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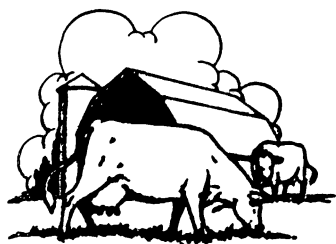
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MINNESOTA farm business NOTES



NO. 373

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Recent Farming Trends in Southern Minnesota

G. A. Pond and T. R. Nodland

The records of the Southeastern and Southwestern Farm Management Associations throw some interesting light on recent trends in farming in southern Minnesota.

The farms in these Associations are somewhat larger than the average farm in this part of the state. They also represent more skilled management.

However, they are reasonably representative of the type of farming in this

area and should reflect current trends in the area.

The sale of livestock and livestock products (see tables 1 and 2) provides 81 per cent of the income of the southeast farms and 73 per cent of the income of the southwest farms. This compares with 72 per cent for all farms in Minnesota for these same years.

The purchases for each class of livestock have been deducted from the value of animals or products sold so that only net receipts from livestock

are given in these tables. Purchased feed is primarily raw material that reappears as livestock income. This item has been deducted from sales rather than added to expense.

Total cash income and total cash expense have been relatively stable during the past six years, although income reached a peak in 1953. Expense in the southwest group was also high that year.

Perhaps most striking to one who remembers the break in cattle and hog prices in 1955 is the fact that members of the southeast group had the highest net cash income that year.

In the southwest group, where both drouth and livestock prices helped cut down income, the net cash figure was only slightly below the average for the six years and was exceeded only twice during that period.

However, in both cases sales of crops produced in 1954 and sold in 1955 resulted in maintaining or increasing income from crop sales in the latter year. In addition, a larger proportion of the 1955 crop was sold before the end of the year than was true in 1954.

Year to year changes in the sales of livestock and livestock products reflect both differences in quantity of sales and changes in price. The price of dairy products was materially lower the last three years, yet the production per cow was practically constant.

Fewer dairy herds were reported in the later years. Still, there was a sufficient increase in the number of cows milked on those farms remaining in dairy production to increase the cash receipts from dairy products.

This same trend is apparent in poultry production. The number of flocks decreased but the size of the remaining flocks was increased enough to maintain income at nearly the same level.

The increase in dairy sales and decrease in beef sales in the southwest

Table 1. Cash Receipts, Expenses, and Net Cash Income on Farms in Southeastern Minnesota, 1950-1955

	1950	1951	1952	1953	1954	1955
Number of farms.....	165	162	160	157	166	165
Acres per farm.....	222	222	229	226	228	226
Cash receipts						
Dairy products.....	\$ 4,005	\$ 4,500	\$ 5,021	\$ 5,070	\$ 4,916	\$ 5,145
Eggs.....	1,158	1,522	1,240	1,453	1,115	1,350
Dairy cattle*.....	1,826	1,835	1,300	1,151	1,079	1,084
Beef cattle*.....	211	445	608	944	994	854
Hogs*.....	3,747	4,427	4,097	4,180	3,806	3,386
Sheep and wool*.....	150	123	133	137	135	172
Poultry*.....	179	214	181	298	122	204
Total receipts from livestock.....	\$11,276	\$13,066	\$12,580	\$13,233	\$12,167	\$12,195
Crop sales.....	\$ 1,868	\$ 1,644	\$ 2,179	\$ 2,323	\$ 2,560	\$ 3,274
Outside work.....	351	370	317	302	342	447
Miscellaneous.....	209	185	188	174	249	209
Total cash income.....	\$13,704	\$15,265	\$15,264	\$16,032	\$15,318	\$16,125
Less feed bought.....	1,972	2,299	2,383	2,148	2,406	2,348
Cash income less feed bought.....	\$11,732	\$12,966	\$12,881	\$13,884	\$12,912	\$13,777
Cash farm expenditures						
Power and machinery, new.....	\$ 1,809	\$ 1,848	\$ 1,425	\$ 1,771	\$ 1,439	\$ 1,328
Power and machinery upkeep, gas and oil.....	1,427	1,533	1,698	1,674	1,714	1,815
Real estate improvements—new and upkeep.....	1,548	1,577	1,349	1,205	1,075	1,010
Miscellaneous livestock expense.....	315	327	323	421	411	433
Miscellaneous crop expense.....	819	876	957	1,170	1,224	1,344
Custom services hired.....	446	522	583	592	618	649
Hired labor.....	891	885	901	806	799	828
Taxes.....	559	583	652	672	695	716
Insurance and general expense.....	222	221	255	254	278	280
Total expenditures.....	\$ 8,036	\$ 8,372	\$ 8,143	\$ 8,565	\$ 8,253	\$ 8,403
Net cash income.....	\$ 3,696	\$ 4,594	\$ 4,738	\$ 5,319	\$ 4,659	\$ 5,374

