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# MARKETING & TRANSPORTATION Situation



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MARKET FACTS

Item	Unit or base period	1972				1973
		Year	1st qtr.	3rd qtr.	4th qtr.	1st qtr.
<b>Farm-Retail Price Spreads: 1/</b>						
Retail cost .....	Dol.	1,311	1,291	1,323	1,331	1,414
Farm value .....	Dol.	521	507	534	534	614
Farm-retail spread .....	Dol.	790	784	789	797	800
Farmer's share of retail cost .....	Pct.	40	39	40	40	43
<b>Retail Prices: 2/</b>						
All goods and services (CPI) .....	1967=100	125.3	123.7	125.8	126.9	128.7
All food .....	1967=100	123.5	121.6	124.5	125.4	131.4
Food at home .....	1967=100	121.6	119.8	122.6	123.4	130.5
Food away from home .....	1967=100	131.1	129.0	131.9	133.3	134.9
<b>Wholesale Prices: 2/</b>						
Food 3/ .....	1967=100	121.8	119.7	123.5	124.6	135.4
Cotton products .....	1967=100	121.8	118.1	123.1	124.3	128.1
Woolen products .....	1967=100	99.4	92.1	101.2	107.5	120.5
<b>Agricultural Prices:</b>						
Prices received by farmers .....	1967=100	126	121	127	132	151
Prices paid by farmers, interest, taxes and wage rates .....	1967=100	127	124	127	130	136
<b>Prices of Marketing Inputs:</b>						
Containers and packaging materials .....	1967=100	117	115	118	118	120
Fuel, power, and light .....	1967=100	126	124	127	128	131
Services 4/ .....	1967=100	138	135	139	141	142
<b>Hourly Earnings:</b>						
Food marketing employees 5/ .....	Dol.	3.45	3.40	3.45	3.52	3.60
Employees, private nonagricultural sector 2/ .....	Dol.	3.65	3.56	3.67	3.73	3.78
<b>Farmers' Marketings and Income:</b>						
Physical volume of farm marketings .....	1967=100	110	96	111	149	105
Cash receipts from farm marketings 6/ ..	Bil. dol.	58.5	54.5	58.1	62.5	68.5
Farmers' realized net income 6/ .....	Bil. dol.	19.2	18.3	18.8	21.2	22.1
<b>Industrial Production: 7/</b>						
Food .....	1967=100	118.4	117.0	118.9	119.0	119.9
Textile mill products .....	1967=100	114.5	108.9	115.3	118.9	--
Apparel products .....	1967=100	104.2	100.5	103.7	108.5	--
Tobacco products .....	1967=100	103.7	102.7	102.7	108.9	--
<b>Retail Sales: 8/</b>						
Food stores .....	Mil. dol.	95,020	22,772	24,000	24,414	25,312
Eating and drinking places .....	Mil. dol.	33,891	8,273	8,445	8,743	9,208
Apparel stores .....	Mil. dol.	21,993	240	5,450	5,737	6,140
<b>Consumers' Per Capita Income and Expenditures: 9/</b>						
Disposable personal income .....	Dol.	3,808	3,699	3,820	3,953	4,054
Expenditures for goods and services ...	Dol.	3,453	3,342	3,484	3,559	3,686
Expenditures for food .....	Dol.	596	579	599	612	634
Expenditures for food as percentage of disposable income .....	Pct.	15.7	15.7	15.7	15.5	15.6

1/ For a market basket of farm foods. 2/ Dept. of Labor. 3/ Processed foods, eggs, and fresh and dried fruits and vegetables. 4/ Includes such items as rent, property insurance and maintenance, and telephone. 5/ Average hourly earnings of production workers in food processing, and nonsupervisory workers in wholesale and retail food trades, calculated from Dept. of Labor data. 6/ Quarterly data seasonally adjusted at annual rates. 7/ Seasonally adjusted, Board of Governors of Federal Reserve System. 8/ Quarterly data seasonally adjusted, Dept. of Commerce. 9/ Seasonally adjusted annual rates, calculated from Dept. of Commerce data. Percentages have been calculated from total income and expenditure data.

# MARKETING AND TRANSPORTATION SITUATION

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The Outlook and Situation Board  
and Summary released,  
May 10, 1973

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The *Marketing and Transportation Situation* is published  
in February, May, August, and November.

## SUMMARY

The retail cost of a market basket of domestically produced farm foods in the first quarter of 1973 rose to an annual rate of \$1,414, up 6.3 percent from the preceding quarter. Retail prices increased sharply each month to a record level in March. Sharply higher prices for meats, poultry, eggs, and fresh vegetables contributed most to the rise. The retail cost averaged 9.5 percent higher than a year earlier and 31 percent above 1967.

Many factors have contributed to rising food prices since mid-1972. These include rising domestic demand, strengthened world demand, and smaller supplies stemming from earlier depressed prices and continued unfavorable weather.

Gross returns to farmers (farm value of quantities equivalent to retail units) for market basket foods averaged \$614 in the first quarter, up 15 percent from the fourth quarter of 1972. Farm values increased during each month of the quarter. Higher prices for beef cattle, hogs, broilers, eggs, fresh vegetables, and oilseeds contributed greatly to the rise in the first quarter. Compared with a year earlier, the farm value of market basket foods was up 21 percent, and it was 47 percent above 1967.

Farmers received an average of 43 cents of the dollar consumers spent for farm foods in the first quarter of 1973, 3 cents more than in the previous quarter, and 4 cents more than a year earlier. The share averaged 44 cents in March.

The marketing spread—the difference between retail cost and farm value of the market basket—averaged \$799 in the first quarter, 0.4 percent more than in the previous quarter. Spreads widened significantly for eggs and fresh vegetables but narrowed sharply for meats, fresh fruits, and fats and oils products. First quarter spreads averaged 1.9 percent above a year earlier and 21 percent above 1967. Marketing spreads are expected to widen as the year progresses, reflecting rising operating costs for marketing firms.

## FARM-FOOD MARKET BASKET STATISTICS

*Retail Cost:* Consumers paid an average of \$1,414 (annual rate) in the first quarter of 1973 for a market basket of food produced on U.S. farms, 6.3 percent more than in the previous quarter (table 1).<sup>1</sup> Although retail costs for most product groups rose, substantial increases for beef, pork, poultry, eggs and fresh vegetables accounted for most of the rise. Retail prices for market basket foods increased sharply each month of the quarter—2.7 percent in January, 2.5 percent in February, and 3.5 percent in March (table 2). The March increase was the largest monthly increase since 1947.

The retail cost of the market basket of farm foods averaged 9.5 percent higher than a year earlier. Except for fats and oils products which were lower, most other products in the market basket rose. Increases for meats, poultry, eggs, and fresh fruits and vegetables were particularly sharp and accounted for almost nine-tenths of the rise. Increases were more moderate for dairy products, bakery and cereal products, and processed fruits and vegetables.

Over the years, food prices have generally increased less than prices of most other goods and services purchased by consumers. But the first quarter of 1973 was an exception. Consumers paid 31 percent more for market basket foods than in 1967 compared with an increase of 28 percent for all other items purchased, as measured by the Consumer Price Index. Compared with 20 years ago, market basket foods were up 49 percent and other items in the CPI, 62 percent.

Several factors have contributed to the rise in food prices since mid-1972. Consumer demand for food has been strengthened by rising hourly earnings, increased employment, larger social security payments, expanded food assistance programs, and larger Federal tax refunds.

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<sup>1</sup>The market basket contains the average quantities of domestic, farm-originated food products purchased annually per household in 1960 and 1961 by wage-earners and clerical worker families and single workers living alone. Its retail cost is calculated from retail prices published by the Bureau of Labor Statistics. The retail cost of the market basket foods is less than the cost of all foods bought per household, since it does not include cost of meals in eating places, imported foods, seafoods or other foods not of U.S. farm origin. The farm value is the gross return to farmers for the farm products equivalent to foods in the market basket minus allowances for by-products. It is based on prices at the first point of sale and may include marketing charges such as grading and packing for some commodities. The farm retail spread—difference between the retail cost and farm value—is an estimate of the total gross margin received by marketing firms for assembling, processing, transporting, and distributing the products in the market basket.

World shortages of some crops, particularly cereal grains, have greatly expanded foreign demand for farm products, contributing to all-time record U.S. exports of farm products. Adjustments in the value of the dollar relative to other currencies have helped to increase foreign demand for some commodities.

Smaller supplies of some foods also have contributed to higher food prices. Earlier depressed prices for several important products, such as hogs and eggs, and adverse weather in many parts of the country restricted supplies. Floods, freezes, and other weather adversities restricted production of some products last year, interfered with harvest last fall, and limited livestock output this winter and spring. In addition, moving the record export volume of farm products to port has led to transportation backups, delaying the marketings of farm and food products and raising costs.

*Farm Value:* Returns to farmers for foods in the market basket averaged \$614 (annual rate) in the first quarter, up \$80 or 15 percent from the previous quarter (table 1). Increases were particularly sharp for beef cattle, hogs, poultry, eggs, fresh vegetables and oilseeds. Most of the rise in the retail cost of the market basket from the fourth quarter last year was reflected in higher returns to farmers.

The farm value of the market basket averaged 21 percent higher than a year earlier. Farm values rose significantly for beef cattle, hogs, eggs, poultry, wheat, and fresh fruits and vegetables. Prices received by farmers for market basket foods rose sharply each month from October 1972 to a record level in March 1973.

The farm value for market basket foods in the first quarter averaged 47 percent above 1967 and 43 percent above the level of 20 years ago.

*Farm-Retail Spreads:* The cost of marketing U.S. farm foods increased slightly in the first quarter of 1973 as prices at the retail level rose more than those at the farm level. The spread between the retail cost and farm value of the market basket averaged \$799, 0.4 percent more than in the previous quarter. Increases for dairy products, eggs, bakery and cereal products, fresh vegetables, and processed fruits and vegetables more than offset decreases for meats, poultry, fresh fruits, and fats and oils products. Marketing spreads in March were highest on record.

The farm-retail spread of the market basket in the first quarter of this year was 1.9 percent higher than in the first quarter of 1972. Spreads widened for all product groups except poultry and bakery and cereal products which decreased moderately. Increases were particularly sharp for fresh fruits and vegetables. First quarter marketing spreads were 21 percent higher than 1967 and up 53 percent from 20 years ago.

