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AGRICULTURAL EXTENSION DIVISION
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P. E. Miller, Director

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THE TREND IN SALE PRICES OF FARM REAL ESTATE IN MINNESOTA

Prepared by A. A. Dowell

The sale prices of farm real estate in Minnesota increased from an average of \$41 per acre during the two-year period 1910-11 to \$104 per acre during 1920-21. This period of rapidly rising farm real estate prices was followed by a decline that has continued to the present time. The greatest declines occurred in 1922-23 following the sharp break in prices of farm products that took place during the latter part of 1920 and 1921, and again in 1932-33 following the severe decline in prices of agricultural products in 1930-31. By 1934-35 the average sale price of farm real estate had declined to \$40 per acre, and a further slight decline to \$39 per acre occurred during the following two-year period. The average sale prices of farm real estate for the state have, therefore, declined to the lowest level in more than a quarter of a century. However, since these figures are based on averages of sales reported, there are many exceptions, and many farms are selling above the 1910 level.

In a state with such wide variations in soil and climate, as is the case in Minnesota, average sale prices for the state are, of course, of comparatively little value either to prospective purchasers of farm land or to lending agencies. For this reason, the data have been tabulated by districts. Since there are considerable variations in the value of different tracts of farm real estate within each district, due to differences in productivity, location, extent and condition of the improvements, and other factors, the district figures serve chiefly to indicate the trends that have taken place. The value of a particular tract of land can be ascertained only upon inspection.

The trends in the sale prices of farm real estate by districts are shown in Table 1. These figures are based upon actual transactions by two-year periods from 1910-11 to 1936-37. The data for the period 1910-11 to 1928-29 were based on county records of actual transactions as obtained by the Minnesota Tax Commission.

Table 1

Average Sale Prices per Acre of Farm Real Estate in Minnesota by Districts by Two-Year Periods, 1910-11 to 1936-37														
District	1910-11	1912-13	1914-15	1916-17	1918-19	1920-21	1922-23	1924-25	1926-27	1928-29	1930-31	1932-33	1934-35	1936-37
Southeast	\$53	\$69	\$82	\$92	\$117	\$141	\$114	\$104	\$106	\$100	\$88	\$64	\$52	\$51
Southwest	57	69	84	100	118	152	119	110	109	102	88	65	58	60
West central	39	46	56	67	78	98	82	74	72	67	51	42	38	35
East central	24	29	34	41	50	68	56	49	49	44	36	27	26	22
Northwest	24	29	32	37	40	57	44	44	36	33	22	20	22	21
Northeast	11	13	14	15	18	24	23	22	22	21	18	14	15	16
Minnesota	41	49	58	68	82	104	85	78	76	71	60	45	40	39

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Due to the fact that the consideration has been omitted in many transactions as reported to the county offices during recent years, it was necessary to supplement such data for the two-year period 1930-31 with sales made by various lending agencies. For the period 1932-33 through 1936-37, all figures were based on reports of sales by corporate agencies direct to the Division of Agricultural Economics. These agencies include insurance companies, trust companies, land banks, and the State of Minnesota Department of Rural Credit.

The trend in all districts was sharply upward from 1910-11 to 1920-21. Following 1920-21, the decline was likewise pronounced in each district. However, the rate of the increase and the rate and duration of the subsequent decline varied considerably from district to district. This is shown in Table 2, in which the per acre sale prices by two-year periods have been converted to index numbers based upon the 1912-13 sale prices in the respective districts.

Table 2
Index of Sale Prices per Acre of Farm Real Estate in Minnesota by
Districts by Two-Year Periods, 1910-11 to 1936-37
(1912-13 = 100)

District	1910-11	1912-13	1914-15	1916-17	1918-19	1920-21	1922-23	1924-25	1926-27	1928-29	1930-31	1932-33	1934-35	1936-37
Southeast	84	100	119	133	170	204	165	151	154	145	128	93	76	74
Southwest	83	100	122	145	171	220	172	159	158	148	128	94	84	88
West central	85	100	122	146	170	213	178	161	157	146	111	91	82	75
East central	83	100	117	141	172	234	193	169	169	152	124	93	89	78
Northwest	83	100	110	128	138	197	152	152	124	114	76	69	76	73
Northeast	85	100	108	115	138	185	177	169	169	162	138	108	112	118
Minnesota	84	100	118	139	167	212	173	159	155	145	122	92	80	79

