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COMPARISON OF FEEDING SYSTEMS FOR FINISHING SWINE

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Summary

Two feeding trials using 240 finishing pigs were conducted to evaluate meal feeding and ad libitum dry and wet feeding. Growth rate was significantly improved by wet feeding in trial 1. Overall, a 5% improvement in growth rate occurred by wet feeding in both trials when compared with meal-feeding or ad libitum dry feeding. Feed efficiency was similar for pigs fed meals, and ad libitum dry or wet diets.

Introduction

Several new feeding systems have become available to swine producers during the past few years. Meal-time feeding was introduced a few years ago and more recently a wet-feeder that allows the pigs to make a gruel. The purpose of these studies was to compare wet-feeders, dry-feeders, and meal-time feeders for growth performance in finishing pigs (100 lbs to market weight).

Procedures

Two trials were conducted to evaluate meal-time feeding, ad libitum dry feeding, and ad libitum wet feeding. One hundred and sixty finishing pigs were allotted by weight, litter, and sex to one of the following three treatments for each trial: A) Chore-Time Feeder, pigs fed two 3-hr periods, and water availability programmed for four 3-hr periods with two of these periods during feeding (2 replicates per trial); B) Oval feeder (Osborne), ad libitum feed and water (2 replicates per trial); (C) Rectangular wet feeder, ad libitum feed and water available in feeding trough from nipple waterers that emitted water to moisten the feed.

Pigs were housed (20 pigs/pen) in KSU finishing barn. Pens were 12 x 15 ft with 50% concrete slats and 50% solid concrete. Two nipple waterers were available for pigs in treatment B. The diet used for all three treatments was a fortified sorghum grain-soybean meal diet with a calculated analysis of 15.5% crude protein, .80% calcium, and .70% phosphorous.

Results and Discussion

Table 1 presents the performance of finishing pigs fed with meal-time feeders, dry ad libitum feeders, or wet ad libitum feeders. In trial 1, pigs fed with the wet ad libitum feeder grew faster ($P<.05$) than those pigs fed meals or with a dry ad libitum feeder. Pigs consuming feed from the wet feeder consumed 4.6% more feed per day than those fed with dry feeders. The most efficient gain was observed for pigs that were fed meals. Pigs fed meals were 6% more efficient than ad libitum dry fed pigs and 3% more efficient than ad libitum wet fed pigs.

In trial 2, ad libitum fed pigs (dry and wet) grew slightly faster than meal-fed pigs with an improved feed efficiency. The most efficient gains were observed with the ad libitum, dry-fed pigs.

In summarizing the two trials, the pigs fed ad libitum wet feed grew 5% faster than pigs fed meals or pigs fed dry feed ad libitum. Feed/gain ratio was the same for all treatments.

Table 1. Performance of Finishing Pigs With Three Feeding Systems

Trait	Avg daily gain, lb	Avg daily intake, lb	Feed/gain
<u>Trial 1^a (2 pens/treatment)</u>			
Meal-fed	1.50	5.75	3.84
Ad lib, dry	1.48	6.06	4.09
Ad lib, wet	1.62 ^c	6.34	3.94
<u>Trial 2^b (2 pens/treatment)</u>			
Meal-fed	1.52	5.86	3.85
Ad lib, dry	1.57	5.58	3.56
Ad lib, wet	1.57	5.91	3.71
<u>Summary: (4 pens/treatment)</u>			
Meal-fed	1.51	5.80	3.84
Ad lib, dry	1.52	5.82	3.82
Ad lib, wet	1.59	6.12	3.83

^a20 pigs/pen, intake wt = 118 lb, final wt = 201 lb, 54-day trial.

^b20 pigs/pen, initial wt = 103 lb, final wt = 212 lb, 70-day trial.

^cDifferent from other two treatment groups ($P<.05$).