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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

MARKETING MARGINS ON MINNESOTA AGRICULTURAL PRODUCTS

Prepared by W. C. Waite and W. B. Garver

The price of food of the city purchaser provides payment for two general groups--the farmers who produce the products on their farms and those who provide the handling, processing and marketing services for bringing the product to the purchaser at the time and place he buys it. Broadly speaking from the consumers' viewpoint, these two groups are about equal in importance since over the period 1920-1936, the dollar spent by the consumer for food was on the average about equally divided between them. A recent survey by the National Association of Manufacturers indicates that the number of persons employed in collecting, transporting, processing and handling farm products is equal to the number engaged in farm production. There was, however, considerable variation in the division of returns at different periods. At times, as much as 60 cents of the dollar have gone to the farmer while at other times less than 40 cents of the dollar have been payment to him.

Comparison of changes in the relative share of the farmer and those engaged in processing and marketing has been made on the basis of a representative "food basket". Ten foods have been included in this "food basket" in their proportion in the ordinary diet as estimated by the United States Bureau of Labor Statistics. The consumers' prices applied to these foods are the monthly retail prices reported by the United States Bureau of Labor Statistics for Minneapolis. The farm prices applied to the appropriate quantities necessary to provide these foods are those reported monthly by the United States Department of Agriculture. The difference between these two totals represents the margin taken for processing and marketing. The ten included commodities and their amounts are as follows: 14.8 pounds of beef, 12.1 pounds of pork, 5.1 dozens of eggs, 2 pounds of hens, 39.8 quarts of milk, 5.1 pounds of butter, 1.2 pounds of cheese, 58.8 pounds of potatoes, 21.7 pounds of flour and 32.9 pounds of bread. The ordinary family, of course, consumes other products in addition to those on our list, but prices are not readily available or they are not products of Minnesota farms and hence have not been included.

Table 1 shows the retail cost, farm value and margin for this quantity of food for the years 1920 to 1936. The farmers' share of the consumers' dollar for this bill of goods has varied greatly during the period under consideration. Examination of the table will show that the margin has remained more constant than either the retail cost or farm value. The range in retail costs amounted to \$14.90, from a low of \$14.57 in 1933 to a high of \$29.47 in 1920. The range of farm value was \$12.20, from a low of \$5.68 in 1932 to a high of \$17.88 in 1920. The range in the margins was, however, only \$2.71 from a low of \$8.88 in 1933 to a high of \$11.59 in 1920. Since the margins remained relatively fixed, the proportion which they constitute of the consumers' dollar increases as prices fall and decreases as prices rise. When prices were low in 1932-33-34, the farmer was receiving only

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about 40 per cent of the consumers' dollar, while during the period 1925 to 1929 he had been receiving nearly 60 per cent of the consumers' dollar.

Table 1

Retail Cost at Minneapolis Prices, Farm Value at Minnesota Prices and Margin for a Representative Budget of Ten Foods, 1920-1936				
Year	Cost at Minneapolis retail prices (dollars)	Value at Minnesota farm prices (dollars)	Margin (dollars)	Margin as a proportion of retail cost (per cent)
1920	29.47	17.88	11.59	39
1921	22.29	10.75	11.54	52
1922	20.72	10.50	10.22	49
1923	21.30	10.42	10.88	51
1924	21.03	10.58	10.45	50
1925	23.10	12.74	10.36	45
1926	24.17	13.58	10.59	44
1927	23.45	12.69	10.76	46
1928	23.53	12.78	10.75	46
1929	24.23	13.01	11.22	46
1930	22.75	11.22	11.53	51
1931	18.75	7.88	10.87	58
1932	15.05	5.68	9.37	62
1933	14.57	5.69	8.88	61
1934	17.41	6.98	10.43	60
1935	20.15	9.68	10.47	52
1936	20.94	10.60	10.34	49

It should be remembered that the quantity of the product which the consumer buys differs from the quantity leaving the farm. Many products lose weight or volume in processing and there may be losses thru spoilage or shrinkage. For example, 100 pounds of live hogs are estimated to yield 52.64 pounds of retail cuts. The retail cost of pork in our "food basket" is the cost of 12.1 pounds of pork. The farm value is, however, for 23 pounds of live hogs which would be required to produce this 12.1 pounds of processed meat finally reaching the consumer. In a similar manner, adjustments have been made for the other commodities so that the quantities represented in the farm value computations are for the quantities sold from the farm which would be required to provide the given retail sales.

The margins for the various products differ. This is due in large part to the greater processing required in the case of some products than in others. For example, in the case of bread, which is the most completely processed of the included products, only about 20 per cent of the consumers' dollar goes to the farmer for wheat. The wheat must be transported to the miller, ground into flour, delivered to the baker where it is mixed with other ingredients, baked into loaves, wrapped, often sliced, and then delivered, usually to the retail store for sale to the consumer. The original wheat is thus a small part of the final price of the product. Eggs, on the other hand, require no processing and for this commodity the farmers have received 68 per cent of the consumers' dollar. The average margins over the 17-year period on the various products are shown in Table 2. The margin on dairy products is a composite margin for the 39.8 quarts of milk, 5.1 pounds of butter and 1.2 pounds of cheese. If the dairy figures were weighted in accordance with Minnesota farm sales rather than by Minneapolis consumption, the margin would have been considerably smaller.

