

THE Marketing and Transportation SITUATION

BUREAU OF AGRICULTURAL ECONOMICS
UNITED STATES DEPARTMENT OF AGRICULTURE

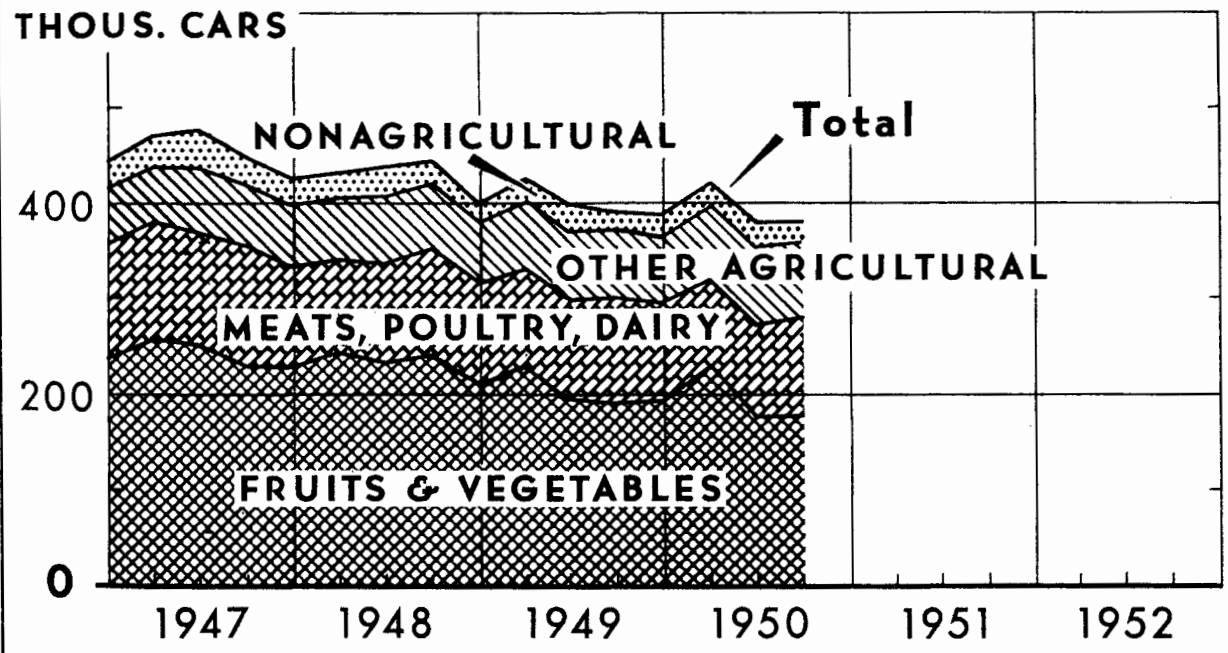
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AUGUST 1951

REFRIGERATOR CARLOADS ORIGINATED

By Class of Commodity, Quarterly Data



U. S. DEPARTMENT OF AGRICULTURE

NEG. 48267-XX BUREAU OF AGRICULTURAL ECONOMICS

The total number of carloads originated in refrigerator cars has been declining moderately in recent years, probably reflecting, in part, the effects of diversion of perishable traffic to trucks. Heavier average loadings per car also

is a factor. The demand for refrigerator cars comes almost entirely from shippers of agricultural products, with roughly half of the carloads consisting of fruits and vegetables.

Table 1.- THE MARKET BASKET: Retail cost of 1935-39 average annual purchases of farm food products by a family of three average consumers, farm value of equivalent quantities sold by producers adjusted for value of byproducts, marketing margin, and farmer's share of the consumer's food dollar, 1913-51

Year	Retail cost 1/	Farm value adjusted for byproducts 2/	Margin	Marketing charges (including tax and payment adjustments) 3/	Farmer's share 4/	Marketing charges as percentage of retail cost
	Dollars	Dollars	Dollars	Dollars	Percent	Percent
1913-15 average	267	121	146	146	45	55
1920	567	244	323	323	43	57
1922	408	162	246	246	40	60
1929	436	183	253	254	42	58
1933	277	90	187	186	32	67
1935-39 average	341	135	206	204	40	60
1940	319	127	192	192	40	60
1941	349	154	195	194	44	56
1942	409	195	214	213	48	52
1943	459	236	223	229	51	50
1944	451	233	218	230	52	51
1945	459	246	213	229	54	50
1946	528	279	249	258	53	49
1947	644	335	309	308	52	48
1948	690	350	340	340	51	49
1949	646	308	338	337	48	52
1950	645	308	337	337	48	52
1950 - May	634	300	334	334	47	53
June	653	5/ 303	5/ 350	5/ 350	46	54
July	671	315	356	356	47	53
Aug.	662	316	346	346	48	52
Sept.	658	320	338	338	49	51
Oct.	657	316	341	340	48	52
Nov.	659	322	337	336	49	51
Dec.	681	336	345	344	49	51
1951 - Jan.	709	357	352	352	50	50
Feb.	726	371	355	355	51	49
Mar.	724	366	358	357	51	49
Apr.	718	363	355	355	51	49
May	5/ 723	358	5/ 365	365	5/ 50	50
June	724	355	369	369	49	51

1/ Calculated from retail prices collected by the Bureau of Labor Statistics and the Bureau of Agricultural Economics.

2/ Payments to farmers for equivalent quantities of farm produce minus imputed value of byproducts obtained in processing.

3/ Marketing charges equal margin minus processor taxes plus Government payments to marketing agencies.

4/ Farmer's share of consumer's food dollar calculated from farm value before addition of producer payments.

5/ Revised.

THE MARKETING AND TRANSPORTATION SITUATION

Approved by the Outlook and Situation Board August 23, 1951

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RECENT FARM-RETAIL PRICE SPREADS 1/

The farmer's share of the dollar that consumers spent for farm foods averaged about 49 cents in June and July, the lowest figure recorded for any month this year. 2/ Total charges for marketing the farm foods in the "market basket" reached a new high in June, with a further increase estimated for July. 3/ The retail cost of these foods was relatively unchanged from May to June, but preliminary estimates for July indicate a rise of about 0.5 percent. Prices received by farmers for food products in July were almost 5 percent below the record reached in February this year while the retail cost has remained at substantially the same level. Thus, practically all of the decrease in farm prices has been absorbed by increases in marketing charges.

1/ Based on latest available retail-price data.

2/ Estimates of the division of the retail price between farmers and marketing agencies are based on comparisons of concurrent prices at the farm and retail levels, except for seasonal canning crops, dried fruits, sugar, and vegetable-oil products. During a period of rising prices, the farmer's share calculated on this basis is somewhat higher than the share which would be obtained by comparing prices received by farmers for particular lots of products with prices paid by consumers for the same lots after they have moved through the marketing system. The reverse is true in periods of declining prices.

3/ The "market basket" contains quantities of farm food products equal to the 1935-39 average annual purchases per family of three average consumers. Full details are presented in Agricultural Information Bulletin No. 4, "Price Spreads Between Farmers and Consumers."

Preliminary Estimates
for July

Retail cost of the farm foods in the market basket increased from an annual rate of \$724 in mid-June to \$728 in mid-July, a new record. 4/ Retail prices were higher for fluid milk, chickens, eggs, oranges, and some of the fresh vegetables.

At an annual rate of \$355, the farm value of the market-basket foods in July was unchanged from June. Increases in the farm value of dairy products, poultry and eggs, and fruits and vegetables were offset by decreases in the meat-products and bakery-and-other-cereal-products groups.

Total marketing charges for these farm products rose from mid-June to mid-July for the third consecutive month. Increases were noted in all commodity groups except dairy products and the miscellaneous-products group.

New High Recorded for
Marketing Charges in June

Charges for marketing the farm foods in the market basket equaled an annual rate of \$369 in June, an increase of about 1 percent over the record established in the preceding month. An increase of 3 percent in marketing charges for fruits and vegetables accounted for practically all the gain in total charges from May to June. Only minor changes were recorded in charges for marketing the other commodity groups.

Marketing charges in June were 5 percent higher than in the same month of 1950. Charges were higher for all commodity groups except meat products which were 5 percent below a year ago. The largest increases in marketing charges were in the following groups: Fruits and vegetables, bakery and other cereal products, and dairy products.

4/ Retail cost of the family "market basket" of farm foods products is substantially lower than total retail costs per family of current consumption of all foods. The retail cost of the market basket does not include imported foods, fishery products, or other foods of nonfarm origin; it does not include the value of food consumed in households on farms where produced; it measures the cost at current prices of 1935-39 average prewar purchases and does not allow for the currently higher level of per capita food consumption, which is 10 to 15 percent above the level for 1935-39; and does not include additional mark-ups for preparation and service of meals purchased in eating places. Allowance for these additional categories indicates that total retail cost of all foods currently consumed is roughly 50 percent higher than the retail cost of the market basket.

Farm Value of Food Products
Continued to Decline in June

Farm value of food products in the market basket decreased from an annual rate of \$358 in May to \$355 in June, which marked the fourth consecutive monthly decline. The June figure was almost 5 percent below the record high of \$371 established in February 1951 and January 1948. The farm value of food products in June 1951, however, was 17 percent above a year ago, with higher values in all commodity groups except fruits and vegetables.