The sale prices of farm real estate in the northeastern district advanced less rapidly and to a smaller extent from 1910-11 to 1920-21 than in any other district. The subsequent decline was also less severe, and the increase since the low point in the decline in 1932-33 has been more pronounced. This is the only district in which the decline failed to carry farm real estate sale prices below the base period 1912-13. The index of sale prices per acre in this district was 118 during 1936-37 as compared with 100 during 1912-13. The rate and extent of the increase in sale prices from 1910-11 to 1920-21 were only slightly greater in the northwestern district than in the northeastern district. The subsequent decline, however, was the greatest of any of the six districts. By 1932-33, the index of sale prices in this district had declined to 69. Following 1932-33, the index advanced to 76 in 1934-35, but declined three points to 73 in 1936-37. The most pronounced increase in sale prices occurred in the east central district where the index reached 234 in 1920-21. In contrast with the two northern districts, the subsequent decline continued through 1936-37, when the index reached 78 compared with 100 in 1912-13. In the west central district, the index declined from 213 in 1920-21 to 75 in 1936-37. The decline in this district likewise continued through 1936-37. In the southwestern district, the index declined from 220 in 1920-21 to 84 in 1934-35. It advanced four points to 88 during 1936-37, indicating that the decline was checked during the previous two-year period. The increase in sale prices in the southeastern district was less pronounced than in the southwestern district, but the subsequent decline has been more severe and more prolonged. The index of sale prices during 1936-37 was two points lower than during the previous two-year period, having declined to 74.

The decline in farm real estate sale prices, therefore, appears to have been checked in the northeastern and northwestern districts in 1932-33 and in the southwestern district in 1934-35. In the other three districts, the decline continued through 1936-37, although the rate of decline was much less pronounced in the southeastern than in the west central and east central districts.

When the data are combined for the two northern districts, the trend in farm real estate sale prices in this region has, therefore, been upward since 1932-33. Likewise the trend in the two southern districts, when combined, has been upward since 1934-35. In the two central districts, on the other hand, the downward trend continued through 1936-37. These were the districts that suffered most severely from the prolonged drouth, and it was due largely to the decline in farm real estate sale prices in this region that the downward trend for the state continued through 1936-37.

Prospective purchasers of farms as well as lending agencies are keenly interested in the future prices of farm land. The purchaser is interested because what he actually is buying is the future incomes which the land will yield and these determine how much he can afford to pay. Lenders are seeking an investment which will yield a return rather than intending to acquire title to the land as security.

At the present time, a number of factors appear to be unfavorable to an improvement in farm real estate prices, while others appear to justify greater optimism. Factors that appear to be unfavorable to an increase in farm real estate prices include (1) the decrease in foreign demand for farm products as compared with the decade 1920-29, (2) the decline in number of horses and mules which has released about thirty-eight million acres of crop land for other uses, (3) the decline in the rate of population growth and the change in the age composition and consumption habits of the people, (4) taxes on farm real estate which were more than twice as high per acre in Minnesota in 1936 as in 1913, (5) the continued disparity between the prices received and prices paid by farmers which adds to the difficulty of accumulating sufficient capital with which to make a down payment on a farm, and (6) the large number of farm properties that have been acquired and are available for sale by individuals and lending agencies.

Factors that appear to be favorable to an increase in farm real estate prices include (1) the current and prospective low interest rates on farm mortgages, (2) the rate of return on the investment in farm land in some areas during the past few years, (3) the increase in foreign demand for farm products that has taken place since the low point of the recent depression, and (4) improvements which may be expected over a period of time with economic recovery.

