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Livestock and Meat

SITUATION

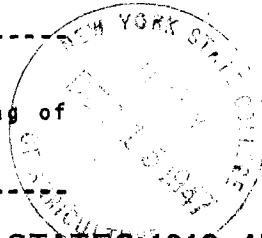
BUREAU OF AGRICULTURAL ECONOMICS
UNITED STATES DEPARTMENT OF AGRICULTURE

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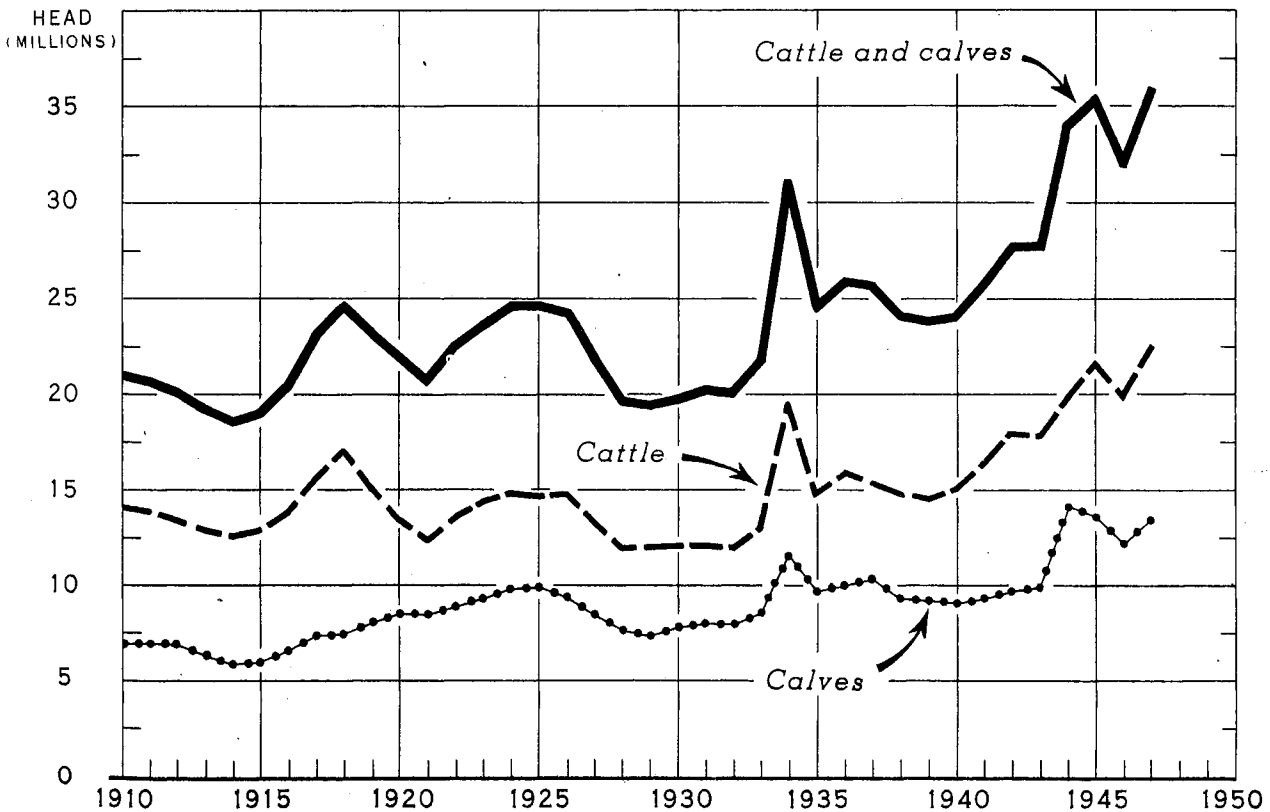


NOVEMBER 1947

In this issue:
Effects of Reduced Grain Feeding of
Livestock on Meat Output



TOTAL CATTLE AND CALF SLAUGHTER, UNITED STATES, 1910-47

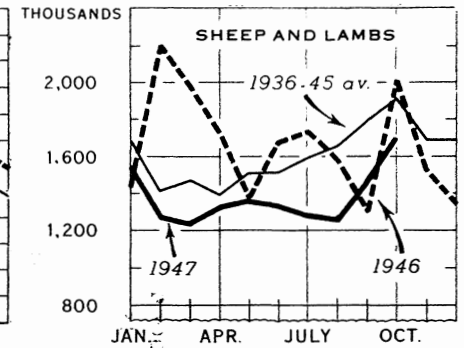
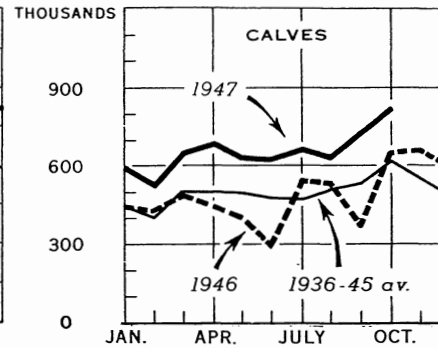
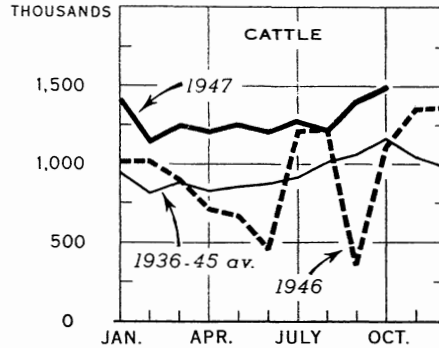
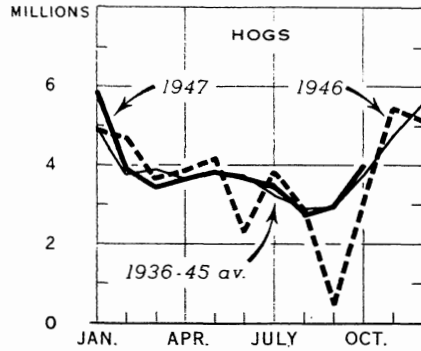