Indexes of the margins as computed in this manner with the average for the years 1924-25-26 as a base are given in Table 3, for the entire food basket and for individual commodities. The indexes show the changes in the amounts apparently retained for processing and marketing in the individual years relative to the amounts retained in 1924-25-26. The composite margin did not begin to decline in the de-

Table 2

Average Retail Cost at Minneapolis, Average Minnesota Farm Value, and Margin for Representative Minnesota Farm Products, 1920-1936

Commodity	Retail cost at Minneapolis prices	Farm value at Minnesota farm prices	Margin	Producers' share of retail cost
Beef	\$3.66	\$1.92	\$1.74	52
Pork	3.01	1.84	1.17	61
Chickens	.60	.33	.27	55
Eggs	1.85	1.27	.58	69
Dairy products	6.81	3.51	3.30	52
Bread	2.85	.57	2.28	20
Potatoes	1.48	.77	.71	52
Wheat flour	1.09	.54	.55	50
Total	21.35	10.75	10.60	50

pression until 1931 which was well after both farm and retail prices had begun their declines. The decline continued until the low of 85 was reached in 1933, but in the following year returned to the levels of the base period and continued thru 1936.

Table 3

Indexes of Margins of Representative Minnesota Food Products
(1924-25-26 = 100)

Year	Ten foods	Beef	Pork	Chickens	Eggs	Dairy products	Bread	Potatoes	Wheat flour
1920	111	107	104	113	142	107	97	173	99
1921	110	119	133	104	115	105	103	100	110
1922	98	110	107	103	98	93	95	90	91
1923	104	113	133	103	103	102	100	77	82
1924	100	108	121	93	99	99	96	76	83
1925	99	95	92	103	103	101	103	93	86
1926	101	98	86	99	98	99	100	133	132
1927	103	102	109	108	104	98	102	113	123
1928	103	110	120	113	97	105	97	76	92
1929	107	133	113	124	112	105	82	106	147
1930	110	154	118	115	92	101	102	106	92
1931	104	147	140	105	81	96	86	91	79
1932	90	125	119	93	70	83	82	56	76
1933	85	108	101	83	68	70	83	101	93
1934	100	118	118	88	79	89	92	126	107
1935	100	122	104	100	84	93	93	110	109
1936	99	127	88	113	95	93	85	150	87

The slower change in margins than in producer prices arises because of certain elements in margins that change only slowly, for example, transportation charges and wages paid by processors and distributors. This greater inflexibility in margins results in a failure of a drastic fall in farm prices to be reflected proportionately in the consumers' price and hence in a failure of consumption to be stimulated to the full extent of the fall in farm prices. It should be noted, however, that a rise in farm prices will not produce a proportionate rise in consumers' prices and will not in consequence check consumption as much as it would if consumers' prices rose proportionately.

MINNESOTA FARM PRICES FOR JANUARY, 1938
Prepared by W. C. Waite and W. B. Garver

The index number of Minnesota farm prices for the month of January, 1938 was 80. When the average of farm prices of the three Januarys, 1924-25-26 is represented by 100, the indexes for January of each year from 1924 to date are as follows:

January 1924 - 86	January 1932 - 48
" 1925 - 102	" 1933 - 36
" 1926 - 113	" 1934 - 45
" 1927 - 112	" 1935 - 81
" 1928 - 100	" 1936 - 84
" 1929 - 101	" 1937 - 106*
" 1930 - 100	" 1938 - 80*
" 1931 - 73	

*Preliminary

The price index of 80 for the past month is the net result of increases and decreases in the prices of farm products in January, 1938 over the average of January, 1924-25-26 weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index,
January 15, 1938, with Comparisons*

	Jan. 15, 1938	Dec. 15, 1937	Jan. 15, 1937	Av. Jan. 1924-25- 26	% Jan. 15, 1938 is of Dec. 15, 1937	% Jan. 15, 1938 is of Jan. 15, 1937	% Jan. 15, 1938 is of Jan. 15, 1924-25-26
Wheat	\$.99	\$.91	\$1.39	\$1.46	109	71	68
Corn	.45	.41	1.05	.69	110	43	65
Oats	.25	.24	.48	.40	104	52	63
Barley	.56	.50	.99	.64	112	57	88
Rye	.62	.56	.99	.98	111	63	63
Flax	1.95	1.82	2.12	2.59	107	92	75
Potatoes	.42	.40	1.25	.77	105	34	55
Hogs	7.50	7.40	9.60	8.63	101	78	87
Cattle	6.00	6.00	6.70	5.41	100	90	111
Calves	8.30	7.90	9.00	8.25	105	92	101
Lambs-sheep	7.38	7.57	8.40	11.85	97	88	62
Chickens	.146	.148	.103	.158	99	142	92
Eggs	.186	.218	.198	.35	85	94	53
Butterfat	.36	.41	.36	.47	88	100	77
Hay	6.01	6.20	9.02	11.38	97	67	53
Milk	1.90	1.90	1.93	2.24	100	98	85

*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*

	Jan. 1938	Dec. 1937	Jan. 1937	Av. Jan 1924-26
U.S. farm price index	72.0	77.0	92.0	100.0
Minnesota farm price index	80.0	77.0	106.0	100.0
U.S. purchasing power of farm products	86.0	91.0	109.0	100.0
Minnesota purchasing power of farm products	95.0	92.0	125.0	100.0
Minn. farmer's share of consumer's food dollar		47.0	54.0	54.0
U.S. hog-corn ratio	14.5	15.5	9.3	11.0
Minnesota hog-corn ratio	16.7	18.0	9.1	13.2
Minnesota egg-grain ratio	16.3	20.7	10.0	21.3
Minnesota butterfat-farm-grain ratio	40.8	50.1	20.8	40.6

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