



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

FARM BUSINESS NOTES

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

NO. 257

UNIVERSITY FARM, ST. PAUL

MAY 23, 1944

Minnesota Cash Farm Expenses During Two Wars

REX W. COX

Estimates have been made of the annual cash expenditures involved in the farm operations of Minnesota for the period 1910-1943. The items included in these estimates probably account for more than 90 per cent of the total cash outlay. Expenditures for these items rose from 54 million dollars in 1910 to 75 million dollars in 1914. They almost doubled during World War I and exceeded 175 million dollars in 1920. Expenditures were reduced in the following two years but were still about 144 million dollars in 1922. They then gradually increased, reaching 153 million dollars in 1926. The subsequent decline was greatly accelerated by the depression, and expenses were reduced to 95 million dollars in 1933. An upward trend began in 1934 and during the present war expenses have increased rapidly, the total reaching 195 million dollars in 1943.

The relative importance of many of the individual items of farm expenses changed significantly in the interval between the two wars (table 1). The items of fixed expenses, that is taxes, and interest payable on farm real estate mortgages, averaged about 31 per cent of the total cash expenses both in 1910-14 and in 1935-39. In the first period, interest payable accounted for a larger proportion of the total than taxes, whereas in 1935-39 taxes represented the larger proportion. The more important relative changes among the items included in current operating expenses were the declines in interest payable on short-term loans and in the cost of hired labor, and the increase in the expenses involved in the operation of automobiles, trucks, and tractors.

Table 1 also provides data for comparing the trends in the expenses of the principal items during the two war periods. The expenses in these years are expressed as proportions of the averages of the preceding five-year periods, 1910-14 and 1935-39. Taxes and interest payable on farm real estate mortgages increased rapidly during War I and both were more than twice as much in 1919 as in the base period. Taxes remained at a high level for many years and did not decline significantly until 1933. The increase in interest payable accompanied the large increase in farm mortgage indebtedness which rose from an average of 213 million dollars in 1910-14 to 457 million dollars in 1919. The

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

trend of debt had been upward preceding World War I and it was greatly accelerated by the expansion of agricultural production and inflation during and immediately following the war. In these years farm owners incurred additional debts and lenders made loans largely on the expectation that present or future increases in farm income and land values would support the debt.

Table 1. Cash Farm Expenditures, Minnesota, 1910-1921, 1935-1943

Item	1910-14		Proportion of the 1910-14 average							
	Million dollars	Per cent of total	1915	1916	1917	1918	1919	1920	1921	
All items	64.1	100.0	129	146	178	206	238	274	230	
Fixed	19.6	30.6	154	166	183	192	209	263	297	
Taxes	8.7	13.6	158	163	177	185	201	277	323	
Interest on real estate mortgages	10.9	17.0	151	169	187	199	215	251	277	
Current	44.5	69.4	118	138	176	212	251	279	200	
Interest on short-term loans	6.2	9.6	124	147	195	242	258	310	305	
Hired labor	17.1	26.7	108	123	148	190	214	266	151	
Feed	6.8	10.6	128	172	262	268	337	341	188	
Automotive*	.7	1.1	126	212	343	506	640	784	774	
Building and machinery repairs	7.7	12.0	116	121	122	134	192	195	139	
Other items†	6.0	9.4	113	118	147	190	213	177	172	

Item	1935-39		Proportion of the 1935-39 average				
	Million dollars	Per cent of total	1940	1941	1942	1943‡	
All items	122.1	100.0	111	122	146	159	
Fixed	38.4	31.4	102	102	104	102	
Taxes	22.0	18.0	108	107	109	109	
Interest on real estate mortgages	16.4	13.4	94	96	96	93	
Current	83.7	68.6	115	133	167	186	
Interest on short-term loans	3.0	2.5	169	175	159	145	
Hired labor	19.2	15.7	111	142	191	243	
Feed	21.1	17.3	95	119	190	213	
Automotive	22.8	18.7	122	136	139	140	
Building and machinery repairs	9.7	7.9	127	142	149	182	
Other items†	7.9	6.5	125	118	151	126	

* The annual expenses for automotive power in 1915-1921 are expressed as percentages of 1914 expenses instead of 1910-14 average.