INCLUDES GOVERNMENT SLAUGHTER FOR FOOD, 1934-36; DATA FOR 1947 ARE PARTLY FORECAST

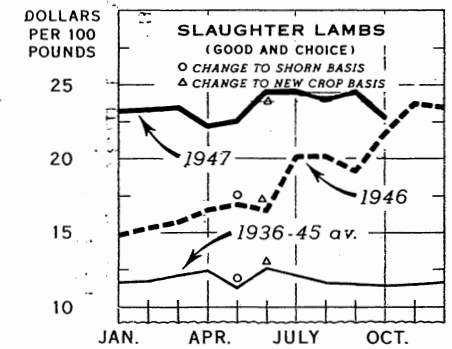
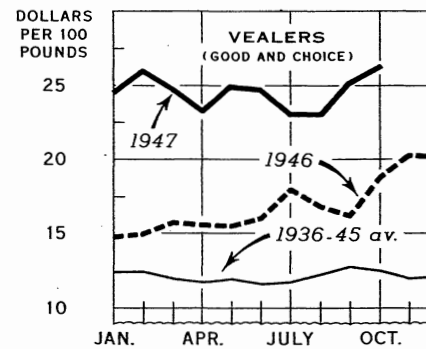
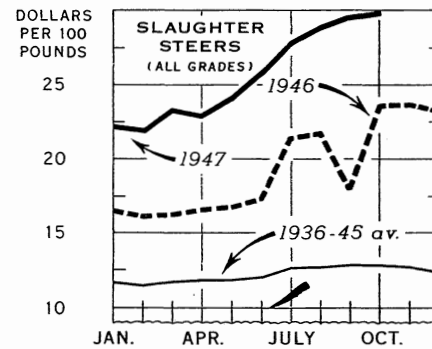
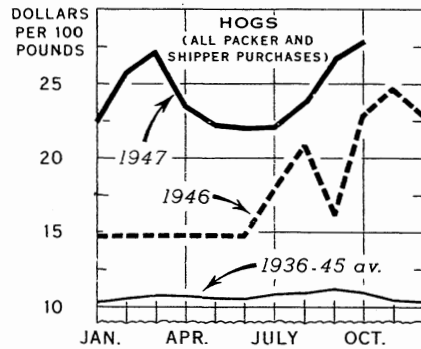
Cattle and calf slaughter in 1947 is the greatest on record and much larger than in 1946. The unusually large slaughter is sharply reducing the number of cattle on farms. Slaughter in 1948 probably will be less than this year's record.

LIVESTOCK AND MEAT SITUATION

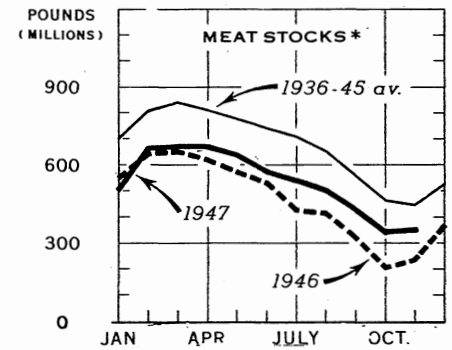
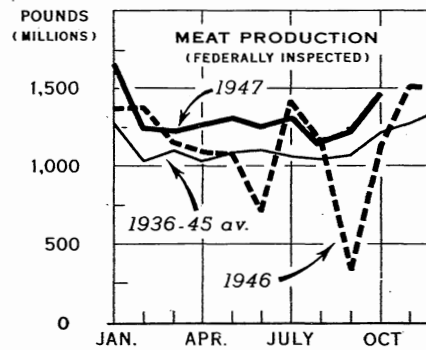
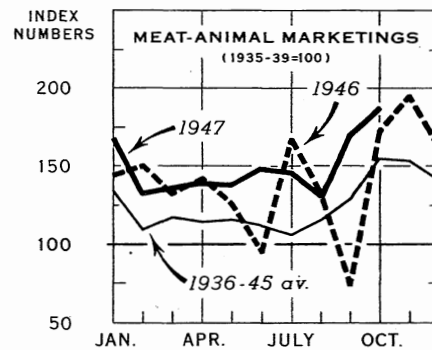
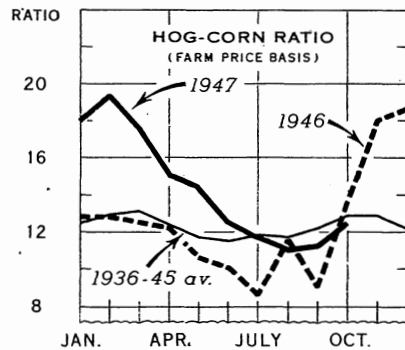
FEDERALLY INSPECTED SLAUGHTER, UNITED STATES



MARKET PRICES CHICAGO



HOG-CORN RATIO, MEAT ANIMAL MARKETINGS, MEAT PRODUCTION, AND STOCKS, UNITED STATES



*BEEF, LAMB AND MUTTON, PORK, AND MISCELLANEOUS MEATS IN MEAT PACKING PLANTS AND COMMERCIAL COLD STORAGE HOUSES, BEGINNING OF MONTH

THE LIVESTOCK AND MEAT SITUATION

Approved by the Outlook and Situation Board, November 28, 1947

SUMMARY

Prices of grass cattle are likely to increase seasonally this winter and spring as marketings decrease. Prices of grain fed cattle are likely to continue high through spring, even though marketings of short fed cattle will be relatively large.

