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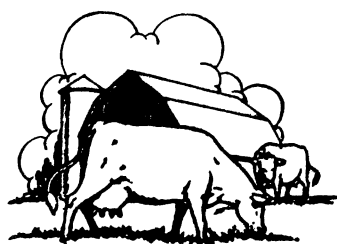
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MINNESOTA farm business NOTES



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MINNESOTA LIVESTOCK AUCTIONS IN 1955

Farhad Ghahraman and
Philip M. Raup

A joint survey by the Department of Agricultural Economics, University of Minnesota, and the U. S. Department of Agriculture indicates that over half a million head of livestock were marketed through Minnesota auction markets in 1955. This represented approximately 17 percent of the total cattle marketings in the state, 14 percent of all calf sales, 6 percent of sheep and lamb sales, but only 2.7 percent of hog marketings.

Figure 1 shows the location, approximate volume, and day of sale for the 56 livestock auctions. The annual volume varied from 41,000 head for the largest auction to a low of 528 head in the smallest. The average volume for all auctions in 1955 was about 12,000 head: 5,000 cattle, 1,700 calves, 4,000 hogs, and 1,600 sheep and lambs.

The five largest auctions handled about one-third of the total volume of livestock marketed in this manner in Minnesota in 1955. The 28 smallest auctions marketed another third of the livestock, the remaining third being handled by the medium-size auctions.

There was a wide variation among the different species in the size of shipments made to auctions. For cattle, the average shipment was eight head, while the average for calves was four head and for hogs and sheep, 13 and 11 head respectively.

A sample of shipments made to the public terminal market at South St. Paul in 1955 showed that the average shipments to the terminal market are about the same as to auction markets for cattle, calves, and sheep but are twice as large for hogs (or 7 cattle, 5 calves, 24 hogs, and 9 sheep).

Farmers are the most important customers of livestock auctions. They supplied over 70 percent of the stock and purchased more than 57 percent of the total volume sold. Packer buyers were second in importance. They accounted

for more than one-fourth of all purchases on Minnesota auctions. Dealers supplied 9 percent of the livestock offered for sale, and bought 14 percent. Auction management and buyers connected with the auctions supplied an additional 9 percent of the animals offered for sale, but accounted for only 2.5 percent of the animals bought (tables 1 and 2).

Among the species offered for sale, packer buyers bought more than half of the total number of calves, over one-third of all sheep and lambs, but only 8 percent of total hogs. This illustrates the fact that hog sales at livestock auctions in Minnesota are largely confined to the sale of feeder rather than slaughter animals.

(Continued on page 3)

