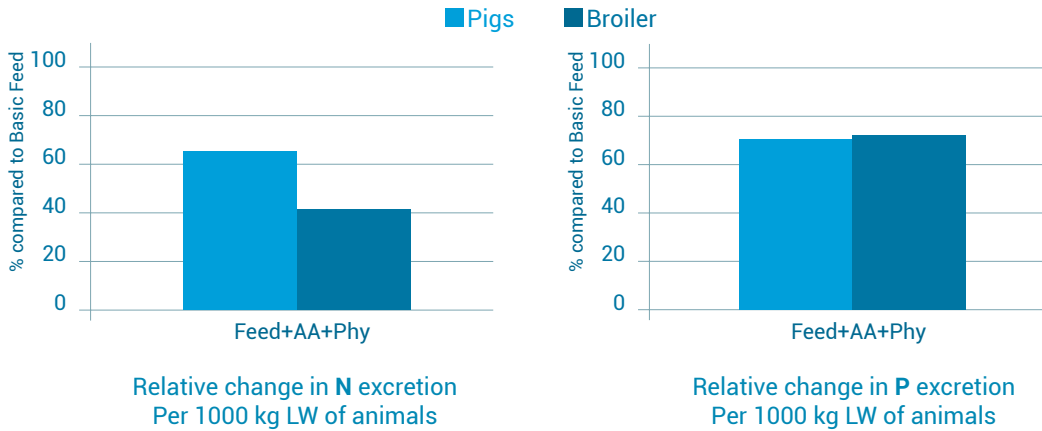# SPECIALTY FEED INGREDIENTS HELP MITIGATING THE ENVIRONMENTAL IMPACT OF PIGS AND POULTRY PRODUCTION SYSTEMS ▶ The results of the Specialty Feed Ingredients Sustainability (SFIS) Project in Europe
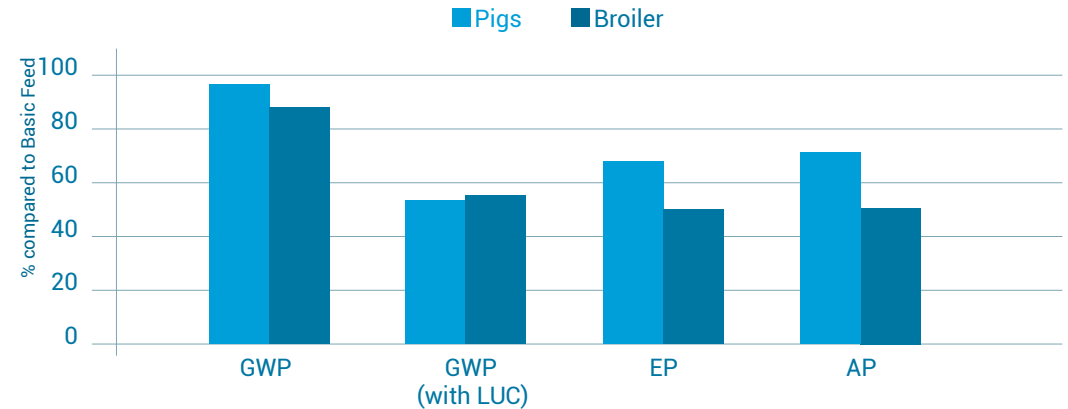
REDUCED N AND P EXCRETION IN PIGS

■ Pigs ■ Broiler

% compared to Basic Feed — Feed+AA+Phy

Relative change in N excretion Per 1000 kg LW of animals

Relative change in P excretion Per 1000 kg LW of animals

IMPROVED ENVIRONMENTAL IMPACTS

■ Pigs ■ Broiler

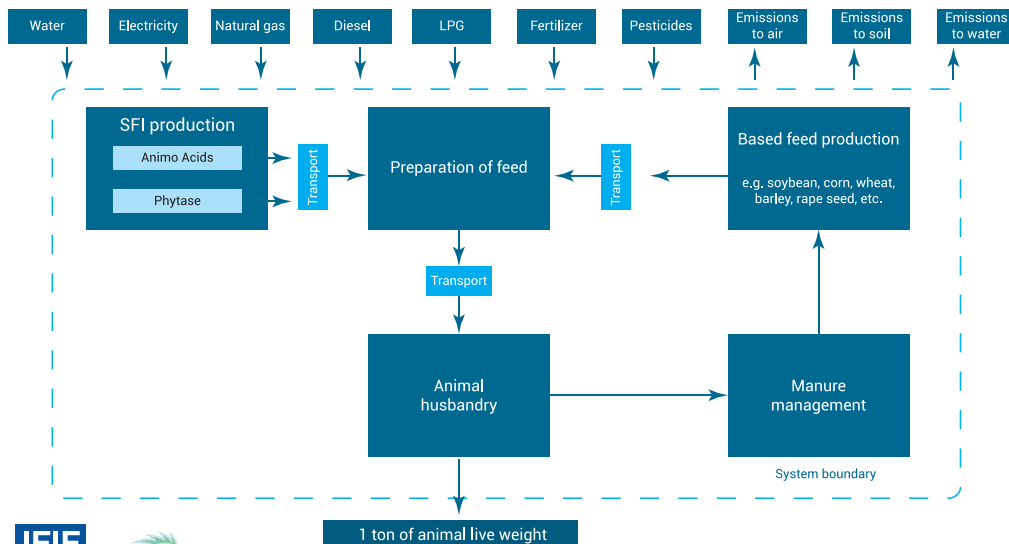% compared to Basic Feed — GWP, GWP (with LUC), EP, AP

The SFIS analysis examined the use of low protein (nitrogen) diets containing Amino Acids and Phytase in pigs and poultry (broilers in particular).

The overall results of the study demonstrate that the use of Specialty Feed Ingredients in animal diets reduces the consumption of basic feed ingredients, and, with the use of Amino Acids and Phytase, it results in clear reductions of the Global Warming Potential, as well as the Eutrophication and Acidification Potential during livestock production.

By setting up a standard approach to measure their role and delivering a manual for LCA practitioners, the project will enable Specialty Feed Ingredients to be included in the evaluation of the mitigation measures to reduce the environmental impact of animal production on a global basis.

SYSTEM BOUNDARIES

Functional Unit = 1000 Kg of animal live weight

Water | Electricity | Natural gas | Diesel | LPG | Fertilizer | Pesticides | Emissions to air | Emissions to soil | Emissions to water

SFI production
- Animo Acids
- Phytase

Transport → Preparation of feed ← Transport ← Based feed production

e.g. soybean, corn, wheat, barley, rape seed, etc.

Transport

Animal husbandry → Manure management

System boundary

1 ton of animal live weight

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) and the Brazilian Feed Industry Association (Sindirações), as well as companies active in the production of feed and specialty feed ingredients. For more information please visit: **www.ifif.org**

AA	Amino Acids	LCA	Life Cycle Assessment	N	Nitrogen
AP	Acidification Potential	LUC	Land Use Change	P	Phosphorus
EP	Eutrophication Potential	LW	Live Weight	Phy	Phytase
GWP	Global Warming Potential				

IFIF — Feed the world

fefana