United States General Accounting Office

GAO

Briefing Report to the Chairman, Committee on Agriculture, Nutrition, and Forestry, U.S. Senate

March 1995

FEDERAL DAIRY PROGRAMS

Information on Dairy Pricing and Related 1995 Farm Bill Issues

GAO

United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-260216

March 27, 1995

The Honorable Richard G. Lugar
Chairman, Committee on Agriculture,
Nutrition, and Forestry
United States Senate

Dear Mr. Chairman:

In deliberations on the 1995 farm bill, the Congress will again be considering the policy for and changes to the U.S. dairy program. To aid congressional consideration of the dairy program, you asked us to provide information on (1) how the U.S. dairy pricing system operates and (2) dairy issues that may need consideration when the farm bill is reauthorized in 1995. We briefed your office on this request on March 23, 1995. This briefing report summarizes the information presented in that briefing.

Background

The U.S. dairy pricing system was created over 50 years ago to ensure adequate milk supplies, stable prices for consumers, and economic stability for producers. The pricing system is carried out by two federal dairy programs administered by the U.S. Department of Agriculture (USDA): the Milk Marketing Order Program and the Price Support Program. Federal milk marketing orders specify practices, terms and conditions of sale, and prices. Each order contains two basic sets of provisions. One set fixes the minimum prices that milk processors must pay. The other set specifies how the returns for selling milk are to be distributed among producers.

Federal market orders are voluntary—producers must choose by a two-thirds vote to have a market order apply to their specific regional area of the country before it becomes effective. Market orders apply only to milk eligible for fluid use.

Under the federal price support program, USDA stands ready to buy, at designated prices, bulk cheese, butter, and nonfat dry milk that are offered to it for sale. Federal outlays for these purchases depend on the extent to which milk production exceeds commercial purchases. Assuming a relatively stable commercial demand for dairy products, high support prices generally lead to high milk production, which leads to surpluses and more government purchases.

Milk is the only commodity with both order pricing and price support programs, resulting in one of the most complex agricultural support programs. The dairy industry, however, has changed significantly since federal involvement in it began, and the milk marketing order and price support programs have contributed to incentives to produce more milk than can be marketed, causing periodic surpluses of dairy products. As a result, government costs grew to over $2.7 billion in fiscal year 1983. Since that time, the Congress has taken a number of actions to reduce government costs and to make the dairy industry depend less on federal financial support and involvement. However, a basic understanding of how the current pricing system works and the impact it has on this industry in today's environment can assist discussions on dairy pricing issues.

Results in Brief

The federal dairy program is built around the establishment of minimum prices paid to milk producers and dairy processors. Milk marketing orders set minimum prices that processors must pay dairy farmers for Grade A milk, which is the only milk used for fluid milk products. These orders, entered into voluntarily by dairy farmers, regulate about 72 percent of all milk produced in this country. The remaining 28 percent falls under state orders or is not regulated at all. In addition, the price support program sets prices for processors' sale of dairy products to the federal government; these prices tend to act as a minimum price for dairy products in the commercial market.

The market environment in which federal dairy programs operate has changed dramatically since their inception. The program components that were necessary in previous decades may be unnecessary today. In this context, two issues we have previously reported on could be addressed by the Congress as it considers federal dairy policy during the reauthorization of the farm bill in 1995.[1] First, the premises for pricing milk under federal milk marketing orders are outdated and have resulted in both excess production and the unfavorable treatment of some producers. Second, the dairy price support program creates barriers to the U.S. dairy industry's becoming more market-oriented to maintain its viability. For example, the U.S. dairy industry has not developed the marketing mind-set necessary to take full advantage of the potential opportunities for expanding the international market for dairy products. Instead, it has adapted to the existing federal support environment, including import restrictions, and

[1] Milk Marketing Orders: Options for Change (GAO/RCED-88-89, Mar. 21, 1988) and Dairy Industry: Potential for and Barriers to Market Development (GAO/RCED-94-19, Dec. 21, 1993).

emphasized domestic commercial sales and sales to the federal government under the price support program.

This report has two sections—section 1 describes how the dairy pricing system operates with its two federal programs, and section 2 summarizes two previously reported dairy issues that may need consideration during the 1995 farm bill deliberations.

