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FARM BUSINESS NOTES

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

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Cash Expenses of Minnesota Farmers

REX W. COX and LLOYD C. HALVORSON

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tax delinquency, cancellations, abatements, and tardy payments. Also, they exclude that proportion of the total payment which properly may be allocated to the farm dwelling rather than to the farm business.

The annual tax payment is the largest single item of expense accounting for more than 20 per cent of the cash expenditures. It aver-

aged about 33.5 million dollars during the period 1920-1929. The decline which became particularly evident in 1933 was due to the decrease in the tax levy and the increase in tax delinquency. The tax payment in 1933 was 23.1 million as compared to 33.7 million in 1930. The levy in 1932, payable in 1933, approximated 26.7 million, a decline of 10 million in three years. The current delinquency in 1933 amounted to more than 7 million, although a total of 3.6 million back taxes were collected. Although the tax levy has increased since 1935, the delinquency has shown a substantial decline. These changes, and the rapid increase in back taxes paid, have resulted in an increase in total taxes paid during the last three years.

Interest Payable. The estimates include interest payable on all real estate mortgages, personal and collateral loans made for agricultural purposes by commercial banks, and loans obtained through production credit associations. Deductions have not been made for delinquent interest payments or back interest collected, because the data for such adjustments are not available. In consequence, the item represents interest payable rather than interest paid.

The farm mortgage debt increased from 146 million in 1910 to 455 million in 1920, but the peak of more than 550 million was not reached until about 1928. The debt declined from 492 million in 1930 to 356 million in 1938.

Interest rates on farm mortgages have shown a fairly constant decline since 1916, at which time the rate averaged about 6.8 per cent. The rates in 1920, 1930, and 1938 were about 5.8, 5.7, and 4.3 per cent, respectively. The estimated interest payable on farm mortgages averaged about 10.7 million in 1910-1914. Following this period, rapid increases occurred until the high point of 28.4 million was reached in 1925-1929. As a result of the decrease in both the amount of debt and the interest

Cash Expenses of Minnesota Agriculture, 1910-1938

	Interest Payable							
	Taxes	Mortgages	Short-term loans	Wages	Feed	Building and machinery repairs	Automobiles, trucks, and tractors	Other items
Averages	1,000,000 dollars							
1910-14	9.1	10.7	6.6	18.0	7.0	8.3	.6	6.4
1915-19	18.9	17.1	11.5	27.1	14.3	10.1	1.2	10.3
1920-24	33.4	27.4	14.8	30.0	14.8	10.6	8.9	10.6
1925-29	33.7	28.4	13.4	27.9	20.2	12.7	14.6	11.2
1930-34	28.1	22.6	5.7	15.9	13.4	8.8	16.8	10.2
1935-38	27.4	15.8	2.4	15.7	21.9	11.7	19.2	10.2
1930	33.7	24.9	10.4	24.3	18.3	12.1	17.8	12.0
1931	32.8	23.9	7.0	18.7	16.1	10.1	16.0	11.4
1932	28.2	22.7	5.3	13.9	9.3	7.0	17.4	9.2
1933	23.1	21.4	3.8	10.8	9.6	6.7	15.9	8.9
1934	22.8	20.2	2.1	11.8	13.6	8.2	17.0	9.4
1935	23.7	18.6	2.2	14.2	19.1	10.0	17.5	9.5
1936	26.8	16.4	2.2	14.9	23.9	10.5	17.9	9.7
1937	29.6	14.6	2.3	17.3	26.5	13.0	20.6	10.8
1938	29.3	13.6	2.8	16.3	18.1	13.3	20.8	10.8

Taxes. This item includes farm real estate, special assessment, and personal property taxes. The final estimates which appear in the accompanying table represent taxes actually paid in that adjustments have been made for

rate, the annual interest payable declined to around 15.8 million in 1935-1938.

Short-term or personal and collateral loans obtained by farmers from commercial banks experienced a drastic decline from 1929 to 1936. The total interest payable in 1930-1934 averaged 5.7 million, a decline of 50 per cent from the preceding five-year period. The estimate of 2.4 million in 1935-1938 also includes interest on loans obtained through production credit associations.

