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Adding Whey and Fishmeal to Swine Finishing Diets

R.H. Hines

Summary

One hundred fifty finishing pigs were studied to evaluate the effect of adding whey and/or fishmeal to a sorghum grain-soybean meal basal swine diet. No significant effects due to treatment were observed on rate of gain, daily feed intake, or feed per lb. of gain for finishing pigs.

Introduction

As observed by pork producers, the "stalling" of finishing pigs fed sorghum grain based diets in particular occurs at approximately 150 to 180 lbs., when the pig's feed intake appears to be reduced for a period. This study was initiated to determine if adding whey or fishmeal would eliminate that problem.

Procedure

One hundred fifty crossbred pigs were allotted to three replicates of five treatments. The finishing pigs, averaging 126 lbs. initially, were housed in the KSU finishing barn in pens (6'x15') equipped with a two hole self-feeder and an automatic waterer. Pens have 100% concrete slats. Each pen was covered with a plywood hover over an area (6'x 8') of the pen. Diets used in this study are shown in Table 32. The pigs utilized in this study previously had been fed a sorghum grain based diet during the growing period.

Table 32. Finishing Diets for Pigs

Diet:	Basal	3.75% Whey	5% Fish	3.75% whey 3% Fish	3.75% whey 5% Fish
<u>Ingredients:lbs/ton</u>					
Gr. sorghum grain	1514	1439	1609	1499	1534
Soybean meal (44%)	400	400	220	290	220
Dried whey	--	75	--	75	75
Fishmeal (menhaden)	--	--	100	60	100
Dicalcium phosphate	50	50	40	40	40
Gr. limestone	15	15	10	15	10
Trace mineral (Z-10)	2	2	2	2	2
Vitamin premix	10	10	10	10	10
Salt	5	5	5	5	5
Aureomycin 50	4	4	4	4	4
<u>Calculated analysis</u>					
C. protein, %	15.66	15.77	15.00	15.38	15.17
Calcium, %	.90	.93	.95	.96	.98
Phosphorus, %	.80	.82	.81	.79	.82

Results and Discussion

Table 33 presents the performance of finishing pigs fed added whey and/or fishmeal. Average daily gains were similar for all treatments. Average daily feed intake was greater for the sorghum grain basal diet than for either other diets, indicating that adding whey or fishmeal had no benefit in feed intake. Feed efficiency favored the diets containing whey; however, the differences were not statistically significant. Cost per lb. of gain was similar for all treatments, with the diet containing 3.75% whey costing the least.

Table 33. Performance of Finishing Pigs Fed Whey and Fishmeal

Diet:	Basal	3.75% Whey	5% Fish	Whey + 3% Fish	Whey + 5% Fish
No pigs ^a	30	30	30	30	30
Avg. da. gain, lbs.	1.67	1.75	1.65	1.73	1.72
Avg. da. feed int., lbs.	6.71	6.68	6.60	6.68	6.36
Feed/gain	4.01	3.82	4.00	3.86	3.74
Feed cost/lb. gain, ¢	33.2	32.7	35.2	34.2	34.2

^aAverage initial weight, 126 lbs; average final weight, 220 lbs. Three replicates, 10 pigs per pen.