Scope and Methodology

To address the briefing objectives, we relied primarily on GAO reports that examined federal dairy programs. (See Related GAO Products.) We also obtained information from and discussed our work with officials from USDA's Economic Research Service, Agricultural Marketing Service, and Consolidated Farm Service Agency. In addition, we reviewed reports in USDA's Dairy Market News and the Dairy Situation and Outlook series. We did not obtain written agency comments on this report.

We are sending copies of this briefing report to the Secretary of Agriculture. We will also make copies available to others on request. Please contact me at (202) 512-5138 if you or your staff have any questions about this briefing report. Major contributors to this briefing report are listed in appendix I.

Sincerely yours,

John W. Harman
Director, Food
and Agriculture Issues

Contents

Abbreviations

CCC	Commodity Credit Corporation
GAO	General Accounting Office
USDA	U.S. Department of Agriculture

How the Dairy Pricing System Operates

GAO **Federal Dairy Programs**

- Created to ensure adequate supplies of dairy products and to support farmers' income
  - Milk Marketing Order Program - 1937
  - Milk Price Support Program - 1949

Background

Federal involvement in the dairy industry began in reaction to unstable marketing conditions and low milk prices before and during the Great Depression. During this time, consumers purchased fewer dairy products, and milk production began to exceed consumption. This situation resulted in lower milk prices for farmers and contributed to unstable market conditions. In response to these conditions, the Congress initiated the U.S. dairy pricing system to ensure adequate milk supplies and stable prices for consumers while providing economic stability for producers.

In addition, the pricing system attempts to provide some market stability throughout the year. Americans buy milk in fairly constant quantities throughout the year, but milk production is more seasonal than consumption. Most milk is produced in spring and early summer, while the least amount is produced in late fall. In addition, because fluid milk is highly perishable and subject to bacterial contamination, it must be handled under sanitary conditions, and marketed quickly. Milk not consumed in fluid form must be processed into manufactured products to prevent loss. Thus, ensuring an adequate but not excessive supply of milk can be a complicated task.

The U.S. dairy pricing system is made up of two interrelated federal programs: the Milk Marketing Order Program and the Price Support Program. Before discussing these programs, a brief description of the flow of dairy products and the flow of dairy revenues within the industry is provided.

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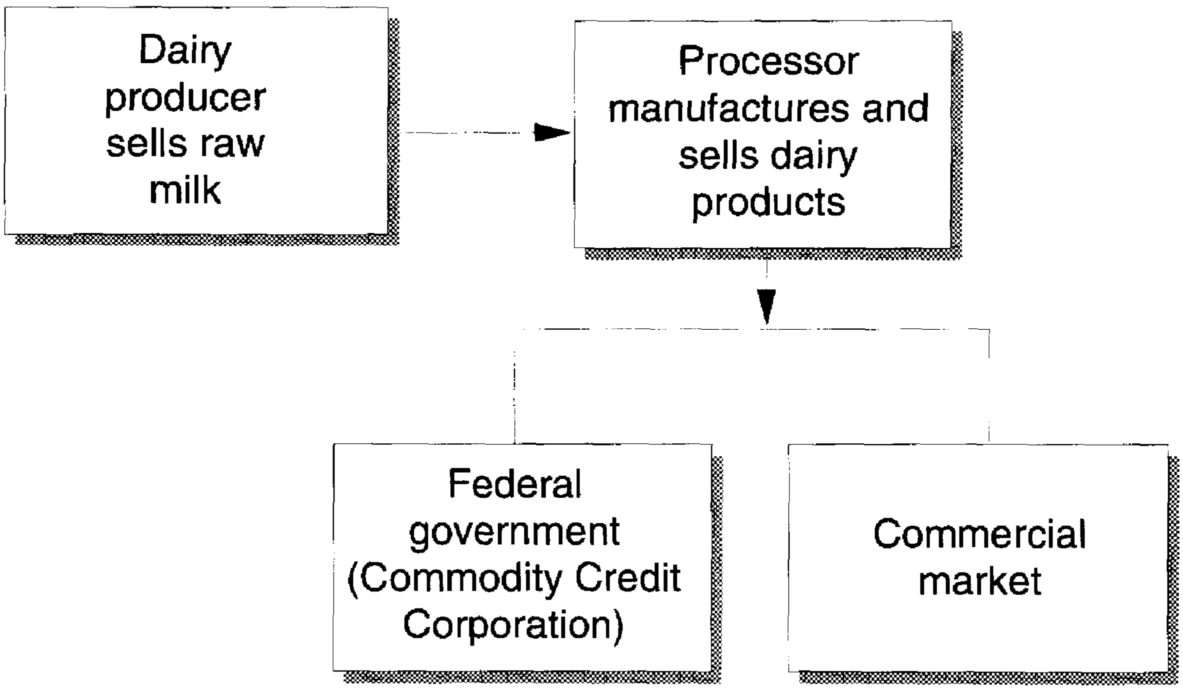
Flow of Dairy Products



