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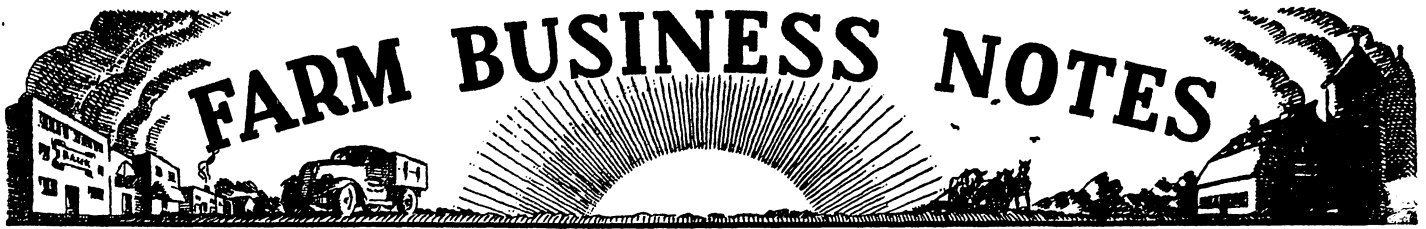
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Prepared by the Divisions of Agricultural Economics and Agricultural Extension
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UNIVERSITY FARM, ST. PAUL

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Expenditures for Farm Implements

G. E. TOBEN

The cost of repairing and replacing farm implements is one of the necessary costs of operating a farm. Information on these costs are available from records kept by farmers in the Southeastern Minnesota Farm Management Association. About 86 records for each of the 10 years, 1931-1940, provide definite information on these costs since they contain a complete description of each expenditure for implements and equipment.

An average of \$109 per year during the 10-year period was paid for new implements (table 1). These purchases included new kinds of implements not previously owned and purchased to replace old items. The cost of replacing an old item is measured in terms of the purchase price of the new item corrected for the gain or loss between the opening inventory value and the trade-in allowance of the old one.

The cash cost of repairing farm implements during this same period averaged \$26 per farm. This is approximately one fourth as much as the amount invested in new implements. The expenditure for new items plus the cost of repairing the farm implements used in growing and harvesting crops represented about 5 per cent of the total cash expenditures on these farms.

When analyzing a farm business record, the cost of a new implement is not charged against the business in the year of the purchase. Instead, it is charged to the farm business over a period of years by annual depreciation

University Farm Radio Programs

HOMEMAKERS' HOUR—10:45 a.m.

UNIVERSITY FARM HOUR—12:30 p.m.

THE FRIENDLY ROAD—1:00 p.m.

Station WLB—770 on the dial

charges. The depreciation charged from 1931-1940 averaged \$86 per farm. This is \$23 smaller than the \$109 paid for new implements, thus indicating that the average farmer either increased his annual investment in implements, failed to charge enough depreciation, or did both. Assuming the correct depreciation charge was made, then the average value of implements increased about \$230 during the 10-year period.

The average rate of depreciation amounted to 10 per cent of the opening inventory. The average opening inventory, which is also the remaining cost to be recovered, was \$861 per farm and the depreciation charged against each year's business was \$86. During the 10 years, the repair cost was approximately equal to 3 per cent of the average opening inventory.

Implement Costs from Year to Year

Implement purchases tend to vary with farm earnings for the previous year. During the early 30's when farm income was low, only a small amount of implements were purchased. Then when farm earnings began to increase, more new implements were purchased. The \$194 worth of implements purchased in 1938 was more than six times greater than the \$29 worth purchased in 1932.

In contrast, the cost of repairing implements showed little change from year to year. The \$32 repair cost in 1938 was only 68 per cent greater than the \$19 spent in 1932. If the repair costs are measured as a per cent of the opening inventory, the difference between years only varies from 2.4 to 3.7 per cent. The rate of depreciation, like the repair cost, showed little variation. When the two are combined, they only vary from a rate of about 12 to 14 per cent of the opening inventory.

