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FACTORS INFLUENCING THE TIME OF BUYING FEEDER STEERS AND OF SELLING THEM AS CHOICE SUMMER-FED STEERS

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SUMMARY

1. The economic factors discussed are factors affecting the financial returns for choice light-weight grain-fed steers marketed in the late summer and early fall.

2. Prices used are for the most part those at Kansas City as quoted in the *Daily Drovers Telegram*.

3. The time of buying, which in turn affects the length of the feeding period, is as important as the time of selling.

4. Some factors determine, in part, whether to buy early or late in either the fall or in the spring buying periods.

5. The sizes of the corn crops, both the old and new, are responsible for many of the cattle-price changes. A large corn crop tends to furnish more grain-fed cattle for the 12 months after November than a small corn crop.

6. The profits or losses on choice grain-fed steers sold from January to May are more important in determining the strength of the feeder demand the following August to September than is the size of the corn crop.

7. Price declines or advances for any short period tend, in the absence of more important influences, to reverse the price trend for the same period the following year by causing the cattle feeders to market their supply at the time the price was highest the year before.

TABLE OF CONTENTS

FOREWORD

W. E. GRIMES

Beef-cattle production involves hazards. These hazards can be reduced to the minimum by following the best methods of producing and marketing the cattle. Where cattle are purchased for feeding or grazing, the hazards are increased since the marketing problem is doubled by the necessity of buying as well as selling. Past experience is the cattleman's guide in these matters. He is dependent upon the experiences of others as well as his own experiences. In this publication studies of the past experiences of cattlemen in buying and selling steers for one phase of beef production and under different conditions are presented, The conclusions should be helpful to many cattlemen in arriving at satisfactory judgments concerning when to buy and when to sell this type of steer. In this way the hazards in beef-cattle production arising in marketing the cattle should be reduced.

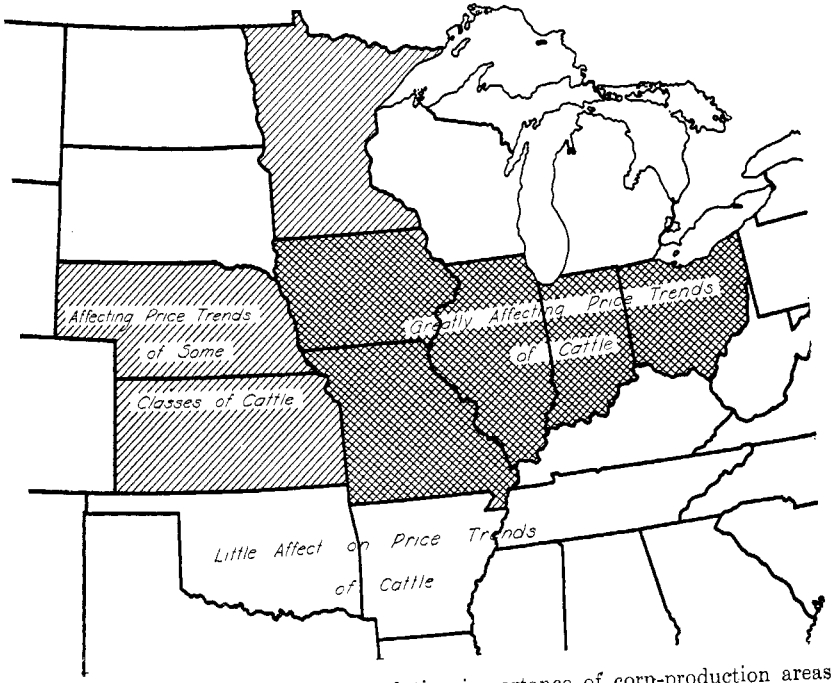


FIG. 1.—Outline map showing relative importance of corn-production areas in determining cattle-price trends. Note that corn production in the dark or hatched area greatly affects the cattle-price trends; that corn production in the lighter shaded areas affects only some classes of cattle; and that corn production in the clear areas has little effect on cattle prices.

FACTORS INFLUENCING THE TIME OF BUYING FEEDER STEERS AND OF SELLING THEM AS CHOICE SUMMER-FED STEERS[1]

HOMER J. HENNEY

INTRODUCTION

The cattle industry can and should be divided into at least six separate types for a clear analysis of the market factors affecting the returns from any type of beef production. The type considered in this bulletin is full feeding choice steers for the late summer and early fall market.

Profitable marketing of choice fat steers during the late summer and early fall necessitates a knowledge of buying, feeding, and selling quite different from that required for profitable feeding for other periods of the year or for handling other classes of cattle profitably.

To simplify and make clear the analysis of market factors affecting returns from beef production, different methods of handling cattle can be divided into at least six major types. They are as follows:

1. Full feeding choice steers for the late summer and early fall market.
2. Full feeding during the winter.
3. Summer grazing.
4. Wintering and growing out.
5. Maintaining a breeding herd.
6. Creep feeding.

Type 1.—Full feeding for the late summer and early fall market[2] is carried on the most extensively by corn-belt men who buy good-quality grass cattle in the fall, winter them well, and full feed from late winter on or full feed while on blue grass during the summer. (Fig. 1.) The most of the remainder of the grain-fed cattle on the market for that period come from Missouri, Kansas, or Oklahoma cattlemen who short feed well-wintered, good-quality steers after July 1. A small portion of the fat cattle reaching the late summer market comes from steer feeders who feed fleshy steers a short feed in a dry lot.

THE INFLUENCE OF BUYING AND SELLING ON MARGINS

All of the operations affecting net returns from the first cost in producing beef to the last sale may well be classified under three headings as buying, feeding, and selling. It appears that over any

1. Contribution No. 78 from the Department of Agricultural Economics.

2. Full feeding for the late summer and early fall market implies the feeding of choice quality steers. The handling of plain steers fits into type 2 of beef production or some other possible type not given. Plain steers do not fit into this type of beef production so that reference to steers, stockers, or feeders implies choice quality of both light and heavy weights.

considerable period of time, the buying of feeder cattle, the feeding of these cattle, and their sale are each about equally important in determining profits or losses. An old cattle slogan is, "A good purchase is a profit half made." This is mostly true on heavy steers, but may not be so important as feed costs, management and feeding, or timely selling when handling younger cattle.

Situations have occurred where the cattle were purchased wisely, but sold on the lowest market during the fall selling period. A second type of situation has occurred when purchase of the steers was made at or near the low levels of a three-month purchasing period either in the fall or spring and they were sold at or near the high price of a three-month fall selling period, but the whole undertaking resulted in a net loss, due to improper care and feeding. A third situation happens quite often when the feeder may be practicing the most efficient methods of producing beef, but is not able to offset losses due to high purchase or low sale prices, or both.

FEEDING OR NOT FEEDING IN ANY YEAR

It is not the purpose of this bulletin to point out the years in which it will pay to feed and the years when it will not pay to feed. Such a drastic change in any feeding program is often a disadvantage in the long run. The evidence herein presented is not definite enough to indicate the years in which it would pay to hold over surplus corn and not feed cattle. Neither is it strong enough to warrant feeding twice the usual number of cattle. The data are sufficient to warrant a regular cattle feeder changing only slightly the number of cattle fed. (Table XII and fig. 12.)

If a feeder has had experience in feeding and has the equipment and feed to handle approximately 100 steers, evidence on August 1 or September 1 of each year usually is definite enough to warrant a change to 75 or 125 steers that will be finished for the fall market 10 to 12 months later. Evidence as to how many cattle to have ready to sell is more definite as the time of marketing is approached. The 60- to 90-day feeder who buys in June and July has two crops of corn to guide him in his decision, the crop growing and the crop harvested the fall before. (Table I and fig. 2.)

TABLE I.—CORN PRODUCTION IN BUSHELS.

Hundred thousands, i. e., 000,000 omitted.

YEAR.	Kansas.	Five corn-belt states. (*a*)	Eight corn-belt states. (*b*)	United States.	Type of corn year. (*c*)
1905	193	1,190	1,697	2,707	L
1906	195	1,275	1,770	2,927	L
1907	155	1,141	1,519	2,592	S
1908	156	1,065	1,474	2,669	S
1909	155	1,275	1,597	2,772	L
1910	170	1,324	1,754	2,886	L
1911	126	1,158	1,514	2,531	S
1912	174	1,475	1,911	3,124	L
1913	23	1,071	1,301	2,446	S
1914	108	1,153	1,527	2,673	A
1915	172	1,210	1,658	2,994	L
1916	69	1,088	1,437	2,567	S
1917	119	1,418	1,877	3,065	L
1918	44	1,126	1,403	2,502	S
1919	64	1,233	1,552	2,811	A
1920	133	1,365	1,880	3,208	L
1921	97	1,244	1,705	3,068	A
1922	98	1,282	1,695	2,906	A
1923	122	1,323	1,872	3,053	L
1924	131	955	1,397	2,309	S
1925	110	1,470	1,964	2,916	L
1926	61	1,259	1,607	2,692	S
1927	177	1,051	1,647	2,786	S
1928	179	1,308	1,858	2,840	L
1929	106	1,137	1,662	2,662	S
1930	83	875	1,344	2,094	S
1931 (*d*)	126	1,250	1,697	2,715	A
1932					
1933					
1934					
1935					

(*a*) Ohio, Indiana, Illinois, Iowa, and Missouri.
(*b*) Include the above five states, and Nebraska, Kansas, and Minnesota.
(*c*) L, large; S, small; A, average.
(*d*) Preliminary.

