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Prepared by the Divisions of Agricultural Economics and Agricultural Extension Paul E. Miller, Director Agricultural Extension

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#### UNIVERSITY FARM, ST. PAUL

AUGUST 1940

# Sale Prices of Farm Real Estate in Minnesota

The decline in sale prices of Minnesota farm real estate, which began after World War I, continued through 1938-39. This is indicated by the data in Table 1 which show the average sale prices per acre by districts and for the state as a whole by two-year periods from 1910-11 to 1938-39.

From 1910-11 to 1928-29 the data were based on county records

of actual transactions as obtained by the Minnesota Tax Commission. As the consideration has been omitted in many transactions reported to the county offices during recent years, such data, for the two-year period 1930-31, were supplemented with sales made by various lending agencies. For the periods 1932-33 through 1938-39, 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 Department of Rural Credit.

As the trend in sale prices from 1910-11 to 1936-37 was explained in a previous report,<sup>1</sup> this article is concerned primarily with the data obtained for the two-year period 1938-39.

The reporting agencies sold 2587 farms in Minnesota during 1938, and 2601 during 1939, or a total of 5188 farms during the two-year period. The distribution of sales by districts was as follows: southeastern, 471; southwestern, 846; west central, 928; east central, 1356; northwestern, 1050; and northeastern, 537. The sample appears to be adequate from the standpoint both of the number and distribution of transactions. The extent to which the sample may be representative of sales made during the two-year period by private individuals and other corporate agencies is not known.

The average sale price of farm real estate for the state declined from \$39 an acre during 1936-37 to \$35 an acre during 1938-39, or approximately 10 per cent. As shown in Table 2, the index of sale prices per acre for the state declined from 79 (1912-13=100) during 1936-37 to 71 during 1938-39. The average price obtained per acre

<sup>1</sup> Dowell, A. A., "The Trend in Sale Prices of Farm Real Estate in Minnesota," Minnesota Agricultural Experiment Station Bulletin 338, September, 1938.

A. A. DOWELL

UNIVERSITY FARM HOUR Monday - Wednesday - Friday 12:30 to 1:00 p.m.

MID-MORNING MARKETS Monday through Friday 10:50 to 11:00 a.m.

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during 1938-39 was only about onethird the average during 1920-21, and was considerably below the average during 1910-11. The average sale price of farm real estate in Minnesota, therefore, has declined to the lowest level in more than 30 years.

Average sale prices for the state as a whole are of little value to prospective purchasers or to lend-

ing agencies because of wide variations in soil and climate in different parts of the state. To eliminate some of these variations, the data have been tabulated by districts. Considerable variations exist, however, between farms within a given district due to differences in productivity, location, size and condition of the improvements and other factors. Although the value of a given tract of land can be ascertained only upon inspection, the district figures serve a useful purpose in that they give some indication of the trends that have taken place.

The average sale price per acre was lower in each district during 1938-39 than during the preceding twoyear period (Table 1). However, the extent of the decline varied considerably from district to district. The least relative decline occurred in the southwestern district where the index of sale prices declined 4 points, and the greatest relative decline occurred in the northeastern district where the index fell from 118 to 91, or 27 points (Table 2). The decline in the index of sale prices per acre in the other districts was as follows: west central, 8 points; northwestern, 8 points; southeastern, 10 points; and east central, 12 points.

A sharp decline in sale prices of farm land has taken place in all districts since 1920-21. The most severe declines occurred during 1922-23 and again during 1930-31 or 1932-33. The decline during recent years has been uninterrupted in the southeastern, west central and east central districts. Sale prices advanced in the northeastern district during 1934-35 and 1936-37, but declined below the 1932-33 level during 1938-39. In the northwestern district, land values strengthened during 1934-35 but the subsequent decline carried the average sale price below the previous low point in 1932-33. The decline which took place in the southwestern district during 1938-39

Table 1. Average Sale Prices per Acre of Farm Real Estate in Minnesota by Districts, by Two-Year Periods, 1910-11 to 1938-39

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	1938- 39
Southeastern	\$58	\$69	\$82	\$92	\$117	\$141	\$114	\$104	\$106	\$100	\$88	\$64	\$52	\$51	\$44
Southwestern	57	69	84	100	118	152	119	110	109	102	88	65	58	60	58
West central	39	46	56	67	78	98	82	74	72	67	51	42	38	35	31
East central	24	29	34	41	50	68	56	49	49	44	36	27	26	22	19
Northwestern	24	29	32	37	40	57	44	44	36	33	22	20	22	21	19
Northeastern	11	13	14	15	18	24	23	22	22	21	18	14	15	16	12
Minnesota	41	49	58	68	82	104	85	78	76	71	60	45	40	39	35

