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## GUIDANCE FOR PRACTITIONERS ON THE USE OF THE PEFCR FEED FOR LABELLING PURPOSE

The provision of information to farmers regarding the environment footprint of the feed they purchase meets two objectives:

- Input data to allow farmers performing a PEF analysis on their animal products (in case of participation in a green labelling scheme for animal products)
- Allowing informed choice of farmers based on the environment footprint of the feed at the production stage and the potential for improvement that the formulation, constituent and/or processing of the feed enables for those farmers seeking improvement of their livestock performance.

The FEFAC-Copa-Cogeca Code of Good Labelling Practices provides that the voluntary provision of information to customers on the environment footprint of a compound feed for food producing animals should be performed in accordance with the PEF methodology, including the PEFCR Feed for food-producing animals (hereafter PEFCR Feed) and that the justification of claims on compound feed performance at the use phase should also be supported by a study performed in line with the PEF methodology.

The performance of a PEF study in full compliance with the PEF methodology as laid down in Recommendation (EU) 2021/2279 is complex and costly and requires access to EF compliant data. In order to encourage operators to share voluntarily information on the environmental performance of the feed they place on the market, FEFAC and Copa-Cogeca recommends to use the concept of **PEF/PEFCR Feed-aligned methodology**, i.e. with the following additional considerations:

- Feed materials data may be sourced from the GFLI database or other established databases than the EF dataset;
- Performance of a full PEF-aligned study at least every 5 years as baseline unless there would be significant changes in the PEF/PEFCR methodology or changes in the options taken;
- Update of PEF profiles of each feed article subject to the PEF study every year (12-months averaged PEF);
- Possibility to provide on the label accompanying the delivery the batch specific environment footprint or the 12-months averaged PEF.

### 1. SCOPE

The scope of this document is to provide guidance to persons in charge of generating the data underpinning green labelling. It covers the following areas:

- generation of the data for voluntary labelling of the environment footprint of compound feed from cradle-to gate based on PEFCR feed-aligned study;
- generation of data for comparative claims on the EF of compound feed from cradle-to-gate;
- generation of the PEF-aligned data to substantiate claims on the use phase, based on a PEF-aligned study;
- verification/validation by a third party of the above.

## 2. REFERENCE DOCUMENT / TOOLS

The basic reference tools to perform a PEF study (full study or annual updates or batch specific recalculations) are:

- [PEFCR feed](#)<sup>1</sup> for the determination of the EF of feed production in its last version.
- PEF methodology in its last [version](#) and [FAO-LEAP guidelines on feed additives](#) for the claims on the use phase;
- PEFCR Guidance [version 6.3](#), in particular annex E which provides for a template for the PEF report.
- LCA database with secondary data for feed ingredients: [EC Feed LCA database](#), [GFLI Feed LCA database](#), other EF compliant dataset mentioned in PEFCR feed).

## 3. GENERAL RECOMMENDATIONS TO PRACTITIONERS

Performing a PEF study in full compliance with the PEF/PEFCR feed methodology is a challenging exercise. Seeking support from external advisors is recommended.

Likewise, a number of calculation tools are available on the market. It is recommended to give priority to those tools which have been validated by an independent third party.

The PEF / PEFCR study requires methodological choice. Once a methodological choice has been made for the full PEF study, it should apply the same way for all feed articles and for the whole of the period of validity of the full PEF study, meaning that the yearly updates or batch specific calculation should be made on the basis of these methodological choices.

## 4. DEFINITIONS

The definitions laid down in the PEF/PEFCR feed apply to the present guidance. The following additional definitions apply