Wages. The total expenditures for hired labor are dependent on the amount of labor employed and the wage rates. There has been a rapid decrease in the amount of labor hired during the last twenty years, even though the aggregate size of the farm enterprise has increased. For example, the average annual employment during the last nine years has averaged 16 per cent less than during the period 1920-1924, whereas the aggregate size of the farm enterprise increased 12 per cent. Part of the decrease in the amount of labor hired may be due to a larger number of the farmers' sons remaining on the farm because of limited opportunities for employment in cities. Wage rates reached a peak in 1919-1920, declining immediately thereafter. The fairly stable level of rates prevailing in 1925-1929 was followed by a drastic decline during the early years of the depression, the rates in 1932-1933 averaging less than one half as much as in 1929. The rates during the last two years have been about 35 per cent above the low level of 1932-1933. The relative low rates and the increasing efficiency in the utilization of labor have been responsible for the major part of the decline of 44 per cent in the average annual wage payments from 1925-1929 to 1935-1938.

Feed. This item includes expenditures for both commercial and farm-grown feeds. The estimated annual expenditure for all feed in 1935-1938 was 21.9 million, as compared with 13.4 million in the previous five-year period, an increase of 63 per cent. The additional expenditures were due to both an increase in the price per ton and in the amount purchased. The tons of commercial feed purchased averaged 50 per cent higher in 1936-1937 than in 1933 and the value was three times as large.

Building and machinery repairs. The total repair cost on buildings and machinery varied from 9 to 13 million dollars per year during the period, 1920-1929. The expenditure declined during the first years of the depression, indicating that farmers not only postponed the construction of new buildings and the purchase of new machinery, but also the repairs on the old. The estimated expenditures for repairs in 1935-1938 were about 33 per cent greater than in the preceding five-year period.

Automobiles, trucks, and tractors. The estimates in the table represent the total expenditures for licenses and for gasoline or other forms of fuel, after deducting 50 per cent of the cost of licenses and gasoline used by automobiles. It was assumed that the automobile was used 50 per cent of the time by the farm family for purposes other than for production.

The total annual expenditure for licenses and gasoline and other forms of fuel averaged 19.2 million in 1935-

1938, which represents an increase of 31 per cent over the expenditures in 1925-1929.

Other items of expense include spray and seed-treatment materials, twine, sacks, fertilizer, telephone, electricity, insurance, farm papers, and veterinary service. The total expenditure for these items has varied around 10,000,000 annually. The more important items of the group are twine, insurance, and veterinary service, the three accounting for approximately 70 per cent of the total of miscellaneous expenses in 1935-1938.

The relative importance of the various items of expense has shown some significant changes during the last 29 years. For example, the tax payments were 39 per cent less than the expenditure for labor in 1910-1919, whereas they were 75 per cent greater in 1930-1938. The decline in the relative importance of interest payable was especially marked during the latter part of the period. If data were available showing interest actually paid, the changes would be even greater, since delinquency reached a very high level during the depression. The relative importance of feed purchases varied only slightly previous to 1930, but showed a substantial increase during the last four years. The item which has shown the greatest increase in relative importance is the cost of operation of automobiles, trucks, and tractors. The proportion that the expenditure for license and fuel is of the total of all cash expenditure was probably three times greater in 1935-38 than in 1920-25.

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Cash Expenses for Living on the Farm

S. A. ENGENE

Recent studies made in Minnesota reveal some interesting information concerning the cash outlays for living expenses on farms. In five studies, the average cash outlays ranged from \$400 to \$1,363 per farm per year, not including costs for maintenance of the dwelling. These data, presented in table 1, were obtained from records kept by farmers. The earnings which the family gained from the farms during these same years ranged from \$670 to \$1,931. These figures represent the earnings that remained as pay for the labor of the family after paying all costs of operating the farm and allowing five per cent interest on the investment. The average farm earnings for these years, however, were higher than average for the other years in the last decade.

The number of persons in the family and the number of other persons boarded, reduced to adult equivalents, were quite uniform among the groups studied. The differences in expenses, therefore, tend to represent differences in standards of living. The values of the food and fuel produced on the farm and consumed in the home differed considerably among the groups. The value of the farm produce used in the home was highest in those groups having the largest cash outlays. Families with low earnings did not supplement their farm income by the use of more home-raised products than did the families with high earnings.

