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# FARM BUSINESS NOTES

Prepared by the Divisions of Agricultural Economics and Agricultural Extension  
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## Variations In Prices Paid for Hogs In Minnesota

By S. T. WARRINGTON AND W. C. WAITE

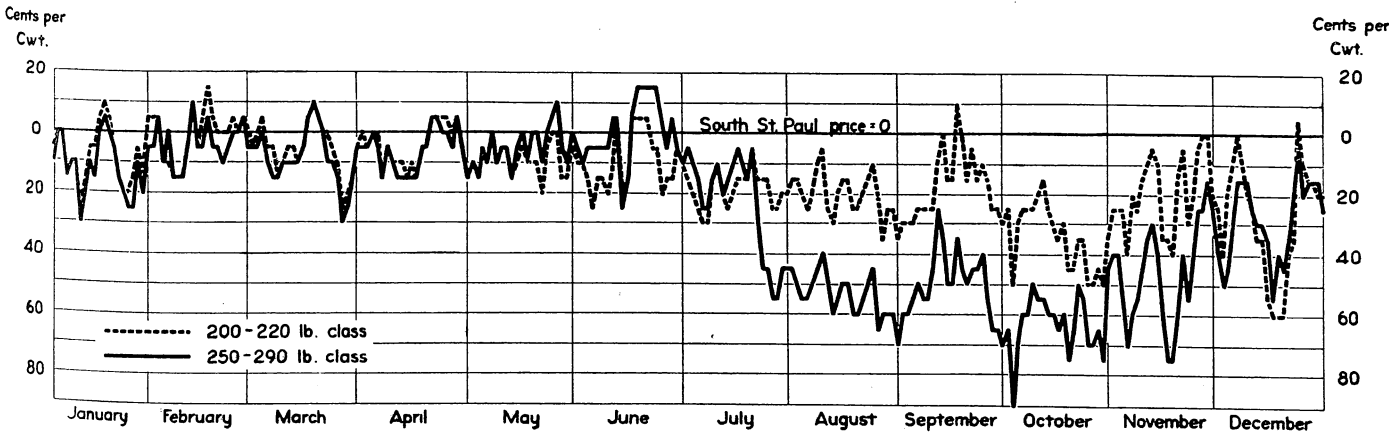
For many Minnesota farmers, the choice of the most profitable hog market has become an increasingly difficult problem in recent years. At one time, this choice was limited by freight rates and marketing facilities to the public markets. In the last two decades, however, trucks, good roads and the increase in volume handled by interior packers has multiplied this choice of outlets several times. Thus, where the farmer once merely consigned his livestock to a selling agency on the public market, he now has the opportunity of selecting on the day of sale the market outlet that promises to be the most profitable. This choice of outlet depends on many factors—transportation, marketing costs, grading policies and, lastly, price differentials between the markets for each class and grade of hog he has for sale. The transportation and marketing costs, of course, remain relatively constant. It is assumed in this study that grading policies within each market remained constant thru the period analyzed. Under these circumstances, the determining factor in the choice of outlets would be the difference in prices paid. Differences in methods of quotation do not permit us to say by what absolute amount prices are higher in one market than another. But if the basis of quotation is the same throughout the period in each of these markets, the quotations are adequate to show how the markets changed in price relative to one another.

Quotations from three markets, South St. Paul, Austin and Albert Lea, for 3 years, 1935, 1936, 1937, have been assembled from market reports and newspapers. The

three weight classes selected for comparison were 160-180, 200-220 and 250-290 pounds. The top of the range in daily prices quoted for each of these weights was used to compute yearly, monthly and weekly average differences between the three markets. It was the purpose of this analysis to determine the extent and frequency of the changes in differential between these markets and to a lesser extent the changes in differentials between weight classes.

During periods of steady prices, such as prevailed during the first 4 months of 1937, farmers might expect that the price relationship between these market outlets would remain relatively constant. The graph on page one indicates, however, that during this period there was considerable daily fluctuation in the spread between the prices paid by Austin and South St. Paul for 200-220 pound hogs. Austin's price ranged from 25 cents below to 15 cents above South St. Paul. A graph of changes between Albert Lea and South St. Paul would have a similar appearance. Table 1 indicates the amount of the change in spread within the week for the first 17 weeks of 1937. The change in spread during the week averaged 16 cents and only on 21 days during this period did the spread or difference in South St. Paul and Austin prices remain the same as on the preceding day.