Next summer prices of fed cattle are likely to rise more than seasonally because marketings will be smaller than usual. A large part of the fed cattle marketed in the summer usually have been fed a long period and include a large proportion of calves and yearlings put on feed the previous fall or winter. This fall, however, shipments of cattle to feeding areas include a large proportion of heavy cattle which are more suitable for a short feed.

Prices of hogs probably will continue high during 1948, with about the usual seasonal increase probable in the late winter and early spring.

Increases in slaughter lamb prices are likely through the winter, as slaughter declines more than seasonally. The supply of lambs for slaughter in the first 4 months of 1948 promises to be the smallest in around 20 years.

Meat production during the spring and summer of 1947 was considerably greater than in the same period of 1946. Meat output in the fourth quarter of 1947 will total about as large as a year earlier.

Meat output in each quarter of 1948 is expected to be smaller than in the corresponding quarters of 1947. During the first 9 months most of the reduction will be in beef. In the last quarter, output of both beef and pork will be lower. The number of hogs slaughtered in the first nine months of 1948 probably will be about the same as a year earlier. But hogs are likely to be marketed at considerably lighter weights than in the past 4 or 5 years because of the reduced feed supplies and high feed prices. Reduced hog slaughter weights in 1948 will reduce output of fat cuts proportionately more than the output of lean pork. Slightly more lean pork is produced per unit of grain fed when hogs are marketed at weights ranging from 150 to 225 pounds than from 225 pounds to 300 pounds. The spring pig crop of 1948 is expected to be moderately smaller than the 1947 spring pig crop, which would mean fewer hogs for slaughter in the late fall and winter of 1948-49.

The sharp decline in the number of cattle on farms this year and reduced grain feeding probably will result in a smaller cattle slaughter in 1948 than in 1947. Sheep and lamb slaughter also will be smaller in 1948. Fewer sheep and lambs will be fed this winter and there will be a smaller lamb crop next year.

(For release December 6, A.M.)

Seasonal Increase in Prices of Grass Cattle
Expected this Winter and Spring; Fed Cattle
Prices to Remain High

Prices of grass cattle are expected to rise seasonally this winter and spring, when marketings will decrease and demand for cattle to stock pastures next year will be strong. Fewer stocker and feeder cattle will be marketed through spring than a year earlier because of the reduction in the number of steers and heifers this year.

Prices of fed cattle are expected to continue high through spring. The proportion of cattle marketed after a short feed probably will be greater than usual.

Prices of fed cattle are likely to increase more than usual next summer, unless demand for meat weakens. The usual summer rise in prices of fed cattle has tended to be greater during years following short corn crops, reflecting reduced marketings of fed cattle at that time. Compared with last year, a smaller proportion of the cattle moving to feeding areas this fall was calves and yearlings. Such cattle usually are marketed after a long feed.

Prices of choice and prime cattle reached new peaks in early November. Prices of good grade cattle were moderately lower than in October and the lowest since August. Marketings of fed cattle continued relatively small. Sales of Corn Belt steers at Chicago in October were, except for October 1946 (when price controls ended), the smallest for the month since 1937.

Increases in slaughter lamb prices are in prospect through the winter as slaughter declines more than seasonally. Lamb prices are low relative to prices of hogs or cattle. The supply of lambs for slaughter in the first 4 months of 1948 promises to be the smallest in about 20 years because of reduced lamb feeding. Slaughter lamb prices began increasing in October, after reaching the seasonal low.

Hog prices declined about seasonally in early November in response to the sharp increase in marketings from the 1947 spring pig crop. Prices of hogs probably will increase seasonally in the late winter and spring as slaughter declines.

Consumer incomes reached new highs in October. The very high incomes have been the principal factor in the high meat-animal and meat prices. Domestic demand for meat was extremely strong in early November, when production was nearing its seasonal peak.

The rise in meat prices last summer and during early fall was accompanied by a smaller than usual decline in storage stocks of meat. Storage stocks on November 1 were considerably greater than a year earlier, but below average for the season. End-of-year storage stocks of meat probably will be greater than the relatively small holdings at the end of 1946. Hog slaughter has been unusually large in recent weeks.

The downturn in breeding sheep numbers that began in 1942 is continuing this year, but apparently at a lower rate than during the preceding 4 years. Federally inspected sheep slaughter in January-September totaled around 40 percent less than a year earlier and was the smallest for the period since 1942. Lamb and yearling slaughter under Federal inspection in January-September was 17 percent less than in the corresponding period of 1946.

The continued decline in sheep numbers will result in fewer lambs being raised in 1948, which in turn will mean reduced output of lamb.

Lower Hog Slaughter Weights

Pork production in the 1946-47 hog marketing year (October-September) apparently was around 10.6 billion pounds, the smallest since 1941-42. During the 1946-47 season around 75 million hogs were slaughtered at an average weight of around 247 pounds. The average weight of 258 pounds for all hogs slaughtered under Federal inspection was about the same as in October-September 1945-46, and was only slightly less than the record of 260 pounds during 1944-45.