† Includes binder twine, sprays, fertilizers, electricity, telephone, insurance, and veterinary services.

‡ Preliminary.

The tax and interest situation during the present war has been quite different. Taxes have shown some increase since 1935-39, but the increase has been relatively small compared to the change in 1915-1919. The farm mortgage debt averaged 386 million dollars in 1935-39 according to recent estimates made by the Bureau of Agricultural Economics. It amounted to 380 million dollars in 1940 and rose to 391 million dollars in 1941 and 1942. A substantial decline occurred in 1943, the debt approximating 378 million dollars with interest payments of 15 million dollars or 93 per cent of the average payments in 1935-39. The favorable trend in mortgage debt since January 1, 1942, indicates that farmers are utilizing their increased incomes to retire some of their fixed obligations. However, the trend may be reversed if speculative activity in land leading to inflated land values becomes more marked. Purchase of land by farmers at such values would mean a repetition of the disastrous consequences of the land boom during War I and the immediate postwar period.

At the beginning of World War I, the short-term debt represented by personal and collateral loans extended to farmers by commercial banks was about 70 million dollars but it exceeded 192 million dollars in 1918 and reached a peak of 252 million in 1920. The large increase accompanied the expansion of agricultural production and the upward trend in commodity prices. On account of extreme optimism on the part of both borrower and lender, the short-term debt became overexpanded and intensified greatly the financial difficulties of the farmer during the early 1920's. The short-term debt, including personal and collateral loans made by commercial banks and production credit associations, averaged 44 million dollars in 1935-39. It rose to 78 million dollars in 1941 but declined to 64 million in 1943. The need for short-term credit during the present war, particularly in the past two years, has been lessened because of shortages and restrictions on the purchase of supplies and equipment and by wartime control of prices.

Expenditures for hired labor have shown a more rapid upward trend during the present war than during War I because of the greater rise in wage rates. Monthly wage rates with board averaged about \$27.50 in both 1910-14 and 1935-39. The peak of \$67.00 during the earlier years did not come until 1920, but the rate in 1943 exceeded this amount. While total employment of hired workers tended to increase during War I, it has gradually declined during the past few years, notwithstanding the large increase in production (table 2).

Table 2. Indexes of Average Monthly Wage Rates, Employment, and Expenditures for Hired Labor on Minnesota Farms, 1914-19 and 1939-43

	Per cent of 1914			Per cent of 1939		
	Wage rates	Employment	Expenditures	Wage rates	Employment	Expenditures
1914	100	100	100	1939	100	100
1915	100	102	102	1940	102	97
1916	116	101	117	1941	132	124
1917	136	103	140	1942	184	167
1918	164	110	180	1943	238	213
1919	187	108	203			

Feed expense varies greatly from year to year because of changes in the amount of feed produced locally relative to livestock requirements as well as changes in the prices of purchased feed. The rapid increase in the cost of feed during War I particularly in 1917 and 1918 was due primarily to the high prices of farm grains. Livestock requirements during the present war have increased greatly, but stocks of feed were high at the beginning and supplies have been maintained at a relatively high level. In addition ceiling prices on purchased feed has retarded the upward movement of feed expense, and, in consequence, this item has experienced a smaller relative increase in recent years than during the period 1915-18.

There were very few trucks and tractors in use on Minnesota farms in the period preceding War I and the total expenditures for all automotive power averaged less than 1 million dollars. Although the absolute increase in motor vehicles during the war was not great, it did result in a very large proportionate increase in the cost of automotive power, the latter approximating 7 million dollars in 1918. Farmers spent almost 23 million dollars annually on automotive power in 1935-39. During the next four years, expenses increased and were 40 per cent higher in 1943 than in the prewar period. The increase in 1942 and 1943 resulted from an increased number and use of tractors.