The decline from mid-May to mid-June was caused mainly by a decrease of 6 percent in the farm value of the fruits-and-vegetables group. Farm prices of citrus fruits and some of the truck crops in June were substantially below May levels. Small declines were also noted in the poultry-and-eggs and bakery-and-other-cereal-products groups, while the farm value of meat products increased slightly from May to June.

Retail Cost Unchanged from
May to June

At an annual rate of \$724, the retail cost of the market basket of farm foods in June was approximately equal to the May level and only slightly below the record of \$726 established in February 1951. Except for some fresh vegetables, there were no significant changes in retail prices of individual commodities from May to June.

Retail cost in June 1951 was 11 percent greater than in June a year ago, with higher costs in all commodity groups. Increases ranged from 3 percent for fruits and vegetables to 22 percent for the poultry-and-eggs group.

Farmer's Share of Consumer's Food
Dollar 49 Cents in June

Farmers received 49 cents of the dollar that consumers spent for farm foods in June, compared with the 51 cents received in February, March, and April of this year and 46 cents in June 1950.

In June 1951, farmers received 31 cents of the consumer's food dollar spent for fruits and vegetables, 3 cents below a year earlier. The farmer's share in June this year was higher than in June 1950 for all other commodity groups, with the largest increases in poultry and eggs and meat products.

TRANSPORTATION SITUATION

Increase in Freight Rates

The Interstate Commerce Commission granted permission August 2 to the railroads to increase rates generally 6 to 9 percent for a period of 18 months. These increases include the 2 and 4 percent increases granted by the Commission last March, and are based on further consideration of the record (Ex Parte 175). A 9-percent increase was granted on movements within the highly industrialized northeastern section of the country (Official or Eastern territory) and 6 percent on movements elsewhere.

There were several exceptions of interest to agriculture, including "hold-downs" in which the maximum increases are limited to a specified number of cents per 100 pounds when the application of the percentage increase would exceed that amount. The maximum increase for fruits, vegetables, melons, and canned food products (not frozen) is 6 cents per 100 pounds. It is 4 cents on sugar. The increases in grain and grain products were made uniform at 6 percent in all areas.

"Hold-downs" have been made in most recent rate actions for such commodities as fruits and vegetables, sugar, and coal. These exceptions were made primarily to lessen the increase in freight-rate differentials, and thereby tend to maintain the existing competitive relationships among areas. The hold-down on canned goods (not frozen) is somewhat unusual, as it was applied only in the first major postwar case (Ex Parte 162).

Switching charges are to be increased 9 percent in the East and 6 percent elsewhere. Protective services and most other service charges are to remain unchanged.

Railroad Class Rates Ordered to be Made Uniform

A new landmark in transportation regulation was reached on July 26 when the Interstate Commerce Commission issued decisions in two cases relating to commodity classifications and class rates. ^{1/} The issues have been fought bitterly both before the Commission and in the Federal courts for many years by agricultural as well as by manufacturing and other groups.

These two cases involve commodities moving on interstate class rates, which represent about 3 percent of the total carload traffic and not over 5 percent of the less-than-carload traffic, on a revenue basis. The great bulk of freight moves on "commodity rates" which apply specifically to individual commodities. In addition to commodity rates, there are innumerable "exception rates or ratings" in which specific exceptions are made to class rates.

^{1/} I. C. C. Docket No. 28300, "Class Rate Investigation, 1939," and Docket No. 28310, "Consolidated Freight Classifications," both cases decided July 26, 1951. The complexity of the issues is indicated somewhat by the fact that there have been two earlier reports in both cases and that the recent supplemental report on the rate investigation contains 146 pages of text plus 33 pages of appendices.

In the Consolidated Freight Classifications case, the Commission ordered the railroads of the country to file within the next 4 months a new classification of commodities that would be applied uniformly throughout the country. In the companion case, known as "Class Rate Investigation," the Commission presented a scale of rates which would be reasonable ^{2/} for use in conjunction with the uniform commodity classification for shipments east of the Rocky Mountains. Rates in the Mountain-Pacific area and on transcontinental traffic were not under consideration in this proceeding, but are currently under investigation and probably will be integrated into the new pattern later. The two reports represent important steps in the long litigation, but are not the end of the action. In fact, a press release issued by the Secretary of the Commission states: "The expectation is that the classification and scale shall go into effect simultaneously, but they will be subject to possible suspension for investigation of portions thereof."

The Commission's decisions in the two cases do not directly affect either commodity or exception rates. There appears to be a strong tendency for the number of exceptions to increase when the general level of rates rises, in part because of the resistance to a change in the freight-rate differentials where market competition is keen. The growth of motor carrier competition and several other factors also have been cited as reasons for exceptions.

Railroad Car Supply in Relation to Demand

The boxcar supply situation improved considerably between last April and mid-July, but again became serious at the beginning of August when the average daily shortage was nearly 7,500. The recent floods and delayed harvest of grains intensified the shortage which will become more serious this fall during the season of heavy grain movement.

The refrigerator-car supply situation also has improved since March, when the carriers reported a shortage of more than 2,000 cars daily. That was the most severe shortage reported at any time in the period for which comparable reports are available, as shown by the dark area on figure 1. The daily average surplus reached a peak this year of nearly 6,800 cars at the end of April, but by the first week of August had dwindled to a narrow margin of about 800 cars daily. The geographic location of the cars at present apparently is exceptionally good, as this is one of the few instances in which shortages have not appeared when the surplus was as low as 1,000 cars daily. In fact, although shortages normally appear when the surplus is considerably above current levels, there is no necessarily fixed relationship between the two. It is largely a matter of strategically moving empty cars to the points of origin, when needed. A poorly located supply of cars could easily result in both a large surplus and shortage at the same time.

^{2/} Technically, the Commission found the scale of rates to be "just and reasonable," but did not order the railroads to adopt them at this time.