- **PEF/PEFCR feed-aligned study:** study performed along the principles of the PEF/PEFCR methodology but diverging from a PEF/PEFCR study as regards the frequency of the study (every five years with yearly or online updates of the PEF profiles as regards yearly variations in feed compositions) and the possibility to use secondary data from the GFLI.
- **Averaged PEFCR Feed aligned value:** PEF value calculated on the basis of the averaged composition of the feed article subject to the study.
- **Batch Specific PEFCR Feed-aligned value:** PEF value calculated in the basis of the real composition of the feed article.
- **Impact category:** class representing environmental issues of concern to which life cycle inventory analysis results may be assigned
- **EF-compliant dataset:** Dataset developed in compliance with the EF requirements provided at [https://eplca.jrc.ec.europa.eu/permalink/Guide\\_EF\\_DATA.pdf](https://eplca.jrc.ec.europa.eu/permalink/Guide_EF_DATA.pdf)
- **Global Feed LCA Institute (GFLI) database:** LCA dataset developed by EU International feed organisations.
- **Feed article:** type of compound feed which present a fixed nutritional composition meeting the requirements of a specific category of animal, e.g. a certain animal species, sex, physiological stage and/or production system (examples: "conventional" feed for fattening pig, organic feed for laying hens).

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<sup>1</sup> There is always a time gap between the upgrade of the PEF method and the alignment of a PEFCR. It is appropriate for the sake of continuity to foresee that, whenever the process of reviewing a PEFCR is initiated to align with a revised version of the PEF, the existing PEFCR may continue to be used as valid basis for a PEF study.

## **5. LABELLING OF ENVIRONMENT FOOTPRINT OF COMPOUND FEED FROM CRADLE TO GATE**

### **5.1. Performance of the baseline full PEF study (every 5 years)**

The reference documents for the performance of the baseline PEF study are the PEF methodology and PEFCR Feed in their last versions.

The reference unit is 1 tonne of compound feed. The system boundaries including the life cycle stages and processes of the PEF study are as specified in the PEFCR feed (chapter 7). All impact categories covered by the PEF shall be assessed.

The PEFCR Feed requires that a calculation is made per individual feed article with predefined nutritional specifications (e.g. piglet feed, slow growing chicken for fattening, etc.), and for which the operator intends to communicate on. A single PEF study may cover several feed articles.

#### **5.1.1. Life cycle inventory (chapter 9 of the PEF):**

Collection of data is the backbone of any PEF study and their quality will determine the overall reliability of the calculated information.

The PEFCR encourages as much as possible the use of primary data and establishes the cases when the use of secondary data is allowed.

##### **5.1.1.1. List of feed ingredients composition**

A list of feed ingredients composition must be established per feed article under study.

The EU catalogue of feed materials and the EU register of feed additives should be used as references for the listing of the feed ingredients. However, it may be suitable to differentiate between different origins of the same feed materials, in case in particular of significant differences in PEF values (e.g. between soyabean from deforested vs. non deforested areas) and if the IT system of the companies allows, i.e. when the formulation system differentiate different origins (i.e. Brazilian vs. Romanian soybean meal).

According to the PEFCR feed, the list shall be the weighted average composition of a compound feed article, taking into account the variation of composition of the feed article during a certain period of time. The PEFCR Feed specifies the relevant time period for deriving weighted averages for feed ingredients taking into account the volume of the feed materials depending on the different origins. For the sake of a PEF study for studies on animal product or labelling without comparison, the period of time to be considered should be 12 months<sup>2</sup>.

The PEF of each type of feed material must also be weighted on the basis of the different origins of feed materials. Since the feed company may not keep records of the allocation of a specific batch of feed material from a specific origin to the different feed articles, the average weighting of PEF values of a feed material sourced from different origins may be the same for all feed articles.

##### **5.1.1.2. Nutritional analysis data**

Some nutritional characteristics of the feed are important parameters for the farmer to perform the PEF study for his own animal products. They are listed in the PEFCR feed and should be determined per feed article.

These data may not need to be generated if their provision is not contractually foreseen.

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<sup>2</sup> So far, the PEFCR Dairy Products is the only PEFCR developed for an animal product, while a PEFCR for Marine Fish is under development. The period of time for deriving weighted averages is one year.

#### 5.1.1.3. Energy consumption in feed mills operations

The PEFCR feed requires that data on energy consumption must be primary data and the minimum level of accuracy shall be average feed mill data for 1 year.

