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Statistics of Livestock Trucking in Iowa

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AMES, IOWA

Statistics of Livestock Trucking in Iowa

BY D. A. FITZGERALD

This report,* the fifth of a series of yearly reports on livestock trucking in Iowa, is made possible thru the coöperation of the four public markets, 14 packing plants and 29 concentration points that receive Iowa livestock by truck. All these markets report the number of hogs they receive by truck yearly, and the four public markets and six packing plants receiving other species of livestock by truck reported on the numbers of cattle, calves and sheep that they had received in this manner during 1930. This year for the first time preliminary tabulations on truck receipts of species of livestock other than hogs are included.

PART I

Over 3 $\frac{3}{4}$ million hogs (see table I) were trucked to market in 1930 as compared to slightly more than 3 $\frac{1}{4}$ million in 1929. This is an increase of 16 percent in the volume of hogs trucked to market from the previous year, and the 1930 volume represents 31 percent of the total marketings of Iowa hogs.

TABLE I. IOWA HOGS TRUCKED TO MARKET, TERMINAL, RELOAD OR PACKING PLANT, 1920-1930

| Year | Iowa hogs marketed | Hogs trucked to market | Percent trucked |
|------|--------------------|------------------------|-----------------|
| 1920 | 8,665,624 | 484,000 (Est.) | 5.6 |
| 1921 | 8,983,719 | 566,000 (Est.) | 6.3 |
| 1922 | 9,698,594 | 698,000 (Est.) | 7.2 |
| 1923 | 13,316,347 | 999,000 (Est.) | 7.5 |
| 1924 | 13,746,317 | 1,035,951 | 7.7 |
| 1925 | 10,882,512 | 1,287,703 | 11.7 |
| 1926 | 10,975,479 | 1,703,812 | 16.0 |
| 1927 | 11,551,093 | 2,354,516 | 20.4 |
| 1928 | 13,125,056 | 2,921,420 | 22.4 |
| 1929 | 12,326,623 | 3,268,883 | 26.5 |
| 1930 | 12,180,007 | 3,771,584 | 31.0 |

The trucks and hard-surfaced roads together have continued to play a vital part in changing many aspects of livestock marketing in Iowa. The year 1930 witnessed an unprecedented increase in the mileage of hard-surfaced roads in Iowa, over 1,000 miles. This increase in hard-surfaced roads, together with weather conditions that interfered to a minimum degree with trucking on roads other than hard surfaced, were largely responsible for the further increases in livestock trucking in 1930, after it appeared that livestock trucking, at least to certain types of markets, had reached its peak.

*Figures for 1930 are preliminary and subject to slight revision when reports covering less than 4 percent of the truck movement of livestock become available. Estimates covering this 4 percent have been made and are included in this report.

TABLE II. PRIMARY DESTINATIONS—IOWA HOGS* 1920-1930 (IN THOUSANDS)

| Year | Public stockyards | | Direct to interior packing plants | | Direct to other packing plants | | Concentration points | | Total |
|------|--------------------|------|-----------------------------------|------|--------------------------------|------|----------------------|------|--------|
| | No. | % | No. | % | No. | % | No. | % | |
| 1920 | 5,837 | 67.4 | 1,470 | 16.9 | 239 | 2.8 | 1,120 | 12.9 | 8,666 |
| 1921 | 5,847 | 65.1 | 1,714 | 19.1 | 252 | 2.8 | 1,171 | 13.0 | 8,984 |
| 1922 | 5,929 | 61.1 | 2,184 | 22.5 | 307 | 3.2 | 1,279 | 13.2 | 9,699 |
| 1923 | 8,328 | 62.5 | 2,963 | 22.3 | 408 | 3.1 | 1,612 | 12.1 | 13,316 |
| 1924 | 8,744 | 63.6 | 3,215 | 23.4 | 463 | 3.4 | 1,324 | 9.6 | 13,746 |
| 1925 | 6,827 | 62.7 | 2,653 | 24.4 | 317 | 2.9 | 1,086 | 10.0 | 10,883 |
| 1926 | 6,113 | 57.2 | 3,225 | 30.2 | 359 | 3.4 | 978 | 9.2 | 10,675 |
| 1927 | 5,890 | 51.1 | 3,664 | 31.7 | 458 | 3.9 | 1,541 | 13.3 | 11,551 |
| 1928 | 6,323 | 48.2 | 4,088 | 31.1 | 1,188 | 9.1 | 1,526 | 11.6 | 13,125 |
| 1929 | 4,823 | 39.1 | 4,068 | 33.1 | 1,336 | 10.8 | 2,106 | 17.0 | 12,327 |
| 1930 | 4,701 ¹ | 38.6 | 4,036 ² | 33.1 | 762 | 6.3 | 2,681 ³ | 22.0 | 12,180 |

*Partly estimated 1920-1929. Based on table prepared by Leslie M. Carl, agricultural statistician, United States Department of Agriculture, and published in Iowa Monthly Crop Report for Jan. 1931, page 6.