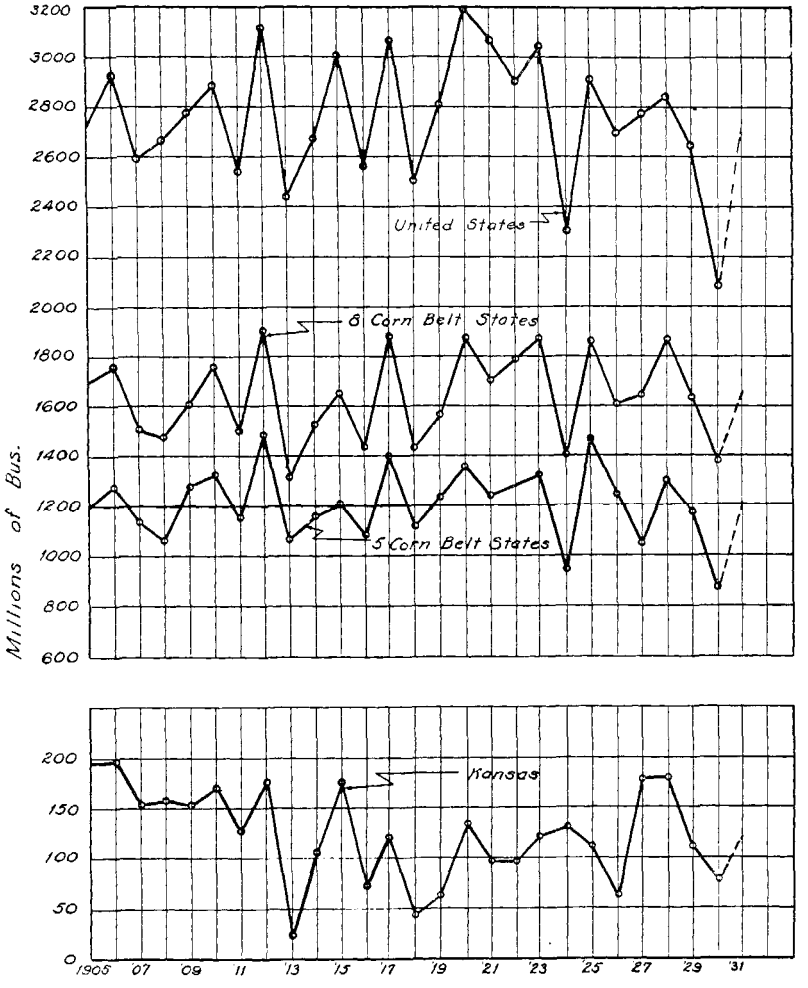


FIG. 2.—Bushels of corn produced in different areas. (Table I.)

In the spring the purchaser of feeders has only the corn crop harvested the fall before and the change in general business conditions from fall to spring to indicate what to do. The 12-month cattle feeder has only the corn crop at the time of the purchase of the cattle in the fall to help him decide whether to feed 75, 100, or 125 steers, if 100 is the usual number fed.

SIZE OF CORN CROP AND PRICES OF STEERS

The corn produced in the eight major corn-belt states affects the number of choice and good steers slaughtered at Chicago in September and October the following year. (Table II and fig. 3.)

TABLE II.—CORN PRODUCTION IN EIGHT MAJOR CORN-BELT STATES (*a*) AND SLAUGHTER OF FED STEERS AT CHICAGO THE FOLLOWING FALL (*b*).

Rank from smallest to largest corn production.	Year.	Corn production (bushels).	Number of fed steers slaughtered [illegible] fall.
1	1924	1,397,000,000	111,906
2	1926	1,606,000,000	99,098
3	1927	1,646,000,000	103,482
4	1929	1,662,000,000	152,796
5	1922	1,695,000,000	104,619
6	1921	1,705,000,000	135,613
7	1928	1,858,000,000	157,588
8	1923	1,871,000,000	132,395
9	1925	1,964,000,000	159,848
Average three years of smallest corn production (A)	.....	1,550,000,000	104,825
Average three years of largest corn production (B)	.....	1,898,000,000	149,810
Percentage increase, A to B	.....	+20%	+43%

(*a*) Refer to Table I for the eight states.
(*b*) Slaughter of good to choice steers, Chicago, in September and October one year later.

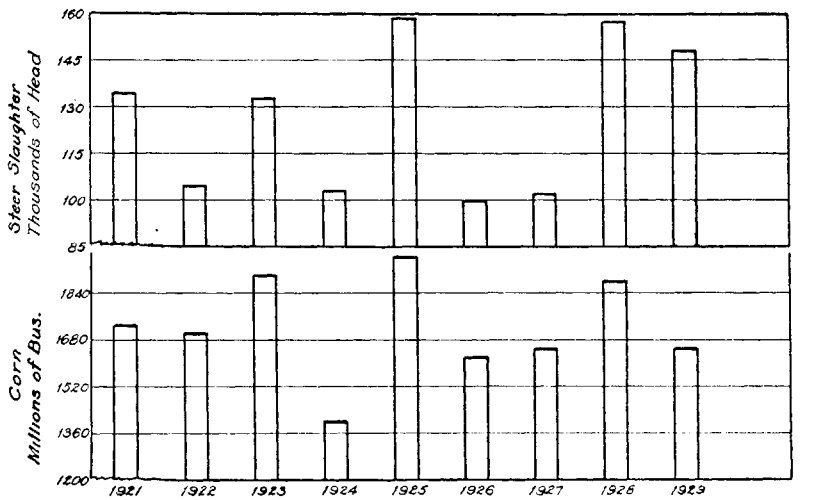


FIG. 3.—The relation between corn production in the eight major corn-belt states (Table I) and steer slaughter at Chicago in September and October one year later (Table II).

A large corn crop increases the market supply of fed steers the following September and October, while a small crop tends to decrease this supply. (Table XII and curve 1 of fig. 12.) Table II shows the years ranked according to corn production and the number of cattle slaughtered the following fall. The three smallest corn crops (1924,1926, and 1927) averaged 1,550,000,000 bushels and the September-October steer slaughter at Chicago for the three falls following these small crops average 104,825 head. The average for the three largest corn crops (1923,1925, and 1928) was 1,898,000,000 bushels, and the September-October steer slaughter at Chicago for the three falls following these crops average 149,810 head. An increase of 10 per cent in a corn crop compared to the preceding crop

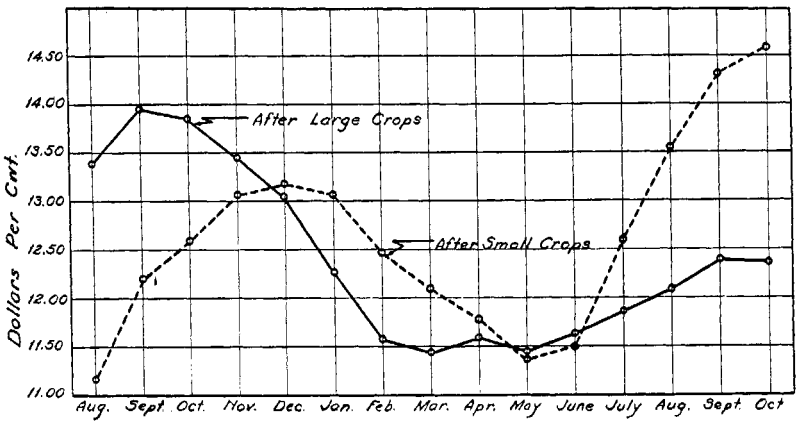


FIG. 4.—Trend of choice steer prices at Chicago for 15 months after small and large corn crops. (For prices and crops see Table III.)

has resulted in approximately a 15 to 20 per cent increase in the number of fed steers slaughtered at Chicago the following fall. Or, in other words, an increase of 10 million bushels of corn results in an increase of approximately 1,500 fed steers slaughtered at Chicago in September and October of the following fall.

In the fall months of years following large corn crops the prices of fat steers are usually lower than in the previous fall. In the fall months of years following small corn crops the prices of fat steers are usually higher than in the previous fall. (Tables III and IV and figs. 4 and 5.)