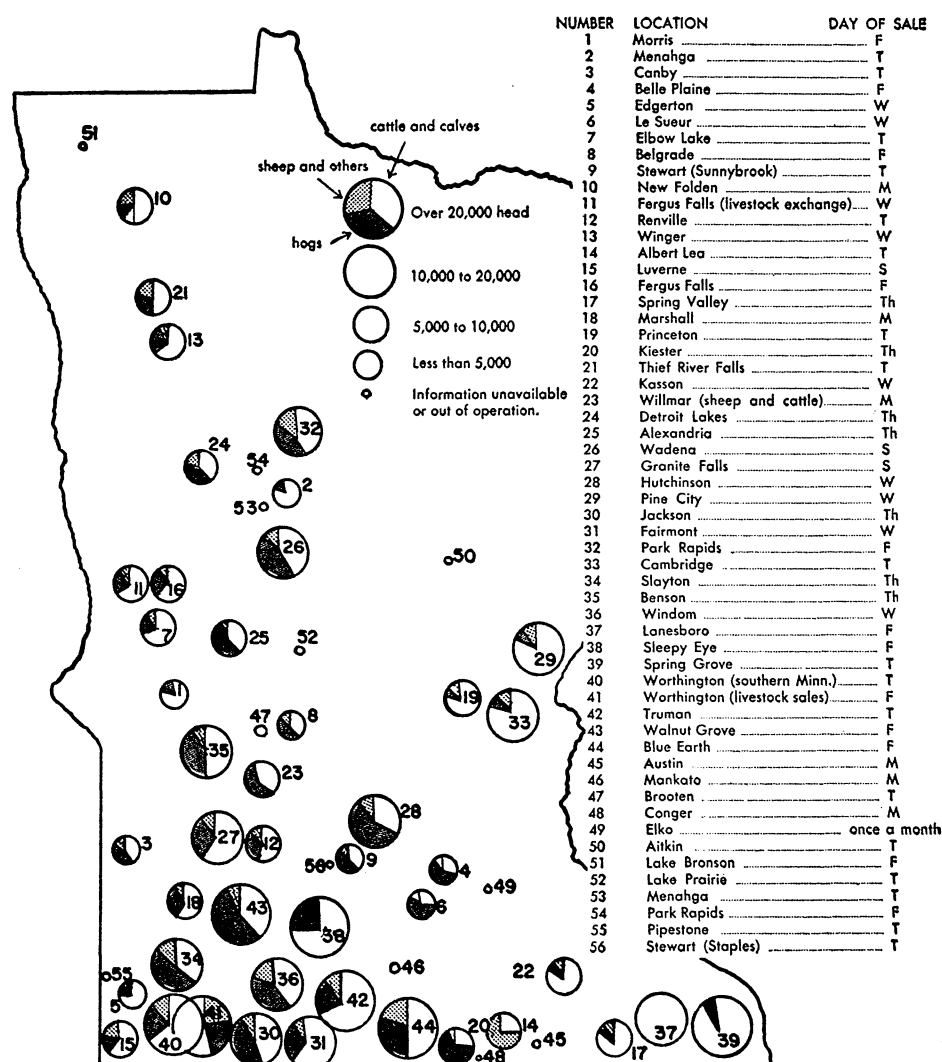


Fig. 1. Minnesota livestock auctions, 1955, approximate location, total volume handled, volume of each species as percent of total, and the day of sale.

SEASONAL CHANGES IN SOYBEAN PRICES

R. W. Cox

During the past ten years, soybean prices have behaved in a very erratic fashion. This is particularly true of the movement during the year.

The average seasonal trend for the ten-year period, October 1946 to September 1956, shows a fairly consistent upward movement from harvest through the early summer months and a downward movement during the remainder of the crop year (table 1). For example, the October price averaged about 92 percent and the April, May, and June prices about 105 percent of the annual average monthly price.

Table 1. Seasonal Indexes of Soybean Prices, 1946-1956 *

| Month | Index | Month | Index |
|-----------|-------|------------|-------|
| Oct. | 91.6 | Apr. | 105.2 |
| Nov. | 96.1 | May | 105.2 |
| Dec. | 98.5 | June | 105.1 |
| Jan. | 100.0 | July | 103.8 |
| Feb. | 98.5 | Aug. | 101.4 |
| Mar. | 102.5 | Sept. | 91.8 |

* Chicago prices of No. 1 yellow soybean were used in these calculations because Minneapolis price quotations for No. 1 were not available for the entire period. The trend of prices and month to month changes in the two markets are similar.

The trend of prices shown in table 1, however, is no indication of the trend nor the amount of change in any one year because of the irregularity of the seasonal movement from year to year.

During the crop year, 1946-47, prices rose from \$3.25 in October to \$4.00 in March and then dropped to \$3.15 in June. In the following year, the price

dropped from \$2.64 in November to \$2.26 in April. The year 1955-56 was marked by a consistent upward movement during the first nine months, the price rising from \$2.30 in October to \$3.19 in May. By the end of the crop year, however, it had declined to \$2.30.

Table 2 reveals in more detail some of the features of the seasonal changes,

from 2 to 80 cents. Prices advanced five times. The advances averaged 70 cents and ranged from 4 to 14 cents. There was no change in one year. From April to May the number of increases was equal to the number of decreases. The decreases averaged 16 cents with a range from 1 to 54 cents and the increases also averaged 16 cents but with a smaller range from 6 to 27 cents.