The larger relative increase in the expenditures for building and machinery repairs during the period of the present war is due mainly to the necessity of maintaining present equipment in view of the limitations on the construction of buildings and the purchase of new machines.

Dried Eggs

W. H. DANKERS

There has been an enormous expansion in egg drying during the war. The average annual prewar production of dried eggs in the United States was only about 5 million pounds. In 1941 it was 45 million pounds, and in 1943 it was at an all-time high of 262 million pounds.

About 54 billion eggs were produced in the United States in 1943. On the basis of 10 pounds of egg powder per 30 dozen case (or 1 pound per 36 eggs), powder production in 1943 represented about 9½ billion eggs or about 17.5 per cent of total production. About the same percentage was dried in 1942. In both years over 200 million pounds of egg powder or more than 80 per cent of it was purchased by the War Food Administration. Most of the egg powder is produced in the surplus egg production area of the middle west. Minnesota ranks high with a production of over 18 million pounds in 1942 and nearly 24 million pounds in 1943. This was 7.8 per cent and 9.1 per cent, respectively, of total U. S. production. The major part of the supply, for both lend-lease and domestic purposes, is furnished as whole egg powder.

Egg powder is usually put up in 150 or 200 pound barrels. Originally the product was delivered in barrel lots to large-scale bakers and food manufacturers. A five ounce box, the equivalent of a dozen shell eggs, has been de-

veloped, largely for consumer distribution in allied countries and to military forces. Several "in between" packages are now available for distribution to smaller bakers and food manufacturers.

Quality in egg powder is important. Recently the War Food Administration developed a system of premium payments for solids content and quality. A premium of $\frac{3}{4}$ to 3 cents per pound is available for a solids content higher than 96 per cent. A "palatability score" is used and a $\frac{1}{2}$ to $1\frac{1}{2}$ cents per pound premium is paid for greater palatability. A one cent premium is also paid for egg powder held at 50° Fahrenheit or less until delivery.

A special effort was made during most of 1943 to increase the production of dried eggs for shipment under lend-lease. By October of 1943 the balance between supplies of dried eggs for lend-lease and shell eggs available for domestic consumption was such that the War Food Administration offered to cancel up to 50 per cent of the November and December, 1943, and the January, 1944, drying contracts. Significant cancellations were made. Favorable egg production conditions together with various demand factors brought about the egg price break in December, 1943. Especially since January, 1944, the dried egg program has had a two-fold purpose, that of procuring dried eggs for lend-lease needs, and of supporting egg prices to producers. The War Food Administration previously announced support prices for eggs at about 90 per cent of parity. More recently the price offered for dried eggs has been such that "it should permit dealers to pay farmers not less than 26 cents for (nest-run) eggs."

What are the postwar prospects for this industry? The present capacity for drying eggs in the U. S. is estimated to be over 400 million pounds of powder. This appears to be more than ample to take care of wartime needs. It is also quite probable that these facilities will not be fully used in the postwar period. An expanded domestic market appears to be in prospect for high quality egg powder; however, it will have severe competition from its own raw product, liquid and frozen liquid eggs. The production of egg powder provides for a saving in transportation, in packaging, and to some extent in refrigeration. The question is, are these savings sufficient to offset the cost of drying, and the advantage that liquid and frozen liquid eggs may have in quality?

Price Trends of Purebred Beef and Dairy Cattle During Two Wars

A. A. DOWELL

The trends of prices of purebred beef and dairy cattle during and immediately following World War I and thus far in World War II are shown in figure 1. The data are based upon average annual prices at public auction for males and females combined for two breeds of beef cattle and four breeds of dairy cattle.

