



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search  
<http://ageconsearch.umn.edu>  
[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

AGRICULTURAL EXTENSION DIVISION  
UNIVERSITY OF MINNESOTA

W. C. Coffey, Acting Director

MINNESOTA FARM BUSINESS NOTES

No. 129

September 20, 1933

Prepared by the Division of Agricultural Economics  
University Farm, St. Paul, Minnesota

PRICE VARIATIONS IN MINNESOTA HOG MARKETS

Prepared by W. C. Waite, R. W. Cox, and P. E. Quintus

Changes in the methods of marketing hogs in recent years have provided certain Minnesota producers with a variety of outlets. The price relationships among these possible outlets are constantly changing. Examples of these variations are given in the following discussion. It is not the purpose of the discussion to appraise the recent changes in hog marketing, nor to assume that wide fluctuations in market differentials will continue, but rather to point out the way in which they are now of significance to many hog producers.

The data for this study are the quotations of light (160-200 pound), medium (200-250 pound), and heavy (250-350 pound) butcher hogs at Chicago, South St. Paul, Albert Lea and Austin. The quotations for the terminal markets were obtained from the Bureau of Agricultural Economics, while the quotations for Albert Lea and Austin were obtained from the daily price cards of the interior packers or the prices published in local papers. The average of the daily high and low of each weight class was computed and rounded to the nearest five cents. Weekly averages were then computed from the daily prices. The quotations from the different markets can not be compared directly because of differences in services and methods of quoting prices. The comparisons made here are of variations in the spread among markets. These variations are of significance to hog producers who have available a choice of market outlets.

The amount that the spread has changed between these markets during the course of each of the past four years is shown in Table 1. This table indicates the extent to which the spreads have failed to remain constant.

Table 1

Change in the Spread between Specified Markets in Given Years  
for Quoted Prices of Particular Grades of Hogs  
(cents per cwt.)

Year	So. St. Paul and Chicago			Albert Lea and So. St. Paul			Austin and So. St. Paul		
	Light	Medium	Heavy	Light	Medium	Heavy	Light	Medium	Heavy
1929	60	35	45	65	80	75	65	50	50
1930	60	70	105	80	55	55	100	60	60
1931	55	65	80	55	50	45	85	55	40
1932	35	45	50	65	55	50	50	35	35

In 1929, for example, the weekly average price of light hogs at South St. Paul ranged from 25 cents to 85 cents below the weekly average price of light hogs at Chicago, a variation in spread of 60 cents, the figure given in the table.

It will be noted that spreads between South St. Paul and the interior markets show a yearly minimum variation for Austin of 35 cents on medium and heavy hogs in 1932 and a maximum of \$1.00 on light hogs in 1930. The minimum variation for Albert Lea was 50 cents on heavy hogs in 1932 and medium weight hogs in 1931 and the maximum of 80 cents on medium hogs in 1929 and light hogs in 1930.

There was no marked regularity in the seasonal changes of these spreads in the four years under consideration. There was some tendency for the spread between Chicago and South St. Paul to widen and the spread between South St. Paul and the interior markets to narrow on medium weight hogs during the period of light receipts. The spread on medium weight hogs between South St. Paul and the interior markets averaged less than the spread on light or heavy hogs in each year. Between Chicago and South St. Paul the spread on light hogs was narrowest in each of the years.

Table 2 compares the spreads for medium hogs for all the weeks from 1929 through 1932, between South St. Paul and Albert Lea and South St. Paul and Austin. In this manner, a test can be made to determine whether a given spread between one interior market and South St. Paul is associated with a certain spread between the other interior market and South St. Paul. That is, it enables one to test whether Austin differentials are small during the same weeks that Albert Lea differentials are small or large when Albert Lea differentials are large.

Table 2

Frequency of Spread between Weekly Average Quotations for Medium Hogs  
at South St. Paul and Albert Lea and Austin  
for the period 1929 to 1932

Amount Albert Lea quotation was below South St. Paul (cents per cwt.)	Amount Austin Quotation was below South St. Paul (in cents per cwt.)						
	0-5	10-15	20-25	30-35	40-45	50-55	60-65
	(No. of weeks)	(No. of weeks)	(No. of weeks)	(No. of weeks)	(No. of weeks)	(No. of weeks)	(No. of weeks)
0 - 5	-	1	-	1	-	-	-
10 - 15	-	8	2	2	-	-	-
20 - 25	2	3	20	7	4	-	-
30 - 35	1	1	8	5	1	1	-
40 - 45	1	4	14	14	3	1	-
50 - 55	1	4	7	19	12	6	1
60 - 65	-	-	5	6	9	5	1
70 - 75	-	-	4	3	11	5	-
80 - 85	-	-	-	2	1	2	-
90 - 95	-	-	-	-	-	1	-

A wide range in these relationships is disclosed. For example, when the Albert Lea quotation was from 20-25 cents below the South St. Paul quotation, Austin varied from 0-5 cents below to 40-45 cents below. Compared with the general situation represented in the table, observations in the upper left hand corner represent situations relatively favorable to the interior markets, while observations in the lower right hand corner represent situations relatively

favorable to South St. Paul. Observations lying toward the upper right hand corner represent situations relatively favorable to Albert Lea as compared with Austin, while those lying toward the lower left hand corner represent situations relatively favorable for Austin as compared with Albert Lea. It perhaps should be noted that the variation between South St. Paul and the interior markets is greater than the variation between the interior markets themselves. Individual years would show a somewhat similar situation but with a smaller variation.

