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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

SURVEY OF MILK CONSUMPTION IN MINNEAPOLIS IN 1934

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

A survey in February 1934 of 2187 Minneapolis families shows a per capita milk consumption of .85 pints per day. These families were located in 230 widely scattered areas and represent a good cross section of the city. Surveys made some years ago in certain eastern cities indicated that the per capita consumption in Philadelphia was .77 pints (1929); Newark, .72 pints (1929); and in Boston, .85 pints (1930). As these surveys were made during more prosperous times, the difference between the per capita figure for Minneapolis and those for these cities becomes all the more significant.

The most important factor determining the rate of milk consumption in these families appears to be the amount of milk drunk. Table 1 shows that as the rate of per capita consumption increases, there is a very rapid rise in the amount of milk used for drinking and a considerably smaller rise in the amount of milk used for other purposes. For example, in families consuming at rates between .4 and .8 pints per day per person, 52 per cent of the milk was drunk, while in the families consuming at rates between 1.2 and 1.6 pints per day per person, 64 per cent of the milk was drunk.

Table 1

Milk Drinking on Various Levels of Milk Consumption
Minneapolis, 1934

Rate of milk consumption in pints per person per day	Amount of Milk Consumed per Capita			Proportion used for drinking
	Total	Drunk	Other uses	
	Pints per day	Pints per day	Pints per day	Per cent
.01 - .39	.28	.09	.17	39.2
.40 - .79	.59	.31	.28	52.5
.80 - 1.19	.95	.56	.39	59.0
1.20 - 1.59	1.33	.85	.48	64.0
1.60 - 1.99	1.65	1.06	.59	64.0

Income does not appear to have as great an influence on milk consumption as it does on the other dairy products. Table 2 shows that on all income levels nearly all families report the purchase of fluid milk. Moreover, per capita consumption does not vary greatly except in the lowest income classification where it is .77 pints per capita as compared with 1.00 pints per capita in the group showing the highest rate of consumption. The slight decline in the highest income group probably is due to the greater cream consumption in that group. It should be noted that income has been reduced to a per capita basis.

Table 2

Milk: Per Capita Consumption at Various Income Levels,
Minneapolis, 1934

Per capita income	Proportion of families using milk	Per capita consumption
	Per cent	Pints per day
Under \$300	96.5	.77
\$300 - 599	97.7	.93
600 - 899	95.5	1.00
900 and above	97.1	.97
Relief families	89.5	.69
All families	96.4	.85

The differences in consumption which appear in Table 2, particularly those on the lowest income group, can be explained largely in terms of milk drinking as is shown in Table 3. In the low income group, people do not drink as much milk, 22 per cent of the adults and 80 per cent of the children drinking milk as compared with 40 per cent of the adults and 88 per cent of the children in the high income group. The smaller consumption of milk in the low income group is largely due to the decrease in the number of adults drinking milk. In the group of relief families, these tendencies are even more marked.

Table 3

Influence of Income on the Proportion of Adults and
Children Drinking Milk
Minneapolis, 1934

Per capita income	Proportion of Adults and Children Drinking Milk	
	Adults	Children
	Per cent	Per cent
Under \$300	22	80
\$300 - 599	29	90
600 - 899	35	96
900 and above	40	88
Relief families	16	76
All families	27	84

These tables suggest that the most probable source of an increase in milk consumption lies in persuading more adults, particularly in the low income groups to drink milk. An increase in the income of the lowest group may be expected to increase milk consumption by the children slightly, and would probably materially increase the consumption by adults.

Presence of children in the family is evidently an important factor in milk consumption, since high rates of milk consumption are associated with high rates of milk drinking and children are the principal milk drinkers. Table 4 shows the average per capita milk consumption in families with per capita incomes between \$300 and \$600, where these families contain varying numbers of adults and children. For example, in families with two adults and no children per capita consumption averages .95 pints per person per day, while in families of two adults and two children per capita consumption averages 1.04 pints per day. This table

shows a decreasing per capita consumption as families with a given number of children contain more adults, and a tendency toward an increase in consumption in families with a given number of adults as the number of children increases. The change is most pronounced between families with no children and those with one child. These same tendencies appear in the higher income groups.