Hog slaughter in the 1947-48 hog marketing year probably will be as large as a year earlier, since at least as many pigs were raised in 1947 as in 1946. Because of the smaller feed concentrate supply for the current feeding year, however, the average weight of hogs slaughtered in 1947-48 may be around 10 pounds less than in 1946-47. As a result, pork production during 1947-48 may be around 500 million pounds or 5 percent less than in 1946-47. Lard output also may be around 5 percent less than the 2,380 million pounds for 1946-47.

On the basis of feed supplies and grain prices this fall, the 1948 spring pig crop will be smaller than the 1947 crop of 53 million head. Total feed concentrate supplies are considerably smaller than at any time since 1940, and the hog-corn price ratio has been below average since July.

Table 1.- Average live weight of hogs slaughtered under Federal inspection, monthly, average 1935-39 and 1941-47

Month	:Av. 1935-36: :to 1939-40 :	1941-42 :	1942-43 :	1943-44 :	1944-45 :	1945-46 :	1946-47 :	1947-48
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Oct.	223.2	234.2	240.6	242.7	238.1	276.6	246.2	237 ^{1/}
Nov.	222.9	233.3	244.6	238.0	238.3	262.7	242.4	
Dec.	227.0	239.2	248.7	244.4	240.1	254.6	246.7	
Jan.	229.7	239.8	252.1	249.3	244.1	258.4	254.6	
Feb.	226.6	237.0	252.2	246.8	246.3	260.5	251.9	
March	227.4	232.5	252.7	242.5	251.1	248.6	253.3	
April	228.1	234.9	254.0	240.3	257.1	247.6	254.4	
May	231.3	240.4	256.4	238.7	264.5	244.3	260.1	
June	243.3	251.5	260.4	244.8	275.6	263.2	273.3	
July	251.4	265.2	273.9	251.8	297.3	289.5	288.0	
Aug.	242.0	265.7	276.7	255.1	304.2	262.8	283.7	
Sept.	230.1	250.3	262.3	248.0	295.3	264.1	247.3	
Year	231.3	256.2	244.7	256.5	259.8	257.8	258.5	

^{1/} Estimated on basis of weekly data.

Current Meat Output About The Same As Year Ago;
Smaller Supplies In Prospect

Meat production in the final quarter of 1947 probably will be about as large as a year earlier, when it was the smallest for the period since 1942. Output of meat in January-October under Federal inspection was 22 percent greater than in the same months of 1946. In the first half of November, slaughter of cattle under Federal inspection was about 4 percent greater than the large slaughter of a year earlier, and was a near record for the season. The number of calves slaughtered was around one-third greater than in the corresponding weeks of November 1946, and was exceeded only in November 1944. Sheep and lamb slaughter in the first half of November was about the same as a year earlier but hog slaughter was 5 percent less. Hog slaughter increased sharply in the third week of November and was a record for any November week except 1943.

Cattle and calf slaughter in 1947 will be the largest of record--possibly reaching 36 million head. This far exceeds the calf crop and is causing a large reduction in cattle numbers. A further decline in numbers next year seems likely, but the decrease probably will not be as great as in 1947. Numbers of steers and young heifers on farms are being reduced to an unusual extent this year.

During 1948, output of all meats may be smaller than in 1947. Reductions in beef and lamb probably will be relatively greater than for pork.

EFFECTS OF REDUCED CATTLE FEEDING
 ON BEEF AND GRAIN SUPPLIES

Shipments of stocker and feeder cattle to 11 Corn Belt States during July-October were 15 percent smaller than the large shipments a year earlier. This, together with smaller feed grain supplies and little wheat pasture, indicates an overall reduction from the near-record of last year in the number of cattle to be fed this fall and winter. Shipments of stocker and feeder cattle from 4 leading markets this summer and fall indicate that the number of calves, cows, and heifers to be fed will be markedly lower than a year earlier. There was a large increase in the number of feeding steers weighing over 1,000 pounds shipped to feeding areas. But the proportion of all steers weighing over 700 pounds was about the same as last year.

The chief result of a reduced number of cattle moving into feed lots this fall and winter would be to increase cattle slaughter in late 1947 and to reduce it in 1948, assuming of course that it does not result in the marketing of fewer grass cattle this fall. A reduction of cattle moving to feed lots in late 1947 would then mean increased slaughter this year. If 500,000 more cattle went to slaughter instead of feed lots, beef production in 1947 would be increased by roughly 180 million pounds. However, if there had been no reduction in cattle feeding this year, the beef output from those cattle in 1948 would be around 280 million pounds.

Shortening the average feeding period and less liberal feeding also will affect production in 1948. Each 10-pound decrease in the average slaughter weight of 4 million cattle fed this winter would result in a reduction of nearly 25 million pounds of beef.

A study of cattle feeding during 1938-42 indicated that around 4 million head of cattle were fattened annually in 11 Corn Belt States (including Kansas).^{1/}

On the basis of the January 1 numbers of cattle and calves on feed, these Corn Belt States accounted for around 75 percent of the total number fed. This relationship has not changed much since that time. It was estimated that in 1938-42 cattle in the Corn Belt area were fed for an average of 200 days. The average weight at the beginning of the feeding period was around 650 pounds and the average gain per head was around 360 pounds. The feed required to fatten cattle, on the average, included 47 bushels of corn, or its equivalent in other grain, and around 65 pounds of high-protein feed. Hay and other roughage made up the remainder of most rations.

^{1/} Nelson, Aaron G., Relation of Feed Consumed to Food Products Produced by Fattening Cattle, USDA Technical Bulletin No. 900, September 1945.

