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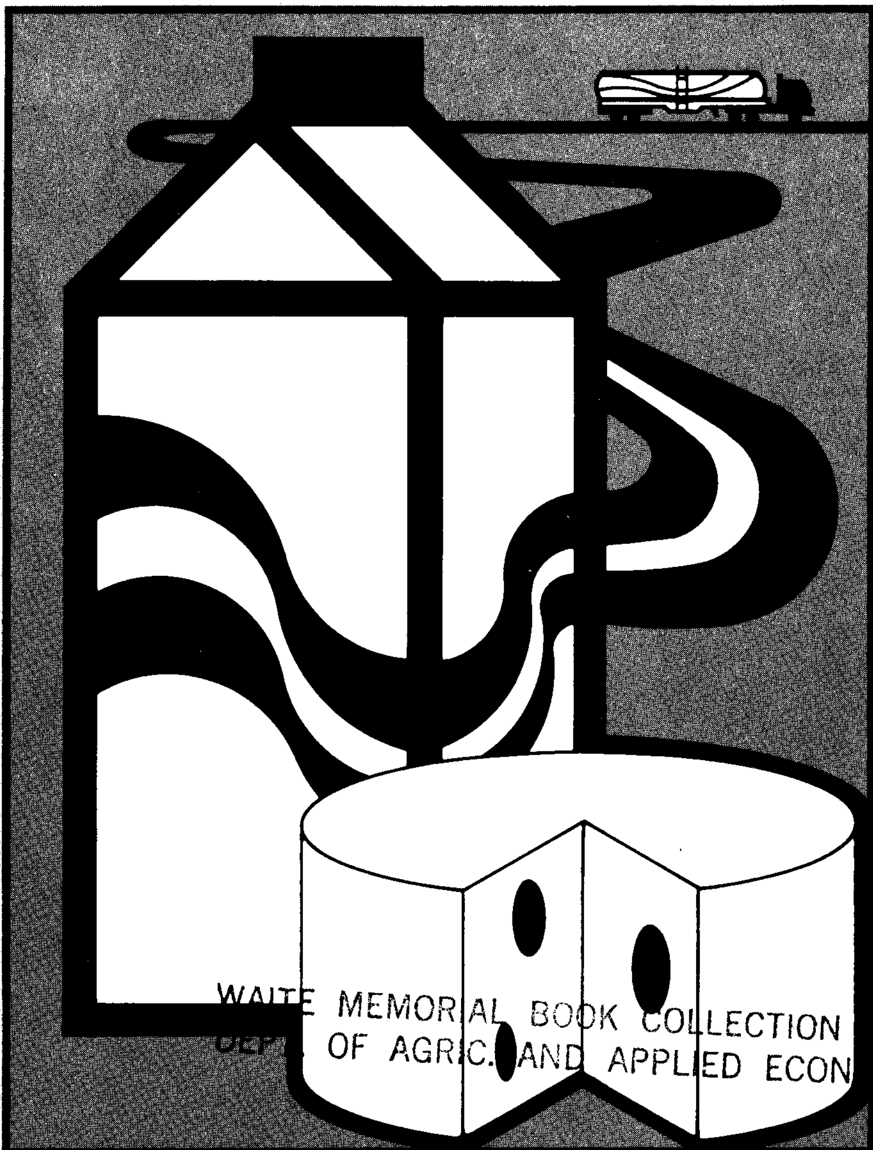
Marketing Operations of Dairy Cooperatives



Marketing Operations of Dairy Cooperatives
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Agricultural Cooperative Service
U.S. Department of Agriculture

Abstract

The Nation's 435 dairy cooperatives marketed 95.6 billion pounds of milk, or about 77 percent of all milk sold to plants and dealers in 1980. There were 146 cooperatives with no milk handling facilities, 97 with only milk and cream receiving stations, and 192 operating 456 dairy processing and manufacturing plants. Cooperatives sold about 16 percent of the Nation's packaged fluid products, 10 percent of the ice cream, 64 percent of the butter, 87 percent of the dry milk products, 22 percent of the cottage cheese, and 47 percent of all other cheese made in the United States. Additional data is given for prior years on transportation, producer payroll, and financial operations.

Key Words: dairy, cooperatives, marketing, structure.

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Preface

Information for this study came primarily from a mail questionnaire sent to all U.S. dairy cooperatives. In addition, some data were estimated from operating statements or other data, most supplied by cooperatives for the annual Agricultural Cooperative Service (ACS) survey of farmer cooperatives.

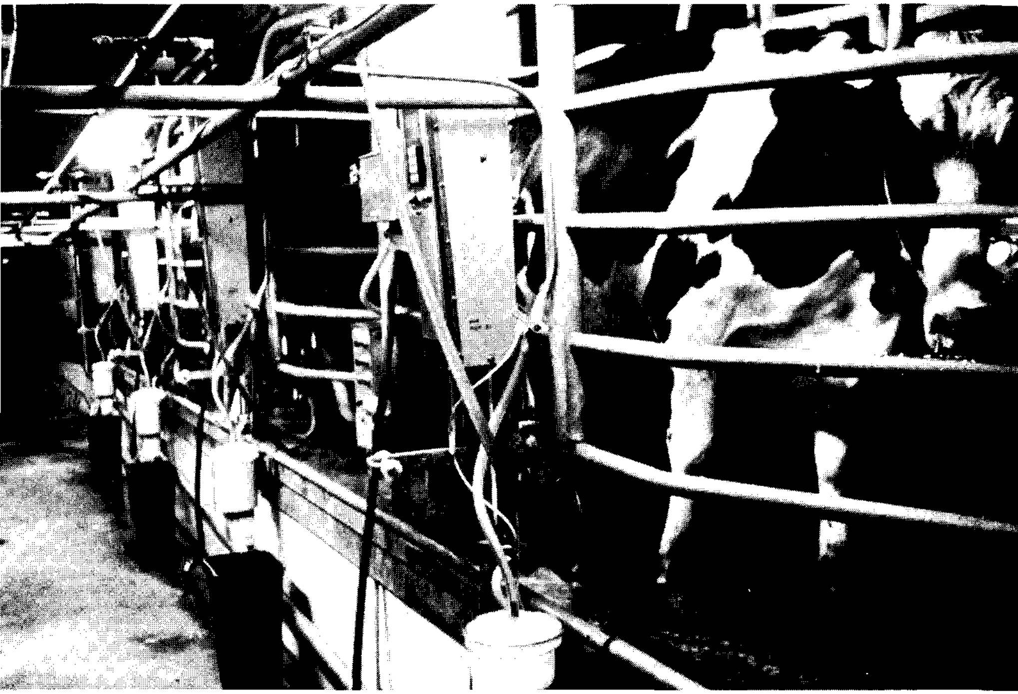
The 1980 data were for the cooperatives' last fiscal year ending before April 1, 1981. Because cooperatives have different fiscal years, their data reflect some differences in time periods. But by using annual data, the effect of variations among cooperatives because of different time periods is reduced. Also, the 1973 data were from a very similar mail survey covering the fiscal year ending before April 1, 1974; thus effects of time differences on comparative data are minimal.

In the report, a number of comparisons are made of regional cooperative operations based on cooperatives' headquarters locations. Since many of the larger cooperatives may have significant operations in regions other than where headquartered, there are a few cases where data may not accurately reflect the level of cooperative activity in a particular region. Care should be taken when making comparisons on a regional basis since different analyses throughout the report used different regional alignments.

Acknowledgment is made to other individuals and agencies who provided assistance and helpful advice in making this study, most particularly George C. Tucker and William J. Monroe, retired senior agricultural economists, ACS; K. Charles Ling and Lloyd C. Biser, agricultural economists, ACS; and the staff of the Dairy and Cold Storage section, Estimates Division, Statistical Reporting Service, U.S. Department of Agriculture.

Both dairy cooperative members' farms and their cooperatives are increasing in size and efficiency. Over 1,000 cows are milked on this farm of a member of Dairymen's Cooperative Creamery Association, Tulare, California.

Over 100,000 gallons of milk can be packaged each day at the Springfield, Virginia plant of Valley of Virginia Cooperative Milk Producers Association.



Contents

Highlights

Dairy products accounted for nearly 28 percent of the value of all agricultural cooperative marketings during 1980. At the same time, dairy cooperatives received or bargained for more than three-fourths of all milk sold by farmers to the Nation's plants and dealers.

The number of dairy cooperatives dropped from 592 to 435 between 1973 and 1980, a decline of 27 percent. In 1980, 192 cooperatives were processing and manufacturing dairy products, down from 291 in 1973 and 856 in 1964. The number of cooperatives selling raw whole milk fell from 730 in 1964 to 458 in 1973 and to 352 in 1980.

Cooperatives' share of total volume sold by farmers to plants and dealers rose from 76 percent in 1973 to 77 percent in 1980. The volume of milk marketed by cooperatives increased in all regions except the Middle Atlantic Region. Cooperatives marketed 79 percent of the Nation's grade A milk, a slight decline from 1973's 81 percent, but marketed 57 percent of the manufacturing grade milk, up from 55 percent in the earlier year. About 60 percent of total cooperative volume, including intercooperative sales, was sold as raw whole milk, a substantial decline from the 69 percent sold raw in 1973.

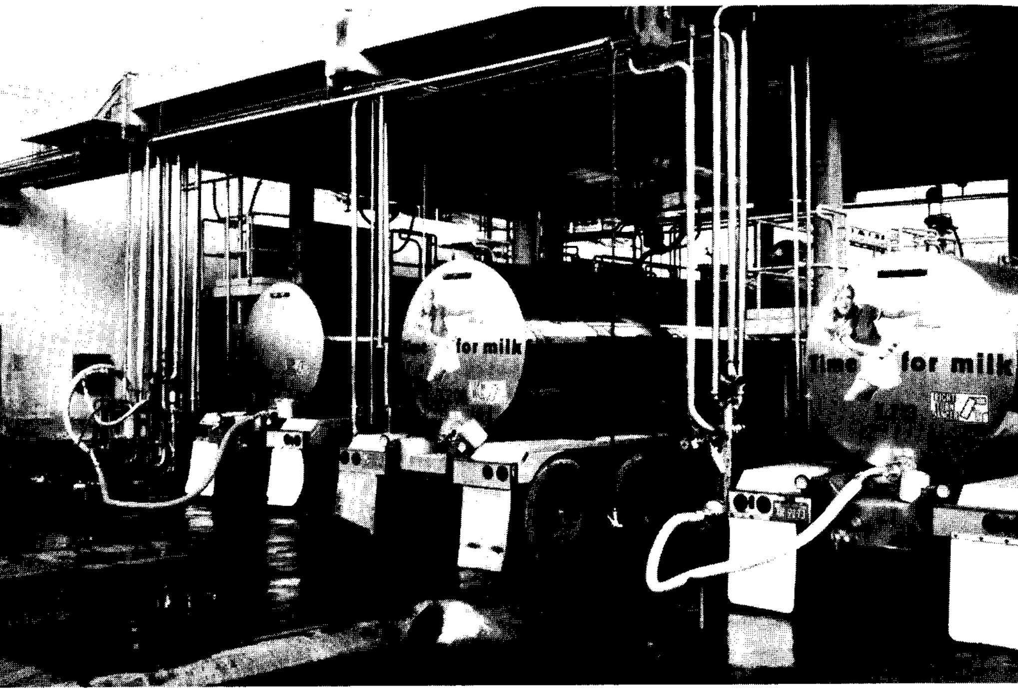
About 33 percent of cooperatives' total producers receipts was shipped less than 25 miles to the plant of first receipt. Another 40 percent was shipped from 25 to 75 miles away and 27 percent beyond 75 miles. Thus, milk needed to be shipped farther in 1980 than in 1973.

Contracts between cooperatives and haulers were reported by 59 percent of cooperatives providing information on trucking arrangements. While 37 percent of these cooperatives also operated their own trucks, they hauled only 19 percent of the total cooperative milk supply.

Dairy cooperatives owned 698 plants in 1980. They operated 242 of these plants only to receive and ship milk. Cheesemaking was carried on in 174 plants, the most frequently performed manufacturing function. Other major operations included packaging fluid products in 123 plants and manufacturing dry products in 122 plants. Butter was made in just 95 plants, down sharply from the 170 plants that made butter in 1973.

Cooperatives' net sales of butter, dry milk products, and cheese increased from 1973 to 1980. While their share of national butter production declined from 66 to 64 percent in this period, cooperative sales increased by about 128 million pounds. The cooperative share and production level of dry milk products (nonfat dry milk, dry buttermilk, and dry whole milk) increased from 1973 to 1980, reaching 87 percent of the Nation's output. Cooperative sales of cheese more than doubled during this period. The 1.87 billion pounds marketed represented 47 percent of the Nation's manufacture, up from 35 percent in 1973. Sales of packaged fluid milk products continued to increase both in volume and share of market. The 8.2 billion pounds marketed was 16 percent of the Nation's production, up from 12 percent in 1973. Cooperative sales of cottage cheese and ice cream as a percentage of national production increased to 22 percent and 10 percent, respectively. In 1980, cooperatives marketed only 7 percent of frozen product mix and 15 percent of bulk condensed milk. However, they marketed 81 percent of the Nation's production of dry whey.

Most dairy cooperatives continue to be relatively small business organizations. However, through consolidation and growth, an increasing amount of dairy products was sold by larger cooperatives. The 20 largest dairy cooperatives received two-thirds of all grade A milk marketed through cooperatives. About 68 percent of cooperative milk processing and manufacturing was carried out by the 20 largest cooperatives with plant operations.



High capacity milk receiving area at Dairymen's Cooperative Creamery Association, Tulare.

Marketing Operations of Dairy Cooperatives

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Agricultural Economists

Dairy farmer owned and operated cooperatives continue to provide the most significant channel for marketing milk from the Nation's dairy farms.

In line with trends both in the rest of the industry and among dairy farms, these cooperatives are becoming fewer but larger. In addition, cooperatives are processing, manufacturing, and marketing a larger proportion of the Nation's dairy products.

This report, the fourth in a series of periodic appraisals of the scope and performance of dairy cooperatives, describes their continuing adaptation to an ever-changing marketing environment.

