

NOVEMBER, 1921

CIRCULAR 92

AGRICULTURAL EXPERIMENT STATION

KANSAS STATE AGRICULTURAL COLLEGE
MANHATTAN, KANSAS

DEPARTMENT OF ANIMAL HUSBANDRY



BABY BEEF (LOT 6) READY FOR MARKET

CATTLE FEEDING INVESTIGATIONS, 1920-21

C. W. McCAMPBELL AND H. B. WINCHESTER

PART I

THE MAXIMUM ECONOMICAL UTILIZATION OF SILAGE IN FATTENING BABY BEEF

During the winter of 1919-20 the Kansas Agricultural Experiment Station fed one lot of calves all the shelled corn, cane silage, and alfalfa hay it would consume and 2 pounds of cottonseed meal (or linseed oilmeal) per head daily for a period of 210 days. These calves alone returned a loss of \$8.63 per head, but a profit of \$1.59 per head including gains made by the hogs following them.

A second lot of calves similar in age, size, quality, and breeding, was fed all the cane silage and alfalfa hay it would consume and 2 pounds of cottonseed meal per head daily. At the end of 120 days of feeding on this ration, shelled corn was

added for the remaining 90 days of the test. The calves in this lot were not quite as heavy nor as well finished as the calves in the first lot. However, the calves of the second lot sold for only 50 cents per hundred less than the calves in the first lot and made a profit of \$2.67 per head, not including gains made by the hogs following them, and of \$5.63 per head including hog gains.¹ In other words, the calves receiving the light corn ration made \$4.04 per head more profit than those receiving the heavy corn ration, the gains made by hogs following the calves being included in each case. This result prompted the station to repeat the test during the winter of 1920-21 when the cost of corn was only one-third and roughage approximately one-half the cost the previous year.

In this test two lots (lots 3 and 4, Table I) received a light and a heavy corn ration, respectively, their feeding constituting a repetition of the work of the previous year discussed above. In addition to these lots, one lot (lot 5, Table I) was fed in exactly the same manner as lot 4 except that 2 pounds of blackstrap molasses per head per day were added to the ration to see if by so doing it might not be possible to increase feed consumption, particularly roughage, and to increase materially the selling price per pound because of a better finish, bloom, and appearance.

Another lot (lot 6, Table I, illustration, page 1) received all the cane silage and shelled corn it would consume and approximately 1.75 pounds of cottonseed meal per head per day. No hay of any kind was fed to this lot.

FEEDING PLAN

There were 10 steer calves in each lot. They were purchased in western Kansas, weaned, and immediately shipped to Manhattan and put on a silage and cottonseed meal ration for 19 days before going into the experiment. Initial and final weights represent the average of weights taken on three successive days at the beginning and end of the experiment. The calves were fed twice daily, 7 a. m. and 5:30 p. m., and had access to salt and tank water at all times. Each group of 10 head was kept in a lot approximately 30 feet by 40 feet including a shed 15 feet deep across the north end, open to the south. They were marketed June 15, 1921, at the end of a

¹ McCampbell, C. W. and Winchester, H. B. Cattle feeding investigations, 1919-20. Kan. Agr. Expt. Sta. Cir. 86:1-11. 1921. (See lots 5 and 6, Part III.)

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207-day feeding period. The original purchase price, freight, and cost of feed consumed during the preliminary feeding period, are included in the initial cost.

RESULTS

Results in detail are shown in Table I.

TABLE I.—RESULTS OF A 207-DAY FEEDING TEST IN THE UTILIZATION OF SILAGE IN FATTENING BABY BEEF.

