

*Missouri Cattle*

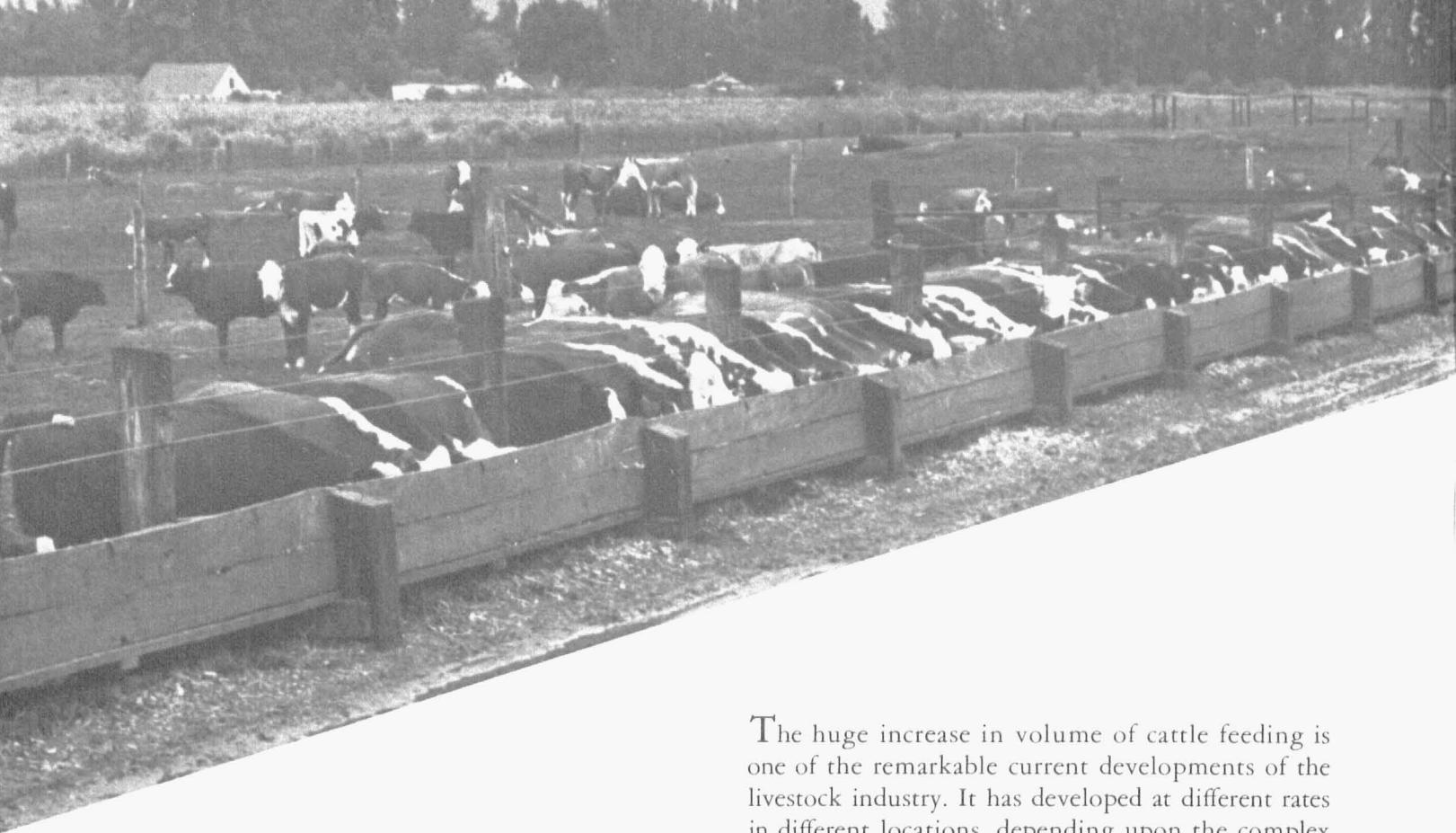
# **Feeding and Marketing**



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## *Missouri Cattle*

The huge increase in volume of cattle feeding is one of the remarkable current developments of the livestock industry. It has developed at different rates in different locations, depending upon the complex set of circumstances affecting economic development.

