

## Abstract: Global Feed Industry Initiatives

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### Plenary I: Sustainability

The International Feed Industry Federation (IFIF) represents over 80% of total compound animal feed production worldwide and is committed to continue to support and encourage the sustainable development of animal production. IFIF is working with its members from around the world, as well as international organizations, such as United Nations Food and Agriculture Organization (FAO), agri-food chain partners, and other key stakeholders to measure, benchmark and reduce the greenhouse gases (GHG) impact of livestock production globally. Through innovation and efficiency, animal feed has proven to be an essential part of the solution to make the livestock production chain more sustainable.

The overall objective of the global feed industry is the sustainable competitiveness of the global livestock sector through the supply of safe, competitive and sustainable feed. At the international level, sustainability is one of IFIF's key strategic pillars. In order to support this, IFIF is working with its members and other stakeholders, including the agri-food chain partners and international organizations, such as the FAO, on a number of important projects.

Through IFIF, the global feed industry is participating in the major sustainability initiatives led by the FAO, such as the global agenda for sustainable livestock and the Livestock Environmental Assessment and Performance partnership (LEAP).

Furthermore, IFIF has developed a number of strategic initiatives to measure and benchmark the environmental performance of the livestock production chain, which are also connected to these FAO activities. IFIF is founding member of the Global Feed LCA Institute (GFLI), which will use the FAO LEAP methodology to develop a golden global standard for assessing and benchmarking feed industry impact and improvement in LCA calculation, in order to support the reduction of the environmental footprint of livestock products.

IFIF has also together with the EU Association of Specialty Feed Ingredients and their Mixtures (FEFANA) and a consortium of international companies and associations, launched the Specialty Feed Ingredients Sustainability Project (SFIS), which measured and established the role of specialty feed ingredients (SFIs) on the environmental impact of livestock production.

### ***Global Agenda for Sustainable Livestock***

IFIF is a founding member of the Global Agenda for Sustainable Livestock, which is a partnership committed to sustainable development of the livestock sector. As a member of the Global Agenda Guiding Group, IFIF has signed the Global Agenda Consensus and actively inputs in the work of the Agenda, supporting the development of the initiative since its start in 2010.

The agenda partners work together on three priority areas where improving practices should bring large environmental, economic and social benefits: production efficiency, grassland management and manure management.

IFIF is particularly engaged in the work on 'closing the efficiency gap'. This aims to stimulate the application of existing but not widely used technologies by the bulk of the world's producers whose use of natural resources is often greatly inefficient. Agenda partners aim to develop public-private and other forms of partnership to transfer and adapt resource use efficient technologies.

### ***Partnership on Livestock Environmental Assessment and Performance (LEAP)***

Environmental footprinting of livestock products is a challenging but essential task to improve the accuracy of reporting on the real impacts of livestock products. This includes both understanding where the livestock chain stands in terms of impact and encouraging the benchmarking and measurement of both individual and collective reduction efforts.

IFIF together with the American Feed Industry Association (AFIA) and the European Compound Feed Manufacturers' Federation (FEFAC) is a founding member of the FAO-led Partnership on Livestock Environmental Assessment and Performance (LEAP), which aims to improve how the environmental impacts of the livestock industry are measured and assessed, an important step to reduce the impact of livestock products on the environment.

The LEAP partners have developed globally recognized sector specific guidelines and methods for the life cycle assessment of GHG emissions from livestock food chains, including for feed, poultry, and small and large ruminants, which will become the golden global standards for measuring environmental efficiency in these supply chains.

In 2015 LEAP finalized the development of a ground-breaking methodology that introduces a harmonized, science-based, practical and international approach to the assessment of the

environmental performance of feed supply chains, while taking into account the specificity of the diverse production systems that exist globally.

These global LCA Guidelines, published in April 2015, are an essential step to help reduce the impact of livestock products on the environment. The LEAP/FAO Feed LCA Guidelines represent a significant milestone for the global feed industry and will enable consistent and credible environmental assessments with a view to reduce the environmental footprint of livestock products. The guidelines also form the basis of the Global Feed LCA Institute (GFLI).

### ***Global Feed LCA Institute (GFLI)***

Following the official publication of the LEAP Global Feed LCA Guidelines methodology in April, IFIF together with AFIA and FEFAC set up the Global Feed LCA Institute (GFLI). Over the next three years, the GFLI will work to implement the internationally recognized FAO/LEAP methodology by developing a high quality globally recognized, region specific and harmonized public database to support meaningful LCAs of livestock products.

Supported by the FAO and LEAP, the GFLI is working to bring the major feed producing regions to the initiative with the aim to become the golden global standard for assessing and benchmarking feed industry impact and improvement in LCA calculations. This will result in harmonized region-specific environmental assessments for livestock and poultry production, allowing the adoption of best practices for mitigation, while measuring continuous improvement.

The GFLI partners aim to develop and build a feed specific publicly available LCA tool to facilitate environmental assessments and the measurement of continuous improvement, which is both comparable and measurable across world regions.

The database and the tool would be public and freely accessible. The Global Feed LCA Institute has established a formal partnership with FAO and LEAP, to ensure that the deliverables of the GFLI are compliant with the LEAP methodological requirements.

### ***The Specialty Feed Ingredients Sustainability Project (SFIS)***

IFIF, together with the EU Association of Specialty Feed Ingredients and their Mixtures (FEFANA) and a consortium of international companies and associations, launched the Specialty Feed Ingredients Sustainability Project (SFIS) to measure and establish the role of specialty feed ingredients (SFIs) on the environmental impact of livestock production.

The study undertook a life cycle assessment (LCA) in conformity with the ISO 14040/44 standards in order to analyze the cradle-to-farm gate environmental performance of pig and broiler production with and without specialty feed ingredients supplementation and to provide credible scientific evidence for informed decision making in areas related to the environmental impact of specialty feed ingredients.

The SFIS analysis examined the use of low protein diets (Nitrogen) and phytase (P) in pigs and poultry. The overall results of the study demonstrate that the use of SFIs in animal diets reduces the consumption of basic feed ingredients. Furthermore the study demonstrates that the use of SFIs, such as amino acids and phytase, results in clear reductions of the Global Warming Potential (GWP), as well as the eutrophication and acidification potential during livestock production.

It became clear that the use of these SFIs in animal nutrition provides concrete benefits to the environmental impact of animal production, for example reducing the excretion of certain nutrients, such as nitrogen and phosphorus, improving the performance of the animals, and reducing the feed consumption or allowing the use of locally based or unusual feed materials.

In 2015 the results of the study were validated by an independent Scientific Council made up of global experts in the fields of LCA methodology and animal nutrition to ensure scientifically robust inputs in the analysis and prepare the ground for a peer reviewed publication of the project, which will be published in late 2015.

This study should have a direct positive impact on the future environmental footprint of the feed and food chain. In addition to the positive results, the study also points towards future developments, such as improved feed conversion driven by advancing technologies in animal feeding through using SFIs.

In conclusion, the International Feed Industry Federation is committed to measure, benchmark and reduce the GHG impact of livestock production globally and will continue to support and encourage the sustainable development of animal production. Through innovation and efficiency, animal feed has proven to be an essential part of the solution to make the livestock production chain more sustainable.