Lot No.	3	4	5	6
Number of steer calves in lot.....	10	10	10	10
Average initial weight per steer at feedlot.....	423.4 lbs.	424.13 lbs.	424.2 lbs.	424.4 lbs.
Average final weight per steer at feedlot.....	871.93 "	818.13 "	836.0 "	813.2 "
Average total gain per steer at feedlot.....	448.53 "	394.00 "	411.8 "	388.8 "
Average daily gain per steer at feedlot.....	2.17 "	1.9 "	1.99 "	1.88 "
Selling weight per steer at Kansas City.....	849.00 "	795.00 "	814.00 "	791.00 "
Average gain per steer based upon selling weight at Kansas City.....	425.6 "	370.87 "	389.80 "	366.60 "
Average daily gain per steer based upon selling weight at Kansas City.....	2.06 "	1.79 "	1.9 "	1.77 "
Average shrinkage per steer in shipping.....	22.93 "	23.13 "	22.0 "	22.2 "
Percent shrinkage in marketing.....	2.63	2.83	2.64	2.73
Average dressing percent.....	57.4	55.8	55.3	56.4
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Average daily ration per steer:				
Cane silage.....	11.19	20.47	17.75	13.56
Alfalfa hay.....	1.99	1.98	1.99	
Cottonseed meal.....	1.79	1.78	1.79	1.78
Molasses.....			1.77	
Shelled corn.....	8.97	(a) 4.00	(a) 3.84	8.54
Salt.....	.05	.05	.06	.04
Feed required for 100 pounds gain based on selling weights:				
Cane silage.....	544.41	1,142.85	942.66	765.55
Alfalfa hay.....	96.81	110.69	105.70	
Cottonseed meal.....	87.22	99.70	95.38	100.30
Molasses.....			94.25	
Shelled corn.....	436.21	223.43	203.73	482.20
Salt.....	2.52	2.88	3.01	2.29
Cost of feed for 100 pounds gain based upon selling weights.....	\$8.21	\$7.91	\$9.22	\$8.76
Average cost per steer at feedlot.....	42.34	42.41	42.42	42.44
Average labor cost per steer.....	6.40	6.40	6.40	6.40
Average feed cost per steer.....	35.05	29.43	35.18	32.11
Interest per steer on investment in cattle and feed at 8 percent.....	3.48	3.23	3.49	3.35
Interest per steer on equipment at 6 percent.....	1.54	1.54	1.54	1.54
Shipping expense per steer.....	3.66	3.66	3.66	3.66
Total cost per steer on the Kansas City market when sold, not including hog profits.....	92.47	86.67	92.69	89.50
Hog profits per steer.....	2.77	.89	1.34	2.16
Total cost per steer on the Kansas City market when sold after deducting hog profits.....	89.70	85.78	91.35	87.34
Selling price per steer at Kansas City.....	76.41	67.58	57.16	67.24
Average loss per steer after deducting profit on hogs following the steers.....	13.29	18.20	24.19	20.10
Selling price per cwt. at Kansas City.....	9.00	8.50	8.25	8.50
Cost per cwt. in feedlot.....	10.00	10.00	10.00	10.00
Necessary selling price per cwt. at Kansas City to break even.....	10.57	10.79	11.22	11.04
Necessary margin per cwt. to break even on all expenses.....	.57	.79	1.22	1.04

(a) No corn fed to this lot during the first 120 days of the experiment.
Price of feeds: Shelled corn, 56 cents per bushel; cottonseed meal, \$40 per ton; alfalfa hay, \$15 per ton; molasses, \$40 per ton; cane silage, \$5 per ton; salt, \$15 per ton.

SUMMARY

Lot 4 receiving the heavy silage light grain ration made slightly cheaper gains than lot 3 receiving the light silage heavy grain ration, but the cheapness of corn, the more rapid gain, and greater selling price (50 cents per hundred) in the case of lot 3 result in less profit in lot 4 than in lot 3. However, 598.44 pounds of cane silage was substituted for 212.78 pounds of shelled corn consumed in lot 3 in producing 100 pounds of gain. Since an even break on the cattle based upon farm prices paid a gross income of \$52.50 per acre for cane silage compared to \$26 per acre for shelled corn there was a decided advantage in the heavy silage light corn ration upon an acre income basis.

