate safeguards and to set an upper limit for the use of RENURE fertilisers.”

We disagree with the notion that limiting the application of RENURE would mitigate the overall environmental impacts of manure and livestock.

The JRC has made a thorough investigation of the possible risks associated with the application of RENURE, and the measures that could be taken to counteract these risks. In their recommendations, limiting the amount of RENURE was not brought forward.

Where the composition of fertiliser materials poses a risk to air quality, appropriate measures should be taken. In our view these should not be specific for RENURE but apply to all fertilisers of a comparable composition. Making a distinction based on the origin of materials instead of on composition increases the complexity of the regulations and adds to administrative and logistic burden on farmers. This is undesirable as it will negatively affect the substitution of synthetic derived fertilisers by recycling derived fertilisers.

We recommend that no new application rate for the use of RENURE materials is introduced.

Tightening fertiliser rates to account for losses to air and water is unjustified,

Sanctioning the use of RENURE materials by tightening the overall fertiliser rates is unjustified. We object to the proposed obligation to tighten the overall fertiliser rates where RENURE materials are used. Maximum fertiliser application rates are an effective measure for efficient nutrient use and limitation of nitrate losses. As such, the existing application rates already taken into account in the Action programmes under the codes of good agricultural practices. In the Netherlands, the fertiliser application rates for nitrogen are -for some regions and crops- already below the optimum rates for crop production to reduce the nitrate contamination of water.

As established in the JRC report, the use of RENURE materials instead of synthetically derived fertilisers, does not increase the loss of nitrate to water. Replacing synthetic fertilisers with RENURE fertilisers should therefore not be coupled with a lower nitrogen fertiliser application rate.

Fertiliser rates should be targeted at crop production. Where tightening of fertiliser rates is necessary to limit the contamination of water with nitrates, measures should be taken. Measures should be justified by the expected effect on the risk of contamination of water by nitrates.

Coupling more stringent fertiliser rates with the inclusion of RENURE materials without suitable justification is inefficient, untransparent and harmful to trust in EU institutions, which should be avoided.

We recommend that the sanctioning the use of RENURE materials by lowering the overall fertiliser rates is deleted from the proposal text. If lowering of the overall fertiliser rates is required as an effective measure to improve water quality, this lowering should be implemented uncoupled from the implementation of RENURE materials.

ABOUT THE EUROPEAN RESEARCH PROJECTS *About the European Research projects*

The EU has made enormous progress in the implementation of circular economy solutions. Due to a continued commitment to research (Horizon 2020) and practical implementation (INTERREG), the recovery and use of nutrients from wastes and residues is stimulated and facilitated. This is in line with the legal framework within the Circular Economy Action Plan (CEAP)⁴ (FPR, WFD, CAP-Farm to Fork) under the EU Green Deal⁵.

The European Commission has mandated and demanded a number of EU projects across different frameworks (H2020, Horizon Europe, INTERREG) to provide both Europe and the EC with scientific technical evidence and policy-oriented advice, on topics related to circular economy in general and nutrient (re)cycling in particular. In this light, the projects subscribing to the current Joint Feedback letter have joined forces to provide opinions and recommendations. Our compiled feedback is based on the insights from the various project activities.

The Biodiversity⁶ and the Farm to Fork⁷ strategies set a common objective of reducing nutrient losses in the environment by at least 50% by 2030, while preserving soil fertility. Council Directive 91/676/EEC⁸ concerning the protection of waters against pollution caused by nitrates from agricultural sources (“the Nitrates Directive”) is a key piece of legislation to achieve this target and other objectives of the EU Green Deal².

The topics have been taken up by the Policy working group of the European Sustainable Nutrient (ESNI) Community, in which the experts of EU-funded projects in the field of nutrient recycling exchange knowledge and views. <https://www.biorefine.eu/nutrient-recycling/>.

EU-funded research projects within the ESNI that are active in this field have been involved in these discussions and have committed themselves to the message by undersigning the Joint position with their logos upon formal approval by their respective coordinators. The research project

⁴ [COMMUNICATION FROM THE COMMISSION - A new Circular Economy Action Plan For a cleaner and more competitive Europe COM/2020/98 final](#)

⁵ [Communication from the Commission - The European Green Deal, COM/2019/640 final](#)

⁶ [Communication from the Commission - EU Biodiversity Strategy for 2030 - Bringing nature back into our lives, COM/2020/380 final](#)

⁷ [Communication from the Commission - A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system, COM/2020/381 final](#)

⁸ [Council Directive \(91/676/EEC\) concerning the protection of waters against pollution caused by nitrates from agricultural sources](#)

consortia are composed mainly of universities and research institutes, which operate independent of market parties and do not aim to represent the views of association or lobbying bodies.

Hence, based on the R&D and policy advise mandate of the subscribing projects, we jointly wish to raise awareness on this burden to market entry of this category of circular N-fertilising products arising from the Nitrate Directive

This joint feedback is undersigned by the following European research and innovation projects.



For more information or enquiries please contact the drafter of the Joint Letter

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