The contract rate on federal land bank loans has been reduced greatly during recent years. For example, the rate was reduced from $5\frac{1}{2}$ to 5 per cent in July, 1933, to $4\frac{1}{2}$ per cent on April 1, 1935, to $4\frac{1}{2}$ per cent on April 10, 1935, and to the present rate of 4 per cent on June 24, 1935. The effect of the reduced rate on land values, if continued, will be evident from the following illustration. If the net incomes obtained from the land amount to \$4.00 per acre per year over a period of years, and these net incomes are capitalized at $5\frac{1}{2}$ per cent, the land, as an investment, would be worth about \$70.00 per acre ($\$4.00 \div .055$). On the other hand, if these net incomes of \$4.00 per acre per year are capitalized at 4 per cent, the land would be worth \$100.00 per acre ($\$4.00 \div .04$).

Preliminary data supplied by the Bureau of Agricultural Economics indicate that the net return on the investment in cash rented farms in Minnesota varied from 2.82 per cent to 3.99 per cent for the period 1921 through 1931, while from 1934 through 1937, the net return on investment varied from 4.27 to 4.52 per cent. Since the rate of return during the earlier period was considerably below the mortgage rate of interest, it follows that a part of the value of the land at that time was based upon speculative value rather than upon current earnings. On the other hand, during the past two years, net returns in some areas have been above the mortgage rate of interest. If this situation continues over a period of years, there will be a tendency for the sale prices of farm real estate in such areas to advance above recent levels.

MINNESOTA FARM PRICES FOR MAY, 1938
Prepared by W. C. Waite and W. B. Garver

The index number of Minnesota farm prices for the month of May, 1938, was 74. When the average of farm prices of the three Mays, 1924-25-26, is represented by 100, the indexes for May of each year from 1924 to date are as follows:

May, 1924 - 84	May, 1932 - 43
" 1925 - 106	" 1933 - 49
" 1926 - 110	" 1934 - 53
" 1927 - 109	" 1935 - 86
" 1928 - 113	" 1936 - 79
" 1929 - 113	" 1937 - 99*
" 1930 - 98	" 1938 - 74*
" 1931 - 64	

*Preliminary

The price index of 74 for the past month is the net result of increases and decreases in the prices of farm products in May, 1938, over the average of May, 1924-25-26, weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index,
May 15, 1938, with Comparisons*

	May 15, 1938	Apr. 15, 1938	May 15, 1937	Av. May 1924-25- 26	% May 15, 1938 is of April 15, 1938	% May 15, 1938 is of May 15, 1937	% May 15, 1938 is of May 15, 1924-25-26
Wheat	\$.79	\$.84	\$1.21	\$1.31	94	65	60
Corn	.44	.44	1.15	.65	100	38	68
Oats	.21	.22	.45	.35	95	47	60
Barley	.49	.50	.84	.59	98	58	83
Rye	.46	.48	.92	.75	96	50	61
Flax	1.75	1.81	1.93	2.32	97	91	75
Potatoes	.40	.40	1.25	.83	100	32	48
Hogs	7.40	7.90	9.60	9.60	94	77	77
Cattle	6.30	6.40	7.60	6.38	98	83	99
Calves	7.50	7.70	7.90	8.07	97	95	93
Lambs-sheep	6.82	7.02	9.34	11.39	97	73	60
Chickens	.14	.136	.119	.189	103	118	74
Eggs	.164	.143	.168	.22	115	98	75
Butterfat	.27	.29	.34	.40	93	79	68
Hay	5.42	6.00	9.52	11.49	90	57	47
Milk	1.55	1.70	1.70	1.95	91	91	79

*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*

	May 1938	April 1938	May 1937	Av. May 1924-26
U.S. farm price index	67.0	68.0	93.0	100.0
Minnesota farm price index	74.0	76.0	99.0	100.0
U.S. purchasing power of farm products	84.0	85.0	108.0	100.0
Minnesota purchasing power of farm products	93.0	95.0	115.0	100.0
Minn. farmer's share of consumer's food dollar	-	45.9	48.6	52.7
U.S. hog-corn ratio	13.9	14.7	7.7	12.1
Minnesota hog-corn ratio	16.8	18.0	8.3	15.1
Minnesota egg-grain ratio	16.9	14.1	8.8	14.4
Minnesota butterfat-farm-grain ratio	34.6	36.2	20.6	34.5

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