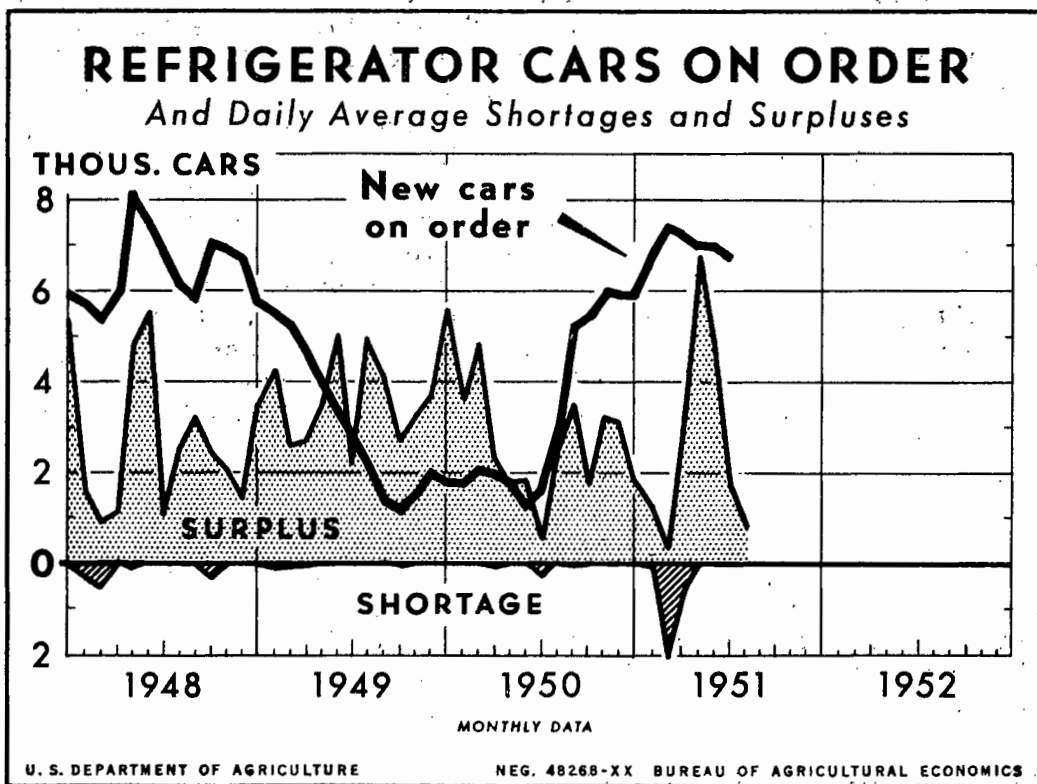


Figure 1

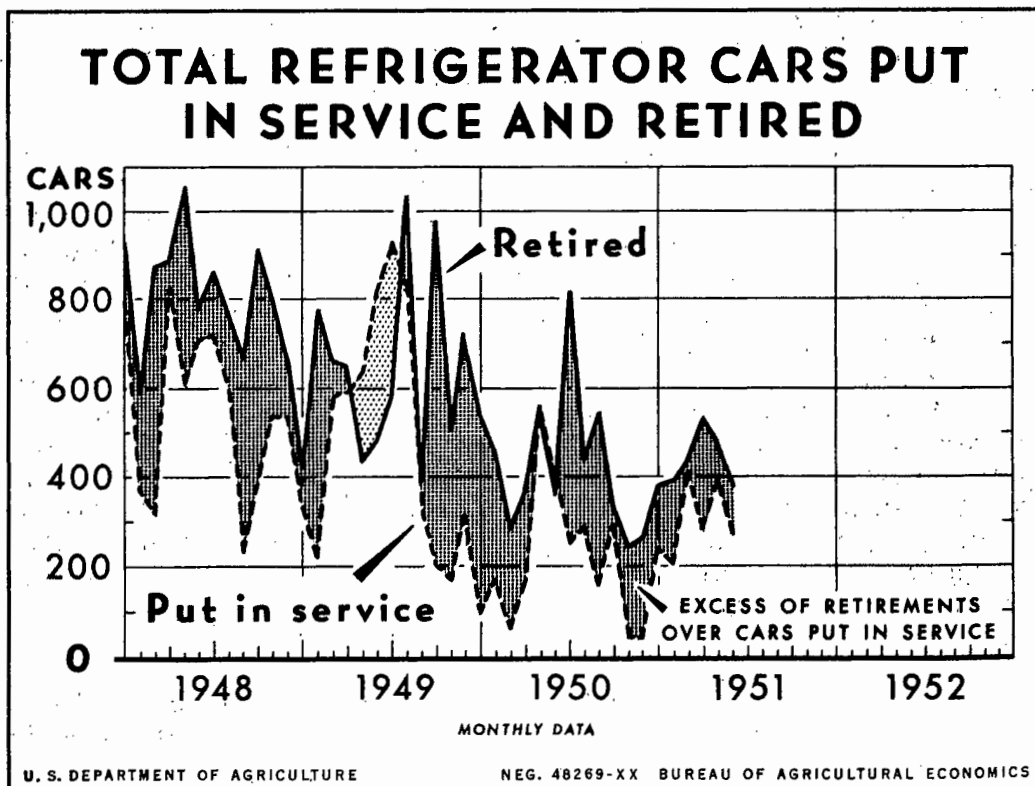


FIGURE 2

The backlog of new refrigerator cars on order by railroads and private car lines rose sharply after the middle of 1950 and is currently about 6,700 (fig. 1). Car production in recent years has not kept pace with retirements, so that the total number of cars in service has declined almost every month. The dark area in figure 2 shows the extent to which retirements exceed new cars put in service (technically called "installed"). Installations exceeded retirements (light area) only during 4 months in the 3 years and 6 months shown on the chart.

Nature of Demand for Refrigerator Cars

Virtually all of the demand for refrigerator cars comes from shippers of agricultural products, including not only fruits, vegetables, and meats, but also such manufactured items as canned goods. In fact, only slightly more than 5 percent of all carloads originated in refrigerator cars during the last 3 years were not agricultural products. Roughly, half of the total carloads were fruits and vegetables, about one-quarter were meats, poultry, and dairy products, and slightly less than one-fifth were manufactured agricultural products selected from the general class called "manufactures and miscellaneous" in the Interstate Commerce Commission's data. ^{3/} As shown by the cover chart, the total number of carloads originated in refrigerator cars has been decreasing gradually for years, reflecting the inroads of truck competition for perishable shipments. More details are shown in table 2. All commodities, except lettuce and cured meats, showed declines between 1947 and 1950, most of which were substantial.

Table 2.- Estimated number of carloads of selected commodities originated in refrigerator cars, 1947 and 1950

Commodity	1947	1950	Change
	1,000	1,000	1,000
	<u>carloads</u>	<u>carloads</u>	<u>carloads</u>
Apples	47	34	- 13
Bananas	101	93	- 8
Citrus fruits	147	79	- 68
Lettuce	78	78	---
Potatoes	264	221	- 43
Other fruits and vegetables ^{1/}	349	275	- 74
Fresh meats	300	258	- 42
Cured meats	70	79	9
Other "animal products"	110	58	- 52
Manufactures, agricultural products ..	248	302	54
Nonagricultural products	129	88	- 41
Total	1,843	1,565	- 278

^{1/} Including miscellaneous crops.

Derived from statistics of carloadings and type of car used, reported by the Interstate Commerce Commission.

^{3/} These estimates are based on the Interstate Commerce Commission's reports showing the total number of carloads of each commodity originated each year coupled with the Commission's waybill sample showing the proportion of each type of car used for each product.

Diversion from Rail to Truck

Specific measurements of diversion of selected fruits and vegetables at 10 large markets confirm the general conclusion mentioned concerning one of the causes for the downward trend of refrigerator carloadings. ^{4/} The diversion of potatoes was the largest in actual volume for any of the fruits and vegetables. As shown in table 3, the railroads would have had almost 5,000 more carloads of potatoes than in 1950 if there had been no diversion since 1948. No diversion was reported for lettuce, but the geographic factors are unique for that crop. By 1948, trucks were used almost exclusively for short hauls. The only remaining possibility for large-scale diversion to the 10 markets was from California and Arizona to St. Louis and points east. Such long hauls have not yet become attractive to trucks, except under exceptional circumstances.

Table 3.- Diversion from rail to truck of selected fresh fruits and vegetables from leading sources of supply to 10 large markets between 1948 and 1950

Commodity	1950 unloads		Diverted from rail to truck in 1950 compared with 1948 ^{1/}			
	Rail	Truck ^{2/}	Total	Unloads diverted	Percentage diverted of 1950 rail unloads	Percentage diverted of 1950 truck unloads
	1,000 unloads	1,000 unloads	1,000 unloads	1,000 unloads	Percent	Percent
Oranges	26.3	10.7	37.0	2.3	9	21
Grapofruit ..	7.8	5.0	12.8	1.4	18	28
Apples	8.4	16.3	24.7	.9	11	5
Potatoes	46.3	33.4	79.7	4.9	11	15
Lettuce	24.0	13.6	37.6	0	0	0
Tomatoes	12.8	16.2	29.0	1.3	10	8
Cabbage	3.7	13.7	17.4	1.2	32	9
Celery	9.6	11.2	20.8	.6	6	5
Total	138.9	120.1	259.0	12.6	9	10

^{1/} Diversion is measured by the differences between the actual unloads by rail in 1950 and the unloads that would have moved by railroad if that carrier had precisely the same relative share of the volume from each origin to each destination as it did in 1948.

^{2/} Truck estimates are based on incomplete reports. The degree of incompleteness is believed about the same for both years so that estimates of diversion are reasonably accurate.

Derived from unload reports issued by Market News Service, Fruit and Vegetable Branch, Production and Marketing Administration.

^{4/} For full description of method, see Church, Donald E., "Diversion of Florida Orange Traffic from Rail to Truck," June 1950, The Marketing and Transportation Situation.

MARKETING POTENTIAL FOR OILSEED PROTEIN MATERIALS
IN INDUSTRIAL USES ^{1/}

By

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Four principal oilseed crops make large contributions to farmers' incomes. They are cottonseed, soybeans, peanuts, and flaxseed. In 1949 they contributed considerably more than a billion dollars to gross farm incomes. The extracted oil was the largest source of income from these crops, but the meal, a residual from the oil extraction process, is an increasingly valuable source of protein materials for feed, food, and industrial uses.

The dry protein content of oilseed meals reached almost 7 billion pounds during 1949. About 98 percent was utilized for feed and fertilizer. The remainder was almost evenly divided between food and industrial uses. Although industry used a small part of the total supply, the 58 million pounds utilized provided a higher return per unit to the supplier than the portion used for feed. There are indications that continuing research by industrial and governmental laboratories could result in increasing industrial utilization of oilseed proteins five times the 1949 volume within the next few years.

The proportion of protein materials used by industry in many specific items has been decreasing, but total utilization of protein has increased because of the growth of the industry. The relative decline in industrial use of protein is due chiefly to the use of starches and synthetics in adhesives. The general feeling among those interviewed during this study indicates that the large store of basic information available regarding the competing starches and synthetics has placed these commodities in a better competitive position than protein materials. Research on the basic characteristics of starches and in the application of synthetics to specific uses has far outdistanced the study of the physical and chemical characteristics of the protein molecules.

Objectives and Methodology.- This study was designed to ascertain the present status of oilseed protein meals in industrial uses and to measure the potential use that might reasonably be expected within the next few years.

A field survey was made to obtain opinions of representatives of selected industrial organizations that supply or use oilseed protein materials or competing products. A total of 222 interviews with representatives of 195 companies were completed. Most of the information was obtained in

^{1/} This is a report of research conducted with contract funds authorized by the Research and Marketing Act of 1946. The contract to perform the study was awarded to Arthur D. Little, Inc., a private research firm. The Bureau of Agricultural Economics and the Bureau of Agricultural and Industrial Chemistry cooperated in planning the study. A complete report of the results is given in Technical Bulletin 1043, by Shelby A. Robert, Jr., and Philip B. Dwoskin, which is now being published by the Department of Agriculture.

personal interviews. The remainder of the interviews were made by telephone, usually after letters had been sent. Less than a dozen interviews were based on correspondence. The personal interviews were mainly in large industrial areas scattered from Maine to Washington and from California to Georgia. Interviewing on this study took place from September 1949 to July 1950.

