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AGRICULTURAL EXTENSION DIVISION
UNIVERSITY OF MINNESOTA

F. W. Feck, Director

MINNESOTA FARM BUSINESS NOTES

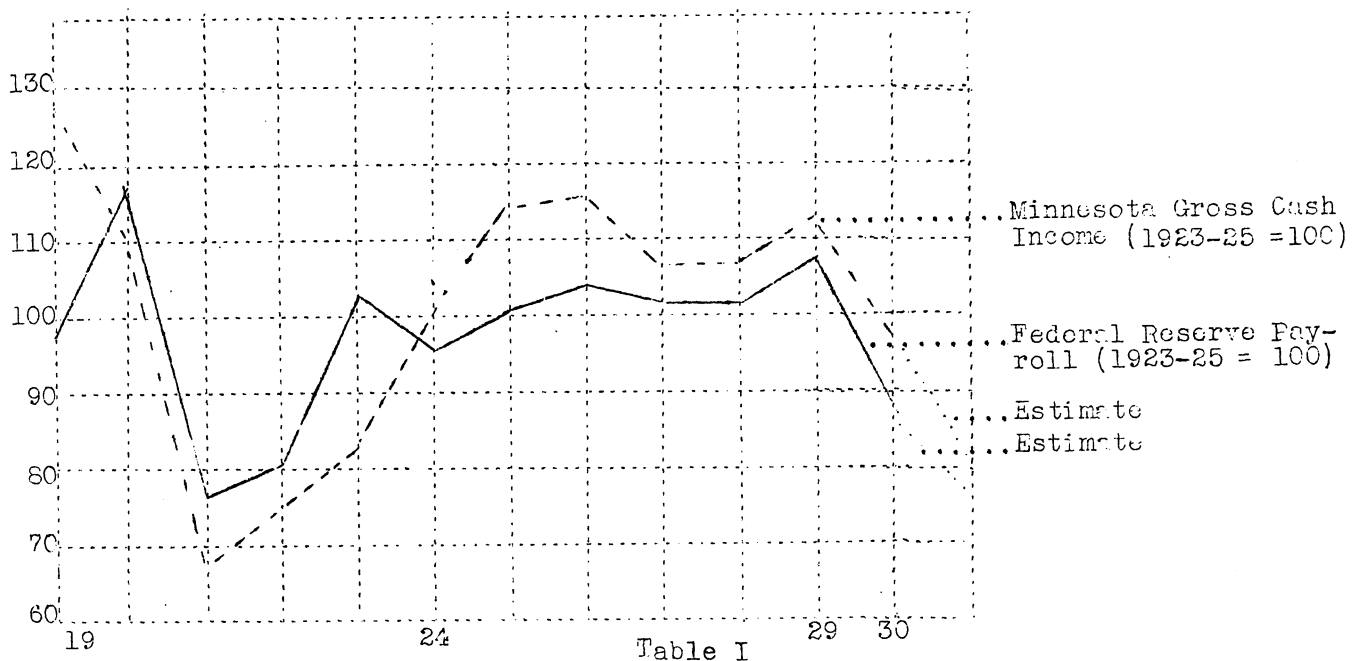
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Prepared by the Division of Agricultural Economics
University Farm, St. Paul, Minnesota

DEMAND FOR MINNESOTA AGRICULTURAL PRODUCTS
Prepared by Warren C. Waite

The dependence of the Minnesota farm income upon the conditions of domestic demand may be roughly illustrated by comparing the index of gross cash income from the sale of Minnesota agricultural products, with the Federal Reserve Index of factory payrolls. The latter may be taken as an indication of the money available for purchasing agricultural products by a large group of city purchasers. The two indexes are shown in the graph below, for the period from 1919 to 1931. The similarity is marked. There are **but two years** which do not agree in general movement, 1920 and 1924. The decline in gross cash income in 1920 is, however, explained by a 5 per cent decline in the quantity of sales, while the increase in 1924 is a result of a 10 per cent increase in the quantity of sales.



Index of Minnesota Gross Cash Income and Federal Reserve Board Index
of Factory Payrolls for the United States, 1919 to 1931
(1923-24-25 = 100)

	Minnesota Farm Income	Factory Payrolls		Minnesota Farm Income	Factory Payrolls
1919	128	98	1926	116	104
1920	111	118	1927	109	102
1921	67	77	1928	107	102
1922	75	81	1929	112	108
1923	83	103	1930	97	87
1924	100	96	1931	(69	(67
1925	115	101		(estimated	(estimated

Trends in Demand for Minnesota Agricultural Products

Data relative to the demand for commodities are so inadequate that only rough estimates of changes can be made. The table below presents such estimates for the United States as a whole, for butter, pork, beef, wheat, flour, lamb, lard, cornmeal and potatoes. These constitute at present about 75 per cent of the gross cash income of Minnesota agriculture. The indices may be interpreted as the price at retail relative to 1910-14 which consumers would be willing to pay for the same per capita quantity of the product which they consumed during the period of 1910-14 after allowance has been made for general changes in prices thruout the period. Thus in the case of beef we find consumers during the period 1925-29 able to consume the same quantity of beef as in 1910-14 at a price of 112 per cent above the price in 1910-14. We may say, in consequence, that there has been an increase of about 12 per cent in the per capita demand for beef between the two periods.