Comparing this period with the 15-week period of rising hog prices in May, June, July and the first part of August, we find that the daily fluctuations in the spread between South St. Paul and Austin were somewhat less vio-



DAILY FLUCTUATIONS IN THE SPREAD BETWEEN QUOTED HOG PRICES AT SOUTH ST. PAUL AND AUSTIN DURING 1937

lent, Austin's price varying from 30 cents below to 5 cents above South St. Paul. The average change in spread within the week was 14 cents and there were 20 days when the spread remained the same.

**Table 1**  
Number of Weeks in Which the Spread Between Austin and South St. Paul Quotations Changed by the Given Amount, 1937

Size of change within the week in cents	Prevailing Price Trend		
	Steady prices	Rising prices	Falling prices
	January to April 31, inclusive	May to August 13	August 16 to December 1
0.....	0	0	0
5.....	2	0	2
10.....	3	7	1
15.....	5	5	4
20.....	5	1	3
25.....	2	2	5
Average change ...	16 cents	14 cents	18 cents

In the period of falling prices from mid-August to December in 1937, we find the changes in spread varying somewhat more than in either the steady or rising price period. The Austin price was above South St. Paul at one time by 10 cents and below at another time by 50 cents. During this period, the average weekly change in spread was 18 cents and there were 19 days when the spread remained the same as on the preceding day. It thus appears that there is only a slight difference in the variations between markets during periods of steady, rising or falling prices.

Another problem confronting producers in the sale of their hogs is the change in relationship between prices on different weights. Thus, the one market may be a favorable outlet for two weights on one day or week, while in the next period the price may shift on one weight more than on the other. This is illustrated by the graph on page one. During early July, 1937, heavy butcher prices at Austin were within 20 cents of South St. Paul, and the same was true of medium hogs, while during the latter part of this same month the heavy butchers were 50 cents less at Austin and medium hogs retained the 20-cent differential. Thus, it would seem advisable for producers to check the spreads on all weights on the day of sale.

**Table 2**  
Number of Weeks in Which the Austin Quotation Averaged More or Less than South St. Paul by Specified Amounts, 1935-1936-1937

	Weight of Hogs		
	160-180 pounds	200-220 pounds	250-290 pounds
Austin above South St. Paul by:	(weeks)	(weeks)	(weeks)
11 to 20 cents.....	0	2	2
1 to 10 cents.....	0	10	5
Austin below South St. Paul by:			
0 to 9 cents.....	0	39	33
10 to 19 cents.....	1	43	34
20 to 29 cents.....	6	37	19
30 to 39 cents.....	8	19	19
40 cents or more.....	141	6	44

The very large changes in the spread between these markets, which have been shown in some detail for 1937, have also occurred in other years as well. The extent of these changes are indicated in Tables 2 and 3, which com-

bine the data for the 3 years 1935-1936-1937. Table 2 shows the number of weeks in which the average quotation for the week at Austin was a given amount above or below the average quotation for the same week at South St. Paul. Thus, there were 12 weeks in the 3-year period when 200-220 pound hogs averaged more for the week in Austin than at South St. Paul, and 25 weeks when Austin averaged more than 30 cents below South St. Paul. The data also appear to indicate that South St. Paul was relatively a more favorable market for the 160 to 180-pound hogs than for the medium weights and there was a similar though less marked tendency with respect to the heavier weights of hogs.

The large number of weeks found with different spreads in the average weekly quotations of the two markets indicate that the more profitable market for sale must shift for a considerable number of producers at various times. The weekly averages do not tell the whole story, however, for there are large changes in these market relationships even within the week. These changes are shown in Table 3. Thus there were 31 weeks in which the relationship between South St. Paul and Austin changed 25 cents or more on the 200-220 pound hogs. There were 112 out of the 156 weeks in which changes of 10, 15 or 20 cents took

**Table 3**  
Number of Weeks in Which the Spread Between Austin and South St. Paul Quotations Changed by the Given Amount, 1935-1936-1937

Amount of change within the week	Weight of Hogs		
	160-180 pounds	200-220 pounds	250-290 pounds
None.....	0	1	3
5 cents.....	10	12	8
10 cents.....	31	35	39
15 cents.....	41	44	32
20 cents.....	22	33	38
25 cents.....	23	15	11
30 cents.....	10	5	11
Over 30 cents.....	16	11	13

place. When these changes are compared with the average differences for the week shown in Table 2, the two appear to be of about the same magnitude in their size. This means that the changes within the week between the prices in the two markets is as great as the average difference between them. This fluctuation in spread, though not so marked, is also evident in a comparison of Albert Lea and Austin prices. During the 3 years, the spread between their prices on the 200-220 pound class changed 10 cents or more during 89 weeks and remained the same only 9 weeks out of 156.