A comparison of lots 3 and 5 indicates that 2 pounds of alfalfa hay per head daily fed in lot 3 increased gains 0.29 pounds daily, reduced costs of gains 55 cents per hundred, and added 50 cents per hundred to the selling price of the steers in lot 3.

The addition of 2 pounds of blackstrap molasses per head daily increased the gains slightly and improved the general appearance of the calves in lot 5 but it also increased the cost of gains \$1.33 per hundred and apparently reduced the selling price 25 cents per hundred compared to lot 4 receiving, with the exception of blackstrap molasses, identically the same ration (shelled corn, cane silage, alfalfa hay, and cottonseed meal). Buyers complained that the molasses-fed calves appeared soft and the superintendent of the beef department stated that their carcasses were soft and looked like those of grass cattle as they hung on the hook. The dressing percent of the molasses-fed calves was slightly less than that of the calves that did not receive molasses as a part of their ration.

Actual feed, labor, and other expenses, many of which were considerably higher than on the average farm, were charged to the experiment and it is interesting to study this test upon a basis of average prices of feeds on the Kansas farm during the winter of 1920-21. Investigators have stated these prices were about as follows: Corn, 42 cents per bushel; alfalfa hay, \$10 per ton; cane silage, \$3.50 per ton; cottonseed meal, \$35 per ton; blackstrap molasses, \$40 per ton; salt, \$15 per ton. After deducting from the gross income the actual shipping

expenses and the feed cost determined upon this basis there was left for the original cost of the calves, labor, and interest, \$40.47 per head in lot 3; \$35.38 per head in lot 4; \$29.66 per head in lot 5; and \$33.63 in lot 6.

PART II

PLAIN MATURE STEERS VERSUS QUALITY MATURE STEERS

For several years feeders have contended that they made more money feeding plain than quality cattle. It seemed desirable therefore to feed a lot of plain cattle and another lot of quality cattle. This was done during the winter of 1920-21.

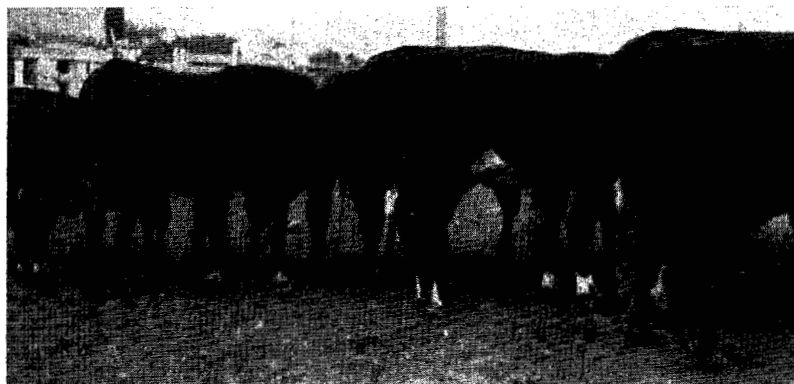


FIG. 1.—Plain steers (lot 1), uneven in size and shape

FEEDING PLAN

The steers in lot 1 designated as plain cattle were big, rough, coarse, plain-headed, three- and four-year-old Texas steers, uneven in size and conformation (fig. 1), being the tail end of a bunch of 287 head of plain steers. They were purchased near Manhattan, Kan., August 23, 1920, and grazed on blue-stem pasture until November 19, 1920, when the test began.

The steers in lot 2, designated as quality cattle, were smooth, good-headed, well-made, three-year-old steers, even in size and conformation (fig. 2), selected from a bunch of 700 head that came from one of the best herds in Texas. They were purchased in southwestern Kansas, November 1, 1920, and moved

immediately to the college bluestem pasture where they grazed with the other group until the test started.