Table 2
Indexes of the Per Capita Demand in the United States at
Deflated Retail Prices for Certain Minnesota Agricultural Products^{1/}
(1910-1914 = 100, except butter where 1916 = 100)

Average of the five year period	Butter	Pork	Beef	Wheat- flour	Lamb	Lard	Corn- meal	Potatoes
1910-1914	-	100	100	100	100	100	100	100
1915-1919	96	94	97	102	93	124	64	103
1920-1924	106	112	95	80	112	101	48	109
1925-1929	112	124	107	76	119	103	57	96

^{1/} These indexes have been computed from the per capita consumption data of the Bureau of Agricultural Economics and the retail prices reported by the Bureau of Labor Statistics deflated by the Retail Food Index of the same Bureau. Elasticities of demand of one have been assumed for butter, pork and lard, of two for beef and lamb, and one-half for flour, cornmeal and potatoes. It has been assumed also that the elasticities of demand have remained unchanged thruout the period. The influence of supply upon price has then been removed, and the remaining fluctuation in price considered as arising from changes in demand.

A comparison of the period 1910-14 with the period 1924-29 shows significant declines in the demand for wheat-flour and cornmeal, much the same demand for potatoes, lard and beef, and large increases in the demand for butter, lamb and pork.

It is evident that Minnesota agriculture has shifted because of these changes in demand. The three products which show a lower demand than in 1910-14 are cornmeal, wheat-flour and potatoes. Corn, wheat and potatoes constituted 42.9 per cent of the gross cash income of Minnesota agriculture in 1910, but only 11.4 per cent of the gross cash income in 1928. The decline in wheat was much greater than that in corn and potatoes. Wheat constituted 34.9 per cent of the gross cash income in 1910 but only 5.6 per cent in 1928. Corn production increased considerably during the period, but cash sales have always been small, and even these declined in relative importance as a factor in the agricultural income. On the other hand, butter, cattle, hogs and lambs which show increases in demand show a marked increase in their importance in Minnesota agriculture, increasing from 32.3 per cent of the gross cash income in 1910 to 65.1 per cent in 1928. It should also be noted that while pork has increased materially in demand, lard has changed but little, indicating the desirability of a shift in the type of hog raised.

Effect of Depression Upon Demand

The depression has lowered the demand for all Minnesota agricultural products and these demands are now lower than at any previous point in the depression. Crops have suffered somewhat more than livestock products. Consumer demand for butter appears to have begun its decline in May 1929, several months before the serious break in business activity and has continued downward since. It is now fully 25 per cent less than in 1928 even when we have made allowance for the decline in price due to the general fall of prices. Producers should not overlook the fact that the strengthening of butter prices in the past fall was due almost entirely to smaller production. The declines in beef and pork have not been quite as severe as that in butter. The first decline in pork appears in April 1930 and in beef two months later. The decline in the demand for beef has been somewhat greater than that of pork.

MINNESOTA FARM PRICES FOR NOVEMBER 1931

Prepared by A.E. Erickson

The index number of Minnesota farm prices for the month of November 1931 was 53.8. When the average of farm prices of the three Novembers of 1924-25-26 is represented by 100, the indexes for November of each year from 1924 to date are as follows:

November 1924 -	91.9
" 1925 -	105.1
" 1926 -	104.4
" 1927 -	96.3
" 1928 -	96.4
" 1929 -	99.1
" 1930 -	75.7*
" 1931 -	53.8*

*Preliminary

The price index of 53.8 for the past month is the net result of increases and decreases in the prices of farm products in November 1931 over the average of November 1924-25-26 weighted according to their relative importance. These decreases ranged from approximately 66 per cent to 20. The products ranked according to the size of their percentage increases or decreases in this comparison are shown in the following list:

Principal Farm Products which Showed Price Increases and Decreases
in November 1931 when Compared with the Average Prices in
November 1924-25-26
(listed in descending order of percentage change)

Decreases: Potatoes, hogs, rye, lambs-sheep, wheat, corn, oats, flax, eggs,
barley, calves, butterfat, milk, chickens, cattle, hay.

Although the Minnesota index for November 1931 does not measure price changes from October 1931, a comparison of month to month changes in price has been made. The increases range from 41 per cent to 2, and the decreases from 16 per cent to 4. The products ranked according to the size of their percentage increases or decreases in November 1931 over October 1931 are shown in the following list:

Principal Farm Products which Showed Price Increases and Decreases
in November 1931 when Compared with October 1931
(listed in descending order of percentage change)

Increases: Rye, corn, eggs, wheat, flax, oats, barley, chickens,

Decreases: Calves, butterfat, hogs, hay, lambs-sheep, milk, cattle.

No change: Potatoes.