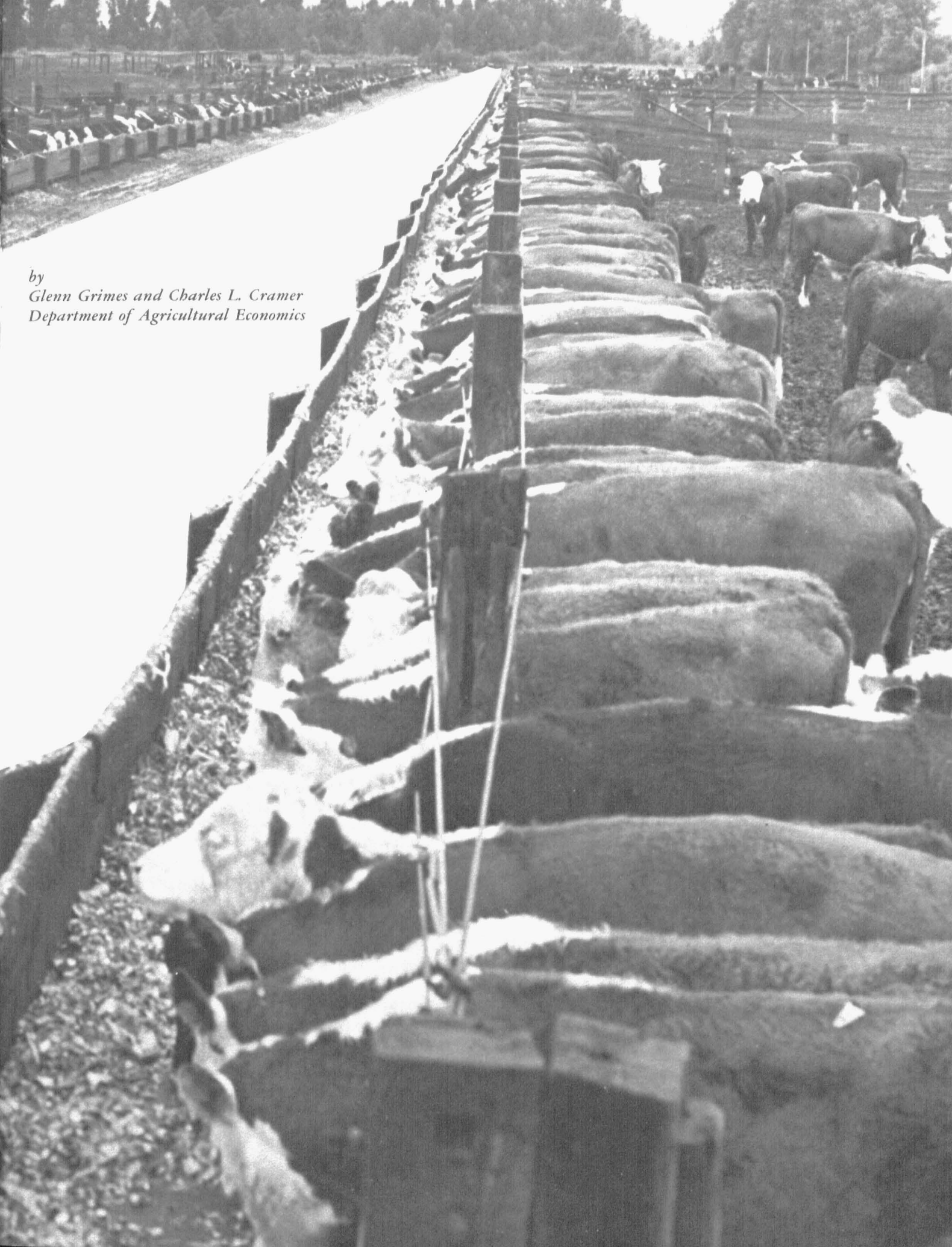
Increased cattle feeding has been brought about by many farmers reacting to a changed economic environment in which they are willing to commit greater quantities of resources to cattle feeding with the expectation of profit.

Cattle feeding is changing both in terms of volume and in terms of organization. The rapidity of the change makes accurate information about it increasingly valuable. The rate of change also makes timely information more difficult to provide.

The study reported here represents an effort to provide information about certain aspects of feeding and marketing cattle in Missouri.