Both lots were fed exactly the same kind of ration, which consisted of all the cane silage and alfalfa they would eat, together with $2\frac{2}{3}$ pounds of cottonseed meal per head daily for the first 60 days, after which all the shelled corn they would eat was added. The test was completed in 178 days. The plain cattle were somewhat fatter than the quality cattle when the test began.

RESULTS

Detailed data giving the results of the test are given in Table II.

TABLE II.—THE RESULTS OF FATTENING PLAIN MATURE STEERS AND QUALITY MATURE STEERS COMPARED
(November 19, 1920, to May 16, 1921)

Lot No.	1	2
Number of steers in lot.	10	10
Average initial weight per steer at feedlot.	1,198.67 lbs.	1,036.47 lbs.
Average final weight per steer at feedlot.	1,595.93 "	1,422.47 "
Average total gain per steer at feedlot.	397.27 "	386.00 "
Average daily gain per steer at feedlot.	2.23 "	2.17 "
Selling weight per steer at Kansas City.	1,540.00 "	1,385.00 "
Average gain per steer based upon selling weight at Kansas City.	341.33 "	348.53 "
Average daily gain per steer based upon selling weight at Kansas City.	1.90 "	1.94 "
Average shrinkage per steer in shipping.	5.593 "	37.47 "
Percent shrinkage in marketing.	3.5	2.63
Average dressing percent.	60.6	61.8
	<i>Pounds</i>	<i>Pounds</i>
Average daily ration per steer:		
Cane silage.	34.19	31.50
Alfalfa hay.	2.02	1.99
Cottonseed meal.	2.66	2.61
Shelled corn.	11.47	10.50
Salt. ....	.05	.04
Feed required for 100 pounds gain based on selling weights:		
Cane silage.	1,782.78	1,608.56
Alfalfa hay.	105.18	101.57
Cottonseed meal.	138.87	133.30
Shelled corn.	597.96	536.47
Salt.	2.43	1.91
Average labor cost per steer.	\$5.86	\$5.86
Average feed cost per steer.	37.17	32.10
Interest per steer on equipment and feed.	3.29	3.10
Shipping expense per steer.	5.94	5.94
Total expense per steer, not including initial cost and interest on investment in cattle.	49.26	47.00
Selling price per steer at Kansas City.	127.02	121.19
Amount left to cover an initial cost and interest on investment per steer that would have insured an even break.	77.76	74.19
Cost per cwt. at the beginning of the test that would have insured an even break when sold.	6.24	6.88
Selling price per cwt. at Kansas City.	8.25	8.75

Price of feeds: Shelled corn, 56 cents per bushel; cottonseed meal, \$40 per ton; alfalfa hay, \$15 per ton; cane silage, \$5 per ton; salt, \$15 per ton.



FIG. 2.—Quality steers (lot 2), even in size and shape

SUMMARY

The daily gains were practically the same in each lot, but the quality steers required slightly less feed to produce 100 pounds of gain and showed a slightly higher dressing percent. The buyer paid only 50 cents or 6 percent more per hundred for the quality than for the plain cattle when both were marketed as fat cattle. On this basis a feeder could have paid only 64 cents or 10 percent more per hundred for the quality cattle than for the plain ones when they went into the feedlot, whereas there was a difference on the open market of \$2, or 20 percent, per hundred between these two classes of cattle during the week this test was started.

These results indicate that either the spread between the price of plain and quality cattle as feeders has been too wide during recent years or the spread between plain and quality fat cattle has not been wide enough. They also indicate that if the price per hundred received for these two lots of cattle reflects the consumer's attitude toward the meat from plain and from quality mature cattle, the consumer is no longer willing to pay more for mature beef of good quality than for mature beef of ordinary or even poor quality.

The results of this experiment do not indicate that one should produce scrub cattle, for there is a great difference between scrub and plain cattle. A scrub steer is a nondescript, undersized, ill-shaped individual, whereas a plain steer is big and growthy and is usually fairly well bred but lacking in

quality. The purebred sire is absolutely essential because he transmits size and a tendency to grow rapidly to his offspring and this is the first essential in producing a profitable steer, but until such time as feeders are able to secure a wider margin between plain and quality mature cattle when fattened, the margin between plain and quality mature feeders must be narrower than it has been for several years.

