

Green Pig

Can peas and beans replace soya bean meal in pig diets?

The Challenge

UK feeding industries rely heavily on imported soya bean meal (SBM) as the main protein source in monogastric feeds, including for pigs. This raises concerns about the sustainability of the UK pig industry, as SBM has an environmental impact and is subject to price fluctuations.

The Research

SRUC researchers worked with a large consortium of academic and industry-relevant organisations on the Green Pig project to investigate whether home-grown peas and faba beans could replace SBM in grower and finisher diets.



Following a series of small-scale academic studies, a large scale demonstration trial was conducted under commercial conditions using 1230 pigs (35-110kg) kept either on slats or straw.

Three types of pelleted feeds were tested:

1. Control SBM based feed (SBM)
2. 30% Peas, without SBM (Peas)
3. 30% Faba beans, without SBM (Beans)

Pig growth performance (feed intake, growth, feed conversion), health, cleanliness and carcass quality (P2 value and lean meat %) were measured.

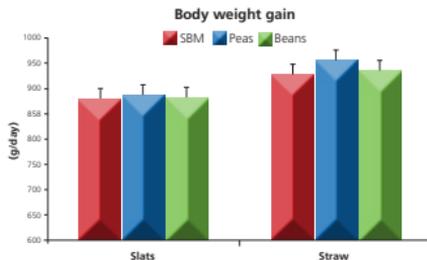


Green Pig

What have we learnt?

The Results

- Green Pig research demonstrated that feeding peas and faba beans had no detrimental impact on performance, carcass weights and back-fat measurements.
- Positive farm manager feedback was telling:
 - "Feed handling was the same"
 - "Pigs showed normal cleanliness"
 - "Pigs performed similar with excellent grading"



No difference in body weight gain of 35 to 110 kg pigs between SBM and alternatives on different systems

Key take-home messages

- Peas and beans are a viable home-grown alternative to SBM in nutritionally balanced grower and finisher pig diets.
- Constraints on commercial availability need to be addressed to fully exploit the results of this work.



SRUC is a charity registered in Scotland, No. SC003712

Leading the way in Agriculture and Rural Research, Education and Consulting

This flyer is produced with support from the Universities Innovation Fund, from Scottish Funding Council and represents the work of multiple academic and industrial partners on the Green Pig project (Defra Sustainable Livestock Production LINK programme), led by SRUC Researcher Jos Houdijk*

*0131-6519368; jos.houdijk@sruc.ac.uk