

RESULTS OF SWINE FEEDING INVESTIGATIONS

1945 - 1946

C. E. Aubel

EXPERIMENT I. - PRODUCING MARKET PIGS

WITH A MINIMUM OF GRAIN AND A MAXIMUM OF PASTURE

In order to produce swine profitably, it is necessary to make use of forage crops. This practice will not only save grain, but will contribute to the general health of the swine themselves. Since the country has been at war, grain has not always been available. As a result, hog feeders are interested in methods of fattening that will utilize the maximum amount of pasture, so that grain can be saved.

Consequently, a limited feeding test was conducted to study this problem. Two lots of 20 pigs each were used in this test. The initial weight of the pigs was 68 pounds on June 12. One lot was self-fed shelled corn on alfalfa pasture until October 3, a period of 113 days, by which time each pig had gained 176 pounds. They received with the corn each day 0.2 pounds tankage per head. To compare with this lot, another group of 20 pigs, with the same initial weight, were put on feed the same day and hand-fed daily 1 pound of corn and 0.2 pounds of tankage per pig on good alfalfa pasture. This feeding period was 113 days, and the pigs weighed 148 pounds. At this time they were allowed to run to self-feeders for finishing. They received an unlimited supply of corn, but the protein supply was retained at 0.2 pounds daily. This finishing period necessitated 34 days, when they were ready for market and weighed 239 pounds, about the same as those in Lot 1 when they were marketed.

EXPERIMENT I - OBSERVATIONS

From the data following, it is shown that, by limiting the amount of corn and tankage to fattening pigs on alfalfa pasture, it required 34 more days to finish them to the same weight as the full-fed grain pigs, but the amount of grain required per 100 pounds gain for their entire feeding period was much less. Thus, the limited fed pigs produced their gains at a cost of \$5.14 a hundred pounds while the pigs allowed free access to corn made their gains at a cost, of \$7.33 a hundred pounds. This is a saving of \$2.19 a hundred. The saving of grain was 116.5 pounds of corn for every hundred pounds of gain.

Another interesting point is the satisfactory gains made by the pigs on the reduced protein allowance. The pigs receiving a full feed of corn and only one-fourth pound of tankage per head daily gained 1.46 pounds a day. Limiting the tankage forced the pigs to get much of their protein from the alfalfa pasture which saved protein, and consequently reduced the cost of gains.

A summary of their feeding record follows:

EXPERIMENT I - SUMMER, 1945

FULL FEEDING VS. CROWING THEN FULL FEEDING SPRING
PIGS ON ALFALEA PASTURE

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(June 12, 1945 to November 6, 1945 - 147 days)

Ration	Alfalfa Pasture		
	Shelled corn (self-fed) Tankage (hand-fed) 0.2 lb. per pig daily	Shelled corn (hand-fed) 1 lb. per pig daily 0.2 lb. per pig daily	Shelled corn (self-fed) Tankage (hand-fed) 0.2 lb. per pig daily
Lot number	1	2	2
No. pigs per lot	20	20	20
Dates of test (1945)	June 12 to Oct. 3 (113 days)	June 12 to Oct. 3 (113 days)	Oct. 3 to Nov. 6 (34 days)
	Growing Period		Finishing Period
Av. initial wt. per pig	Pounds 68.86	Pounds 67.66	Pounds 148.50
Av. final wt. per pig	234.16	148.50	239.23
Av. total gain per pig	165.30	80.84	90.74
Total gain Lot 2 (147 days)		171.58	(Av. da. gain 1.16 for 147 days)
Av. daily gain per pig	1.46	.71	2.66
Av. daily ration per pig:			
Shelled corn	5.01	1.00	8.05
Tankage	.20	.20	.20
Feed consumed per 100 pounds gain:			
Shelled corn	342.95	139.78	296.13
Tankage	13.67	27.95	9.69
Feed consumed per 100 pounds gain Lot 2 for entire period (147 days)			
Shelled corn			225.40
Tankage			18.30
Feed cost per 100 pounds gain	\$7.33		\$5.14

FEED PRICES CHARGED: Shelled corn, \$1.12 per bushel - Tankage \$70 per ton.

EXPERIMENT II - WINTER, 1946

LIMITING THE PROTEIN SUPPLEMENT IN THE FINAL STAGES OF FATTENING
FALL PIGS FED IN DRY LOT

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The Protein Supplement used in Lots 2 and 3 was composed of Tankage, 2 parts; Meat scraps, 2 parts; Soybean Oil Meal, 4 parts; Alfalfa Leaf Meal, 1 part; and Cottonseed Meal, 1 part.

(February 14, 1946 to April 4, 1946 - 59 Days)

Ration	Shelled Corn (Self-fed)	Shelled Corn (Self-fed) Protein Supplement (Self-fed)	Shelled Corn (Self-fed) Mixed Protein Supplement .2 Lb. Per Head Daily (Hand-fed)
Lot No.	1	2	3
Number pigs in lot	10	10	10
Av. initial weight per pig	Pounds 154.86	Pounds 158.60	Pounds 160.33
Av. final weight per pig	228.60	256.63	252.16
Av. total gain per pig	73.76	98.03	91.83
Av. daily gain per pig	1.25	1.66	1.53
Av. daily ration per pig			
Shelled corn	6.55	7.48	6.76
Protein supplement		.44	.20
Feed consumed per 100 pounds gain:			
Shelled corn	524.53	450.78	434.71
Protein supplement		28.05	12.84
Feed cost per 100 pounds gain	\$10.49	\$ 9.87	\$ 9.09

Feed Prices: Shelled Corn, \$1.12 per bushel.
Protein Supplement, \$3.10 per hundred.

Method of Feeding: All lots were self-fed shelled corn. Lot 1 received no protein supplement. Lot 2 was self-fed a mixed protein supplement. Lot 3 was hand-fed daily the same mixed protein supplement as Lot 2 at the rate of 0.2 lb. per head.