¹Ibid.

²As reported by cooperating markets.

Note: The above table shows the first destination of Iowa hog marketings. Hogs, for example, that may finally move to interior plants for slaughter, but go to these plants thru road stations are considered as concentration point receipts, and are credited to this group in the above table and are not included in the "Direct to interior packing plant" column. "Interior packing plants" include all those plants located in Iowa, together with similar plants located in states adjoining Iowa (but not those located at public stockyards). "Other packing plants" include all plants not included in the previous group that receive hogs direct from local shipping points in Iowa. These plants may be located in the eastern states or at public stockyards markets such as Chicago. Concentration point hogs may finally be slaughtered at packing plants in either of the two preceding groups or in other packing plants that do not receive any hogs directly from Iowa shipping points. No information is available on the final destination of hogs moved to public stockyards. They may be slaughtered in plants located (1) on that market (2) on other stockyards markets, (3) in the eastern states or even (4) at interior points.

Changes in the market destination of Iowa hogs since 1920 are shown in table II. These changes, due in part to the development of the truck and good roads, have witnessed an increase in the movement of hogs to local packing plants, and within the last two years to concentration points, and a paralleling decrease in the movement to public stockyards markets.

The proportion of Iowa's hog crop moving to market by truck increased more (from 26.5 to 31.0 percent) than the absolute number of hogs trucked because of a slight decrease in the total number of hogs marketed in 1930 as compared to 1929. (Right hand column, table II.) This change in the total hog marketings was small, the decline being about 1.2 percent. Changes in the market distribution in the 1930 hog crop were also smaller than usual with the exception of a considerable increase in the number of hogs moving to concentration points and an almost similar decline in the movement of livestock direct to "other packing plants." Public stockyard receipts declined less than 2½ percent in 1930 as compared to 1929, and the movement of hogs direct to interior markets showed a slight decline, less than 1 percent, the first since 1924. If interior packing plant receipts via concentration points are added to the direct receipts there would be a slight increase, again less than 1 percent in interior market receipts of Iowa hogs. The decline in the "other markets" receipts is almost exactly par-

TABLE III. MARKETINGS OF SWINE FROM IOWA FARMS*

| | Total movement | Thru public stockyards | Thru interior Iowa packing plants | Thru other packing plants | Percentage of total marketed direct to packers |
|------|----------------|------------------------|-----------------------------------|---------------------------|--|
| 1920 | 8,665,624 | 5,837,295 | 1,353,706 | 1,474,623 | 32.6 |
| 1921 | 8,983,719 | 5,847,456 | 1,569,105 | 1,567,158 | 34.9 |
| 1922 | 9,698,594 | 5,928,584 | 1,983,577 | 1,786,433 | 38.9 |
| 1923 | 13,316,347 | 8,337,328 | 2,686,973 | 2,291,846 | 37.4 |
| 1924 | 13,746,317 | 8,744,057 | 2,879,579 | 2,122,681 | 36.4 |
| 1925 | 10,882,512 | 6,827,361 | 2,375,406 | 1,679,745 | 37.2 |
| 1926 | 10,675,479 | 6,112,820 | 2,863,006 | 1,699,569 | 42.7 |
| 1927 | 11,551,093 | 5,880,590 | 3,283,738 | 2,377,765 | 49.0 |
| 1928 | 13,125,056 | 6,323,329 | 3,650,386 | 3,151,341 | 51.8 |
| 1929 | 12,326,623 | 4,822,808 | 3,674,057 | 3,829,668 | 60.9 |
| 1930 | 12,180,007 | 4,700,548 | 3,690,283 | 3,789,176 | 61.4 |

Note: Totals for the year 1930 are preliminary and subject to revision because of late reports to be received from a few small miscellaneous packers outside of Iowa. The adjustment for such plants will represent a very small volume of the total shipments. In the above table the column headed by the caption "Thru interior Iowa packing plants" does not include the volume of shipping to any of the packing plants in the Sioux City, Iowa, stockyards area as such records have been designated as receipts thru public stockyards. All shipments to Iowa packing plants thru concentration points or local buying stations are included in the Iowa packing plant column. Volume of shipping thru concentration points and buying stations to plants outside of Iowa are included in the fourth column of the table under "other packing plants." The annual totals and percentages for 1929, 1929 and 1930 include "directs" received by all reporting packers in Chicago. Such receipts were not reported previous to 1928. Such "directs" are included in the fourth column and not included in the second column.