Dairy Producers Sell Milk to Processors

In the dairy industry, producers sell their fluid milk to processors, including cooperatives, that manufacture dairy products. Eighty percent of all milk is produced by members of dairy farmer cooperatives. Many of these cooperatives own and operate dairy manufacturing and bottling plants that process milk produced by their farmer members. Processors, in turn, sell their products in the commercial market or to the federal government at specified prices.

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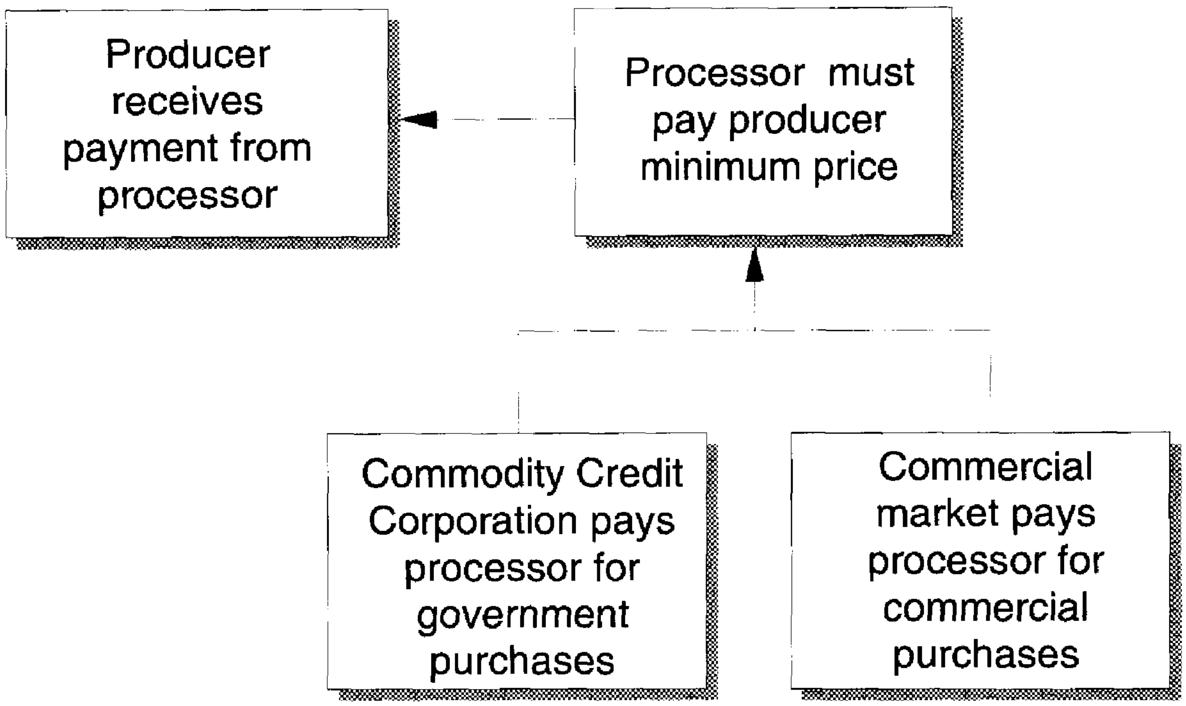
Flow of Dairy Revenues



