

Step-wise engagement plan for feed manufacturers on environmental footprinting

FEFAC understands that it is a challenge for many compound feed manufacturers to engage on environmental footprinting. There is often uncertainty about where to start and at what stage an LCA consultant should be hired or software should be purchased. The technical complexity of the PEFCR Feed is sometimes also experienced as demotivating. FEFAC has developed a practical step-wise engagement plan that may serve compound feed manufacturers to get acquainted with obtaining information about the environmental performance of their operations and set their level of ambition.

Feed manufacturers should realise that 'working with the PEFCR Feed' in practice means embarking on a learning journey that starts with initiating an internal process that makes environmental footprinting information readily available, without having a precise outcome in mind, such as a public study or a commercial initiative. Life cycle science in essence is about hotspot analysis too and help a company understand the choices that can be made to reduce the environmental impacts. Working with the PEFCR Feed will help a feed company understand where it will need to look for the relevant information and where it has gaps.

Step 1

Download the excel file containing the GFLI Database lifecycle inventory, containing the environmental impact scores of a large range of feed ingredients. Several feed manufacturers have reported on successfully integrating the excel file into their respective feed formulation software. With this, the feed manufacturer has an indication of the environmental footprint of a given feed formulation and rough comparisons between different feed formulation choices can be made.

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Step 2

Read the PEFCR Feed, with a focus on the data/information that is required to be collected at feed manufacturing level. The key element in that regard is the feed mill energy consumption. The easiest start would be to look at the annual energy (gas and electricity) use and sources at the feed mill, which can then be ascribed to a certain total annual tonnage of feed produced. This step would initiate gearing internal processes towards making information that is required for environmental footprinting more readily available as well as reduce future manual work. In this stage it is more essential to identify data gaps than to produce estimated emission levels.

Step 3

Invest in obtaining more in-depth knowledge about the fundamentals of measuring environmental performance and the reasoning and functioning behind the PEF and the PEFCR Feed. Taking training courses would be beneficial to understand the metrics behind concepts such as land use change. It is recommendable not to immediately outsource all work entirely to consultants, in order to ensure knowledge and skills grow within the company. It is important to understand that the PEFCR Feed does not include the emissions related to feed digestion at farm level, meaning basing feed formulation choices solely on the PEFCR Feed will not give the complete picture as regards emissions of relevance to animal production.

Step 4

Pay attention to the calculations of inbound transport for the feed ingredients. This triggers the need to find out more information about the origins of the sourced feed ingredients, while this information on origin is also of relevance for selecting datasets in the GFLI Database. At this stage it can also help to initiate concrete discussions with suppliers of feed ingredients to learn about their activities in measuring the environmental performance of their activities.

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Step 5a

At this stage a company may look in the direction of seeking to which extent it can deliver environmental performance results that are compliant with the PEFCR Feed. The complexity of calculations will make it likely to have an external consultant involved, unless advanced LCA knowledge is present within the company. For the development of a PEFCR Feed compliant study (including verification), a consultant will most certainly be of added value to help with time-consuming requirements. A key challenge is the (manual) conversion of primary data on for example feed mill energy use into impact scores on the 16 environmental impact categories. A consultant may also be better skilled on identifying specific data quality requirement challenges.

Step 5b

Increasingly, commercial software applications are becoming available to the market, linking up both to the GFLI Database and existing feed formulation software. Depending on the in-house LCA knowledge, a company could decide to use software tools at this stage already. Using software tools will allow for the quick delivery of environmental footprint results of a large variety of feed diets, possibly in real-time. The software applications also seem to go beyond the scope of the PEFCR Feed and include the emissions related to the livestock farm stage or even the slaughterhouse stage. For practical applications, software tools will undoubtedly play a key role going forward.

Step 7

A company could try to obtain more primary data from suppliers on the environmental performance of feed ingredients that are purchased, thereby also reducing reliance on secondary datasets. A key focus area could be the sourcing of soy, with attention for lowering GHG emissions related to land use change.

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