Table 1 .--The market basket of farm foods by product group: Retail cost, farm value and farm-retail spread, first quarter 1973 with comparisons

Item	I 1973	Change from:			
		Previous quarter		Year ago	
		Dollars	Dollars	Percent	Dollars
Retail cost					
Market basket .....	1413.83	83.21	6.3	122.46	9.5
Meat .....	476.50	44.68	10.3	65.94	16.1
Dairy .....	234.42	4.41	1.9	6.10	2.7
Poultry .....	59.95	9.22	18.2	9.32	18.4
Eggs .....	50.30	8.44	20.2	13.04	35.0
Bakery and cereal ...	196.01	3.68	1.9	3.86	2.0
Fresh fruits .....	61.00	.66	1.1	7.48	14.0
Fresh vegetables ....	101.06	10.66	11.8	13.33	15.2
Processed fruits and vegetables .....	130.39	1.26	1.0	2.99	2.3
Fats and oils .....	44.60	-.23	-.5	-1.06	2.3
Miscellaneous .....	59.60	.43	.7	1.46	2.5
Farm value					
Market basket .....	614.46	80.07	15.0	107.65	21.2
Meat .....	294.20	47.02	19.0	59.25	25.2
Dairy .....	112.92	2.87	2.6	4.50	4.2
Poultry .....	33.95	9.24	37.4	9.43	38.5
Eggs .....	33.42	7.62	29.5	12.85	62.5
Bakery and cereal ...	38.01	1.67	4.6	8.07	27.0
Fresh fruits .....	20.44	1.22	6.3	5.03	32.6
Fresh vegetables ....	36.44	8.62	31.0	9.06	33.1
Processed fruits and vegetables .....	23.94	-.14	-.6	.25	1.1
Fats and oils .....	11.79	1.75	17.4	-1.18	-9.1
Miscellaneous .....	9.35	.20	2.2	.39	4.4
Farm-retail spread					
Market basket .....	799.37	3.14	0.4	14.81	1.9
Meat .....	182.30	-2.34	-1.3	6.69	3.8
Dairy .....	121.50	1.54	1.3	1.60	1.3
Poultry .....	26.00	-.02	-.1	-.11	-.4
Eggs .....	16.88	.82	5.1	.19	1.1
Bakery and cereal ...	158.00	2.01	1.3	-4.21	-2.6
Fresh fruits .....	40.56	-.56	-1.4	2.45	6.4
Fresh vegetables ....	64.62	2.04	3.3	4.27	7.1
Processed fruits and vegetables .....	106.45	1.40	1.3	2.74	2.6
Fats and oils .....	32.81	-1.98	-5.7	.12	.4
Miscellaneous .....	50.25	.23	.5	1.07	2.2

1/ The market basket contains the average quantities of farm-originated foods purchased annually per household in 1960-61. Retail cost is calculated from U.S. average retail prices collected by the Bureau of Labor Statistics. Farm value is payment to farmer for equivalent quantities of farm products minus imputed value of byproducts obtained in processing. Quarterly data are annual rates. Additional data are shown in tables at the back of this report.

Table 2.--The market basket of farm food: Indexes of retail cost, farm value, and farm-retail spread, and farmer's share of the retail cost 1/

Year and quarter	Retail cost	Farm value	Farm-retail spread	Farmer's share	Month	Retail cost	Farm value	Farm-retail spread	Farmer's share
	1967 = 100		Percent			1967 = 100		Percent	
Average:					<u>1971</u>				
1947-49 ...	82.9	106.9	67.7	50	January ...	112.3	108.8	114.5	38
1957-59 ...	91.5	94.8	89.5	40	February ..	113.3	114.1	112.8	39
					March .....	114.0	114.1	114.0	39
1962 .....	93.3	94.1	92.8	39	April .....	115.1	113.3	116.2	38
1963 .....	93.2	90.2	95.1	38	May .....	115.5	113.8	116.6	38
1964 .....	93.4	90.0	95.5	37	June .....	116.7	114.4	118.2	38
1965 .....	96.0	99.2	93.9	40	July .....	117.7	116.7	118.4	38
1966 .....	101.1	106.3	97.8	41	August ....	117.7	116.6	118.4	38
1967 .....	100.0	100.0	100.0	39	September :	116.4	113.3	118.3	38
1968 .....	103.6	105.3	102.5	39	October ...	115.8	114.2	116.8	38
1969 .....	109.1	114.9	105.4	41	November ..	116.1	116.4	115.9	39
1970 .....	113.7	114.1	113.4	39	December ..	117.9	117.4	118.2	39
1971 .....	115.7	114.4	116.5	38					
1972 2/ .....	121.3	124.4	119.3	40	<u>1972 2/</u>				
					January ...	117.8	119.9	116.5	39
<u>1970</u>					February ..	120.3	122.3	119.0	39
I .....	113.9	120.3	109.8	41	March .....	120.4	120.6	120.3	39
II .....	113.9	115.0	113.2	39	April .....	119.9	119.9	119.9	39
III .....	114.7	114.8	114.6	39	May .....	119.8	121.4	118.8	39
IV .....	112.3	106.1	116.3	37	June .....	120.6	124.2	118.3	40
					July .....	122.2	127.6	118.8	40
<u>1971</u>					August ....	122.6	126.1	120.4	40
I .....	113.2	112.3	113.8	38	September :	122.6	128.5	118.8	41
II .....	115.7	113.8	117.0	38	October ...	122.5	125.2	120.8	40
III .....	117.3	115.5	118.4	38	November ..	123.1	126.1	121.2	40
IV .....	116.7	116.0	117.0	39	December ..	123.8	131.3	119.1	41
<u>1972</u>					<u>1973</u>				
I .....	119.5	120.9	118.6	39	January ...	127.2	140.3	118.9	43
II .....	120.1	121.9	119.0	39	February ..	130.4	144.9	121.2	43
III .....	122.5	127.4	119.3	40	March .....	134.9	154.7	122.3	44
IV .....	123.1	127.5	120.4	40	April .....				
					May .....				
<u>1973</u>					June .....				
I .....	130.8	146.6	120.8	43	July .....				
II .....					August ....				
III .....					September :				
IV .....					October ...				
					November ..				
					December ..				

1/ Retail cost of average quantities of farm-originated foods purchased annually per household in 1960-61 by urban wage-earner and clerical worker families and workers living alone, calculated from retail prices collected by the Bureau of Labor Statistics. Beginning November 1971, the retail cost is based on the index of domestically produced farm foods--a component of the Consumer Price Index published by the Bureau of Labor Statistics. Indexes may be converted to dollar totals by multiplying by the following amounts for 1967: retail cost, \$1,080.64; farm value, \$419.07; and farm-retail spread, \$661.57. Additional historical data are published in Farm-Retail Spreads for Food Products, Misc. Pub. 741, January 1972.

2/ Preliminary.

Marketing spreads are expected to widen later in the year reflecting higher labor and other operating costs of food marketing firms, especially if prices to farmers for food products decline. Increases in farm-retail spreads have lagged increases in both farm and retail prices since controls were initiated in August 1971.

*Farmer's Share:* Farmers received an average of 43 cents of the dollar consumers spent for domestic farm foods in retail food stores in the first quarter of 1973. This was 3 cents more than in the previous quarter and 4 cents more than a year earlier. The farmer's share was 44 cents in March.

In the past decade, the quarterly farmer's share has ranged from 36 to 43 cents. The share averaged below 40 cents for about two-thirds of the time. It exceeded 40 cents in only 8 quarters. Twenty years ago the farmer's share averaged 45 cents of the consumer's food dollar.

### Commodity Highlights

*Beef:* Continued strong consumer demand, together with declines in per capita supplies of beef and other red meats, contributed to sharply higher beef prices at all market levels in the first quarter of 1973. Retail prices for Choice beef averaged \$1.29 per pound, up 16 cents from the previous quarter (table 3). Returns to farmers for the 2.28 pounds of live cattle equivalent to 1 pound of retail cuts increased 17.3 cents to 87.4 cents. The farm-retail spread decreased by 1.3 cents to 41.8 cents. All of the decrease was in the carcass-retail segment of the total marketing spread. This segment includes the gross margin for retailing and charges made for other marketing services such as fabricating, brokerage, and transportation from packing plants. The carcass-retail spread increased sharply in February and March and averaged 36.2 cents in March.

Retail prices for Choice beef averaged 14.8 cents per pound higher in the first quarter of 1973 than a year earlier. The farm value was up 13.7 cents and the farm-retail spread widened 1.1 cents. All of the increase was in the carcass-retail spread.

The composite retail price for Choice beef averaged \$1.35 per pound in March, up 5 cents from February. The net farm value increased by about the same amount, thus the farm-retail spread changed little from February to March. Farm-retail spreads usually contract during periods of rapidly rising cattle prices and widen when cattle prices fall. Prices for Choice steers in 7 leading Midwestern markets and California (used in computing the gross farm value for Choice beef) averaged \$45.29 per hundredweight in March 1973 compared with \$35.00 a year earlier.

*Pork:* Production of pork in the first quarter of 1973 was about 7 percent below year-earlier levels. Returns to farmers for hogs strengthened considerably. The farm value of the quantity of live hog equivalent to a

pound of pork cuts sold at retail averaged 63.7 cents, up 12 cents from the previous quarter. The composite retail price for pork averaged 98.1 cents per pound in the first quarter—up 10.4 cents from the final quarter of 1972. The farm-retail spread dropped 1.6 cents. The farm-wholesale segment, mainly the packer's margin, decreased sharply offsetting an increase in the wholesale-retail spread which is mainly the retailer's margin.

Compared with year-ago levels, the farm value of pork was up 19.9 cents. The retail price rose almost as much, 19.1 cents per pound. As a result, the farm-retail spread contracted slightly. The wholesale-retail segment widened and the farm-wholesale segment narrowed.

Strong consumer demand and generally smaller supplies of red meat boosted the retail price for pork cuts each month from November to a record \$1.03 per pound in March, an increase of 16 percent in 3 months and 30 percent since March 1972. The farm value of the amount of live animal equivalent to the retail pound averaged 67.9 cents in March, 23 percent above December 1972 and 62 percent above March 1972. The farm-retail spread was 6 percent wider than 3 months earlier but 7 percent below March 1972.

*Frying Chickens:* Rising red meat prices boosted consumer demand for poultry meat and retail prices for ready-to-cook frying chickens in the first quarter of this year. Average retail prices jumped to 49.9 cents per pound, up about 8 cents from the previous quarter and a year earlier. The farm value for broilers also rose about 8 cents to 28.3 cents reflecting sharply higher feed costs. Broiler production in the first quarter was about the same as a year earlier. Farm-retail spreads changed little.

In March this year the retail price for frying chickens averaged 59.9 cents per pound, 18.7 cents above December 1972, and the highest price since April 1955. Increased farm value accounted for 16.9 cents of the retail rise and wider marketing margins for 1.8 cents.

