

EXPERIMENT VI
TABLE 3. HOG CARCASS DATA—FALL, 1949

Breeding	No. of Hogs	Av. Live Wt.	Length (CM)			Fat Back (CM)		
			Av.	Max.	Min.	Av.	Max.	Min.
Poland	4	195	73.0	77.5	69.5	4.47	5.4	3.8
Poland - Minn. Cross	15	215	74.13	78.5	69.0	4.63	5.3	3.8
Poland - Duroc Cross	10	206	70.6	74.0	68.0	4.64	5.6	3.3

Live Weight—Packing Weight.
Length of Carcass—From anterior point of aitch bone to anterior edge of first rib.
Fat Back—Average of 3 measurements on each hog.

OBSERVATIONS AND CONCLUSIONS

From these data it is seen that varying results were achieved. In the first experiment the greatest daily gains were made by the purebred pigs but they consumed more feed per 100 pounds gain. In the second experiment the best daily gains were made by the crossbred Minnesota No. 1 and Poland pigs but the feed required per 100 pounds gain was about the same as that of the purebreds. It would seem that no definite advantage for cross breeding has been shown by these tests.

Project 111 GC: Lamb Feeding Investigations

Dept. of Animal Husbandry and
Garden City Branch Agricultural Experiment Station Cooperating
1949-1950

WHEAT PASTURE WITH VARIOUS SUPPLEMENTS FOR FATTENING LAMBS

R. F. Cox and A. B. Erhart

Many uncertainties and notions are current concerning the use of wheat pasture for fattening lambs. In an effort to find definite information on some of these, experiments on pasturing wheat have been conducted during seasons when wheat growth furnished sufficient pasture.

Comparisons were made this year of fattening lambs in the lot and on wheat pasture. One lot of lambs on wheat pasture received nothing else. Additional lots were pastured on wheat and received in addition either dry roughage, bicarbonate of soda, a mineral mixture or vaccination against enterotoxemia.

Lambs:

The lambs fed in these tests were of straight fine-wool type and were good quality feeder lambs. They were received at Cuervo, New Mexico, in late October. They weighed about 71 pounds per head into the experiment.

Feed Prices:

Westland Milo	\$ 2.00	per cwt.
Alfalfa	\$ 22.50	per ton
Cottonseed Cake	\$ 75.00	per ton
Salt	\$.90	per cwt.
Ground Limestone	\$ 1.00	per cwt.
Steamed Bone Meal	\$ 5.00	per cwt.
Bicarbonate of Soda	\$ 4.85	per cwt.
Vaccination	\$.12 1/2	per head
Wheat Pasture	\$.30	per head per month

Death Loss:

Five of the 549 lambs in the experiment died, a loss of .9 of one percent. One lamb was lost from each of lots 2, 3, 5 and 6 from enterotoxemia or "over-eating disease". One lamb in lot 3 was killed by dogs.

Note:

It should be pointed out that lot 3 was ravaged seriously by dogs. Twelve of the lambs were injured and one killed. They did not recover fully from this attack and indications are that their lower gain may be attributed to this.