These comparisons indicate clearly certain facts of importance to the sellers of hogs: (1) There is a wide variation in the price differentials among hog outlets at different periods, the range in the difference for each of the included years amounting to nearly 50 cents between the public and interior markets on 200-220 pound hogs; (2) the price differential changes frequently, in over half the weeks in the 3-year period the spread on 200-220 pound hogs changed by 15 cents or more during the week; (3) the amount of the differential and changes in the differential vary for different weights of hogs. It is obvious that hog producers having access to a number of markets must fol-

low the prices of the various weight and grade classifications in all these markets closely if they are to sell their hogs to the best advantage.

## Local Cooperative Livestock Shipping Associations in Minnesota

By A. A. DOWELL

The local cooperative livestock shipping association movement in Minnesota began with the organization of a local association at Litchfield in 1908. By 1913 there were 115 active associations and by 1919 there were 655. A slight decline in numbers took place during the next decade, with a total of 603 associations reporting in 1928. By 1931 the number had declined to 520 or 20 per cent below the 1919 level, and by 1936 numbers had declined to 262. Thus, there were only 40 per cent as many active associations in 1936 as in 1919.

The number of members of local shipping associations increased from an estimated total of 25,000 in 1913 to 124,000 in 1919. Nearly 70 per cent of the farmers of the state were members of local shipping associations at that time. By 1936, however, the number of members had declined to about 45,000 or approximately 22 per cent of the farmers of the state.

In 1913 about 12 per cent of the livestock marketed from Minnesota farms was handled by local livestock shipping associations. By 1919 over 61 per cent of the livestock marketed by Minnesota farmers was shipped through the local associations. Although the number of associations had declined 20 per cent by 1931, the proportion of total state marketings declined only slightly, as the average volume of business handled by the remaining associations was larger than in 1919. During 1936 the 262 active associations handled less than 13 per cent of the livestock marketed by Minnesota farmers.

Before the shipping association movement began, farmers with less than carload lots commonly sold their livestock to the local dealer, who assembled full carloads for consignment to some convenient market. Many farmers felt that margins were too large and that they could be reduced by cooperative shipping. The local cooperative livestock shipping association enabled the individual farmer to ship his livestock, regardless of number, at full carload rates to the public market where they could be sold separately. This arrangement appealed to producers generally as indicated by the large proportion of Minnesota farmers using the shipping associations when this movement reached its peak. Viewed in retrospect, it appears that the local associations performed much needed services for producers during this period. They were organized to assemble and forward livestock by rail to a particular market, and to return to the producer the proceeds from the sale of his particular lot of livestock less association, transportation and marketing costs.

### Market Outlets Increase

Shortly after the World War a number of new developments began to affect the activities of the local associations. The mileage of hard surfaced roads and the number and efficiency of motor trucks for the transportation of live-

stock increased greatly. In many cases, producers were able to ship their small lots of livestock to market by truck, and hence did not need to rely on the local shipping associations to supply transportation facilities. Grade standards were improved and market news was made available through the medium of the telephone, the radio and the press. These developments not only brought the individual farmer in closer touch with his former market, but in many cases made available additional outlets. As a result, large numbers of producers dropped out of the local associations and marketed their own livestock through other channels.

However, many of these producers, who are now marketing their own livestock individually, are confronted with marketing problems. These problems include the securing of accurate price quotations from the available outlets, the interpretation of the quoted prices in terms of particular classes and grades of livestock, and the difficulty of transporting small lots to more than one market to take advantage of the differential in quotations on the different grades.

### Marketing Organization Necessary

If local associations are to assist producers in the solution of these problems in some parts of the state, it appears that they will need to be organized as marketing rather than forwarding associations. This involves keeping in touch with the available outlets, interpreting the prices quoted on the various classes and grades, grading to meet the requirements of buyers, and coordinating transportation so that the livestock can be moved to the best outlet at the least cost including cash outlay and losses from tissue shrinkage, death, crippling and bruising. To insure adequate volume to justify the expense of a capable manager, office and yard force, adequate equipment and the expense of keeping in touch with the available outlets, the association should have 500 to 1,000 or more members. Such an association might include the greater part of a county or parts of adjoining counties. With adequate volume, the association manager will be in position to sort and grade the livestock into lots large enough to justify the sale and transportation of each grade to the outlet or buyer whose price is best for that particular kind of livestock.

The type of lease which gives best satisfaction on a particular farm may prove unsatisfactory on another farm, or on the same farm with a different tenant or landlord. In other words, there is no one best type of lease.

### *Farm Business Notes Changed*

With this issue, Minnesota Farm Business Notes, hitherto published in mimeograph form, becomes a printed publication. This change makes possible some increase in the amount of agricultural economics information in each issue. There will also be some increase in the number of copies printed, and so far as the supply permits, additional names may be added to the mailing list by requesting the publication from a county agricultural agent or the Bulletin Room, University Farm, St. Paul.