If a soybean producer follows a fairly uniform policy of holding or storing beans from harvest to early spring, it is

Table 2. Soybean Price Changes from Month to Month

| Month | Decrease | | | Increase | | |
|-----------------|-----------------|--------|---------|-----------------|--------|---------|
| | Number of times | Amount | | Number of times | Amount | |
| | | Range | Average | | Range | Average |
| | | cents | | | cents | |
| Oct.-Nov. | 3 | 1-6 | 3 | 7 | 2-49 | 19 |
| Nov.-Dec. | 3 | 1-12 | 5 | 7 | 3-25 | 12 |
| Dec.-Jan. | 4 | 1-10 | 4 | 5 | 4-29 | 12 |
| Jan.-Feb. | 4 | 2-80 | 23 | 5 | 4-14 | 10 |
| Feb.-Mar. | 3 | 2-23 | 11 | 7 | 1-75 | 22 |
| Mar.-Apr. | 4 | 2-30 | 12 | 5 | 2-36 | 26 |
| Apr.-May | 5 | 1-54 | 16 | 5 | 6-27 | 16 |
| May-June | 5 | 1-17 | 10 | 5 | 2-24 | 11 |
| June-July | 5 | 8-43 | 22 | 5 | 4-29 | 14 |
| July-Aug. | 7 | 3-60 | 19 | 2 | 4-59 | 31 |
| Aug.-Sept. | 10 | 8-80 | 28 | ... | ... | ... |
| Sept.-Oct. | 5 | 14-41 | 25 | 3 | 2-20 | 8 |

especially the month-to-month changes. The data emphasize the extreme uncertainty involved in attempting to forecast the month-to-month changes. They have much bearing on the decision of the holder as to whether or not he should hold his soybeans for another month.

During the ten-year period under consideration, prices declined four times from January to February. The declines averaged 23 cents and ranged

likely that the increased returns would exceed the cost of holding.

But, if he attempts to hold with the expectation of getting the highest price of the season he will be fortunate if he breaks even. The extreme changes that occur from month to month make it almost impossible for one to conclude that this month or next month is the time to sell. Success in selecting the best month appears to be mainly chance.

INDEX NUMBERS

R. W. Cox

The Department of Agricultural Economics at the University maintains a record of prices received by Minnesota farmers for each month. These prices are combined into index numbers and the latter are reported monthly on the back page of "Minnesota Farm Business Notes."

A summary of the annual index of prices received from the sale of crops, livestock, and livestock products is presented in table 1. Livestock includes hogs, cattle, calves, sheep, and lambs. Livestock products include dairy and poultry products. The various index numbers are based on the period 1935-39. This means that the figure appearing for any one year is expressed as a percent of the average price in 1935-39.

Table 1. Index Numbers of Prices Received by Minnesota Farmers and the Purchasing Power of a Unit of Farm Products, 1935-56

| Year | Indexes of prices received | | | | Index of purchasing power |
|------------|----------------------------|-------|---------------|--------------------|---------------------------|
| | All products | Crops | Livestock | Livestock products | |
| | | | 1935-39 = 100 | | |
| 1935 | 101 | 100 | 103 | 103 | 100 |
| 1936 | 110 | 113 | 104 | 107 | 110 |
| 1937 | 116 | 138 | 113 | 112 | 111 |
| 1938 | 90 | 75 | 94 | 94 | 91 |
| 1939 | 84 | 73 | 88 | 83 | 86 |
| 1940 | 87 | 80 | 84 | 92 | 88 |
| 1941 | 112 | 91 | 117 | 116 | 107 |
| 1942 | 143 | 121 | 158 | 139 | 117 |
| 1943 | 172 | 163 | 172 | 173 | 128 |
| 1944 | 171 | 180 | 164 | 171 | 121 |
| 1945 | 175 | 184 | 170 | 174 | 121 |
| 1946 | 212 | 221 | 208 | 211 | 134 |
| 1947 | 269 | 307 | 286 | 231 | 146 |
| 1948 | 280 | 285 | 298 | 257 | 140 |
| 1949 | 228 | 211 | 253 | 207 | 117 |
| 1950 | 235 | 220 | 278 | 195 | 115 |
| 1951 | 273 | 238 | 321 | 230 | 120 |
| 1952 | 262 | 257 | 289 | 235 | 115 |
| 1953 | 235 | 223 | 252 | 223 | 106 |
| 1954 | 218 | 210 | 246 | 189 | 97 |
| 1955 | 198 | 203 | 205 | 188 | 87 |
| 1956 | 196 | 210 | 195 | 188 | 85 |

MINNESOTA farm business

NOTES

Prepared by the Department of Agricultural Economics and Agricultural Extension Service.