Market Potential For Oilseed Proteins

Nearly all of the nonfood industrial uses for oilseed proteins have been achieved at the expense of casein, yet their total use is still no more than that of casein. Further inroads on casein markets are expected by research men as improvements in protein taken from oilseed meals continue, unless costs of casein become more favorable than those of oilseed proteins. This is a possibility for the immediate future but is generally considered improbable for the long term.

Protein products derived from soybeans are by far the leading source of oilseed proteins used in industry. 2/ Other oilseed meals, such as cottonseed and peanut, account for a relatively minor share. Small quantities of other vegetable proteins, principally zein, a protein derived from corn gluten, are used industrially. The following tabulation shows the quantities of oilseed- and vegetable-protein products used industrially in 1949.

<u>Item</u>	<u>Dry protein</u>
Industrial food uses	64 Mil. lb.
Industrial nonfood uses	58 Mil. lb.
Soybean isolates	27.0
Soybean meal	20.5
Zein	5.0
All other	<u>5.5</u>
Total industrial use	122 Mil. lb.

Textiles

Fibers made of regenerated or modified oilseed proteins represent one of the four principal opportunities for oilseed proteins in the textile industry. It is expected also that the use of oilseed proteins for warp sizing, textile finishing, and tire cords may expand.

Regenerated Protein Fibers 3/- Utilization of regenerated protein fibers constitutes one of the most promising possibilities for increased industrial use of oilseed proteins. The potentialities of the development of these fibers generally provide the best justification for fundamental research on proteins.

2/ The contract specifically excluded from this study industrial food, feed, and fertilizer uses of protein materials. This was done to provide a survey of industrial nonfood uses of protein materials as intensive as possible with the funds available.

3/ The term "regenerated protein fibers" as used here means protein fibers which have been manufactured by dissolving protein in a solvent, extruding them through a die, and subsequently coagulating them to form a filament. The term "regenerated" is intended to distinguish them from "natural" protein fibers such as wool or silk.

Regenerated protein fibers appear to have characteristics -- notably the combination of warmth and resilience -- which, when more fully developed, will permit them to compete in substantial parts of the market against any synthetic now known to be in production or under active development. Their disadvantages -- notably poor wet strength -- are being overcome steadily by research. It appears that further improvement can be made, especially if knowledge of protein molecular structures is broadened.

Two types of regenerated protein fibers, Vicara (a staple fiber from zein) and Caslen (a monofilament from casein) are in production in the United States. Fibers based on peanut protein have been developed by the largest British rayon company and are being commercially produced by the largest British chemical company. Hence, although world production in 1951 will probably not be much more than about 5 million pounds (using an equivalent quantity of pure protein), opinions of respondents interviewed in this study indicate that the 1955 production could become 10 times as large, with further growth beyond that. The size of the potential market will depend not only on the ability of the fibers to compete in price with existing and prospective synthetic fibers, but also on improved knowledge by the textile industry on how to utilize these new fibers to the fullest advantage. As mentioned previously, more research of a relatively basic nature will be required if regenerated protein fibers are to compete more effectively with the newer synthetic fibers now on the market or soon to appear.

Regenerated protein fibers may supplement or replace in part some natural fibers now in use. Even part of the manufacturing area held by nylon and some other synthetics is a current objective of at least one large company now manufacturing regenerated fibers. This company is basing its expectations on the exceptional resilience which these fibers possess but which most synthetics lack. These regenerated protein fibers might prove to be a valuable substitute for imported fibers which might be cut off by interruptions to shipping.

It is much too early to estimate the potential market for regenerated protein fibers or the newer synthetic fibers in staple form, either in replacing natural protein fibers or in noncompetitive uses. The growth of our population is expanding the total market for fibers. Moreover, the lower cost and the "tailor-made" possibilities of these regenerated fibers suggest their potential use for many purposes for which natural protein fibers are now too expensive or are not well suited, just as rayon and nylon have developed many markets not previously held by silk. It cannot be predicted now to what extent oilseed proteins may continue their present dominance in this field. Other proteins that are now cheap -- from fish-processing plants, meat and poultry packers, wool processors, and shoddy mills -- are available.

Warp Sizing. -- Warp sizing offers another opportunity for oilseed proteins. It is used in sizing rayon threads before they are woven. This is done to toughen the fibers during weaving; the sizing is removed later. The potential market is estimated at about 12 million pounds per year. Its achievement by oilseed proteins would probably require more basic development than has yet occurred. The increase in the use of synthetics for warp sizing would probably be reversed if prices for proteins should drop substantially. Modernization of warp sizing mills may aid the position of oilseed proteins in this industry.

Textile Finishing.- Textile finishing is divided into hundreds of specialized applications. Oilseed proteins may eventually be adapted for use in some of these, probably in small specialties; but such adaptation seems worth trying only by specialty companies that serve or operate in the textile-finishing industry. The consensus seems to be that the potential market for oilseed proteins for this purpose is relatively small. In general, synthetic resin compositions are being used, or considered, for those applications for which proteins might be best suited.

Cloth from which window shades are made has represented the principal textile-finishing use for proteins; its outlook seems too poor to warrant any considerable direct effort toward this use on behalf of oilseed proteins. A larger quantity (1 million pounds of casein and oilseed proteins per year) is being used as an undersize for resin coatings, but casein is used principally. Oilseed proteins have apparently obtained only limited acceptance for this purpose; synthetics are actively and increasingly competing.

Paper Coating

Oilseed proteins have been used in the paper industry in various quantities for pigment coating, wallpaper coating, insulating-board coating and plying, in adhesives for plying paper and board, and for paper sizing. They have been tried with variable success as adhesive coatings and as clear coatings or overcoatings for paper.

Pigment Coating.- Soy-protein isolate, a refined product of soy meal, is widely substituted for casein in the pigment coating of paper and paper-board, for the purpose of binding pigments to the paper stock and to each other. This is much the largest use of proteins by the paper industry -- about 14.5 million pounds of soy-protein isolate and 20 million pounds of casein are used annually. At present, use of oilseed proteins in this industry is being threatened by synthetics and starch coatings. Development of better spreading properties in oilseed proteins and further expansion in the demand for water-resistant coated paper may be offsetting factors

Wallpaper Coating.- In coating wallpaper, soy-protein isolate is preferred to casein because of superior spreading characteristics, brighter finishes, and lower price. About 5 million pounds of soy-protein isolate is used for this purpose annually. In addition, 2.5 million pounds of protein from soy flour is used. Synthetic materials are reducing the use of soy-protein isolate; indications are that it may replace as much as one-third of the present use.

Other uses of oilseed protein material in the paper-coating industry are insulating-board coating and plying, clear coatings, adhesive coatings, and paper size. None of these uses represents any considerable present or future market for oilseed proteins.

Woodworking Glue

Glues for the production of plywood and related veneer products constitute one of the largest nonfood industrial uses of soy meal. The plywood industry uses about 42 million pounds of soy meal annually. It has used peanut and cottonseed meals as adhesives, and retains a moderate interest in the use of peanut meal. The production of plywood and related veneer products uses far more glues than does any other part of the woodworking industry

Soy-meal glues have been losing ground to phenolic resins in their main market -- softwood plywood -- and they have been losing to urea resins in the production of hardwood plywood. In both instances, but especially in relation to phenolics, the situation has tended to become temporarily stabilized. Research on gluing technology, soy-meal characteristics, and the viscosity of soy-meal solutions has helped soy meal to hold its position. The long-term outlook for the production of softwood plywood and trends in the technology of the industry suggest that soy meal will need more research if it is to hold its ground here, but that such research will be fruitful.

Other Uses In Adhesives

The greatest possibilities in this field for additional use of oilseed proteins appear to be in connection with solid fiberboard and in spotting thin cork-board inserts on metal bottle caps. Neither market, however, is expected to exceed a million pounds. The adaptation of soy-protein isolate for use in the manufacture of solid fiberboard shipping boxes has been successful, but the more general potentialities of oilseed proteins are in the production of corrugated fiberboard shipping containers which is the largest market for adhesives. In peacetime, solid fiberboard boxes have constituted only 4 percent of the fiberboard shipping-box industry; they were much more important in wartime for tough export containers. Consumption of casein and oilseed proteins as adhesives for purposes other than woodwork-ing approximates 5 million pounds per year; most of this is casein.

Multiwall paper bags offer a relatively large market for adhesives. Because of their water resistance, oilseed proteins might achieve an attractive minor share of this market.

Water Paints

About 6 million pounds of casein, 2 million pounds of soy proteins and 2 million pounds of corn gluten are currently used in water paints. The 6 million pounds of casein afford a likely target for further development of soy protein and corn gluten. Some tendency toward the use of a declining quantity of protein per gallon of water paint may be offset by a gradually expanding market for water paints, especially for the latex or resin-emulsion type. Synthetic emulsifying agents threaten proteins over the long term, but their current use is limited by their higher costs.