# **Feeding and Marketing**

by  
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*Two-Thirds of the Three-Quarters  
of a Million Cattle Fed in  
Missouri Are Fattened  
by Producers Handling Less  
Than 250 Head  
Annually.*



## Number of Cattle Fed by Size of Feeding Unit

A large proportion of the cattle fed in Missouri is marketed by farmers who feed a relatively small number of cattle. Of the estimated 744,325 head fed in Missouri in 1964, forty-five percent or 334,905 head were fed by producers who handled fewer than 100 head per year. Approximately 22 percent were fed by producers who handled 100-250 head per year. Combining these two smallest size-categories reveals that more than two-thirds of the cattle fed in Missouri in 1964 were fed by producers who fed

250 or fewer cattle per year. About 79 percent of the total fed were accounted for by feeders handling 500 or fewer per year (Table 1).

While the largest proportion of the cattle was fed in relatively small units it is important to note that there were some firms feeding more than 10,000 head per year. These firms accounted for 2.7 percent of the total cattle fed.

TABLE 1--ESTIMATED NUMBER OF CATTLE FED  
IN VARIOUS SIZE UNITS  
IN MISSOURI IN 1964\*

| Size of Unit<br>(Head) | Number of<br>Head | Percent |
|------------------------|-------------------|---------|
| Less than 100          | 334,905           | 45.0    |
| 100-250                | 166,880           | 22.4    |
| 251-500                | 84,340            | 11.3    |
| 501-750                | 21,350            | 2.9     |
| 751-1000               | 35,400            | 4.7     |
| 1001-5000              | 47,450            | 6.4     |
| 5001-10,000            | 34,000            | 4.6     |
| 10,001 - up            | 20,000            | 2.7     |
|                        | 744,325           | 100.0   |

Source: Based on survey made through cooperation of county extension directors, Spring 1965, and unpublished research, Department of Agricultural Economics, University of Missouri. Fed cattle include all cattle fed a grain ration prior to sale for slaughter.

\*Size of unit refers to the number fed annually.





If the trend continues in Missouri as it has in many important cattle feeding states, an increasing percentage will be fed in the larger units. For example, in California in 1963 more than 98 percent

of the cattle fed in the state were finished in yards with a capacity of over 1000 head, and almost 70 percent were fed in yards of 10,000 head capacity or more.<sup>1</sup>

## Fed Cattle Marketings by Type of Market

To describe the relative importance of each type of market, information was obtained on the numbers of fed cattle marketed through terminals, through auctions, and direct to packers (Table 2). Practically all slaughter cattle are marketed through these three types of markets.

The number sold through these markets was about 100,000 less than this study estimated was fed. This difference may be accounted for in two ways. First, the *estimated number fed* includes all grades of cattle fed a grain ration prior to marketing for slaughter, whereas the marketings include only those grading Good or better. Second, data were not available or provided in some instances for all three types of markets. Information was not available from the terminal markets at St. Louis (Mississippi Valley Yards), Springfield, or Joplin. A number of packers who are known to buy fed cattle in Missouri did not answer the questionnaire and there probably are some fed slaughter cattle marketed by several livestock auction markets that were not included in the survey.

Although this study does not include all fed cattle marketed from Missouri the proportion mar-

keted through each market outlet as shown in Table 2 probably is quite accurate.

TABLE 2--MARKETINGS OF MISSOURI FED CATTLE ESTIMATED TO GRADE U.S. GOOD OR BETTER, BY TYPE OF MARKET, 1964

| Market           | No. of Head | Percent |
|------------------|-------------|---------|
| Terminal         | 423,878*    | 66.1    |
| Auction          | 110,999**   | 17.3    |
| Direct to Packer | 106,830***  | 16.6    |
|                  | 641,707     | 100.0   |

\*Includes markets at National Stock Yards, Illinois, St. Joseph, Mo., Kansas City, Mo., Chicago, Ill., and Omaha, Nebraska. Does not include markets at Springfield, Joplin and Mississippi Valley Yards, St. Louis, Missouri.

\*\*Includes 14 selected auctions which sold a significant number of fed cattle

\*\*\*Includes data from 20 plants including two in Iowa and one in Tennessee. Does not include sale to locker plants or local butchers.

<sup>1</sup>John A. Hopkin and Robert C. Kramer. "Cattle Feeding in California," Economic Research Department, Bank of America, January 1965.

# Grade Distribution of Cattle Fed in Missouri

The data from three terminal markets permitted analysis by grade and state of origin for slaughter steers. The steers from Missouri did not grade as high as steers from other states. There was more difference at Kansas City and St. Joseph than at St. Louis between the grades of Missouri steers and steers from other states. At Kansas City the percentage of the steers from Missouri grading choice averaged nearly nine percentage points less than all receipts on an annual basis during the years of 1960-64 (Table 3).