In deciding how many steers to feed for any fall market one should consider the size of the corn crop. Even though a small corn crop may decrease the supply of fed steers, the level of fat steer prices may not be sustained or advanced if general business activity is declining, but in the past when business was normal a small crop resulted in higher prices before the end of the next 12 months. (Figs. 4 and 5.)

FIG. 5.—Trend of good steer prices at Chicago for 14 months after small and large corn crops. (For prices and crops see Table IV.)

THE TIME OF BUYING AND MARGINS[3]

Grain-fed steers sold during the period July to November have as a rule been purchased at three different times of the year, depending on the way the purchaser wanted to prepare his cattle for the fall fat-steer market.

The cattleman prefers buying fleshy feeders in May or June for a 60- to 90-day feed. The purchaser whose feed is mostly grain and who is short of roughage will purchase the heavier feeder type of steer in the spring. Such cattle are usually fed on grass at least a part of the season. The corn-belt farmer prefers a younger, thinner grass steer purchased the fall before so that he can secure a large gain with cheap roughage and a smaller quantity of corn. In this type of feeding the cattle are roughed through the winter in good condition and finished with grain on grass or in the dry lot in the late summer.

Any of the three times of purchase has its place, but switching the time of buying from one season to another should not be followed by the same type of feeder. The feeder who buys at the time his feeds can be utilized to the best advantage can pay the same price as the other purchaser and afford to sell the cattle on a lower market because of savings in feed.

FALL, SPRING, OR EARLY SUMMER BUYING

The margin between the purchase and sale price of steers purchased in the fall or spring is shown graphically in figures 6 and 7

3. The term "margin" as used in this publication refers to the difference between the purchase price and the sale price per hundred pounds.

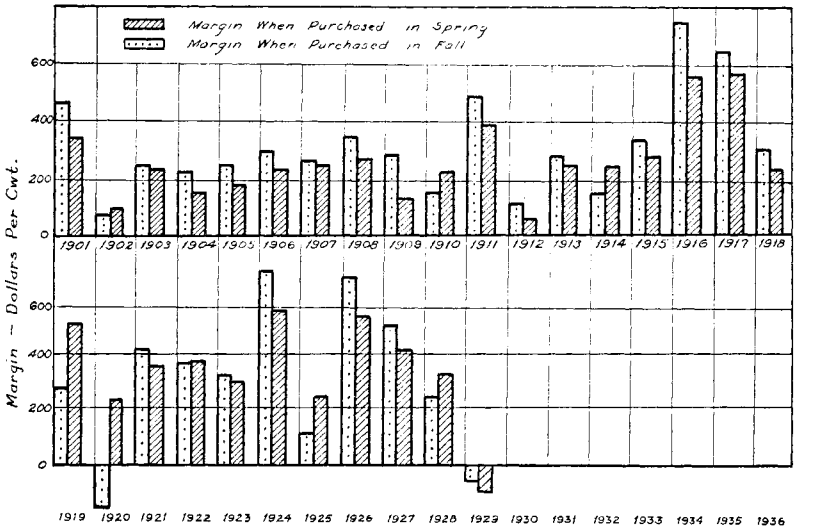


FIG. 6.—Margin in dollars per hundredweight between purchase price of feeders at Kansas City and sale price of fat steers at Chicago. (Refer to Table V for prices.)

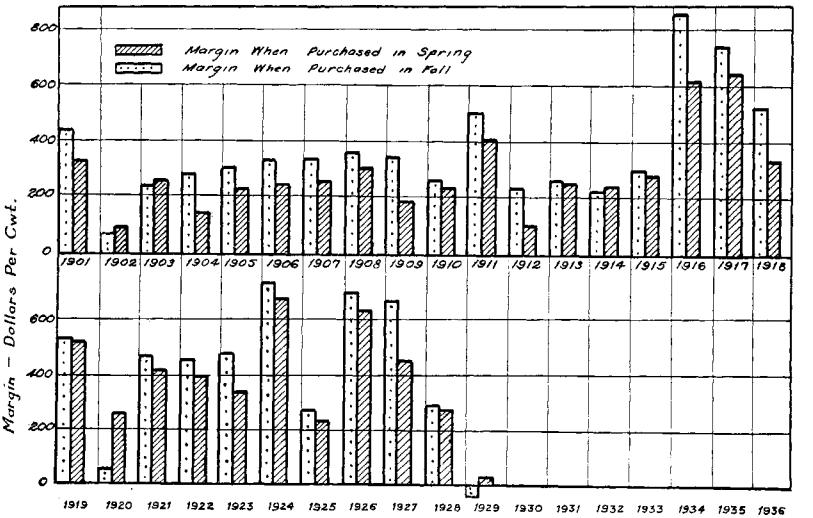


FIG. 7.—Margin in dollars per hundredweight between purchase price of stockers at Kansas City and sale price of fat steers at Chicago. (Refer to Table VI for prices.)

and the figures are given in Tables V and VI. An early summer purchase is a speculative commercial feeding proposition and the margin is not shown in the tables.

The steers purchased in the fall probably were not and should not hare been so fleshy as the steers purchased in the spring. Steers purchased in the fall are usually fed on a weaker grain ration, if any at all, the first part of their feeding period, and fed twice as long to attain approximately the same degree of finish and make the same gain. Steers purchased in the fall, because of the cheaper feed used, will not require so great a margin above first cost to break even as spring-purchased steers. Attention is called to the fact that the margins as shown in figures 6 and 7 were less in most cases when the steers were purchased in the spring than in the fall.

In some cases the loss on rough feed because of deterioration caused by weather may be greater by spring than the saving made by postponing buying the cattle until spring. No rule can be laid down for all cattlemen to follow as to the time to buy the steers that are to be prepared for the fall market.

Choosing Between Fall or Spring Purchase.— Factors which partially indicate as early as August whether the fall or spring purchase will net the greatest margin are, first, the size of the corn crop in the eight important corn-producing states; second, the net returns from feeding operations conducted during the previous winter; and third, the trend in beef-cattle production in the United States.

The largest margin was usually obtained by buying stockers in the fall and selling them as fat cattle the next fall. In only three years, 1902, 1920, and 1929, from 1901 to 1929, does Table VII show the greatest margin was made by buying stockers in the spring. In the spring months of all of these three years fat cattle were selling at heavy losses. These three years are the only ones from 1901 to 1930 when there was no question but that all steers, regardless of how handled, lost money. In Table VII the numbers one to four do not always mean that there was a profit, but they do mean that if there was a profit it was greater for the class of purchase numbered one (1), or if there was a loss for all classes it was less than for any other of the three classes purchased.

In only four years from 1901 to 1929 was it more profitable to purchase feeders than stockers if the purchase was in the fall, Each of these years—1903, 1913, 1915, and 1926 (see Table VII)--either followed heavy winter-feeding losses or large corn crops the year before. The fall of 1903 was after the 1902 corn crop, which was the largest on record up to that time, and is the largest on record when it is compared with the crop of the previous year. The fall of 1913 was after the big corn crop of 1912, which was by far the largest crop in the history of the United States up to that time. The fall of 1915 followed heavy winter feeding losses in the winter of 1914-'15. These losses were due more to quarantine regulations

and foot and mouth disease than to the supply of corn in the fall of 1914. The fall of 1926 was after the large, late-maturing, soft corn crop of 1925.[4]

Apparently excessively large corn crops tend to result in less feeding margin than short corn crops, and these lesser margins reduce the demand for stockers and feeders the following fall. It appears from these studies that in such falls beef fleshing may be purchased on the hoof cheaper than it can be put on with feed.

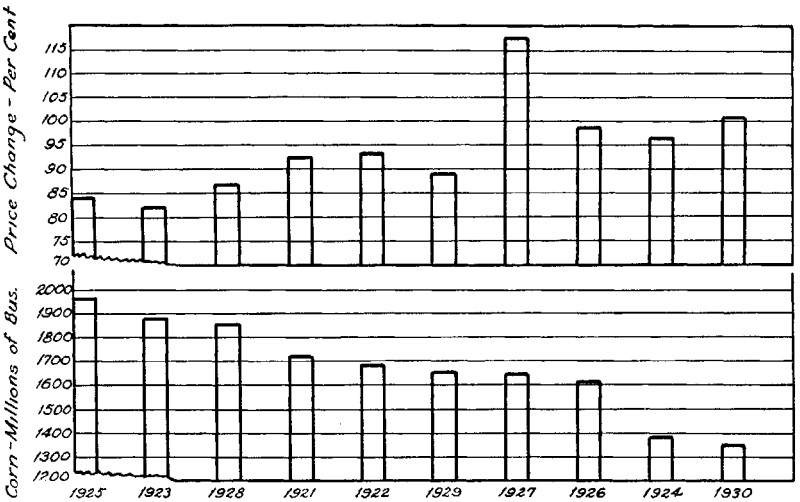


FIG. 8.—Relation between corn production in the eight major corn-belt states and the change in price of feeders from early to late fall. (Early prices are August-September average of weekly tops, Kansas City, Mo., for feeders. Late prices are November-December average of weekly tops, Kansas City, Mo., for feeders. (See Table VIII.)