Food was the largest item of expenditure. Clothing

Table 1. Household and Personal Expenses

Item	14 S.E. counties 1935-38	Winona County 1935-38	Fillmore, Houston, Winona counties 1935-38	Meeker County 1937-38	Farm Security clients 1936-38
Number of records.....	390	89	165	77	2,018
Food	\$283	\$310	\$204	\$284	\$176
Operating and supplies	113	108	46	97	33
Furnishings and equipment	83	80	46	79	25
Clothing and materials	121	132	89	97	60
Health	70	64	47	65	26
Development and recreation	103	84	62	83	20
Personal	67	146	31	88	18
Life insurance and savings	94	150	51	74	9
Auto and truck	80	289	58	90	33
Total	\$1,014	\$1,363	\$634	\$957	\$400
Value of farm produce used.....	276	359	326	323	214
Earnings of family*.....	\$1,931	\$1,677	\$1,110	\$1,483	\$676
Adult equivalents—family	3.4	3.7	3.7	3.4	3.5
—non-family8	1.0	.4	.7	.1

* Includes the value of farm produce used in the home.

was the next largest item in most of the groups, although those outlays were much smaller than those for food. The personal share of the cost of the auto and truck was very large in the Winona County group, while in the other groups studied, it was about equal to the cost of operating and supplies. The cost of operating and supplies includes the cost for light, heat, and hired household labor, as well as for the supplies needed for the home. The cash outlays for health (doctor and dentist fees, medicine, operations, hospital) were among the smallest items for most of the groups. The outlays for life insurance and savings differed greatly among the groups, being influenced strongly by the earnings. This item does not include the savings that were made in the form of accumulations of farm property.

The proportion that food cost was of the total cost was larger on the farms where total expenses were low than on the farms where total expenses were high. Since food is one of the principal necessities of life, reduction in this expense is difficult. Expenses for clothing represented approximately the same proportion of the total expenses for all groups. The expenses for development and recreation, personal spending, and life insurance and savings were very low for the groups with the lowest total expense.

In general, these farmers had adapted their living costs to their earnings. The farms studied in Winona County and in 14 southeastern Minnesota counties had the largest earnings and reported the largest living expenses. The farm security clients were lowest in both earnings and expenses.

Surplus Problems in Dairying

W. H. DANKERS

A review of imports and exports indicates that there is practically no movement of dairy products out of or into the United States as compared with the total production and domestic consumption. Dairy products are perishable or semi-perishable and can be held in storage only a limited time. These factors indicate that, when losses during processing and handling are considered, domestic consumption of dairy products should be directly in line with United States production over a period of time.

Production per capita (allowing for net exports or imports) and consumption per capita in the United States for all dairy products including fluid milk and cream is given in terms of milk equivalents in table 1. The lower average figure of consumption as compared with production is due to the normal loss in handling and processing. Less loss occurs after products have been manufactured, so that figures for all manufactured dairy products expressed in terms of milk equivalents per capita show even a closer relationship between production and consumption.

Table 1. Per Capita Production and Consumption of Dairy Products*

Year	All dairy products—including fluid milk and cream in milk equivalents		All manufactured dairy products—including farm butter, in milk equivalents	
	Production per capita	Consumption per capita	Production per capita	Consumption per capita
Average 1924-29	823	805	466	467
1930	837	818	459	465
1931	853	840	466	475
1932	854	834	470	474
1933	855	815	484	467
1934	824	816	471	483
1935	817	804	464	472
1936	825	800	465	462
1937	820	808	460	469
1938	845	808	491	477

* U.S.D.A. report.

If production and consumption are in line over a period of time, what is meant by surplus problems in dairying? In a commodity such as butter, reference to a surplus does not mean that production exceeds consumption over a period of time. Normally, the total production is moved by lowering the price to the point where it will be consumed. A surplus situation hence is reflected in price. The amount consumers will take of a certain commodity is not fixed. Other things remaining the same, the amount they will take at a certain price is fixed. More is consumed at a lower price and less at a higher price.

When reference is made to surplus problems, more of a commodity is available than the consumer will take at the price desired by the producer. This situation prevailed during 1938 and early 1939. Milk production for the year was 4 per cent over 1937 and as high per capita as in 1931-1933. Continued heavy production and increased cow numbers resulted in a record high for the first half of 1939. Without a corresponding increase in consumer purchasing power, the increased production was not moved into consumer channels at the price at which the butter market, and indirectly the whole dairy market, was pegged during 1938-1939. The present situation of relatively low prices and movement of additional dairy products into relief channels is tending to correct some of the maladjustment that occurred in 1938. Along with other dairy products, the distribution of butter for relief has averaged 12,000,000 pounds per month since the first of the year. Government subsidies through relief purchases, however, provide only a temporary solution. In the long run, the so-called "dairy surplus" can be removed only through increased industrial activity and consumer purchasing power (increased consumption), lower retail prices (increased consumption), or curtailment of production.