At St. Joseph the percentage from Missouri grading choice was between 10 and 11 percentage points less than the percentage for all states (Table 4).

At St. Louis the percentage of Missouri receipts grading choice was 3 to 5 percentage points less on an annual basis than the percentage for all states (Table 5).

The increase in proportion grading choice during the 5-year period at all three markets and from all origins reflected the increase in feeding during the period. From 1960-64 the percentage of Missouri steers grading choice increased from 29 to 41 at Kansas City, from 30 to 41 at St. Joseph, and from 12 to 36 at St. Louis. Similar grade changes were made in all steer receipts at the three markets (Tables 3, 4, and 5).

TABLE 3--PERCENTAGE BY GRADE OF SLAUGHTER STEER MARKETINGS FROM MISSOURI AND FROM ALL STATES AT KANSAS CITY, 1960-64

| Year | Choice   |            | Good     |            | Other    |            |
|------|----------|------------|----------|------------|----------|------------|
|      | Missouri | All States | Missouri | All States | Missouri | All States |
|      | (%)      | (%)        | (%)      | (%)        | (%)      | (%)        |
| 1960 | 29       | 41         | 59       | 46         | 12       | 13         |
| 1961 | 28       | 36         | 58       | 52         | 14       | 12         |
| 1962 | 36       | 36         | 50       | 54         | 14       | 10         |
| 1963 | 40       | 47         | 53       | 46         | 7        | 7          |
| 1964 | 41       | 48         | 49       | 44         | 10       | 8          |

TABLE 4--PERCENTAGE BY GRADE OF SLAUGHTER STEER MARKETINGS FROM MISSOURI AND ALL STATES AT ST. JOSEPH, 1960-64

| Year | Choice   |            | Good     |            | Other    |            |
|------|----------|------------|----------|------------|----------|------------|
|      | Missouri | All States | Missouri | All States | Missouri | All States |
|      | (%)      | (%)        | (%)      | (%)        | (%)      | (%)        |
| 1960 | 30       | 40         | 61       | 53         | 9        | 7          |
| 1961 | 34       | 42         | 58       | 52         | 8        | 6          |
| 1962 | 28       | 42         | 63       | 53         | 9        | 5          |
| 1963 | 38       | 50         | 51       | 43         | 11       | 7          |
| 1964 | 41       | 50         | 51       | 43         | 8        | 7          |

TABLE 5--PERCENTAGE BY GRADE OF SLAUGHTER STEER MARKETINGS FROM MISSOURI AND ALL STATES AT ST. LOUIS, 1960-64

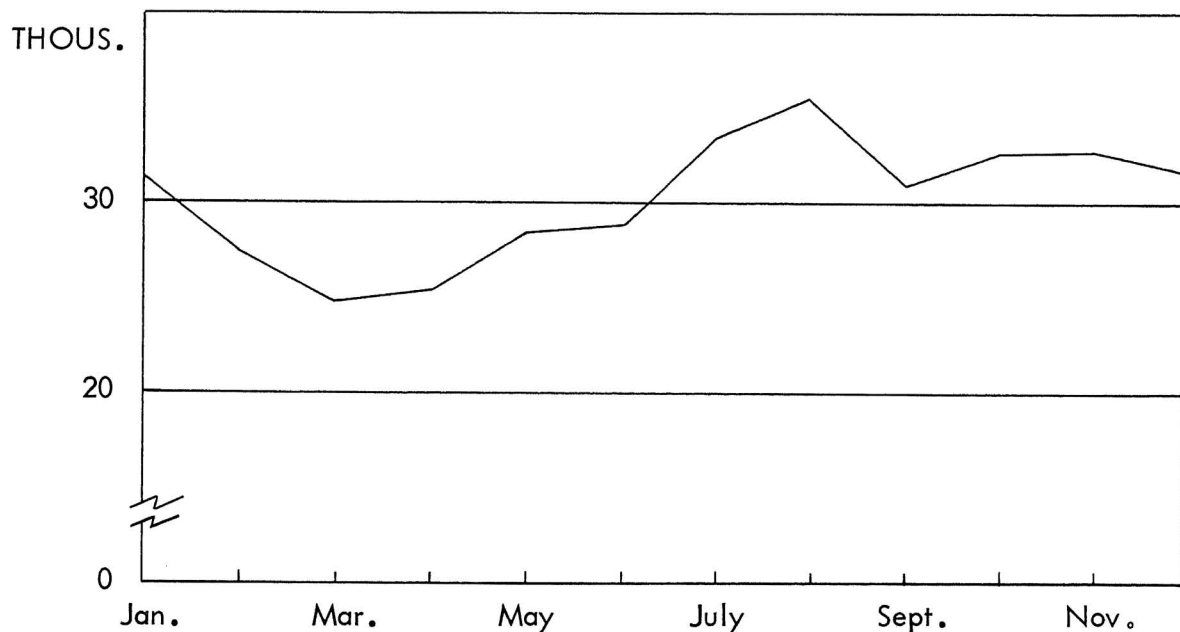
| Year | Choice   |            | Good     |            | Other    |            |
|------|----------|------------|----------|------------|----------|------------|
|      | Missouri | All States | Missouri | All States | Missouri | All States |
|      | (%)      | (%)        | (%)      | (%)        | (%)      | (%)        |
| 1960 | 12       | 15         | 64       | 64         | 24       | 21         |
| 1961 | 18       | 21         | 63       | 61         | 19       | 18         |
| 1962 | 20       | 24         | 68       | 63         | 12       | 13         |
| 1963 | 32       | 35         | 58       | 55         | 10       | 10         |
| 1964 | 36       | 41         | 49       | 47         | 15       | 12         |