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The index of prices for all products moved upward during World War II and the post war years, reaching a peak of 280 in 1948. The drop in the next two years was followed by another rise up to 273 in 1951. Since then, the index has declined and averaged 196 in 1956.

The indexes of the three groups of products have followed trends somewhat similar to the over-all index. This is to be expected because the latter is a composite of the indexes of the several groups of products. The index of crop prices was 73 in 1939 but by 1947 it had quadrupled. The secondary peak of 257 was reached in 1952.

The index of livestock prices has shown a different pattern of ups and downs than the index of crop prices. For example, the index of livestock prices did not reach its peak until 1951 and the decline since then has been a consistent one. The index was 195 in 1956 or 60 percent of the peak in 1951.

The index of livestock product prices had climbed to 257 in 1948. The drop in the index following the secondary peak of 235 in 1952 brought the index to 188 in 1956.

The purchasing power of a composite unit or a given amount of Minnesota farm products is given in the last column of table 1. This has been determined by dividing the index of prices received for all products by the index of prices paid and multiplying the result by 100.

For example, the index of prices received was 196 in 1956 and the index of prices paid was 228. The division of 196 by 228 gives .85 and 100 times .85 equals 85. This means that the purchasing power of a given amount of farm products sold was 85 percent of that in 1935-39. The decline since the peak of 120 in 1951 has been quite marked.

It should be noted that this purchasing power should not be confused with the purchasing power of the farmer himself. The latter will, in part, depend on the total money received from the sale of products. This in turn depends not only on price but also on the total volume of sales.

Auctions—

(Continued from page 1)

Table 1. Proportions of Various Species Sold by Different Types of Consignors

| Type of consignors | Cattle | Calves | Hogs | Sheep | All livestock |
|-------------------------|---------|--------|------|-------|---------------|
| | percent | | | | |
| Farmers | 62.1 | 80.1 | 73.1 | 87.0 | 70.7 |
| Dealers | 23.5 | 9.1 | 19.2 | 8.6 | 18.5 |
| Auction personnel | 12.0 | 7.4 | 7.6 | 4.4 | 9.1 |
| Others | 2.4 | 3.4 | .8 | 0 | 1.5 |

One reason for the small hog sale is that some local markets handling feeder pigs are not properly listed as auction markets and are not included in this study. The feeder pig market at Little

Table 2. Proportions of Various Species Purchased by Different Types of Buyers

| Type of buyers | Cattle | Calves | Hogs | Sheep | All livestock |
|--|---------|--------|------|-------|---------------|
| | percent | | | | |
| Farmers and order buyers for feeders | 49.6 | 30.6 | 79.1 | 57.7 | 57.5 |
| Packers and order buyers for packers | 29.2 | 53.8 | 7.9 | 33.4 | 25.6 |
| Dealers | 18.0 | 14.3 | 11.4 | 7.5 | 14.1 |
| Auction personnel | 3.0 | 1.4 | 2.8 | 1.4 | 2.5 |

Falls in Morrison County is the leading market of this kind in the state. In 1955, this market handled over 187,000 feeder pigs. This was approximately 23,000 more than the total number of hogs marketed through all livestock auctions in the state that year.

The livestock auction in Minnesota is largely local in character. Approximate-

value of livestock sold. At some auctions, the rate is a flat percentage of the gross value of the livestock, while at others the rate is graduated—decreasing as the gross value increases. Commissions based on a flat percentage of gross value were used at 19 auctions, while 25 used graduated rates.

As shown in table 4, the most common commission charge is 3 percent at a uniform rate. The decreasing rates most frequently begin with 5 percent of the value of the sale, then to 4 or 3½ percent of sales between \$500-1,000, and to 3 or 2½ percent when the sale is over \$1,000. Some auctions discriminate between farmers and dealers, having lower rates for the dealers.

Only 17 auctions reported yardage charges, and not all of these levy yard-

age charges for all species. The charges varied from 5 to 40 cents a head. In addition to yardage charges, 19 auctions also levied insurance charges varying from 1 to 35 cents per head.