The value of the purebred sire is even more important in the case of baby beef production because a large part of the gain the calf makes is growth, and a marked tendency to make rapid gains is derived from the good purebred sire. There is also a wider margin between plain and quality baby beef at the end of a six or seven months' fattening period than between plain and quality heavy steers. These facts emphasize the need not only for purebred sires but for good, big, rugged, thick-fleshed, purebred sires.

Another fact that has been observed in the feeding experiments at the Kansas station for many years is the difference in the manner in which steers of different types respond to feed. These experiments indicate that, in the calf, in the yearling, and in the older steer it is the big, heavy-boned, broad-backed, and big-middled individual that makes the greatest and most economical gains. The small, fine-boned, tidy individual makes a good-looking fat steer but expensive gains, and does not sell for enough more than the bigger, more rugged steer to compensate for the slower and more expensive gains.

PART III

SILAGE VERSUS ALFALFA HAY FOR THE DEVELOPMENT OF STOCK CATTLE

During the winter of 1919-20 one group of steer calves was wintered on alfalfa hay alone and another on silage and 1 pound of cottonseed meal per head per day. The calves receiving silage and cottonseed meal made 44 percent greater daily growth and each 100 pounds of growth cost 40 percent less than in the case of calves fed alfalfa hay alone.¹ These two groups of steers ran together on bluestem pasture during the summer of 1920, and during the winter of 1920-21 each

¹ See Table IV of Kansas Circular 86, referred to on page 2.

steer was fed the same ration he received during the winter of 1919-20. They were turned on bluestem pasture May 5, 1921, where they remained until fall. They will each receive the same feed during the winter of 1921-22 that was fed the previous two winters. They will be run together on bluestem pasture during the summer of 1922 and fattened for market during the winter of 1922-23, both groups to be fed alike during the fattening period. At the end of that time comparative data will be available relative to the value of alfalfa and silage as winter feeds for developing stock cattle from weaning time until the fall after they are three years of age.

REPORT OF PROGRESS

Data giving details of the progress of the test from December 17, 1919, when these steers were received as calves recently weaned, until May 5, 1921, when they were approximately two years of age, are given in Table III.

TABLE III.—SILAGE VERSUS ALFALFA HAY FOR WINTERING STEERS
 (Report of progress)

Lot No.	1 19	2 20
Number of steers in lot.		
Average daily ration per steer:		
Winter, 1919-20		
Silage	25.46 lbs.	
Cottonseed meal	1.00 "	
Alfalfa hay		10.29 lbs.
Summer, 1920	Pasture	Pasture
Winter, 1920-21		
Silage	36.65 lbs.	
Cottonseed meal	1.00 "	
Alfalfa hay		22.09 lbs.
Summer, 1921	Pasture	Pasture
	<i>Pounds</i>	<i>Pounds</i>
Weight per steer, December 17, 1919	438.04	440.37
Weight per steer, April 29, 1920 (a)	534.60	500.70
Gain per steer, winter, 1919-20	98.56	60.33
Daily gain per steer, winter, 1919-20 .....	.74	.45
Weight per steer, November 25, 1920 (b)	811.79	803.20
Gain per steer on pasture, summer of 1920	275.19	302.50
Daily gain per steer on pasture, summer of 1920	1.31	1.44
Weight per steer, May 5, 1921 (a)	987.51	878.93
Gain per steer, winter, 1920-21	155.72	75.73
Daily gain per steer, winter, 1920-21 .....	.97	.47
Gain per steer from December 17, 1919, to May 5, 1921	529.47	438.56
Daily gain per steer from December 17, 1919, to May 5, 1921	1.05	.87

(a) Date of turning on pasture for the summer.
 (b) Date of removal from pasture.