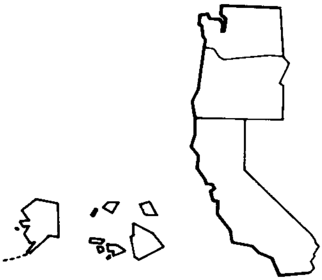
COOPERATIVE INDUSTRY PROFILE

Between 1973 and 1980, the number of dairy cooperatives decreased from 592 to 435, a decline of 27 percent. This was a slower decline than the 52-percent drop recorded from 1964 to 1973. In 1980, more than 80 percent of all dairy cooperatives were in the West North Central, East North Central, and Middle Atlantic Regions (table 1 and fig. 1). Greatest reduction in number of dairy cooperatives between 1973 and 1980 was in the West North Central Region, where the number dropped from 184 to 124, a 33 percent decline. The number in the South Central Region decreased from 15 to 13 cooperatives, a reduction of only 13 percent.

In 1980, 192 cooperatives processed and manufactured dairy products—44 percent of all dairy cooperatives. This was slightly less than the 49 percent recorded in 1973 when 291 cooperatives were processing and manufacturing. More than four-fifths of this decline occurred in the East and West North Central Regions.

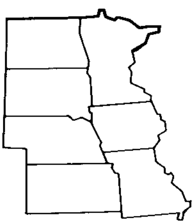
Although the number of cooperatives operating only milk and cream receiving stations declined from 130 in 1973 to 97 in 1980, they continued to represent 22 percent of all dairy cooperatives. Seventy-seven of these cooperatives, nearly 80 percent, were in the West North Central Region. Only four cooperatives still received cream directly from farmers.

Figure 1: Number of dairy cooperatives by geographic regions, 1980. (Based on headquarters location)

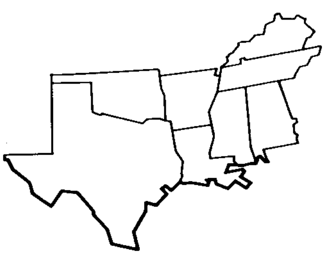


Pacific 27

Mountain 15

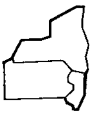


West North Central 124



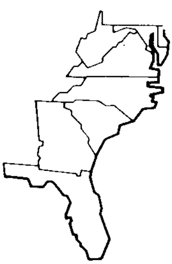
South Central 13

New England 12



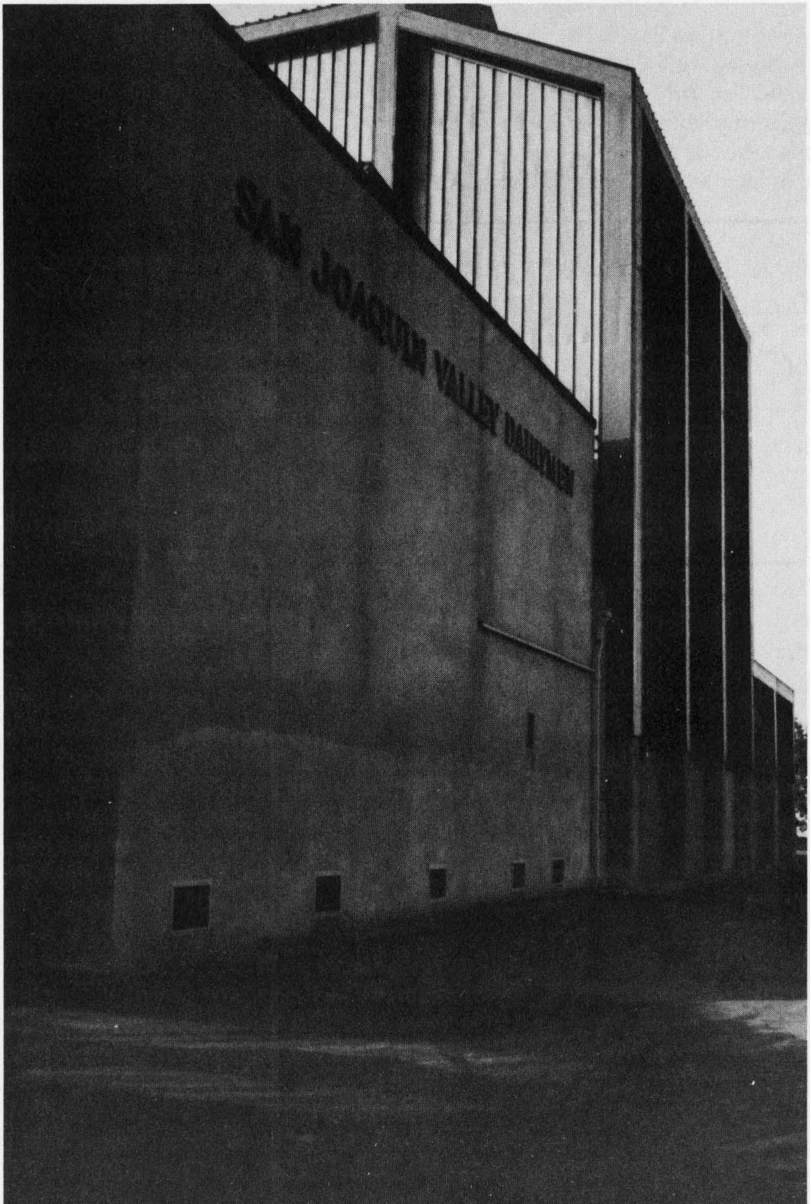
Middle Atlantic 110

East North Central 118



South Atlantic 16

While cooperative numbers are decreasing, those remaining tend to be larger and more efficient. New facility of San Joaquin Valley Dairymen, Los Banos, California.



Cooperatives that did not physically handle milk and other dairy products increased from 29 to 34 percent of all U.S. dairy cooperatives, continuing a trend also observed from 1964 to 1973. Again, as in 1973, more than 60 percent of these cooperatives were in the Middle Atlantic Region. In 1980, the group as a proportion of all cooperatives increased from percentages tabulated in 1973 in all regions except the Pacific and the South Central.

The number of cooperatives marketing selected major dairy products (table 2) declined or remained the same in all regions except the Middle Atlantic, where there was an increase between 1973 and 1980 in cooperatives marketing cheese, butter, and nonfat dry milk, and in the South Central and Pacific Regions where there was an increase of one each in cheese marketing.

More cooperatives continue to sell raw whole milk in bulk than any other product. While the number declined from 458 in 1973 to 352 in 1980, the proportion of dairy cooperatives performing this activity increased from 77 percent in 1973 to 81 percent in 1980.

Among the dairy product marketing activities surveyed the distribution of bulk cream declined the most in the past 7 years. Between 1973 and 1980 the number distributing bulk cream decreased from 208 to 122, a decline of 41 percent. Only 28 percent of cooperatives marketed this product, compared with 35 percent in 1973.

Butter was distributed by 148 cooperatives, a 29 percent decrease from the 207 in this business in 1973. About a third of all cooperatives distributed butter.

The smallest percentage of decrease in number of cooperatives occurred in those distributing cheese and nonfat dry milk, with a 16 percent decline from 1973. In 1980, 36 percent of all cooperatives distributed cheese, up from 32 percent in 1973 and 24 percent in 1964. About 11 percent of all cooperatives distributed nonfat dry milk, up from 10 percent in 1973 but down from 17 percent in 1964.

Nearly 14 percent of all cooperatives distributed packaged fluid milk products, about the same proportion as in 1973. In line with industry trends, the number of cooperatives packaging fluid products decreased by about 30 percent, from 85 to 59.

Cooperatives distributing ice cream and cottage cheese declined by slightly more than one-third in the 7 years, with 38 cooperatives selling ice cream and 42 selling cottage cheese in 1980.

MILK RECEIPTS AND UTILIZATION

In 1980 cooperatives received or bargained for 95.6 billion pounds of milk (net of intercooperative transfers), or almost 77 percent of total volume sold by farmers to the Nation's plants and dealers (table 3). Cooperatives' share of this volume increased by slightly less than 1 percent between 1973 and 1980, representing a leveling out of the longer term trend toward an increased cooperative market share. In line with the Nation's increasing milk production, the volume marketed by cooperatives increased 15 percent in the period.

Cooperatives' share of the market varied considerably by region, based on their headquarter locations (fig. 2).

The Central Region, with the largest number of dairy cooperatives had 64 percent of total U.S. cooperative milk volume in 1980, down from 65 percent in 1973. Between 1973 and 1980 the volume of milk marketed by cooperatives headquartered in the region increased from 54.3 billion pounds to 61.7 billion pounds. The cooperative's share of all milk sold to plants and dealers in this region continued a steady increase, from 85 percent in 1973 to 89 percent in 1980.

An earlier trend to lower cooperative volume and cooperative share in New England was sharply reversed in the 1973-80 period. In 1980, cooperatives headquartered in the region sold 4.3 billion pounds of milk to plants and dealers. This represented 99 percent of the total poundage.

Cooperative volume and the cooperative share of all milk declined in the Middle Atlantic Region. In addition, the cooperative share of milk marketed in the Mountain Region declined slightly, although cooperative volume increased.

Cooperative volume and the cooperative share of all milk marketed increased in all other regions, with a significant increase in the Pacific Region.

Supply, Location, and Grade

Almost 32 percent of total milk received directly from producers and marketed by cooperatives came from farms in the East North Central Region (table 4 and fig. 3), a slight increase over the percentage in 1973. Farms in the West North Central and Middle Atlantic Regions supplied 19 and 13 percent, respectively, of the total cooperative supply, a slight decline

Figure 2: Total milk sold to plants and dealers and cooperative's share of total by geographic regions, 1980. (Billion pounds)

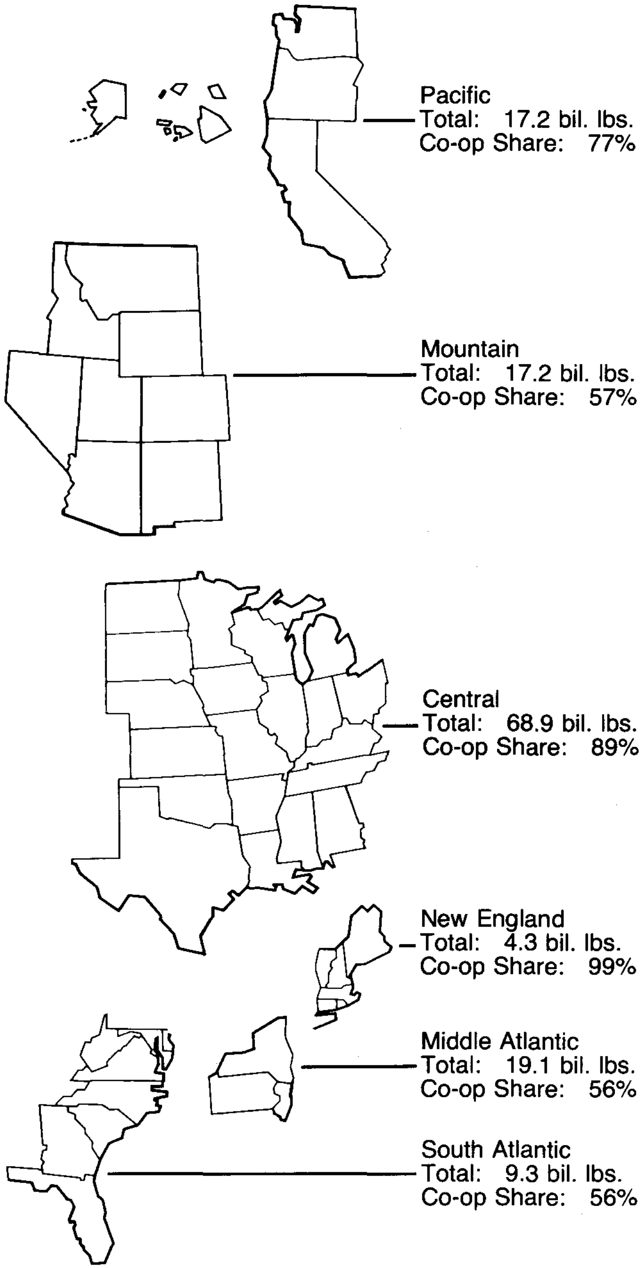
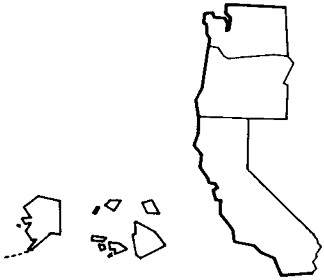
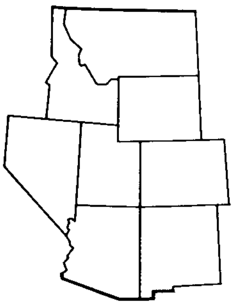


Figure 3: Cooperatives share of milk marketed based on farm location and grade, and total milk marketed, by regions, 1980.[1]



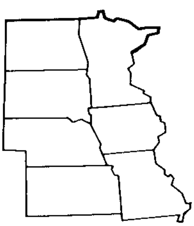
Pacific

	Grade A	Mfg. Grade
Total (bil. lbs.)	16.5	0.6
Co-op Share (%)	57	46



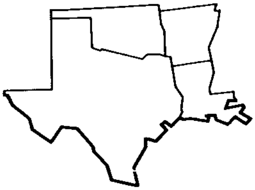
Mountain

	Grade A	Mfg. Grade
Total (bil. lbs.)	4.5	1.4
Co-op Share (%)	87	37



West North Central

	Grade A	Mfg. Grade
Total (bil. lbs.)	12.8	8.6
Co-op Share (%)	92	71



West South Central

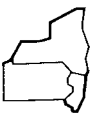
	Grade A	Mfg. Grade
Total (bil. lbs.)	6.1	0.2
Co-op Share (%)	85	*

