

Table 17 gives the average body weights following lambing in 1955 and the grease wool production for 1955.

Table 17.—Body weights of and wool production from ewes of different types.

	1955 grease wool production, pounds per head	Body weight in pounds per head following lambing, 1954-55
Finewools	10.68	129
Northwest Whiteface	12.07	157
Northwest Blackface	9.05	166

Discussion and Conclusions

The Texas ewes have bred and lambed earlier than the other two types of ewes in the three years that the tests have been conducted. The difference was greatest in the 1954-55 tests when the fine-wool ewes had an average lambing date more than a month earlier than the other two groups. Because of earlier lambing dates, lambs from fine-wool ewes reach market weights earlier than lambs from the other groups. This early lambing characteristic of fine-wool ewes is of considerable practical importance in the fall lambing program that is popular in Kansas.

The Whiteface crossbred ewes generally produced the heaviest fleeces, followed by the Finewools. There have been no consistent differences among the three types of ewes in lambing or weaning percentages. Lambs from Blackface crossbred ewes have graded a little higher when slaughtered than the other two groups.

Lambing and weaning data for the lambs sired by Hampshire, Suffolk, Southdown, and Shropshire rams have not been consistent. Additional information is needed before any definite conclusions can be drawn. The limited information indicates that Hampshire- and Suffolk-sired lambs gain faster than Southdown- or Shropshire-sired lambs. Shropshire-sired lambs, however, have put on gains with less feed than lambs in the other sire groups. The carcasses of Southdown-sired lambs graded highest in 1954 but were no better than those of Hampshire-sired lambs in 1953. Lambing and weaning percentages have varied in the previous tests with no consistent advantage shown by Hampshire-, Suffolk-, Shropshire-, or Southdown-sired groups. The Southdown ram failed to settle a large proportion of the ewes allotted to him the fall of 1954.

Swine

Swine Feeding Investigations

The Comparative Value of Greenleaf Sudangrass and Common Sudan-grass as Pasture for Fattening Spring Pigs.

PROJECT 110, Test I

C. E. Aubel

This experiment in the summer of 1954 used spring pigs on pasture. It was to compare the quality of the two varieties of sudangrass.

Two lots were fed shelled corn and a mixed animal and plant protein supplement composed of 5 parts tankage, 4 parts soybean meal, and 1 part cottonseed meal. Both were self-fed, free choice. Lot 1 was pastured on Greenleaf sudangrass; Lot 2, on Common sudangrass.

The pastures were the same quality and stand. Both furnished ample green forage throughout the test. It was necessary to clip the pastures during the summer to get rid of headed-out stalks and provide good, leafy forage. Both stood the dry weather equally well and were relished equally by the pigs, as well as could be determined by observations.

Results of the experiment are given in Table 18.

Table 18.—Comparative value of Greenleaf sudangrass and Common sudangrass as forage for fattening spring pigs.

(June 12, 1954-September 9, 1954—89 days)

Ration fed	Shelled corn and protein mixed suppl.	
	Greenleaf sudangrass pasture	Common sudangrass pasture
Lot number	1	2
No. pigs in lot	10	9
Av. initial wt. per pig, lbs.	54.70	58.11
Av. final wt. per pig, lbs.	185.80	192.55
Av. total gain per pig, lbs.	131.10	134.44
Av. daily gain per pig, lbs.	1.47	1.51
Av. daily ration per pig:		
Shelled corn, lbs.	3.94	4.33
Protein suppl., lb.60	.50
Feed per 100 lbs. gain per pig:		
Shelled corn, lbs.	267.50	286.78
Protein suppl., lbs.	40.80	33.47

Observations

1. The pigs on the Greenleaf sudangrass made about the same daily gains as those on the Common sudangrass.

2. The pigs on the Greenleaf sudangrass required 19 pounds of corn less per 100 pounds gain than those on Common sudangrass. They, however, consumed 7 more pounds protein supplement per 100 pounds gain than the pigs pasturing on Common sudangrass.

3. It appeared that either variety of sudangrass is a satisfactory forage for fattening spring pigs.

The Maximum Value of Alfalfa Meal in Protein Supplements for Pigs on Pasture.

PROJECT 110, Test II

C. E. Aubel

Pastures for swine are often poor, inadequate, or unavailable in Kansas. There is a growing appreciation of the value of alfalfa hay or meal in the rations of all swine and brood sows as well as pigs being fed for market. This test was to secure information on the maximum quantity of alfalfa meal that could be used in protein supplement mixtures for pigs on summer pastures and the quantity of alfalfa meal that could be substituted for pasture.

In this test three lots of pigs on sudangrass pasture were self-fed shelled corn and a mixed protein supplement, with varying quantities of alfalfa meal. One group was fed in the dry lot with a large quantity of alfalfa meal in the protein supplement, to ascertain whether or not alfalfa meal thus fed could replace green pasture.