Considering that operations such as pelleting, extrusion and other heat treatment are energy intensive and represent a significant part of the energy consumption in a feed mill, it is recommended, whenever possible to allocate energy consumption per sub processes, in accordance with the rules defined in the PEFCR Feed. It is in particular highly recommended to differentiate energy consumption between mash and pelleted feed

#### 5.1.1.4. Outbound transport

This concerns transport from the feed mill to the farm. The PEFCR Feed requires that data on outbound transport shall be primary data generated by the feed company. It proposes the following options from the most to the least accurate:

- (A) Fuel consumption for farm-specific delivery and transport means
- (B) Farm specific delivery distance and transport mean
- (C) Average fuel consumption per tonne delivered, for the feed article under study and transport means (the average is specific to the feed under study, but the farm specific delivery distance is not available)
- (D) Average distance from mill to farms in scope, per category of feed (ruminants, poultry, pork, fish; other) and transport mean (the average is not specific to the feed under study and the farm specific delivery distance is not available, but the average is at least distinguished according to the main feed articles).

The choice of one or the other option will condition the nature and the medium of communication of the information to the customer and the purpose of the communication of information.

It is recommended for communication of information to individual farmers as input for their studies on animal products to use farm-specific data. Fuel consumption for farm-specific delivery not being expected to be available, it is recommended to use method B.

In case of information provided in specification sheets or pre-printed labels or sales via a reseller, the farm of destination is not known and an average distance and transport mean is more appropriate (C or D). The merit of method C is that it takes into account the simultaneous deliveries to several farms with optimization of the transport distance.

For online labelling, farm specific data may be used if the IT system allows connection between the on-line labelling editing tool and the database with farm specific distances.

It is recommended for the PEF study to report on the EF of outbound transport separately based on method C or D.

#### 5.1.1.5. LCA databases

Using primary data for the PEF of feed ingredients is preferable. Guidance is provided in chapter 10 of the PEFCR feed. However, compound feed manufacturers rely on their suppliers to perform the study. This is at this stage rather uncommon and primary data on feed ingredients are rarely available. When no primary data is used for the production of feed ingredients, it is recommended to use the [EC Feed LCA database](#) and the [GFLI Feed LCA database](#).

In case no secondary data exists for a feed material in the default dataset mentioned above, the PEFCR feed establishes rules for the use of alternative EF-compliant datasets. A list of EF-compliant data sets is specified in the PEFCR feed. In case there is no secondary data available at all, a decision-tree based procedure is to be followed in accordance with chapter 9.6 of the PEFCR feed.

The production of feed additives differs from most other feed ingredients because of the fossil and mineral raw materials used and the production on an industrial basis. The PEFCR feed

does not provide guidelines for calculating the environmental impact of the production of feed additives: A methodology has been developed and published in 2020 through the FAO-LEAP partnership, which will be referred to in the updated PEFCR Feed. PEF data for feed additives are progressively included in the GFLI.

#### 5.1.1.6. Allocation rules

The PEFCR feed recommends the allocation method for the processing of feed ingredients, in particular co-products.

#### 5.1.2. PEF results (chapter 11 of PEFCR feed)

The end result of the PEF study is a PEF report, which includes the elements required in the PEFCR feed, in particular as regards the methodological choices and use being made of the options specified in this document. A template of a PEF report is provided in Annex E of the PEFCR guidelines version 6.3. This report will be the basis for the labelling justification. For each feed article under the scope of the PEF study, a PEF profile is generated, which includes the results of calculation for all impact categories.

The PEF values for outbound transport should be reported separately, based on method C or D.

For each feed article, a PEF profile is edited. 3 types of data are generated by the PEF study: characterised data, normalised data and weighted data. It is recommended, when reporting per impact category, to use characterised data.

The nutritional analysis data shall be calculated for each feed article. It is recommended to communicate this information only in case it is meant as input for a farmers' own PEF study on animal products. Communication of this information on the label accompanying the feed delivery may interfere with the nutritional labelling provisions as required by regulation (EU) 767/2009 and is not recommended.

In the case of poultry, the information on digestible energy may be replaced by metabolizable energy (% of gross energy).

#### 5.1.3. Verification

When a PEF profile is used for communication purpose, the PEF report should be subject to verification by an independent accredited certification body in accordance with ISO 14040 principles. In case the PEF study would cover several feed articles (which is likely to be the case), verification may be performed on a representative sample of PEF profiles, following common audit practices. A verification statement should be issued and included in the PEF report.

