

Table 1. Effect of hominy feed inclusion in diets on finishing pig performance

Item	0	Hominy, %			SEM ¹
		12.5	25	37.5	
Pens/treatment ²					
D 0	10	10	10	10	—
D 84	8	9	10	8	—
D 0 to 84					
ADG, kg	1.02	0.97	0.96	0.93	0.010
ADFI, kg	2.87	2.68	2.68	2.59	0.042
G:F	0.36	0.36	0.36	0.36	0.004
Weight, kg					
D 0	36.0	35.7	36.0	36.1	0.93
D 84	121.7	116.9	117.4	114.9	1.18

¹The highest SEM among treatments is reported due to lost observations.

²Pens were removed due to diet delivery error or loss of integrity.

Key Words: hominy, growth, pig

217 Effects of feeding ractopamine HCl (Paylean) for various durations on finishing pig performance and carcass characteristics. M. L. Potter*, S. S. Dritz, M. D. Tokach, J. M. DeRouche, R. D. Goodband, and J. L. Nelssen, *Kansas State University, Manhattan.*

A total of 627 pigs (109.5 kg) were used in a 21-d trial to evaluate the effects of feeding ractopamine HCl (RAC; Elanco Animal Health, Greenfield, IN) for different durations on performance of heavy weight pigs. On d 0, 24 mixed-gender pens of pigs were blocked by BW and randomly allotted to treatments (8 pens/treatment) with BW balanced across treatments. Treatments were a control diet without RAC (CTRL) or a diet with 5 ppm RAC fed for the last 14 (14D) or 21 d (21D) prior to marketing. On d 7, the 4 heaviest pigs per pen were marketed. From d 0 to 7, 21D pigs had greater ($P = 0.01$) ADG and lower ($P = 0.01$) ADFI than CTRL and 14D pigs. From d 7 to 21, 14D pigs had improved ($P \leq 0.04$) ADG and G:F compared with CTRL and 21D pigs. There was no difference in overall ADG among treatments, but ADFI was lower ($P < 0.01$) and G:F improved ($P < 0.01$) for pigs fed RAC compared with CTRL pigs. There were no differences ($P \geq 0.32$) in live BW marketed or HCW. After adjustment to a common HCW, 21D pigs had reduced (21.9 ± 0.40 mm vs. 20.2 mm; $P < 0.01$) backfat depth (BF), increased (60.0 ± 0.66 mm vs. 62.0 ± 0.65 mm; $P = 0.01$) loin depth (LD), and improved ($51.6 \pm 0.20\%$ vs. 52.6% ; $P < 0.01$) percentage lean compared with CTRL pigs. While 14D pigs had intermediate responses for LD and BF these pigs had a higher ($52.2 \pm 0.20\%$; $P = 0.04$) percentage lean than CTRL pigs. Thus, for heavyweight pigs, G:F and ADFI responses are achieved with either duration of RAC feeding, but the magnitude of the carcass response to feeding RAC appears duration dependent.

Table 1. Effect of ractopamine HCl on performance of finishing pigs

Item	CTRL	14D	21D	SEM	TRT, P <	CTRL & 14D vs. 21D, P <
D 0 to 7						
ADG, kg	1.04	1.09	1.26	0.061	0.04	0.01
ADFI, kg	3.59	3.58	3.40	0.055	0.04	0.01
G:F	0.29	0.30	0.37	0.015	<0.01	<0.01
D 7 to 21						
ADG, kg	0.94	1.02	0.89	0.029	<0.01	—
ADFI, kg	3.49	3.22	3.13	0.066	<0.01	—
G:F	0.27	0.32	0.28	0.008	<0.01	—
D 0 to 21						
ADG, kg	0.98	1.05	1.02	0.030	0.14	—
ADFI, kg	3.53	3.35	3.23	0.054	<0.01	—
G:F	0.28	0.31	0.32	0.008	<0.01	—

Key Words: growth, Paylean, pig

218 Evaluation of a fortified nutrient pack (FNP) and graded levels of Lys on growth performance and total tract apparent digestibility of nutrients in 100-kilogram pigs. V. D. Naranjo*, S. L. Johnston², T. D. Bidner¹, R. Musser³, and L. L. Southern¹, ¹LSU Agricultural Center, Baton Rouge, LA, ²Hubbard Feeds Inc., Mankato, MN, ³Soda Feed Ingredients, Mankato, MN.

The effect of FNP (0 or 0.10%) and graded levels of SID Lys (0.30, 0.40, 0.50% for barrows; 0.35, 0.45, 0.55% for gilts) on growth performance and apparent total tract digestibility (1% acid insoluble ash as marker) of DM, CP, and GE in 100-kg pigs was assessed. The FNP contained fumaric, malic, citric, phosphoric, and lactic acids, L-carnitine, chromium picolinate, inulin, d-pantothenic acid, and niacin. A total of 90 pigs (n = 48 barrows and n = 42 gilts; initial BW = 100 kg) were allotted within sex to 6 dietary treatments with 3 pens of 2 or 3 pigs per pen in a 2 x 3 factorial arrangement. Fecal samples were collected on d 12 and 13 (phase 1) and on d 26 and 27 (phase 2) and combined within day, pig, and pen at the end of each phase. In barrows, overall ADG (831, 928, 978 g/d; $P = 0.01$) and G:F (0.25, 0.28, 0.28; $P = 0.06$) were linearly increased as SID Lys increased. The FNP addition reduced overall ADG (876 vs. 948 g/d $P = 0.07$), but ADFI and G:F were not affected ($P > 0.10$). There was a quadratic effect ($P < 0.03$) in DM (87, 84, 85%) GE (85, 81, 81%), and CP (71, 66, 72%) digestibility during phase 2 and GE (68, 64, 71%; phase 1) digestibility as SID Lys increased. The FNP addition ($P < 0.08$) increased DM (84 vs. 82%; phase 1), and DM (86 vs. 84%), and CP (71 vs. 69%) digestibility during phase 2. In gilts, overall growth performance was not affected ($P > 0.10$) as SID Lys increased or with FNP addition. There was a linear effect ($P < 0.07$) in GE (64, 67, 72%; phase 1), CP (67, 72, 71%; phase 2), and a quadratic effect ($P < 0.06$) in CP (80, 82, 80%; phase 1), DM (84, 85, 83%; phase 2), and GE (81, 82, 79%; phase 2) as SID Lys increased. The FNP addition increased CP (81 vs. 79%; $P = 0.06$) digestibility during phase 1. Based on these results, the inclusion of FNP improved DM and CP digestibility in barrows and CP digestibility during phase 1 in gilts, but overall ADG was reduced in barrows and growth performance was not affected in gilts.

Key Words: finishing pigs, digestibility