Plastics

Use of oilseed proteins as resin extenders and fillers for plastics is generally considered to be distinctly unattractive. Oilseed proteins might replace the limited and declining quantity of casein now used in plastics. Renewed attempts to secure this market may not be warranted unless based on useful new knowledge about the characteristics of oilseed proteins.

Asphalt Products

Printed felt base, as the least expensive of floor coverings, represents a relatively stable industry, using annually roughly 3 million pounds of protein; casein accounts for 2 million pounds and soy-protein isolate the remaining 1 million pounds. The use of asphalt emulsions in building roads also provides a stable market and one in which the consumption of protein may conceivably be increased. At present, relatively high prices limit such

consumption to less than 1 million pounds per year of protein in a crude form. Cottonseed and soy protein compete with casein, blood, and lignin for this market.

Supplies Of Oilseed Proteins

Supplies of the oilseed proteins seem to be ample in comparison with any prospective need, except for peanut protein. The development of peanut protein in this country depends in part on working out lower costs in the production of peanuts and providing a large and reliable supply for the regular production of oil and meal, rather than diverting only the surpluses to milling. At the present time very little industrial use is made of protein products derived from cottonseed and flaxseed. The outlook for increased use of these proteins is limited unless technological developments overcome the inherent disadvantages for industrial use of these products. Soy protein for industrial uses has been in good supply and of uniform quality while supplies of casein for industrial uses have been irregular and most imports have been poor and variable in quality. These facts have furthered the acceptance of soy-protein isolate in competition with casein.

SELECTED NEW PUBLICATIONS

1. "Buying and Selling Feeder Cattle in Illinois: A Study of Current Practices and Costs," by Walter J. Wills and R. C. Ashby, Ill. Expt. Sta. Bul. 541, Aug. 1950.
2. "California Fresh Tomatoes -- Marketing Channels and Gross Margins from Farm to Consumer -- Summer and Fall, 1948," by Walter D. Fisher, Giannini Foundation of Agricultural Economics Mimeographed Report No. 113, June 1951 (BAE, Calif. Expt. Sta., and Calif. Farm Bur. Federation cooperating).
3. "Cotton Marketing Practices in Selected Communities, 1947-48," Southern Cooperative Series, Bul. 8, Sept. 1950 (Agr. Expt. Stas. of Ala., Ariz., Ga., La., Miss., Mo., S. C., Tenn., Tex.; RMA, BAE, BPISAE, and PMA cooperating).
4. "Marketing Cattle in New Mexico," by A. J. Walrath, N. Mex. Agr. Expt. Sta. Bul. 360, Feb. 1951 (RMA).
5. "Marketing Wisconsin Eggs in a Southern City," by W. F. Mortenson and Truman F. Graf, Dept. Agr. Econ., Univ. of Wisc. (RMA and BAE cooperating). (Processed.)
6. "Purchasing Feeder Cattle, Calves, Sheep, and Lambs," by G. F. Henning and M. B. Evans, Ohio Agr. Expt. Sta. Res. Bul. 707, Mar. 1951.

State publications may be obtained from the Agricultural Experiment Stations of the respective States.

Table 4.- Price spreads between farmers and consumers - food products: Retail price, farm value of equivalent quantities sold by producers, byproduct adjustment, marketing margin, and farmer's share of retail price, June 1951

Commodity	Unit	Retail	Gross farm value	By-product allowance	Net farm value	Margin for by-products	Farmer's share	Government	Marketing	Government	Adjusted	Adjusted	
								taxes (-)	charge (+)	payments to producers	farm value	farmer's share	
	Farm equivalent		Dollars	Dollars	Dollars	Dollars	Dollars	Percent	Dollars	Dollars	Dollars	Dollars	Percent
Market basket			724.48			355.33	369.15	49	-0.34	368.81	0.53	355.86	49
Meat products ^{1/}			225.31	162.58	10.17	152.41	72.90	68		72.90		152.41	68
Dairy products			133.67	72.30		72.30	61.37	54		61.37		72.30	54
Poultry and eggs		1935-39 annual	54.13	35.15		35.15	18.98	65		18.98		35.15	65
Bakery and other cereal products, all ingredients	Farm produce equivalent of annual family purchases	average quantities purchased, per family of three consumers	104.03		27.09	27.88	21.81	27	-.04	76.11	.07	27.95	27
Grain					5.28	21.81		21				21.81	21
Bakery products, all ingredients			2/			13.36			-.04		.07	13.43	
Grain				8.92	1.63	7.29						7.29	
Other cereal products			38.06	18.17	3.65	14.52	23.54	38		23.54		14.52	38
All fruits and vegetables			159.60	49.08		49.08	110.52	31		110.52		49.08	31
Fresh			121.62	40.53		40.53	81.09	33		81.09		40.53	33
Fresh vegetables			74.40	21.80		21.80	52.60	29		52.60		21.80	29
Canned			25.04	4.10		4.10	20.94	16		20.94		4.10	16
Miscellaneous products			47.74			18.51	29.23	39	-.30	28.93	.46	18.97	40
Beef (Good grade) ^{3/}	12.16 lb. Good grade cattle	Found	84.7	69.6	7.9	61.7	23.0	73		23.0		61.7	73
Lamb	12.16 lb. lambs	Found	78.4	68.5	11.4	57.1	21.3	73		21.3		57.1	73
Pork (including lard)	11.41 lb. hogs	Found	45.4	29.8	.5	29.3	16.1	65		16.1		29.3	65
Butter	Butterfat and farm butter	Found	79.3	57.0		57.0	22.3	72		22.3		57.0	72
Cheese, American	10.08 lb. milk	Found	63.0	35.0		35.0	28.0	50		28.0		35.0	56
Evaporated milk	1.95 lb. milk	1 1/2-oz. can	15.0	7.10		7.10	7.9	47		7.9		7.10	47
Fluid milk	Farm retail and wholesale	Quart	21.6	12.26		12.26	9.3	57		9.3		12.26	57
Eggs	1.03 doz.	Dozen	65.5	46.0		46.0	19.5	70		19.5		46.0	70
Chicken	11.136 lb.	Found	54.6	31.0		31.0	23.6	57		23.6		31.0	57
White bread	.912 lb. wheat	Found	16.2	3.16	.60	2.56	1.36	16		1.36		2.56	16
Whole wheat bread	.690 lb. wheat	Found	5/	2.39	.18	2.21						2.21	
Rye bread	.692 lb. wheat and												
	.304 lb. rye	Found	5/	3.14	.54	2.60						2.60	
Soda crackers	11.408 lb. wheat	Found	5/	4.89	.92	3.97						3.97	
Corn flakes	11.05 lb. corn	8 oz. pkg.	13.2	3.51	1.24	2.27	10.9	17		10.9		2.27	17
Corn meal	11.343 lb. corn	Found	7.7	3.89	.62	3.27	4.4	42		4.4		3.27	42
Flour, white	11.41 lb. wheat	Found	9.0	4.89	.92	3.97	5.0	44		5.0		3.97	44
Macaroni	11.99 lb. wheat	Found	5/	6.71	2.56	4.15						4.15	
Rice	11.68 lb. rough	Found	16.9	9.17	1.24	7.93	9.0	47		9.0		7.93	47
Rolled oats	12.05 lb. oats	Found	14.3	5.31	1.11	4.20	10.1	29		10.1		4.20	29
Wheat cereal	13.017 lb. wheat	28-oz. pkg.	5/	10.46	2.01	8.45						8.45	
Apples	.0224 bu.	Found	11.8	4.23		4.23	7.6	36		7.6		4.23	36
Grapefruit	.0163 box - fresh use	Each	5/	2.44		2.44						2.44	
Oranges	.0613 box - fresh use	Dozen	47.4	16.7		16.7	30.7	35		30.7		16.7	35
	For market:												
Beets	.0259 bu.	Bunch	5/	3.63		3.63						3.63	
Beans, snap	.0375 bu.	Found	19.9	7.69		7.69	12.2	39		12.2		7.69	39
Cabbage	1.10 lb.	Found	5.9	1.50		1.50	4.4	25		4.4		1.50	25
Carrots	.0222 bu.	Bunch	11.0	5.00		5.00	6.0	45		6.0		5.00	45
Lettuce	.0185 ort.	Head	13.4	7.22		7.22	6.2	54		6.2		7.22	54
Onions	11.06 lb.	Found	10.9	3.51		3.51	7.4	32		7.4		3.51	32
Potatoes	.0174 bu.	Found	5.5	1.88		1.88	3.6	34		3.6		1.88	34
Spinach	.0638 bu.	Found	5/	4.47		4.47						4.47	
Sweet potatoes	.0204 bu.	Found	10.5	4.28		4.28	6.2	41		6.2		4.28	41
Tomatoes	.0251 bu.	Found	27.3	6.40		6.40	20.9	23		20.9		6.40	23
	For processing:												
Grapefruit juice	.045 box grapefruit	No. 2 can	5/	3.56		3.56						3.56	
Peaches	11.89 lb. Calif. cling	No. 2 1/2 can	33.6	5.66		5.66	27.9	17		27.9		5.66	17
Beans, green	.88 lb. snap	No. 2 can	5/	4.76		4.76						4.76	
Corn	13.03 lb. sweet	No. 2 can	22.1	2.67		2.67	19.4	12		19.4		2.67	12
Peas	.89 lb.	No. 2 can	15.6	3.63		3.63	12.0	23		12.0		3.63	23
Tomatoes	12.41 lb.	No. 2 can	20.8	3.01		3.01	17.8	14		17.8		3.01	14
Prunes	1 lb. dried, California	Found	27.9	12.25		12.25	15.6	44		15.6		12.25	44
Navy beans	1 lb. Mich. and N. Y.												
	pea beans	Found	15.9	6.38		6.38	9.5	40		9.5		6.38	40
Best sugar	7.15 lb. sugar beets	Found	10.5	4.08	.21	3.87	6.6	37	-.54	6.1	.83	4.70	45
Cane sugar	12.60 lb. sugar cane	Found	10.2	4.93	.79	4.14	6.1	41	-.54	5.6	.84	4.98	49
Corn sirup	.034 bu. corn	24 oz.	5/	5.51	1.40	4.11						4.11	
Margarine	Cottonseed, soybeans, and skim milk	Found	3.72			14.36	22.8	39		22.8		14.36	39
Salad and cooking oil	Cottonseed and corn	Pint	5/			12.54						12.54	
Vegetable shortening	Cottonseed and soybeans	Found	38.5			17.04	21.5	44		21.5		17.04	44
Peanut butter	11.72 lb. farmers' stock peanuts	Found	5/			18.6						18.6	