## Seasonality of Fed Cattle Marketings

Marketing of fed cattle from Missouri through the terminal markets at St. Joseph, St. Louis National Stock Yards, Kansas City, Omaha and Chicago varied somewhat by months. For the 5-year period

of 1960-64, the greater volume was marketed in the months of July and August with the smaller marketings in the spring months of February, March and April (Fig. 1).

**FIGURE 1**  
**MONTH TO MONTH FLUCTUATION IN AVERAGE NUMBER OF STEERS AND HEIFERS MARKETED FROM MISSOURI 1960-64**



\*Steers and heifers sold out of first hands for slaughter through St. Joseph, St. Louis, Kansas City, Omaha, and Chicago.

Choice steer receipts from Missouri at these same five markets varied considerably throughout the year with the peak month being August and a low period in February through May (Fig. 2). Choice steer marketings at 12 markets<sup>2</sup> had a somewhat different seasonal pattern than the marketings from Missouri (Fig. 2). The month with the largest marketings for the 12 markets was June, with the months of May, July and August almost as high.

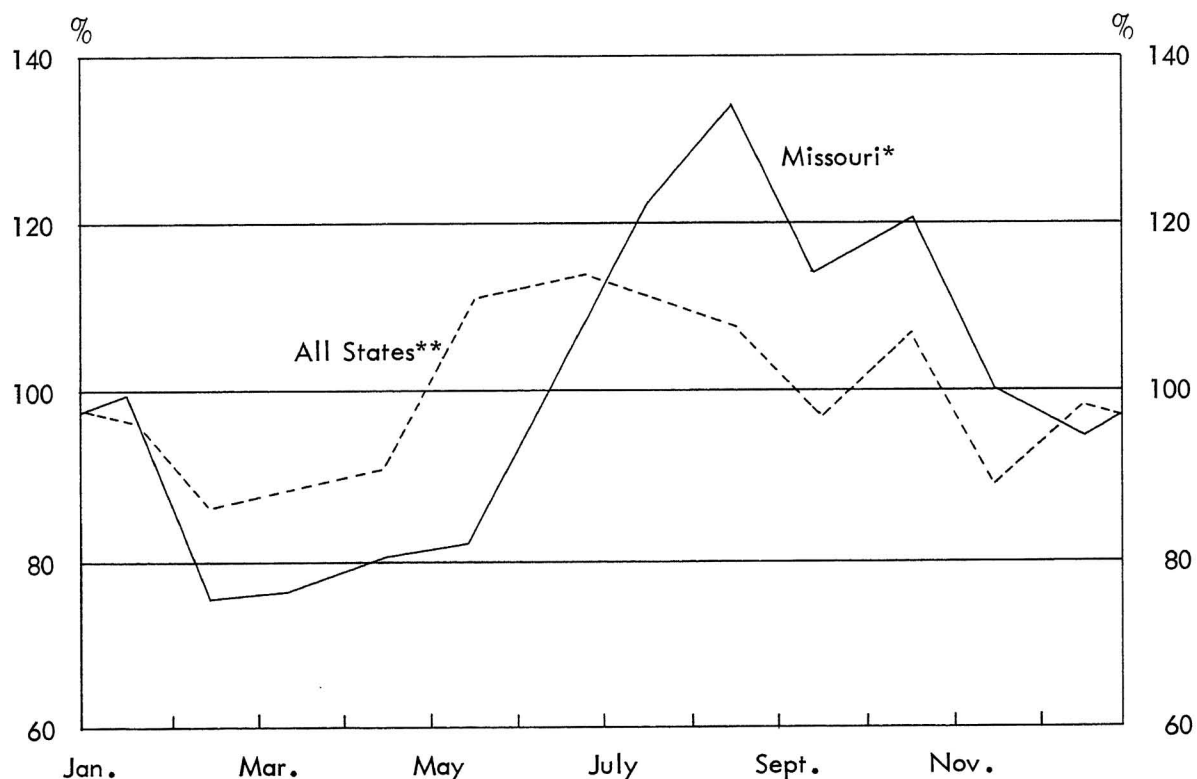
<sup>2</sup>Chicago, Omaha, Sioux City, St. Louis N.S.Y., St. Joseph, Kansas City, Denver, Cincinnati, Ft. Worth, Indianapolis, Oklahoma City and Sioux Falls.

