

CHALLENGE

Phosphorus (P) is an irreplaceable component of life and used in all agricultural production systems. It is a finite but recyclable resource which is not efficiently used and reused in agricultural production leading to serious concerns for soil and water ecosystems.

OBJECTIVES

Monogastrics such as pigs and chickens contribute to achieve global food security but are major P excretors and sources of P losses. Balancing the P cycle is crucial towards a P resilient livestock production. The strategic aim of this project is to provide solutions to secure sufficient supplies of high quality animal products from resource-efficient and economically competitive agro-systems that are valued by society and preserve soil and water ecosystems.

EXPECTED RESULTS

The fate of P in fodder, animals, microbiota, slurry, soil and water will be traced. An improved understanding of the biodiversity of monogastric P utilisation towards both an optimised P supply and highest standards of animal health and welfare will be generated. The genotype-phenotype map, i.e. genomic, epigenetic, and transcriptomic variation, will be addressed. PEGaSUS will develop feeding, breeding and management/reuse tools and strategies as well as science-based policy measures to improve the efficiency of P use in pig and chicken production.

POTENTIAL IMPACT

The project delivers cost-benefit estimations in various farm-, production-, process-, and eco-systems, and novel approaches of P management/reuse to balance economic and environmental sustainability of the dense but uneven distributed European animal production.





EUROPEAN RESEARCH AREA ON SUSTAINABLE ANIMAL PRODUCTION



PEGASUS CONSORTIUM

Country	Consortium partners	Funded by
DE	Leibniz Institute for Farm Animal Biology	BMEL
DK	Aarhus University	DAFA
IT	Universita Cattolica del Sacro Cuore	MIPAAF
SE	Stockholm Environment Institute	Formas
UK	Agri-Food and Biosciences Institute	DEFRA



RUNNING TIME

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FUNDING



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