*Eggs:* Retail prices for Grade A large eggs rose 18.3 cents per dozen from the very low levels of a year earlier to 69.7 cents in the first quarter of 1973. The farm value increased by about the same amount to 46.3 cents. The farm-retail spread changed little. Retail prices for eggs peaked in January and then decreased in both February and March. Egg production in the first quarter was 7 percent below a year earlier.

*Fresh Vegetables:* Supplies of several key fresh vegetables in the first quarter declined mainly because of adverse weather, pushing up prices at all market levels. The retail cost of fresh vegetables in the market basket was up 15 percent from a year earlier. Farm value jumped 33 percent, while the marketing spread increased 6 percent.

Table 3.--Beef, pork, and lamb: Retail price, carcass value, farm value, farm-retail spread, and farmer's share of retail price, annual 1969-72, quarterly 1972-73

Date	Retail price	Carcass	Gross	Byproduct	Net	Farm-retail spread			Farmer's share	
	per pound	value	farm value	allowance	farm value	Total	Carcass-	Farm-		
	<u>1/</u>	<u>2/</u>	<u>3/</u>	<u>4/</u>	<u>5/</u>	retail	carcass	carcass		
	Cents								Percent	
	Beef, Choice grade									
1969 .....	96.2	68.7	66.9	4.7	62.2	34.0	27.5	6.5	65	
1970 .....	98.6	68.3	66.3	4.8	61.5	37.1	30.3	6.8	62	
1971 .....	104.3	75.6	72.4	4.5	67.9	36.4	28.7	7.7	65	
1972 .....	113.8	80.0	79.9	7.4	72.5	41.3	33.8	7.5	64	
<u>1972</u>										
Jan.-Mar. ...	114.4	81.4	79.4	5.7	73.7	40.7	33.0	7.7	64	
Apr.-June ...	112.3	81.2	80.6	7.0	73.6	38.7	31.1	7.6	66	
July-Sept. ...	115.3	79.8	80.6	7.9	72.7	42.6	35.5	7.1	63	
Oct.-Dec. ...	113.2	77.7	79.0	8.9	70.1	43.1	35.5	7.6	62	
<u>1973</u>										
Jan.-Mar. ...	129.2	95.0	96.8	9.4	87.4	41.8	34.2	7.6	68	
Apr.-June ...										
July-Sept. ...										
Oct.-Dec. ...										
	Pork									
1969 .....	74.3	58.5	45.5	3.2	42.3	32.0	15.8	16.2	57	
1970 .....	78.0	58.7	42.9	3.4	39.5	38.5	19.3	19.2	51	
1971 .....	70.3	52.1	35.0	2.7	32.3	38.0	18.2	19.8	46	
1972 .....	83.2	65.2	51.4	3.5	47.9	35.3	18.0	17.3	54	
<u>1972</u>										
Jan.-Mar. ...	79.0	61.3	47.1	3.3	43.8	35.2	17.7	17.5	55	
Apr.-June ...	79.9	61.0	47.7	3.4	44.3	35.6	18.9	16.7	55	
July-Sept. ...	86.1	67.1	55.3	3.7	51.6	34.5	19.0	15.5	60	
Oct.-Dec. ...	87.7	71.5	55.4	3.7	51.7	36.0	16.2	19.8	59	
<u>1973</u>										
Jan.-Mar. ...	98.1	79.9	68.6	4.9	63.7	34.4	18.2	16.2	65	
Apr.-June ...										
July-Sept. ...										
Oct.-Dec. ...										
	Lamb, Choice grade									
1969 .....	100.7	74.8	66.9	7.6	59.3	41.4	25.9	15.5	59	
1970 .....	105.5	73.8	65.1	6.4	58.7	46.8	31.7	15.1	56	
1971 .....	109.9	75.1	63.1	5.9	57.2	52.7	34.8	17.9	52	
1972 .....	118.3	79.7	70.5	7.5	63.0	55.3	38.6	16.7	53	
<u>1972</u>										
Jan.-Mar. ...	114.4	77.7	67.1	6.5	60.6	53.8	36.7	17.1	53	
Apr.-June ...	116.4	81.6	71.6	7.4	64.2	52.2	34.8	17.4	55	
July-Sept. ...	120.5	82.8	73.9	7.8	66.1	54.4	37.7	16.7	55	
Oct.-Dec. ...	122.1	76.5	69.4	8.3	61.1	61.0	45.6	15.4	50	
<u>1973</u>										
Jan.-Mar. ...	131.8	89.3	87.3	12.8	74.5	57.3	42.5	14.8	57	
Apr.-June ...										
July-Sept. ...										
Oct.-Dec. ...										

1/ Estimated weighted average price of retail cuts. 2/ For quantity equivalent to 1 lb. of retail cuts: Beef: 1.41 lb. of carcass beef; pork, 1.07 lb. of wholesale cuts; lamb, 1.18 lb. of carcass lamb.

3/ Payment to farmer for quantity of live animal equivalent to 1 lb. of retail cuts: Beef, 2.28 lb.; pork, 1.97 lb.; lamb, quantity varies by months from 2.42 lb. in May to 2.48 lb. in October. 4/ Portion of gross farm value attributed to edible and inedible byproducts. 5/ Gross farm value minus byproduct allowance.

Table 4.--Changes in retail price, farm value, and farm-retail spread for selected market basket foods, January-March 1973.

Item	I 1973	Change from:		I 1973	Change from:	
		Previous quarter	Year ago		Previous quarter	Year ago
	Cents	Percent	Percent	Cents	Percent	Percent
	Butter, pound			Cheese, American, ½ pound		
Retail price .....	87.5	0.3	0	56.4	2.4	5.2
Farm value .....	57.6	-2.2	-2.7	25.9	4.9	8.8
Farm-retail spread .....	29.9	5.7	5.7	30.5	.3	2.3
	Milk, sold in stores, ½ gallon			Chicken, frying, pound		
Retail price .....	61.5	2.8	2.8	49.9	20.2	20.5
Farm value .....	31.7	3.9	5.7	28.3	41.5	42.2
Farm-retail spread .....	29.8	1.7	0	21.6	.5	.5
	Eggs, large grade A, dozen			Corn flakes, 12 ounces		
Retail price .....	69.7	20.6	35.6	30.7	-0.3	-3.2
Farm value .....	46.3	30.1	63.0	2.3	9.5	21.1
Farm-retail spread .....	23.4	5.4	1.7	28.4	-1.0	-4.7
	Apples, pound			Oranges, dozen		
Retail price .....	25.4	6.7	13.9	98.0	2.5	6.6
Farm value .....	9.3	12.0	32.9	21.5	5.9	7.5
Farm-retail spread .....	16.1	3.9	5.2	76.5	1.6	6.4
	Lettuce, head			Tomatoes, pound		
Retail price .....	37.3	-1.1	4.2	52.9	9.3	13.3
Farm value .....	12.5	-1.6	-7.4	21.1	20.6	50.7
Farm-retail spread .....	24.8	-.8	11.2	31.8	2.9	-2.8
	Orange juice, frozen, 6 oz. can			Margarine, pound		
Retail price .....	25.1	0.8	.4	32.7	-0.6	-1.5
Farm value .....	9.4	-11.3	-1.1	8.2	22.4	-10.9
Farm-retail spread .....	15.7	9.8	1.3	24.5	-6.5	2.1
	Potatoes, 10 pounds			Peas, frozen, 10 ounces		
Retail price .....	111.3	14.4	33.1	23.3	2.2	5.0
Farm value .....	35.6	44.1	86.4	3.6	0	0
Farm-retail spread .....	75.7	4.3	17.4	19.7	2.6	5.9

1/ Data for additional foods are shown in tables at back of this report.

Prices for onions and potatoes contributed most to the increase for the fresh vegetable group. Retail prices for onions averaged 24.4 cents per pound in the first quarter, up 9.9 cents from a year earlier. The farm value went from 4.6 cents to 12.8 cents, and farm-retail spread widened 1.7 cents. The retail price for 10 pounds of potatoes climbed to \$1.11 in the first quarter, up 28 cents from a year earlier. Of this increase, 17 cents went to growers and 11 cents went to marketers.

*Bread:* Retail prices of bread rose in the first quarter, the first increase since the second quarter of 1972. The retail price of a 1-pound loaf of white bread averaged 25.1 cents in the first quarter of 1973, 0.4 cent higher than in the fourth quarter of 1972. However, this was only 0.1 cent higher than the third quarter of 1971 when the Economic Stabilization Program was initiated.

The farm value of ingredients (wheat, shortening, lard, sugar, and nonfat dry milk) used in a 1-pound loaf averaged 4.6 cents in the first quarter of 1973, 0.3 cent higher than the fourth quarter of 1972, and 1.1 cent above a year earlier. Farm value exceeded the

previous record high in late 1947 by 0.4 cent.

The farm-retail spread averaged 20.5 cents per loaf in the first quarter of 1973, up 0.1 cent from the fourth quarter of 1972, but 0.5 cent below a year earlier. Practically all of the decline in the spread from a year earlier was in the baker-wholesale component as bakers have been forced to absorb increases in flour and other ingredient costs. The baker-wholesaler spread, which has risen steadily over the years, averaged 13.4 cents in the first quarter of 1973, the same as the fourth quarter of 1972, but 0.6 cent below a year earlier.

The retailer's spread averaged 4.7 cents in the first quarter of 1973, 0.3 cent higher than in the fourth quarter but only 0.1 cent above a year earlier. The miller's spread rose significantly as prices received for flour increased more than the cost of the wheat chargeable to the flour in a loaf of bread. The miller's spread averaged 0.9 cent in January through March, 0.1 cent higher than the fourth quarter and 0.3 cent higher than a year earlier. Other spreads, a residual component of the farm-retail spread, declined 0.3 cent the first quarter this year.

