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AGRICULTURAL EXTENSION DIVISION  
UNIVERSITY OF MINNESOTA

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MINNESOTA FARM BUSINESS NOTES

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

A STUDY OF THE CONSUMPTION OF EGGS IN MINNEAPOLIS, 1934

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

A survey made in November and December, 1934 of approximately 2,000 Minneapolis families showed these families to be consuming about six eggs per person a week. This was at the time of the year when egg prices were close to their highest point and consumption low. Other periods of the year will undoubtedly show some change, but it is not thought that the general relationships disclosed by the survey would be materially different. During the period of the survey the eggs purchased averaged 30 to 32 cents a dozen in price. The families were located in 228 widely scattered areas and represent a good cross section of the city.

Forty-six per cent of the families in the survey reported a consumption of less than six eggs a week per person. These families tended to be the larger families with children since this proportion of families included 48 per cent of the adults and 64 per cent of the children. About 10 per cent of the families used a dozen eggs or more per week per person. These were the smaller families since they included only 8 per cent of the adults and about  $2\frac{1}{2}$  per cent of the children (Table I).

Table 1

Eggs: Cumulative Distribution of Families, of Adults, and of Children, According to the Per Capita Rates of Consumption

Rates of consumption eggs per week	Proportion of total		
	Families Per cent	Adults Per cent	Children Per cent
Less than 3	7.5	8.4	15.1
6	45.6	48.2	64.0
9	83.9	85.2	91.8
12	90.3	92.1	97.3
15	98.8	99.1	99.9
24	100.0	100.0	100.0

A very considerable difference in the quality of eggs is indicated by the wide range in prices reported paid. These ranged from less than 20 to over 40 cents per dozen. About  $\frac{2}{3}$  of the eggs cost less than 35 cents a dozen while  $\frac{1}{3}$  cost 35 cents or more. (Table 2).

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Table 2

Eggs: Cumulative Distribution of Weekly Purchases According to the Average Prices Paid

Average weekly price		Proportion of total
cents per dozen		purchases
Less than		Per cent
.20		.3
.25		3.9
.30		28.9
.35		67.6
.40		92.6
.45		100.0

The most important factor determining the rate of egg consumption in the family appears to be the per capita income of the family. Per capita income is taken as a basis of comparison rather than family income because restrictions on expenditure depend upon the income per person rather than the total family income. Both the quantity of eggs consumed and the quality of those eggs as is indicated by the change in price, increase with per capita income. (Table 3). On the low income level, under \$300 per person a year, about 5 eggs a week per person were consumed, while on the high income level, \$900 a person per year and above, about 7½ eggs a week per person were used. The low income group purchased eggs averaging 30 cents a dozen in price while in the high income group the average was 38 cents. As a result of these tendencies per capita expenditures per person on eggs is about twice as large on the high as on the low income level.

Table 3

Eggs and Poultry: Proportion of Families Purchasing Per Capita Consumption, and Per Capita Expenditures on Various Income Levels

Per capita income	Proportion of families purchasing		Per capita consumption		Per capita expenditure	
	Eggs	Poultry	Eggs	Poultry	Eggs	Poultry
	per cent	per cent	Number weekly	Pounds weekly	Cents weekly	Cents weekly
Under \$300	95.7	18.1	4.8	.19	12.0	4.1
300 - 599	97.9	31.7	5.4	.42	14.4	9.6
600 - 899	97.7	41.3	6.6	.68	18.3	17.5
900 & above	98.8	48.5	7.5	1.23	24.0	42.4

This situation is to be contrasted with that found in poultry. While 97 per cent of the families reported the purchase of eggs only about one-third of the families reported the purchase of poultry. About the same proportion of families were purchasing eggs on all income levels, while in the case of poultry there was a marked difference, the proportion rising from 18 per cent on the low to 48 per cent on the high income level. The difference is even more marked in the case of per capita consumption and expenditure. While per capita consumption of eggs increases by one-half, the consumption of poultry is six times greater on the high than on the low income level. Likewise while expenditures on eggs are doubling, those on poultry increase ten times on the high as compared with the low income group.

Eggs and poultry at the time of the study ranged from 8 per cent of the total food expenditures on the low income level to 15 per cent on the high. (Table 4). The expenditure for eggs exceeds that for poultry except the highest income level. The proportion of food expenditures made on eggs decreases only slightly as income increases while the proportion spent on poultry increases rapidly with income. It is evident that the market for eggs is much broader and more stable than that for poultry. One would expect changes in the income of city consumers to influence the demand for poultry much more than the demand for eggs.