DRY LOT AND WHEAT PASTURE COMPARISONS

Rufus F. Cox and A. B. Erhart

November 7, 1949 to February 19, 1950—105 Days

1. Lot Number	1	2	3	4	5	6
2. Ration fed	Wheat Pasture Plus Alfalfa Hay	Wheat Pasture Plus Alfalfa Hay	Wheat Pasture Plus Alfalfa Hay	Wheat Pasture Plus Alfalfa Hay	Wheat Pasture Plus Alfalfa Hay	Wheat Pasture Plus Alfalfa Hay
3. Number of lambs per lot	50	99	98	100	98	99
4. Number of days on feed	105	105	105	105	105	105
5. Initial weight per lamb	70.90	70.53	70.20	69.83	69.65	70.28
6. Final weight per lamb	105.70	107.27	103.52	106.80	104.29	106.41
7. Total gain per lamb	34.80	36.74	33.32	36.97	34.64	36.13
8. Daily gain per lamb	.33	.35	.32	.35	.33	.34
9. Number of lambs died	0	1	1	0	1	1
10. Feed per lamb daily:						
Grain	1.11					
C. S. Cake	.20					
Alfalfa Hay	1.80	.31				
Salt	.022	.066	.028	.066	.031	
Soda					.016	
Mineral						.04
11. Feed cost per cwt. gain	\$ 15.86	\$ 4.74	\$ 6.18	\$ 4.71	\$ 5.14	\$ 4.87
12. Initial cost per lamb into feedlot	\$ 15.98	\$ 16.13	\$ 16.13	\$ 16.11	\$ 16.13	\$ 16.13
13. Feed cost per lamb	\$ 5.52	\$ 1.74	\$ 2.06	\$ 1.74	\$ 1.78	\$ 1.76
14. Lamb cost plus feed cost	\$ 21.50	\$ 17.87	\$ 18.19	\$ 17.85	\$ 17.91	\$ 17.89
15. Final cost per cwt.	\$ 20.34	\$ 16.66	\$ 17.57	\$ 16.71	\$ 17.17	\$ 16.81

1. Low gain due to ravages by dogs—See note page 1.

2. 50% Salt, 25% Steamed Bone Meal and 25% Ground Limestone.

3. Includes cost of herding and of dry roughage fed for about one week at the beginning of the experiment.

4. Death loss is charged into this cost for those lots in which losses occurred. Vaccination cost, 12½¢ per head, is charged to Lot 4. Freight, trucking and other costs are included for all lots. The lambs cost 21¢ per pound at the range loading point.

SUMMARY

1. Lambs fattened on wheat pasture during the 1949-50 winter grazing season gained fully as much as lambs fattened in the feed lot on a ration of milo grain, cottonseed cake and alfalfa hay.
2. The feed cost of gains of lambs on wheat pasture averaged about one-third the cost of those in the feedlot.
3. Lambs receiving alfalfa hay while on wheat pasture made no larger gain than those getting wheat pasture alone. It should be pointed out that the wheat grew rank early in the season and when it froze down later much dead leafy material simulating dry roughage was eaten by the lambs. Without this the alfalfa hay might have been expected to increase the gains somewhat, as has been the case in former years.
4. There was no conclusive evidence from these tests that vaccinating lambs fed on wheat pasture prevented losses from over-eating disease.
5. Neither bicarbonate of soda nor a mineral mixture proved beneficial to wheat pasture lambs from the standpoint of loss prevention or gains.
6. Gains made by lambs on wheat pasture during the current season have been exceptional. This has probably been due to a combination of factors. The open mild winter undoubtedly has contributed to the good gains. Probably fully as important also has been the relatively dry condition of the wheat pasture and the dry dead leafy material eaten with it.
7. About 200 acres of wheat were grazed in these tests: 40 acres of volunteer and the remainder drilled wheat.
8. Because of extremely dry weather, the wheat did not grow sufficiently to provide additional grazing after it was grazed down once. Normally it could be expected to have a much heavier carrying capacity.

Project 236: The Relationship of Physical Balance and Energy Value in Sheep Rations

Kansas Agricultural Experiment Station, Manhattan, Kan.
1948-49 Progress Report

Rufus F. Cox—J. S. Hughes

In a number of experiments conducted at the Kansas Agricultural Experiment Station in recent years, rations varying in physical nature but as nearly alike chemically as they could be made have been tested for fattening lambs. Until this problem was tested at the Kansas Station about 1938, the physical nature of the ration had received little attention and was not even recognized as having any influence on the nutritive value of the ration. In several experiments since then it has been demonstrated that the rate of gains and the efficiency of feed utilization by fattening lambs are associated closely with the physical balance, or the concentration and bulkiness of the ration.

The objects of the experiment reported here are:

1. To test the relative efficiency of rations which vary in the amount and in the nature or condition of the crude fiber consumed by fattening lambs.
2. To further investigate the value of bicarbonate of soda in controlling digestive disorders in lambs consuming rations which are highly concentrated, or which have had the crude fiber finely reduced by grinding.