Purebred beef cattle prices remained fairly constant

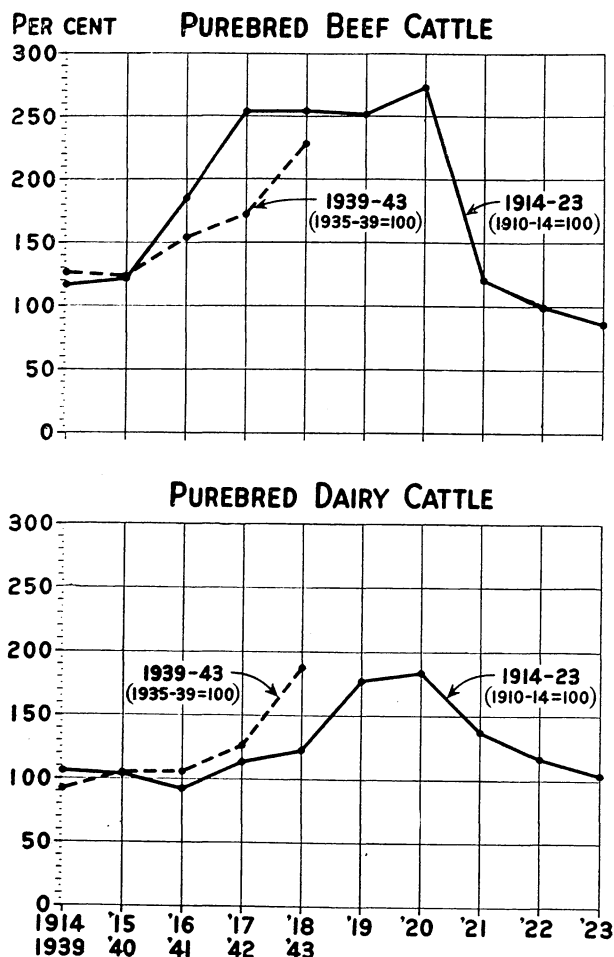


FIG. 1. Prices received for purebred beef and dairy cattle sold at auction during two wars. Index numbers, 1914-23 and 1939-43.

during the first two years of each war, that is, during 1914-15 and 1939-40, and then advanced sharply. Thus far in World War II, the increase has been slightly less than for the same period in World War I. For example, prices in 1918 were two and one-half times the average from 1910-14, while prices during the corresponding year in this war, that is, in 1943, were two and one-fourth times the 1935-39 average. However, the rate of increase during 1943 compared with relatively little change during the corresponding year in World War I suggests that the current rise may not have run its course.

Prices of purebred dairy cattle remained fairly constant during the first three years of each war and then moved upward at a fairly rapid rate. The rate of increase during the present war has been greater than during the corresponding period of World War I. Prices during 1918 were only about one-fourth above the average from 1910-14, while the average in 1943 was over four-fifths higher than the 1935-39 average.

The rate and extent of the increase in prices were much less for purebred dairy cattle than for purebred beef cattle during the World War I boom, and somewhat less thus far in the present war. However, the similarity in the trends during the two wars is striking.

Minnesota Farm Prices for April, 1944

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

The index number of Minnesota farm prices for April, 1944, is 168. This index expresses the average of the increases and decreases in farm product prices in April, 1944, over the average of April, 1935-39, weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index, April, 1944, with Comparisons*

	Apr. 15, 1944	Mar. 15, 1944	Apr. 15, 1943		Apr. 15, 1944	Mar. 15, 1944	Apr. 15, 1943
Wheat	\$ 1.49	\$ 1.49	\$ 1.23	Hogs	\$13.10	\$13.10	\$14.30
Corn	1.01	1.01	.87	Cattle	11.80	11.90	13.00
Oats .....	.72	.72	.56	Calves	13.00	12.90	13.40
Barley	1.10	1.10	.75	Lambs—Sheep	12.82	12.71	13.50
Rye	1.11	1.09	.67	Chickens .....	.20	.20	.19
Flax	2.86	2.85	3.04	Eggs .....	.28	.29	.33
Potatoes	1.65	1.15	1.45	Butterfat .....	.54	.54	.54
Hay	10.30	9.60	7.90	Milk	2.60	2.65	2.55
				Wool† .....	.40	.40	.40

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

† Not included in the price index number.