* Sales less purchases of feeding or breeding animals.

(Continued on page 3)

Part-Time Farming Popular in N. E. Minnesota

Frank T. Hady¹

As far as agricultural development is concerned, northeastern Minnesota has always been a problem area. Natural obstacles limit the farming largely to dairying and make the size of the typical farm business much too small.

In adjusting to current economic conditions, two important movements are taking place. On one hand, farms are decreasing in number and the remaining farms are getting larger. On the other hand, a large proportion of the remaining farmers have taken off-farm jobs and have become part-time farmers.

This report will deal briefly with the first of these movements and then will go into some comparisons between part-time and full-time farming. This will give some indication of how this movement is working out.

Although the data on which the report is based were gathered largely in Itasca and Carlton Counties, it appears likely that they represent the situation in St. Louis, Lake, and Cook Counties as well. To a lesser extent they also reflect conditions in the other counties in this part of the state. Data were obtained partly from the U.S. Census but largely from a survey of about 140 farms made during the summer of 1955.

Measured in terms of number of farms and in total land in farms, agricultural development in the five counties has been on the downgrade since World War II. (See table 1.)

There was a 44 per cent decrease in the number of farms and a 21 per cent decrease in the number of acres of land in farms in the five county area during the period from 1944 to 1954.

However, there was a substantial increase in the average size of the remaining farms. One fact that probably

helped bring this about was that some of the smaller farms consolidated and the larger farms remained in business. As this movement progresses, one might expect that the remaining farms will be in a stronger position to survive.

In 1954 about half of the 7,098 farmers in the five counties received 50 per cent or more of their farm income from the sale of dairy products. Likewise, on almost half of the farms the farmers worked on jobs away from the farm 100 days or more during the year.

Judging by the results of the survey, these part-time farmers had a higher average spendable income than those who had no employment away from the farm (table 2).

Table 2. Average Receipts, Expenses, and Income of Farmers Surveyed

	Without	With
	Outside employment (79 Farms)	(64 Farms)
Average gross receipts from farming	\$4,391	\$3,284
Average cash operating expenses	2,525	2,192
Return above operating expense	1,866	1,092
Wages from off farm work		2,400
Total net income	\$1,866	\$3,492

They had a somewhat lower net income from farming, \$1,092 compared to \$1,866, but this was more than made up by the wages they received from work away from the farm.

The range of total net income among the farmers interviewed was from \$9,200 down to a loss of \$900. In the upper half of this range about two-thirds were part-time farmers. In the lower half of the range the proportions were reversed. This points out rather vividly that a job off the farm adds materially to the family income.

Table 1. Number of Farms, Land in Farms, and Average Size of Farms in Five Northeastern Counties, 1944 and 1954

County	Number of farms		Land in farms		Average size of farm	
	1954	1944	1954	1944	1954	1944
			acres			acres
Carlton	1,630	2,469	224,897	238,185	138	96
Cook	34	174	5,571	13,253	164	76
Itasca	1,714	2,772	225,464	268,227	131	97
Lake	152	427	18,546	27,559	122	64
St. Louis	3,568	6,853	421,978	584,199	118	85
Total	7,098	12,695	896,456	1,131,423	126	89
Percentage of change—1954 over 1944	-44		-21		+42	

¹ Agricultural Research Service—USDA.

