FÉDÉRATION EUROPÉENNE DES FABRICANTS D'ALIMENTS COMPOSÉS
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Preliminary Position on Farm-to-Fork Strategy

FEFAC welcomes the renewed political interest to stimulate the development of more sustainable food systems. The compound feed & premix sector is committed to delivering the products and services that contribute to supporting sustainable livestock and aquaculture production in the EU, supported by innovation in animal nutrition science and feed manufacturing & processing technology. In the identification process of challenges that need to be tackled in the livestock sector, FEFAC advises the European Commission to always consider animal nutrition solutions as a key element in the effort to develop a sustainable and competitive food system.

Industrial compound feed manufacturing is an essential partner of livestock farming providing products and advice for an integrated nutrient management. In the search for sustainable diets and sustainable production systems, FEFAC advises the European Commission to take a "One Nutrition" approach into account, looking at a cross-sectoral approach that combines the sciences of plant, animal and human nutrition so that the transfer of nutrients is optimised. The European Commission should also always make notion of the fact that when it comes to nutrient use by the livestock sector, most of these nutrients are provided by non-human edible/digestible sources (e.g. grass, forages, feed cereals) and co-products from other industrial processes (e.g. brewers' grains, sugar beet pulp and oilseed meals).

To achieve a reduction in GHG emissions related to animal production, feed formulation holds many of the key solutions. Compound feed manufacturers would welcome the possibility to legally communicate on improvements of the environmental performance of the feed production stage to livestock farmers, in a B2B context, providing them with solutions to answer political and market challenges. FEFAC recommends implementing the PEFCR Feed for Food-Producing Animals as the key reference method to assess that environmental performance of the feed production stage up to the livestock farm gate.

FEFAC welcomes the ambition to continue the efforts to reduce the use of antimicrobials in livestock production, as a key element in driving back antimicrobial resistance. Animal nutrition solutions can help to enhance the health status of livestock animals, driving a reduction in the need for veterinary treatment, with for example antimicrobials. There are legal disincentives preventing efficient feed additives solutions to get access to the market. There are also barriers for feed manufacturers to be able to communicate on their 'health enhancement' solutions to livestock farmers which need to be addressed to unlock the full potential of animal nutrition solutions to contribute fully to the reduction of AMR.

FEFAC supports the development of European protein production in the search of inputs that can contribute to more sustainable feed production. FEFAC advocates for a smart balance between public interest (benefits) and regulatory requirements (risk), taking full account of trade-offs. At the same time, efforts to increase the sustainable sourcing of imported feed are equally important and should not be neglected.

FEFAC looks forward to being involved as a stakeholder in the Farm to Fork Strategy consultation process and offers its knowledge and expertise where it is considered useful.

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1. Support sustainable primary production

The EU feed industry is providing tools to livestock farmers seeking to improve their performance to achieve sustainable primary production of food-producing animals including farmed fish. This support is offered in the form of nutritionally optimised feed products, sharing of all relevant information or provision of services via nutritional advice and feed formulation for the daily rations of food-producing farm animals.

1. Sustainable management of nutrients: towards a “One Nutrition” approach

A major challenge for the livestock sector is to improve its contribution to optimized nutrient use efficiency. The key elementary nutrients for both animals and plants are nitrogen, phosphorous, potassium and calcium. Nitrogen and phosphorous are of particular importance for the discussion on sustainable management of key nutrients and also the environmental impacts of any nutrient losses and wastage.

A major objective of compound feed manufacturers has been to improve the “Nutrient out/Nutrient in” ratio. Scientific Research on optimized nutrient balance in animals diets and the ability to supplement the diet with nutritional feed additives (e.g. amino acids, phytase) or mineral feed materials have resulted in significant improvements of this ratio, making the European feed and livestock industry a global leader in nutrient efficiency. Further substantial improvements of this ratio are expected with the uptake of digitalization and sensor technology at all levels of the agri-food chain, supporting the development and implementation of precision feeding systems providing the optimum nutrient balance to food producing farm animals during all physiological stages.