Table 4

Milk: Per Capita Consumption in Families of Varying Number of Adults and Children and with Per Capita Incomes between 300 and 600 Dollars, Minneapolis, 1934

Number of children	Number of Adults			
	1	2	3	4
None	1.09	.95	.79	.72
1	1.25	1.05	.93	.89
2	-	1.04	.96	.94
3	-	1.09	.87	-
4	-	1.14	-	-

On all income levels, more was spent for fluid milk than any other dairy product. As is shown in Table 5, over 50 per cent of the expenditure on dairy products in the low income group was used for the purchase of fluid milk. This declined to 36.5 per cent in the highest income group.

In terms of the total butterfat consumed in all dairy products, fluid milk is not as important, accounting for 26.7 per cent of the intake in the low income group and 20.4 per cent in the high income group. On all income levels, butter was over twice as large a source of butterfat.

As per capita income increases, expenditures on dairy products increase, but at a less rapid rate than other food costs and the proportion of the dollar expended for food which is spent on dairy products declines. There is a decrease from an expenditure of about 30 per cent of the total food costs in the lowest income group to 22 per cent in the highest income group.

Table 5

Influence of Income on the Proportion of Total Butterfat Consumed as Fluid Milk, Expenditure on Fluid Milk Relative to Expenditure on All Dairy Products, and Proportions of Total Food Expenditure Spent on Dairy Products, Minneapolis, 1934

Per capita income	Proportion which expenditures on fluid milk are of total expenditures for all dairy products	Proportion which the butterfat in fluid milk is of the total butterfat consumed in all products	Proportion which expenditures on all dairy products are of total food costs
	Per cent	Per cent	Per cent
Below \$300	50.5	26.7	29.7
\$300 - 599	45.1	25.0	27.7
600 - 890	42.3	23.5	24.4
900 and above	36.8	20.4	21.6

MINNESOTA FARM PRICES FOR APRIL 1934

Prepared by Adena E. Terras

The index number of Minnesota farm prices for the month of April 1934 was 52.5. When the average of farm prices of the three Aprils 1924-25-26 is represented by 100, the indexes for April of each year from 1924 to date are as follows:

April 1924 - 82.4	April 1930 - 100.9
" 1925 - 105.9	" 1931 - 70.8
" 1926 - 112.4	" 1932 - 46.2
" 1927 - 110.4	" 1933 - 39.9*
" 1928 - 106.2	" 1934 - 52.5*
" 1929 - 112.2	

*Preliminary

The price index of 52.5 for the past month is the net result of increases and decreases in the prices of farm products in April 1934 over the average of April 1924-25-26 weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index,
April 15, 1934, with Comparisons*

	Apr. 15, 1934	Mar. 15, 1934	Apr. 15, 1933	Av. Apr. 1924-25- 26	% Apr. 15, 1934 is of Mar. 15, 1934	% Apr. 15, 1934 is of Apr. 15, 1933	% Apr. 15, 1934 is of Apr. 15, 1924-25-26
Wheat	\$.72	\$.74	\$.46	\$1.29	97	157	56
Corn	.35	.36	.20	.64	97	175	55
Oats	.26	.28	.13	.35	93	200	74
Barley	.48	.49	.23	.57	98	209	84
Rye	.47	.48	.30	.73	98	157	64
Flax	1.57	1.63	1.00	2.29	96	157	69
Potatoes	.55	.65	.26	.95	85	212	58
Hogs	3.40	3.70	3.15	9.69	92	108	35
Cattle	3.80	3.65	3.35	6.09	104	113	62
Calves	4.60	5.00	4.15	8.51	92	111	54
Lambs-sheep	7.07	7.16	4.25	11.44	99	166	62
Chickens	.085	.080	.082	.183	106	104	46
Eggs	.13	.13	.09	.22	100	144	59
Butterfat	.23	.25	.18	.42	92	128	55
Hay	8.40	7.82	5.92	11.62	107	142	72
Milk	1.23	1.23	.89	1.98	100	138	62

*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*

	April 1934	March 1934	April 1933	Av. April 1924-26
U.S. farm price index	52.9	53.9	37.9	100.0
Minnesota farm price index	52.5	54.1	39.9	100.0
U.S. purchasing power of farm products	67.5	68.8	57.4	100.0
Minnesota purchasing power of farm products	67.0	69.0	60.5	100.0
U.S. hog-corn ratio	7.4	8.2	11.4	12.4
Minnesota hog-corn ratio	10.3	10.3	15.8	15.5
Minnesota egg-grain ratio	14.5	13.9	17.1	12.7
Minnesota butterfat-farm-grain ratio	28.3	29.4	43.9	36.8

*Explanations of the computation of these data are given in Farm Business Notes No. 126.