Table 5.--White pan bread: Estimated retail and wholesale price of a 1-pound loaf; retailer's, wholesaler's, miller's and other spreads; farm value of ingredients; flour and wheat prices and related data, quarterly 1972, monthly and first quarter, 1973

Item	Unit	1972				1973			
		I	II	III	IV	Jan.	Feb.	March	I
Retail price 1/.....	Cents per loaf:	24.5	24.7	24.7	24.7	24.9	25.1	25.4	25.1
Retail spread 2/.....	"	4.6	4.7	4.5	4.4	4.6	4.6	4.9	4.7
Wholesale price 3/.....	"	19.9	20.0	20.2	20.3	20.3	20.5	20.5	20.4
Baker-wholesale spread 4/.....	"	14.0	14.0	13.9	13.4	13.2	13.6	13.4	13.4
Cost to baker:									
All ingredients 5/.....	"	5.9	6.0	6.3	6.9	7.1	6.9	7.1	7.0
Flour 6/.....	"	3.8	3.9	4.2	4.6	5.0	4.7	4.6	4.8
Mill sales value of flour 6/.....	"	3.5	3.5	3.8	4.4	4.7	4.4	4.5	4.5
Miller's flour spread 7/.....	"	0.6	0.6	0.7	0.8	1.0	0.8	0.9	0.9
Cost of wheat to miller 8/.....	"	2.9	2.9	3.1	3.6	3.7	3.6	3.6	3.6
Other spreads 9/.....	"	1.8	1.8	1.8	1.8	1.3	1.7	1.7	1.5
Farm value:									
All ingredients 10/.....	"	3.5	3.6	3.8	4.3	4.8	4.4	4.5	4.6
Wheat 11/.....	"	2.6	2.6	2.8	3.4	3.7	3.2	3.3	3.4
Flour prices: 12/.....									
F.o.b. mill.....	Dol. per cwt.:	5.53	5.57	6.07	6.91	7.39	6.95	7.04	7.13
Delivered to bakers.....	"	6.03	6.06	6.57	7.37	7.84	7.37	7.34	7.52
Flour sales 12/.....									
Sold in bags.....	Percent	16	21	13	18	19	18	21	19
Price differential for bags.....	Cents per cwt.:	15	15	17	17	17	18	17	17
Wheat prices:									
Farm delivery point 13/.....	Dol. per bu.:	1.32	1.33	1.51	2.03	2.35	1.89	1.99	2.08
Delivered to millers 14/.....	"	2.33	2.35	2.50	2.94	3.07	2.92	3.01	3.00

1/ Based on prices reported by Bureau of Labor Statistics. 2/ Spread between retail and wholesale prices. 3/ Estimated from BLS prices and trade data. 4/ Spread between wholesale price and cost to baker of all ingredients. 5/ Cost of flour plus shortening, nonfat dry milk, sugar and other minor nonfarm produced ingredients. 6/ Cost or sales value of flour (0.6329 lb.) used per pound of bread. 7/ Spread between mill sales value of flour and cost of wheat to miller. 8/ Cost of wheat (.01445 bu.) including marketing certificate, net of imputed cost chargeable to millfeed byproducts. 9/ Charges for transporting, handling, storing all ingredients, for processing ingredients other than flour and cost of nonfarm produced ingredients such as yeast, salt, and malt extract. This spread is a residual figure. 10/ Returns to farmers for wheat including an allowance for the marketing certificate, shortening, nonfat dry milk, and sugar used in a 1-pound loaf. 11/ Returns to farmers for wheat, including the certificate, less imputed value of millfeed byproducts. 12/ Based on monthly sales and prices of bread-type flour reported by a sample of flour milling firms. 13/ Weighted average for hard winter and spring wheat in the 10 major wheat producing States. 14/ Includes allowance for marketing certificate.

# MARKETING CHANNELS FOR EGGS

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## ABSTRACT

Egg marketing channels have become more direct and simplified over the last two decades. Packing plants now are major receivers of eggs from producers and the major suppliers to retail outlets, institutions, and breakers. The role of wholesale distributors has continued to decline. Direct marketing producers have grown in importance. About 72 percent of the commercial egg supply is consumed as shell eggs by households, 16 percent is used by institutional outlets, and the balance is used in manufactured products.

**Keywords:** Eggs, marketing channels, supply sources, outlets, product form.

Today's egg marketing channels may seem somewhat involved, even in the simplified form outlined in figure 1. Yet, they are considerably more direct and involve fewer kinds of firms than they did 3 or 4 decades ago. The more important developments relating to egg marketing channels have been:

- (1) The movement of egg cartoning from near the area of consumption to packing plants near producing areas.
- (2) The decline and virtual disappearance of a complex network of local buying and assembly stations, and the accompanying rise in direct procurement by commercial egg packing plants.
- (3) A shrinking share of volume moving through wholesale receivers, commission houses, and jobbers.
- (4) Extensive vertical coordination in the egg industry, resulting in closer tie-ins between producing, packing, input-supplying, and distributing firms, as well as in the emergence of multiple-function firms difficult to categorize.
- (5) A resurgence of direct marketing producers. Many smaller producers have always relied heavily on local outlets, and while numbers of small producers have declined substantially, many thousands remain. Moreover, many larger producers now do their own grading and packing and sell directly to breakers, retail stores, institutions, and consumers.
- (6) An increase in the relative share of volume going to the institutional trade, including away-from-home eating establishments.

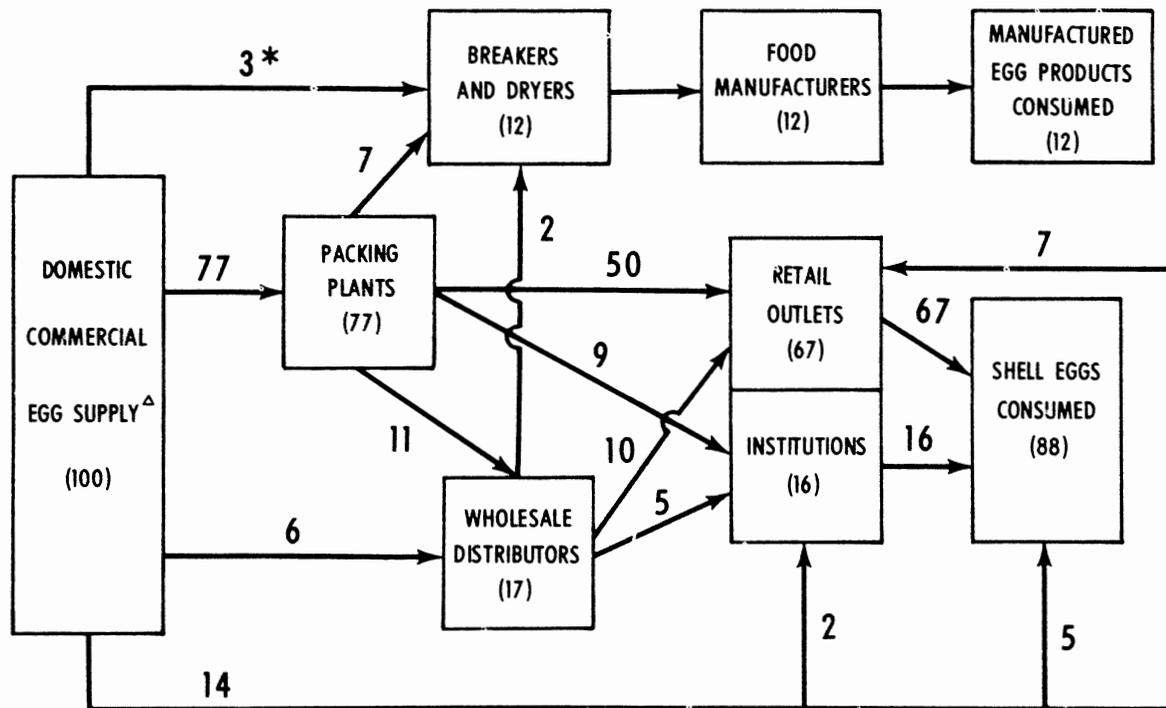
- (7) An increase in the relative share of volume going to commercial egg breaking and drying plants, with the subsequent output being used in manufactured food products.
- (8) A relative shift in base price determination from the city receiver level back toward the packer and producer.
- (9) A progressive improvement in the quality of eggs moving off farms and reaching consumers and an upward trend in average egg size.

Marketing channels for the domestic commercial egg supply shown in figure 1 do not include exports, imports, consumption on farms where produced, or eggs used for hatching. Egg imports are small and are greatly exceeded by exports. Net exports in turn are less than 1 percent of total supply. About 1 percent of the eggs produced are consumed on farms. About 6 percent of the supply is used for hatching.

## Types of Movements in Marketing Channels

The movements through marketing channels identified in figure 1 may be called forward movements. They represent a progression from supply sources through subsequent handlers toward ultimate users. The numbers are net values, since they exclude backward and lateral movements. Backward movements occur when eggs move from ultimate users to handlers or from handlers to supply sources but these are infrequent and insignificant. About 2 percent of the volume handled by packers

## NET MOVEMENTS OF EGGS THROUGH COMMERCIAL MARKETING CHANNELS, 1971-72



△ EXCLUDES EXPORTS, IMPORTS, EGGS CONSUMED ON FARMS WHERE PRODUCED,  
AND EGGS USED FOR HATCHING. \* PERCENTAGES OF DOMESTIC COMMERCIAL EGG SUPPLY.

Figure 1

comes backward from wholesale distributors. Occasionally, a producer may buy eggs from or have them returned to him by a packer, wholesale distributor, or consumer. Retailers may occasionally return eggs to a packer or sell them to a distributor or breaker. This is usually related to temporary surplus situations or eggs which have gone beyond the code date.

Lateral movements occur between producers, between packers, between breakers, between distributors, between institutions, or between retailers, and are usually made to help balance the surplus and deficit positions of individual firms. Direct marketing producers may acquire as much as 10 percent of their supply from other producers. Packers or wholesale distributors may acquire as much as 5 percent of their supply from other packers or other wholesale distributors. Little exchange probably occurs between retailers since most eggs are sold in branded cartons.

Subsequent discussions are in terms of forward movements. The other kinds are now much less

important than in earlier years due to the growth of simpler and more direct marketing channels.

### Marketing Firms

The extensive development of vertical coordination in the industry makes it more difficult to identify pure single-function firms. Many larger producers have integrated forward into packing and distributing and also into input-supplying. Packers and wholesalers have integrated backward into production and input-supplying, and forward into direct distribution. Some egg packers operate their own egg breaking plants. Some retailers have integrated backward toward the producing level. The subsequent discussions classify firms by their main function, despite the extensive integration that exists between that function and other functions.

Certain types of firms and outlets involved in egg marketing channels are included under the general categories shown in figure 1, or exist as service units for these categories. For example, brokers may serve

Table 6--Sources of egg supplies for major types of primary marketing firms, 1971-72

Type of firm	Proportion of total commercial supply	Source				Total
		Owner-integrators and marketing agreements	Contract production and marketing contracts	Independent producers		
		Percent				
Direct-marketing producers .....	17.0	40.0	10.0	50.0	100.0	
Large sized egg packers .....	21.5	28.0	31.0	41.0 <sup>2/</sup>	100.0	
Small and medium sized egg packers and wholesale distributors ....	61.5	24.0	31.0	45.0 <sup>3/</sup>	100.0	
Total .....	100.0	27.5 <sup>1/</sup>	27.5 <sup>1/</sup>	45.0	100.0	

<sup>1/</sup> About 7.5 percent represent marketing agreements and 7.5 percent represent marketing contracts.

<sup>2/</sup> Includes 6.3 percent from other firms, mainly packers and dealers.