The opposite seems to be true in years of small corn crops. The purchase prices in the fall of small corn-crop years have tended to be lower than could have been paid for the cattle on the basis of the prices received for the steers when they were finished and sold the next fall.

The chances are apparently in favor of fall purchases and against spring purchases. The demand for steers toward spring to use up a little roughage and later go on grass is usually so strong that spring purchases more often net a lesser margin than fall purchases. Table VII shows only five years when spring purchases would have netted more than fall purchases.

EARLY OR LATE FALL BUYING

The fall price (August to November average) of the class of steers that can be converted into fat steers by September and October of the next fall is affected by the quantity of corn maturing during

4. Refer to figure 2 for corn production in the United States.

these months and also by the supply of fed steers that will be offered during this period. The previous corn crop is a major factor in determining the number of fed steers that are marketed in August at the beginning of this buying period. The current corn crop is the major factor in determining the number of fed steers that are offered in November or at the end of this buying period. A large corn crop the current year after a previous small crop usually results in a steeper down trend in the prices of stockers and feeders from August to November than any other combination of the two corn crops. The years 1925 and 1928 were both of that type. In both of these years there was more than the average decline in stocker prices from August to November. The trend of stocker and feeder prices during the buying period from August to November is influenced by the size of the old and new corn crops. (Fig. 8.)

Different combinations of the old and the new corn crops since 1920 have resulted in the following trends from August to November on prices of choice feeder cattle:

A current small crop after a previous large crop has resulted in a steady to higher trend of feeder-cattle prices from August to November.

A current small crop after a previous small crop has resulted in a steady to 10 per cent downward trend of feeder-cattle prices from August to November.

A current large crop after a previous large crop has resulted in a steady to 10 per cent downward trend of feeder-cattle prices from August to November.

A current large crop after a previous small crop has resulted in a decline in feeder-cattle prices from August to November of 15 to 20 per cent.

The corn crops are not wholly responsible for an upward or downward trend of feeder prices from August to November. In 1927 (fig. 8) the average price of replacement cattle in November and December would have been estimated at about 95 per cent of the August-September price, judging from the corn crop alone. The November-December price was actually 118 per cent of the August-September price, or 23 per cent higher than the corn crop would have indicated. The exceedingly large profits in feeding the winter before disturbed the usual corn crop feeder price relationship. Only when business is abnormally high or low, or when radical changes in cattle production are apparent, should one expect the relation to be far different than is indicated in figure 8. (For further verification on this point see Table XIII and figure 13.)

EARLY OR LATE SPRING BUYING

Two major forces are important in determining the price trend of feeder steers at this period of the year. The first is the net return on steers purchased from March to June of the year before, and the second is the trend of fat-cattle prices in the current period.

In considering the first factor it may be assumed that the purchase of the steers in a particular year was made in March, and by May the same cattle could have been bought for less money. In

this case there is a tendency for the purchaser the next year to wait until after March to buy his feeding cattle. This causes May prices to be higher than March the next year, and March rather than May the best time to buy. (Figs. 9 and 14.)

In years when the May feeder price was 5 per cent less than the February price: or when the May buying price was 95 per cent of the February price, there was a tendency for the trend the next year to be 12 to 17 per cent higher. (Table XIV and fig. 14.) Likewise, when the late spring price was higher than the early spring price by about 15 per cent, as in 1927 and 1929, in the succeeding year in each case, 1923 and 1930, the May price was 5 to 10 per cent less than the February price. The reason for this is the shifting of

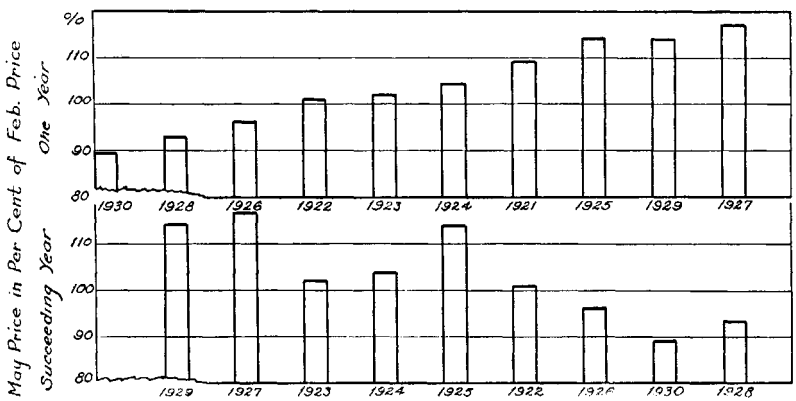


FIG. 9.—Relation between the price trend of feeders from February to May one year and the succeeding year. (All prices are monthly top prices, Kansas City, Mo., taken from *Daily Drovers Telegram*. See Table IX.)

feeder demand within the March to May buying period from early to late spring, or, in other words, to the time where the cattleman could have made a better purchase the year before. Errors from the estimate are mostly due to radical changes in the prices of fat steers at this period,

In considering the second factor in determining whether to buy early or late, the trend of fat steer prices during this period seems most important. After large crops, the season's low price tends to be early in February or March with a steadying trend to May. (Figs. 4 and 5.)

After small corn crops the general average level of prices is not so low, but the spring low tends to be later in the winter season, and this tends to result in feeder prices that are steady to lower from March to June. (Figs. 4 and 5.)

Four different combinations of the two major forces are possible any year. They would tend to give the following trends from March to June:

1. **Unusual profits** by feeding from spring to fall of the previous year and a large corn crop just harvested indicate a 15 to 20 per cent advance in price of feeders from March to June.

2. **Unusual profits** by feeding from spring to fall of the previous year and a small corn crop just harvested indicate a steady to strong market for feeders from March to June.

3. **Heavy losses** from feeding from spring to fall of the previous year and **a large corn crop** just harvested indicate a steady to lower price trend for feeders from March to June.

4. **Heavy losses** from feeding from spring to fall of the previous year and **a small corn crop** just harvested indicate a 10 to 15 per cent decline in feeder prices from March to June.

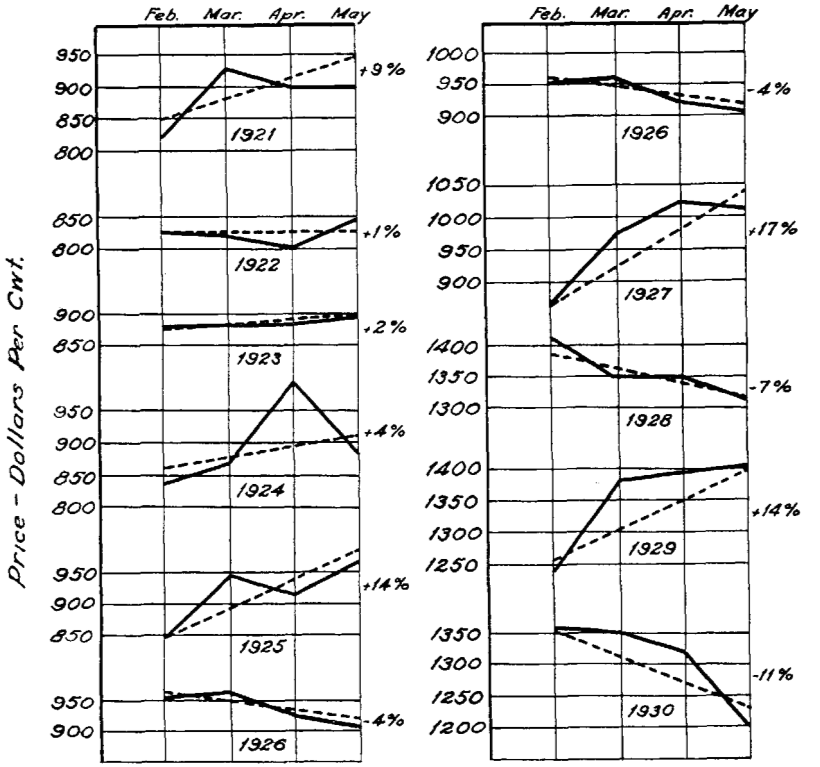


FIG. 10.—Price trend of choice feeders from February to May. (Table X.)