East North Central

	Grade A	Mfg. Grade
Total (bil. lbs.)	28.0	7.6
Co-op Share (%)	93	53

New England

	Grade A	Mfg. Grade
Total (bil. lbs.)	4.4	—
Co-op Share (%)	82	—

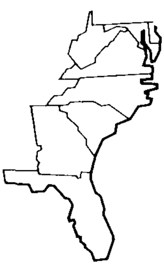


Middle Atlantic

	Grade A	Mfg. Grade
Total (bil. lbs.)	19.0	0.1
Co-op Share (%)	62	87

East South Central

	Grade A	Mfg. Grade
Total (bil. lbs.)	5.0	0.7
Co-op Share (%)	84	12

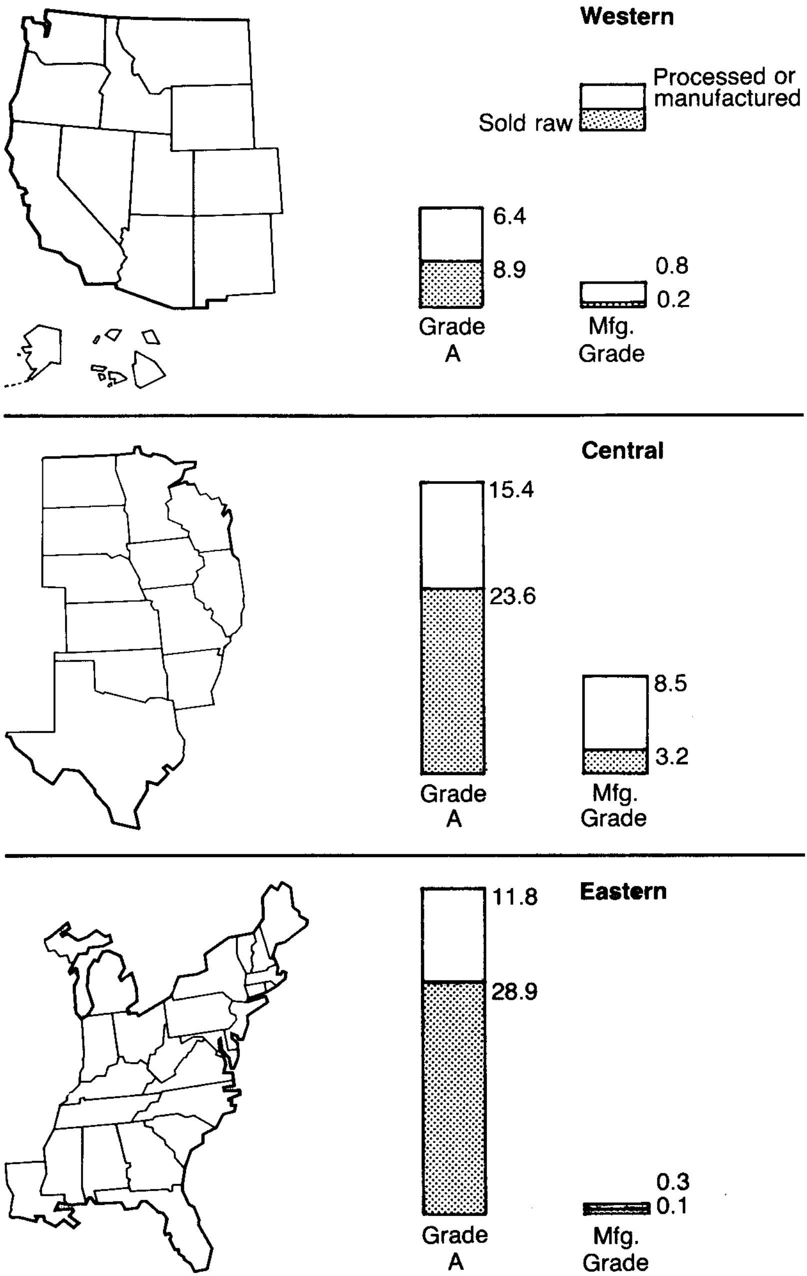


South Atlantic

	Grade A	Mfg. Grade
Total (bil. lbs.)	9.1	0.2
Co-op Share (%)	81	*

[1]Regions based on location of members' farms.
*Not shown to avoid disclosing individual cooperative operations.

Figure 4: Utilization of cooperatively marketed Grade A and Manufacturing Grade milk, by regions, 1980. (Billion pounds)



from the previous survey. Just over 91 percent of the supply of cooperatives' manufacturing grade milk came from farms in the two North Central Regions—55 percent from the West North Central Region and 36 percent from the East North Central Region.

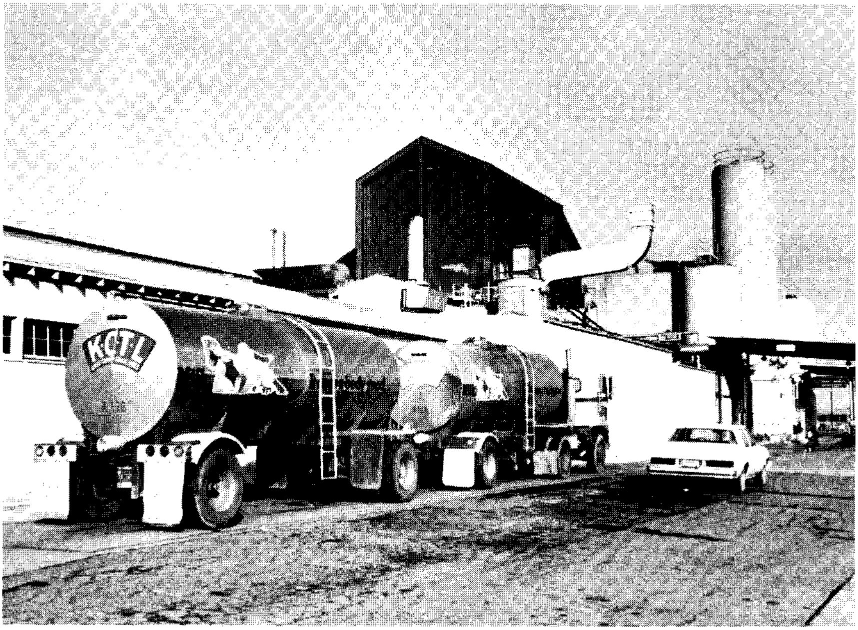
Reflecting the continuing conversion from manufacturing grade milk to grade A production and the generally increased production of grade A milk, cooperatives marketed about 21 percent more grade A milk for their member-producers and about 18 percent less manufacturing grade milk in 1980 than in 1973.

The 420 cooperatives that marketed milk for individual farmer-members represented 97 percent of all dairy cooperatives, with the other 15 being federations of cooperatives. Some 322 cooperatives marketed grade A milk for farmer-members and 228 marketed manufacturing grade. In 1980, their direct marketings of grade A milk for their producers totaled 83.3 billion pounds or a market share of 79 percent of all grade A milk, a slight drop from the 81-percent share in 1973. In the same year, cooperatives marketed 11.1 billion pounds of milk of manufacturing grade, a slight increase of from 55 to 57 percent.

The proportion of grade A milk marketed by cooperatives varied from 57 percent in the Pacific Region to 93 percent in the East North Central Region. From 1973 to 1980 significant increases in quantities marketed and in cooperative share of grade A marketings were found in the New England (19 point share increase and 42 percent more grade A milk) and Mountain (10 point share increase and 49 percent increase in quantity) Regions. On the other hand, the Middle Atlantic Region lost 15 market share points and 5 percent of the cooperative volume of grade A milk. However, this region did have an increase in both cooperative market share and quantity marketed of the small amount of manufacturing grade milk produced in the region.

Supply by Source

In 1980, nearly 88 percent of the 107.9 billion pounds of milk received by dairy cooperatives came directly from farmers, up from 84 percent in 1973 (table 5). Most of the remainder came from other cooperatives. Cooperatives in the Central Region received more than 91 percent of their milk directly from producers, whereas in the Western Region cooperatives received only 84 percent of their milk directly from producers (see fig. 4 for makeup of regions). In 1980, 332 cooperatives received 94.9 billion pounds of grade A milk from all sources. There were 230 cooperatives that received



Trailer train for over the road milk transport prepares to load at San Joajuin Valley Dairymen's plant, Los Banos.

13.0 billion pounds of manufacturing grade milk, a decrease of 98 cooperatives from the earlier survey.

As in 1973, one in every five cooperatives receiving grade A milk in 1980 received some from other cooperatives. One out of seven cooperatives receiving manufacturing grade milk now receive milk from other cooperatives.

Utilization of Milk Supply

In 1980, 107.9 billion pounds of raw milk was received from all sources by the 430 cooperatives reporting milk receipts (table 6). Sixty percent of the total cooperative volume, including intercooperative sales, was sold as raw whole milk, down significantly from the 69 percent reported in 1973.

The 332 cooperatives marketing grade A milk sold about 65 percent of their total supply as raw whole milk, down from 77 percent in 1973. As in the earlier period, cooperatives sold only a fourth of their manufacturing grade receipts as raw whole milk. Cooperatives in the Eastern Region sold 71 percent of their total milk supply as raw whole milk, compared with 53 percent in the Central and 56 percent in the Western Region.

MILK ASSEMBLY, HAULING, AND PRODUCER PAYROLL

In the 1980 survey, cooperatives were asked the distance between the producer and the first plant to receive the milk, how trucking was arranged for milk assembly, and how much of the producer payroll was handled by the cooperatives. While some cooperatives chose not to respond to the questions, enough did to make the survey representative.

Milk Assembly

Farmers shipping 33 percent of the cooperatives' total producer supply were within 25 miles of the plant of first receipt (table 7). Another 40 percent were 25 to 75 miles, 18 percent 75 to 150 miles, and 9 percent over 150 miles. Compared with data submitted by cooperatives in 1973, farmers in 1980 were shipping milk somewhat farther to plants of first receipt.

Cooperatives headquartered in the East and West South Central Regions and in the South Atlantic and Mountain Regions reported significantly longer shipping distances. On the other hand, cooperatives in the East North Central and Pacific Regions were able to procure 86 percent of their farm supply within 75 miles of their receiving plants.

Trucking Arrangements

Use of contracts between the cooperative and haulers was reported by 59 percent of the 245 cooperatives providing information on trucking arrangements (table 8). This represented 47 percent of the milk hauled by the reporting cooperatives.

Use of cooperative-operated trucks was reported by 37 percent of the cooperatives although only 19 percent of the milk was handled in this manner.

Milk hauling by agreements between producers and haulers were reported by 24 percent of the cooperatives. This type of arrangement accounted for 38 percent of the volume.

In the Eastern Region, 59 percent of the cooperatives reported the use of contracts between cooperatives and haulers, but these cooperatives moved only 39 percent of Eastern Region cooperative milk by contract haulers. Also, a smaller percentage of cooperatives in this region operated their own trucks than in other regions, as only 21 percent reported using this method.

The Central Region reported 52 percent of cooperatives using contracts between cooperatives and haulers, with this method accounting for 58 percent of the milk. In this region, a large number, 50 percent, of cooperatives reported operating their own trucks. These cooperatives, however, moved only 14 percent of the milk produced in the region in their own trucks.

In the Western Region, only 7 percent of the cooperatives had hauling arrangements between producers and haulers. Cooperative contract haulers were used by 83 percent of the reporting cooperatives in the West although only 45 percent of the milk produced in the region was hauled by these contractors. Just over half of the region's milk was hauled by trucks operated by cooperatives, with 55 percent of the cooperatives reporting this method.

Producer Payroll

One measure of the degree that cooperatives control marketing programs is whether the cooperative handles the member producers payroll. Cooperatives were asked to report the percentage of their total producer payroll they handled (table 9). The 270 cooperatives responding represented 80 percent of milk marketed by cooperatives.

Only 17 percent of all reporting cooperatives, with 6 percent of the milk reported handling from 0 to 29 percent of the producers payroll. On the other hand, 83 percent of the cooperatives—94 percent of the milk, handled over 75 percent of their producer payroll. Bargaining associations with no facilities had a much lower level of handling payroll. Some 37 percent of these types of cooperatives handled little or none of the members' payroll.

PLANT OPERATIONS

In 1980, cooperatives owned 698 plants that performed a variety of marketing functions (table 10). As in 1973, almost 70 percent of these plants were in the East and West North Central Regions, with 225 and 259 plants respectively. In third place, the Middle Atlantic Region included 54 plants. In other regions, plant numbers ranged from 15 in the East South Central Region to 40 in the South Atlantic.