### **5.2. Yearly updates of PEF profiles**

To accommodate with the variability in composition of feed articles, and in particular year to year variations, the PEF profiles of the feed articles should be recalculated every year based on updated life cycle inventory:

- Weighted 12-months average composition of feed articles;
- Updated LCA values of feed ingredients (primary and secondary data);
- 12-months average energy consumption data
- Averaged outbound transport distance based on method C or D.

In case of use of a new feed ingredient not listed in the list of ingredients of the PEF study, this new ingredient must be added and should be emphasized.

A recalculation of the DQR is not required.

A validation by a third party under the conditions specified in 5.1.3 is required, but limited to the scope of the update. By derogation to par. 5.1.3., considering that the verification will consist mostly in verifying the composition of the feed, an accreditation for the audits performed as part of the Feed Safety System is sufficient.

### **5.3. Batch specific PEF values**

It is recommended, for the sake of improved accuracy, to use for labelling purpose PEF values adjusted to the actual composition of the batch (Batch Specific PEFCR Feed aligned). When decision is taken to opt for averaged or batch specific PEFCR Feed aligned values, the decision should apply the same for all feed articles.

The calculation of the batch specific PEFCR Feed aligned values are based on the life cycle inventory from the last yearly PEFCR Feed-aligned profile, but the weighted average composition is replaced by the batch specific composition.

The calculation of the batch specific PEFCR Feed aligned values may be limited to relevant impact categories.

The verification of the Batch Specific PEFCR Feed aligned values before the placing of the consignment of feed on the market being not possible, the procedure for calculating the batch specific PEFCR Feed aligned values should be documented and subject to verification, as well as the calculation tool. An a posteriori random verification of the calculated Batch Specific PEFCR Feed aligned values should be foreseen as part of the validation process of the yearly updates of PEF profiles.

## **6. CLAIMS ON CRADLE TO GATE PEF VALUE (COMPARATIVE CLAIMS)**

It is extremely important to bear in mind when considering the comparison of the environmental performance of feed products that reducing the cradle to gate environmental footprint of a feed without taking into account the potential consequences on its efficiency in the use phase could be very counterproductive. The comparison of the PEF profiles of different feeds may therefore only take place when it is clear that they fulfil the same function and animal response, i.e. in the context of cradle to grave PEF study of identical animal products (e.g. one kilogramme of eggs on similar farms with two feed articles) and may only be interpreted as part of the complete interpretation of the PEF profile of the animal product at stake.

In particular:

- The data reported in the PEFCR feed for the so-called “representative” feed shall not be used as a benchmark for comparison purpose.
- Comparison with the PEF profiles of products from other feed companies is not recommended.

The following requirements must be considered:

- the data used for the PEFCR Feed-aligned study of the products against which the comparison is made is equivalent to the data used for the PEFCR Feed-aligned study of the product subject to the claim;
- the same version of the PEFCR Feed is used for the generation of the data of the products being compared;

## **7. CLAIMS ON THE USE STAGE (COMPARATIVE CLAIMS)**

Comparative claims on the use stage are meant to put emphasis on an improvement compared to a baseline. The impact of the use of the compound feed does not fall in the scope of the PEFCR feed.

The PEF-aligned study should be performed on the relevant baseline feed and the feed carrying the claim. The PEF-aligned study should be applied to a farm system representative of the targeted commercial farm.

The PEF-aligned study should be performed taking into account the LEAP guidelines on feed additives, the PEFCR dairy products and the PEF TAB Recommendations for farm modelling (expected by end of 2023).

The following requirements must be considered:

- the data used for the PEF-aligned study of the products against which the comparison is made is equivalent to the data used for the PEF-aligned study of the product subject to the claim;
- the same version of the PEF methodology is used for the generation of the data of the products being compared;
- the coverage of the stages along the value chain is equivalent for the products compared and ensures that the most relevant stages are taken into account for all products;
- the impact categories subject to the comparison are the same for the products being compared and are the most relevant for all products.