MINNESOTA farm business

NOTES

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In terms of the amount of labor involved, the part-time farms were smaller. There is little doubt that holding a full-time job away from the farm tends to limit somewhat the size of the farming business.

Dairying Is An Important Business

Dairying was virtually the only source of farm income on about three-fourths of the farms and an important source on most of the remaining quarter. Therefore, a brief comparison of the dairy enterprise on full-time and part-time farms may be of interest. These data are included in table 3.

Table 3. Comparison of Full-Time and Part-Time Farms with Regard to Certain Items in the Dairy Enterprise

	Full-time farms	Part-time farms
Number of milk cows	14.3	12.5
Pounds of butterfat per cow ...	238	227
Value of dairy products sold per cow	\$202	\$173
Value of feed bought per cow	\$44	\$45
Percentage of farms selling whole milk	63	50

The differences between the part-time and full-time farmers were not great. Part-time farmers had fewer cows and produced less butterfat per cow.

More of them sold butterfat in cream rather than whole milk. They received a lower return per cow because of the lower production and lower price received from selling cream instead of milk. The amount paid out for feed purchased per cow was virtually the same for both groups.

One can conclude that on the whole those farmers in the area who have off-farm jobs have higher incomes than those who do not. To obtain this higher income the farmer and his family probably put in more total hours of labor (or they hire more work done) than do the farmers with no off-farm employment. The part-time farmers have smaller farm businesses and operate them somewhat less efficiently.

TRENDS —

(Continued from page 1)

group results largely from a turnover of membership in which some beef producers were dropped and dairymen added.

In the southeast group, however, there was a definite shift from dairy to beef cattle on a number of farms.

Most of the sheep on these farms were in relatively small farm flocks but a few large lamb feeders were included in the southwest group.

The increase in crop sales was in part due to an increase in both acreage and yield of corn and soybeans and in part to the sales of corn under the government price support program.

Power and machinery were the major costs in the farmer's expense budget. New purchases dropped off in the later years but repairs and operating costs increased enough to keep the total at a fairly uniform level.

As more expensive machines come into the picture, more farmers are substituting custom service for these machines. The increase in crop expense

reflects primarily the increased fertilizer purchases.

There were some fairly substantial increases in crop yields from 1950 to 1955, especially in corn and soybeans, with smaller increases in alfalfa hay. An increase in the use of commercial fertilizer and a heavier rate of planting were the major factors contributing to increased corn yields.

Butterfat per cow registered some increase. There was also some increase in egg production per hen. Pigs weaned per sow showed a very moderate increase. There was no evidence of any material change in feeding efficiency during this period.

The most striking change in the organization of these farms from 1950 to 1955 was the decrease in the acreage of barley, flax, and wheat. There was also a small decrease in oats.

Corn and soybeans on the other hand were increased substantially in both associations. Alfalfa was increased in the southwest.

Crop cost studies in this area for the years 1951-53 showed corn and soybeans to be relatively high profit crops as compared with oats or barley. This

shift therefore appeared to be a desirable one.

Net worth statements are available for about half the farmers supplying the data for tables 1 and 2. The average gain in net worth was over \$3,300 during 1950 and 1951 when farm prices were rising fairly rapidly. It dropped to about \$1,200 in 1952 and rose to \$1,800 in 1954. Then severe price declines and lower inventories due to drouth reduced yields and larger crop sales during the year resulted in a \$600 loss in net worth in 1955.

About half of the farmers included in this study kept records of their personal and household expenses. These ranged from a low of \$3,436 per farm in 1952 to \$4,380 in 1955. There was relatively little variation in the average amount spent for personal and household expense from year to year. The total declined from \$3,778 in 1950 to \$3,446 in 1952 and then rose to the high point in 1955.

Looking Ahead

It seems safe to assume that some of the changes observed during this six-year period will continue. There will be more rather than less mechanization. The use of commercial fertilizers will continue to increase with increasing crop yields as the result.

The tendency toward more specialization in livestock will result in fewer kinds of livestock on a given farm and larger numbers of the remaining kinds. It is part of the general trend toward increased specialization in farming. With it will come more specialized and mechanized equipment for livestock feeding and shelter. Labor saving will be the keynote of future developments.