^{1/} The meat-products group includes veal and mutton, farm sales of lower grade cattle, allowance for retail values of byproducts and processed meats, in addition to the lamb, pork (including lard), and carcass beef of Good grade for which data are individually listed. The estimates for the meat-products group are not averages of the data for the three individual items.

^{2/} Retail cost estimate discontinued.

^{3/} Name of grade was changed to Choice on Dec. 29, 1950; beef and slaughter cattle having quality characteristics that would have placed them in the Good grade are now in Choice grade.

^{4/} Gross farm value before adjusting for Choice grade premium was 63.7 cents.

^{5/} Retail price quotations discontinued.

Table 5.- Price spreads between farmers and consumers - food products: Retail price and farm value, June 1951, compared with the 1935-39 average, June 1950 and May 1951

Commodity	Retail unit	Retail price						Net farm value ^{1/}				Percentage change to June 1951 from -	
		1935-39 average	June 1950	May 1951	June 1951	Percentage change to June 1951 from -	1935-39 average	June 1950	May 1951	June 1951	June 1950	May 1951	
		Dollars	Dollars	Dollars	Dollars	Percent	Percent	Dollars	Dollars	Dollars	Dollars	Percent	Percent
Market basket		341.19	653.35	2/723.49	724.48	+ 11	3/	134.73	2/302.60	358.34	355.33	+ 17	- 1
Meat products ^{4/}		88.57	202.73	224.19	225.31	+ 11	3/	41.60	2/126.24	150.84	152.41	+ 21	+ 1
Dairy products		67.31	116.95	2/133.47	133.67	+ 14	2/	33.42	2/ 62.00	72.55	72.30	+ 17	2/
Poultry and eggs		26.47	44.32	54.60	54.13	+ 22	- 1	17.57	25.48	35.97	35.15	+ 38	- 2
Bakery and other cereal products:	1935-39 annual average	55.09	93.97	2/103.69	104.03	+ 11	3/	11.63	2/ 24.66	28.26	27.88	+ 13	- 1
All ingredients	Purchased quantities	---	---	---	---	---	---	9.04	2/ 20.27	22.18	21.81	+ 8	- 2
Bakery products:	Purchased, per family	36.85	5/	5/	5/	---	---	5.65	2/ 11.20	13.50	13.36	+ 19	- 1
All ingredients	of three average consumers	---	---	---	---	---	---	3.06	2/ 6.81	7.42	7.29	+ 7	- 2
Grain		---	---	---	---	---	---	---	---	---	---	---	---
Other cereal products		18.48	34.92	2/ 38.12	38.06	+ 9	3/	5.98	2/ 13.46	14.76	14.52	+ 8	- 2
All fruits and vegetables		77.79	155.42	2/159.35	159.60	+ 3	2/	23.98	2/ 52.10	52.38	49.08	- 6	- 6
Fresh fruits and vegetables		57.85	125.52	2/121.57	121.62	- 3	2/	20.37	2/ 44.53	43.85	40.53	- 9	- 8
Fresh vegetables		33.16	73.01	75.74	74.40	+ 2	- 2	11.48	2/ 23.40	24.93	21.80	- 7	- 13
Canned fruits and vegetables		14.14	19.10	24.80	25.04	+ 31	+ 1	1.93	2/ 4.01	4.07	4.10	+ 2	+ 1
Miscellaneous products		25.96	39.96	2/ 48.19	47.74	+ 19	- 1	6.53	2/ 12.12	18.34	18.51	+ 53	+ 1
		Cents	Cents	Cents	Cents	Percent	Percent	Cents	Cents	Cents	Cents	Percent	Percent
Beef (Good grade) ^{5/}	Pound	29.1	75.5	84.5	84.7	+ 12	3/	16.2	52.0	63.0	61.7	+ 19	- 2
Lamb	Pound	26.8	74.0	77.5	78.4	+ 6	+ 1	18.2	47.5	56.3	57.1	+ 20	+ 1
Pork (including lard)	Pound	22.8	40.8	45.1	45.4	+ 11	+ 1	11.7	2/ 25.3	28.4	29.3	+ 16	+ 3
Butter	Pound	35.0	69.6	2/ 79.2	79.3	+ 14	3/	23.9	48.9	56.8	57.0	+ 17	2/
Cheese, American	Pound	25.9	54.5	2/ 62.7	63.0	+ 16	3/	13.6	2/ 27.6	35.0	35.0	+ 27	0/
Evaporated milk	14-oz. can	7.5	12.8	14.9	15.0	+ 17	+ 1	2.86	5.56	7.18	7.10	+ 28	- 1
Fluid milk	Quart	11.4	18.8	21.6	21.6	+ 15	0	6.30	2/ 10.68	12.33	12.26	+ 15	- 1
Eggs	Dozen	29.0	46.4	64.5	65.5	+ 41	+ 2	22.5	31.0	46.6	46.0	+ 48	- 1
Chicken	Pound	30.0	52.7	56.8	54.6	+ 4	- 4	16.9	25.1	32.8	31.0	+ 24	- 5
White bread	Pound	9.1	14.5	2/ 16.1	16.2	+ 12	+ 1	1.08	2/ 2.40	2.61	2.56	+ 7	- 2
Whole wheat bread	Pound	9.6	7/	7/	7/	---	---	.90	2/ 2.05	2.24	2.21	+ 8	- 1
Rye bread	Pound	10.0	7/	7/	7/	---	---	1.04	2/ 2.30	2.64	2.60	+ 13	- 2
Soda crackers	Pound	16.0	7/	7/	7/	---	---	1.67	2/ 3.72	4.03	3.97	+ 7	- 1
Corn flakes	8-oz. pkg.	7.9	12.3	13.2	13.2	+ 7	0	.84	2.19	2.17	2.27	+ 4	+ 5
Corn meal	Pound	3.0	6.8	2/ 7.8	7.7	+ 13	- 1	1.40	2.80	3.28	3.27	+ 17	3/
Flour, white	Pound	3.9	8.3	9.0	9.0	+ 8	0	1.67	2/ 3.72	4.03	3.97	+ 7	- 1
Macaroni	Pound	14.9	7/	7/	7/	---	---	1.87	2/ 4.62	4.16	4.15	- 10	3/
Rice	Pound	7.2	15.5	16.9	16.9	+ 9	0	2.37	2/ 6.03	8.27	7.93	+ 32	- 4
Rollod oats	Pound	7.3	12.9	2/ 14.4	14.3	+ 11	- 1	1.74	4.08	4.48	4.20	+ 3	- 6
Wheat cereal	28-oz. pkg.	24.2	7/	7/	7/	---	---	3.68	2/ 8.01	8.58	8.49	+ 5	- 2
Apples	Pound	4.9	14.3	2/ 11.0	11.8	- 17	+ 7	2.03	5.87	4.12	4.23	- 28	+ 3
Grapefruit	Each	3/	7/	7/	7/	---	---	3/	3.88	2.53	2.44	- 37	- 4
Oranges	Dozen	30.3	48.2	2/ 46.5	47.4	- 2	+ 2	11.0	19.0	18.8	16.7	- 12	- 11
Beets	Bunch	3/	7/	7/	7/	---	---	3/	5.05	4.53	3.63	- 28	- 20
Beans, snap	Pound	11.3	16.6	22.5	19.9	+ 20	- 12	4.49	2/ 5.81	9.19	7.69	+ 32	- 16
Cabbage	Pound	3.4	6.0	6.5	5.9	- 2	- 9	.81	2/ 1.63	1.35	1.50	- 8	+ 11
Carrots	Bunch	5.4	9.8	10.7	11.0	+ 12	+ 3	1.69	3.33	3.77	5.00	+ 50	+ 33
Lettuce	Head	8.7	13.8	18.8	13.4	- 3	- 29	2.89	4.07	6.29	7.22	+ 77	+ 15
Onions	Pound	4.5	8.2	10.4	10.9	+ 33	+ 5	1.30	2/ 2.23	5.64	3.51	+ 57	- 38
Potatoes	Pound	2.5	5.2	4.8	5.5	+ 6	+ 15	1.25	2.21	1.90	1.88	- 15	- 1
Spinach	Pound	7.2	7/	7/	7/	---	---	2.84	4.47	4.15	4.47	0	+ 8
Sweetpotatoes	Pound	4.0	9.4	9.1	10.5	+ 12	+ 15	1.65	4.30	4.26	4.28	3/	2/
Tomatoes	Pound	3/	32.4	29.9	27.3	- 16	- 9	3/	12.55	11.17	6.40	- 49	- 43
Grapefruit juice, canned	No. 2 can	3/	7/	7/	7/	---	---	3/	6.98	3.56	3.56	- 49	0
Peaches, canned	No. 2 1/2 can	18.7	27.0	33.6	33.6	+ 24	0	2.53	3.73	5.66	5.66	+ 52	0
Beans, green, canned	No. 2 can	11.4	7/	7/	7/	---	---	1.95	2/ 4.72	4.63	4.76	+ 1	+ 3
Corn, canned	No. 2 can	12.1	17.5	22.1	22.1	+ 26	0	1.50	2/ 3.09	2.67	2.67	- 14	0
Peas, canned	No. 2 can	15.8	14.9	15.5	15.6	+ 5	+ 1	2.29	2/ 3.84	3.59	3.63	- 5	+ 1
Tomatoes, canned	No. 2 can	9.4	14.6	20.5	20.8	+ 42	+ 1	1.49	2/ 2.87	3.01	3.01	f 5	0
Prunes	Pound	10.0	24.4	28.0	27.9	+ 14	3/	2.99	2/ 8.15	11.68	12.25	+ 50	+ 5
Navy beans	Pound	6.5	13.9	16.1	15.9	+ 14	- 1	3.02	2/ 6.67	5.63	6.38	- 4	+ 13
Beet sugar	Pound	5.7	9.8	2/ 10.5	10.5	+ 7	0	1.73	2/ 3.58	3.87	3.87	+ 8	0
Cane sugar	Pound	5.5	9.5	2/ 10.2	10.2	+ 7	0	1.78	2/ 3.72	4.14	4.14	+ 11	0
Corn sirup	24 oz.	11.5	7/	7/	7/	---	---	1.79	3.35	4.04	4.11	+ 23	+ 2
Margarine	Pound	18.1	29.4	37.9	37.2	+ 27	- 2	4.30	2/ 6.66	13.74	14.36	+ 116	+ 5
Salad and cooking oil	Pint	24.7	7/	7/	7/	---	---	4.45	2/ 7.58	13.80	12.54	+ 65	- 9
Vegetable shortening	Pound	19.5	30.1	39.0	38.5	+ 28	- 1	5.26	2/ 7.81	16.29	17.04	+ 118	+ 5
Peanut butter	Pound	17.6	7/	7/	7/	---	---	6.1	18.6	18.9	18.6	0	- 2

