



Global Feed LCA Institute (GFLI)

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How to Use the GFLI Database for Environmental Impact Assessments of Feed

Mission and Vision

The Global Feed LCA Institute (GFLI) is an independent animal nutrition and food industry institute in order to develop a publicly available Animal Nutrition Life Cycle Analysis (LCA) database and tool to support meaningful environmental assessment of animal nutrition products and stimulate continuous improvement of the environmental performance in the animal nutrition and food industry.

Vision:

The GFLI database will be recognized as **the global reference** for Feed LCA data by the public and private sectors, LCA researchers, intergovernmental bodies, and NGOs.

GFLI to serve as an engine of transformation for the feed, livestock and aquaculture sectors by underpinning and supporting:

- Benchmarking and continuous improvement on environmental impact reduction
- Identification of best practices
- Identification of innovative feed ingredients and formulations

Key Attributes

- Feed specific, public database based on harmonized methodology
 - FAO-LEAP: “Environmental performance of animal feed supply chains.”
 - EU-PEFCR: “Feed for Food Producing Animals”
- High quality secondary* data for:
 - Cultivation
 - Processing of feed ingredients
 - Feed mills
 - Transportation
- LCA tool (GFLI FeedPrint International)
 - Identification of areas of concern
 - Explore and identify areas for improvement
 - Training and education

* New guidance for providing “branded data” (company/product specific) based primarily on primary data to undergo pilot testing.

Key Attributes

- Facilitates uniform calculation of 16 impact categories, including:
 - Greenhouse gas emissions
 - Water use
 - Acidification
 - Eutrophication
 - Land use change
- Data quality and integrity assured by external review
- Software neutral to facilitate uptake of data

- **Environmental impact assessments** for purposes such as:
 - Benchmarking for strategic planning
 - Full environmental footprinting capability (16 impact factors)
 - Hotspot analysis – evaluating current formulations and impacts
 - Scenario analysis including risk analysis and mitigation for specific ingredients (re: environmental impacts)
 - e.g. policy-driven risk assessment for high-impact ingredients
 - Comparison of certified vs. uncertified products
 - Innovation through formulation that considers environmental impact
 - Internal and external marketing and communication of life cycle results
 - Communicating impacts to value chain (next step or beyond), including:
 - Impact of feed production
 - Nutritional performance equivalency

Database

The mission of GFLI is to become the reference for Feed LCA data. This means that in addition to developing the database, the GFLI should also consider how to facilitate access to the data. One key element from that perspective is GFLI's decision to offer free access to its database. GFLI's goal is to develop its database in a format that can be easily used by the main LCA software developers. To this end, GFLI is closely monitoring the UNEP/SETAC initiative on interoperability of LCA databases.

The free, public database is available for download. Choose the format you prefer and add it to your cart. In order to check-out you will need to accept the GFLI End User License Agreement (EULA) and the database will be ready to download. Keep in mind that the files are compressed into zip files so you need to unzip before using.

LCI simapro (csv)



LCI simapro (csv)

Free – Download

LCIA results of feed material (excel)



LCIA results of feed material (excel)

Free – Download

LCA Tool

In addition to making the GFLI Database available in usable formats, GFLI is also committed to supporting the feed and livestock community's ability to perform the necessary calculations. Despite the importance of environmental footprinting for the compound feed industry, very few feed companies can rely on in-house LCA expertise. To address this situation, GFLI commissioned Wageningen University and Blonk Consultants to

Free access to publicly available data upon acceptance of the GFLI End User License Agreement (EULA).

Public Access to EF 2.0

The Environmental Footprint 2.0 (EF 2.0) is available for download as zip with XML files. These files require LCA software for optimal functionality. The EF 2.0 details the method of impact assessment (LCIA) through the ReCiPe Midpoint Hierarchy method and EF methodology of the European Commission. It includes the following impact indicators: Global warming (Including LUC); Global warming (excluding LUC); Stratospheric ozone depletion; Ionizing radiation; Ozone formation, Human health; Fine particulate matter formation; Terrestrial acidification; Freshwater eutrophication; Terrestrial ecotoxicity; Freshwater ecotoxicity; Marine ecotoxicity; Human carcinogenic toxicity; Human non-carcinogenic toxicity; Land use; Mineral resource scarcity; Fossil resource scarcity; Water consumption.

An Excel version of the EF 2.0 is under construction for easier access by non-LCA software users.

Please consult the End User License Agreement (EULA), available during check-out and included in the download, for legal uses of the database. Keep in mind that the files are compressed into zip files so you need to unzip before using.

*Excel version of EF 2.0
coming soon!*



Environmental footprint 2.0 (XML)

*EF 3.0 XML and Excel will
replace the 2.0 versions in
due course.*

Currently available for free from the GFLI website:

- Aggregated environmental impact data on main feed ingredients (approx. 1,000 datasets)
 - Canadian crops
 - US crops
 - Main feed ingredients used in Europe

Datasets being prepared for integration:

- Brazilian crops
- Rendering products
- Fish feed
- US processed ingredients

More regional and sectoral datasets being planned, including:

- Dutch raw feed materials
- Feed additives
- Former foodstuffs
- Marine ingredients

Founding Members



New Members

Associations



Strategic Partner



Corporates



Mutually Beneficial Collaboration

Members:

- Invited to submit nominations to the Board of Directors and Technical Management Committee
- Receive a discounted license fee to access aggregated impact data (for commercial use) and disaggregated unit process data

Strategic Partners:

- Realization of mutually beneficial collaborative partnerships to support complementary missions

Data-in providers:

- Project assistance to enable global access to your LCA datasets

Data-out subscribers:

- Access to aggregated impact data (for commercial use) and disaggregated unit process data
- Use of GFLI datasets in LCA calculation tool of your choice

Partner with us!

Interested in membership, providing or accessing data, or becoming a strategic partner?

We want to help you meet your sustainability goals and we welcome your feedback!

Contact us for more information at:

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