Local community auctions are an important part of the livestock marketing structure in Minnesota. Farmer sellers and buyers are the major source of

Table 3. Origin of Livestock Sold in Auctions by Distance Zones and Size of Auctions, 1955

| Size of auctions (No. of head sold per year) | Number of Auctions | Percent consigned from different zones | | | |
|--|-----------------------|--|----------------|----------------|------------------|
| | | 0-9 miles | 10-24 miles | 25-49 miles | over 50 miles |
| 0-5,000 | 9 | 30.2 | 37.7 | 16.1 | 16.0 |
| 5,001-10,000 | 16 | 41.7 | 30.5 | 14.1 | 13.5 |
| 10,001-20,000 | 12 | 41.7 | 30.3 | 14.3 | 13.5 |
| Over 20,000 | 7 | 25.3 | 32.0 | 13.8 | 29.0 |
| All auctions | 44 | 33.5 | 31.5 | 14.4 | 20.6 |

ly two out of three consignments originate within 25 miles of the auction market. The larger auctions receive a higher proportion of total consignments from distances over 50 miles.

The seven auctions in the state that marketed over 20,000 head of livestock per auction in 1955 received 29 percent of their consignments from distances over 50 miles away. Only one-fourth of their total consignments came from distances of 10 miles or less from the market center (table 3).

The principal auction marketing costs are commissions, yardage, insurance, and inspection charges. Not all charges are levied at all auctions.

All of the auctions charge a commission, based on some percentage of gross

auction patronage, with packer buyers second in importance. The traditional local livestock dealer is a relatively minor source of supply or demand for livestock marketed through auctions.

Table 4. Commission Rates in 44 Minnesota Livestock Auctions

| Charges based upon percent of gross sale | Number of auctions charging uniform or graduated rates | |
|--|---|--|
| | Uniform rate | Initial rate (reduced as gross value increases) |
| percent | | |
| 3 | 13 | 5 |
| 4 | 3 | 7 |
| 5 | 3 | 11 |
| 6 or more | | 2 |
| Total | 19 | 25 |

Minnesota Farm Prices, Jan. and Feb., 1957

Prepared by R. A. Andrews

Average Farm Prices for Minnesota, January 1957, February 1955, 1956, 1957 *

| | Jan. 1957 | Feb. 1957 | Feb. 1956 | Feb. 1955 |
|-------------------|--------------|--------------|--------------|--------------|
| Wheat | \$ 2.09 | \$ 2.10 | \$ 2.09 | \$ 2.28 |
| Corn | 1.09 | 1.04 | 1.13 | 1.23 |
| Oats | .68 | .65 | .55 | .67 |
| Barley | .94 | .93 | .88 | 1.06 |
| Rye | 1.20 | 1.09 | .91 | 1.12 |
| Flax | 3.11 | 3.00 | 3.13 | 3.04 |
| Potatoes | .57 | .54 | 1.40 | .80 |
| Hay | 16.90 | 16.70 | 15.30 | 16.90 |
| Soybeans † | 2.23 | 2.17 | 2.18 | 2.50 |
| Hogs | 17.40 | 16.20 | 11.80 | 16.00 |
| Cattle | 13.90 | 13.80 | 13.40 | 16.50 |
| Calves | 18.10 | 18.90 | 17.80 | 17.80 |
| Sheep-lambs | 17.23 | 17.87 | 17.20 | 18.54 |
| Chickens | .107 | .105 | .188 | .178 |
| Eggs | .240 | .240 | .320 | .350 |
| Butterfat | .640 | .630 | .620 | .620 |
| Milk | 3.20 | 3.15 | 3.05 | 3.05 |
| Wool † | .48 | .48 | .38 | .49 |

* Average prices as reported by the USDA.

† Not included in Minnesota farm price indexes.

The drop in the index of crop prices from February, 1956 to February, 1957 was due almost entirely to the marked decline in potato prices and the fact that potato prices are weighted heavily in this month relative to the weighting of other crops.