Table 2. - Feed consumed and weight added in feeding cattle in the Corn Belt, year beginning October 1, 1938-41 ^{1/}

Item	Unit	1938-39	1939-40	1940-41	1941-42
<u>Number fed, gain in liveweight, and beef produced</u>					
Number cattle and calves put on grain feed	:1,000 head	3,811	4,184	4,403	4,446
Estimated liveweight gain	:Mil. pounds	1,355.2	1,505.9	1,596.3	1,596.5
Estimated gain in beef ^{2/}	:Mil. pounds	799.6	888.5	941.8	941.9
<u>Total concentrates fed</u>					
Grain	:Mil. pounds	9,920	11,079	11,755	11,795
Protein supplement	:Mil. pounds	249.2	278.5	294.2	298.1
<u>Average relationships</u>					
Av. weight gain per head:					
Liveweight	: Pounds	356	360	363	359
Dressed weight	: Pounds	210	212	214	212
Av. quantity grain fed per head	: Pounds	2,603	2,648	2,670	2,653
Av. quantity protein concentrate fed per head	: Pounds	65	67	67	67
Av. quantity grain per 100 pounds:					
Liveweight gained	: Pounds	732	736	736	739
Dressed weight gained	: Pounds	1,240	1,247	1,248	1,252

^{1/} Includes the 11 States, Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, South Dakota, Nebraska, Missouri, and Kansas.

^{2/} Dressing percentage 59 percent.

Table 3.- Estimated feed consumption, slaughter grade, dressing yield, and body composition at specified live-weights during the fattening period for choice feeder yearling steers, average Corn Belt conditions

Item	Average live-weight per head (pounds)					
	1/ 640	1/ 740	1/ 840	1/ 940	2/ 1,040	1,140
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Total digestible nutrients consumed:	0	467	1,011	1,652	2,436	3,442
Carcass weight:						
Warm	334.7	394.4	461.2	538.6	625.0	717.1
Physically separable:						
Lean	217.6	244.6	272.2	301.7	331.7	359.3
Fat	51.9	76.2	106.6	145.0	192.0	247.6
Bone	65.2	73.6	82.4	91.9	101.3	110.2
Edible portion of carcass, (minus bone):						
Weight	269.5	320.8	278.8	446.7	523.7	606.9
Physically separable fat	50.4	73.3	102.2	139.0	184.4	238.8
Edible offal:						
Organs, etc. trimmed	28.1	31.7	35.2	38.4	41.5	44.3
Caul, ruffle, and other fats	14.4	19.8	25.9	32.9	40.8	49.4
Additional products produced for each 100 pounds of TDN's consumed						
	Average live-weight per head (pounds)					
	640-739	740-839	840-939	940-1,039	1,040-1,139	
	Pounds	Pounds	Pounds	Pounds	Pounds	
Carcass weight:						
Warm	12.8	12.3	12.1	11.0	9.2	
Physically separable						
Lean	5.8	5.1	4.6	3.8	2.7	
Fat	4.1	5.6	6.0	6.0	5.5	
Edible portion of carcass, (minus bone):						
Weight	11.0	20.1	10.6	9.8	8.3	
Physically separable fat	4.9	5.3	5.7	5.8	5.4	
Edible offal:						
Organs, etc. trimmed	0.8	0.6	0.5	0.4	0.3	
Caul, ruffle, and other fats	1.2	1.1	1.1	1.0	.9	

1/ Common to medium slaughter grade.

2/ Choice slaughter grade reached at 1,080 pounds.

Source: Nelson, Aaron G., Relation of Feed Consumed to Food Products Produced by Fattening Cattle, USDA Technical Bulletin No. 900, September 1945.

Largest cattle feeding operations outside the Corn Belt occur in the irrigated farming sections in the Western States and in Oklahoma and Texas. In the Western areas, rations for cattle are largely made up of alfalfa hay, locally grown grains, sugar beet tops and pulp, and some shipped-in corn. In Oklahoma and Texas, bundle feeds and pastures are important.

In terms of either the liveweight gain or food produced by cattle for each unit of feed consumed, cattle feeding is considerably less efficient than hog feeding. Under average Corn Belt conditions, it probably takes over 7 pounds of concentrate feed for each pound gain in liveweight for cattle fattened and around 12.5 pounds of concentrate for each pound of beef produced, wholesale basis. Furthermore, as cattle get older and heavier, feedlot gains per unit of feed consumed become progressively smaller. As cattle are fed to the good slaughter grade and higher, proportionately more of the feed goes into fat and less into lean. Of course, some of the added fat is eaten with the meat.

Under average Corn Belt conditions, 100 T.D.N.'s (total digestible nutrients $\frac{1}{2}$) are required to produce 12 to 13 pounds of carcass weight gain for yearling steers fed to the good slaughter grade. When the steers reach good slaughter grade, 100 T.D.N.'s will produce only around 11 pounds of carcass weight gain. After the top of the good grade is reached, 100 T.D.N.'s will produce only 9 pounds of carcass meat.

Only a relatively small proportion of the total weight gain in feeding cattle is produced from cattle fed to higher than the middle of the good slaughter grade. The weight gain from such cattle in the Corn Belt in 1938-42 was estimated to be 20 percent of the total added by feeding. Applying this to present conditions, elimination of the feeding of cattle to better than average good grade would reduce beef production in 1947-48 by around 175 million pounds. But the reduction in use of grain would be equivalent to 40 to 55 million bushels of corn.