During the period of low income, farmers were postponing the purchase of implements at the expense of the inventory. The \$80 depreciation charged against the opening inventories of the four years, 1931-1934, was twice as great as the \$40 spent for new implements. When farm earnings began to increase, more was invested in implements and by the end of 1940 the investment had increased 25 per cent over 1931.

Table 1. Annual Farm Implement Costs and Farm Earnings from 859 Annual Southeastern Minnesota Farm Records, 1931-1940

Year	Opening inventory	Implement purchases	Depreciation charged	Repair cost	Operator's labor earnings
1931	\$ 849	\$ 47	\$ 90	\$24	\$—438
1932	786	29	85	19	—549
1933	776	42	75	22	905
1934	740	40	68	22	1,564
1935	704	122	75	26	1,325
1936	805	131	76	27	2,778
1937	861	190	92	29	1,563
1938	989	194	105	32	941
1939	1,041	140	92	31	1,659
1940	1,060	153	102	29	1,745
Average	861	109	86	26	1,149

Table 2. Annual Farm Implement Costs by Classes of Implements from 859 Southeastern Minnesota Farm Records, 1931-1940

Class of implements	1931 opening inventory	Annual implement purchases	Annual depreciation		Annual repair costs	
			Amount	Per cent of inventory	Amount	Per cent of inventory
Tillage	\$146	\$ 17	\$15	9.9	\$ 5.47	3.6
Corn	220	37	25	10.1	5.16	2.1
Small grain	184	22	18	9.3	6.05	3.2
Hay	111	14	12	10.3	3.75	3.2
Hauling	170	16	15	10.5	4.30	3.0
Other	18	3	1	1.49*
Total	\$849	\$109	\$86	10.0	\$26.22	3.0

* Includes lubrication for all implements

Cost by Classes of Implements

The cost of repairing implements, expressed as a per cent of the opening inventory, was about the same for each class of implements. The rate of depreciation, relative to the opening inventory, also was about the same for each class of implements. The average rates were about 3 per cent for repairs and 10 per cent for depreciation (table 2).

A comparison of the annual depreciation and implement purchases shows that the investment in each class of implements was being reduced during the period 1931-1940. However, by the end of the tenth year the investment in each class of machines had increased. The investment in corn machinery increased more than for any other class of implements. This occurred because over one third of the total amount spent for new implements was for corn machinery. By the end of 1940, the investment in corn machinery was more than one half again as much as in 1931. This increase in investment also accounted for more than half of the total increase in all implements.

Influence of Size of Farm

One of the most important factors influencing farm implement costs is the use of the implements. Since the average amount of custom work performed by these farmers whose records were analyzed is small, the use of implements can be expressed in terms of crop acres. The amount spent for new implements was \$32 per farm on farms under 75 crop acres, whereas purchases on farms over 125 crop acres were \$130 or more each year (table 3).

The amount of repair and depreciation, expressed in per cent of the opening inventory, is practically the same on large as on small farms. However, the total investment in implements is greater on the larger farms; therefore, the cost of repairs and depreciation charged against each year's business increases as the size increases.

Table 3. Annual Farm Implement Costs by Size of Farm from 859 Southeastern Minnesota Farm Records, 1931-1940

Crop acres per farm	1931 opening inventory	Annual implement purchases	Annual depreciation		Annual repair costs	
			Amount	Per cent of inventory	Amount	Per cent of inventory
74.9 & less	\$ 684	\$ 32	\$ 46	8.8	\$13	2.5
75.0-99.9	573	82	63	10.0	20	3.2
100.0-124.9	734	105	71	9.5	23	3.1
125.0-149.9	982	133	102	10.6	30	3.1
150.0-174.9	1,001	131	101	10.3	29	2.9
175.0 & over	1,379	131	120	9.9	38	3.1
Average	849	109	86	10.0	26	3.0

The annual investment in implements purchased on farms under 75 crop acres was not sufficient to maintain the amount invested in implements at the beginning of the 10-year period. The annual depreciation charged exceeded the annual investment purchased by \$12 per year. Therefore, over the 10 years the investment in implements on these small farms decreased about \$120 or one fifth of the investment in 1931.