The fluctuation in receipts of choice steers from low to high month was not as great at the 12 markets as it was for Missouri receipts at the five markets. The high month for the 12 markets was 132 percent of the low month. For Missouri the high month was 181 percent of the low month.

The monthly marketing of good grade steers from Missouri through the five markets for the years 1960-64 were quite uniform with the exception of March sales. They were considerably lower than in any other month (Fig. 3). The 12 market pattern for good grade steers was quite different from the Missouri pattern. The 12 markets had a distinct peak in May and a low in the fall.

## FIGURE 2 MONTH TO MONTH FLUCTUATION IN CHOICE GRADE STEER MARKETINGS

**Based on 1960-64 Average Monthly Slaughter Expressed as a Percentage of an Over-all Average Per Month for the Total Period.**



\*The five Missouri markets were Kansas City, St. Joseph, St. Louis N.S.Y., Chicago and Omaha.

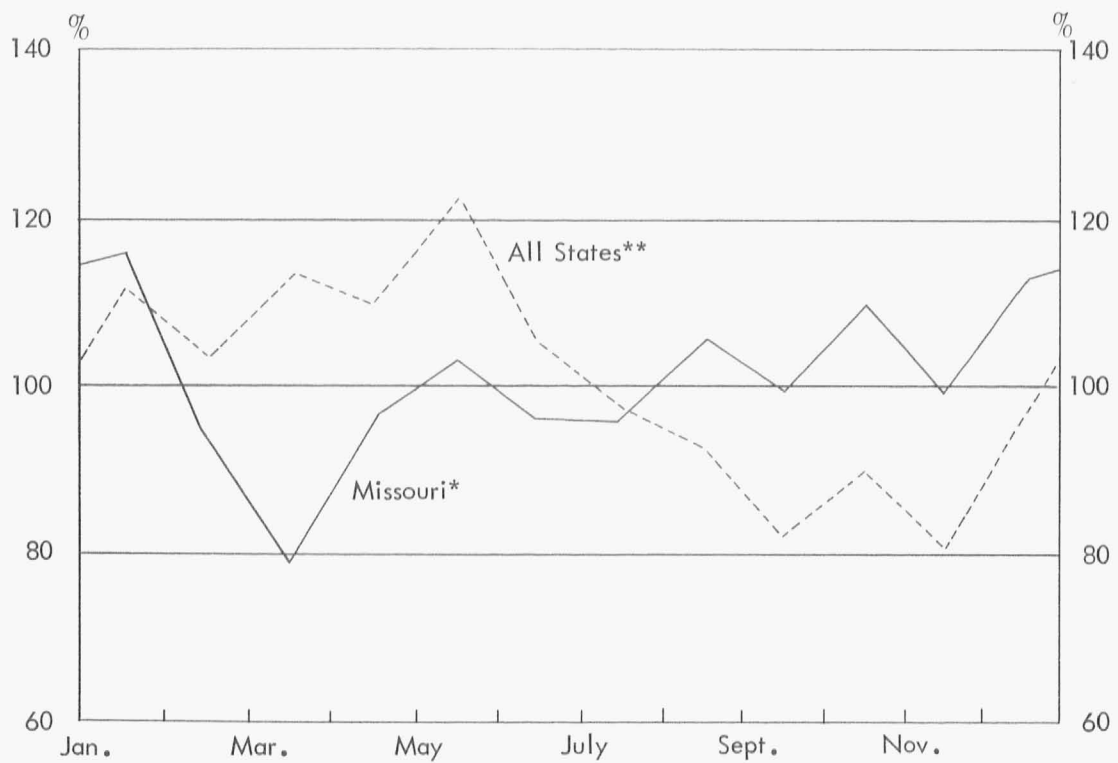
\*\*The 12 "All States" markets include Chicago, Omaha, Sioux City, St. Louis N.S.Y., St. Joseph, Kansas City, Denver, Cincinnati, Ft. Worth, Indianapolis, Oklahoma City, and Sioux Falls.