Table 2. Index of Sale Prices per Acre of Farm Real Estate in Minnesota, by Districts, by Two-Year Periods, 1910-11 to 1938-39 (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	1938- 39
Southeastern	84	100	119	133	170	204	165	151	154	145	128	93	76	74	64
Southwestern	83	100	122	145	171	220	172	159	158	148	128	94	84	88	84
West central	85	100	122	146	170	213	178	161	157	146	111	91	82	75	67
East central	83	100	117	141	172	234	193	169	169	152	124	93	89	78	66
Northwestern	83	100	110	128	138	197	152	152	124	114	76	69	76	73	65
Northeastern	85	100	108	115	138	185	177	169	169	162	138	108	112	118	91
Minnesota	84	100	118	139	167	212	173	159	155	145	122	92	80	79	71

was sufficient to cancel the increase that occurred in this district during the preceding two-year period.

It will be observed that average sale prices per acre in each of the districts were lower during 1938-39 than during 1912-13, and in all but the southwestern and northeastern districts they were lower during 1938-39 than during 1910-11 (Table 1). These relationships are shown more clearly in Table 2. The indices of sale prices for 1938-39 were approximately one-third below the base period, 1912-13, in the southeastern, west central, east central, and northwestern districts. The least relative declines between these two periods occurred in the northeastern and southwestern districts.

#### Pronounced Decline in Sale Prices

No conclusive evidence is available to account for the fairly pronounced decline in sale prices of farm real estate that occurred between 1936-37 and 1938-39. This may have resulted from a greater willingness on the part of the reporting agencies to sell the properties which they had acquired. These agencies sold a total of 5188 farms during 1938-39 compared with a total of 2915 farms during the preceding two-year period. Relatively low prices for some farm products and the many uncertainties surrounding the future may have been other contributing factors.

One factor that added to the complexity and severity of the farm problem during the past two decades was the decline in farm land values following the previous land boom which reached its peak in 1920. While there is little evidence at the present time that World War II may lead to another land boom, past history indicates that all prolonged major conflicts have had this result. Consequently, if the present war continues over a period of years and leads to a decided price rise, this should not be used as a basis for a speculative boom in land prices.

## Marketing Margins on Minnesota Farm Products

#### W. B. Garver and W. C. Waite

Calculations are currently made by the Division of Agricultural Economics on the marketing margins, or spreads, between Minnesota farm prices and the Minneapolis retail prices of the derivative products of Minnesota agriculture. The prices analyzed are those for wheat, flour, bread, milk (including butter and cheese), potatoes, chickens, eggs, pork and beef. A "retail food basket" is made up of typical family purchases of these ten foods. The items are priced at retail monthly from the Bureau of Labor Statistics retail prices for Minneapolis. The necessary quantities of farm products required for these purchases are priced monthly from Bureau of Agricultural Economics farm prices for Minnesota. The total of the spreads between the two sets of prices thus may be taken as a measure of the costs of processing and distribution of the food items included in the comparisons.

#### Farmer's Share of Consumer's Food Dollar Varies

The retail value of the items in the typical food basket has ranged from \$31.68 in June 1920 to a low of \$12.37 in March 1933. During 1939 the average value was \$19.75 and a peak of \$20.40 was reached in February 1940. The margins on the items ranged from \$13.78 in 1920 to the low of \$7.52 in 1933. The 1939 average was \$11.42, while in February of 1940 the margin was \$11.85, the highest month since 1930. When these margins are expressed as a percentage share of the consumer's retail dollar expenditure the range is from 35 per cent in early 1920 to the high point of 65 per cent in January 1934. During 1939 the percentage margin was 58 to 60 per cent, with the latest available figure showing 56 per cent for May 1940. Over the period 1920-1939 the margin averaged 51 per cent. Thus, slightly more than half of the consumer's food expenditures on these items is absorbed by processing and distribution.