The tendency toward a larger acreage in corn and more intensive practices in corn production will continue. Further expansion of soybean production is likely in south central and southwestern Minnesota, especially on the larger farms.

In forage production more emphasis will be placed on quality and yield rather than on any acreage expansion.

Pasture renovation and fertilization together with rotation grazing is likely to result in a much more productive use of the land devoted to livestock grazing. Output per acre of crops and per head of livestock will continue to increase.

The current trend toward larger farms is also likely to continue. However, the rate of increase may be slowed down by the relatively high price of land and by capital limitations.

Table 2. Cash Receipts, Expenses, and Net Cash Income on Farms in Southwestern Minnesota, 1950-1955

	1950	1951	1952	1953	1954	1955
Number of farms	139	122	118	153	156	146
Acres per farm	257	256	260	283	270	272
Cash receipts						
Dairy products	\$ 885	\$ 1,015	\$ 1,124	\$ 1,369	\$ 3,035	\$ 3,242
Eggs	790	1,055	875	1,166	1,030	1,164
Dairy cattle*	583	529	501	414	736	775
Beef cattle*	2,318	3,830	3,654	4,854	2,668	2,149
Hogs*	6,323	7,535	6,961	6,810	5,550	4,502
Sheep and wool*	267	—128†	488	867	264	239
Poultry*	426	592	62	291	212	281
Total receipts from livestock	\$11,592	\$14,428	\$13,665	\$15,771	\$13,495	\$12,352
Crop sales	\$ 3,913	\$ 3,138	\$ 3,443	\$ 4,997	\$ 3,781	\$ 4,773
Outside work	290	398	341	346	356	415
Miscellaneous	183	208	236	157	255	243
Total cash income	\$15,978	\$18,172	\$17,685	\$21,271	\$17,887	\$17,783
Less feed bought	3,807	4,973	4,318	4,060	3,399	3,358
Cash income less feed bought	\$12,171	\$13,199	\$13,367	\$17,211	\$14,488	\$14,425
Cash farm expenditures						
Power and machinery—new	\$ 2,090	\$ 1,697	\$ 1,227	\$ 1,505	\$ 1,609	\$ 1,427
Power and machinery upkeep, gas and oil	1,725	1,784	1,882	2,010	1,827	1,925
Real estate improvements—new and upkeep	1,072	1,368	1,354	1,042	1,100	1,033
Miscellaneous livestock expense	334	396	373	409	413	433
Miscellaneous crop expense	966	995	1,079	1,496	1,422	1,506
Custom services hired	382	406	439	468	559	620
Hired labor	843	910	835	928	846	859
Taxes	534	565	627	685	698	720
Insurance and general expense	224	242	249	267	296	299
Total expenditures	\$ 8,170	\$ 8,363	\$ 8,065	\$ 8,810	\$ 8,770	\$ 8,822
Net cash income	\$ 4,001	\$ 4,836	\$ 5,302	\$ 8,401	\$ 5,718	\$ 5,603

* Sales less purchases of feeding or breeding animals.

† Purchases exceeded sales.

Minnesota Farm Prices May and June 1956

Prepared by R. A. Andrews

Average Farm Prices for Minnesota, May 1956, June 1954, 1955, and 1956*

	May 1956	June 1956	June 1955	June 1954
Wheat	\$ 2.12	\$ 2.11	\$ 2.26	\$ 2.12
Corn	1.32	1.33	1.33	1.38
Oats .....	.56	.57	.66	.71
Barley .....	.95	.94	1.03	1.07
Rye .....	.98	.96	1.02	.88
Flax	3.61	3.16	3.05	3.56
Potatoes†	2.45	.....	1.30	.75
Hay	16.20	16.10	16.40	14.80
Soybeans†	2.96	2.82	2.22	3.53
Hogs	15.80	15.00	17.50	19.50
Cattle	15.40	16.00	17.60	17.40
Calves	19.30	18.30	18.00	17.50
Sheep-lambs	19.68	19.32	18.18	19.55
Chickens .....	.163	.151	.168	.156
Eggs .....	.330	.310	.280	.270
Butterfat .....	.630	.630	.620	.620
Milk	3.15	3.15	2.95	2.85
Wool† .....	.40	.41	.41	.50

* Average prices as reported by the USDA.