Lot 1 received no alfalfa meal, but a mixed protein supplement of 5 parts tankage, 4 parts soybean meal, and 1 part cottonseed meal.

Lot 2 received 4 parts tankage, 4 parts soybean meal, 1 part cottonseed meal, and 1 part alfalfa meal.

Lot 3 received 4 parts tankage, 4 parts soybean meal, and 2 parts alfalfa meal.

Lot 4, in the dry lot, received 4 parts tankage, 4 parts soybean meal, and 3 parts alfalfa meal.

Results are shown in Table 19.

Table 19.—The maximum value of alfalfa meal in protein supplements for pigs on pasture.

(June 12, 1954-September 9, 1954—89 days)

Ration fed	Shelled corn, sudangrass pasture, mixed protein supplt.			Shelled corn, mixed protein suppl. in dry lot
	5 parts tankage, 4 parts S.B.M., 1 part C.S.M.	4 parts tankage, 4 parts S.B.M., 1 part alf. meal, 1 part C.S.M.	4 parts tankage, 4 parts S.B.M., 2 parts alf. meal	4 parts tankage, 4 parts S.B.M., 3 parts alf. meal
Lot number	1	2	3	4
No. pigs in lot	9	10	10	8
Av. initial wt. per pig, lbs.	58.11	55.40	55.50	56.12
Av. final wt. per pig, lbs.	192.55	195.00	188.10	199.37
Av. total gain per pig, lbs.	134.44	139.60	132.60	143.25
Av. daily gain per pig, lbs.	1.51	1.56	1.49	1.60
Av. daily ration per pig:				
Shelled corn, lbs.	4.33	4.19	4.01	4.50
Protein supplt., lb.50	.72	.65	.77
Feed per 100 lbs. gain per pig:				
Shelled corn, lbs.	286.78	267.55	269.68	280.10
Protein supplt., lbs.	33.47	46.20	43.96	47.99

Observations

1. The Lot 2 pigs receiving the mixed protein supplement of 4 parts tankage, 4 parts soybean meal, 1 part cottonseed meal, and 1 part alfalfa meal made the best gains of pigs on pasture. Lot 3 pigs receiv-

ing 2 parts alfalfa meal made about the same gains as the Lot 1 pigs that received no alfalfa meal. Best gains of all were made by Lot 4, pigs in the dry lot that received the largest amount of alfalfa meal. They gained 1.60 pounds per day. The pigs in this lot also consumed daily more feed than the others and required more feed per 100 pounds gain. Thus the gains were more expensive in dry lot than on pasture.

2. The test indicates that the quantity of alfalfa meal that can be fed to pigs on pasture, without affecting their gains, is limited. However, economical gains can be produced using large quantities of alfalfa meal.

Varying Amounts of Alfalfa Meal in the Rations of Spring Pigs and in Dry Lot.

PROJECT 110, Test III

C. E. Aubel

Summer of 1954 test with spring pigs was to get information on the maximum use of alfalfa meal in protein supplemental mixtures for pigs in the dry lot.

Four lots of pigs were self-fed shelled corn and a mixed protein supplement.

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

Lot 2 received the same protein supplement as Lot 1 for 38 days or until the pigs weighed 100 pounds. They were then removed from the pasture and put into a dry lot and fed a protein supplement of equal parts tankage and alfalfa meal until the close of the experiment, when they weighed 197 pounds.

Lot 3 was fed in the dry lot the entire feeding period on a protein mixture of 4 parts tankage, 4 parts soybean meal, and 3 parts alfalfa meal.

Lot 4 was fed in the dry lot the entire feeding period with an increased alfalfa meal allowance, a protein supplement mixture of 5 parts tankage, and 5 parts alfalfa meal.

Results are given in Table 20.

Table 20.—Varying amounts of alfalfa meal in the rations of spring pigs in the dry lot.

(June 12, 1954-September 9, 1954—89 days)

Lot number	Shelled corn, sudangrass past., mixed prot. supplt.		Shelled corn, mixed prot. supplt. —in dry lot		
	4 parts tankage, 4 parts S.B.M., 1 part C.S.M., 1 part alf. meal	4 parts tankage, 4 parts S.B.M., 1 part C.S.M., 1 part alf. meal	5 parts tankage, 5 parts alf. meal	4 parts tankage, 4 parts S.B.M., 3 parts alf. meal	5 parts tankage, 5 parts alf. meal
Lot number	1	2	2	3	4
		(June 12- July 20— 38 days)	(July 20- Sept. 9— 51 days)		
No. pigs in lot	10	10	10	8	9
Av. initial wt. per pig, lbs.	55.40	56.60	99.50	56.12	57.22
Av. final wt. per pig, lbs.	195.00	99.50	196.88	199.37	179.44