<sup>3/</sup> Includes 7.2 percent from other firms, mainly packers and dealers.

as sales agents, primarily for egg packers, breakers, or distributors in lieu of such firms doing all their own selling. Wholesale distributors include city receivers, jobbers, and institutional supply houses. Institutions include such diverse outlets as restaurants, public and private institutions (including schools), the School Lunch programs, and military bases. Retail outlets include chain and independent stores, military post commissaries, hucksters, dairies, company retail stores, etc.

### Primary Egg Marketing Firms

These firms perform the assembly, grading, packing, and cartoning functions, and forward eggs to secondary egg marketing firms and ultimate users. Primary egg marketing firms include packing plants, wholesale distributors, and direct marketing producers.

Direct marketing producers handle 17 percent of the domestic commercial egg supply; packing plants receive 77 percent of the supply from producers; wholesale distributors receive the remaining 6 percent directly plus an additional 11 percent from packers.

*Packing plants* are by far the most important type of primary egg marketing firm. They now handle over three-fourths of the eggs moving through marketing channels, compared with less than three-fifths in the 1950's. Packing plants are the most important suppliers of eggs to retail outlets, institutions, wholesale distributors, and breakers.

In 1971, 113 large packers handled 21.5 percent of the commercial egg supply. Hundreds of small to medium packers handled more than double that volume. Compared with other firms, large egg packers have a slightly larger share of their supply

Table 7--Supply sources and outlets for major types of egg marketing firms, 1971-72

Net movements to --	Producers	Packing plants <sup>1/</sup>	Wholesale distributors	Total
----- Percent of commercial egg supply -----				
Primary egg marketing firms:				
Packing plants .....	77	-	-	-
Wholesale distributors .....	6	11 <sup>2/</sup>	-	-
Total .....	83	-	-	-
Secondary marketing firms and ultimate users:				
Breakers .....	3	7	2	12
Institutions .....	2	9	5	16
Retail outlets .....	7 <sup>3/</sup>	50 <sup>4/</sup>	10 <sup>5/</sup>	67
Consumers .....	5 <sup>3/</sup>	4 <sup>4/</sup>	5 <sup>5/</sup>	5
Total .....	17	66	17	100

<sup>1/</sup> Includes packing plants operated by retail firms.

<sup>2/</sup> 77 percent of commercial volume goes from producers to packing plants, 11 percent is in turn sold to wholesale distributors.

<sup>3/</sup> Includes dairies, house-to-house hucksters, and retail stands where they are the only intermediaries between producer and ultimate user.

<sup>4/</sup> Less than 3 percent of commercial volume sold by packing plants to consumers; included under retail outlets.

<sup>5/</sup> Less than 1 percent of commercial volume sold by wholesale distributors to consumers; included under retail outlets.

firmly committed to them through ownership of their own flocks, contract production, and marketing agreements and marketing contracts. Larger packers also supply larger shares of their volume to egg breakers' and wholesale distributors. Small to medium packers supply larger share of their volume to retail stores and institutions than do large packers.

*Wholesale distributors* now handle about 17 percent of the commercial egg supply, compared with 28 percent in the 1960's and 69 percent in the 1950's. About one-third of the present volume handled by wholesale distributors comes directly from producers and the remaining two-thirds from packing plants. In the 1950's and 1960's, about half of their supply came directly from producers. Of the volume now received by wholesale distributors, about half is acquired from firmly committed sources.

In the 1950's, wholesale distributors supplied over 80 percent of the eggs going to retailers and institutions from packers and distributors. By the 1960's, their share fell to 32 percent. Today, they supply about 18 percent of the volume going to

retailers and institutions from packers and distributors.

*Direct marketing producers*, primarily because of the growth of larger producing units, are somewhat more important now in primary egg marketing than in the 1950's and 1960's. Many large producers have integrated forward into commercial packing and distributing, and also have made commitments with other producers to gain control over larger volumes. Direct marketing producers are important, but not the major suppliers of eggs to retailers, consumers, breakers, and institutions. Many producing firms marketing large volumes of eggs can now be classified as packers because they acquire more eggs from others than they produce themselves.

#### Secondary Egg Marketing Firms

These firms supply eggs received from primary egg marketing firms to ultimate users. Secondary egg marketing firms include breakers, institutions, and retail outlets.

Table 8--Consumers' sources of eggs and egg products, 1971-72

Source	Percent of total consumption	Product form
Manufactured foods .....	12	Sold by breaking and drying plants as liquid, frozen and dried egg products to food manufacturers. End products include such items as bakery goods, mayonnaise, noodles, confections, prepared mixes, dietary items. Distributed to institutions and retail outlets.
Institutions, including away-from-home eating places .....	16	Mainly received by institutions as loose-packed shell eggs in cases; prepared by institutions prior to consumption.
Retail outlets and producers .....	72	Mainly purchased by consumers as shell eggs in cartons, and prepared at home.
	100	

*Breakers* produce liquid or frozen egg products. They may also produce dried egg products in their own plants or furnish liquid or frozen eggs to other dryers. Food manufacturers make prepared food products from liquid, frozen, or dried eggs. Such products are, in turn, distributed to retail outlets and institutions. About 12 percent of the commercial egg supply is consumed in the form of manufactured food products. Breakers formerly handled 10 percent or less of the commercial egg supply.

Breakers obtain almost 60 percent of their eggs from egg packing plants, 25 percent from producers, and the remaining 15 percent from wholesale distributors. Some breaking plants have contract arrangements with producers to produce eggs of the type they require.

*Institutions* use about 16 percent of the commercial egg supply. Almost 60 percent of this comes from egg packing plants, over 30 percent from wholesale distributors, and the remainder from direct marketing producers. Institutions formerly handled about 12 percent of the commercial egg supply.

*Retail outlets* handle about two-thirds of the commercial egg supply. Almost three-fourths of their eggs come from egg packing plants, about 15 percent from wholesale distributors, and over 10 percent from direct marketing producers. Chain and independent retailers are by far the most important firms in this group. Retailers themselves operate a number of egg packing plants. With the increase in the shares of egg use by breakers and institutions, the proportion of the commercial supply moving through retail outlets has declined from less than three-fourths to its present level of two-thirds of the commercial supply.

### **Egg Quality and Product Form**

About 92.5 percent of the eggs moving off farms are of Grade A quality or better. Grade B and Grade C

eggs account for about 3 percent, cracks and checks for 4 percent, and discards for 0.5 percent. The share for Grade A or better varies somewhat by regions, averaging highest in the Northeast and lowest in the West North Central region.

Some breakage occurs in marketing channels, but probably less than 3 percent. Quality deterioration is minimal when proper refrigeration is employed. For example, USDA grade specifications allow only a 5 percent reduction in the proportion of Grade A's between origin and destination grading. Moreover, a high percentage of the undergrade eggs go to breaking plants. In fact, most undergrades can only go to the breaking plants under the provisions of the Egg Products Inspection Act of 1970. Institutional packs average almost as high in quality as eggs cartoned for the retail trade. Consumers now buy relatively few Grade B packs at retail, and sales of checks, etc., are restricted to small and local trade. Thus, household consumers probably buy better than 95 percent of their eggs in Grade A (or better) packs.

Three-fourths or more of the eggs moving off farms are Large or better (up to 15 percent are Extra Large and Jumbos), about 20 percent are Mediums, and about 5 percent are Small or less. The export trade uses some of the Small and Medium egg supply, and many of these eggs go to breaking plants. Thus, household consumers buy a larger share of their eggs as a Large or better than would be indicated by the off-farm measurements.

About 12 percent of the commercial domestic egg supply reaches consumers in the form of manufactured products. Most of the 16 percent of the eggs going to the institutional trade are loose-packed in cases. Most of the 72 percent reaching household consumers through retail outlets or direct delivery are cartoned.

# FEASIBILITY OF UNIT TRAINS FOR MOVING APPLES AND LETTUCE FROM THE WEST

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## ABSTRACT

Unit train movements of Western perishables appear unlikely to yield significant rate reductions to shippers or cost savings to railroads. Incentives for their use seem likely to arise primarily from less quality loss in transit. Both the sources of revenue and equipment utilization were evaluated. Added revenues from unit trains for apples from Yakima, Wash., to New York City appear very small since little truck traffic is available to divert to unit train. Seasonality in apple traffic would seem to prevent improvement in equipment utilization. Minimum weekly volumes appeared large enough to support a unit train for lettuce from Salinas, Calif., to New York, particularly if some present truck traffic could be diverted. Based on assumed car utilization conditions, car rental cost savings of the unit train were significant. But lack of revenues on the backhaul might offset some or all of the savings.

**Keywords:** Unit trains, perishables, car utilization.

In recent years, the unit train has attracted considerable attention as a result of some large rate reductions associated with such service. Within the agricultural community, grain shippers have been the chief users of unit train service. Grain rate reductions as large as 50 percent have become available through the use of unit trains. If similar reductions could be found for other agricultural shippers, the cost of marketing could be substantially reduced. This article examines the suitability of unit train service for Western shippers of apples and lettuce.

### Attributes of a Unit Train

A unit train is a set of cars and engines operating as a unit, shuttling back and forth continuously between fixed assembly and distribution points.

Since the unit train operates in an unvarying configuration, it avoids all or most of the train makeup, classification, switching, and other rail terminal activities associated with conventional trains. By avoiding these activities, a unit train is able to offer markedly increased utilization of rolling stock. Unit trains operate 70-80 percent of the time in

contrast to 10 percent for conventional trains. Avoiding the above terminal activities may also allow a unit train to avoid the costs associated with such activities.

Since the unit train varies only in degree from conventional trains, let us precisely define its attributes.<sup>1</sup>

- (1) The rolling stock and engines must be dedicated to a particular unit train service.
- (2) The rolling stock, engines, and terminal facilities must be under unified control. This is facilitated by single party ownership of all equipment, terminal facilities, and right of way.
- (3) The train should run between fixed points. To obtain fast turnaround, specialized terminal facilities must exist. Such facilities can be economically justified at only a limited number of locations.
- (4) A rigid schedule must be established and adhered to. Since the service is specialized, it would not be economical to maintain equipment

<sup>1</sup>*Highballing to Market in Unit Trains*, A.T. Kearney and Co., Inc., Chicago, Ill., Feb. 1968, pages 10-11.

and personnel on standby awaiting the arrival of a unit train. Relatively large quantities of goods are involved. Shippers will therefore be unwilling to pay storage and holding costs incurred while waiting indefinite periods for the unit train to arrive. Finally, a rigid schedule may allow railroads to operate unit trains in off-peak times.

- (5) The total train weight (payload plus car weight) must remain relatively fixed. Many of the economic advantages are lost if excess engine capacity is assigned or if the unit train must wait while additional engine capacity is obtained.