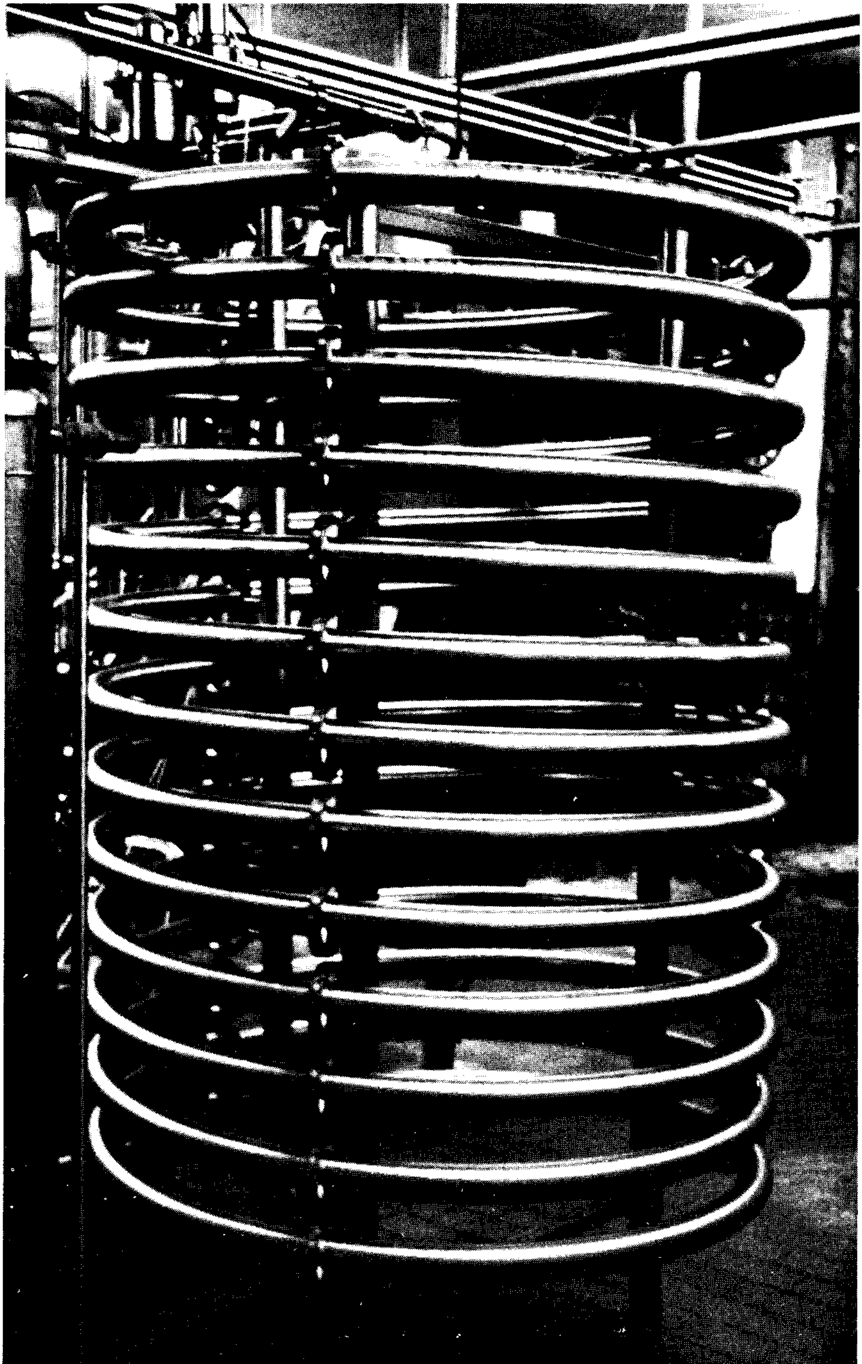
Just under 35 percent of these plants, or 242, served only as milk receiving stations, down considerably from the 47 percent reported in 1973. Cheesemaking was the most frequently performed manufacturing operation, with 174 plants making natural cheese. This was only three fewer than the number in 1973. More than 80 percent of the cooperative cheese plants were in the two North Central Regions.

Other important milk manufacturing functions included buttermaking by 95 plants, down sharply from the 170 plants reported in 1973, and the production of dry milk products by 122 plants. Forty-four percent of the 95 buttermaking plants were concentrated in the West North Central Region. Most of the remaining buttermaking plants were in the East North Central and Pacific Regions. Almost two-thirds of all drying operations were concentrated in the two North Central Regions.

There were 123 cooperative plants engaged in fluid milk packaging. Unlike the milk manufacturing plants, the packaging plants were scattered more uniformly throughout all regions. In 1980, the West North Central Region had the largest number, 26 plants, followed by the South Atlantic Region with 23 plants.

Cooperatives reported 49 plants making ice cream and 44 making cottage cheese scattered throughout the Nation in a pattern similar to the fluid milk packaging plants.

Milk pasteurizer holding tube in plant of San Joaquin Valley Dairymen, Los Banos.



DAIRY PRODUCTS MARKETED

This section and the tabulations that follow describe the net volumes of major dairy products marketed by cooperatives after subtracting transactions between cooperatives. Volumes by region are based on the headquarters locations of the cooperatives. Also, comparisons are made between the net volumes marketed by cooperatives and total U.S. production. Except for raw whole milk, tabulations show the number of cooperatives marketing dairy products and the volume marketed by selected size groupings. The tabulations by size groupings show both the pounds marketed and the percentage of total cooperative sales without adjustments for intercooperative transactions.

Raw Whole Milk

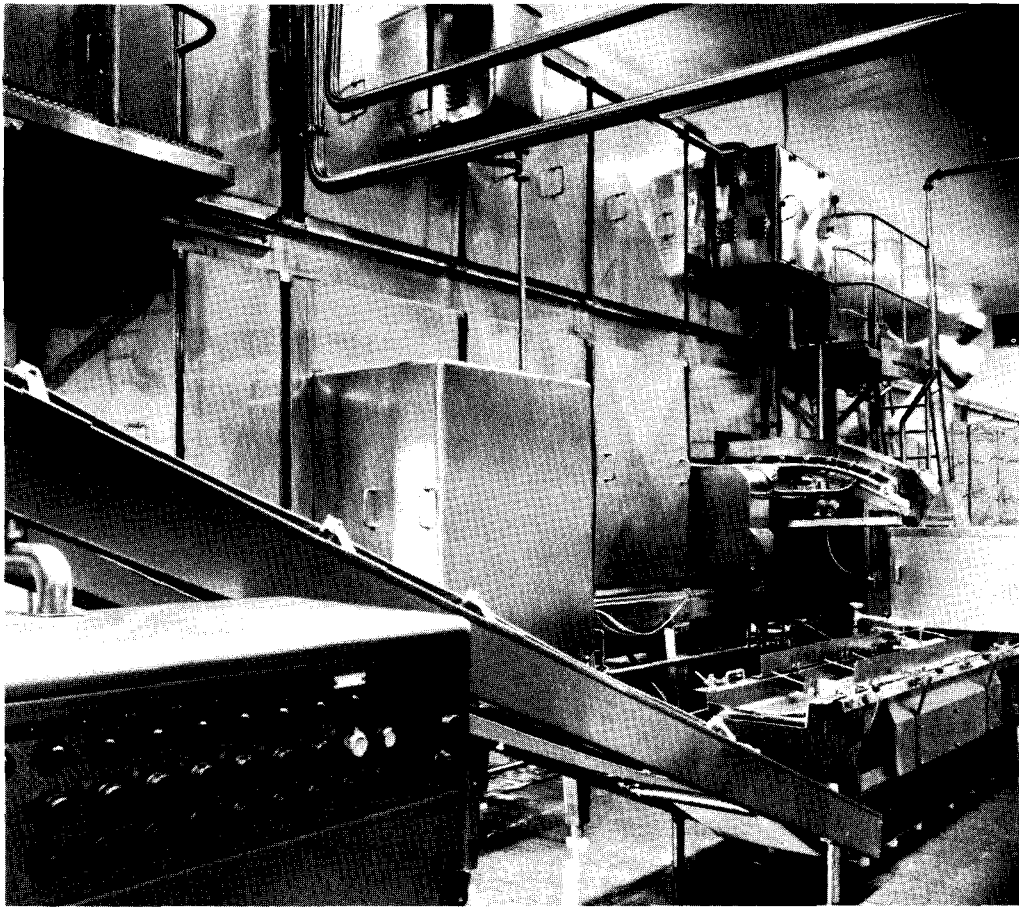
Raw whole milk is the commodity most often marketed by dairy cooperatives. In 1980, net raw milk sales by 352 cooperatives amounted to 52.5 billion pounds or 55 percent of net total volume of raw milk received by cooperatives (table 11). While this represented a slight increase over pounds marketed in 1973, the raw milk sales as a percentage of total receipts dropped significantly from 63 percent in 1973 and 57 percent in 1964, reflecting a trend toward increased further processing and marketing by cooperatives. During the past 7 years, the volume of raw milk marketed increased in all regions except the Middle Atlantic while the percentage of milk marketed in raw form decreased in all regions except the South Atlantic.

Butter

Excluding intercooperative transfers, cooperatives distributed a net volume of 733 million pounds of butter in 1980 (table 12). This volume is a 21-percent increase over the 1973 volume, but represents a slight drop in percentage of total U.S. production.

While cooperatives in the Central Region accounted for almost 64 percent of cooperative butter sales, significant sales increases occurred in the Atlantic and Pacific Regions.

While the volume of butter distributed increased, the number of cooperatives distributing butter continued to decline sharply, from 740 in 1964 to 207 in 1973 and to only 148 in 1980 (table 13). This reflects the widespread adoption by cooperatives of high capacity continuous butter churns.



Cooperatives' share of the Nation's natural cheese production continues to increase. Much of the cheese is now made in large plants with automated equipment such as this Cheddaring machine at the Kiel, Wisconsin plant of Lake to Lake Division of Land O'Lakes.

In 1980, about 87 percent of the butter distributed by cooperatives was distributed by those in the group handling 10 million pounds or more—only 15 percent of all cooperatives. Cooperatives distributing less than 10 million pounds of butter experienced a 53-percent decline in volume from 1973 to 1980 and accounted for only 13 percent of volume distributed by cooperatives in 1980, compared with 30 percent in 1973 and 54 percent in 1964.

Dry Milk Products

Excluding intercooperative transfers, cooperatives distributed 1.1 billion pounds of dry milk products, 87 percent of the Nation's production (table 14). This volume included nonfat dry milk, dry buttermilk, and dry whole milk. It represents a slight increase in cooperatives' share of total production, up from 85 percent in 1973, 72 percent in 1964, and only 57 percent in 1957.

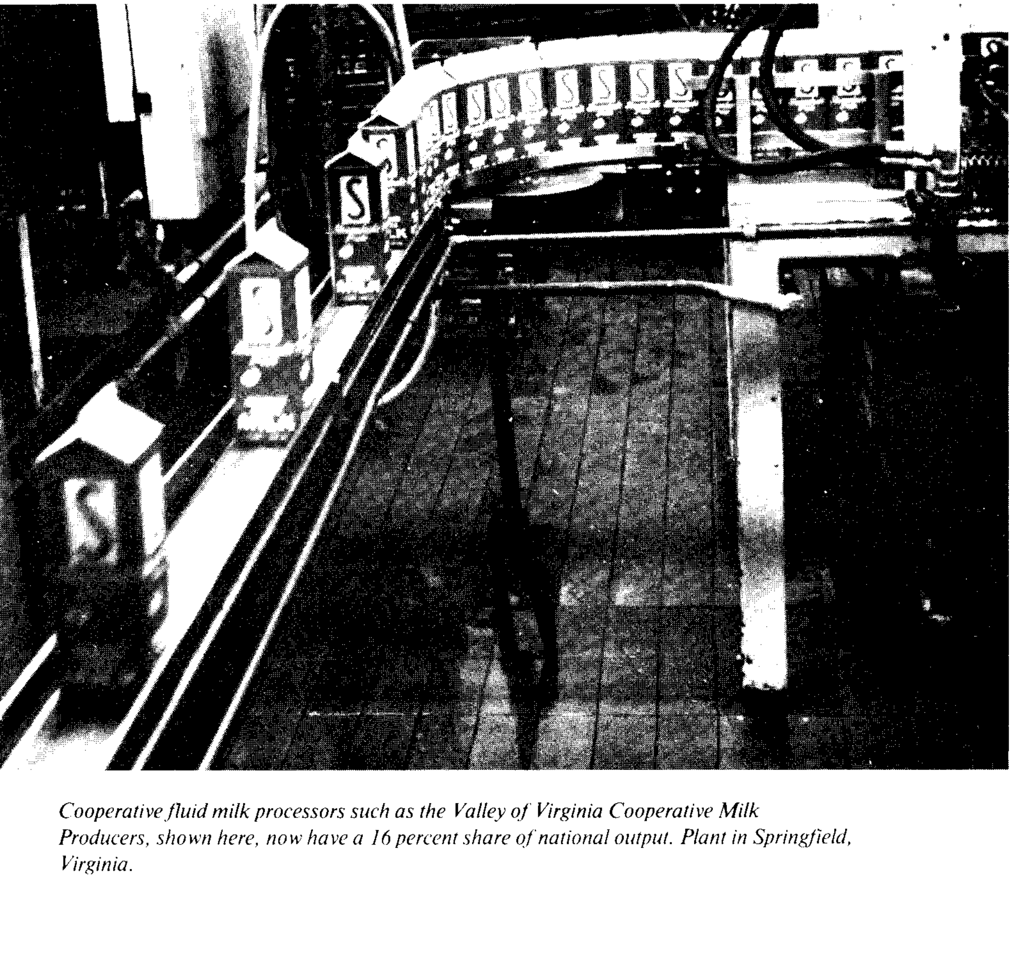
Cooperatives in the Central Region distributed 62 percent of all dry milk products of cooperatives, down from 74 percent in 1973. Increases in the share of U.S. production distributed by cooperatives occurred in all regions except the Atlantic.

The number of cooperatives distributing dry milk products declined to 48, down from 62 in 1973 and 212 in 1964 (table 15). The number of cooperatives distributing more than 10 million pounds of dry milk products increased from 1973 levels while the nine associations each distributing more than 40 million pounds accounted for about 60 percent of all cooperative sales in 1980.

Cheese

The 1.87 billion pounds of cheese, excluding cottage cheese, distributed by cooperatives in 1980 is more than double that distributed in 1973. While the volume of total cheese made by all U.S. firms increased 48 percent, the cooperative share, net of intercooperative transfers, also increased significantly, from 35 percent in 1973 to 47 percent in 1980 (table 16).

Cooperatives in the Central Region continue to distribute the largest share of cheese, accounting for 72 percent of cooperatives' net sales. Substantial increases in both the volume distributed and the share of the total manufactured occurred in the Eastern Region. Increases reported in all other regions were less.



Cooperative fluid milk processors such as the Valley of Virginia Cooperative Milk Producers, shown here, now have a 16 percent share of national output. Plant in Springfield, Virginia.

From 1973 to 1980 the number of cooperatives distributing cheese declined 15 percent—from 187 to 158—a fact reflecting a considerable level of conversion to, or entry into, cheesemaking by cooperatives (table 17). This 15-percent drop was the smallest decrease of any major product category tabulated. Cooperatives distributing less than 2.5 million pounds annually declined by 30 percent to 89 cooperatives, while those distributing more than 10 million pounds grew from 21 to 33 in this period. Just 12 large cooperative cheese distributors accounted for two thirds of all cooperative cheese sales in 1980.

