Use of phase feeding in combination with split gender grouping for pigs

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Message

- Boar performance (ADG and FCR) was superior to that of gilts
- However, the use of a two phase dietary regime did not affect boar or gilt performance compared with when a single diet was offered between 45 and 120 kg

Introduction

- Phase feeding is commonly used to reduce N excretion and feed costs during the finish period
- Split gender grouping often aids the marketing of pigs
- The effect of split gender grouping in combination with phase feeding is largely unknown
- Furthermore, the use of phase feeding specifically for fast growing boars is underinvestigated

Aim

To investigate any additional benefits of phase feeding by also adopting a split gender grouping practice

Materials and Methods

- Over 8 replicates (8 time periods)
  - 480 (PIC 337) finishing pigs were grouped in pens of 10 between 45 and 120kg
  - Treatments were arranged in a 2 x 3 factorial design

Factorial Design:

2 feeding regimes:	3 group gender structures
a) Two phase feeding	a) All boars
b) Single diet	b) All gilts
	c) 50:50 mix of boars + gilts

Diets:

	Diet 1	Diet 2
DE (MJ/kg	13.5	13.5
CP (g/kg)	18.0	16.7
Lysine (g/kg)	9.8	8.0
Offered between in single diet	45-120kg	-
Offered between in two phase regime	45-80kg	80-120kg

Results

- No significant interaction (P>0.05) between dietary regime and group gender structure

Effect of dietary regime and group gender between 45 and 120kg

	Dietary regime*			Group gender				
	Single diet	Two phase	Sem	Boars	Gilt	Mixed	Sem	Sig
ADG (g/d)	908	905	12.9	942^{b}	865^{a}	913^{b}	13.7	<0.01
ADFI (g/d)	2342	2310	25.7	2319	2338	2321	31.9	NS
FCR	2.59	2.56	0.029	2.46^{a}	2.70^{c}	2.55^{b}	0.025	<0.001
Carcass								
Carcass weight (kg)	92.9	93.0	0.31	92.2^{a}	93.7^{b}	92.9^{ab}	0.37	<0.05
Backfat depth at P_2 (mm)	12.3	12.2	0.27	11.5^{a}	12.4^{b}	13.0^{b}	0.31	<0.01
Kill out (%)	76.9	76.9	0.27	76.1^{a}	77.7^{b}	76.8^{ab}	0.31	<0.01

* No significant affect of dietary regime (P>0.05)

Conclusions

- Pig performance was equally as good using a two phase regime as a single diet
- Overall boar performance was superior to that of gilts but it was not negatively affected by the use of a diet with lowered CP and Lysine in the late finishing stages

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