### Operation of Unit Trains

At a minimum, two conditions must exist for unit train service to be instituted. The instituting railroad must have a reasonable expectation of increasing net revenue through unit train service. This can come either as a result of increasing gross revenue at a given level of cost or reducing cost at a given level of gross revenue. Similarly, prospective users must have a reasonable expectation of increasing their net revenues. This result can be obtained either through reduced transportation charges, increased sales, higher commodity prices as the result of increased market quality obtained from unit train service, or some combination of the above.

A hypothetical train for produce from the West was evaluated in the study by Kearney. The train was assumed to have a western terminal in the San Jose-Oakland-Stockton area of California. Its eastern terminal was in New Jersey to serve the New York and Philadelphia markets. A train departed from each terminal weekly and required 77 hours transit time. Only container-on-flat-car (COFC) equipment was used. Due to a combination of low load factors, the relatively expensive equipment involved, the seasonal nature of produce shipments, and relatively low rates already in use, the study found that no freight rate reductions for fresh fruit and vegetable could be expected from use of unit trains. However, positive benefits were found in the form of reduced damage to produce and longer marketable life at destination.

The feasibility of unit trains tends to be quite sensitive to changes in the assumed shipping conditions. In this article, two other hypothetical unit train operations are examined. Separate operations are required because it is impossible to select a single point close to both apple producing areas and the producing areas of selected other West Coast fresh fruits and vegetables. The trains will move between two terminals on a weekly basis, will require 77 hours in transit, but will not consist of COFC equipment.<sup>2</sup>

<sup>2</sup>Currently, individual carloads require 10 days or more for the transcontinental journey.

Instead, the existing mechanical refrigerator car fleet will be employed, thus avoiding the costs of obtaining and owning special equipment.

In 1970 the Yakima Valley accounted for 35 percent of all Washington and Oregon apple shipments. Therefore, this area appears to be a reasonable location for the western terminus of one unit train (table 9).

Because of the volume of lettuce produced, it appeared worthwhile to examine the feasibility of establishing a unit train for lettuce. Lettuce production tends to be concentrated at Salinas, Calif. Thus, a single shipping point may be feasible. Since New York City is the largest produce market in the United States and a major port of embarkation, it seems logical to establish the eastern terminus of both the apple and lettuce unit trains in that area. The remaining commodities considered did not afford sufficient volume at a single shipping point to warrant unit train service.

### Apple Shipments

Operated on a biweekly schedule, each car of a unit train for apples would be loaded 26 times per year. In 1971, refrigerator cars averaged nearly 20 loadings per year.<sup>3</sup> However, the ICC procedure used tends to over estimate the actual number of loadings. The unit train would, therefore, offer at least 6 additional loadings per year for a given car.

Assuming a revenue of \$1,243 per carload (the 1971 carload rail rate for apples from Yakima to New York) each unit train car would earn \$32,318 per year. In contrast, a car in conventional service would return only \$24,860. Increased revenue per car cannot, however, be definitely considered increased net earnings to the operating railroad. Some costs, including the cost of acquiring terminal facilities, would be incurred by the railroad in establishing the unit train.

It is also possible that the additional carrying capacity created would not be saleable. Unit train traffic can be obtained from three sources—truck traffic, conventional rail traffic, and traffic not previously entering distribution channels. Any transfers from conventional to unit train service would not increase gross rail revenue. Diverting truck traffic to rail seems likely to be the principal source of new rail revenue. Table 10 indicates that only 58 cars per year would be obtained if all truck traffic in apples were diverted to unit train service.

Even if the costs of hauling an additional 58 carloads per year were nominal, the \$72,094 obtained by diverting truck shipments to rail would appear to be an inadequate incentive for a railroad to establish unit train service. Operating revenue would increase

<sup>3</sup>*Transport Economics*; Interstate Commerce Commission, Washington, D.C.; May 1972, page 8.

Table 9--Distribution of shipments of selected commodities among selected shipping points, 1970 <sup>1/</sup>

Shipping Points	Grapefruit	Lettuce	Oranges	Lemons	Grapes	Apples
	2/ Pct.	2/ Pct.	3/ Pct.	3/ Pct.	3/ Pct.	4/ Pct.
Phoenix, Ariz. ....	16	4	--	--	1	--
Tucson, Ariz. ....	--	8	--	--	--	--
Indio, Calif. ....	10	--	--	--	--	--
San Bernadino, Calif. ....	16	--	--	--	--	--
El Centro, Calif. ....	--	8	--	--	--	--
Salinas, Calif. ....	--	28	--	--	--	--
Fresno, Calif. ....	--	--	22	<u>5/</u>	26	--
Exeter, Calif. ....	--	--	11	--	--	--
Bakersfield, Calif. ....	--	--	6	--	23	--
Oxnard, Calif. ....	--	--	--	30	--	--
Santa Paula, Calif. ....	--	--	--	11	--	--
Delano, Calif. ....	--	--	--	14	--	--
Las Cruces, N. M. ....	<u>5/</u>	<u>5/</u>	--	--	--	--
McAllen, Tex. ....	2	<u>5/</u>	--	--	--	--
Wenatchee, Wash. ....	--	--	--	--	--	12
Yakima, Wash. ....	--	--	--	--	--	35
Hood River, Ore. ....	--	--	--	--	--	3
Total .....	44	48	39	55	50	50

<sup>1/</sup> Source: Fresh Fruit and Vegetable Shipments, C&MS (1970), Consumer and Marketing Service, USDA: Washington, D.C. June 1971.

<sup>2/</sup> Based on Arizona, California, New Mexico, and Texas shipments.

<sup>3/</sup> Based on California shipments.

<sup>4/</sup> Based on Washington and Oregon shipments.

<sup>5/</sup> Less than 0.5 percent.

Table 10--Receipts of selected commodities at New York City, monthly by mode and total, 1971.

Month	Apples <u>1/</u>				Lettuce <u>2/</u>				Lemons <u>2/</u>			
	Rail	Truck	Total	Av. per week	Rail	Truck	Total	Av. per week	Rail	Truck	Total	Av. per week
	----- Carlots -----											
January	160	1	161	40	337	68	405	101	83	2	85	21
February	174	2	176	44	392	57	449	112	106	-	106	27
March	228	5	233	58	350	66	416	104	157	-	157	39
April	216	3	219	55	191	31	222	56	109	-	109	27
May	198	14	212	53	442	54	496	124	126	2	128	32
June	178	14	192	48	617	52	669	167	159	-	159	40
July	75	3	78	20	429	68	497	124	162	-	162	40
August	38	9	47	12	424	97	521	130	119	-	119	30
September	5	3	8	2	538	36	574	143	95	-	95	24
October	46	3	49	12	381	29	410	102	85	-	85	21
November	83	-	83	21	121	68	189	47	77	1	78	20
December	106	1	107	27	158	57	215	54	75	-	75	19
Totals	1,507	58	1,565		4,380	683	5,063		1,353	5	1,358	
Annual average per week				30				97				26
Range			2-58				47-167				19-40	
	-----											
Month	Oranges <u>2/</u>				Grapefruit				Grapes			
	Rail	Truck	Total	Av. per week	Rail	Truck	Total	Av. per week	Rail	Truck	Total	Av. per week
	----- Carlots -----											
January	289	5	294	74	-	-	-	-	139	6	145	36
February	305	4	309	77	-	-	-	-	66	6	72	18
March	413	-	413	103	-	-	-	-	64	8	67	17
April	376	3	379	95	1	-	1	3/	1	-	1	3/
May	311	4	315	79	1	1	2	3/	-	-	-	-
June	292	4	296	74	23	4	27	7	61	28	89	22
July	195	9	204	51	57	2	59	15	68	15	83	21
August	213	6	219	55	92	4	96	24	203	49	252	63
September	201	3	204	51	64	3	67	17	391	46	437	109
October	306	3	309	77	11	42	53	13	469	32	501	125
November	207	9	216	54	-	52	52	13	292	17	309	77
December	290	13	303	76	-	30	30	8	239	10	249	62
Totals	3,398	63	3,461		249	138	387		1,993	212	2,205	
Annual average per week				67				7				42
Range			51-103				0-24				0-125	

1/ Washington & Oregon origins. 2/ California origins. 3/ Less than 1 car.

Source: Fresh Fruit and Vegetable Unloads in Eastern Cities, C&MS-3 (1971), Consumer and Marketing Service, Washington, D.C.

only 0.04 percent. It is also unlikely that all existing truck traffic could be attracted to unit train service. As existing truck service commands rates higher than those charged for rail transportation, truck service must offer certain benefits relative to conventional rail service.

Although a unit train conceptually requires less service in the form of switching, classification, etc., the diversion of rail traffic from conventional to unit train service does not appear to offer any substantial savings or benefits to railroads. In the short run, the investment in rail plant may be considered to be fixed. Even though various facilities may not be required by a unit train, the costs of owning and operating those facilities will not be markedly reduced so long as any conventional trains are operated. It might be appropriate to allocate more cost to conventional service than to unit train service. However, this reallocation would not increase a railroad's net profit and, if reflected in increased rates for conventional service, could result in an overall loss in revenue and profit.

Some savings may be available from the increased car utilization available from unit trains. To estimate the degree of savings it is necessary to estimate the daily cost of owning a refrigerator car. For purpose of illustration, a per diem rate of \$12.98 per day was employed. Per diem is the rental charge that one railroad must pay another for use of the owner's rail car.<sup>4</sup> Since refrigerator cars are specialized and costly equipment, \$12.98 probably understates the true cost of ownership.

Assuming ownership costs of \$12.98 per day, total annual cost of car ownership is \$4,737.70. Loaded 20 times per year in conventional service, \$236.89 is attributable to each trip. Loaded 26 times per year in unit train service, \$182.22 is attributable to each trip. The difference in per trip costs, \$54.67 per car, remains constant throughout this analysis.

Based on 26 loadings per year for unit trains and 20 loadings for conventional service, unit train service would require 60 cars to carry the 1,565 carloads shown in table 11. Conventional service would require 78 cars. Unit train service would result in an annual savings of \$85,285 ( $\$54.67 \times 60 \text{ cars} \times 26 \text{ loadings}$ ).

It is unlikely that this savings can be realized for apples because the first attribute of a unit train is a nearly fixed number of cars. The average weekly number of carloads shipped varied from 2 to 58. It is unlikely that the unit train concept can be applied to such varying demand for service. This would not

<sup>4</sup>At present, car rental charges can be divided into two parts, one based on time and the other on mileage hauled. Since mileage remains constant for unit train or conventional service, the mileage charge is not considered in this analysis.

preclude devoting a portion of a unit train to apples. In the Kearney study, such an assumption was made and tested. The study found no cost reductions available to produce shippers. However, there were certain benefits in the form of increased marketable life. For apples, the increase in marketable life would be relatively small and presumably of little value. The unit train does not, therefore, appear to be an economically feasible concept for apple distribution.