*From Iowa Monthly Crop Report, Jan. 1931, Leslie M. Carl, agricultural statistician, United States Department of Agriculture. This table, in contrast with the preceding one, shows as far as possible the final destination of Iowa hogs.

alleled by the increase in the movement to concentration points.

The movement of Iowa hogs to concentration points in 1930, amounting to 2,681,000 head, was the largest since these figures first became available in 1920 and was in all probability the largest in our history. This increase in concentration point movement was largely a continuation of the development of 1929 when a considerable number of new points were established. In many cases 1930 was the first full calendar year of operation.

Table IV shows the truck movement of Iowa hogs to the above types of markets, "Other packing plants" being omitted because they do not receive any truck hogs from Iowa. Probably the most outstanding feature of this table is that the truck movement to Iowa packing plants increased 31 percent in 1930 as compared to 1929, whereas the number trucked in 1929

TABLE IV. IOWA HOGS TRUCKED TO MARKET, 1924-1929 AND PERCENT INCREASE OVER PREVIOUS YEAR

| Year | Public stockyards | Per- cent | Packing plants | Per- cent | Concentra- tion points | Per- cent | Total | Per- cent |
|------|-------------------|-----------|----------------|-----------|------------------------|-----------|-----------|-----------|
| 1924 | 592,046 | | 371,636 | | 92,269 | | 1,055,951 | |
| 1925 | 666,941 | 13 | 515,210 | 39 | 105,552 | 14 | 1,287,703 | |
| 1926 | 827,504 | 24 | 726,675 | 41 | 149,633 | 42 | 1,703,812 | 22 |
| 1927 | 850,711 | 3 | 1,060,738 | 46 | 323,000 | 116 | 2,354,516 | 37 |
| 1928 | 1,375,804 | 62 | 1,093,294 | 3 | 403,204 | 25 | 2,921,420 | 22 |
| 1929 | 1,429,119 | 4 | 1,089,097 | 0 | 750,667 | 78 | 3,268,883 | 12 |
| 1930 | 1,492,159 | 4 | 1,424,329 | 31 | 855,096 | 14 | 3,771,584 | 16 |

slightly decreased as compared to 1928; only 3 percent more were trucked in 1928 than in 1927. Truck receipts to public stockyards in 1930 increased 4 percent over 1929 as compared to a similar increase in 1929 over 1928. Truck movement to concentration points increased 14 percent as compared to a 78 percent increase in 1929 over 1928. Because of the relatively large increase in packing plant receipts of truck hogs, total truck movement of Iowa hogs increased from $3\frac{1}{4}$ to $3\frac{3}{4}$ million, approximately 16 percent.

Stockyards markets still receive more hogs by truck than either of the other two types, but they were pushed fairly closely in 1930 by packing plants. The year 1927 is the only one in which packing plants received more truck hogs than did stockyards markets since 1924, the first year in which this information became available.

Last year it appeared that possibly the volume of hogs trucked to certain types of markets had approached somewhat near the maximum. Developments during 1930 indicate that this was not wholly true, altho a study of the trend in receipts by truck at individual packing plants indicates that two or three of them are no longer increasing their receipts of trucked hogs. The development of hard-surfaced roads during 1930 and the program contemplated for 1931 indicate still further increases in the number of hogs moved by truck.

Table V shows the percentage of Iowa trucked hogs going to the three different types of market. Of Iowa's 1930 truck hog movement, 39 percent went to public stockyards, 38 percent to packing plants and 23 percent to concentration points. The proportion of the truck movement going to stockyards declined from 44 percent to 39 percent. This was, of course, because of the big increase in the truck hog movement to packing plants which increased from 33 percent in 1929 to 38 percent in 1930. Concentration points received 23 percent of the total truck movement of Iowa hogs in 1929 as well as in 1930.