There are other considerations in feeding than the efficiency with which cattle convert feed to meat. Feeding evens out beef cattle marketings throughout the year. It also improves the quality and palatability of meat, increases the dressing percentage, and provides manure for improving soil fertility on cattle-feeders' farms.

SHEEP AND LAMB FEEDING TO BE REDUCED

Probably 7 to 8.5 million grain-fed and wheat-pastured sheep and lambs have been marketed in each of the past 5 years. Sheep and lamb-feeding has increased lamb and mutton output by 80 to 115 million pounds each year.

The number of sheep and lambs on feed January 1 each year from 1941 through 1947 ranged from 6 to 7 million head. The number on feed January 1 includes the greater part of all sheep and lambs fed during the year. The number to be fed this season is expected to be smaller than a year earlier and probably the smallest

$\frac{1}{2}$ A standard for comparing the feeding value of feeds: 2 pounds of alfalfa hay or 0.8 pound of corn equal 1 T.D.N.

in the last 18 years. Last fall and winter, wheat pastures alone carried over 1 million head of sheep and lambs, or 17 percent of the total fed. Poor wheat pastures this fall mean a sharp reduction in sheep and lambs pastured. Shipments of stocker and feeder lambs to Corn Belt States in September and October this year totaled 32 percent less than a year earlier and were the smallest since 1938, the first year of record. About 65 percent of the 6 million sheep and lambs on feed at the beginning of 1947 were in the Corn Belt, an unusually large proportion. The number on feed in States outside the Corn Belt was the smallest since 1927.

Only a very small part of the total concentrates fed to livestock is fed to lambs. Lambs grazed on wheat pastures receive little or no grain. Those fed in the Corn Belt consume some corn and other grains but probably no more than the equivalent of 2 bushels of corn per head. Lambs fed in the Western States receive more barley and other grains than corn.

The feeding of 1 million fewer lambs in 1947-48 than a year earlier would mean heavier slaughter during the final quarter of 1947, amounting to possibly 30 to 40 million pounds of lamb. This would be followed by smaller output in the first part of 1948. The saving of grain by the smaller number fed would be relatively small.

PORK AND LARD OUTPUT AND FEED CONSUMED BY HOGS AT VARYING MARKET WEIGHTS ^{1/}

Efficient use of feed is receiving broad attention this year because of reduced feed supplies, high feed prices, and the need for large grain exports. For these reasons the weights at which hogs are marketed are more important than usual. The efficiency with which hogs convert feed into pork and lard varies with the weights to which they are fed.

The choice of market weights of hogs cannot be based entirely on feed conversion alone. The relative needs for and values of pork and lard, costs of feed and other items of production, and other factors must be considered. While these considerations usually determine the weight at which hogs are marketed, the better pork cuts are obtained from butcher hogs weighing from 150 to 300 pounds.

From the standpoint of over-all efficiency in converting feed into human food (total pork and lard), hogs weighing at least 300 pounds are slightly more efficient than are lighter hogs. On the other hand, hogs fed to weights above 175 pounds are less efficient than are lighter hogs in converting feed into lean pork. Butcher hogs produced in the Corn Belt attain the greatest dressed weight per unit of grain consumed at weights ranging from 225 to 275 pounds. At these weights, however, hogs convert their feed mostly into fat. Each additional bushel of corn equivalent ^{2/} fed to hogs weighing 225 pounds produces less than 3 pounds additional lean pork, but at least 8 pounds more fat. A 250 pound hog will produce around 14.7 pounds more separable fat, including offals, and only 5.9 pounds more separable lean than a 225 pound hog.

^{1/} This section is based upon: U.S.D.A. Technical Bulletin No. 894, Feed Consumption and Marketing Weight of Hogs, July 1945, and U.S.D.A. Technical Bulletin No. 917, Feed Consumption and the Production of Pork and Lard, June 1946, both bulletins by L. Jay Atkinson and John W. Klein.

^{2/} A common denominator for all feeds: 1 feed unit is equal to 1 pound of average corn.

More pork is produced per unit of grain when hogs are fed to around 175 pounds than at other weights. As market weights of hogs increase over 175 pounds, the liveweight gain is only slightly less efficient, in terms of the weight added for the quantity of grain fed. But proportionately more fat than lean is added when hogs are fed to more than 175 pounds.

Table 4.- Yield of product from different weights of barrows and gilts and per 100 pounds of feed concentrates fed

Item	Unit	Barrows and gilts weighing						
		150 lb.	175 lb.	200 lb.	225 lb.	250 lb.	275 lb.	300 lb.
		<u>Input - output per hog</u>						
Input:								
Total feed consumed	Feed units	794.5	909.5	1,027.7	1,149.8	1,276.3	1,408.3	1,546.3
Output: <u>1/</u>								
Liveweight	Pounds	170.3	195.3	220.3	245.3	270.3	295.3	320.3
Dressedweight	"	127.8	148.2	168.9	190.1	211.1	232.5	253.9
Separable fat	"	49.5	60.0	71.9	85.1	99.3	114.9	131.6
Separable lean	"	50.0	56.9	63.3	69.3	74.8	79.8	84.3
Offals:								
Fat offals	"	3.3	3.8	4.4	5.0	5.5	6.0	6.6
Lean offals	"	3.2	3.7	4.1	4.5	4.9	5.2	5.5
Total separable fat <u>2/</u>	"	52.8	63.8	76.3	90.1	104.8	120.9	138.2
Total separable lean <u>2/</u>	"	53.2	60.6	67.4	73.8	79.7	85.0	89.8
Total lean pork <u>3/</u>	"	88.0	99.1	108.7	116.7	122.9	127.0	129.0
Total residual fat <u>4/</u>	"	15.5	21.9	30.5	41.3	54.6	70.5	89.0
		<u>Output per 100 pounds feed consumed (in feed units)</u>						
Output: <u>1/</u>								
Liveweight	"	21.4	21.5	21.4	21.3	21.2	21.0	20.7
Dressedweight	"	16.1	16.3	16.4	16.5	16.5	16.5	16.4
Total separable fat <u>2/</u>	"	6.2	6.6	7.0	7.4	7.8	8.2	8.5
Total separable lean <u>2/</u>	"	6.3	6.3	6.2	6.0	5.9	5.7	5.5
Total lean pork <u>3/</u>	"	11.1	10.9	10.5	10.1	9.6	9.0	8.3
Total residual fat <u>4/</u>	"	1.9	2.4	3.0	3.6	4.3	5.0	5.8