^{1/} Adjusted to exclude imputed value of non-food byproducts obtained in processing.

^{2/} Revised.

^{3/} Less than 0.5 percent.

^{4/} The meat products group includes veal and mutton, farm sales of lower grade cattle, allowance for retail values of byproducts and processed meats, in addition to the lamb, pork (including lard), and carcass beef of Good grade for which data are individually listed. The estimates for the meat-products group are not averages of the data for the three individual items.

^{5/} Retail cost estimate discontinued.

^{6/} Name of grade was changed on Dec. 29, 1950; beef and slaughter cattle having quality characteristics that would have placed them in the Good grade are now in Choice grade.

^{7/} Retail price quotation discontinued.

^{8/} Price data not available.

Table 6.- Price spreads between farmers and consumers - food products: Marketing charges, and farm value as percentage of retail price, June 1951 compared with the 1935-39 average, June 1950 and May 1951

Commodity	Retail unit	Marketing Charges ^{1/}					Farm value as percentage of retail price					
		Margins 1935-39 average	1935-39 average	June 1950	May 1951	June 1951	Percentage change to June 1951 from:		1935-39 average	June 1950	May 1951	June 1951
		Dollars	Dollars	Dollars	Dollars	Dollars	Percent	Percent	Percent	Percent	Percent	Percent
Market basket		206.46	204.47	2/350.38	2/364.81	368.81	+ 5	+ 1	40	46	2/ 50	49
Meat products ^{2/}		46.97	45.88	2/ 76.49	73.35	72.90	- 5	- 1	47	62	67	68
Dairy products		33.89	33.89	2/ 54.95	2/ 60.92	61.37	+ 12	+ 1	50	53	54	54
Poultry and eggs	1935-39 annual average	8.90	8.90	18.84	18.63	18.98	+ 1	+ 2	66	57	66	65
Bakery and other cereal products, all ingredients	quantities purchased	43.46	42.80	2/ 69.26	2/ 75.39	76.11	+ 10	+ 1	21	2/ 26	27	27
Grain	per family of three	30.98	30.70	4/	4/	4/	---	---	16	22	21	21
Bakery products, all ingred.	of three	12.48	12.10	2/ 21.46	2/ 23.36	23.54	+ 10	+ 1	15	---	---	---
Grain	average	---	---	---	---	---	---	---	8	---	---	---
Other cereal products	consumers	---	---	---	---	---	---	---	32	39	39	38
All fruits and vegetables		53.81	53.81	2/103.32	2/106.97	110.52	+ 7	+ 3	31	2/ 34	33	31
Fresh fruits and vegetables		37.48	37.48	2/ 80.99	2/ 77.72	81.09	2/	+ 4	35	35	36	33
Fresh vegetables		21.68	21.68	2/ 49.61	50.81	52.60	+ 6	+ 4	35	2/ 32	33	29
Canned fruits and vegetables		12.21	12.21	2/ 15.09	20.73	20.94	+ 39	+ 1	14	21	16	16
Miscellaneous products		19.43	19.19	2/ 27.52	2/ 29.55	28.93	+ 5	- 2	25	2/ 30	38	39
		Cents	Cents	Cents	Cents	Cents	Percent	Percent	Percent	Percent	Percent	Percent
Beef (Good grade) ^{6/}	Pound	12.8	12.9	23.5	21.5	23.0	- 2	+ 7	56	69	75	73
Lamb	Pound	13.6	13.6	26.5	21.2	21.3	- 20	5/	49	64	73	73
Pork (including lard)	Pound	10.9	10.3	2/ 15.5	16.7	16.1	+ 4	- 4	52	2/ 62	63	65
Butter	Pound	11.1	11.1	20.7	2/ 22.4	22.3	+ 8	5/	68	70	72	72
Cheese, American	Pound	12.8	12.5	2/ 26.9	2/ 27.7	28.0	+ 4	+ 1	55	2/ 51	56	56
Evaporated milk	14-oz. can	4.6	4.6	7.2	7.7	7.9	+ 10	+ 3	38	43	48	47
Fluid milk	Quart	5.1	5.1	8.1	9.3	9.3	+ 15	0	55	57	57	57
Eggs	Dozen	6.7	6.7	15.4	17.9	19.5	+ 27	+ 9	77	67	72	70
Chicken	Pound	13.1	13.1	27.6	24.0	23.6	- 14	- 2	56	48	58	57
White bread	Pound	8.0	7.9	12.1	2/ 13.5	13.6	+ 12	+ 1	12	17	16	16
Whole wheat bread	Pound	8.7	8.6	7/	7/	7/	---	---	9	---	---	---
Rye bread	Pound	9.0	8.9	7/	7/	7/	---	---	10	---	---	---
Soda crackers	Pound	14.5	14.2	7/	7/	7/	---	---	10	---	---	---
Corn flakes	8-oz. pkg.	7.1	7.1	10.1	11.0	10.9	+ 8	- 1	11	18	16	17
Corn meal	Pound	1.6	1.6	4.0	2/ 4.5	4.4	+ 10	- 2	47	41	2/ 42	42
Flour, white	Pound	2.2	2.1	2/ 4.6	5.0	5.0	+ 9	0	45	2/ 45	45	44
Macaroni	Pound	13.0	12.9	7/	7/	7/	---	---	15	---	---	---
Rice	Pound	4.8	4.7	9.5	8.6	9.0	- 5	+ 5	53	39	49	47
Rollod oats	Pound	5.6	5.6	8.8	2/ 9.9	10.1	+ 15	+ 2	24	32	31	29
Wheat cereal	18-oz. pkg.	20.5	20.2	7/	7/	7/	---	---	15	---	---	---
Apples	Pound	2.9	2.9	8.4	2/ 6.9	7.6	- 10	+ 10	41	41	37	36
Grapefruit	Each	8/	---	7/	7/	7/	---	---	8/	---	---	---
Oranges	Dozen	19.3	19.3	29.2	2/ 27.7	30.7	+ 5	+ 11	36	39	40	35
Beets	Bunch	8/	---	7/	7/	7/	---	---	---	---	---	---
Beans, snap	Pound	6.8	6.8	2/ 10.8	13.3	12.2	+ 13	- 8	40	2/ 35	41	39
Cabbage	Pound	2.6	2.6	4.4	5.1	4.4	0	- 14	24	2/ 27	21	25
Carrots	Bunch	3.7	3.7	6.5	6.9	6.0	- 8	- 13	31	34	35	45
Lettuce	Head	5.8	5.8	9.7	12.5	6.2	- 36	- 50	33	29	33	54
Onions	Pound	3.2	3.2	2/ 6.0	4.8	7.4	+ 23	+ 54	29	2/ 27	54	32
Potatoes	Pound	1.3	1.3	3.0	2.9	3.6	+ 20	+ 24	50	42	40	34
Spinach	Pound	4.4	4.4	7/	7/	7/	---	---	39	---	---	---
Sweetpotatoes	Pound	2.4	2.4	5.1	4.8	6.2	+ 22	+ 29	41	46	47	41
Tomatoes	Pound	8/	---	2/ 19.8	18.7	20.9	+ 6	+ 12	8/	2/ 39	37	23
Grapefruit juice, canned	No. 2 can	8/	---	7/	7/	7/	---	---	8/	---	---	---
Peaches, canned	No. 2 1/2 can	16.2	16.2	23.3	27.9	27.9	+ 20	0	14	---	---	---
Beans, green, canned	No. 2 can	9.4	9.4	7/	7/	7/	---	---	17	14	17	17
Corn, canned	No. 2 can	10.6	10.6	14.4	19.4	19.4	+ 35	0	12	---	---	---
Peas, canned	No. 2 can	13.5	13.5	2/ 11.1	11.9	12.0	+ 8	+ 1	15	18	12	12
Tomatoes, canned	No. 2 can	7.9	7.9	2/ 11.7	17.5	17.8	+ 52	+ 2	16	2/ 26	23	23
Prunes	Pound	7.0	7.0	2/ 16.2	16.3	15.6	- 4	- 4	50	2/ 33	42	44
Navy beans	Pound	3.5	3.5	7.2	2/ 10.5	9.5	+ 32	- 10	46	48	35	40
Beet sugar	Pound	4.0	3.6	5.7	2/ 6.1	6.1	+ 7	0	50	---	---	---
Cane sugar	Pound	3.7	3.4	2/ 5.3	2/ 5.6	5.6	+ 6	0	52	37	37	37
Corn sirup	24 oz.	9.7	9.7	7/	7/	7/	---	---	16	2/ 39	41	41
Margarine	Pound	13.8	13.2	2/ 22.2	24.2	22.8	+ 3	- 6	24	---	---	---
Solid and cooking oil	Pint	20.3	20.3	7/	7/	7/	---	---	18	2/ 23	36	39
Vegetable shortening	Pound	14.2	14.2	2/ 22.3	22.7	21.5	- 4	- 5	27	---	---	---
Peanut butter	Pound	11.5	11.2	7/	7/	7/	---	---	35	2/ 26	42	44