Seven years' records do not indicate any definite trend in the proportion of Iowa truck hogs going to packing plants, but indicate some decline in the proportion going to public stockyards and some increase in the proportion going to concentra-

TABLE V. PERCENT OF IOWA TRUCKED HOGS GOING TO EACH TYPE OF MARKET

| Year | Public stockyards | Packing plants | Concentration points | Total |
|------|-------------------|----------------|----------------------|-------|
| 1924 | 56 | 35 | 9 | 100 |
| 1925 | 52 | 40 | 8 | 100 |
| 1926 | 48 | 43 | 9 | 100 |
| 1927 | 38 | 48 | 14 | 100 |
| 1928 | 47 | 40 | 13 | 100 |
| 1929 | 44 | 33 | 23 | 100 |
| 1930 | 39 | 38 | 23 | 100 |

tion points. If this continues, it would indicate that movement of hogs by truck to public stockyards developed more rapidly in the early stages of livestock trucking and had more nearly approached its maximum in the early stages of this study than movement by truck to other types of market, particularly to concentration points.

Altho the proportion of Iowa truck hogs going to public stockyards markets declined in 1930 as compared to 1929, receipts of truck hogs to these markets continued to increase, and in 1930 constituted 32 percent of total receipts of Iowa hogs at these markets, as compared to 30 percent in 1929, (see table VI), and only 7 percent in 1924. On the other hand, the movement of Iowa truck hogs to packing plants in relation to the total packing plant receipts of Iowa hogs, while showing the same trend, has been smaller in amount and more erratic. After reaching a high point of 26 percent in 1927, receipts of trucked hogs at packing plants in relation to total packing plant receipts of Iowa hogs declined for the next two years, but increased sharply in 1930. Concentration point receipts of trucked hogs in relation to total concentration point receipts of Iowa hogs declined somewhat from the 1929 figure, but still represents a very substantial increase over 1928, or any previous year for which information is available.

TABLE VI. PERCENTAGE IOWA TRUCKED HOGS ARE OF ALL HOG RECEIPTS FROM IOWA AT EACH TYPE OF MARKET

| Year | Public stockyards | All packing plants | Concentration points | Total |
|------|-------------------|--------------------|----------------------|-------|
| 1924 | 7 | 10 | 7 | 7.7 |
| 1925 | 10 | 17 | 10 | 11.7 |
| 1926 | 13 | 20 | 15 | 16.0 |
| 1927 | 15 | 26 | 21 | 20.4 |
| 1928 | 22 | 21 | 26 | 22.4 |
| 1929 | 30 | 20 | 36 | 26.5 |
| 1930 | 32 | 30 | 32 | 31.0 |

The percentage that trucked hogs constitute of total receipts of Iowa hogs at each type of market was nearly uniform in 1930, being 32 percent for public stockyards, 30 percent for packing plants and 32 percent for concentration points. It is possible that each type of market will tend to get about the same proportion of its receipts of Iowa hogs by truck, but it seems more probable that this is largely circumstantial and cannot be expected to continue as uniformly divided in the future.

Public stockyards markets continued to increase their truck receipts by a larger proportion than the movement of Iowa truck hogs to these markets would indicate. While the number of Iowa hogs moving to stockyards markets by truck increased but 4 percent, the proportion of receipts by truck at Sioux City and Omaha increased 8 and 7 percent, respectively, in 1930 as compared to 1929.

TABLE VII. RECEIPTS OF TRUCK HOGS, SIOUX CITY AND OMAHA.*

| Year | Sioux City | | Omaha | |
|------|------------|---------|-----------|---------|
| | Number | Percent | Number | Percent |
| 1920 | 133,591 | 6 | 181,546 | 7 |
| 1921 | 179,931 | 9 | 216,894 | 8 |
| 1922 | 277,214 | 10 | 264,614 | 9 |
| 1923 | 383,448 | 12 | 300,702 | 10 |
| 1924 | 483,307 | 13 | 414,900 | 13 |
| 1925 | 665,394 | 17 | 433,362 | 13 |
| 1926 | 845,871 | 34 | 526,095 | 20 |
| 1927 | 922,405 | 40 | 743,642 | 29 |
| 1928 | 1,378,319 | 50 | 1,204,035 | 38 |
| 1929 | 1,491,667 | 64 | 1,372,341 | 42 |
| 1930 | 1,660,250 | 72 | 1,573,060 | 47 |

*Annual reports of stockyards companies at Sioux City and Omaha.

In 11 years truck hog receipts in Sioux City have increased from 6 to 72 percent of the total receipts of hogs at that market, and in the same period receipts of hogs by truck at Omaha have increased from 7 to 47 percent.

PART II

This year for the first time preliminary information is available on the movement of Iowa cattle, calves and sheep by truck. The information is not as complete as that on the hog movement, but indicates that the use of the truck in transporting cattle and sheep to the market is rapidly becoming significant. In fact, a larger proportion of Iowa's sheep were trucked to market in 1930 than of Iowa's hogs, and truck movement of Iowa cattle to market was almost as large. (See tables VIII and IX.)