#### Margins Made Up Largely of Fixed Costs

Margins for individual commodities vary considerably depending to some extent upon the degree to which processing and other service costs are involved in their preparation for the retail market. The average percentage margins for individual groups, 1920-39, were: beef, 48%; pork, 40%; chickens, 47%; eggs, 33%; potatoes, 52%; milk, 60%; butterfat, 31%; wheat flour, 52%; bread, 81%. Most of these percentage margins show a considerable fluctuation over the past 20 years. Such fluctuations are largely a reflection of the difference of price behavior between farm prices on one hand and the cost of marketing on the other. Farm prices have fluctuated up and down quite considerably during the period while the margins remained much more stable from year to year. Being made up largely of fixed costs, or elements slow to show price changes, these margins tend to take a more uniform amount out of the consumer's food expenditures than do the agricultural producers.

The stability of these margins may be seen from a comparison of the annual average margins on the ten foods combined. Taking the 1920-39 average as a basis, the margin on the ten foods in the 20 years never rose more than 10 per cent above the average, and in the worst of the 1929 depression dropped only to 13 per cent below the average for 1933. Meanwhile the retail value of the items ranged from 39% above to 31% below the average, and the farm value ranged from 69% above to 46% below the average. The margins show no particular trend either upward or downward for the 20-year period.

However, some of the individual commodities or groups do show some indications of trends in the dollar margins. Beef, and more recently potatoes, show a slight trend upward, while bread and eggs, and milk slightly, show a downward tendency.

When prices decline sharply these margins on foods are slow to respond. Because of the institutional structure and conventions of processing and distribution agencies, these shocks are passed along in magnified form to the producers who, since they are almost perfectly competitive, stand only as residual claimants for whatever is left of the consumer's food dollar after the relatively fixed deductions for processing and distribution have been made.

# A Comparison of the Leadership of Owner and Tenant Operator Families in Agricultural Extension Projects

#### J. B. McNulty

How do tenant families compare with owner operator families with respect to assuming responsibility and providing leadership for the educational work of the community? A recent study of the families of 1890 unpaid local leaders who served in home management projects, such as clothing and nutrition, provides some information on this question.

Table 1 shows that the percentage of all local leaders from tenant families was somewhat lower than the per cent of all farms that were tenant farms in type-of-farming areas 3, 5, 6, and 7; it was higher in area 1 and equal in areas 2 and 4. Of the total of 1890 local leaders, 685, or 36.2 per cent, came from tenant families. The 1935 census shows that 37.4 per cent of all the farms in these 38 counties were tenant farms. Apparently there was no important difference between the degree of leadership assumed by tenant and owner families in this group. However, as shown in Table 2, there was a significant difference in the degree of leadership assumed by tenants related to their landlords as compared to tenant families not related to their landlords.

In a study made by the Division of Agricultural Economics, University Farm, in 1936, it was found that there were about four times as many non-related as related tenunts. Table 2 shows that only twice as many leaders came from the non-related tenant families. This was less than one-half their proportionate share.

 Table 1. Number of Counties, Number of Local Leaders, Percentage of All Local Leaders That Were from Tenant Families and Percentage of All Families That Were Tenant Families by Type-of-Faming Areas

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Χιεα	No. of counties included in the study	No. of local leaders in- cluded in the study	Per cent of all local leaders from tenant families	Per cent of all farms operated by tenants
1. Southeast	6	395	37	35
2. South central	7	397	31	31
3. Southwest	6	280	46	49
4. West central	6	297	47	47
5. East central	4	206	20	23
6. Northwest	5	157	27	33
7. Red River Valle	y 4	158	39	44
	-		<u> </u>	
Total	38	1890	36.2	37.4

Table	2.	Number	of	Counties	and	Number	of	Local	Leaders	That
		Were f	fron	a Owner,	Non-	related, c	ınd	Relate	ed	
			1	lenant O	perato	or Famili	es			

Ατεα	No. of counties included in the study	Local leaders from owner operator families	Local leaders from non- related tenant families	Local leaders from related tenant families
1. Southeast	6	248	77	70
2. South central	7	274	60	63
3. Southwest	6	150	98	32
4. West central	6	158	106	33
5. East central	4	164	30	12
6. Northwest	5	114	8	15
7. Red River Valley	4	97	46	15
	-			
Total	. 38	1205	445	240

## Minnesota Farm Prices for July, 1940

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

The index number of Minnesota farm prices for the month of July, 1940 was 66. When the average of farm prices of the three Julys, 1924-25-26, is represented by 100, the indexes for July of each year from 1924 to date are as follows:

1924 85	1929	1934— 56	1939- 61*
1925—107	1930— 82	1935 73	1940 66*
1926—107	1931 57	1936 86	
1927 98	1932-45	1937- 95	
1928	1933 58	1938— <b>73</b>	
* Preliminary.			

