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Evaluation of Comingling Pigs Before Weaning to Reduce Weaning Stress

R. H. Hines and A. J. Thulin

Summary

Two trials were conducted to evaluate the management practice of comingling litters one week before weaning to help reduce weaning stress. Pigs which were comingled before weaning gained slightly faster the first two weeks after weaning than pigs mixed at weaning, but overall pig performance to 7 to 8 weeks of age was similar for rate of gain and feed efficiency.

Introduction

Weaning stresses the young pig, so it is a challange to managers to provide for optimal environmental, nutritional, and social needs of weaned pigs. Mixing pigs together at weaning time causes them stress due to fighting. To reduce the stress of fighting, we comingled litters in the farrowing house by removing partitions between two litters one week before weaning.

Procedure

Litters were randomly assigned to one of the following treatments: (A) litters comingled one week before weaning and then weaned and moved to the nursery at 4 weeks of age, (B) litters weaned, comingled, and moved to the nursery at 4 weeks of age, (C) litters weaned and moved intact to the nursery at 4 weeks of age.

In trial I, all pigs were weighed at 4 weeks (weaning), then weekly for three weeks. All pigs were housed in controlled environment nursery totally slatted floor pens. Pig numbers within each pen varied according to number weaned per litter, therefore, square feet allowed per pig varied from pen to pen.

To control feeding space in trial II, six average pigs were randomly selected from each litter. All pigs were weighed at 3 weeks, at weaning (4 weeks), then weekly until they were eight weeks old. All pigs were fed in elevated decks (36" off the floor) with expanded metal floor. Each pig was allowed 2 sq.ft. of space. In both trials, pigs were fed a pelleted corn-soybean meal fortified (18% crude protein) diet ad libitum. Scouring scores were recorded daily the first two weeks the pigs were in the nursery. Temperature of the nursery averaged 74 F during the trial.

Results and Discussion

Table 16 presents the performance of pigs in trial I. Litters comingled one week before weaning gained faster (.3 vs. .2 lbs/day) the first week

after weaning than pigs mixed the day they were weaned. Litters that remained intact gained the same as litters comingled before weaning. Rate of gain was similar for the three-week post weaning period regardless of treatment, and feed efficiency during the three week trial was similar for each treatment.

In trial II (table 17) all pigs were gaining similarly before weaning. However, rate of gain was greatly reduced the first week after weaning, then increased somewhat the second week. During the post-weaning period, pigs were characterized by limited feed intake and lack of vigor, but no scour problems or death loss.

Comingling pigs one week before weaning slightly improved gain the first week after weaning compared with comingling pigs at weaning. Intact litters gained slightly faster than either of the other two groups the first week. No difference was observed in feed/gain ratio.

Table 16. Performances of Pigs Comingled One Week Before Weaning, Pigs Comingled at Weaning, and of Intact Litters (Trial I).

Treatment:	Comingled at 21 days	Comingled at 28 days	Litter intact
Weaned:	28 days	28 days	28 days
No. pens	4	4	5
No. pigs	60	77	41
Avg. daily gain, lbs.			
Wk. 4 to 5	.30	.20	.30
Wk. 5 to 6	.55	.53	.67
Wk. 6 to 7	.82	.79	.81
Overall			
ADG, wk. 4 to 7	.55	.51	.60
F/G, wk. 4 to 7	1.61	1.60	1.66

Table 17. Performances of Pigs Comingled 1 Week Before Weaning, Comingled at Weaning, and of Intact Litters (Trial II).

Treatment:	Comingled at 21 days	Comingled at 28 days	Litter Intact
Weaned:	28 days	28 days	28 days
No. litters	4	4	4
No. pigs	24	24	24
Avg. daily gain, lbs.			
Wk. 3 to 4	.53	.58	.50
Wk. 4 to 5	.09	.06	.12
Wk. 5 to 6	.45	.37	.40
Wk. 6 to 7	.87	.94	.63
Wk. 7 to 8	.94	.90	.86
Overall			
ADG, wk. 4 to 8	.58	.56	.50
F/G, wk. 4 to 8	2.08	2.06	2.12