However, this linear approach of nutrient efficiency is no longer sufficient on its own to evaluate the sustainability performance of a food production system in a circular way:

- Manure should not be regarded as waste but as an animal-based product; the EU fertilizer policy has undergone recently a major evolution to encourage the use of organic fertilisers (Regulation 2019/1009) and this must be integrated in the evaluation of nutrient use efficiency; the potential for reduction of manure nutrients leakage is huge and advances animal nutrition can also contribute to it in a significant way;

- The biological value of the nutrient availability for the target organism is generally not considered, although this is an essential element for optimization of resources: the biological value of grass for human beings or monogastrics is poor but it is very high for ruminants; the biological value of animal proteins is generally higher for consumers than vegetable proteins.

- There is little research on the transfer rate of nutrients from feed to animal tissues; most of this research is performed from a toxicological point of view, not from a human food quality improvement perspective.

The Farm to Fork strategy has an ambition to shape the sustainable food systems for 2030 and later. This highly valuable ambition will only be reached if based on robust scientific evidence investigating the interlinkage of plant nutrition, animal nutrition and human nutrition in a holistic approach. A “One Nutrition” approach linking human, animals and plant nutrition is essential to underpin scientifically the contribution of all currently used and future food production systems to support a broader sustainable food system strategy promoting effectively the minimization of nutrients leakage and improved biological values of the food, feed and fertilisers.

2. Communicating on the environmental footprint of feed to livestock farmers

Livestock farmers are increasingly asked by market partners and policy makers to deliver product information on how to reduce the environmental footprint of animal products. The production stage of feed ingredients takes up the lion share of that footprint, meaning correctly accounting for this important stage of the production chain of the footprint is crucial to come to a fair assessment and essential for the scope of achieving further improvement. Feed manufacturers will need to be able to communicate on the products and services they can provide to livestock farmers to assist their ambition and market expectations to lower the environmental footprint. This requires a robust, science-based B2B ‘green’ communication

which must deliver consistent, comparable and reliable/verifiable information based on a harmonised methodology.

FEFAC recommends using the PEFCR Feed for Food-Producing Animals[1] for this purpose. This methodology was published in May 2018 by the EU Commission, after an extensive evaluation process by the Environmental Experts of the competent European Commission services (including JRC), Member States and civil society and value chain stakeholders. It contains a comprehensive description of how to fact fully account for the impact of feed production on 16 environmental impacts categories. FEFAC is committed to ensure continuous improvement of the PEFCR Feed for Food-Producing Animals and additional guidance to facilitate practical implementation by feed manufacturers at feed mill and livestock and aquaculture farm level.

FEFAC has also invested in the development of a global feed LCA (Life Cycle Analysis) database with information on the environmental performance of all major globally traded feed ingredients, which is entirely complementary to the PEFCR Feed for Food-Producing Animals. This GFLI (Global Feed LCA Institute) Database[2] provides the statistical input that allows feed manufacturers to apply their knowledge and skills to formulate diets that provide optimal performance in terms of sustainability. No other food manufacturing sector has such an LCA database available at global level at this stage.

3. Animal welfare

There is an increasing societal aspiration for improved animal husbandry practices favouring optimal animal welfare conditions. This is not only a matter of regulating stocking density or access to outdoor areas. This is also a matter of animal feeding: avoiding hunger is among the 5 freedoms underpinning animal welfare. In addition, nutrition impacts on the metabolism of animals and therefore their behaviour or the production of certain substances by the organism that can impact on animal welfare (e.g. on the boar taint of uncastrated pigs). Adequate nutrition also provides an effective tool to successfully mitigate stress situations for farm animals (for example heat stress).

2. Contribute to tackle Antimicrobial Resistance

The Roadmap for the Farm-to-Fork Strategy singles out reducing the (need to) use of antibiotics at farm level as a key policy target, which is fully supported by FEFAC members.