^{1/} Marketing charges equal margins (difference between retail cost and net farm value, table 5) minus processor taxes plus Government payments to marketing agencies.

^{2/} Revised.

^{3/} The meat-products group includes veal and mutton, farm sales of lower grade cattle, allowance for retail value of byproducts and processed meats, in addition to the lamb, pork (including lard), and carcass beef of Good grade for which data are individually listed. The estimates for the meat-products group are not averages of the data for the three individual items.

^{4/} Retail cost estimate discontinued.

^{5/} Less than 0.5 percent.

^{6/} Name of grade changed to Choice on Dec. 29, 1950; beef and slaughter cattle having quality characteristics that would have placed them in Good grade are now in Choice grade.

^{7/} Retail price quotation discontinued.

^{8/} Price data not available.

Table 7.- Farm products: Indexes of prices at several levels of marketing, 1935-39 = 100

Year and month	Foods			Fibers			Whole-			
	Prices paid by city families for all commodities 1/	Retail prices of food prod-ucts 2/	Whole-sale prices of farm prod-ucts 3/	Prices received by farmers 2/	Retail prices of cloth-ing 1/	Prices of textile prod-ucts 3/	Whole-sale prices received by farmers for cotton and wool 4/	Prices of sale of farm prod-ucts 5/	Prices received by farmers for all prod-ucts 5/	Price paid by farmers for all prod-ucts 5/
1913 :	71	77	81	91	69	81	110	94	95	81
1916 :	78	94	96	106	78	99	131	111	111	93
1918 :	108	134	151	172	128	193	279	195	192	141
1920 :	143	166	174	181	201	232	284	198	197	171
1929 :	122	128	126	136	115	127	167	138	138	121
1932 :	98	83	77	67	91	77	54	63	61	82
1935 :	98	102	106	99	97	100	109	104	101	99
1936 :	99	103	104	104	98	101	114	106	106	99
1937 :	103	106	108	112	103	107	111	114	114	105
1938 :	101	96	93	94	102	94	80	90	90	98
1939 :	99	93	89	90	100	98	87	86	88	98
1940 :	100	93	90	94	102	104	98	89	93	98
1941 :	105	102	105	114	106	119	131	108	115	105
1942 :	117	120	126	145	124	136	178	139	147	120
1943 :	124	135	135	175	130	137	190	161	179	133
1944 :	126	132	133	173	139	139	194	162	182	140
1945 :	129	135	134	183	146	141	201	169	192	145
1946 :	140	155	165	207	160	164	260	196	218	159
1947 :	160	189	213	249	186	200	296	238	256	186
1948 :	172	202	226	260	198	209	296	248	265	202
1949 :	170	189	204	229	190	198	272	218	232	194
1950 :	172	189	210	228	188	208	313	224	238	198
1950:										
May :	169	186	202	6/ 222	185	192	6/ 277	217	230	197
June :	170	192	205	6/ 225	185	193	283	218	230	198
July :	172	197	217	6/ 234	184	201	310	232	245	199
Aug. :	173	194	221	6/ 235	186	211	343	234	249	200
Sept.:	175	193	224	238	190	223	371	237	253	203
Oct. :	176	192	218	235	193	230	363	234	250	204
Nov. :	176	193	221	5/ 239	194	235	386	242	257	206
Dec. :	179	200	226	250	196	241	383	247	266	207
1951:										
Jan. :	182	208	230	265	198	251	401	256	279	211
Feb. :	184	213	237	276	202	255	411	267	291	215
Mar. :	184	212	236	272	203	258	425	268	290	219
Apr. :	185	210	235	269	204	257	425	266	288	220
May :	185	212	237	266	204	256	415	263	284	219
June :	185	212	236	264	204	250	409	261	280	219

1/ Bureau of Labor Statistics, "Consumer Price Index for Moderate-Income Families in Large Cities." 2/ Calculated from data compiled for "Price Spreads Between Farmers and Consumers," Bureau of Agricultural Economics, 1949. 3/ Calculated from data of the Bureau of Labor Statistics. 4/ Cotton and wool prices weighted by production in 1935-39. 5/ Based on figures published by the Crop Reporting Board. 6/ Revised.

Table 8.- Indexes of consumer income and of hourly earnings in marketing, 1935-39 = 100

Year	: Nonagri- : Monthly : : cultural : earnings : : income : per : : payments : employed : : 1/ : factory : : : worker : : : 2/ :		: Hourly earnings in marketing enterprises : Class I : : steam : : railways : : 3/ :				: Food : : processing: Food : : 4/ : 5/ : : : 4/ :	
1942	176	161	119	127	122	139		
1943	217	188	121	140	131	152		
1944	242	201	134	149	141	162		
1945	250	195	135	154	149	176		
1946	255	191	154	173	171	213		
1947	279	218	168	197	195	253		
1948	304	236	184	213	213	282		
1949	308	240	203	223	226	287		
1950	6/ 332	259	223	233	236	297		
1950								
Jan.	314	246	223	229	233	290		
Feb.	320	246	228	229	234	290		
Mar.	6/ 328	247	220	231	234	290		
Apr.	6/ 320	248	223	231	234	289		
May	6/ 321	251	221	231	234	288		
June	6/ 326	257	220	231	234	289		
July	6/ 328	259	223	232	236	291		
Aug.	6/ 335	263	219	231	235	292		
Sept.	6/ 342	265	224	231	237	295		
Oct.	5/ 344	271	221	236	239	314		
Nov.	6/ 346	272	224	239	242	315		
Dec.	6/ 359	6/ 279	227	244	244	318		
1951								
Jan.	6/ 356	278	224	248	247	318		
Feb.	358	6/ 279	235	248	248	318		
Mar.	6/ 362	6/ 282	237	249	249	6/ 318		
Apr.	6/ 366	6/ 283	243	250	250	320		
May	367	282	244	250	252	320		

1/ United States Department of Commerce estimates. Adjusted for seasonal variation.

2/ Prepared in the Bureau of Agricultural Economics from data of the Bureau of Labor Statistics, not adjusted for seasonal variation. Revised series.

3/ Compiled from data published by the Interstate Commerce Commission.

4/ Bureau of Labor Statistics.

5/ Weighted composite of earnings in steam railways, food processing, wholesaling, and retailing.

6/ Revised.

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