# Minnesota Farm Prices for June, 1938

Prepared by W. C. WAITE and W. B. GARVER

The index number of Minnesota farm prices for the month of June, 1938, was 73. When the average of farm prices of the three Junes, 1924-25-26, is represented by 100, the indexes for June of each year from 1924 to date are as follows:

June 1924—84	June 1929—109	June 1934—56
June 1925—108	June 1930—90	June 1935—78
June 1926—110	June 1931—58	June 1936—78
June 1927—100	June 1932—39	June 1937—96*
June 1928—110	June 1933—48	June 1938—73*

\* Preliminary.

The price index of 73 for the past month is the net result of increases and decreases in the prices of farm products in June, 1938, over the average of June, 1924-25-26, weighted according to their relative importance.

## Average Farm Prices Used in Computing the Minnesota Farm Price Index, June 15, 1938, with Comparisons

	June 15, 1938	May 15, 1938	June 15, 1937	Average June 1924-25-26	Per cent June 15, 1938 is of May 15, 1938	Per cent June 15, 1938 is of June 15, 1937	Per cent June 15, 1938 is of June 15, 1924-25-26
Wheat	.81	.79	1.14	1.36	102	71	60
Corn	.43	.44	1.05	.69	98	41	62
Oats	.20	.21	.39	.39	95	51	51
Barley	.42	.49	.61	.59	86	69	71
Rye	.43	.46	.79	.74	93	54	58
Flax	1.62	1.75	1.73	2.31	93	94	70
Potatoes	.45	.40	1.05	.84	112	43	54
Hogs	8.10	7.40	10.30	9.87	109	79	82
Cattle	6.60	6.30	7.70	6.26	105	86	105
Calves	7.70	7.50	8.30	8.44	103	93	91
Lambs—sheep	6.99	6.82	8.98	11.28	102	78	62
Chickens	.134	.140	.125	.18	96	107	74
Eggs	.163	.164	.160	.24	99	102	68
Butterfat	.26	.27	.33	.40	96	79	65
Hay	5.12	5.42	7.82	11.57	94	65	44
Milk	1.50	1.55	1.70	1.98	97	88	76

The Minnesota Farm Price Index Number dropped one point from 74 for May 15th to 73 for June 15th. This was a continuation of the decline which began in the early part of last year. The index reached a high point of 107 in February, 1937. This was abnormally high, considering the level of other wholesale prices, and was largely a reflection of the 1936 drouth shortages.

The index for June, at 73, is the lowest point it has reached since late summer and early fall of 1935, and is at the lowest point for June since 1934 when it was 56.

## Indexes and Ratios of Minnesota Agriculture\*

	June 1938	May 1938	June 1937	Average June 1924-26
U. S. farm price index	66.2	66.7	89.2	100
Minnesota farm price index	72.8	74.0	95.6	100
U. S. purchasing power of farm products	81.7	83.8	102.6	100
Minnesota purchasing power of farm products	89.8	93.0	110.0	100
Minnesota farmer's share of consumer's food dollar		43.7	51.7	52.4
U. S. hog-corn ratio	15.3	13.9	8.5	12.2
Minnesota hog-corn ratio	18.8	16.8	9.8	14.5
Minnesota egg-grain ratio	16.8	16.9	9.2	14.5
Minnesota butterfat-farm-grain ratio	36.0	34.6	23.6	33.2

\* Explanations of the computation of these data may be had upon request.

## Recent Price Declines

A comparison of the price declines during the past 18 months with the somewhat analogous period in 1929-1930 is made in the following table. The drop in the Minnesota Farm Price Index was more precipitate in the recent period than it was during 1929-30. But the B.L.S. wholesale index of "raw materials" and of "all commodities except farm products" were at somewhat higher levels

	April 1929	July 1930	Feb. 1937	May 1938
Minnesota farm price index	112	82	107	74
B.L.S. all commodities except farm products (1926=100)	93	84	85	80
B.L.S. raw materials (1926=100)	97	81	88	70

in 1929 than in 1937. This in part explains the greater decline for the Minnesota Farm Price Index. Its comparatively high level in early 1937 was in a large measure the result of the conditions arising from the 1936 drouth, which affected the other two indexes to a very minor extent. Hence a considerable amount of the 1937 decline in the Minnesota Farm Price Index was a readjustment down to lower levels as the drouth effect wore off. But it should be noted that the raw materials index also declined somewhat more sharply in 1937-38 than it did in the earlier period.

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