Packaged Fluid Milk Products

Cooperatives distributed 8.2 billion pounds of packaged fluid milk products in 1980, continuing an increase from 1964 in both volume and share of total sales of all U.S. firms (table 18). This share was slightly more than 16 percent in 1980. The increase in volume represents a 22-percent increase over the 1973 volume. In the same period (1973-80), U.S. sales declined by 9 percent.[1]

Cooperatives in the Northeast, South Atlantic, and Central Regions experienced increases from 1973 to 1980 in both volume distributed and their share of all sales. Of the total cooperatives in the three regions, those in the Central Region had a 57-percent increase in volume distributed. Those in the Pacific and Mountain Regions recorded a slight loss in both volume and market share.

The number of cooperatives distributing packaged fluid milk products decreased 31 percent from 85 in 1973 to 59 in 1980 (table 19). Size concentration became more pronounced as the 27 cooperatives distributing over 20 million quart-equivalents accounted for 96 percent of cooperatives sales. Only 15 large-scale cooperative distributors of over 100 million quart-equivalents each, held 79 percent of all cooperative sales in 1980.

Cottage Cheese

In 1980, cooperatives distributed over 220 million pounds of cottage cheese, up 54 percent or 77 million pounds from the volume distributed in 1973 (table 20). The cooperative share of total U.S. production rose to 22 percent, the first significant increase since 1957.

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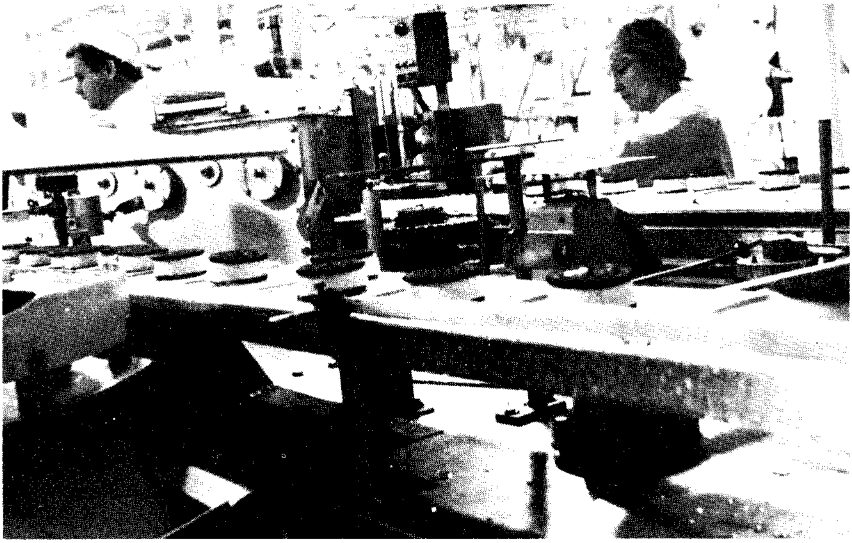
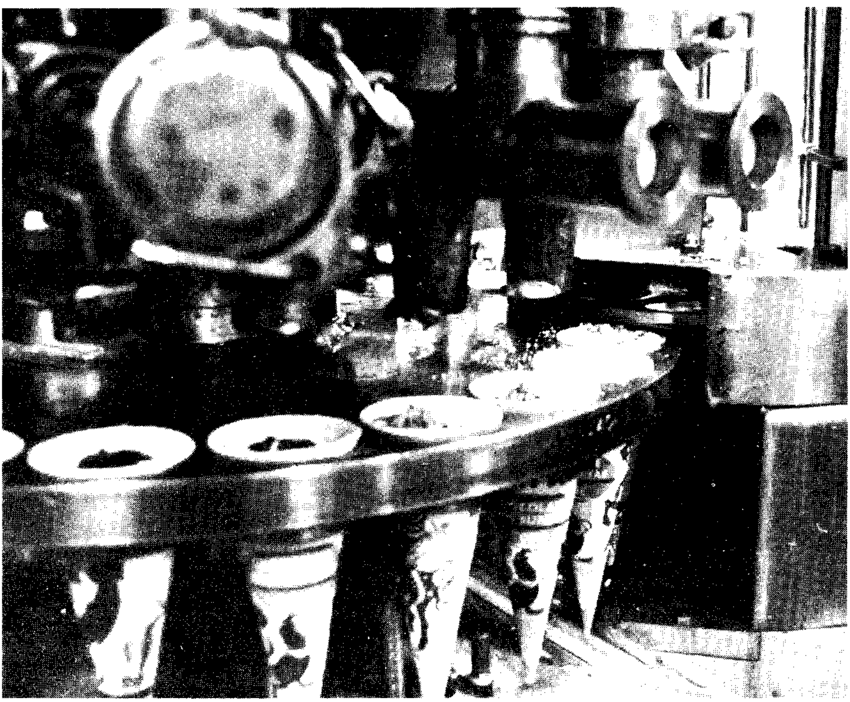
[1]Pounds of packaged fluid milk distributed by cooperatives are based on reported quart equivalents of products sold. Total industry sales are based on total pounds of milk sold to plants and dealers less the whole milk equivalent used in manufacturing.

Ice cream novelties packaging at plant of East Coast Novelties Division, Capital Milk Producers Association, Laurel, Maryland.





Cooperatives in all regions increased both distribution and their market share during the 1973-80 period, led by cooperatives in the Northeast and South Atlantic Regions where distribution nearly doubled. Actual volume increased by 41 million pounds in the Central Region, the greatest increase of any region.

The number of cooperatives distributing cottage cheese dropped from 64 to 44 in 1973 (table 21). As with fluid milk packaging, the larger cottage cheese distributors are rapidly assuming a greater share of cooperative sales. The seven cooperatives each distributing more than 10 million pounds a year accounted for 63 percent of all cooperative sales in 1980.

Ice Cream and Ice Milk

Cooperatives continue to play a minor role in the distribution of ice cream and ice milk. However, the cooperative share of the Nation's production of these frozen products doubled from 1973 to 1980, moving up from 5 to 10 percent (table 22).

Substantial increases in both the cooperative volume and share of total ice cream and ice milk manufactured occurred in the Northeast and Central Regions. In the South Atlantic and Mountain Regions both cooperative volume and market share decreased slightly.

The number of cooperatives distributing these products dropped from 60 in 1973 to 38 in 1980, continuing the steady decline from 143 in 1964 (table 23). Just four cooperatives each with sales of more than 10 million gallons distributed nearly 54 percent of total cooperative volume in 1980, further reflecting the size concentration observed elsewhere in the cooperative dairy processing industry.

Bulk Condensed Milk Products

Nearly half of the Nation's production of evaporated and condensed milk is shipped in bulk to other food processors for further processing. In 1980, U.S. firms produced 952 million pounds of bulk condensed milk (table 24). In that year, 23 cooperatives sold 139 million pounds or 15 percent of total U.S. production, down from 21 percent sold in 1973. This probably reflects increased usage of this product by cooperatives in their own operations for production of other commodities such as dried milk products.

Of the 23 cooperatives reporting distribution of bulk condensed milk, 12 each sold more than 5 million pounds, accounting for 88 percent of all cooperative sales (table 25). The six largest cooperatives reported average sales of almost 15 million pounds each.

Condensed Whey

More cooperatives were engaged in distributing condensed whey in 1980 than in 1973, although net distribution decreased (tables 24 and 25). In 1980, the 16 cooperatives reporting sales sold a net of 51 million pounds, or 59 percent of U.S. production. Comparable data for 1973 showed that cooperatives reporting sales of condensed whey sold only 38 percent of U.S. production. However, both cooperatives and all U.S. firms reported a lower volume of sales of this product in 1980, probably because more firms further processed the whey into dried forms. In 1980, of all cooperatives distributing condensed whey, six accounted for 81 percent of the total distributed.

Dry Whey

From 1973 to 1980 the percentage of dry whey sold by cooperatives increased sharply from 56 percent to 81 percent of total U.S. production (table 24). In 1980, 26 cooperatives distributed 560 million pounds, net of intercooperative transfers. As with many other products, some large-scale cooperatives distributed most of the dry whey produced by cooperatives (table 25). Just nine cooperatives, each distributing an average of over 62 million pounds, accounted for 83 percent of total sales of cooperatives.

Frozen Product Mix

In 1980, 29 cooperatives reported sales of 41.4 million gallons of frozen product mix (tables 24 and 25). This was 7 percent of U.S. production, down from 8 percent estimated in 1973. This does not include any ice cream mix that was used by any cooperative to make ice cream.

As in 1973, 1980 data showed cooperatives largely divided into two groups—15 that distributed small quantities of less than 500,000 gallons a year and 11 that distributed over a million gallons each annually.

Cooperative Concentration Ratios

Table 26 shows for both 1973 and 1980, the 4, 8, and 20 largest cooperatives' proportion of all cooperatives' receipts of grade A milk from farmers, milk processed or manufactured, and sales of selected products. It also shows the larger cooperatives' proportion of receipts, processed or manufactured volume, and sales as a percent of total U.S. production. However, it should be noted that the cooperatives included in each size group are not identical. For example, the four largest cooperatives selling butter are not also the four largest cooperatives selling cheese.

Data showing the share of cooperative sales by the larger cooperatives are shares of gross sales and include intercooperative transactions. Data reflecting sales by the largest cooperatives as a percentage of total U.S. production, do not include intercooperative sales.

The 20 largest cooperatives, in terms of receipts of grade A milk, received two-thirds of the grade A milk marketed by farmers through cooperatives, about the same as in 1973. They marketed more than half of the total U.S. volume. The 20 largest cooperatives with processing and manufacturing operations accounted for slightly more than two-thirds of all processing done by cooperatives, up from 59 percent in 1973. They also processed 24 percent of the total volume of milk processed by U.S. firms, up significantly from the 17 percent processed in 1973.

The 20 largest cooperatives in each of the following lines of business increased their share of cooperative sales: packaged fluid milk distribution, butter, and cheese, while the largest dry milk products distributors decreased their share slightly.

The 20 largest cooperatives in each product group are becoming more significant participants in the U.S. milk processing and manufacturing industry. From 1973 to 1980 their share of sales of packaged fluid milk rose from 9 to 14 percent; butter, from 51 to 53 percent; dry milk, from 72 to 74 percent; and cheese, from 25 to 36 percent of all U.S. production.

The four largest cooperatives in each product line continued to sell a significant proportion of total cooperative volume, but the only products for which their share showed increases from 1973 were packaged fluid milk and cheese. However, the four largest cooperatives held a greater share of total U.S. production of all products except butter and dry milk. This probably reflected a trend among the very largest cooperatives to shift milk manufacturing operations from butter-powder to natural cheese.

DISTRIBUTION AT RETAIL

Nearly all of the dairy products distributed by dairy cooperatives were sold to wholesale outlets. However, 15 cooperatives reported that they owned either retail food stores or food service outlets where they sold some of their dairy ouput (table 27). Of these, 9 had only one outlet, and only 2 cooperatives sold more than 5 percent of their members' milk through these retail outlets.

FINANCIAL PROFILE

In order to do an effective job of marketing, dairy cooperatives must have adequate financial strength. To assess the financial health of the industry, cooperatives were asked to provide simplified balance sheets and operating statements. Usable balance sheets were provided by 305 cooperatives, representing 70 percent of all cooperatives and 89 percent of the raw milk marketed through cooperatives. Also, 314 cooperatives, or 72 percent of the total, provided usable operating statements, again representing 89 percent of raw milk. These data were used to construct a combined cooperative balance sheet (table 28) and operating statement (table 29) for their fiscal years ending before April 1, 1981.

The cooperatives reported combined total assets of $2.5 billion, an average of $8.5 million each. Equity totaled $863 million or 34 percent of assets. For comparison, according to a study made from 1976 data[2] of 459 dairy cooperatives, the equity was equal to 35 percent of their assets. A crude measure of the ability of firms to pay their bills is the current ratio. For 1980, the combined current ratio was 1.25, compared with 1.27 for the 1976 sample. These two reports, 1976 and 1980, are not entirely comparable and do not account for all cooperatives. However, it can be concluded, based on the two simple measures, that the average dairy cooperative has maintained the same financial condition.

Since a third (146 out of 435) of all cooperatives operate no facilities to handle milk or milk products, it would be expected that their balance sheets would be considerably different from the average cooperative. Some 75 cooperatives that did not operate facilities and that provided usable balance sheets (representing 51 percent of cooperatives with no facilities and 71 percent of the raw milk receipts of cooperatives with no facilities) indicated total assets were only $178 million, or an average of $2.4 million each. Equity for these cooperatives was 29 percent of their assets and their current ratio was only 1.09.

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[2]Nelda Griffin, Roger Wissman, William Monroe, Francis Yager, and Elmer Purdue, *The Changing Financial Structure of Farmer Cooperatives*, Farmer Cooperative Research Report Number 17; U.S. Dept. of Agr.; Economics, Statistics, and Cooperatives Service, 1980.

In comparison, the 230 cooperatives reporting that they operate at least some facilities (representing 80 percent of all dairy cooperatives operating facilities and 92 percent of the raw milk receipts of cooperatives with facilities) had total assets of $2.4 billion or an average of $10.3 million. Members of these 230 cooperatives owned 34 percent of their total assets and had a current ratio of 1.26.

The combined operating statement for the 314 cooperatives providing usable statements revealed total operating income in excess of $15 billion, more than 97 percent of which came from dairy sales (table 29). This amount represented an average of $48.3 million gross income per cooperative. The 314 cooperatives generated a net savings for members of 1.2 percent or, about 18 cents per hundredweight of all milk marketed.

For the 229 reporting cooperatives which operated facilities (representing 79 percent of all cooperatives operating facilities and 92 percent of the raw milk receipts of cooperatives with facilities) the $12.7 billion in dairy sales generated a savings of $158 million or about 19 cents per hundredweight of all milk marketed. In contrast, the 85 reporting cooperatives that did not operate facilities (representing 58 percent of all cooperatives without facilities and 74 percent of the raw milk receipts of cooperatives without facilities) had combined dairy sales of about $2 billion and net savings of $17.1 million, or 12 cents per hundredweight of all milk marketed. However, it should be noted that this comparison does not take into account differences in pay price or other services that might contribute to the differences.

Control center in the new milk processing plant of San Joaquin Valley Dairymen in Los Banos.