**FIGURE 3**  
**MONTH TO MONTH FLUCTUATION IN GOOD**  
**GRADE STEER MARKETINGS**

**Based on 1960-64 Average Monthly Slaughter Expressed as a Percentage of an Over-all Average Per Month for the Total Period.**



\*Kansas City, St. Joseph, St. Louis N.S.Y., Chicago and Omaha.

\*\*Chicago, Omaha, Sioux City, St. Louis N.S.Y., St. Joseph, Kansas City, Denver, Cincinnati, Ft. Worth, Indianapolis, Oklahoma City and Sioux Falls.

The magnitude of the fluctuation in monthly marketings of all good grade steers at the 12 markets was larger than the fluctuation in monthly marketings of these same grade steers from Missouri.

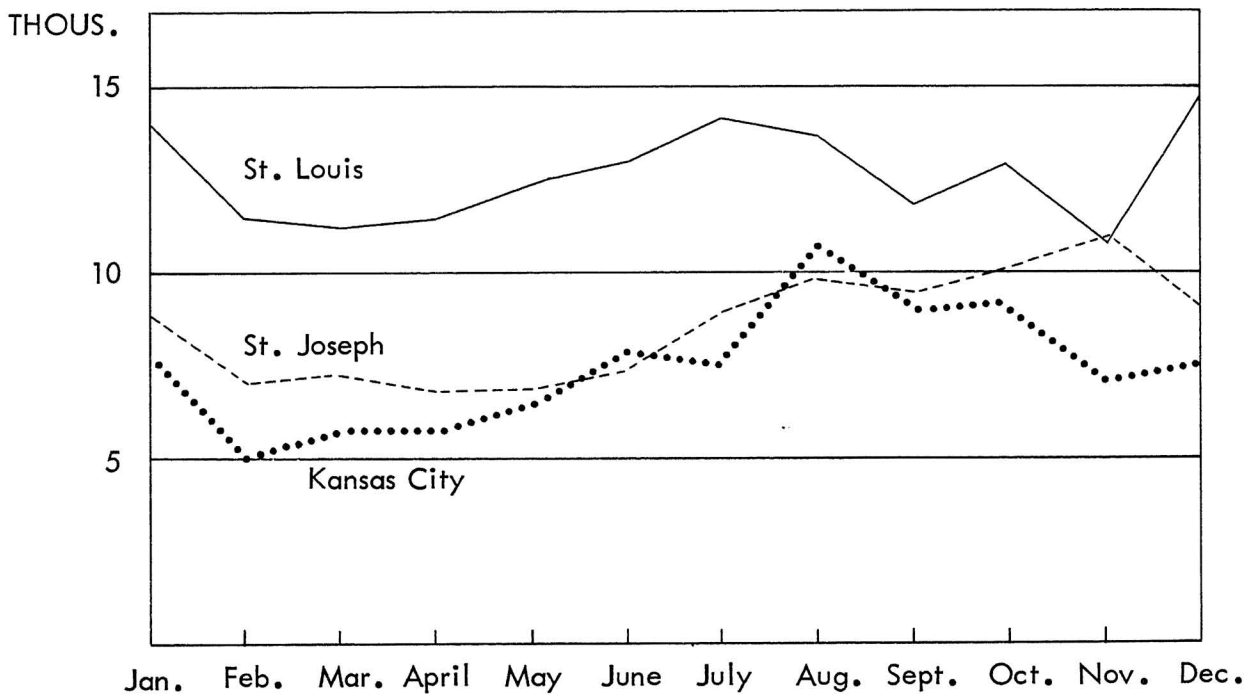
The high month for the 12 markets was 150 percent of the low month. For Missouri the high month was 146 percent of the low month. For the 12 markets the receipts of good grade steers for the largest month were 125 percent or more above the receipts for the six lowest months. There was only one month when the receipts from Missouri were 25 percent or more below the month with the highest receipts.

