

Table 37.—Average slaughter and carcass data results with antibiotics fed in swine rations.

	Primal cut yield % (net body wt.)	Lean cut yield % (net body wt.)	Primal cut yield ¹ (%)	Lean cut yield ² (%)	Total fat trim (lbs.)	Grade ³
Trial No. 1—November 11, 1952-April 9, 1953						
Basal	48.19	35.89	62.98	46.90	33.9	Ch.No.2
Basal + 10 mg. aureomycin HC1	48.37	36.13	61.61	46.03	35.5	Ch.No.2
Basal + 10 mg. terramycin HC1	48.40	36.45	64.10	48.29	33.9	Ch.No.1
Trial No. 2—May 9-September 26, 1953						
Basal	51.10	39.38	65.55	50.50	32.9	Ch.No.1
Basal + 10 mg. aureomycin HC1	49.40	37.10	64.18	48.20	38.4	Ch.No.1
Basal + 10 mg. terramycin HC1	49.70	37.38	63.95	48.10	36.5	Ch.No.1
Trial No. 3—November 14, 1953-March 6, 1954						
Basal	49.31	37.71	63.18	48.32	39.4	Ch.No.2
Basal + 10 mg. aureomycin HC1	49.70	37.30	62.95	47.24	41.6	Ch.No.2
Basal + 10 mg. terramycin HC1	48.92	36.74	63.26	47.50	40.4	Ch.No.2
Trial No. 4—May 15-October 8, 1954						
Basal	47.04	36.02	59.81	45.80	38.8	Ch.No.1
Basal + 10 mg. aureomycin HC1	47.80	36.90	59.84	45.90	39.5	Ch.No.1
Basal + 10 mg. terramycin HC1	47.78	37.31	60.98	47.61	36.4	Ch.No.1
Summary of the four trials						
Basal	48.91	37.25	62.88	47.88	36.3	Ch.No.2
Basal + 10 mg. aureomycin HC1	48.82	36.86	62.15	46.84	38.8	Ch.No.2
Basal + 10 mg. terramycin HC1	48.70	36.97	63.07	47.88	36.8	Ch.No.1

1. Based on chilled carcass weight.

2. Based on net body weight.

3. Grade based on the official U.S. Standards for Grades of Pork Carcasses.

Beef Cattle

Ratio of Roughage to Concentrate for Fattening Heifers, 1954.

PROJECT 222

D. Richardson, F. H. Baker, E. F. Smith, and R. F. Cox

This is the third test in an experiment planned to secure information on the effects of different levels of roughage on average daily gain, feed required per unit of gain, carcass quality, and digestibility of the ration. Kansas normally produces a large quantity of roughage. It is desirable to have information concerning the maximum amount of roughage that can be used in fattening rations, consistent with maximum and economical gains.

Experimental Procedure

Fifty Hereford heifers were divided into five lots as equally as possible on the basis of weight, size, conformation, and previous treatment. The heifers were wintered, 10 per lot, as calves on the following rations: (1) alfalfa hay and 3 pounds of corn; (2) Atlas sorghum silage, 2 pounds milo grain, and 1 pound cottonseed meal; (3) Atlas sorghum silage and 3 pounds special supplement; (4) prairie hay, 2.6 pounds milo grain, and 1 pound cottonseed meal; (5) corn cobs, 2.25 pounds milo grain, and 1.5 pounds cottonseed meal. Two heifers from each lot on the above wintering rations were allotted to each of the five lots in this experiment. That gave a total of 10 animals per lot.

The feeds used were good quality, chopped alfalfa hay, coarsely cracked milo grain, and corn. One lot of animals received corn so that a comparison of milo grain and corn could be made. Water, salt, and ground limestone were provided free choice at all times.

After starting the animals on feed, the grain was increased until each lot was on the ration indicated as follows:

Lot 1—1 pound of alfalfa hay to 1 pound milo grain.

Lot 2—1 pound of alfalfa hay to 3 pounds milo grain.

Lot 3—1 pound of alfalfa hay to 3 pounds corn.

Lot 4—1 pound of alfalfa hay to 5 pounds milo grain.

Lot 5—Changing ratio, started at 2 pounds alfalfa hay to 1 pound milo grain. Each succeeding 28 days the grain was increased until the ratio was 1 pound hay to 4 pounds grain at the end of the test.

Eleven yearling steers were used to determine the digestibility of the ration when alfalfa hay and milo grain were fed at ratios of 1 to 1, 1 to 3, and 1 to 5. The steers were fed in stanchions, and canvas collection bags were used to collect the feces.

Results and Discussion

Table 38 gives a summary of the results obtained in the feedlot test. Corn produced better results than milo grain in this test; however, the reverse was true in a previous test. Lot 1 animals on equal parts of hay and grain made satisfactory gains but not so good as animals on a more concentrated ration. The gains were economical but the question arises as to the possibility of getting animals to average choice grade on this ration; and, if so, how long it would take.

Table 39 shows the average daily gains of animals based upon their wintering ration.