The average of all farms over 75 crop acres showed an increase in inventory from 1931 to 1940. The largest increase occurred on the farms from 100 to 124.9 crop acres. The investment on these farms increased an average of \$34 per year. This raised the investment during the 10 years about 50 per cent above that in 1931.

It is also significant to note that the implement cost per crop acre is about one-fourth less on the larger farms. The annual cost for repairs and depreciation of implements on the 108 farms under 75 crop acres in size was \$59 per farm. The average size of these farms was 58 crop acres; therefore, the cost was a little more than \$1 per crop acre. The repair and depreciation cost on the 155 farms over 175 crop acres was \$158 per farm. The average size of these farms was 220 crop acres, thus resulting in an implement cost that was about \$0.72 per crop acre.

Prices Paid Producers for Milk Used in Drying

E. FRED KOLLER

At this time a large number of Minnesota farmers are considering shifting to the sale of whole milk rather than butterfat in view of the increasing wartime demand for dry milk. Prices received for whole milk and skim milk relative to those received for butterfat in cream and for other farm commodities are important considerations in determining if the change will be made.

A survey of plants buying milk for drying, covering the first three months of 1943, indicated that most of them were paying for butterfat on the customary basis and then paying an additional amount for skim milk, the skim milk content being calculated arbitrarily at 80 per cent of the weight of whole milk. The prices quoted varied widely from 52 to 59 cents per pound butterfat and from 53 to 90 cents per hundredweight of skim milk. Skim milk quotations varied from plant to plant as shown in table 1. In

Table 1. Minnesota Drying Plants and Creameries Selling to Driers, Classified According to Prices Paid Farmers for Skim Milk During the First Quarter, 1943

Price per cwt.	January	February	March
Number of plants reporting			
\$.50-.54	1	0	0
.55-.59	3	2	1
.60-.64	2	3	4
.65-.69	5	9	5
.70-.74	16	13	11
.75-.79	46	41	40
.80-.84	24	29	35
.85-.89	1	4	7
.90-.94	0	0	1
Total	98	101	104

Table 2. Minnesota Drying Plants and Creameries Selling to Driers, Classified According to Prices Paid Farmers for 3.5 Milk During the First Quarter, 1943

Price per cwt.	January	February	March
	Number of plants reporting		
\$2.25-\$2.34	6	6	5
2.35- 2.44	21	19	11
2.45- 2.54	52	50	49
2.55- 2.64	22	31	39
2.65- 2.74	7	5	8
2.75- 2.84	0	2	3
Total	108	113	115
Average price	\$2.50	\$2.52	\$2.53

March, 83 out of 104 plants paid 75 cents or more per hundredweight of skim milk.

Prices paid per hundredweight of whole milk testing 3.5 per cent fat averaged \$2.50 to \$2.53 in the first three months of 1943 in the Minnesota plants that were receiving milk for drying (table 2).

March prices in 115 plants ranged from a low of \$2.30 to a high of \$2.80 per 100. The variations in price are due to a number of factors including the efficiency of plant operations, quality of products, market outlets, and the amount of indebtedness and the rate at which it is being retired. In a number of cases the prices quoted in table 2 will be supplemented by patronage dividends at the end of the year which it was estimated will amount to \$.05 to \$.10 per hundredweight.

Summaries of September prices for milk are not available at this time, but individual reports indicate that they will be the same or slightly higher than earlier in the year. The announcement by the War Food Administration on October 13 that producers in this area would be paid a subsidy of \$.30 a hundredweight for whole milk delivered in the last three months of this year should bring the average return for 3.5 milk to be used in drying into the \$2.80 to \$3.00 range.