Animals are recognized in the One Health concept as one of the reservoirs of antimicrobial resistance which justifies a prudent use of antimicrobials. This involves preventative measures, including strategies aiming at increasing the ability of animals to cope with external stressors (so-called tertiary prevention)[3]. Safe and nutritionally balanced feed is a key prerequisite to the health and wellbeing of animals. It is also a means to further enhance the overall animal health status, improving the animal's readiness and resilience to cope with microbiological challenges and thereby reduce the need for antibiotic treatments.

Enhanced animal nutrition is part of the equation, by providing functional (macro and micro) nutrients. Innovative feeding strategies and nutritional approaches are highly effective to support the animal resilience to stressors. The interaction of feed with the gut microbiota is a key factor for maintaining animal health. Already today, a growing number of publications demonstrate that the ability of the animal to control pathogens in the gut is enhanced thanks to specific constituents with effect on microbiota or specific processes: It has been shown that moderate amounts of fibre in poultry feed improves enzyme production and nutrient digestibility. Likewise, specific products like organic acids, probiotics, prebiotics and trace-elements have been proved to exert a positive effect on the intestinal microbiota. The feed processing, in particular the particle size, has an impact on gut microbiota and the rough

[1] https://ec.europa.eu/environment/eussd/smgp/pdf/PEFCR_feed.pdf
[2] http://globalfeedlca.org/gfli-database/gfli-database-tool/
[3] https://www.efsa.europa.eu/en/efsajournal/pub/4666

grinding of feed is known as a way to control the multiplication of Salmonella in the gut, via the competitive microbial exclusion mechanism.

All these elements must be integrated in any feeding strategy aiming at enhancing animal health & immunological status, especially for young animals (piglets, chicken). This approach however requires from policy makers targeted actions to become a more effective tool in the fight against AMR:

- It is extremely important that the legislative framework supports the practical use of innovative nutritional approaches as alternatives strategies to the use of therapeutic antibiotics. A number of existing solutions have not been brought to the market due to regulatory costs (in particular for feed additives). **The announced REFIT adaptation of the feed additives legislation is very timely and provides a unique opportunity to unlock their potential**.

- It is of primary importance that farmers, in whatever production system they operate, are encouraged to make use of nutritionally optimised feed and can access expert advice on how to make best use of such solutions. However, there are severe restrictions in the ability of feed manufacturers to communicate to farmers the added value of certain feeding strategies or composition concerning its intrinsic value and contribution to maintain the health status of animals. **More opportunities must be granted to operators in delivering scientifically substantiated and meaningful feed claims**.

- A lot more fundamental research involving innovative techniques is still needed to better understand the way animals naturally cope with the presence of stressors in their environment and therefore their ability to optimise interactions feed/gut/microbiota to enhance the immune system of animals. **The Farm to Fork Strategy should emphasis the needs for the EU to invest in such basic research via Horizon Europe.**

3. Boosting the food chain circular economy

Food-producing farm animals, especially ruminants such as cattle and sheep, have the unique capacity of being able to convert the co-products of arable crops processing sectors that are not consumed by people as food or drink, or used to produce biofuels or other industrial products, thus keeping a huge amount of nutrients in the food chain. The resulting feed materials are typically derived from a process where the main activity is the production of a different consumer product, such as beverages, food, biofuels or other industrial “non-food” applications. They are called co-products as their existence is an unavoidable consequence of the main process, but they are nonetheless extremely valuable, containing huge amounts of nutrients, which would go to waste or inferior usage (e.g. thermic use, biodigesters etc) if not used by the feed and livestock sector.

As a result, the livestock sector makes a vital contribution to the circular economy. This societal benefit of livestock production is generally overlooked. In other words no food system would be sustainable without the contribution of farm animals in converting co-products of the food and biofuels processing sector.

Harnessing co-products nutritional value supports the sustainability and profitability of the entire food production system. They are associated with the manufacture of all types of food, whether meat-, dairy- or vegetable-based. Animal nutrition science is used to extract nutritional and economic value from these co-products, and to formulate them into high-performance, healthy and safe feedstuffs for food-producing animals. The process involves skilfully analysing the nutritional components available in co-products, then matching them with the physiological and nutritional requirements of specific farm animals at specific life stages. It includes controlling any naturally occurring substances that may have a negative effect on animal health or performance – so-called anti-nutrients – while ensuring that the taste, quality and safety of animal products produced and purchased by consumers is not negatively affected, and where possible enhanced.