BUYING OR NOT BUYING IN MIDSUMMER

Some cattlemen, especially the commercial type of finisher, prefer feeding the steers only a short time previous to selling in September and October. The type of steer demanded is one that is usually off of grass or fed in a dry lot a few weeks and fleshy enough to show some hard fat with a 60- to 90-day feed. This steer, when finished, sells in competition with steers purchased at the other two times—

the stocker steer purchased in the fall and handled on the deferred-feeding system, and the feeder steer purchased in the spring and finished for the fall market.[5] The trend of prices of fat steers from June to September determines pretty much the trend of prices of feeder cattle purchased for such a 60- to 90-day feed. No definite rule can be laid down as to time to buy. The two corn crops, one growing and the one harvested the fall before, are the major forces in determining the risks in feeding for this period. Combinations of the old and new corn crops tend to result in the following trends for fat steers from July to October:

Type I.—A current large corn crop following a previous small crop has resulted in a 15 to 30 per cent advance in fat-steer prices from July to November.

Type II.—A current large corn crop following a previous large crop has resulted in a steady to 5 per cent higher price for fat steers from July to November.

Type III.—A current small corn crop following a previous small crop has resulted in a steady to 10 per cent higher price for fat steers from July to November.

Type IV.—A current small corn crop following a previous large crop has resulted in a steady to strong fat-steer price from July to November.

In only three of the 23 years from 1908 to 1931 has the best price of the September-October period been less than the best July price. Sometimes the advance from July to October did not pay for the additional feed costs. The steady to lower trend, when it occurred, was due, for the most part, to a combination of corn crops, such as a small crop after a large one, or to a drastic decline in consumer demand.

THE TIME OF SELLING AND MARGINS

The average price for fat steers from July to November is not of so much importance after the steers have been purchased and are being finished for market. If the business situation is demoralizing the cattle market, or there is realization on the part of cattlemen that there are too many fat cattle, it is too late to be out of or into full feeding of cattle for the September-October market. The important thing to consider is whether to sell early or late in the fall period.

SELLING EARLY OR LATE IN THE FALL

The factors causing the upward or downward trend of prices from July to November have just been explained. Two factors, however, should be considered in early August. The first is the size of the old and new corn crops; the second is the time of the peak price the previous fall. Shippers tend to hold for the period that was highest the year before, which tends to shove the peak earlier or later by 60 to 90 days than it was the previous year.

A July-August peak in one year tends to throw the peak over to November or December of the next year. (Table XI and fig. 11.) A November-December peak tends to throw the peak the next year forward to August or September.

5. Mimeographed report, Kansas Agricultural Experiment Station, for deferred-feeding system, available from Department of Animal Husbandry. May, 1932.

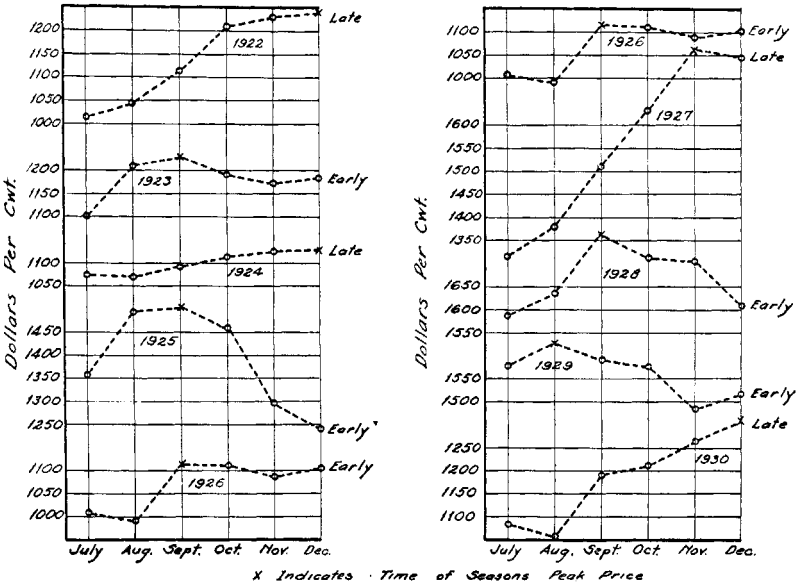


FIG. 11.—Effect of the time of the July to December peak price of choice fat steers on the time of the peak price of the same class of cattle the next year. (For prices see Table XI.)

The following four combinations of the time of the peak price in the preceding year and of the size of the corn crop for the current year are apparently more responsible for the shift in the time of the peak price from August to October than any other set of factors:

1. An **early** peak price in the previous year and a **large** corn crop indicates a peak price in October or November.
2. An **early** peak price in the previous year and a **small** corn crop indicate a peak price in November or December.
3. A **late** peak price in the previous year and a **large** corn crop indicate a peak price in August or September.
4. A **late** peak price in the previous year and a **small** corn crop indicate a peak price in September or October.

CONCLUSIONS

1. It was usually more profitable to buy feeders late in the fall if there was a large corn crop that year.
2. In years following heavy winter-feeding losses, fall purchases of feeding steers rather than stockers have tended to net the greatest margin if finished for the next summer and fall market.
3. Stockers purchased in the fall and sold as grain-fed cattle the next fall, if handled on the deferred-feeding system, usually make a greater margin than feeders purchased either in the fall or spring or stockers purchased in the spring.

4. A corn crop 10 per cent larger than normal has tended to result in a supply of fed steers 15 to 20 per cent, above normal at Chicago the next fall.

5. A large corn crop in the corn belt has resulted in more than the usual fat-cattle price decline of approximately 10 per cent from October to January.

6. The usual drop in fat-steer prices from October to April has been 5 to 8 per cent in years of small corn crops.

7. The usual drop in fat-steer prices from October to April has been 15 to 20 per cent in years of large corn crops.

8. A large portion of the October to April decline in cattle prices has come in December and January in years of large corn crops.

9. Full feeding choice steers for the late-winter market from the standpoint of possible market declines has been more risky than full feeding for any other market in the year.

10. The risks in holding choice steers on feed from October to January have not been so great after small corn crops as after large corn crops.

11. May and June fat-steer prices have seldom been above the previous October and November prices. Only with a very small corn crop has there been a higher price in May than was paid in October and November. June has tended to be higher than April or May, especially if prices in May were lower than in April.

SUPPLEMENTARY STATISTICAL VERIFICATIONS

The supply of good and choice steers offered at Chicago during the fall months tends to be influenced both by the corn produced the year before and the seasonal changes in the price of corn previous to August. (Fig. 12.) Apparently the new corn crop and corn-price changes after August affect very little the supply of long-fed cattle, or, as they are sometimes referred to, old-crop cattle. The last column of Table XII shows two large deviations from the estimates of supplies of about 20 per cent, while in all the other seven years the deviations were negligible so far as practical uses are concerned.

TABLE III.—MONTHLY AVERAGE PRICE OF CHOICE STEERS, CHICAGO, AFTER YEARS OF SMALL CORN CROPS AND AFTER YEARS OF LARGE CORN CROPS.

YEAR.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.
After Four Years of Small Corn Crops															
1924	$10.55	$10.73	$11.07	$11.11	$11.20	$10.59	$10.59	$11.02	$10.79	$10.66	$11.19	$13.50	$14.88	$14.94	$14.54
1926	9.98	11.11	11.10	10.92	11.00	11.50	11.96	12.30	12.59	12.23	12.35	13.17	13.72	15.01	16.32
1927	13.72	15.01	16.32	17.66	17.59	17.58	16.09	14.90	14.35	14.18	14.43	15.82	16.31	17.58	17.20
1930	10.58	11.97	12.12	12.53	13.09	13.02	11.04	10.47	9.36	8.17	8.05	8.06	9.42	9.65	10.16
4-year av	$11.21	$12.20	$12.65	$13.06	$13.22	$13.17	$12.42	$12.17	$11.77	$11.41	$11.50	$12.64	$13.58	$14.29	$14.55
After Four Years of Large Corn Crops															
1922	$10.44	$11.02	$12.01	$12.34	$12.48	$11.27	$10.38	$9.92	$9.89	$10.28	$10.83	$10.91	$12.02	$12.27	$11.70
1923	12.02	12.27	11.70	11.64	11.70	11.11	11.12	11.62	11.95	11.32	10.58	10.68	10.55	10.73	11.07
1925	14.88	14.94	14.54	12.80	11.90	11.11	10.91	10.60	10.10	9.98	10.13	10.03	9.98	11.11	11.10
1928	16.31	17.58	17.20	17.04	16.28	15.51	13.95	13.80	14.38	14.38	15.00	15.73	16.21	15.90	15.70
4-year av	$13.41	$13.95	$13.86	$13.43	$13.09	$12.25	$11.59	$11.49	$11.58	$11.49	$11.64	$11.84	$12.19	$12.40	$12.39

Prices from Monthly Crops and Markets, U. S. D. A.