1/ Includes breeding herd gains of 20.3 pounds per butcher hog reaching market weight. This gain is equivalent to 16.9 pounds of dressed weight or 15.4 pounds of edible product. The edible portion consists of 11.7 pounds of separable fat and 3.7 pounds of separable lean or 2.5 pounds of lean pork and 13.2 pounds of residual fat (lard equivalent). 2/ Separable lean or fat is that portion which may be separated with a knife. 3/ Excluding bone. 4/ Residual fat is defined as lard or fat backs and plates on a lard equivalent basis.

Adapted from: Atkinson, L. Jay and Klein, John W., Feed Consumption and the Production of Pork and Lard, USDA Technical Bulletin No. 917, Washington, D. C., June 1946.

Under average Corn Belt conditions, butcher hogs from 150 to 225 pounds, market weight, gain 21 to 21.5 pounds for each 100 pounds of corn, or its equivalent, fed (allowing for feed consumed and gain in weight of the breeding herd). At the extreme market weight of 300 pounds, 100 pounds of corn equivalent will produce, on the average, 20.7 pounds of hog.

From the standpoint of total grain use, weights to which hogs are fed are very important. About 75 million hogs are expected to be slaughtered in 1947-48. Feeding that many hogs to an average market weight of 225 pounds would require around 175 million bushels less corn equivalent than if they were fed to an average market weight of 250 pounds. At the lighter market weights, only about 450 million pounds less lean boneless pork would be produced, but around 1,300 million pounds less fat than at the heavier weights.

Table 5. - Feed consumption for specified gains in liveweight of hogs, per 100 pounds of gain ^{1/}

Change in weight of butcher hogs (pounds)	Concentrates consumed per 100 pounds gain			
	Feed units	Pounds	Index numbers (225-pound hog = 100)	
			Feed units	Pounds
0 to 200	466	407	99.5	99.0
200 to 225	489	448	104.2	109.0
225 to 250	506	470	108.0	114.3
250 to 275	528	496	112.6	120.6
275 to 300	552	523	117.8	127.3
200 to 250	497	459	106.1	111.7
225 to 275	517	483	110.3	117.4
250 to 300	540	509	115.2	123.9
200 to 300	519	484	110.6	117.8

^{1/} Feed and gain of breeding herd allocated to each butcher hog at 20.3 pounds of gain, 290 feed units, 268 pounds concentrates.

^{2/} The common denominator for all kinds of feeds which is equal in feeding value to 1 pound of average corn.

From: Atkinson, L. Jay, and Klein, John W., Feed Consumption and Marketing Weight of Hogs, USDA Technical Bulletin No. 894, Washington, D. C., July 1945.

Table 6. - Livestock prices per 100 pounds (except where noted), marketings and slaughter statistics, by species, October 1947 with comparisons