† Not included in Minnesota farm price indexes.

The June 1956 Minnesota farm price index was 7.6 points or 3.5 per cent lower than a year ago. This decrease was largely due to an 11 per cent fall in the livestock price index. The crop price index also fell but only by 5 per cent from the June 1955 level. Higher egg, butterfat, and milk prices raised the livestock products price index 7.5 points above the June 1955 level.

Comparison of May and June Prices

Commodity class	Average June prices as a percentage of average May prices
Crops	99
Livestock	99
Livestock products	99
All commodities	99

Indexes for Minnesota Agriculture*

	Average June 1935-39	June 1956	June 1955	June 1954
U. S. farm price index	100	234.3	230.6	235.3
Minnesota farm price index	100	211.0	218.6	222.1
Minnesota crop price index	100	220.1	231.2	232.2
Minnesota livestock price index	100	204.1	228.6	239.9
Minnesota livestock products price index	100	214.4	206.9	204.4
Purchasing power of farm products				
United States	100	102.8	102.5	104.6
Minnesota	100	92.5	97.1	98.8
U. S. hog-corn ratio	12.0	11.0	13.1	14.6
Minnesota hog-corn ratio	15.2	11.3	13.2	14.1
Minnesota beef-corn ratio	12.8	12.0	13.2	12.6
Minnesota egg-grain ratio	14.4	11.4	9.8	9.5
Minnesota butterfat-farm-grain ratio	30.9	31.9	28.7	27.2

* 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 — Hog Farrowing

There is a marked shift in Minnesota toward earlier spring farrowing of sows. This is indicated in the table.

Minnesota farmers have increased sows farrowing during the months of December through February from 5 per cent in 1940 to 13 per cent in 1955. All of this increase came since 1950. During the same period, the March through May farrowings declined from 71 to 54 per cent.

The increased use of farrowing stalls, heat lamps, heated farrowing houses, and more adequate rations have enabled Minnesota farmers to do this.

There is also a marked trend toward earlier fall farrowing. Sows farrowing during June through August doubled from 10 to 20 per cent since 1940. At the same time there was little change in the percentage farrowed during September through November.

Along with this marked trend toward earlier spring and fall farrowings is the shift toward more late summer and fall pigs. The June through November farrowings increased to one-third from one-fourth of the annual total since 1940. This is because more sows are farrowing twice a year.

One important result of these trends is less seasonal variation in hog farrowings. In 1955, quarterly farrowings ranged from 13 to 54 per cent of the annual total compared to a range of 5 to 71 per cent in 1940.

These trends have led to earlier peak months and low months in marketing. The low period in marketing has moved from August or September to June or July. The peak has moved from December to November.

There has been no clear-cut shift in seasonal price trends. Price peaks generally have moved from September and October to August and September within the last five years. The prices during these months have ranged from 4 to 5 dollars above the low months of November and December. However, these trends toward earlier farrowings along with shorter feeding time and less fluctuation in seasonal farrowings are expected to continue.

Minnesota farmers should plan for seasonal price peaks to come earlier and be less extreme than formerly. It may be that the seasonal price incentive for earlier farrowings may largely disappear in the next decade.

Number of Sows Farrowing and Percentage of Annual Total in Minnesota by Quarters, 1940-1955*

	Sows farrowing in				Annual
	Dec.- Feb.	March- May	June- Aug.	Sept.- Nov.	
thousands					
1940	47	673	99	131	950
1945	23	646	131	140	940
1950	51	680	146	153	1,030
1955	130	546	202	114	943
percentage of annual total					
1940	5.0	70.8	10.4	13.8	100
1945	2.4	68.8	14.0	14.8	100
1950	5.0	66.0	14.1	14.9	100
1955	12.8	53.8	19.9	13.5	100

* Minnesota Hog Industry, Minnesota State Federal Crop Reporting Service, March 1956.

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