Comparison of January and February Prices

| Commodity class | Average February prices as a percent of average January prices |
|--------------------------|--|
| Crops | 97 |
| Livestock | 97 |
| Livestock products | 98 |
| All commodities | 97 |

Indexes for Minnesota Agriculture *

| | Average Feb. 1935-39 | Feb. 1957 | Feb. 1956 | Feb. 1955 |
|--|----------------------------|--------------|--------------|--------------|
| U. S. farm price index | 100 | 214.3 | 207.0 | 224.4 |
| Minnesota farm price index | 100 | 187.0 | 180.9 | 199.4 |
| Minnesota crop price index | 100 | 153.5 | 189.7 | 178.3 |
| Minnesota livestock price index | 100 | 208.9 | 178.3 | 222.4 |
| Minnesota livestock products price index | 100 | 175.8 | 180.1 | 181.6 |
| Purchasing power of farm products | | | | |
| United States | 100 | 91.2 | 92.5 | 99.3 |
| Minnesota | 100 | 79.6 | 80.9 | 83.1 |
| U. S. hog-corn ratio | 13.1 | 13.7 | 10.2 | 11.7 |
| Minnesota hog-corn ratio | 15.5 | 15.6 | 10.4 | 13.0 |
| Minnesota beef-corn ratio | 12.1 | 13.3 | 11.9 | 13.4 |
| Minnesota egg-grain ratio | 14.4 | 9.4 | 12.6 | 12.4 |
| Minnesota butterfat-farm-grain ratio | 34.2 | 32.1 | 34.0 | 28.9 |

* Minnesota index weights are the average of sales of the five corresponding months of 1935-39. U. S. index weights are the average sales for 60 months of 1935-39.

The Outlook Corner—Poultry Trends

Per capita consumption of eggs was very high in the late 1940's and early 1950's but leveled off slightly below those peaks (table 1). Per capita consumption of poultry meats, however, continues to increase from year to year.

Table 1. Per Capita Consumption of Eggs and Poultry Meats, United States *

| Year(s) | Eggs | Chickens | Broilers | Turkeys |
|---------------|--------|----------|----------|---------|
| | | pounds | | |
| 1935-39 | 298 | 12.2 | 1.0 | 2.2 |
| 1945-49 | 382 | 14.0 | 5.1 | 3.4 |
| 1950-54 | 380 | 10.3 | 11.2 | 4.6 |
| 1955 | 366 | 7.5 | 13.4 | 5.0 |
| 1956 | 365 | 7.3 | 16.1 | 5.4 |
| 1957 | 363 | 7.3 | 17.3 | 5.2 |
| | (est.) | | | |

* Ready-to-cook basis.

Minnesota produced about 7 percent of the total annual United States egg production since 1945, compared to 4.5 percent in the late 30's. The number and size of flocks changed too. The 4.2 million flock owners in 1950 dropped to

production is quite small. The less spectacular upward trend in turkey meat consumption is very important to Minnesota producers. Both increases are partially offset by less consumption of farm chickens because of more sexed chicks and fewer but better laying hens (table 2).

Egg production, Minnesota's largest poultry industry, may continue at a high level with little change in per capita consumption rates. Poultry meat production, except for farm chickens, may climb some more. Profit margins on eggs will continue to be narrow but the less favorable trends will have offsetting factors such as:

- a continued upward trend in more eggs per 100 pounds of feed.
- sized flocks that economize on labor and capital.
- less marked seasonality.
- improved processing and merchandising.

Table 2. Egg Production

| Year | United States | | Minnesota | | |
|------------------|---------------|--------------|------------|--------------|----------------------|
| | Total eggs | Eggs per hen | Total eggs | Eggs per hen | Share of U. S. total |
| | million | number | million | number | percent |
| 1935-39 av. | 36,381 | 128 | 1,599 | 123 | 4.4 |
| 1945-49 av. | 55,724 | 161 | 3,763 | 172 | 6.8 |
| 1950-54 av. | 58,385 | 179 | 3,914 | 192 | 6.7 |
| 1955 | 59,485 | 192 | 4,287 | 201 | 7.2 |
| 1956 | 61,000 | | 4,100 | | |

* Based on average number of layers.

3.4 million by 1954. About one-third of the eggs came from 400 bird flocks in 1950. Four years later about one-half came from this size flock.

The increase in broiler consumption is fantastic. However, this state's broiler

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