TABLE IV.—MONTHLY AVERAGE PRICE OF GOOD STEERS, CHICAGO, AFTER YEARS OF SMALL CORN CROPS AND AFTER YEARS OF LARGE CORN CROPS.

YEAR.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.
After Four Years of Small Corn Crops															
1924	$9.80	$9.81	$9.85	$9.68	$9.78	$9.80	$9.87	$10.52	$10.35	$10.28	$10.84	$12.04	$12.00	$11.88	$11.80
1926	9.50	10.33	10.12	10.05	10.05	10.39	10.46	10.74	10.87	10.92	11.22	11.77	12.21	13.31	14.49
1927	12.21	13.31	14.49	15.04	14.53	15.11	14.21	13.59	13.36	13.40	13.82	15.11	15.29	16.09	15.42
1930	9.76	10.80	10.70	10.85	10.91	10.72	9.42	9.26	8.36	7.51	7.48	7.60	8.81	8.66	8.95
4-year av.	$10.32	$11.06	$11.29	$11.41	$11.32	$11.51	$10.99	$11.03	$10.75	$10.53	$10.84	$11.63	$12.08	$12.49	$12.66
After Four Years of Large Corn Crops															
1922	$9.63	$9.93	$10.18	$10.28	$10.30	$10.14	$9.67	$9.47	$9.31	$9.65	$10.68	$9.97	$10.72	$16.72	$10.79
1923	10.72	10.77	10.79	10.44	10.28	10.18	10.11	10.49	10.78	10.52	9.80	9.83	9.80	9.81	9.85
1925	12.00	11.88	11.80	11.10	10.22	10.12	10.13	10.07	9.57	9.52	9.57	9.63	9.50	10.33	10.12
1928	15.29	16.09	15.42	14.71	13.91	13.63	12.71	13.12	13.78	13.78	14.20	14.49	14.40	14.12	14.22
4-year av.	$11.91	$12.16	$12.05	$11.63	$11.18	$11.01	$10.65	$10.79	$10.86	$10.87	$11.06	$10.98	$11.10	$11.25	$11.25

Prices from Monthly Crops and Markets, U. S. D. A.

TABLE V.—PRICE OF FEEDERS, SALE PRICE OF FAT CATTLE, AND MARGIN BETWEEN PURCHASE AND SALE PRICES.

YEAR.	Feeders, average of monthly top prices, Kansas City.		Fat, average of monthly tops, Chicago, July to Oct. next year.	Margin in dollars per hundredweight.		Margin in per cent of cost.	
	Aug. to Nov.	Feb. to Apr. next year.		Aug.-Nov. to July-Oct.	Feb.-Apr. to July-Oct.	Aug.-Nov. to July-Oct.	Feb.-Apr. to July-Oct.
1901	$4.66	$5.40	$8.86	$4.20	$3.46	+90	+64
1902	5.19	5.03	5.97	.82	.94	+15	+19
1903	4.41	4.53	6.65	2.24	2.12	+51	+47
1904	4.35	5.15	6.41	2.06	1.26	+47	+24
1905	4.85	4.98	6.90	2.15	1.92	+42	+38
1906	4.86	5.41	7.47	2.61	2.06	+54	+38
1907	5.49	5.58	7.91	2.42	2.33	+44	+43
1908	5.10	5.90	8.31	3.21	2.41	+63	+41
1909	5.91	6.76	8.40	2.49	1.64	+42	+24
1910	6.50	6.11	8.20	1.70	2.09	+26	+34
1911	6.31	7.06	10.64	4.33	3.58	+69	+51
1912	8.10	8.65	9.42	1.32	.77	+16	+9
1913	8.07	8.26	10.74	2.67	2.48	+33	+30
1914	8.77	7.98	10.50	1.73	2.52	+20	+32
1915	8.36	8.75	11.48	3.12	2.73	+37	+32
1916	8.78	11.20	16.51	7.73	5.31	+88	+47
1917	13.10	13.30	19.24	6.14	5.94	+47	+45
1918	15.84	16.53	18.81	2.97	2.28	+19	+14
1919	15.32	12.66	17.96	2.64	5.30	+17	+42
1920	13.32	8.86	11.06	—2.26	2.20	—17	+25
1921	7.80	8.20	11.98	4.18	3.78	+53	+46
1922	8.84	8.80	12.66	3.82	3.86	+43	+44
1923	9.00	9.05	12.00	3.00	2.95	+33	+33
1924	8.41	9.06	16.05	7.64	5.99	+91	+77
1925	10.62	9.45	11.70	1.08	2.25	+10	+24
1926	8.56	10.00	15.89	7.33	5.89	+86	+59
1927	12.40	13.71	17.89	5.49	4.18	+44	+30
1928	14.08	13.33	16.56	2.48	3.23	+18	+24
1929	13.27	13.42	12.41	—0.86	—1.01	— 7	— 8
1930	9.24	8.45	.....	.....	.....	.....	.....
1931	.....	.....	.....	.....	.....	.....	.....
1932	.....	.....	.....	.....	.....	.....	.....
1933	.....	.....	.....	.....	.....	.....	.....
1934	.....	.....	.....	.....	.....	.....	.....
1935	.....	.....	.....	.....	.....	.....	.....
1936	.....	.....	.....	.....	.....	.....	.....

Kansas City prices from January 1 *Drovers' Telegram.*
Chicago prices from Drovers' Year Book of Figures.

TABLE VI.—PRICE OF STOCKERS, SALE PRICE OF FAT CATTLE, AND MARGIN BETWEEN PURCHASE AND SALE PRICES.

YEAR.	Stockers, average of monthly top prices, Kansas City.		Fat, average of monthly tops, Chicago, July to Oct. next year.	Margin in dollars per hundredweight.		Margin in per cent of cost.	
	Aug. to Nov.	Feb. to Apr. next year.		Aug.-Nov. to July-Oct.	Feb.-Apr. to July-Oct.	Aug.-Nov. to July-Oct.	Feb.-Apr. to July-Oct.
1901	$4.42	$5.30	$8.86	$4.44	$3.56	+100	+67
1902	5.26	5.00	5.97	.71	.97	+13	+29
1903	4.56	4.53	6.65	2.09	2.12	+46	+47
1904	4.21	4.90	6.41	2.20	1.51	+52	+31
1905	4.26	4.86	6.90	2.64	2.04	+62	+42
1906	4.50	5.25	7.47	2.97	2.22	+66	+42
1907	4.85	5.51	7.91	3.06	2.40	+63	+43
1908	4.96	5.52	8.31	3.35	2.79	+67	+51
1909	5.12	6.41	8.40	3.28	1.99	+64	+31
1910	5.66	6.08	8.20	2.54	2.12	+45	+35
1911	5.57	6.56	10.64	5.07	4.08	+91	+62
1912	7.27	8.41	9.42	2.15	1.01	+30	+12
1913	8.21	8.25	10.74	2.53	2.49	+31	+30
1914	8.24	8.21	10.50	2.26	2.29	+27	+28
1915	8.40	8.55	11.48	3.08	2.93	+37	+34
1916	8.15	10.50	16.51	8.36	6.01	+102	+57
1917	11.80	12.86	19.24	7.44	6.38	+63	+50
1918	13.41	15.68	18.81	5.40	3.13	+40	+30
1919	12.08	12.16	17.96	5.88	5.80	+49	+48
1920	10.77	8.46	11.06	.29	2.60	+ 3	+31
1921	7.25	7.85	11.98	4.73	4.13	+65	+53
1922	8.25	8.66	12.66	4.41	4.00	+53	+46
1923	7.52	8.38	12.00	4.48	3.62	+59	+43
1924	8.12	8.71	16.05	7.93	7.34	+98	+84
1925	8.95	9.36	11.70	2.75	2.34	+31	+25
1926	8.78	9.41	15.89	7.11	6.48	+81	+69
1927	10.87	13.40	17.89	7.02	4.49	+65	+34
1928	13.56	13.70	16.56	3.00	2.86	+22	+21
1929	12.61	12.15	12.41	—.20	+.26	— 2	± 2
1930	8.93						
1931							
1932							
1933							
1934							
1935							
1936							

Kansas City prices from January 1 *Drovers' Telegram.*
Chicago prices from Chicago Drovers' Year Book of Figures.

TABLE VII.—CLASSES OF STEERS, TIME OF PURCHASE, AND RELATIVE MARGINS OBTAINED.