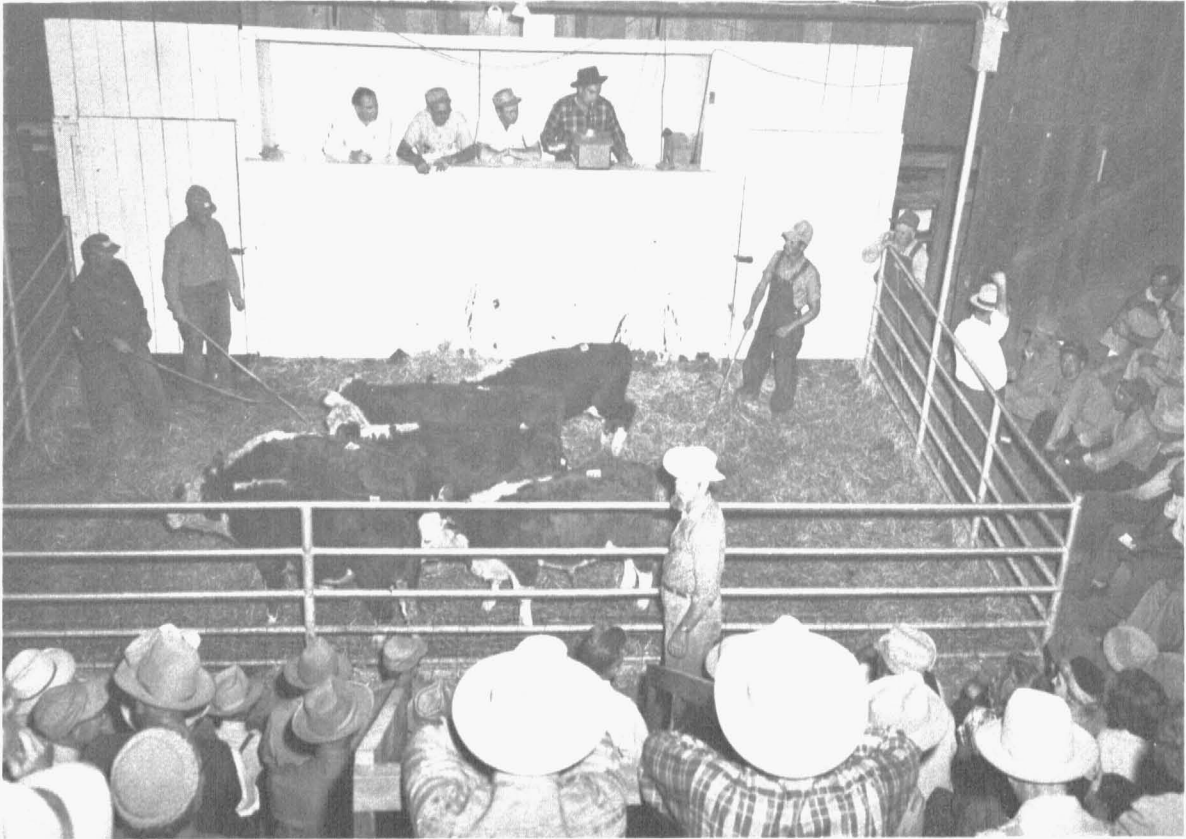
Fed steer and heifer marketings by month from

Missouri varied somewhat among the markets at St. Louis N.S.Y., St. Joseph, and Kansas City. Receipts by months at St. Louis had two peaks and two lows. The high months were July and December with a low in the spring months of February, March, and April and a fall low in November (Fig. 4).

The monthly distribution of marketings at Kansas City and St. Joseph were somewhat similar. Kansas City had a more distinct peak with the high month in August, whereas St. Joseph had more of a high plateau in the months of August-December. The low for both markets was in the spring months (Fig. 4).

**FIGURE 4**  
**MONTH BY MONTH FLUCTUATION IN AVERAGE NUMBER OF MISSOURI**  
**SLAUGHTER STEERS AND HEIFERS MARKETED THROUGH**  
**SELECTED MARKETS 1960-64**





## ACKNOWLEDGEMENT

The Livestock Division, Consumers and Marketing Service, United States Department of Agriculture, contributed to this study by providing data for the terminal markets. The Certified Livestock Markets Association assisted in getting data from the auction markets.