### Lettuce Shipments

Although lettuce shipments exhibit marked seasonality, an average of 97 cars per week arrive at New York (table 11). The relatively short marketable life of lettuce indicates that the benefits available from reduced transit time will be relatively large.

Assuming that existing truck traffic, 683 carlots, could be diverted to unit train service at existing rail rates (\$1,286.53 per car), a total of \$878,700 in new revenue would be obtained. Such additional revenue would constitute a substantial incentive for railroads to establish unit train service, although it does not seem likely that all truck traffic would be diverted. The diverted traffic would involve annual car ownership costs of \$123,180 (assuming car cost of \$12.98 per day for 26 cars) leaving more than \$755,000 added revenues to cover other costs.

Also, refrigerator cars not in unit trains are currently able to carry substantial quantities of revenue freight westbound. Unit train operations for fresh produce could substantially reduce the availability of extra cars for loaded backhauls. This, in turn, would reduce overall profits for participating railroads from the levels implied in this analysis.

A unit train for lettuce is assumed to maintain the same schedule as was assumed for apples. Total annual volume is 5,044 cars based on an average of 97 cars per week. Conventional train service would require 253 cars to haul the assumed annual volume of 5,044 car loads. Unit train service would require only 194 cars for total savings of \$275,755 per year. Savings obtained from any differences between rail and truck rates are not considered.

The above estimates of additional revenue and savings, based on average weekly shipments per year, do not take into account seasonality of shipments. Therefore, they are maximums which appear unattainable.

Assuming that a unit train of 47 cars (the smallest weekly average of truck and rail shipments) were established, only 93 carlots annually would need to be diverted from truck service to fill the train. This added revenue of \$119,647 ( $93 \text{ cars} \times \$1,286.53$ ) might be a sufficient incentive to induce unit train service.

Unit train service for 2,444 carloads ( $47 \text{ cars} \times 52 \text{ weeks}$ ) would afford potential savings of \$133,613 per year. It is unlikely that all of the savings would accrue to shippers. At least a portion would be

required to defray the cost of constructing specialized terminal facilities. Shippers would, however, benefit from more rapid service, and increased car utilization would increase the effective car supply.

The implied rate reductions are much smaller than those that have been experienced for grain and ores. It is therefore instructive to quickly review the circumstances that have surrounded the large reductions reported for bulk commodities. Unit trains were established where relatively large, stable traffic volumes existed. The trains tend to be operated

between pre-existing shipper or railroad owned facilities, and tend to run over the track of a single major railroad. These circumstances do not fit the attributes of west to east fresh produce movements.

There is also a possibility that unit trains are actually only a new label for pre-existing operating patterns and that the rate reductions associated with unit trains have been an overdue recognition of pre-existing operating efficiencies. Such reductions have usually occurred when compelled by competition, not when savings were realized.

Table 11.--Farm food products: Retail price, farm value, byproduct allowance, farm-retail spread, and farmer's share of retail price, first quarter 1973

Product	Farm equivalent	Retail unit	Retail price	Gross farm value	Byproduct allowance	Net farm value 1/	Farm-retail spread	Farmer's share	
								Cents	Percent
Beef, Choice grade	2.28 lb. Choice cattle	Pound	129.2	96.8	9.4	87.4	41.8	68	
Lamb, Choice grade	2.45 lb. lamb	Pound	131.8	87.3	12.8	74.5	57.3	57	
Pork	1.97 lb. hog	Pound	98.1	68.6	4.9	63.7	34.4	65	
Butter	Milk for butter	Pound	87.5	122.4	64.8	57.6	29.9	66	
Cheese, American proc.	Milk for American cheese	½ pound	56.4	26.7	8.0	25.9	30.5	46	
Ice cream	Cream, milk, and sugar	½ gallon	86.9	--	--	30.1	56.8	35	
Milk, evaporated	Milk for evaporating	14½-ounce can	20.7	9.9	.2	9.7	11.0	47	
Milk, fresh:									
Home delivered	4.39 lb. Class I milk	½ gallon	71.3	--	--	31.7	39.6	44	
Sold in stores	4.39 lb. Class I milk	½ gallon	61.5	--	--	31.7	29.8	52	
Chicken, frying	1.41 lb. broiler	Pound	49.9	--	--	28.3	21.6	57	
Turkey	1.28 lb. turkey	Pound	57.5	--	--	32.7	24.8	57	
Eggs, Grade A Large	1.03 dozen	Dozen	69.7	--	--	46.3	23.4	66	
Bread, white:									
All ingredients	U.S. farm ingredients 2/	Pound	25.1	--	--	4.6	20.5	18	
Wheat	.867 lb. wheat 2/	Pound	--	4.1	.7	3.4	--	13	
Bread, whole wheat	.708 lb. wheat 2/	Pound	40.3	--	--	4.1	36.2	10	
Cookies, sandwich	.528 lb. wheat 2/	Pound	56.4	--	--	6.9	49.5	12	
Corn flakes	2.87 lb. yellow corn 3/	12 ounces	30.7	7.3	5.0	2.3	28.4	7	
Flour, wheat	6.85 lb. wheat 2/	5 pounds	64.4	32.9	5.1	27.8	36.6	43	
Rice, long grain	1.59 lb. rough rice	Pound	25.2	12.6	1.1	11.5	13.7	46	
Apples	1.04 lb. apples	Pound	25.4	--	--	9.3	16.1	37	
Grapefruit	1.03 grapefruit	Each	17.4	--	--	3.9	13.5	22	
Lemons	1.04 lb. lemons	Pound	35.7	--	--	10.4	25.3	29	
Oranges	1.03 dozen oranges	Dozen	98.0	--	--	21.5	76.5	22	
Cabbage	1.08 lb. cabbage	Pound	15.8	--	--	5.5	10.3	35	
Carrots	1.03 lb. carrots	Pound	22.7	--	--	7.6	15.1	33	
Celery	1.08 lb. celery	Pound	24.1	--	--	7.8	16.3	32	
Cucumbers	1.09 lb. cucumbers	Pound	37.0	--	--	17.1	19.9	46	
Lettuce	1.88 lb. lettuce	Head	37.3	--	--	12.5	24.8	34	
Onions	1.06 lb. onions	Pound	24.4	--	--	12.8	11.6	52	
Peppers, green	1.09 lb. peppers	Pound	53.7	--	--	19.1	34.6	36	
Potatoes	10.42 lb. potatoes	10 pounds	111.3	--	--	35.6	75.7	32	
Tomatoes	1.18 lb. tomatoes	Pound	52.9	--	--	21.1	31.8	40	

Continued--

Table 11.--Farm food products: Retail price, farm value, byproduct allowance, farm-retail spread, and farmer's share of retail price, first quarter 1973, continued

Product	Farm equivalent	Retail unit	Retail price	Gross farm value	Byproduct allowance	Net farm value		Farm-retail spread	Farmer's share
						1/	1/		
						Cents	Percent		
Peaches, canned	1.52 lb. Calif. cling peaches	No. 2½ can	38.7	--	--	5/	7.1	31.6	18
Pears, canned	1.81 lb. pears for canning	No. 2½ can	55.1	--	--	5/	12.1	43.0	22
Beets, canned	1.19 lb. beets for canning	No. 303 can	22.0	--	--		1.3	20.7	6
Corn, canned	2.25 lb. sweet corn	No. 303 can	24.4	--	--		2.8	21.6	11
Peas, canned	.725 lb. peas for canning	No. 303 can	26.5	--	--		4.0	22.5	15
Tomatoes, canned	1.515 lb. tomatoes for canning	No. 303 can	23.7	--	--		2.8	20.9	12
Lemonade, frozen	.834 lb. lemons for processing	6-ounce can	14.6	--	--	5/	3.8	10.8	26
Orange juice, frozen	3.40 lb. oranges	6-ounce can	25.1	--	--		9.4	15.7	37
Potatoes, french fried, frozen	1.41 lb. potatoes	9 ounces	16.8	--	--		3.3	13.5	20
Peas, frozen	.68 lb. peas for canning	10 ounces	23.3	--	--		3.6	19.7	15
Beans, dried	1.04 lb. dry beans	Pound	25.7	--	--		9.6	16.1	37
Margarine	Soybeans, cottonseed, and milk	Pound	32.7	40.4	32.2		8.2	24.5	25
Peanut butter	1.21 lb. peanuts	12-ounce jar	51.1	--	--		18.4	32.7	36
Salad and cooking oil	Soybeans, cottonseed, and corn	24-oz. bottle	63.1	70.3	57.2		13.1	50.0	21
Vegetable shortening	Soybeans and cottonseed	3 pounds	96.8	142.4	112.4		30.0	66.8	31
Sugar 4/	Sugar beets and cane	5 pounds	71.2	33.6	2.0		31.6	39.6	44
Spaghetti, canned	Wheat, tomatoes, cheese, and sugar	15¼-ounce can	19.9	--	--		2.4	17.5	12

1/ Payment to farmers for equivalent quantities of farm products (gross farm value) minus imputed value of byproducts obtained in processing.

2/ Farm values for wheat products are based on market price of wheat received by farmers plus cost of the marketing certificate to millers. This cost is returned to farmers complying with the Wheat Program.

3/ Farm value based on market price of corn received by farmers; no allowance made for price support payment received by farmers who comply with the Federal Feed Grain Program.

4/ Net farm value including Government payments to producers was 35.5 cents with a farmer's share of 50 percent. Farm-retail spread less Government processor tax was 36.9 cents.

5/ Includes farm value for sugar.

Table 12.--Farm food products: Retail price, farm value, farm-retail spread, and farmer's share of retail price, January-March 1973, October-December 1972, and January-March 1972.