Consumption and Spending By Consumers

WARREN C. WAITE

Thus far there has been no material decline in the total quantity of goods and services consumed in this country as a result of the war. Adjusting dollar expenditures for changes in prices shows physical consumption to be approximately equal to that of prewar and early war years. There have been shortages in particular lines and the quality of a considerable range of items has begun to deteriorate, but consumption as a whole remains high. Despite the large requirements of food for war purposes the U. S. Department of Agriculture reports that civilian food supplies for the year as a whole will be slightly larger than average consumption in 1935-1939. The Federal Reserve Board reports the physical volume of merchandise sold this year to be approximately that of a year ago. This sustained consumption has been possible because we have not had to curtail the output of most civilian goods as

greatly as was expected and because we have been able to draw heavily on business inventories.

Although total consumption has not changed greatly, there has been a considerable shift in the ability of groups to buy goods resulting from income changes induced by the war. Some groups are consuming more than ever before while other groups are getting along with less. In general, farmers and workers in war plants have considerably larger money incomes than before the war, while groups such as salaried workers in distribution and public service have had smaller increases. Available data indicate that the lower income groups both in the cities and in agriculture have had a relatively larger increase in their incomes than the higher income groups. For example, while the Survey of Family Spending and Saving in Wartime made by the Bureau of Labor Statistics among a cross section of city families showed some families with larger and some with smaller incomes in 1942 than in 1941, the study also showed more families in the lower income group had increased incomes between 1941 and 1942 than in the higher income group. The Rural Study of Family Spending and Saving in Wartime made by the Bureau of Human Nutrition and Home Economics shows a similar situation with respect to incomes in agriculture. The average income from all sources of the lowest one tenth of the farm operator families in 1942 was more than 300 per cent of the average income of the lowest one tenth of the farm operator families in 1941. The average income of the highest one tenth of the farm operators in 1942 was 150 per cent of the average income of the highest one tenth of the farm operators in 1941. The relative increase in income of the lower income group was thus much larger than that of the higher income group.

Neither farmers nor city people as a group are spending all of their increased income for goods. At the middle of the year, income payments to individuals in this country were at a rate of 141 billion dollars a year. Taxes promised to drain off 15 billion dollars, leaving 126 billion dollars in the pockets of consumers. To absorb this sum there were estimated to be about 90 billion dollars of goods and services at current prices, leaving 36 billion dollars for saving or to seek expenditure and tend to force prices up. Fortunately consumers have chosen to pay debts and save this money rather than to spend it. Some of the saving has been in the form of the purchase of War Bonds but there is also considerable accumulation in other forms as well. There appears to have been an increase in the deposit accounts of individuals in commercial banks and in the postal savings system. There have also been increased holdings in cash. Farmers have been paying off debts. For example, farm borrowers in Minnesota paid 175 per cent as much on the principal of their loans from the Farm Credit Administration during the first six months of 1943 as in the similar period of 1942. This inclination of the public to save its excess funds rather than to insist on trying to buy goods has resulted in a currently favorable situation for holding prices. The balance is, however, extremely precarious and any one of several circumstances could easily result in a change in psychology and a rush to spend funds that could result in a considerable rise in prices.

Minnesota Farm Prices for September, 1943

Prepared by W. C. WAITE and R. W. Cox

The index number of Minnesota Farm prices for September, 1943, is 169. This index expresses the average of the increases and decreases in farm product prices in September, 1943, over the average of September, 1935-39, weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, September, 1943, with Comparisons*

	Sept. 15, 1943	Aug. 15, 1943	Sept. 15, 1942		Sept. 15, 1943	Aug. 15, 1943	Sept. 15, 1942
Wheat	\$ 1.27	\$ 1.24	\$.98	Hogs	\$13.80	\$13.40	\$13.50
Corn	.96	.95	.71	Cattle	12.40	12.40	11.30
Oats	.65	.59	.37	Calves	13.00	13.70	12.70
Barley	.98	.92	.55	Lambs-Sheep	12.38	12.36	11.62
Rye	.88	.81	.52	Chickens	.22	.22	.18
Flax	2.86	2.81	2.23	Eggs	.39	.36	.31
Potatoes	1.10	1.45	.80	Butterfat	.53	.52	.45
Hay	6.50	6.00	4.50	Milk	2.75	2.70	2.15
				Wool†	.44	.45	.39

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

† Not included in the price index number.

