

both pelleted and unpelleted increased the daily rate of gain and reduced the feed consumed per 100 pounds gain.

5. Grinding, mixing, and pelleting costs were not computed but should be considered when applying these results.

The Value of Antibiotics, Aureomycin B₁₂ Supplement (Aurofac 2A) and Vitamin B₁₂ Premix (Fortafeed 2-49-C) in the Protein Supplement for Fattening Spring Pigs in the Dry Lot in Summer (Project 110, Test 3).

C. E. Aubel

In 1955-56 experiments were designed with swine to secure information on the maximum use of alfalfa meal in protein supplemental mixtures as a substitute for pasture in the dry lot, since pastures for swine in Kansas are often poor, inadequate, or unavailable.

The pigs in these tests received with their grain mixed protein supplements which contained varying quantities of alfalfa meal.

The mixed protein supplement that gave best results for the two years tested was one of 4 parts tankage, 4 parts soybean meal, and 3 parts alfalfa meal.

From time to time there come on the market new substances, chemical and otherwise, that added to a ration increase gains and feed efficiency.

To the efficient protein supplement of the two years preceding, antibiotics and a vitamin B₁₂ premix were added to see if the 4 parts tankage, 4 parts soybean meal, and 3 parts alfalfa meal protein mixture would then produce more efficient gains.

In this test four lots of pigs were self-fed shelled corn and a mixed protein supplement. Each lot contained 10 pigs.

Lot 1 pigs were placed on sudangrass pasture and self-fed a protein supplement made up of 4 parts tankage, 4 parts soybean meal, 1 part cottonseed meal, and 1 part alfalfa meal.

Lot 2 was fed in dry lot and received a mixed protein supplement of 4 parts tankage, 4 parts soybean meal, and 3 parts alfalfa meal.

Lot 3 was fed in dry lot and received the same protein supplement as lot 2 except that 15 pounds of Fortafeed 2-49-C, a vitamin B₁₂ premix, was added per ton to the protein mixture.

Lot 4 was fed in dry lot, received the same protein supplement as lot 3, with 15 pounds of Aureomycin B₁₂ (Aurofac 2A) added per ton of protein mixture.

Table 1 gives the results of this experiment.

Observations

In this experiment pigs in lots 1, 2, and 3 made almost exactly the same daily gains: 1.47, 1.48, and 1.49 pounds each, respectively. Lot 4 (receiving both vitamin B₁₂ premix and Aureomycin B₁₂) gained 1.58 pounds each daily.

Somewhat less total feed was consumed by dry lot fed pigs that got increased alfalfa meal than by pigs allowed pasture (See Table 3).

The results of this experiment confirm that increased alfalfa meal in the protein supplement increases efficiency in dry-lot feeding, and the addition of an antibiotic and vitamin B₁₂ increases efficiency still further.

Table 3

The Effect of Antibiotics, Aureomycin B₁₂ Supplement (Aurofac 2A) and Vitamin B₁₂ Premix (Fortafeed 2-49-C) in the Protein Supplement for Fattening Swine in Dry Lot in Summer and Compared with Sudangrass Pasture Feeding.

June 13, 1956, to September 19, 1956—98 days.

Lot number	Shelled corn, sudangrass pasture Mixed protein supplement: 4 parts tankage 4 parts soybean meal 1 part cottonseed meal 1 part alfalfa meal	Shelled corn, mixed protein supplement consisting of 4 parts tankage, 4 parts soybean meal, 3 parts alfalfa meal		
		In dry lot		
		15 lbs. 2-49-C and 15 lbs. Aurofac 2A added per ton	15 lbs. 2-49-C added per ton	15 lbs. Aurofac 2A added per ton
1	2	3	4	
Number pigs in lot	10	10	10	10
Av. initial wt. per pigs, lbs.	56.90	57.20	57.10	57.20
Av. final wt. per pig, lbs.	201.70	192.00	193.20	212.50
Av. total gain per pig, lbs.	144.80	145.80	146.10	155.30
Av. daily gain per pig, lbs.	1.47	1.48	1.49	1.58
Av. daily ration per pig, lbs.:				
Shelled corn	4.36	4.21	4.13	4.62
Protein supplement	.69	.67	.66	.60
Lbs. feed per 100 lbs. gain per pig:				
Shelled corn	295.37	283.33	277.27	292.07
Protein supplement	46.96	45.06	44.81	38.24

The Value of Furazolidone nf-180 and Terramycin Antibiotic in the Rations of Fattening Pigs in the Dry Lot (Project 110, Test 4).

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One of the most critical problems of the swine industry is disease. Antibiotics have been demonstrated to be effective in keeping some diseases at a low level. The nitrofurans have shown good results for certain specific diseases in poultry. Their effect in swine feeding is little known, for few experiments have been carried on feeding them to swine.

This experiment was initiated to study the effect of furazolidone nf-180 in rations for growing and fattening swine.

In this test four lots of fall pigs were self-fed free choice a basal ration of shelled corn and a mixed protein supplement in dry lot in winter. The mixed protein supplement was made up of 4 parts tankage, 4 parts soybean meal, 1 part linseed meal, and 1 part alfalfa meal.

Lot 1 pigs received no nitrofurans. They were self-fed the basal ration, a mixed protein supplement, and shelled corn.

Lot 2 pigs received shelled corn and a mixed protein supplement to which had been added nf-180 at the rate of 4 1/2 pounds per ton. This supplied it to the pig at the rate of about 50 gms. per ton of total feed.

Lot 3 pigs received shelled corn and a mixed protein supplement to which had been added nf-180 at the rate of 2 1/4 pounds per ton. This supplied it to pigs at the rate of about 25 gms. each per total feed.

Lot 4 pigs received shelled corn and a mixed protein to which had been added Bi-Con TM-10 at the rate of 4 1/2 pounds to a ton.

(Table 4 gives the results of this experiment.)

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