The use of co-products fits the fundamental ethos of the compound feed industry, which identifies the nutrients that are available from a wide range of safe and traceable individual feed ingredients – such as cereal grains, pulses, and co-products – and delivers the most cost-effective feed resources, where possible using elements which would otherwise have gone to waste. As well as contributing to the environmental sustainability of the food chain, the use of co-products in the feed market adds economic value to the original feed material. At the same time it boosts the competitiveness of the livestock farming sector through increased availability of alternative cost-effective feed materials. The value of co-products as feedstuffs depends on producers maintaining their nutritional integrity and safety when producing, handling, storing and transporting them. In other words, treating them like 'products' and not as discarded 'waste'. It is FEFAC's ambition to encourage – and where possible assist – suppliers of co-products to reach next-level awareness and manage their manufacturing processes to optimally preserve and even further upgrade the nutritional quality of the materials destined for feed (e.g. by removing fibre and anti-nutrients).

4. EU protein plan / alternative/sustainable proteins

The European compound feed industry is the largest user of proteins of vegetable origin. Its companies have invested and investigated for decades in the development of new or alternative protein sources (e.g. synthetic amino acids, green biomass from grass, single cell proteins, algae & seaweed, krill, processed insect protein), precision feeding systems (multiple phase feeding) and improving bioavailability and digestibility of feed ingredients (elimination of anti-nutritional factors) and quality of proteins via processing innovations (extrusion). These research and investment activities allowed for a significant reduction in raw protein content in feed for all major species thus lowering environmental impact of nitrogen emissions. Research and innovation in the animal feed industry relies on the availability of additional tools throughout the whole supply chain for vegetable proteins. In particular new plant breeding innovation can deliver further significant advances on the protein yield and ideal amino acid profile of oilseeds, cereals and protein crops.

FEFAC has therefore welcomed the development of the EU Protein Plan that aims to increase the production and competitiveness of protein crops in the EU[4]. The report on the development of plant protein in the European Union has recognized the potential of the revised CAP reform as an important tool to deliver on this objective. The current CAP already helped raise cultivation area of protein crops (e.g. via Voluntary Coupled Support) and indirect (e.g. Rural Development Measures, crop rotation) instruments. At the same time the increased EU protein feed autonomy, with a self-sufficiency of app 77 % in total feed protein use, has contributed to positive climate change mitigation[5].

It remains a fact however as shown in the recent analysis of the EU feed protein balance sheet[6] that the EU will remain dependent on imports mainly for high protein content feed materials (e.g. soy) for many years to come, as EU farmers are more competitive in growing cereals. From an animal nutrition perspective it is important to differentiate between low-pro (less than 15% protein content), medium-pro (15-30% protein content), high-pro: (30-50% protein content) and super-pro (over 50% protein content) feed materials as animals are fed based on the nutrient content to fit animal nutrition requirements (e.g. amino-acids). Therefore the development of the market potential and competitiveness of home-grown protein sources for the Hi-pro market demand has to be further investigated (role of new plant breeding innovation etc.)

In the meantime the EU should maintain open market access to imported vegetable proteins, in particular to soy, to support the further development of its resource-efficient livestock and aquaculture sector. FEFAC encourages to apply responsible sourcing initiatives (e.g. the

[4] **https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018DC0757**
[5] **https://op.europa.eu/en/publication-detail/-/publication/29eee93e-9ed0-11e9-9d01-01aa75ed71a1**
[6] **https://ec.europa.eu/info/news/commission-publishes-overview-eu-feed-supply-2019-may-20_en**

FEFAC Soy Sourcing Guidelines[7] in order to promote sustainable farming practices. It is currently investigating how to operationalise a sourcing criteria for “deforestation-free” supplies of soy products, going beyond the current legality criteria of “no illegal deforestation” required by EU legislation.

[7] **https://www.fefac.eu/fefac-positions/sustainability/21551/**