Product <u>1</u> /	Retail unit	Retail price			Farm value			Farm-retail spread			Farmer's share		
		I 1973	IV 1972	I 1972	I 1973	IV 1972	I 1972	I 1973	IV 1972	I 1972	I 1973	IV 1972	I 1972
----- Cents -----													
											----- Percent -----		
Beef, Choice .....	Pound	129.2	113.2	114.4	87.4	70.1	73.7	41.8	43.1	40.7	68	62	64
Lamb, Choice .....	Pound	131.8	122.1	114.4	74.5	61.1	60.6	57.3	61.0	53.8	57	50	53
Pork .....	Pound	98.1	87.7	79.0	63.7	51.7	43.8	34.4	36.0	35.2	65	59	55
Butter .....	Pound	87.5	87.2	87.5	57.6	58.9	59.2	29.9	28.3	28.3	66	68	68
Cheese, American process .....	$\frac{1}{2}$ pound	56.4	55.1	53.6	25.9	24.7	23.8	30.5	30.4	29.8	46	45	44
Ice cream .....	$\frac{1}{2}$ gallon	86.9	85.7	85.9	30.1	29.7	29.1	56.8	56.0	56.8	35	35	34
Milk, evaporated .....	14 $\frac{1}{2}$ -ounce can	20.7	20.2	20.2	9.7	9.4	9.4	11.0	10.8	10.8	47	47	47
Milk, fresh:													
Home delivered .....	$\frac{1}{2}$ gallon	71.3	69.5	68.5	31.7	30.5	30.0	39.6	39.0	38.5	44	44	44
Sold in stores .....	$\frac{1}{2}$ gallon	61.5	59.8	59.8	31.7	30.5	30.0	29.8	29.3	29.8	52	51	50
Chicken, frying .....	Pound	49.9	41.5	41.4	28.3	20.0	19.9	21.6	21.5	21.5	57	48	48
Turkey .....	Pound	57.5	55.7	55.6	32.7	29.5	28.9	24.8	26.2	26.7	57	53	52
Eggs, large Grade A ..	Dozen	69.7	57.8	51.4	46.3	35.6	28.4	23.4	22.2	23.0	66	62	55
Bread, white:													
All ingredients ....	Pound	25.1	24.7	24.5	4.6	4.4	3.5	20.5	20.3	21.0	18	18	14
Wheat .....	Pound	-	-	-	3.4	3.4	2.6	-	-	-	14	14	11
Bread, whole wheat ..	Pound	40.3	39.5	39.2	4.1	3.9	3.1	36.2	35.6	36.1	10	10	8
Cookies, sandwich ...	Pound	56.4	55.3	55.1	6.9	6.4	6.4	49.5	48.9	48.7	12	12	12
Corn flakes .....	12 ounces	30.7	30.8	31.7	2.3	2.1	1.9	28.4	28.7	29.8	7	7	6
Flour, white .....	5 pounds	64.4	60.3	59.9	27.8	27.2	20.7	36.6	33.1	39.2	43	45	35
Rice, long grain .....	Pound	25.2	23.3	24.1	11.5	11.7	8.9	13.7	10.6	16.0	46	44	34
Apples .....	Pound	25.4	23.8	22.3	9.3	8.3	7.0	16.1	15.5	15.3	37	35	31
Grapefruit .....	Each	17.4	20.5	16.4	3.9	4.8	3.7	13.5	15.7	12.7	22	23	23
Lemons .....	Pound	35.7	35.1	34.4	10.4	10.0	9.3	25.3	25.1	25.1	29	28	27
Oranges .....	Dozen	98.0	95.6	91.9	21.5	20.3	20.0	76.5	75.3	71.9	22	21	22
Cabbage .....	Pound	15.8	13.8	15.5	5.5	4.3	4.3	10.3	9.5	11.2	35	31	28
Carrots .....	Pound	22.7	22.1	22.8	7.6	7.9	8.2	15.1	14.2	14.6	33	36	36
Celery .....	Pound	24.1	22.1	28.0	7.8	6.2	9.4	16.3	15.9	18.6	32	28	34
Cucumbers .....	Pound	37.0	23.8	32.7	17.1	6.6	14.9	19.9	17.2	17.8	46	28	46
Lettuce .....	Head	37.3	37.7	35.8	12.5	12.7	13.5	24.8	25.0	22.3	34	34	38
Onions .....	Pound	24.4	19.4	14.5	12.8	6.8	4.6	11.6	12.6	9.9	52	35	32
Peppers, green .....	Pound	53.7	42.1	48.8	19.1	13.6	18.1	34.6	28.5	30.7	36	32	37
Potatoes .....	10 pounds	111.3	97.3	83.6	35.6	24.7	19.1	75.7	72.6	64.5	32	25	23
Tomatoes .....	Pound	52.9	48.4	46.7	21.1	17.5	14.0	31.8	30.9	32.7	40	36	30

Continued--

Table 12.--Farm food products: Retail price, farm value, farm-retail spread, and farmer's share of retail price, January-March 1973, October-December 1972 and January-March 1972

Products	Retail unit	Retail price			Farm value			Farm-retail spread			Farmer's share							
		I 1973	IV 1972	I 1972	I 1973	IV 1972	I 1972	I 1973	IV 1972	I 1972	I 1973	IV 1972	I 1972					
													Cents			Percent		
Peaches, canned.....	No. 2½ can	38.7	37.7	37.3	7.1	7.1	7.3	31.6	30.6	30.0	18	19	20					
Pears, canned.....	No. 2½ can	55.1	54.4	52.9	12.1	12.1	9.4	43.0	42.3	43.5	22	22	18					
Beets, canned.....	No. 303 can	22.0	21.3	20.2	1.3	1.3	1.3	20.7	20.0	18.9	6	6	6					
Corn, canned.....	No. 303 can	24.4	24.3	24.7	2.8	2.8	2.7	21.6	21.5	22.0	11	12	11					
Peas, canned.....	No. 303 can	26.5	26.3	26.6	4.0	4.0	3.9	22.5	22.3	22.7	15	15	15					
Tomatoes, canned.....	No. 303 can	23.7	23.3	22.6	2.8	2.8	2.7	20.9	20.5	19.9	12	12	12					
Lemonade, frozen.....	6-ounce can	14.6	14.6	14.4	3.8	3.5	3.4	10.8	11.1	11.0	26	24	24					
Orange juice, frozen..	6-ounce can	25.1	24.9	25.0	9.4	10.6	9.5	15.7	14.3	15.5	37	43	38					
Potatoes, french fried, frozen.....	9 ounces	16.8	16.7	16.5	3.3	2.6	2.2	13.5	14.1	14.3	20	16	13					
Peas, frozen.....	10 ounces	23.3	22.8	22.2	3.6	3.6	3.6	19.7	19.2	18.6	15	16	16					
Beans, dried.....	Pound	25.7	25.6	24.3	9.6	9.2	12.3	16.1	16.4	12.0	37	36	51					
Margarine.....	Pound	32.7	32.9	33.2	8.2	6.7	9.2	24.5	26.2	24.0	25	20	28					
Peanut butter.....	12-ounce jar	51.1	50.6	50.5	18.4	17.6	16.8	32.7	33.0	33.7	36	35	33					
Salad and cooking oil.....	24-oz. bottle	63.1	63.3	65.8	13.1	11.0	15.0	50.0	52.3	50.8	21	17	23					
Vegetable shortening..	3 pounds	96.8	96.6	98.6	30.0	24.0	33.2	66.8	72.3	65.4	31	25	34					
Sugar.....	5 pounds	71.2	70.1	69.1	31.6	30.8	30.1	39.6	39.3	39.0	44	44	44					
Spaghetti, canned....	15½-oz. can	19.9	19.8	19.1	2.4	2.3	2.1	17.5	17.5	17.0	12	12	11					

1/ Primary products in the farm-food market basket.

2/ Preliminary.

Table 13.--The market basket of farm foods by product group: Retail cost, farm value, farm-retail spread, and farmer's share of retail cost, quarterly 1972-73

Item	1972				1973
	I	II	III	IV	I
----- Dollars -----					
Retail cost					
Market basket .....	1291.36	1297.85	1323.42	1330.63	1413.83
Meat .....	410.56	413.38	431.76	431.82	476.50
Dairy .....	228.32	229.74	227.89	230.01	234.42
Poultry .....	50.63	49.99	51.19	50.73	59.95
Eggs .....	37.26	35.22	37.67	41.86	50.30
Bakery and cereal:					
All ingredients .....	192.15	192.88	191.47	192.33	196.01
Grain .....	-	-	-	-	-
Fresh fruits .....	53.52	57.54	64.05	60.34	61.00
Fresh vegetables .....	87.73	86.77	88.15	90.40	101.06
Proc. fruits and veg. ...	127.40	127.99	127.72	129.13	130.39
Fats and oils .....	45.66	45.60	44.86	44.83	44.60
Miscellaneous .....	58.14	58.73	58.66	59.17	59.60
Farm value					
Market basket .....	506.81	510.67	533.96	534.40	614.46
Meat .....	234.95	239.72	251.28	247.18	294.20
Dairy .....	108.42	108.59	108.58	110.05	112.92
Poultry .....	24.52	23.57	25.96	24.71	33.95
Eggs .....	20.57	18.18	22.13	25.80	33.42
Bakery and cereal:					
All ingredients .....	29.94	30.32	31.55	36.34	38.01
Grain .....	22.41	22.76	24.29	29.13	29.90
Fresh fruits .....	15.41	16.50	20.02	19.22	20.44
Fresh vegetables .....	27.38	27.35	29.90	27.82	36.44
Proc. fruits and veg. ...	23.69	24.14	23.89	24.08	23.94
Fats and oils .....	12.97	13.42	11.72	10.04	11.79
Miscellaneous .....	8.96	8.88	8.92	9.15	9.35
Farm-retail spread					
Market basket .....	784.55	787.18	789.46	796.23	799.37
Meat .....	175.61	177.66	180.48	184.64	182.30
Dairy .....	119.90	121.15	119.31	119.96	121.50
Poultry .....	26.11	26.42	25.23	26.02	26.00
Eggs .....	16.69	17.04	15.54	16.06	16.88
Bakery and cereal:					
All ingredients .....	162.21	162.56	159.92	155.99	158.00
Grain .....	-	-	-	-	-
Fresh fruits .....	38.11	41.04	44.03	41.12	40.56
Fresh vegetables .....	60.35	59.42	58.25	62.58	64.62
Proc. fruits and veg. ...	103.71	103.85	103.83	105.05	106.45
Fats and oils .....	32.69	32.18	33.14	34.79	32.81
Miscellaneous .....	49.18	49.85	49.74	50.02	50.25
Farmer's share					
----- Percent -----					
Market basket .....	39.2	39.3	40.3	40.2	43.5
Meat .....	57.2	58.0	58.2	57.2	61.7
Dairy .....	47.5	47.3	47.6	47.8	48.2
Poultry .....	48.4	47.1	50.7	48.7	56.6
Eggs .....	55.2	51.6	58.7	61.6	66.4
Bakery and cereal:					
All ingredients .....	15.6	15.7	16.5	18.9	19.4
Grain .....	11.7	11.8	12.7	15.2	15.3
Fresh fruits .....	28.8	28.7	31.3	31.9	33.5
Fresh vegetables .....	31.2	31.5	33.9	30.8	36.1
Proc. fruits and veg. ...	18.6	18.9	18.7	18.6	18.4
Fats and oils .....	28.4	29.4	26.1	22.4	26.4
Miscellaneous .....	15.4	15.1	15.2	15.5	15.7