The opinion prevails in many quarters that steers wintered on silage will not make satisfactory gains on pasture the following summer. Table IV shows the daily gains per steer for each month of the pasture season of 1920 when these

cattle were yearlings, lot 1 having received silage and 1 pound of cottonseed meal per head daily, and lot 2 alfalfa hay the previous winter.

TABLE IV.—PASTURE GAINS ON YEARLING STEERS WINTERED ON SILAGE COMPARED WITH PASTURE GAINS ON YEARLING STEERS WINTERED ON ALFALFA HAY, SUMMER OF 1920

Lot No.	1 Silage	2 Alfalfa hay
Basic winter ration		
Average daily pasture gain per steer, 1920:	<i>Pounds.</i>	<i>Pounds</i>
May	1.72	1.76
June	3.08	3.49
July	1.21	1.19
August	1.20	1.52
September	1.41	1.52
October .....	.88	.97
November	-.26	-.35
Average daily pasture gain per steer from April 26 to November 25, 1920.....	1.31	1.44

The slightly greater gain made during the pasture season of 1920 by the yearling steers that had been wintered on alfalfa was due undoubtedly to the fact that they carried considerably less flesh when they went to pasture in the spring. These results indicate that yearling steers that have been wintered on silage do not “go to pieces” on grass the following summer, but make very satisfactory gains.

PART IV

THE RELATIVE FEEDING VALUE OF DIFFERENT KINDS OF CORN SILAGE

H. B. WINCHESTER

The relative feeding value of silage made of corn cut at different stages of maturity, and the value of corn silage with the grain compared to that made of corn from which the ears have been removed, have been matters of much interest and concern to Kansas feeders. An experiment was planned having in mind this problem. Four silos each 10 by 26 feet were filled with different kinds of corn silage as follows:

- Silo No. 1 was filled with corn when the grain was in dent stage of maturity.
- Silo No. 2 was filled with corn that was allowed to stand in the field six weeks longer before cutting than that used in silo No. 1.
- Silos Nos. 3 and 4 were filled with the same kind of corn as that put into silo No. 2 except that the ears had been removed.

All the corn came from the same field, each silo being filled with alternating 10-row strips across the field. A careful record was kept of the weight of water added in each case. The silage was fed to yearling steers. It was planned to feed each lot of steers the same amount of silage, approximately all they would consume, together with 1 pound of cottonseed meal per head daily. The feeding extended over a period of 100 days. Data indicating the relative value of each kind of silage fed are given in Table

TABLE V.—RELATIVE VALUE OF THREE KINDS OF CORN SILAGE FED TO YEARLING STEERS

Lot No.	1	2	4
Number of steers in lot	5	5	4
Number of days in test	100	100	100
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Average initial weight per steer	814.53	816.67	848.50
Average final weight per steer	957.06	1,003.20	881.50
Average total gain per steer	142.53	186.53	33.00
Average daily gain per steer	1.43	1.87	.33
Average daily ration per steer:			
Corn silage (dent stage)	38.02		
Corn silage (fully mature stage)		37.95	
Corn stover silage (fully mature stage)			36.78
Cottonseed meal	1.00	1.00	1.00
Salt .....	.17	.12	.08
Amount of gain produced by one ton of silage when fed with one pound of cottonseed meal per head daily:			
Corn silage (dent stage)	78.977		
Corn silage (fully mature stage)		68.305	
Corn stover silage (fully mature stage)			18.00
Amount of gain produced by one ton of dry matter in silage consumed when fed with one pound of cottonseed meal per head daily:			
Corn silage (dent stage)	245.504		
Corn silage (fully mature stage)		233.894	
Corn stover silage (fully mature stage)			52.00
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Dry matter content of the silage fed:			
Corn silage (dent stage)	30.54		
Corn silage (fully mature stage)		42.03	
Corn stover silage (fully mature stage)			34.4

OBSERVATIONS

A ton of silage made from the fully mature corn produced more gain than did a ton of silage made from the corn cut in the dent stage, but a ton of dry matter in the silage made from dent-stage corn produced more gain than a ton of dry matter in the silage made from the fully mature corn.