YEAR.	Fall.		Spring.	
	Stockers.	Feeders.	Stockers.	Feeders.
1901	1	2	3	4
1902	4	3	1	2
1903	4	1	2	3
1904	1	2	3	4
1905	1	3	2	4
1906	1	2	3	4
1907	1	2	3	4
1908	1	2	3	4
1909	1	2	3	4
1910	1	3	2	4
1911	1	2	3	4
1912	1	2	3	4
1913	2	1	3	4
1914	3	4	2	1
1915	2	1	3	4
1916	1	2	3	4
1917	1	3	2	4
1918	1	3	2	4
1919	1	4	2	3
1920	3	4	1	2
1921	1	2	3	4
1922	1	4	2	3
1923	1	3	2	4
1924	1	2	3	4
1925	1	4	2	3
1926	2	1	3	4
1927	1	2	3	4
1928	2	4	3	1
1929	2	3	1	4
1930	.....	.....	.....	.....
1931	.....	.....	.....	.....
1932	.....	.....	.....	.....
1933	.....	.....	.....	.....
Number of times each class of purchase showed greatest margin	20	4	3	2

1, 2, 3, and 4 show rank from the largest to the smallest margin between purchase and sale prices.

TABLE VIII.—RELATION BETWEEN CORN PRODUCTION IN EIGHT MAJOR CORN-BELT STATES AND THE CHANGE IN PRICES OF FEEDERS FROM EARLY TO LATE FALL. (*a*)

YEAR.	Corn production, eight corn-belt states. (*b*)	Nov.-Dec. price in per cent of Aug.-Sept. price of feeder cattle.
1925	1,964	83
1923	1,872	82
1928	1,858	86
1921	1,705	92
1922	1,695	93
1929	1,662	89
1927	1,647	118
1926	1,607	98
1924	1,397	96
1930	1,377	101
Average	1,678	93.8

(*a*) Early prices are August-September average of weekly tops, Kansas City, Mo. Late prices are November-December average of weekly tops, Kansas City, Mo.
(*b*) Ranked from largest to smallest.

TABLE IX.—RELATION BETWEEN THE PRICE TREND OF FEEDERS FROM FEBRUARY TO MAY ONE YEAR AND THE SUCCEEDING YEAR. (*a*)

Rank, low to high.	Per cent May top price of feeders was of February top price, Kansas City.			
	For the years indicated.	YEAR.	For the succeeding year.	YEAR.
1	89	1930	87	1931
2	93	1928	114	1929
3	96	1926	117	1927
4	101	1922	102	1923
5	102	1923	104	1924
6	104	1924	114	1925
7	109	1921	101	1922
8	114	1925	96	1926
9	114	1929	89	1930
10	117	1927	93	1928

(*a*) Monthly top prices from *Daily Drovers' Telegram*, January 1.

TABLE X.—MONTHLY TOP PRICE OF FEEDERS WEIGHING MORE THAN 750 POUNDS AT KANSAS CITY, MO. (*a*)

YEAR.	February.	March.	April.	May.	May price in per cent of February price.
1921	$8.25	$9.35	$9.00	$9.00	$109
1922	8.25	8.25	8.10	8.40	101
1923	8.75	8.80	8.05	9.00	102
1924	8.40	8.75	10.00	8.75	104
1925	8.50	9.50	9.15	9.60	114
1926	9.50	9.60	9.25	9.15	96
1927	9.10	10.25	10.65	10.60	117
1928	14.15	13.50	13.50	13.15	93
1929	12.35	13.75	13.90	14.00	114
1930	13.50	13.50	13.25	12.00	89
1931					
1932					
1933					
1934					

(*a*) Prices from *Daily Drovers' Telegram*, January 1 each year.

TABLE XI.—MONTHLY AVERAGE PRICE OF CHOICE STEERS, CHICAGO. (*a*)

YEAR.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1922	10.15	10.44	11.02	12.01	12.34	(*b*) *12.48*
1923	10.91	12.02	(*b*) *12.27*	11.70	11.64	11.70
1924	10.68	10.55	10.73	11.07	11.11	(*b*) *11.20*
1925	13.50	14.88	(*b*) *14.94*	14.54	12.80	11.90
1926	10.03	9.98	(*b*) *11.11*	11.10	10.92	11.00
1927	13.17	13.72	15.01	16.32	(*b*) *17.66*	17.59
1928	15.82	16.31	(*b*) *17.58*	17.20	17.04	16.28
1929	15.73	(*b*) *16.21*	15.90	15.70	14.93	15.08
1930	10.74	10.58	11.97	12.12	12.53	(*b*) *13.06*
1931	8.08	9.42	9.65	10.16	(*b*) *11.80*	11.14
1932						
1933						
1934						
Av., 1922-'30	11.88	12.41	13.02	13.19	13.28	13.15
Months season's peak came	0	1	4	0	2	3

(*a*) Data from Crops and Markets, U. S. D. A.
(*b*) Top price for July to December period.

TABLE XII.—THE EFFECT OF CORN PRODUCTION IN THE EIGHT MAJOR CORN-BELT STATES THE YEAR PREVIOUS AND THE CHANGES IN PRICE OF CORN FROM SPRING TO FALL ON THE SUPPLY OF GOOD TO CHOICE STEERS AT CHICAGO IN SEPTEMBER AND OCTOBER.

YEAR.	Slaughter steers, good to choice, in September and October, (000) omitted. (*a*).	Corn production in the eight major corn-belt states year previous, (000,000) omitted. (*b*).	Percentage change in price of corn, Feb.-Mar.-Apr.-av. to June-July-Aug. av., No. 2 cash, K. C.	Estimated slaughter from X_1.	Estimated slaughter from both X_1 and X_2.	Error using only X_1.	Error using both X_1 and X_2.	Percentage error.
	X	X_1	X_2					
1922.....	136	1,705	103	124	140	+12	— 4	— 3
1923.....	105	1,695	109	123	133	—18	—28	—21
1924.....	132	1,871	144	147	135	—15	— 3	— 2
1925.....	112	1,397	93	89	114	+23	+ 2	+ 2
1926.....	160	1,964	112	159	153	+ 1	+ 7	+ 5
1927.....	99	1,606	140	112	102	—13	— 3	— 1
1928.....	103	1,646	154	118	101	—15	+ 2	+ 1
1929.....	158	1,858	111	136	156	+12	+ 2	+ 1
1930.....	153	1,662	110	120	130	+33	+23	+18
Av....	.....	.....	.....	.....	.....	.....	.....	± 6

(*a*) Data from Crops and Markets, U. S. D. A.
(*b*) For states refer to Table 1.

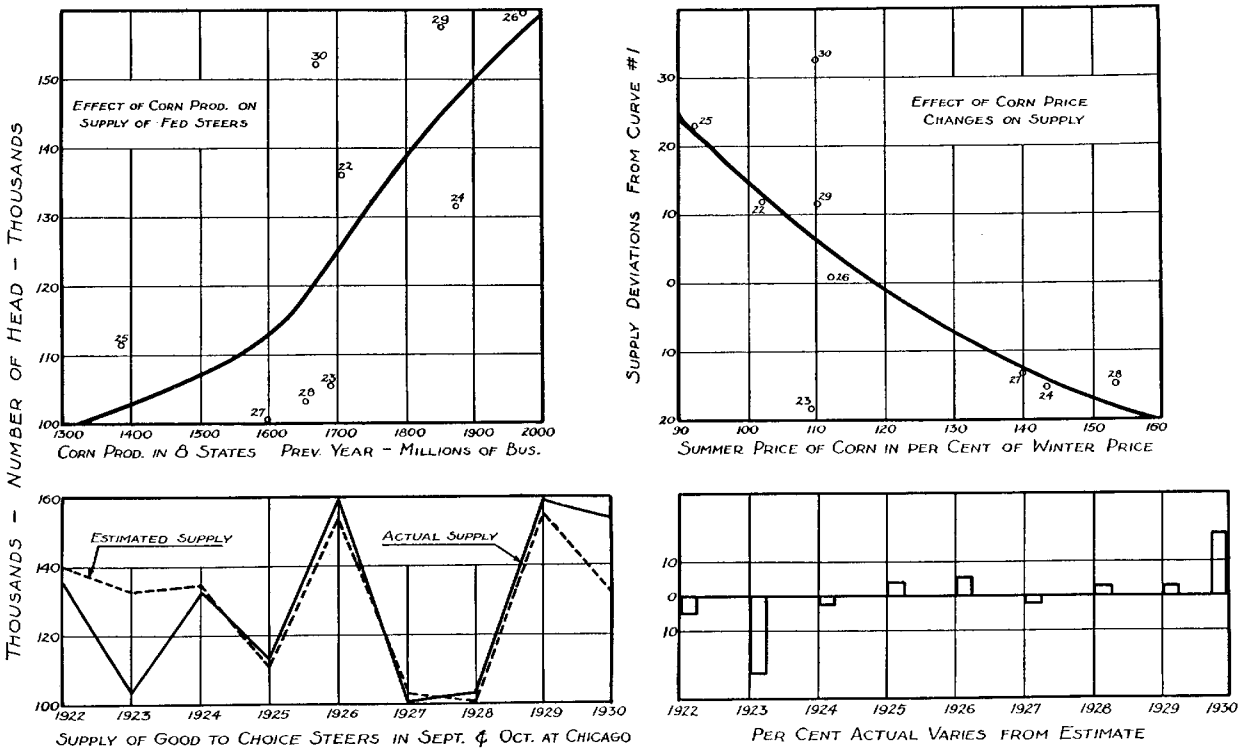


FIG. 12.—The effect of corn production the previous year and the change in the price of corn from winter to summer on the supply of good to choice steers at Chicago in September and October.

