SPECIALTY FEED INGREDIENTS HELP MITIGATING THE ENVIRONMENTAL IMPACT OF PIGS AND BROILERS PRODUCTION SYSTEMS

The SFIs* evaluated in this phase of the project were
- Improving feed efficiency (reduction of FCR** by 2 to 5%)
- Supporting a higher weight gain (0 to +9%)
- Used to modify the composition of the feed, already containing amino acids and phytase (previous phase of the project)

The SFIS analysis examined the effect of different types of Specialty Feed Ingredients* (SFIs), used alone in pigs and broilers feeds, already optimized with amino acids and phytase.

The overall results of the study demonstrate that the use of SFIs, aiming at modifying the feed composition or improving the feed efficiency reduces the environmental impacts of pigs and broilers production systems (Global Warming Potential, Acidification and Eutrophication Potentials).

By setting up a standard approach to measure the role of SFIs and supporting the development of the LEAP guidelines on feed additives, the project enables the evaluation of the mitigation measures to reduce the environmental impact of animal production on a global basis.

The SFIS production

- NSPE
- Protease
- Probiotics
- Phytogenics
- Organic acids

Feed Preparation

- Base Feed Production
  - Soy, corn, wheat, barley, rapeseed, etc.

Animal husbandry

- Manure Management

System boundary

1000 kg animal liveweight

ABOUT

The Specialty Feed Ingredients Sustainability (SFIS) project consortium is led by the International Feed Industry Federation (IFIF) and the EU Association of Specialty Feed Ingredients and their Mixtures (FEFANA), and brings together the American Feed Industry Association (AFIA), the Japan Feed Manufacturers Association (JFMA), the Brazilian Feed Industry Association (Sindirações), the Stock Feed Manufacturer Council of Australia (SFMCA) and the Feed Ingredient and Additives Association of Australia (FIAAA).

* SFIs tested: Non-Starch Polysaccharide Enzymes (NSPE), Proteases, Probiotics, Phytogenic substances (Phytogenics), Organic acids
** FCR: Feed Conversion Ratio: Feed consumed/kg of weight gain