The corn cut in the dent stage produced 9.47 tons of silage per acre of which 2.89 tons were dry matter, whereas the corn cut in the fully mature stage produced only 4.47 tons of silage per acre of which 1.88 tons was dry matter.

These results indicate that silage made from corn cut in the dent stage has considerably more feed value per acre than does

corn cut in the fully mature stage, one acre cut in the dent stage producing 729.51 pounds of gain compared to 439.72 pounds of gain per acre from silage made of corn cut in the fully mature stage.

This test also indicates that if corn cannot be put into the silo in the dent stage, it will make silage of good quality at any later stage of maturity.

A comparison of results secured in lots 2 and 4 shows that the feeding value of silage made from mature corn depends largely upon the amount of grain in the silage. In this test a ton of dry matter in silage made from fully mature corn, grain included, was approximately four times as efficient as a ton of dry matter in silage made from fully mature corn, the grain not included, in producing gains on yearling steers. Furthermore the fully mature corn, grain not included, produced only 3 tons of silage per acre of which 1.03 tons was dry matter.

PART V

THE RELATIVE FEEDING VALUE OF THE GRAIN OF FULLY MATURE CORN IN SILAGE AND THE GRAIN OF CORN THAT HAS BEEN HUSKED, SHELLED, AND FED DRY

H. B. WINCHESTER

The opinion is often expressed that the grain of corn loses some of its feeding value when put into a silo and fed as a part of corn silage. This matter was tested at the Kansas Agricultural Experiment Station during the winter of 1920-21.

The grain which was removed from the corn that was put into silos Nos. 3 and 4 (Part IV) was carefully weighed and the acreage measured. Since the corn that was put into silo No. 2 consisted of alternating 10-row strips with that put into silo No. 3 it is assumed that the per acre yield was the same in each case. From this the amount of corn (grain) in each ton of silage in silo No. 2 was calculated. One lot of yearling steers was fed silage (grain included) from silo No. 2. Another lot of yearling steers was fed silage (grain not included) from silo No. 3 and dry shelled corn in amounts in proportions equal to the stalks, cobs, and grain in the silage fed from silo No. 2. The steers in each lot also received 1 pound of cottonseed meal per head daily. They were fed 100 days. All feed

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factors were the same in each lot except the condition of the grain (corn) and the steers were of similar age, breeding, size, conformation, and quality. Hence it may be assumed that any difference in gains was due to the difference in the condition of the grain (corn) that was fed.

RESULTS

The results of this test are given in detail in Table VI.

TABLE VI.—CORN IN SILAGE VERSUS DRY SHELLED CORN

Lot No.	2	3
Number of steers in lot	5	5
Number of days in test	100	100
	<i>Pounds</i>	<i>Pounds</i>
Average initial weight per steer	816.67	814.13
Average final weight per steer	1,003.20	978.40
Average total gain per steer	186.53	164.27
Average daily gain per steer	1.87	1.64
Average daily ration per steer:		
Corn silage (fully mature stage)	37.95	.....
Corn stover silage (fully mature stage) .....	.....	28.01
Shelled corn .....	.....	9.44
Cottonseed meal	1.00	1.00
Salt .....	.12	.07
	<i>Percent</i>	<i>Percent</i>
Relative value of corn (grain) fed in silage as compared with shelled corn:		
Corn (grain) in silage (fully mature stage)	112.4	.....
Shelled corn .....	.....	100.0

OBSERVATION

This test indicates that the grain in silage made from fully mature corn has a greater feeding value pound for pound when fed to yearling steers than dry shelled corn, this increase in feeding value amounting to 12 percent in this experiment.

