

To: Livestock-Partnership@fao.org

ESPP input to public consultation on draft “Guidelines on the role of livestock in circular bioeconomy systems”,

UN FAO (United Nations, Food and Agriculture Organisation, LEAP Livestock Environmental Assessment and Performance, TAG Technical Advisory Group),

Open to 13th September 2024

<https://www.fao.org/partnerships/leap/news-and-events/news/detail/en/c/1708905/>

ESPP notes that this 230 page document contains a **large amount of information**, from academic publications as well as industry information. As such it provides a **valuable reference document**.

The stated objective (line 668) is “*to develop guidelines for strengthening circularity within the livestock sector*”. This stated objective is not achieved, nor attempted.

We regret that no guidelines are proposed.

If the document is to be practically useful, we suggest to produce a version in which are extracted, from the many pages of text information and examples, clear guidelines for action. This is done for example in the EU BET BREF documents (extensive explanation of context and examples, but then a small number of explicitly identified and actionable BAT specifications).

The difficulty of practical use of this document is increased by the **absence of an executive summary**, conclusions, or similar, nor of a summary of key points for each chapter.

We also regret that although there are many numbers on different current recycling routes in the livestock sector, there are **scarcely any numbers for estimates of possible improvements in circularity through proposed practices (compared to current practice)**.

We recommend that the content of the document is extended by adding:

- **Best practice guidelines for each chapter (extracted from the content of each chapter but formulated as numbered reference guidelines)**
- **An overall executive summary**

Because the document does not distinguish between FAO guidelines (recommended best practices), recommendations cited from other organisations or examples, we are not able to comment on the guidelines as such.

We have nonetheless some comments on the information and discussions in the document as follows:

1661 and following. The section on valorisation of animal by-products in Europe underlines that significant circularity improvements would be possible if ruminant MBM (meat and bone meal) was authorised in feed for ruminants [also relevant to USA, see 1834] and if Cat1 material was authorised for use in animal feed [to our knowledge, not applicable outside Europe]. These limitations result from the EU Animal By-Product Regulations and TSE Regulations. This section suggests that in Europe Cat1 ash is used as a fertiliser (line 1668) whereas the European Commission DG SANTE states that use of Cat1 ash as fertiliser is illegal (despite its use as arable fertiliser in the UK and forest fertiliser in Portugal, see reports by Barry Love 2022 and by SAFOSO 2024 at www.phosphorusplatform.eu/regulatory). The TSE/BSE safety of use of Cat1 ash as fertiliser is

currently under assessment by EFSA (European Food Safety Agency)

<https://open.efsa.europa.eu/question/EFSA-Q-2024-00278>

Overall, the whole section on animal by-products does not clarify whether or not there is a real opportunity for increasing circularity.

The whole section on animal by-products provides much data on livestock by-products and on their recycling, giving the impression that currently most animal by products are already effectively valorised or recycled, but no numbers on current “losses” (not recycled). Indeed, the only “losses” (other than the specific case of Cat1 ash in Europe) seems to be where various ABPs are used for energy purposes, without nutrient recovery. This is probably significant for some materials, but no data is provided.

In several places in the animal by-products section it is implicitly suggested that circularity would be improved if use in pet food was replaced by use in livestock feed. This is arguable, in that if people have pets (assuming that the number of pets is not reduced), then these animals have to eat something.

1779: it is suggested that some Asia countries have “considerable potential to improve circularity” but this is based on table 8, showing that they have less regulatory control. It could be argued to be the contrary, indeed in Europe it seems that regulatory control is in fact preventing circularity (ruminant to ruminant feed, Cat1 incineration ... see above).

2234: “In some Asian countries ... pork skin is ... then fried to make snack food (pork rinds)”. Not only in Asia, this is a longstanding tradition in Europe: UK (‘crackling’) France (‘grattons’). Duck skin is similarly used. We are surprised that this should be presented, and apparently recommended, in an FAO document without at least some mention of the health implications (very high animal fat and inevitably added salt).

2355: Aquaculture by-products: fish sludge (wastewater consisting mainly of a mixture of fish faeces and uneaten food) is not discussed. This represents a major, and increasing, opportunity for circularity by recycling of nutrients and organic material by processing to energy (AD) and to fertiliser. See J. Zhang et al., 2023, <https://doi.org/10.1016/j.jenvman.2023.119266> and Ragn-Sells 2023 https://newsroom.ragnsells.com/posts/pressreleases/norwegian-fish-poo-can-power-600000-household?link_id=64cc957d-5ee6-4450-b3d1-2ae70126456f .

2542: In the manure management section, it is stated “*During grazing on pastures or grasslands, livestock deposit faeces and urine directly on the land.*” This should be presented not as a fact but as a recommendation. Livestock often have access to streams or ponds, and where they drink they defecate. Even in very extensive livestock production, congregation of cattle in one place to ruminate (and defecate) can mean that nutrients in manure are not being recycled but concentrated in one small area (example of mountain grazing in Switzerland, M. Kreuzer in www.phosphorusplatform.eu/Scope131). Best manure management practice should prevent or reduce this, e.g. fence off water bodies and provide in-field drinking. Optimally, the in-field drinking (as for other installations which concentrate livestock in one spot) should be sited so that the resulting manure concentration does not contaminate water bodies and nutrients spread ‘down’ to a wider area, or should be regularly moved to ensure effective spreading not concentration of manure. As for other points raised in this document, some attempt should be made to estimate numbers for such in-field nutrient losses in extensive grazing.