TABLE VIII. IOWA CATTLE AND CALVES, TOTAL MARKETINGS AND TRUCK MARKETINGS.

| Year | Iowa cattle marketed | Iowa cattle trucked to market | Percent |
|------|----------------------|-------------------------------|---------|
| 1929 | 1,742,813 | 317,418 | 21.3 |
| 1930 | 1,771,524 | 466,748 | 26.3 |

A little more than 25 percent of the cattle and calves trucked to market, and a similar proportion of the sheep were trucked to interior packing plants and 75 percent to stockyards markets. Concentration points, of course, do not handle cattle, calves or sheep.

TABLE IX. IOWA SHEEP TOTAL MARKETINGS AND TRUCK MARKETINGS

| Year | Iowa sheep marketed | Iowa sheep trucked to market | Percent |
|------|---------------------|------------------------------|---------|
| 1929 | 914,554 | 215,960 | 23.6 |
| 1930 | 1,119,391 | 359,356 | 32.1 |

TABLE X. IOWA MARKETINGS OF CATTLE AND CALVES 1920-1930.

| Year | Stockyards markets | Percent | Interior packers | Percent | All cattle and calves |
|------|--------------------|---------|------------------|---------|-----------------------|
| 1920 | 1,836,538 | 97.8 | 41,152 | 2.2 | 1,877,690 |
| 1921 | 1,765,563 | 97.8 | 39,275 | 2.2 | 1,804,843 |
| 1922 | 1,815,182 | 97.8 | 41,496 | 2.2 | 1,856,678 |
| 1923 | 1,954,755 | 94.5 | 114,505 | 5.5 | 2,069,260 |
| 1924 | 2,053,873 | 94.3 | 123,336 | 5.7 | 2,177,209 |
| 1925 | 1,923,439 | 94.7 | 107,448 | 5.3 | 2,030,887 |
| 1926 | 2,035,576 | 93.0 | 152,953 | 7.0 | 2,188,529 |
| 1927 | 1,916,040 | 90.1 | 210,753 | 9.9 | 2,126,793 |
| 1928 | 1,497,345 | 88.1 | 203,131 | 11.9 | 1,700,476 |
| 1929 | 1,539,847 | 88.4 | 202,966 | 11.6 | 1,742,813 |
| 1930 | 1,518,114 | 85.7 | 253,410 | 14.3 | 1,771,524 |

The proportion of Iowa cattle and sheep marketed at interior packing plants has increased considerably in the last five years. (See tables X and XI.) Complete data prior to 1925 are not available on the movement of calves to interior markets, but a considerable proportion of the increase in the total movement of cattle and calves (table X) to interior markets since then has been due to increases in receipts of calves at these local markets, while increases in the movement of cattle has been moderate.

The number of sheep going to interior packing plants has increased very considerably since 1920. In that year less than 1 percent of Iowa sheep went to interior packing plants. In 1930 more than 12 percent of Iowa sheep marketings went to interior packing plants. This is a relatively larger increase than for any other species of livestock, but as far as absolute figures are concerned the increase is relatively small because sheep and lamb production is a minor enterprise on most Iowa farms.

TABLE XI. IOWA SHEEP MARKETINGS 1920-1930.

| Year | Stockyard markets | Percent | Interior packers | Percent | All sheep |
|------|-------------------|---------|------------------|---------|-----------|
| 1920 | 956,974 | 99.3 | 6,613 | .7 | 963,974 |
| 1921 | 1,004,407 | 99.1 | 9,158 | .9 | 1,013,407 |
| 1922 | 690,652 | 98.7 | 8,605 | 1.2 | 699,652 |
| 1923 | 693,475 | 99.1 | 5,642 | .8 | 699,475 |
| 1924 | 849,847 | 99.4 | 5,285 | .6 | 855,132 |
| 1925 | 731,723 | 99.0 | 7,395 | 1.0 | 739,118 |
| 1926 | 853,211 | 99.0 | 8,578 | 1.0 | 861,789 |
| 1927 | 980,821 | 98.6 | 13,538 | 1.4 | 994,359 |
| 1928 | 836,830 | 97.9 | 17,904 | 2.1 | 854,734 |
| 1929 | 868,485 | 95.0 | 46,068 | 5.0 | 914,553 |
| 1930 | 982,045 | 87.7 | 137,346 | 12.3 | 1,119,391 |