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NURSERY GROWTH PERFORMANCE OF INTACT MALES AND BARROWS

M. M. Rantanen, R. H. Hines, and J. D. Hancock

Summary

A total of 100 weanling pigs with an average initial body wt of 11.8 lb and average age of 17 d was used in a 38-d growth assay to determine the effect of castration on growth performance of nursery pigs. All pigs were fed the same Phase I, II, and III diets formulated to 1.6, 1.4, and 1.35% lysine, respectively. Data indicated no differences in growth performance between intact males and barrows in the first 38 d postweaning (12 to 48 lb).

(Key Words: Starter, Performance, Boars, Barrows.)

Introduction

Intact males have greater average daily gain and are more feed efficient than barrows when fed in the finishing phase. The point at which these differences in performance begin is unclear. Therefore, the objective of this experiment was to determine if intact males have greater growth performance than barrows in the nursery phase.

Procedures

A total of 100 male pigs (initial body wt of 11.8 lb and an average age of 17 d) was used in a 38-d growth assay. Half of the pigs were castrated at 7 d of age. Pigs were allotted by weight, sexual condition, and ancestry, with five pigs per pen and 10 replicate pens per treatment. Intact males and barrows were housed in separate pens. At

the start of the experiment, all pigs were fed the same corn-soybean meal-based Phase I diet formulated to 1.6% lysine, .9% Ca, and .8% P with 20% dried whey, 5% dried skim milk, 1% fish meal, and 10% plasma protein. On d 10 postweaning, all pigs were switched to a corn-soybean meal-based Phase II diet formulated to 1.4% lysine, .9% Ca, and .8% P with 15% dried whey, 1.5% blood meal, and 3% fish meal. On d 24 postweaning, all pigs were switched to a corn-soybean meal Phase III diet formulated to 1.35% lysine, .9% Ca, and .8% P. All diets were fed in pelleted form.

Pigs were housed in 4-ft × 5-ft pens with woven-wire flooring. Room temperatures were 90, 87, 84, 80, and 75°F for weeks 1 to 5, respectively. Each pen had a self-feeder and a nipple waterer to allow ad libitum consumption of feed and water. The pigs and feeders were weighed on d 0, 10, 24, and 38 to determine average daily gain (ADG), average daily feed intake (ADFI), and feed/gain (F/G).

Results and Discussion

Intact males and barrows had similar ADG and ADFI (Table 1). Although there were trends ($P < .10$) for differences in F/G, the differences were small and inconsistent (i.e., barrows were more efficient in Phase I and intact males were more efficient overall). In summary, castration had little effect on growth performance during the first 38 days postweaning.

Table 1. Growth Performance of Intact Males vs Castrates in the Nursery^a

Item	Intact males	Barrows	CV
<u>Phase I (d 0 to 10)</u>			
ADG, lb	.67	.69	11.3
ADFI, lb	.63	.61	6.1
F/G ^b	.94	.88	6.8
<u>Phase II (d 10 to 24)</u>			
ADG, lb	.79	.80	14.6
ADFI, lb	1.11	1.13	10.3
F/G	1.41	1.41	6.5
<u>Phase III (d 24 to 38)</u>			
ADG, lb	1.36	1.40	11.2
ADFI, lb	1.98	2.12	12.2
F/G	1.46	1.51	5.6
<u>Overall (d 0 to 38)</u>			
ADG, lb	.97	.99	9.6
ADFI, lb	1.30	1.36	10.4
F/G ^b	1.34	1.37	2.0

^aA total of 100 weanling pigs (five pigs/pen and 10 pens/treatment) with an average initial weight of 11.8 lb and an average final wt of 48 lb.

^bSignificant trend ($P < .10$).