Minnesota Farm Prices for June 1939

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

The index number of Minnesota farm prices for the month of June 1939 was 63. When the average of farm prices of the three Junes 1924, 1925, and 1926 is represented by 100, the index for June of each year from 1924 to date is as follows:

1924—84	1928—110	1932—39	1936—78
1925—108	1929—109	1933—48	1937—94
1926—110	1930—90	1934—56	1938—73*
1927—100	1931—57	1935—78	1939—63*

* Preliminary.

The price index of 63 for the past month is the net result of increases and decreases in the prices of farm products in June 1939 over the average of June 1924, 1925, and 1926 weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index June 15, 1939, with Comparisons*

	June 15 1939	May 15 1939	June 15 1938		June 15 1939	May 15 1939	June 15 1938
Wheat	\$0.66	\$0.66	\$0.81	Cattle	\$6.80	\$7.10	\$6.60
Corn	.38	.37	.43	Calves	8.00	8.30	7.70
Oats	.26	.25	.20	Lambs-sheep	7.78	8.09	6.99
Barley	.36	.36	.42	Chickens	.11	.12	.13
Rye	.38	.34	.43	Eggs	.13	.14	.16
Flax	1.62	1.62	1.62	Butterfat	.24	.23	.26
Potatoes	.49	.50	.45	Hay	3.92	4.28	5.12
Hogs	5.90	6.50	8.10	Milk	1.30	1.30	1.50

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

The index showed a decline of nearly five points from the May 15 level. All the grains showed either no change or rises in price, with wheat, barley, and flax priced at the same figures as for May 15, while corn, oats, and rye advanced. These rises were much more than offset by the declines which occurred in all the livestock items. Hogs declined 60 cents from the May figure of \$6.50. This is a continuation of the decline which has continued since February, since when hog slaughter has been materially heavier than that of a year ago. Butter advanced a cent as against the usual decline for June.

Indexes and Ratios of Minnesota Agriculture*

	June 1939	May 1939	June 1938	Average June 1924-1926
U. S. farm price index	64.0	65.2	66.2	100
Minnesota farm price index	63.4	67.7	72.8	100
U. S. purchasing power of farm products	81.0	85.3	81.7	100
Minn. purchasing power of farm products	80.2	88.6	89.8	100
Minn. farmer's share of consumer's food dollar			43.4	52.4
U. S. hog-corn ratio	11.9	13.2	15.3	12.2
Minnesota hog-corn ratio	15.5	17.6	18.8	13.2
Minnesota egg-grain ratio	14.3	15.6	16.8	14.5
Minnesota butterfat-farm-grain ratio	31.4	30.9	36.0	33.2

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

Domestic, Export, and Import Prices

There have been significant differences in the price and production changes of agricultural products in the United States during the past decade and a half when grouped as domestic, export, and import commodities. The indexes shown include butter, cheese, and beef in the domestic group; wheat, cotton, tobacco, and hogs in the export group, and flax, wool, and sugar in the import group.

The price depression has been most marked in the commodities connected with international trade. It had already begun by 1929, while the domestic commodities were as yet unaffected largely because of domestic pro-

Indexes of Domestic, Export, and Import Agricultural Commodities

	Average of 1924-25-26	1929	1932	1938
Index of prices				
Domestic commodities	100	131	57	86
Export commodities	100	90	35	57
Import commodities	100	90	41	60
Index of production				
Domestic commodities	100	100	98	115
Export commodities	100	102	91	92
Import commodities	100	111	127	133

perity and the low point in cattle numbers at that time. In the drastic decline of the early thirties, the international commodities fell more than the domestic group with the export commodities falling more than the import commodities. In the price rise following 1933, the relative positions of the groups remained unchanged.

When the export market is curtailed, the expected adjustment is an expansion in the domestic and import commodities and a decreased production of export commodities. The indexes of production indicate that this is already well under way. The expansion in the production of import commodities had begun by 1929. The expansion in the production of domestic commodities and the decline in the production of export commodities has been more recent.

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