The prices of the various crops except potatoes advanced from August to September, the largest relative increases occurring in the prices of oats, barley, and rye. Because of the ceilings on corn prices, the latter have remained at their present level for several months. Hog prices rose 40 cents per 100 pounds, but calf prices showed a substantial decline. Prices of eggs and dairy products also advanced during the past month. As a result of these changes, Minnesota farm prices averaged about 2 per cent higher in September than in August, and 22 per cent higher than in September, 1942. Crop and livestock product prices advanced 46 and 20 per cent, respectively; livestock prices rose only 5 per cent.

The various feed ratios changed only slightly from August to September, but all are much lower than one year ago, the butterfat-feed ratio having declined about 28 per cent during the 12-month period.

Indexes and Ratios for Minnesota Agriculture*

	Sept. 15, 1943	Sept. 15, 1942	Sept. 15, 1941	Average Sept. 1935-39
U.S. farm price index	178.0	150.4	128.2	100
Minnesota farm price index	169.4	138.3	119.7	100
Minn. crop price index	173.5	119.1	108.9	100
Minn. livestock price index	159.0	150.7	124.4	100
Minn. livestock product price index	177.1	146.9	127.5	100
U.S. purchasing power of farm products	131.7	122.9	120.5	100
Minn. purchasing power of farm products	125.3	113.0	112.4	100
Minn. farmers' share of consumers' food dollar	61.2†	59.0	53.8	48.6
U.S. hog-corn ratio	12.9	16.4	15.7	12.6
Minnesota hog-corn ratio	14.4	19.0	18.7	14.9
Minnesota beef-corn ratio	12.9	15.9	15.2	11.9
Minnesota egg-grain ratio	19.8	22.3	20.7	17.3
Minnesota butterfat-farm-grain ratio	27.1	37.8	35.3	32.4

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

† Figure for June, 1943.

Proportion of Farm Income From Dairy Products

During the last three years there has been a decline in the proportion which dairy products are of the total cash income from the marketing of agricultural commodities in the United States. The table below is derived from monthly estimates of the Bureau of Agricultural Economics.

Proportion Which Dairy Products Constitute of the Cash Marketings by Farmers in the U. S., 1940-1943

Month	Per cent of total income			
	1940	1941	1942	1943
January	18.6	19.0	16.7	15.2
February	22.9	22.1	20.3	17.8
March	22.3	21.2	19.5	16.7
April	22.5	21.6	19.3	17.8
May	23.8	23.6	21.8	19.2
June	25.0	23.8	20.8	20.2
July	19.6	19.8	17.0	16.7
August	17.5	15.0	14.1
September	14.4	12.8	11.0
October	11.3	11.3	9.6
November	13.5	12.7	10.0
December	16.7	13.7	12.3
Year	18.1	16.9	14.9

This decline in relative importance is the result of two factors. The first is that the volume of milk production has not increased as rapidly as agricultural production as a whole, and the second is that the prices of dairy products have not increased as rapidly as the prices of agricultural products as a whole. Agriculture has been favored recently with a series of excellent growing years with resulting large crops for sale and for feed. The large feed supplies, plus large stocks at the beginning of the period, have permitted a large expansion of livestock enterprises. Dairy production, partly because of the longer run character of the enterprise, has not expanded as rapidly. Moreover, while the Bureau of Agricultural Economics index of agricultural prices in July, 1943, was 191 per cent of its average level in 1940, the index of the prices of dairy products was only 157 per cent of its average level in 1940.

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