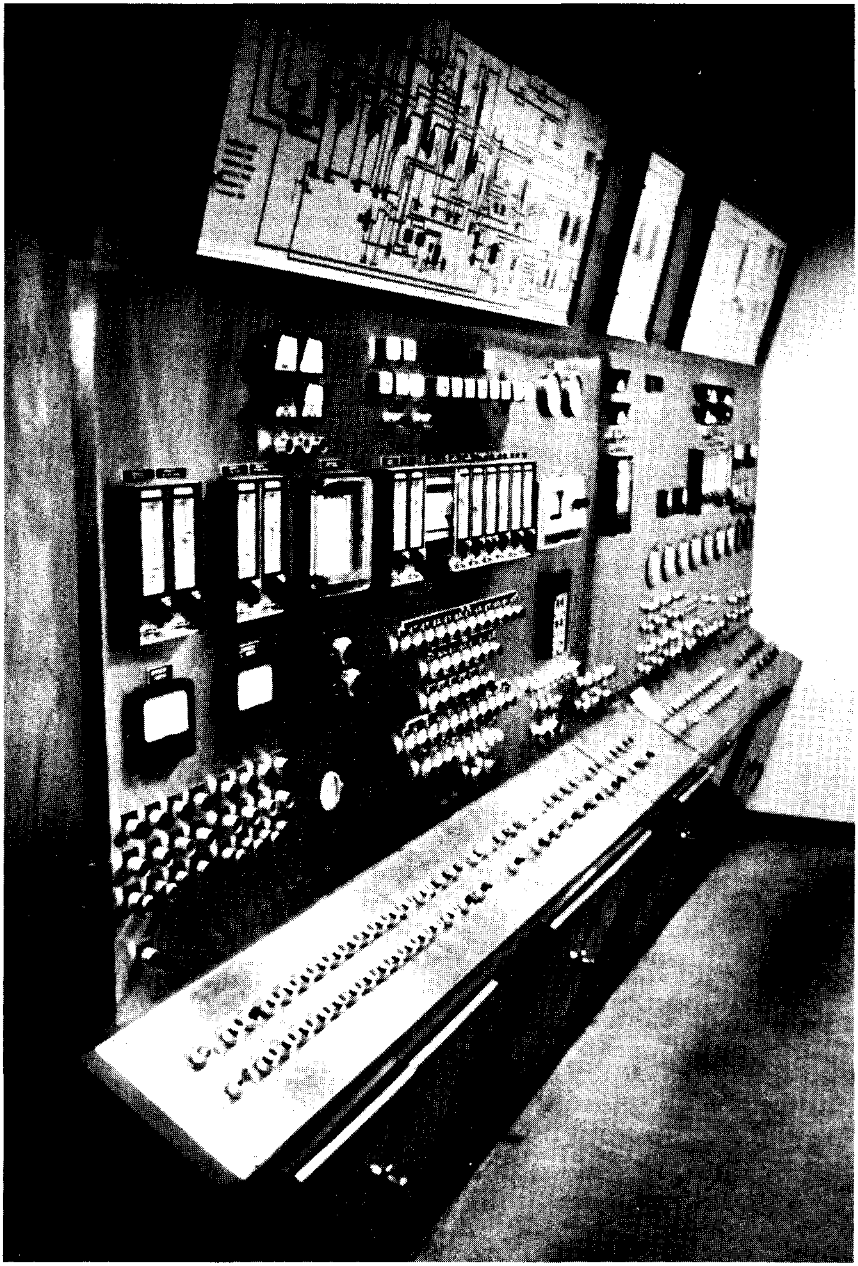

Table 1—Dairy cooperatives by type of operation and by region of cooperatives' headquarters, selected years

Region[1]	Processing and manufacturing dairy products			Operating milk and cream receiving facilities only			Not physically handling dairy products			Total		
	1964	1973	1980	1964	1973	1980	1964	1973	1980	1964	1973	1980
	Number											
New England	18	10	7	4	1	1	6	4	4	28	15	12
Middle Atlantic	22	14	15	34	15	5	109	104	90	165	133	110
East North Central	258	133	93	21	11	7	31	23	18	310	167	118
West North Central	453	85	42	91	97	77	20	2	5	564	184	124
South Atlantic	31	13	9	11	—	—	16	8	7	58	21	16
South Central	16	5	3	7	3	4	13	7	6	36	15	13
Mountain	17	14	9	1	3	1	10	3	5	28	20	15
Pacific	41	17	14	—	—	2	14	20	11	55	37	27
United States	856	291	192	169	130	97	219	171	146	1,244	592	435
Percent	69	49	44	13	22	22	18	29	34	100	100	100

[1]For States included in each region, see figure 1.

Table 2—Cooperatives distributing selected dairy products, by region of cooperatives' headquarters, selected years[1]

Item and year	Region[2]: New England	Middle Atlantic	East North Central	West North Central	South Atlantic	South Central	Mountain	Pacific	Total
	Number								
Bulk whole milk									
1964	25	160	112	294	46	33	17	43	730
1973	12	128	78	163	17	13	14	33	458
1980	10	102	60	120	12	13	12	23	352
Packaged fluid milk products									
1964	12	16	33	84	36	7	9	18	215
1973	8	10	14	16	13	3	9	12	85
1980	5	7	9	15	9	1	5	8	59
Bulk cream									
1964	9	13	197	156	7	12	3	23	420
1973	6	8	116	55	8	4	5	6	208
1980	4	8	76	18	5	2	3	6	122
Ice cream									
1964	3	11	15	55	28	5	9	17	143
1973	3	4	7	22	5	2	8	9	60
1980	2	4	7	12	3	1	4	5	38
Cottage cheese									
1964	11	13	20	18	32	4	9	19	126
1973	4	8	12	9	12	2	9	8	64
1980	3	6	8	9	5	1	4	6	42
Natural cheese									
1964	4	5	184	63	3	8	6	21	294
1973	3	5	115	43	2	3	8	8	187
1980	3	9	89	35	2	4	6	9	157
Butter									
1964	10	14	143	478	29	14	17	35	740
1973	6	6	55	100	7	4	13	16	207
1980	4	9	41	65	4	3	7	15	148
Nonfat dry milk									
1964	6	7	52	105	4	12	10	16	212
1973	2	3	16	14	2	2	6	12	57
1980	2	5	11	11	2	2	4	11	48

[1]Data were tabulated by cooperative's headquarters location. One cooperative may distribute several products.

[2]For States included in each region, see figure 1.

Table 3—Cooperatives' share of milk delivered to plants and dealers, volume by region, selected years[1]

Item and year	Region[2] New England	Middle Atlantic	South Atlantic	Central	Mountain	Pacific	United States
				Million pounds			
Handled by cooperatives[3]							
1957	2,686	10,553	3,299	35,538	1,995	3,967	58,038
1964	3,877	13,079	4,176	47,812	2,683	5,116	76,743
1973	2,580	11,961	4,523	54,333	3,210	6,620	83,227
1980	4,317	10,716	5,222	61,671	3,834	9,874	95,634
U.S. total delivered to plants and dealers							
1957	3,951	15,832	6,584	59,277	3,473	9,261	98,378
1964	4,441	18,195	7,489	69,140	3,980	10,690	113,935
1973	4,002	16,335	8,198	63,605	4,620	13,063	109,823
1980	4,373	19,066	9,301	68,927	5,864	17,186	124,717
				Percent			
Cooperative percentage of total							
1957	68	67	50	60	57	43	59
1964	87	72	56	69	67	48	67
1973	64	73	55	85	69	51	76
1980	99	56	56	89	65	57	77

[1]Cooperative data were tabulated by their headquarters locations.

[2]For States included in each region, see figure 2.

[3]Handled either by physical receipt or by bargaining transactions. Volumes shown include both amounts marketed directly for farmers and small amounts purchased from other concerns. For example, in 1980, cooperatives received 94,795 million pounds from farmers and 839 million pounds from other concerns. These data do not include intercooperative transactions except possibly small amounts reported in purchases from other concerns.

Table 4—Cooperatives' share of milk marketed based on farm location, volume, and grade, by region, 1973 and 1980[1]

Year and region[2]	Grade A Cooperatives[3]	Grade A Volume	Grade A Marketing share[4]	Manufacturing grade Cooperatives[3]	Manufacturing grade Volume	Manufacturing grade Marketing share[4]	Total Cooperatives[3]	Total Volume	Total Marketing share[4]
	No.	*Mil. lb.*	*Pct.*	*No.*	*Mil. lb.*	*Pct.*	*No.*	*Mil. lb.*	*Pct.*
1973									
New England	18	2,526	63	—	—	—	18	2,526	63
Middle Atlantic	139	12,405	77	4	49	39	143	12,454	76
East North Central	69	21,239	95	132	3,778	42	167	25,017	80
West North Central	92	8,886	97	176	8,379	72	187	17,265	83
South Atlantic	29	6,350	80	([5])	([5])	([5])	29	([5]	78)
East South Central	10	4,010	88	4	67	6	12	4,077	73
West South Central	11	4,903	88	([5])	([5])	([5])	11	([5])	84
Mountain	20	2,585	77	8	775	60	22	3,360	73
Pacific	35	6,094	51	15	436	41	37	6,530	50
United States[6]	370	68,998	81	328	13,534	55	563	82,532	75
1980									
New England	15	3,584	82	—	—	—	15	3,584	82
Middle Atlantic	108	11,761	62	4	69	87	112	11,830	62
East North Central	67	26,117	93	96	4,012	53	122	30,129	85
West North Central	93	11,804	92	121	6,134	71	131	17,938	84
South Atlantic	25	7,335	81	([5])	([5])	([5])	25	([5])	79
East South Central	14	4,166	84	4	81	12	15	4,247	75
West South Central	9	5,182	85	([5])	([5])	([5])	9	([5])	82
Mountain	15	3,863	87	6	513	37	17	4,376	75
Pacific	24	9,507	57	10	295	46	25	9,802	57
United States[6]	322	83,319	79	228	11,120	57	420	94,439	76

[1]Includes milk either physically received by cooperatives or marketed by bargaining transactions. Includes only milk from farmer members, excluded is milk received from cooperative and noncooperative firms.

[2]For States included in each region, see figure 3.

[3]Co-ops having members in the region, but not necessarily headquartered there.

[4]Co-op volume as a percentage of total milk sold to plants and dealers in the region during 1973 and 1980.

[5]Regions not shown when less than 3 co-ops reported or individual co-op operations might be disclosed.

[6]Numbers of cooperatives do not add to totals since some receive milk from more than one region.

Table 5—Cooperatives' marketing of grade A and manufacturing grade raw whole milk, by region of cooperatives' headquarters

Product and source	Region[1]						Total	
	Eastern		Central		Western			
	Co-ops	Volume	Co-ops	Volume	Co-ops	Volume	Co-ops	Volume
	No.	*Mil. lb.*	*No.*	*Mil. lb.*	*No.*	*Mil. lb.*	*No.*	*Mil. lb.*
1973								
Grade A milk:								
Farmers	195	32,744	127	27,783	48	8,471	370	68,998
Non co-ops	25	406	6	47	10	146	41	599
Other co-ops	36	8,488	20	2,359	15	1,777	71	12,624
Total[2]	200	41,638	132	30,189	50	10,394	382	82,221
Manufacturing grade milk:								
Farmers	15	263	290	12,061	23	1,210	328	13,534
Non co-ops	3	48	11	46	3	2	17	96
Other co-ops	4	25	28	1,958	4	6	36	1,989
Total[2]	15	336	290	14,065	23	1,218	328	15,619
1980								
Grade A milk:								
Farmers	151	34,806	135	35,999	36	12,826	322	83,631
Non co-ops	15	431	5	88	6	56	26	575
Other co-ops	36	5,400	13	2,854	15	2,421	64	10,675
Total[2]	156	40,637	137	38,941	39	15,303	332	94,881
Manufacturing grade milk:								
Farmers	12	271	202	10,084	14	808	228	11,163
Non co-ops	1	1	6	246	2	17	9	264
Other co-ops	5	98	23	1,307	4	140	32	1,545
Total[2]	12	370	203	11,637	15	965	230	12,972

[1]For States included in each region, see figure 4.

[2]Numbers of cooperatives do not add to totals since some receive milk from more than one source.

Table 6—Utilization of cooperatively marketed grade A and manufacturing grade milk, by regions, 1980[1]

Product and source	Region[2]						Total	
	Eastern		Central		Western			
	Co-ops	Volume	Co-ops	Volume	Co-ops	Volume	Co-ops	Volume
	No.	*Mil. lb.*	*No.*	*Mil. lb.*	*No.*	*Mil. lb.*	*No.*	*Mil. lb.*
Grade A:								
Sold raw	142	28,857	124	23,565	35	8,856	301	61,278
Processed or manufactured	41	11,780	47	15,376	21	6,447	109	33,603
Total[3]	156	40,637	137	38,941	39	15,303	332	94,881
Manufacturing grade milk:								
Sold raw	7	97	125	3,176	7	181	139	3,454
Processed or manufactured	9	273	116	8,461	12	784	137	9,518
Total[3]	12	370	203	11,637	15	965	230	12,972
Total milk:								
Sold raw	145	28,954	171	26,741	35	9,037	351	64,732
Processed or manufactured	45	12,053	104	23,837	23	7,231	172	43,121
Total[3]	162	41,007	226	50,578	41	16,268	429	107,853

[1]Data tabulated by cooperatives' headquarters locations.

[2]For States included in each region, see figure 4.

[3]Numbers of cooperatives do not add to totals since some both sold raw milk and processed or manufactured dairy products. Also, some marketed both grade A and manufacturing grade milk.

Table 7—Distances cooperative milk is shipped from farm to plant of first receipt, by regions, 1980[1]

Region[2]	Milk shipped: Under 25 miles	25 to 75 miles	75 to 150 miles	More than 150 miles	Total
	Percent				
New England	42	37	10	11	100
Middle Atlantic	25	49	14	12	100
East North Central	46	40	12	2	100
West North Central	32	38	18	12	100
South Atlantic	16	43	26	15	100
East South Central	10	15	50	25	100
West South Central	8	38	54	—	100
Mountain	22	33	31	14	100
Pacific	36	50	11	3	100
United States	33	40	18	9	100

[1]Computed from data for 230 cooperatives representing 62 percent of total receipts from farmers. Data were tabulated by cooperatives' headquarters and not by plant location.