Minnesota farm prices have shown but slight change from March to April. This marked stability is in part due to the fact that many products are selling at ceiling prices. The Minnesota farm price index of 167.6 is about 3.8 per cent lower than in April, 1943. Although the crop price index increased 10.2 per cent, the livestock and livestock products price indexes declined about 8.3 per cent and 3.5 per cent, respectively. The purchasing power of Minnesota farm products is lower than one year ago because of the drop in prices received and the increase in the prices of commodities purchased.

The feed ratios in April were about the same as in March because of the stability in both grain and livestock prices. If the subsidy payment of 8 cents per pound of butterfat is added to the reported price of this product in April, the butterfat-farm-grain ratio would be raised to 28.8.

Indexes and Ratios for Minnesota Agriculture*

	Apr. 15, 1944	Apr. 15, 1943	Apr. 15, 1942	Average 1935-39
U. S. farm price index	179.2	180.1	141.8	100
Minnesota farm price index	167.6	174.2	141.6	100
Minn. crop price index	170.2	155.0	120.3	100
Minn. livestock price index	165.3	180.3	159.3	100
Minn. livestock product price index	168.9	175.1	132.3	100
U. S. purchasing power of farm products	136.4	143.8	123.9	100
Minn. purchasing power of farm products	127.6	139.1	123.7	100
Minn. farmers' share of consumers' food dollar	62.5	62.4	57.9	47.9
U. S. hog-corn ratio	11.3	14.3	18.3	12.5
Minnesota hog-corn ratio	13.0	16.4	20.0	15.4
Minnesota beef-corn ratio	11.7	14.9	15.7	12.6
Minnesota egg-grain ratio	12.9	18.2	17.6	13.7
Minnesota butterfat-farm-grain ratio	25.1	32.6	29.5	31.8

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

Postwar Changes in Farm Operators

One of the important postwar opportunities in the state lies in the operation of farms vacated by those retiring from active farming. No precise estimate of the number of such farms likely to be available can be made. It is possible, however, to estimate from the number of farm operators reported in the different age groups at successive censuses the minimum number of operators who must have retired from farm operation during the decade. For example, the census of 1930 reports 32,394 farm operators in the age group 55 to 64, and the census of 1940 reports 22,647 in the age group 65 and over. This means that at least 9,747 operators in the 55 to 64 year age group in 1930 must have retired from farm operation by 1940. The number is a minimum because some men between the ages of 55 and 64 may have become farm operators during the period from 1930 to 1940, and such circumstance would make our estimate an understatement. Assuming that all those over 65 years of age retire from farm operation during the following 10 years, and making computations similar to the above for other age groups, the following results are secured for minimum change in farm operators during the decade: between 1930 and 1940, 35,518; between 1920 and 1930, 35,070; and, between 1910 and 1920, 36,170.

The decade between 1930 and 1940 resulted in an increase in the number of farm operators more than 55 years of age and the war has probably postponed the retirement of many of this group beyond the period when it would normally take place. There were 3,943 more farmers 65 and over in 1940 than in 1930 and 3,584 more between 55 and 65 in 1940 than in 1930. This would suggest that perhaps 7,000 farms above the previous minimum changes could be expected in the decade following the war, which would mean opportunities for between 40,000 and 45,000 men to become farm operators.

UNIVERSITY OF MINNESOTA
Department of Agriculture
Agricultural Extension
University Farm, St. Paul 8, Minn.

PAUL E. MILLER, Director

PENALTY FOR PRIVATE
USE TO AVOID PAYMENT
OF POSTAGE, \$300

FREE—Cooperative Agricultural Extension
Work, Acts of May 8 and June 30, 1914.

UNIVERSITY FARM, ST. PAUL 8, MINNESOTA

Cooperative Extension Work in Agriculture and Home Economics, University of Minnesota, Agricultural Extension Division and United States Department of Agriculture Cooperating, Paul E. Miller, Director. Published in furtherance of Agricultural Extension Acts of May 8 and June 30, 1914.