Item	PRICES						
	Annual		January - October		1946		1947
	Av. 1937-41:	1946	1947	September:	October:	September:	October:
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Cattle and calves							
Beef steers sold out of first hands, Chicago:							
Choice and prime	12.01	20.35	28.88	20.25	31.11	32.77	33.43
Good	10.52	18.44	26.00	19.58	24.97	29.43	29.55
Medium	8.94	16.22	22.21	17.44	19.55	22.60	23.51
Common	7.59	13.15	17.70	12.38	13.48	17.83	17.17
All grades	10.47	18.42	25.63	17.99	23.57	29.54	29.82
Good grade cows, Chicago	7.38	14.79	18.13	15.51	16.95	19.60	18.85
Vealers: Gd. and Ch., Chicago	10.34	16.21	24.56	16.17	18.72	25.08	26.20
Stocker and feeder steers							
Kansas City	8.36	15.43	20.49	15.99	16.42	21.65	20.96
Av. price received by farmers:							
Beef cattle	7.41	14.00	18.88	13.80	16.00	20.20	19.30
Veal calves	8.72	14.80	20.25	15.20	16.20	21.70	21.30
Hogs							
Av. market price, Chicago:							
Barrows and gilts	-	16.85	25.34	16.25	23.19	28.17	28.09
Sows	-	15.92	21.56	16.25	20.81	24.83	26.76
All purchases	7.97	16.65	24.34	16.25	22.82	26.66	27.81
Av. price received by farmers:							
Hogs	7.59	16.16	24.53	16.10	22.20	27.20	27.60
Corn, cents per bushel	62.9	144.8	178.4	173.0	171.0	240.0	223.0
Hog-corn price ratio, U. S. 1/.....	12.8	11.4	14.3	9.1	13.5	11.3	12.4
Sheep and Lambs							
Lambs, gd. and ch., Chicago	9.82	17.67	23.49	19.16	21.69	24.51	22.86
Feeding lambs, gd. and ch., Omaha	8.70	2/16.05	2/20.77	17.26	17.90	22.60	21.05
Ewes, gd. and ch., Chicago	4.43	8.30	9.13	9.13	9.33	9.08	9.44
Av. price received by farmers:							
Sheep	4.20	7.24	8.35	7.52	8.43	8.62	8.42
Lambs	8.28	14.78	20.29	15.70	17.40	21.60	20.30
Meat							
Wholesale, Chicago:							
Steer beef, carcass (good, 500-600 lbs.)	16.09	25.52	40.60	25.10	37.17	47.65	45.86
Composite hog products	11.07	18.67	29.36	17.61	26.20	33.06	32.53
Lamb carcasses (good, 30-40 lbs.)	17.11	29.48	3/42.60	31.78	40.13	46.97	41.30
B.L.S. index retail meat prices 4/.....	100.9	153.4	---	188.5	190.7	240.6	---
Index income of industrial workers							
1935-39=100	120.4	262.4	---	292.0	293.1	333.9	---
Livestock Marketing and Slaughter Statistics							
	Unit						
Meat-animal marketings:							
Index numbers (1935-39=100) ...	--	109	134	149	74	173	169
Stocker and Feeder shipments to:							
8 Corn Belt States							
Cattle and calves	Thous.	-	2,257	2,134	388	730	395
Sheep and Lambs	Thous.	-	2,788	2,583	865	941	556
Slaughter under Federal Inspection:							
Numbers: 5/							
Cattle	Thous.	9,999	8,714	12,842	360	1,103	1,407
Calves	Thous.	5,571	4,595	6,498	364	651	719
Sheep and lambs	Thous.	17,609	17,011	13,744	1,300	2,005	1,458
Hogs	Thous.	41,225	33,826	37,360	438	3,114	2,948
Average live-weight:							
Cattle	lb.	933	953	6/929	912	898	906
Calves	lb.	191	193	6/203	213	246	244
Sheep and lambs	lb.	86	94	6/94	90	94	89
Hogs	lb.	234	258	6/260	264	246	247
Meat Production:							
Beef	Mil. lb.	5,002	4,420	6/6,321	168	503	653
Veal	Mil. lb.	597	493	6/740	43	87	96
Lamb and mutton	Mil. lb.	710	727	6/596	54	84	60
Pork (excluding lard)	Mil. lb.	5,530	5,156	6/5,472	71	462	418
Storage stocks end of month:							
Beef	Mil. lb.	-	---	---	73	59	85
Pork	Mil. lb.	-	---	---	100	143	196
Lamb and mutton	Mil. lb.	-	---	---	9	11	7
Total meat and meat products ..	Mil. lb.	-	---	---	228	266	381
Percent packing sows are of Fed-erally inspected hog slaughter	Percent	-	15	---	24	10	24

1/ Number of bushels of corn equivalent in value to 100 pounds of live hogs. 2/ Average of prices for January, February, March, April, August, September, and October. 3/ Average of prices for January, February, March, April, July, August, September, and October. 4/ Meat, poultry, and fish: Bureau of Labor Statistics, 1935-39=100. 5/ 1947 slaughter excludes Hawaii and Virgin Islands. 6/ Estimated from weekly data.

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Table 7. - Livestock slaughter and meat production, by species, average 1937-41, annual 1943-47, and forecast 1948

Item	Unit	1937-41: average:	1943	1944	1945	1946	Indi- cated 1947	Fore- cast 1948
<u>Livestock slaughtered:</u>								
Cattle	Thous.	15,215	17,845	19,844	21,691	19,824	22,000	20,000
Calves	"	9,428	9,940	14,242	13,645	12,168	14,000	13,000
Sheep and lambs	"	21,874	27,073	25,355	24,639	22,814	19,000	17,000
Hogs	"	65,642	95,226	98,068	71,891	76,244	74,500	72,000
<u>Total live weight slaughtered:</u>	"							
Cattle	Mil. lb.	13,593	16,253	17,687	19,664	17,883		
Calves	"	1,807	2,080	3,155	3,007	2,587		
Sheep and lambs	"	1,882	2,437	2,254	2,310	2,124		
Hogs	"	15,038	23,412	23,282	18,013	18,857		
<u>Total live weight slaughtered:</u>	"	32,320	44,182	46,378	42,994	41,451		
<u>Average live weight slaughtered:</u>	"							
Cattle	Lb.	893.4	910.8	891.3	906.6	902.1		
Calves	"	191.6	209.2	221.5	220.4	212.6		
Sheep and lambs	"	86.1	90.0	88.9	93.7	93.1		
Hogs	"	229.1	245.9	237.4	250.6	247.3		
<u>Meat Production:</u>								
Beef	Mil. lb.	7,198	8,575	9,115	10,279	9,378	10,500	9,500
Veal	"	1,022	1,167	1,738	1,661	1,440	1,600	1,500
Lamb and mutton	"	884	1,104	1,024	1,054	970	800	700
Pork exclud. lard	"	8,573	13,640	13,304	10,697	11,173	10,300	9,800
<u>Total meat</u>	"	17,677	24,486	25,181	23,691	22,961	23,200	21,500
<u>Lard production</u>	"	1,942	2,865	3,054	2,066	2,138	2,400	2,200
<u>Average dressed weight</u>								
Cattle	Lb.	475	482	461	476	474		
Calves	"	109	118	122	122	119		
Sheep and lambs	"	41.0	40.9	40.5	42.9	42.7		
Hogs, exclud. lard	"	131	143	136	149	147		