The current corn crop tends to affect the fall trend of stocker and feeder prices about as much as any other one factor. (Fig. 13.) Table XIII shows an average error of estimate of 4.6 per cent. In other words, the percentage change in feeder price from the August-September average to the November-December average was estimated on the basis of the size of the corn crop to within an average of 4.6 per cent. In only one year, 1927, was the error so large that it would not have been applicable for practical buying.

TABLE XIII.—THE EFFECT OF CURRENT CORN PRODUCTION ON THE FALL TREND OF FEEDER PRICES. (*a*)

YEAR.	Column No. 1. Nov.-Dec. price in per cent of Aug.-Sept. price of feeders. (*b*)	Column No. 2. Corn production, eight states, millions of bushels.	Column No. 3. Estimated Nov.-Dec. price in per cent of Aug.-Sept. price.	Column No. 4. Number of per cent actual varied from estimate.
1921	92	1,705	91	+1
1922	93	1,695	92	+1
1923	82	1,872	84	—2
1924	96	1,397	100	—4
1925	83	1,964	82	+1
1926	98	1,607	96	+2
1927	118	1,647	94	+24
1928	85	1,858	86	—1
1929	89	1,662	93	—4
1930	95	1,377	101	—6
1931				
1932				
1933				
Average	93.1	1,678	91.9	±4.6

(*a*) The fall trend refers to the per cent November-December average price is of the August-September average price.

(*b*) Per cent the November-December average weekly top price is of the August-September average weekly top price of feeders, Kansas City Mo.

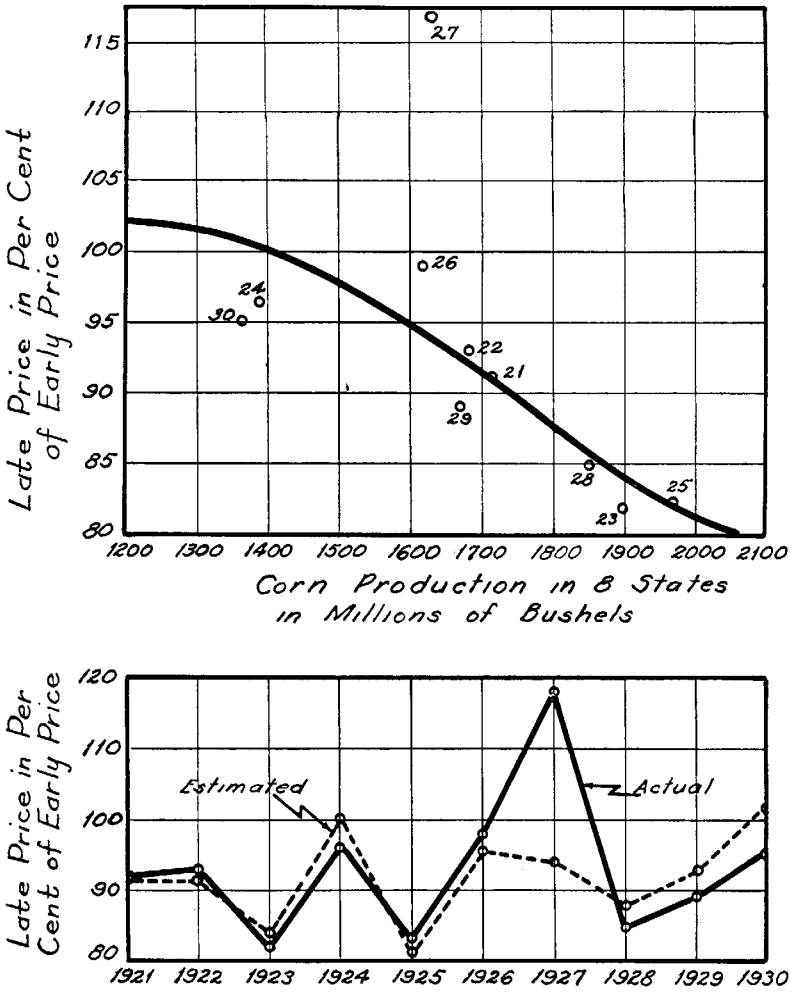


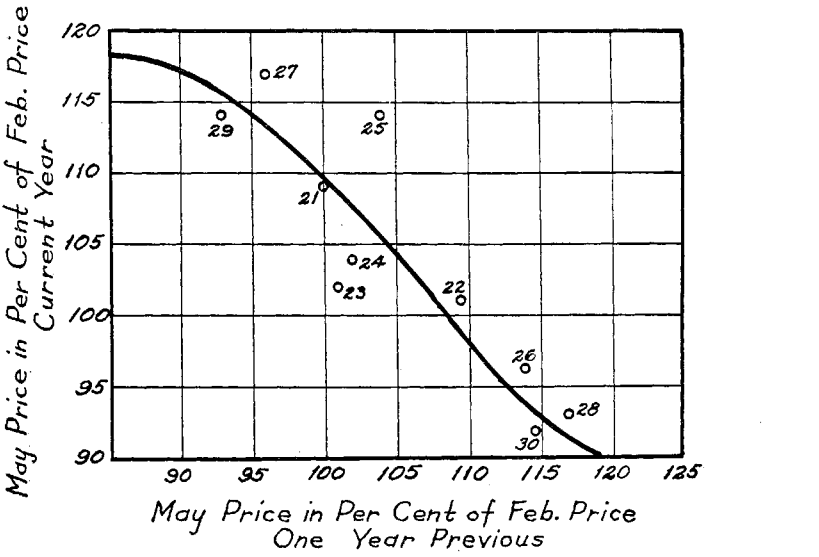
FIG. 13.—The effect of current corn production on the fall trend of feeder prices. (Fall trend refers to the per cent the November-December average price is of the August-September average price.)

The relationship between the trend of feeder prices one year and the opposite trend the next year is shown in Table XIV and figure 14. On the basis of the trend one year the following year's price trend was estimated to within 3.4 per cent on the average for the 10 years. The greatest error was 9 per cent and the smallest 1 per cent, with a modal error of 2 to 3 per cent. This one factor alone seems significant for practical buying of feeders in the spring months.

TABLE XIV.—EFFECT OF FEEDER PRICE TREND ONE YEAR ON THE TREND THE SAME PERIOD THE NEXT YEAR. (*a*)

Column No. 1.	Y or Column No. 2.	X or Column No. 3.	Estimate of Y.	Error.
YEAR.	May top price of feeders at Kansas City in per cent of February top price. (*b*)	May top price of feeders at Kansas City in per cent of February top price one year previous.	Estimate of May price in per cent of February price.	Number of per cent actual varied from estimate.
1921	109	100	110	—1
1922	101	109	98	+3
1923	102	101	107	—5
1924	104	102	106	—2
1925	114	104	105	+9
1926	96	114	94	+2
1927	117	96	113	+4
1928	93	117	91	+2
1929	114	93	115	—1
1930	89	114	94	—5
1931				
1932				
Average, 1921-'30	103.9		103.3	±3.4

(*a*) The trend is from February to May for feeders, Kansas City, Mo.
(*b*) All prices are monthly top prices of feeder steers, Kansas City, Mo. (Table X.)



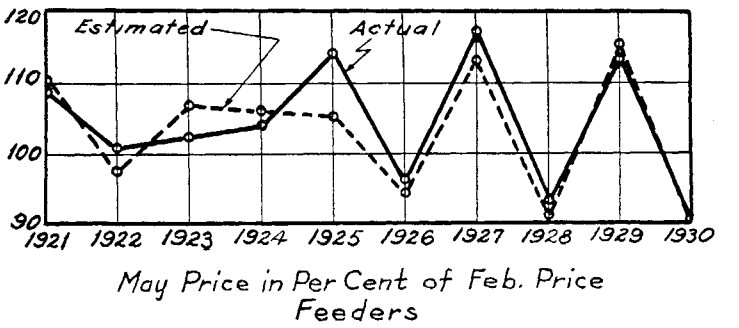


FIG. 14.—Effect of feeder price trend one year on the trend during the same period of the next year. (The trend is in monthly top prices from February to May for feeders at Kansas City, Mo.)