[2]For States included in each region, see figure 3.

Table 8—Cooperatives' farm-to-plant milk hauling arrangements, by regions, 1973[1]

Hauling arrangement	Region: Eastern		Central		Western		Total	
	Co-ops	Milk	Co-ops	Milk	Co-ops	Milk	Co-ops	Milk
	Percent							
Trucks operated by co-op	21	9	50	14	55	53	37	19
Contract between co-op and hauler	59	39	52	58	83	45	59	47
Agreement between producer and hauler	31	52	22	28	7	2	24	34
Other	1	([3])	7	([3])	—	—	3	([3])
Total[4]	100	100	100	100	100	100	100	100

[1]Data were tabulated by cooperatives' headquarters locations from 245 cooperatives representing 69 percent of total receipts from farmers.

[2]For States included in each region, see figure 4.

[3]Less than 0.5 percent.

[4]Numbers of cooperatives reporting do not add to totals since some reported more than one arrangement for hauling milk.

Table 9—Producer payroll paid by cooperatives, 1980[1]

Percentage of producer payroll paid by cooperatives	Cooperatives with no operating facilities: Number of co-ops	Pounds of raw milk received	Cooperatives operating some facilities: Number of co-ops	Pounds of raw milk received	All cooperatives reporting: Number of co-ops	Pounds of raw milk received
	Percent of responses					
0 - 29	37	38	2	([2])	17	6
30 - 74	—	—	—	—	—	—
75 - 99	5	16	2	30	3	28
100	58	46	96	70	80	66
Total	100	100	100	100	100	100
	Number					
Cooperatives reporting	114		156		270	

[1]The 270 cooperatives reporting represent 62 percent of all cooperatives and 80 percent of the volume of raw milk received. The 114 reporting cooperatives which had no operating facilities represent 78 percent of similar cooperatives and 74 percent of their raw milk receipts, whereas the 156 cooperatives operating facilities represent only 54 percent of all cooperatives with operating facilities and 82 percent of their volume.

[2]Less than 0.5 percent.

Table 10—Number of plants owned by cooperatives performing various marketing functions, by regions, 1980

Marketing function	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific	United States
	Region[1]									
	Number									
Receive and ship milk only	10	15	64	127	11	3	7	3	2	242
Make natural cheese	4	9	105	35	1	2	3	7	8	174
Make processed cheese	0	2	1	2	—	—	—	3	1	9
Churn butter	6	6	15	42	1	1	3	7	14	95
Package fluid milk	8	17	16	26	23	7	3	11	12	123
Make dry products	5	9	27	50	1	3	5	7	15	122
Make condensed products	6	8	23	18	2	3	3	2	8	73
Make cottage cheese	3	3	8	9	8	—	1	4	8	44
Make ice cream	3	3	12	14	4	1	1	4	7	49
Not operated in 1980	4	3	3	5	—	—	—	—	—	15
Other	1	7	7	13	6	—	2	4	—	40
Total[2]	33	54	225	259	40	15	20	24	28	698

[1]For States included in each region, see figure 3.

[2]Numbers of plants do not add to totals since some perform more than one function.

Table 11—Number of cooperatives reporting and volume of raw whole milk marketed, by regions, selected years[1]

Region[2]	Cooperatives reporting				Volume sold raw				Percentage of all milk marketed by cooperatives			
	1957	1964	1973	1980	1957	1964	1973	1980	1957	1964	1973	1980
	-------Number-------				------Million pounds------				--------Percent--------			
New England	(3)	25	12	10	2,116	3,066	2,074	2,270	79	79	80	53
Middle Atlantic	(3)	160	128	102	9,045	10,869	8,835	6,936	86	83	74	65
South Atlantic	(3)	46	17	12	2,632	2,801	2,903	3,485	80	67	64	67
Central	(3)	439	254	193	19,220	22,662	33,194	33,331	54	47	61	54
Mountain	(3)	17	14	12	891	1,362	1,720	2,025	45	51	54	53
Pacific	3/	43	33	23	2,309	2,683	3,454	4,448	58	52	52	45
United States	735	730	458	352	36,213	43,443	52,180	52,495	62	57	63	55

[1]Cooperative data were tabulated by their headquarters' locations. Adjusted for intercooperative transactions. Includes purchases from other sources. Volume covered by bargaining is included.

[2]For States included in each region, see figure 2.

[3]Data not available.

Table 12—Volume and percentage of butter distributed by cooperatives compared with total U.S. production, by regions, selected years[1]

Item	Region[2] New England	Atlantic	Central	Mountain	Pacific	United States
			1,000 pounds			
Distributed by cooperatives[3]						
1957	2,088	8,401	733,275	32,803	39,113	815,680
1964	2,908	19,326	838,448	33,029	44,858	938,569
1973	6,523	23,967	465,014	20,645	88,568	604,717
1980	10,607	85,885	468,267	23,283	145,104	733,146
Total manufactured by all firms						
1957	2,128	38,515	1,251,177	59,203	61,825	1,412,848
1964	8,222	78,605	1,239,536	48,704	67,380	1,442,447
1973	7,539	52,313	666,417	39,150	153,199	918,618
1980	12,232	148,814	710,782	33,358	240,068	1,145,254
			Percent			
Cooperative percentage of total						
1957	98	22	59	55	63	58
1964	35	25	68	68	67	65
1973	87	46	70	53	58	66
1980	87	58	66	70	60	64

[1]Cooperative data were tabulated by their headquarters' locations.

[2]For States included in each region, see figure 2. Note that the Atlantic Region is a combination of the Middle and South Atlantic Regions.

[3]Adjusted for intercooperative transactions. Includes purchases from other sources.

Table 13—Size groups of dairy cooperatives distributing butter, for selected years

Item	Size groups (1,000 pounds) Less than 500	500-999	1,000-2,499	2,500-4,999	5,000-9,999	10,000-19,999	20,000-and over	Total
				Number				
Number of cooperatives								
1964	354	136	142	64	25	8	11	740
1973	120	20	22	19	15	5	6	207
1980	94	9	9	4	9	11	12	148
				Percent				
Percentage of cooperatives								
1964	48	18	19	9	3	1	2	100
1973	58	10	11	9	7	2	3	100
1980	64	6	6	3	6	7	8	100
				1,000 pounds				
Group volume[1]								
1964	49,999	100,011	212,730	225,296	173,430	105,600	537,355	1,404,421
1973	8,534	15,331	33,123	70,975	105,132	66,149	467,698	766,942
1980	7,434	6,381	14,025	17,312	64,315	160,254	643,754	913,475
				Percent				
Group volume as percentage of total cooperative volume								
1964	4	7	15	16	12	8	38	100
1973	1	2	4	9	14	9	61	100
1980	1	1	2	2	7	17	70	100

[1]Volume not adjusted for intercooperative transactions.

Table 14—Volume of dry milk products distributed by cooperatives compared with total U.S. production, by regions, selected years[1]

Item	Region[2] New England	Atlantic	Central	Mountain	Pacific	United States
	1,000 pounds					
Distributed by cooperatives[3]						
1957	12,276	38,603	851,126	61,546	43,432	1,006,983
1964	22,506	89,513	1,460,362	64,526	72,120	1,709,027
1973	13,694	63,186	664,576	30,020	122,889	894,365
1980	34,276	142,347	697,531	26,364	224,883	1,125,401
Total manufactured by all firms						
1957	28,442	171,183	1,409,747	66,826	89,021	1,765,219
1964	42,106	288,806	1,870,705	65,096	111,300	2,378,013
1973	13,944	92,669	721,664	31,062	188,223	1,047,562
1980	34,281	217,848	695,498	23,905	322,690	1,294,222
	Percent					
Cooperative percent of total						
1957	43	23	60	92	49	57
1964	53	31	78	99	65	72
1973	98	68	92	97	65	85
1980	100	65	[4]100	[4]110	70	87

[1]Cooperative data were tabulated by their headquarters' locations.

[2]For States included in each region, see figure 2. Atlantic Region is the combination of Middle and South Atlantic Regions.

[3]Adjusted for intercooperative transactions. Includes purchases from other sources.

[4]Reflects slightly different reporting periods and/or inventory adjustments.

Table 15—Size groups of dairy cooperatives distributing dry milk products, selected years

Item	Size groups (1,000 pounds) Less than 1,000	1,000-2,499	2,500-4,999	5,000-9,999	10,000-19,999	20,000-and over	Total
	Number						
Number of cooperatives							
1964	39	22	38	62	29	22	212
1973	11	10	3	18	10	10	62
1980	5	4	3	6	11	19	48
	Percent						
Percentage of cooperatives							
1964	19	10	18	29	14	10	100
1973	18	16	5	29	16	16	100
1980	10	8	6	13	23	40	100
	1,000 pounds						
Group volume[1]							
1964	15,317	41,027	145,240	438,347	407,704	1,395,086	2,442,721
1973	2,740	16,234	10,336	127,045	136,488	778,198	1,071,041
1980	1,421	6,754	10,734	49,107	152,999	1,058,533	1,279,549
	Percent						
Group volumes as percentage of total cooperative volume							
1964	([2])	2	6	18	17	57	100
1973	([2])	1	1	12	13	73	100
1980	([2])	1	1	3	12	82	100

[1]Volume not adjusted for intercooperative transactions.

[2]Less than 0.5 percent.

Table 16—Volume of cheese marketed by cooperatives compared with total U.S. production, by regions, selected years[1]

Item	Region[2] Eastern	Central	Mountain	Pacific	United States
			1,000 pounds		
Cheese marketed by cooperatives[3]					
1957	5,044	206,661	14,274	26,966	252,945
1964	10,435	312,492	21,120	21,855	365,902
1973	39,025	798,830	61,037	27,555	926,447
1980	336,302	1,347,041	106,424	83,468	1,873,235
Total manufactured by all firms					
1957	132,309	1,190,665	45,460	38,995	1,407,429
1964	180,287	1,444,242	61,355	44,689	1,730,573
1973	300,841	2,161,617	133,354	89,538	2,685,350
1980	560,155	2,951,683	211,135	261,293	3,984,266
			Percent		
Cooperative percent of total					
1957	4	17	31	69	18
1964	6	22	34	49	21
1973	13	37	46	31	35
1980	60	46	50	32	47

[1]Cooperative data were tabulated by their headquarters locations. Includes all types of cheese except cottage cheese.

[2]For States included in each region, see figure 2. Eastern Region is combination of New England, Middle Atlantic, and South Atlantic Regions.

[3]Includes purchases from other sources, some of which may be manufactured in another area. Does not include purchases from other cooperatives.

Table 17—Size groups of dairy cooperatives distributing cheese, selected years

Item	Size groups (1,000 pounds) Less than 500	500-999	1,000-2,499	2,500-4,999	5,000-9,999	10,000 and over[1]	Total
				Number			
Number of cooperatives							
1964	143	57	63	16	9	6	294
1973	57	31	40	27	11	21	187
1980	41	12	36	23	13	33	158
				Percent			
Percent of cooperatives							
1964	49	19	21	6	3	2	100
1973	31	17	21	14	6	11	100
1980	26	8	23	14	8	21	100
				1,000 pounds			
Group volume[2]							
1964	26,939	41,553	99,881	54,043	59,222	130,656	412,294
1973	9,215	24,575	63,565	89,500	76,870	799,492	1,063,217
1980	4,602	8,506	63,606	76,520	90,251	1,768,986	2,012,471
				Percent			
Group volume as percentage of total cooperative volume							
1964	7	10	24	13	14	32	100
1973	1	2	6	9	7	75	100
1980	([3])	([3])	3	4	4	88	100

[1]For 1980, the largest size category can be more completely shown as follows:

Item	Size groups (1,000 pounds) 10,000-19,999	20,000-39,999	40,000-99,999	100,000 and over
Number of cooperatives	13	8	7	5
Percent of cooperatives	8	5	5	3
Group volume (1,000 lbs.)	202,297	237,479	342,921	986,289
Percent of total volume	10	12	17	49

[2]Volume not adjusted for intercooperative transactions.

[3]Less than 0.5 percent.

Table 18—Volume of packaged fluid milk products distributed by cooperatives and all processors compared with estimated U.S. total, by regions, selected years[1]

Region	Distributed by cooperatives[3]			Total distributed by all processors[4]			Cooperative percentage of total		
	1964	1973	1980	1964	1973	1980	1964	1973	1980
	--------Million pounds--------						--------Percent--------		
Northeast	1,173	1,847	1,945	14,208	13,600	13,377	8	14	15
South Atlantic	974	1,077	1,149	5,732	7,541	6,660	17	14	17
Central	1,635	2,606	4,097	23,172	24,628	20,332	7	11	20
Mountain	204	363	299	1,944	2,455	2,508	10	15	12
Pacific	785	822	711	7,198	7,412	7,755	11	11	9
United States	4,771	6,715	8,201	52,254	55,636	50,632	9	12	16

[1]Cooperative data were tabulated by their headquarters locations. Based on product pounds.

[2]For States included in each region, see figure 2. Northeast Region is the combination of New England and Middle Atlantic Regions.

[3]Adjusted for intercooperative transactions. Based on reported quart equivalent of products sold.

[4]Based on total pounds of milk sold to all plants and dealers less whole milk equivalent used in manufactured products.

Table 19—Size groups of dairy cooperatives distributing packaged fluid milk product, selected years

Size groups (1,000 quarts)	Number of co-ops			Percentage of co-ops			Group volume[1]			Percentage of total co-op volume		
	1964	1972	1980	1964	1973	1980	1964	1973	1980	1964	1973	1980
	----Number----			----Percent----			----1,000 quart equivalent----			----Percent----		
Less than 1,000	84	14	10	39	16	17	24,684	3,566	1,512	1	([2])	([2])
1,000 - 2,499	22	4	3	10	5	5	33,535	7,626	5,524	2	([2])	([2])
2,500 - 4,999	30	12	5	14	14	8	108,372	45,191	17,936	5	1	([2])
5,000 - 9,999	26	8	9	12	9	15	183,848	59,676	63,302	8	2	2
10,000 - 19,999	21	10	5	10	12	8	297,560	151,476	73,132	13	5	2
20,000 and over[3]	32	37	27	15	44	45	1,575,774	2,855,926	3,662,187	71	91	95
Total	215	85	59	100	100	100	2,223,773	3,123,461	3,823,593	100	100	100

[1]Volume not adjusted for intercooperative transfers.