Table 4.

Food Expenditures: Weekly Per Capita Expenditure on Food and Proportion Spent on Eggs and Poultry on Various Income Levels			
Per capita income	Total per capita expenditure on foods Dollars weekly	Proportion of food expenditure used for:	
		Eggs Per cent	Poultry Per cent
Under 300	1.91	6.3	2.2
300 - 599	2.48	5.9	3.8
600 - 899	3.18	5.9	5.4
900 & above	4.56	5.2	9.4

Assuming that price is an indication of the quality of eggs purchased, it appears that families in the same income class consuming the better qualities of eggs are also the larger consumers. Table 5 shows that the per capita consumption on each income level is not greatly influenced by the price paid per dozen for eggs. In fact there is a tendency, particularly in the higher income groups for per capita consumption to increase with the price. It appears that the better quality has led to an increase in consumption in spite of the higher price. This implies that an increase in the quality of eggs available for consumption in the market would increase consumer expenditure for eggs and would tend to increase per capita consumption.

Table 5.

Eggs: Per Capita Consumption on Various Income Levels and Within Different Price Classes				
Price class, cents per dozen	Under	300-599	600-899	900 and over
	Number per week	Number per week	Number per week	Number per week
20 - 24	4.8			
25 - 29	5.0	5.3	6.6	
30 - 34	5.0	5.6	6.6	6.1
35 - 39	4.4	5.8	6.8	7.8
40 and over			7.0	8.5

MINNESOTA FARM PRICES FOR JUNE 1935  
Prepared by W. C. Waite and W. B. Garver

The index number of Minnesota farm prices for the month of June 1935 was 79.3. When the average of farm prices of the three Junes 1924-25-26 is represented by 100, the indexes for June of each year from 1924 to date are as follows:

June 1924 - 84.8	June 1930 - 82.2
" 1925 - 107.3	" 1931 - 57.4
" 1926 - 107.4	" 1932 - 44.7
" 1927 - 97.8	" 1933 - 47.8
" 1928 - 110.3	" 1934 - 55.7*
" 1929 - 109.5	" 1935 - 79.3*

\*Preliminary

The price index of 79.3 for the past month is the net result of increases and decreases in the prices of farm products in June 1935 over the average of June 1924-25-26 weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index,  
June 15, 1935, with Comparisons\*

	June 15, 1935	May 15, 1935	June 15, 1934	Av. June 1924-25- 26	% June 15, 1935 is of May 15, 1935	% June 15, 1935 is of June 15, 1934	% June 15, 1935 is of June 15, 1924-25-26
Wheat	\$.85	\$1.01	\$.87	\$1.36	84	98	63
Corn	.72	.77	.47	.69	94	153	104
Oats	.34	.45	.37	.39	76	92	87
Barley	.55	.70	.62	.59	79	89	93
Rye	.37	.49	.56	.74	76	66	50
Flax	1.50	1.57	1.72	2.31	96	87	65
Potatoes	.36	.36	.50	.84	100	72	43
Hogs	8.60	8.10	3.45	9.87	106	249	87
Cattle	7.30	7.20	3.85	6.24	101	190	117
Calves	7.30	7.10	4.60	8.44	103	159	86
Lambs-sheep	6.81	6.99	6.39	11.28	97	107	60
Chickens	.132	.136	.089	.18	97	148	73
Eggs	.20	.21	.11	.24	95	182	83
Butterfat	.25	.29	.24	.40	86	104	63
Hay	13.02	16.84	11.32	11.57	77	115	113
Milk	1.49	1.57	1.36	1.98	95	110	75

\*Except for milk, these are the average prices for Minnesota as reported by the United States Department of Agriculture.

Indexes and Ratios of Minnesota Agriculture\*

	June 1935	May 1935	June 1934	Av. June 1924-26
U.S. farm price index	74.8	78.3	55.0	100.0
Minnesota farm price index	79.3	86.1	56.1	100.0
U.S. purchasing power of farm products	90.1	96.1	68.8	100.0
Minnesota purchasing power of farm products	95.5	105.6	70.1	100.0
U.S. hog-corn ratio	10.0	9.3	6.3	12.2
Minnesota hog-corn ratio	11.9	10.5	7.3	14.5
Minnesota egg-grain ratio	15.5	14.0	9.5	14.5
Minnesota butterfat-farm grain ratio	21.9	20.5	21.6	33.2

\*Explanations of the computation of these data are given in Farm Business Notes No. 144.