HUBBARD

Tech-Line

A Swine Technical Update March 2005

Evaluating Feeder Gap Opening On Late Nursery Performance

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In research conducted at Prairie Swine Centre, L.F. Smith et al. concluded that performance of nursery pigs was improved when feeder gap openings allowed 40 to 75% of the feed pan to be covered with feed (17.9 to 31.5 mm feeder gap opening). The results of that trial are listed below.

Impact of Feeder Gap Adjustment

	6[1]	12[1]	37[1]	68[1]	92[1]	SEM
No. pigs	60	180	179	177	120	
No. pens	3	9	9	9	6	
Init. wt., lbs	15.34	15.65	15.69	15.83	15.49	.04
Final wt., lbs[3]	64.53	63.86	65.14	65.03	65.16	.09
Final wt – CV, %	14.0	12.8	11.4	12.3	13.4	
ADG, lbs/d[2]	1.06	1.14	1.16	1.14	1.17	.002
ADF, lbs/d[2]	1.60	1.65	1.71	1.71	1.72	.005
F/C	1.51	1.45	1.47	1.50	1.47	.004

[1]Mean percent of trough area covered with feed
[2]Effect of feeder adjustment significant, P<0.05
[3]Interaction between stocking density/group size and feeder adjustment, P<0.05.

(Journal of Swine Health and Production, May 2004).

Given the practical significance with regard to increasing nursery exit weights, the Hubbard Feeds Swine Team in June 2004 conducted a similar trial at our Buffalo Center nursery. Two feeder gap openings were evaluated (15 vs. 30 mm or approximately 19/32 vs. 1 3/16 inches) with AP fenceline feeders. There were 18 pens per treatment and 26 pigs per pen.

15 mm Gap Opening

30 mm Gap Opening

The pens of pigs were weighed and feed disappearance measured on days 28, 35, 42, 49 and 56 postweaning. The results of the trial are listed below.

4-520N: Effects of Feeder Space in Late Nursery

Location: Buffalo Center

Feeder Space, mm	**15**	**30**	**CV**	**P<**
Pens	18	18	-	--
No. of Pigs	445	452	-	-
Post Weaning Start wt., lb	11.53	11.89	15.5	.56
Trial Start wt., lb.	29.54	29.71	11.7	.88
Day 28-35				
ADG	.87	.90	14.3	.57
ADFI	1.22	1.30	10.6	.10
FG	1.41	1.46	10.9	.33
End wt., lb.	35.66	36.00	10.5	.78
Gain	6.12	6.29	14.3	.57
Day 35-42				
ADG	1.32	1.43	7.2	.002
ADFI	1.80	1.91	7.9	.02
FG	1.37	1.34	8.9	.53
End wt., lb.	44.88	46.02	8.7	.40
Gain	9.23	10.02	7.2	.002
Day 42-49				
ADG	1.27	1.27	9.4	.96
ADFI	1.93	2.00	7.8	.14
FG	1.52	1.58	8.1	.18
End wt., lb.	53.78	54.93	7.7	.42
Gain	8.90	8.91	9.4	.96
Day 49-56				
ADG	1.21	1.39	11.6	.001
ADFI	2.24	2.40	6.2	.003
FG	1.88	1.74	12.9	.08
End wt., lb.	62.24	64.67	6.6	.09
Gain	8.46	9.74	11.6	.001
Day 0-56				
ADG	.91	.94	5.1	.02
ADFI	1.25	1.31	7.5	.08
FG	1.38	1.39	3.7	.66
Gain	50.71	52.78	5.1	.02

The most noticeable difference in performance is in the late nursery, especially after 7 weeks. This is when square footage starts to restrict feed intake.

Recommendation:

Hubbard Swine team recommends that the fenceline feeders be opened up to at least 1 inch after 7 weeks (49 days) in the nursery. This is especially important when it takes longer than 7 days to fill a room or group. This recommendation is contingent up there being a sufficient lip on the feeder trough to prevent pigs from rooting the feed out of the feeder.