[2]Less than 0.5 percent.

[3]For 1980 the largest size category can be more completely shown as follows:

Size groups	Number of co-ops	Percentage of co-ops	Group volume	Percentage of total co-op volume
20,000 - 49,999	6	10	199,526	5
50,000 - 99,999	6	10	423,304	11
100,000 and over	15	25	3,039,357	79

Table 20—Volume of cottage cheese distributed by cooperatives compared with total U.S. production, by regions, selected years[1]

Region[2]	Distributed by cooperatives[3]				Total manufactured by all firms				Cooperative percent of total			
	1957[4]	1964	1973	1980	1957	1964	1973	1980	1957	1964	1973	1980
	--------1,000 pounds--------								----Percent----			
Northeast	15,341	18,021	27,330	46,966	138,102	172,658	251,608	241,791	11	10	11	19
South Atlantic	6,075	7,986	11,960	21,769	30,551	41,620	77,671	50,652	20	19	15	43
Central	48,310	66,613	67,289	108,666	350,305	422,523	482,274	444,438	14	16	14	24
Mountain	6,920	10,689	8,535	10,061	30,090	42,050	57,865	65,117	23	25	15	15
Pacific	19,569	26,867	28,182	33,220	145,237	181,901	216,804	202,384	13	15	13	16
United States	96,215	130,176	143,296	220,682	694,285	860,752	1,086,222	1,004,382	14	15	13	22

[1]Cooperative data were tabulated by their headquarters locations.

[2]For States included in each region, see figure 2. The Northeast Region is a combination of the New England and Middle Atlantic Regions.

[3]Adjusted for intercooperative transactions. Includes purchases from other sources.

[4]Total manufactured by all cooperatives for 1957 includes creamed cottage cheese only, while that for 1964, 1973, and 1980 includes both creamed and partially creamed.

Table 21 —Size groups of dairy cooperatives distributing cottage cheese, selected years

Size groups (1,000 pounds)	Number of co-ops 1964	1973	1980	Percentage of co-ops 1964	1973	1980	Group volume[1] 1964	1973	1980	Percentage of total co-op volume 1964	1973	1980
	----Number----			----Percent----			----1,000 pounds----			----Percent----		
Less than 500	82	28	16	64	43	36	10,515	3,323	1,716	8	2	1
500 - 999	15	10	3	12	16	7	10,302	7,193	2,611	8	5	1
1,000 - 2,499	15	9	7	12	14	16	22,576	15,355	10,202	17	11	4
2,500 - 4,999	7	7	4	6	11	9	24,265	25,993	15,748	19	18	7
5,000 and over[1]	7	10	14	6	16	32	62,518	91,432	201,881	48	64	87
Total	126	64	44	100	100	100	130,176	143,296	232,158	100	100	100

[1]Volume not adjusted for intercooperative transactions.

[2]For 1980 the largest size category can be more completely shown as follows:

Size groups	Number of co-ops	Percentage of co-ops	Group volume	Percentage of total co-op volume
5,000 - 9,999	7	16	56,818	24
10,000 and over	7	16	145,063	63

Table 22—Volume of ice cream and ice milk distributed by cooperatives compared with total U.S. production, by regions, selected years[1]

Item	Region[2] Northeast	South Atlantic	Central	Mountain	Pacific	United States
			1,000 gallons			
Distributed by cooperatives[3]						
1957[4]	7,220	1,761	9,349	900	11,961	31,191
1964	6,645	10,613	21,748	3,029	10,180	52,215
1973	7,112	9,834	28,758	3,638	9,405	58,747
1980	37,317	9,765	54,198	3,528	13,417	118,225
Total manufactured by all firms						
1957	210,327	94,759	332,061	27,634	93,330	758,111
1964	247,270	133,006	420,276	34,077	119,961	954,590
1973	275,554	152,990	528,596	44,182	157,751	1,159,073
1980	269,126	164,240	512,382	53,880	168,741	1,168,369
			Percent			
Cooperative percentage of total						
1957	3	2	3	3	13	4
1964	3	8	5	9	8	5
1973	3	6	5	8	6	5
1980	14	6	11	7	8	10

[1]Cooperative data were tabulated by their headquarters locations.

[2]For States included in each region, see figure 2. The Northeast Region is combination of the New England and Middle Atlantic Regions.

[3]Adjusted for intercooperative transactions. Includes purchases from other sources.

[4]Amounts do not include a small amount of ice milk.

Table 23—Size groups of dairy cooperatives distributing ice cream and ice milk, selected years

Size groups (1,000 gallons)	Number of co-ops			Percentage of co-ops			Group volume[1]			Percentage of total co-op volume		
	1964	1973	1980	1964	1973	1980	1964	1973	1980	1964	1973	1980
	----*Number*----			----*Percent*----			----*1,000 gallons*----			----*Percent*----		
Less than 100	87	29	14	61	48	37	2,523	490	466	5	1	([1])
100 - 999	39	12	6	27	20	16	11,306	5,895	1,580	22	10	1
1,000 and over[3]	17	19	18	12	32	47	38,603	52,362	116,287	74	89	99
Total	143	60	38	100	100	100	52,432	58,747	118,333	100	100	100

[1]Volume not adjusted for intercooperative transactions.

[2]Less than 0.5 percent.

[3]For 1980 the largest size category can be further divided as follows:

Size groups (1,000 gallons)	Number of co-ops	Percentage of co-ops	Group volume	Percentage of total co-op volume
1,000 - 1,999	3	8	4,037	3
2,000 - 3,999	6	16	17,186	15
4,000 - 9,999	5	13	31,702	27
10,000 and over	4	10	63,362	54

Table 24—Volume of selected products distributed by cooperatives compared with total U.S. production, 1973 and 1980

Product	Distributed by cooperatives[1]		Total U.S. manufactured		Cooperative percentage of total	
	1973	1980	1973	1980	1973	1980
	----*Million pounds*----				----*Percent*----	
Bulk condensed milk	[2]237	139	1,115	952	[2]21	15
Condensed whey	67	51	174	86	38	59
Dry whey	433	560	772	690	56	81
			----*Thousand pounds*----			
Frozen product mix[3]	[2]45,209	41,435	613,522	634,555	[2]8	7

[1]Adjusted for intercooperative transactions. Includes purchases from other sources other than cooperatives.

[2]Revised.

[3]Frozen product mix sold by cooperatives was all reported as ice cream mix, whereas total U.S. manufactured is the sum of ice cream mix, ice milk mix, and milk sherbert mix.

Table 25—Cooperatives distributing selected dairy products, volume by size groups, 1973 and 1980

Product and co-op size group	Number of cooperatives 1973	Number of cooperatives 1980	Percentage of cooperatives 1973	Percentage of cooperatives 1980	Group volume[1] 1973	Group volume[1] 1980	Percentage of co-op total volume 1973	Percentage of co-op total volume 1980
	----*Number*----		----*Percent*----		----*Thousand pounds*----		----*Percent*----	
Bulk condensed milk:								
Less than 5 million pounds	[2]18	11	55	48	[2]35,217	19,412	14	12
5.0 to 9.9 million pounds	[2]7	6	21	26	[2]41,846	41,990	17	28
10 million pounds and over	[2]8	6	24	26	[2]175,208	91,032	69	60
Total	[2]33	23	100	100	[2]252,271	152,434	100	100
Condensed whey:								
Less than 1 million pounds	3	4	25	25	840	676	1	([3])
1.0 to 9.9 million pounds	6	6	50	38	15,747	26,746	24	18
10 million pounds and over	3	6	25	38	49,815	118,665	75	81
Total	12	16	100	100	66,402	146,087	100	100
Dry whey:								
Less than 5 million pounds	20	9	62	35	33,335	17,815	8	3
5.0 to 19.9 million pounds	6	8	19	30	51,463	98,564	12	14
20 million pounds and over	6	9	19	35	347,977	560,642	80	83
Total	32	26	100	100	432,775	677,021	100	100
					----*Thousand gallons*----			
Frozen product mix:								
Less than 500,000 gallons	[2]28	15	58	52	[2]2,838	1,809	6	4
500 to 999 Thousand gallons	[2]6	3	13	10	[2]4,373	2,108	10	5
1 million gallons and over	[2]14	11	29	38	[2]38,998	37,525	84	91
Total	48	29	100	100	[2]46,209	41,442	100	100

[1]Volume not adjusted for intercooperative transactions

[2]Revised.

[3]Less than 0.5 percent.

Table 26—Percentage of grade A milk received from farmers, milk processed or manufactured, and selected product sales for largest dairy cooperatives, 1973 and 1980

Item	Receipts of grade A milk[1] 1973	Receipts of grade A milk[1] 1980	Milk processed or manufactured 1973	Milk processed or manufactured 1980	Sales: Packaged fluid milk 1973	Sales: Packaged fluid milk 1980	Sales: Butter 1973	Sales: Butter 1980	Sales: Dry milk products 1973	Sales: Dry milk products 1980	Sales: Natural cheese[3] 1973	Sales: Natural cheese[3] 1980
	--------*Percent*--------				--------*Percentage of all cooperative sales*--------							
Share of total co-op volume:												
4 largest co-ops	38	32	34	32	35	39	54	48	53	41	40	53
8 largest co-ops	51	45	42	47	51	58	65	61	68	56	54	73
20 largest co-ops	67	66	59	68	75	89	79	84	85	84	74	78
					--------*Percentage of total U.S. production*--------							
Share of total U.S. volume:[2]												
4 largest co-ops	31	26	10	19	4	6	34	26	46	36	13	19
8 largest co-ops	41	36	12	27	6	9	41	36	57	50	18	26
20 largest co-ops	54	52	17	40	9	14	51	53	72	74	25	36

[1]Grade A milk received from farmers.

[2]Adjusted to exclude intercooperative transactions.

[3]Includes processed cheese sold by cooperatives in 1980.

NOTE: Groups of cooperatives may change from function to function.

Table 27—Number of cooperatives reporting retail outlets, number of establishments, and number of cooperatives reporting percentage of milk marketed via each type of outlet

Type of outlet owned	Number of cooperatives reporting	Number of establish-ments	Number of cooperatives reporting percent of milk marketed via each type of outlet		
			0 - 11	11 - 75	76 - 100
			Number		
Retail food store	11	453	7	1	1
Food service establishment	5	7	5	—	—
Total[1]	15	460	13	1	1

[1]Numbers of cooperatives do not add since one cooperative reported owning both types of establishments.

Table 28—Combined balance sheet for dairy cooperatives, 1980

Item	All cooperatives reporting (305)[1]		Cooperatives operating some facilities (230)		Cooperatives not operating facilites (75)	
	Total	Percentage of total assets	Total	Percentage of total assets	Total	Percentage of total assets
	$1,000	*Percent*	*$1,000*	*Percent*	*$1,000*	*Percent*
Current assets	1,613,231	63.5	1,484,549	62.9	128,682	72.2
Fixed assets	636,484	25.1	622,242	26.4	14,242	8.0
Other assets	288,699	11.4	253,303	10.7	35,396	19.8
Total assets	2,538,414	100.0	2,360,094	100.0	178,320	100.0
Current liabilities	1,293,052	51.0	1,174,493	49.8	118,560	66.5
Long-term liabilities	381,806	15.0	373,346	15.8	8,459	4.7
Total liabilities	1,674,858	66.0	1,547,838	65.6	127,019	71.2
Equity	863,556	34.0	812,255	34.4	51,301	28.8
Liabilities and equity	2,583,414	100.0	2,360,094	100.0	178,320	100.0

[1]The 305 cooperatives providing usable balance sheets represent 70 percent of the dairy marketing cooperatives and 89 percent of the milk marketed cooperatively.

Table 29—Combined operating statement for dairy cooperatives, 1980[1]

Item	All cooperatives reporting (314)[2]		Cooperatives operating some facilities (229)		Cooperatives not operating facilites (85)	
	Total	Percentage of total operating income	Total	Percentage of total operating income	Total	Percentage of total operating income
	$1,000	*Percent*	*$1,000*	*Percent*	*$1,000*	*Percent*
Dairy product sales	14,770,260	97.4	12,759,844	97.5	2,010,416	97.1
Nondairy sales	226,506	1.5	200,468	1.5	26,038	1.3
Other operating income	165,328	1.1	132,385	1.0	32,943	1.6
Total operating income	15,162,094	100.0	13,092,697	100.0	2,069,397	100.0
Cost of products sold	13,670,912	90.2	11,668,360	89.1	2,002,552	96.8
Gross margin	1,491,182	9.8	1,424,337	10.9	66,845	3.2
Operating, sales, and administrative expenses	1,297,558	8.5	1,245,455	9.5	52,103	2.5
Other income (expenses)	(18,468)	(0.1)	(20,847)	(0.2)	2,379	0.1
Net savings (losses)	175,156	1.2	158,035	1.2	17,121	0.8

[1]No adjustment was made for intercooperative transactions.

[2]The 314 cooperatives providing usable operating statements represent 72 percent of the cooperatives and 89 percent of the raw milk marketed by cooperatives.

U.S. Department of Agriculture
Agricultural Cooperative Service

Agricultural Cooperative Service (ACS) provides research, management, and educational assistance to cooperatives to strengthen the economic position of farmers and other rural residents. It works directly with cooperative leaders and Federal and State agencies to improve organization, leadership, and operation of cooperatives and to give guidance to further development.

The agency (1) helps farmers and other rural residents develop cooperatives to obtain supplies and services at lower cost and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs.

ACS publishes research and educational materials and issues *Farmer Cooperatives* magazine. All programs and activities are conducted on a nondiscriminatory basis, without regard to race, creed, color, sex, or national origin.

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