The price index of 66 for the past month is the net result of increases and decreases in the prices of farm products in July, 1940, over the average of July, 1924-25-26, weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, July 15, 1940, with Comparisons\*

	July 15, 1940	June 15, 1940	July 15, 1939		July 15, 1940	June 15, 1940	July 15, 1939
Wheat	\$0.64	\$0.67	\$0.59	Cattle	\$7.20	\$6.80	\$6.60
Corn	.50	.49	.35	Calves	8.50	8.50	8.00
Oats	.25	.27	.22	Lambs-sheep	7.95	8.04	7.52
Barley	.34	.37	.31	Chickens	.11	.10	.11
Rye	.32	.32	.30	Eggs	.14	.12	.13
Flax	1.44	1.55	1.40	Butterfat	.28	.28	.24
Potatoes	.70	.55	.75	Нау	4.60	4.52	3.89
Hogs	5.60	4.65	6.00	Milk	1.50	1.40	1.30

\* These are the average prices for Minnesota as reported by the United States Department of Agriculture.

The rise of one point in the index from June reflects the net improvement in prices resulting from gains in hogs and cattle slightly outweighing the losses shown for crops. Chicken and egg prices rose somewhat more than seasonally while butterfat remained unchanged at 28 cents. Milk advanced 10 cents to \$1.50 with most of the supporting strength apparently arising from the rise in powdered milk prices.

Prices paid by U. S. farmers declined slightly for the month, with declines in "interest and taxes," and in feeds. Farm wage rates for the country as a whole are slightly higher, about 2 per cent, than a year ago.

Indexes	and	Ratios	of	Minnesota	Agriculture*
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	July 1940	June 1940	July 1939	Average July 1924-26
U.S. farm price index	68.4	68.4	64.0	100
Minnesota farm price index	66.4	64.6	61.4	100
U. S. purchasing power of farm products	85.7	85.0	81.6	100
Minn, purchasing power of farm products Minn, farmer's share of consumer's food	83.3	80.4	78.3	100
dollar		39.3	41.4	53.5
U.S. hog-corn ratio	9.2	7.6	13.1	12.0
Minnesota hog-corn ratio	11.2	9.5	17.1	13.2
Minnesota egg-grain ratio	14.4	12.5	16.4	14.0
Minnesota butterfat-farm-grain ratio	35.4	33.6	36.3	32.0

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

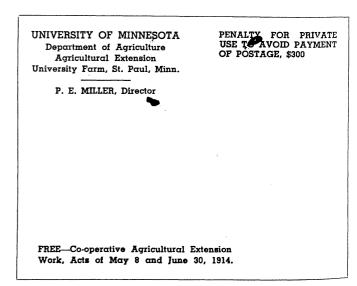
### The Feed Situation

The number of grain-consuming animals is expected to decline during the balance of 1940. The supply of feed grains (corn, oats, barley, and grain sorghum) for the year will be more than ample to feed animals to be kept, according to present indications. Although the carry-over of feed grains this year is somewhat larger than it was a year ago, when it is added to the indicated current crops the total feed supply will be a little smaller than that of 1939. However, this supply will be larger than any other year since 1932. Drought in the corn belt has been serious and unless some improvement is shown the expectations of yield may have to be revised downward.

With reduced animal units and the relatively large feed supplies in prospect, the feed per animal unit will be the largest in the last 15 years, or nearly .9 tons per animal unit. However, if deduction is made for corn sealed or held by the government, the supply per animal unit drops to somewhat less than .8 tons, the lowest in the past 4 years.

Corn stocks on July 1, including sealed corn, reached a record peak of 975 million bushels with about 55% of them sealed or held by the government, leaving only about 435 million bushels unsealed. This was about 200 million bushels less than the unsealed stocks a year ago. This, together with the prospects for a smaller 1940 crop, indicate the major reasons for better corn prices of recent weeks than for a year ago. The supply of hay, based on indications as of July 1, will be the largest in 13 years.

Price ratios relative to feeding have been declining during the past year until July, when some improvement upward to a less unfavorable position was shown. The hog-corn ratio for Minnesota declined from 17.1 bushels for July 1939 to the low of 9.5 bushels for June of this year, and rose to 11.2 for July with the improvement in hog prices. The beef feeding situation also showed some improvement with a slight rise in cattle prices.



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