Not only is there considerable variation in the spread between the markets considered but this spread varies materially among the grades. This means that while a particular market may be a relatively favorable place to sell a given grade and relatively unfavorable as regards another grade, the situation may be reversed during other periods. In consequence, the producers need to keep in constant touch with differences in prices of specific grades by markets. It was found, for instance, that over the entire period from 1929-1932 there were some weeks in which the spread between Albert Lea and South St. Paul was 60 cents less for light than for heavy hogs, and other weeks in which the spread was 40 cents greater for light than heavy hogs, a total difference of \$1.00 in their position relative to South St. Paul. A similar comparison for Austin shows a variation of \$1.10 in the position of these two weights relative to South St. Paul.

These comparisons point clearly to three facts of importance to hog producers: (1) there is a wide variation in the price differentials among hog outlets from time to time; (2) interior market differentials do not always change at the same time or to the ~~same~~ extent relative to terminal markets; (3) the amount of the differentials and changes in the differentials vary for different kinds of hogs. In the face of these variations in spreads, it is obvious that hog producers having access to a variety of outlets should follow closely the prices for different weight classifications in all their possible markets, if they are to sell their hogs to the best advantage.

# MINNESOTA FARM PRICES FOR AUGUST 1933

Prepared by Adena E. Terras

The index number of Minnesota farm prices for the month of August 1933 was 55.7. When the average of farm prices of the three Augusts 1924-25-26 is represented by 100, the indexes for August of each year from 1924 to date are as follows:

August 1924 -	95.2	August 1929 -	104.2
" 1925 -	104.5	" 1930 -	80.7
" 1926 -	100.5	" 1931 -	55.2
" 1927 -	99.9	" 1932 -	40.4*
" 1928 -	100.3	" 1933 -	55.7*

\*Preliminary

The price index of 55.7 for the past month is the net result of increases and decreases in the prices of farm products in August 1933 over the average of August 1924-25-26 weighted according to their relative importance.

## Average Farm Prices Used in Computing the Minnesota Farm Price :

Index, August 15, 1933, with Comparisons\*

	Aug. 15, 1933	July 15, 1933	Aug. 15, 1932	Av. Aug. 1924-25- 26	% Aug. 15, 1933 is of July 15, 1933	% Aug. 15, 1933 is of Aug. 15, 1932	% Aug. 15, 1933 is of Aug. 15, 1924-25-26
Wheat	\$.78	\$.95	\$.41	\$1.38	82	190	57
Corn	.36	.48	.27	.94	75	133	38
Oats	.28	.38	.12	.35	74	233	80
Barley	.38	.51	.20	.60	75	190	63
Rye	.57	.84	.22	.81	68	259	70
Flax	1.68	1.92	.82	2.24	88	205	75
Potatoes	1.20	.50	.26	1.17	240	462	103
Hogs	3.60	3.90	4.00	10.58	92	90	34
Cattle	3.70	3.95	4.40	6.08	94	84	61
Calves	4.75	4.40	4.80	8.67	108	99	55
Lambs-sheep	5.85	5.47	4.27	11.06	107	137	53
Chickens	.076	.082	.096	.182	93	79	42
Eggs	.10	.11	.13	.26	91	77	38
Butterfat	.20	.24	.19	.41	83	105	49
Hay	7.44	7.33	6.86	11.60	102	108	64
Milk	1.18	1.21	1.19	2.13	98	99	55

\*Except for milk, these are the average prices for Minnesota as reported by the United States Department of Agriculture.

## Indexes and Ratios of Minnesota Agriculture\*

	Aug. 1933	July 1933	Aug. 1932	Av. Aug. 1924-26
U. S. farm price index	51.1	54.7	41.8	100.0
Minnesota farm price index	55.7	55.8	40.4	100.0
U. S. purchasing power of farm products	71.0	82.3	60.6	100.0
Minnesota purchasing power of farm products	78.5	83.3	58.6	100.0
U. S. hog-corn ratio	7.8	7.2	-	-
Minnesota hog-corn ratio	10.0	8.1	14.8	12.3
Minnesota egg-grain ratio	7.4	9.0	23.7	14.2
Minnesota butterfat-farm grain ratio	25.0	22.4	46.3	32.4

\*Explanations of the computation of these data are given in Farm Business Notes No. 126.