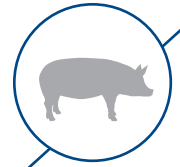


Research Notes S-14

Arm & Hammer Animal and Food Production



CELMANAX-supplemented pigs outperformed control diets in nursery pigs.

STUDY OVERVIEW

- This trial was conducted at a private research center in the U.S. to compare the effects of CELMANAX™ and a competitor mannan oligosaccharide (MOS) product on pig growth performance and feed economics in nursery pigs.
- Pigs were weaned at 17 to 22 days old and assigned to one of three treatments (control, CELMANAX, competitive MOS product) following a nursery phase feeding program. Product feeding rates are as follows:

	DAYS FED	CONTROL DIET	CELMANAX DIET	MOS PRODUCT DIET
PHASE ONE	0 – 7	0 LBS/TON	4 LBS/TON	4 LBS/TON
PHASE TWO	8 – 14	0 LBS/TON	2 LBS/TON	2 LBS/TON
PHASE THREE	15 – 28	0 LBS/TON	1 LBS/TON	1 LBS/TON
PHASE FOUR	29 – 42	0 LBS/TON	0 LBS/TON	0 LBS/TON

- Pigs were weighed individually and by pens throughout the treatment, and feed disappearance was measured to determine feed intake and gain.
- Antibiotics were included in all diet phases of this trial.
- The trial was conducted in a high-health research barn; therefore, pigs were not stressed, had good health and mortality was very low.

RESULTS

- Pigs fed the CELMANAX and competitive MOS product diets demonstrated improved average daily gain ($P<0.05$) compared to pigs fed the control diet for days 0 to 28 and 0 to 42 (Table 1).

TABLE 1	Average Daily Gain (lbs.)			
	Days	Control	CELMANAX	Leading Brand
	0 to 7	0.33	0.30	0.37
	8 to 14	0.63	0.69	0.70
	15 to 21	0.71 ^b	0.84 ^a	0.75 ^{ab}
	22 to 28	0.84	0.94	0.92
	29 to 42	1.40	1.42	1.45
	0 to 28	0.63 ^b	0.70 ^a	0.69 ^a
	0 to 42	0.89 ^b	0.93 ^a	0.94 ^a

a,b Means lacking in common superscripts differ ($P<0.05$)

- Pigs fed the CELMANAX™ and competitive MOS product diets demonstrated similar improvements in average daily feed intake compared to the control (Table 2).

TABLE 2 Average Daily Feed Intake (lbs.)			
Days	Control	CELMANAX	Leading Brand
0 to 7	0.37	0.35	0.40
8 to 14	0.70	0.75 ^{cd}	0.78 ^d
15 to 21	1.05 ^c	1.12	1.11
22 to 28	1.41	1.48	1.51
29 to 42	2.19	2.19	2.27
0 to 28	0.88 ^c	0.92 ^{cd}	0.95 ^d
0 to 42	1.32 ^a	1.35 ^{ab}	1.39 ^b

a,b Means lacking common superscripts differ ($P < 0.05$)

c,d Means lacking common superscripts differ ($P < 0.10$)

- Pigs fed the CELMANAX diet demonstrated improved feed/gain ($P < 0.10$) for days 15 to 21 compared to the competitive MOS product and control diets (Table 3).

TABLE 3 Feed/Gain			
Days	Control	CELMANAX	Leading Brand
0 to 7	1.11	1.19	1.09
8 to 14	1.12	1.09	1.11
15 to 21	1.49 ^d	1.34 ^c	1.49 ^d
22 to 28	1.69	1.59	1.66
29 to 42	1.57	1.55 ^c	1.57 ^{cd}
0 to 28	1.40	1.34	1.38
0 to 42	1.49	1.44	1.48

c,d Means lacking common superscripts differ ($P < 0.10$)

CONCLUSION

- Pigs fed diets containing CELMANAX and the competitive MOS product were about 1 kg heavier than pigs on the control diet at the end of the trial.
- Average daily gain was significantly higher for pigs fed CELMANAX and the MOS product compared to the control.
- There were no major statistical differences between pigs supplemented with CELMANAX and the competitive MOS product. However, feed cost per unit of gain was significantly lower for pigs fed CELMANAX.



#ScienceHearted

AHfoodchain.com