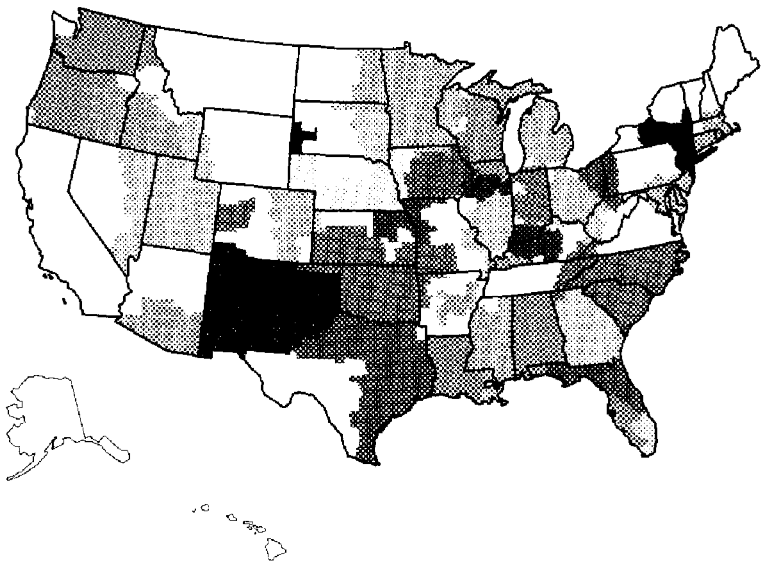
Producers Receive Payment From Processors, Not Government

Revenues generated by commercial and federal sales are the sources of funds that processors use to pay producers for their milk. No federal funds go directly from the federal government to milk producers for the sale of dairy products.

The objectives of federal dairy policy have been to support farmers' prices and incomes, expand consumption, ensure an adequate supply of good-quality milk, and stabilize dairy prices and markets. The policy is carried out principally through two interrelated programs—the Milk Marketing Order Program, created in 1937, and the Price Support Program, created in 1949. While the Congress has adjusted these two programs periodically, they remain the principal means of regulating the dairy industry. The Congress has also implemented import controls to help protect the domestic industry.

GAO **Federal Milk Marketing Orders**

- 38 marketing orders govern 80 percent of domestic Grade A milk production



Note: Only white areas are not covered by federal orders.

Federal Milk Marketing Orders Establish the Minimum Prices That Processors Pay Producers

Within the United States, 38 federal marketing order areas cover 80 percent of the country's Grade A milk production. Federal marketing orders are administered by the U.S. Department of Agriculture (USDA) and are voluntarily adopted by dairy producers within a specific regional area.

This section describes how milk marketing orders establish the minimum prices that processors must pay producers for Grade A milk—milk that is of high enough quality to be used for fluid consumption. Overall, market order prices are based on how the milk is used in each order and on the particular location of the order.

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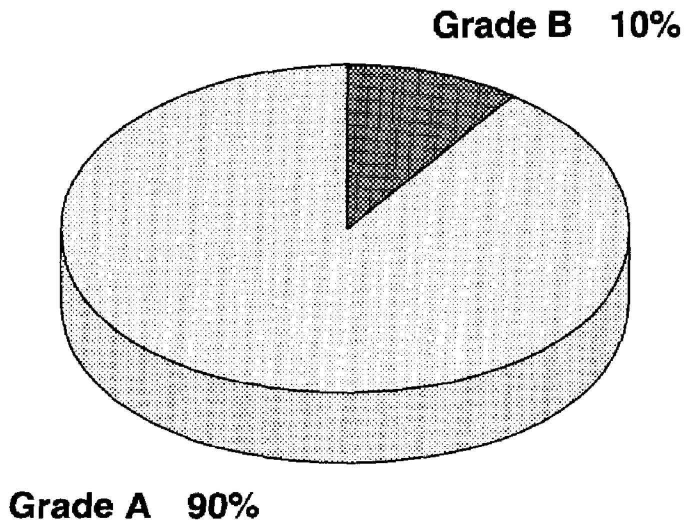
Production of Milk by Grade



Most Milk Produced in the United States Is Grade A

Milk produced in the United States is designated as either Grade A or Grade B. States establish Grade A and Grade B production standards. Grade A is produced under higher sanitation standards and is the only type of milk that can be used for fluid consumption; however, Grade A milk can also be used for the production of other products. Its prices are generally higher than Grade B prices.

Grade B milk can be used only for the production of hard dairy products—nonfat dry milk, cheese, and butter.

About 42 percent of Grade A milk is used for fluid consumption. The remaining 58 percent is used for both hard products and soft products—such as ice cream and cottage cheese.

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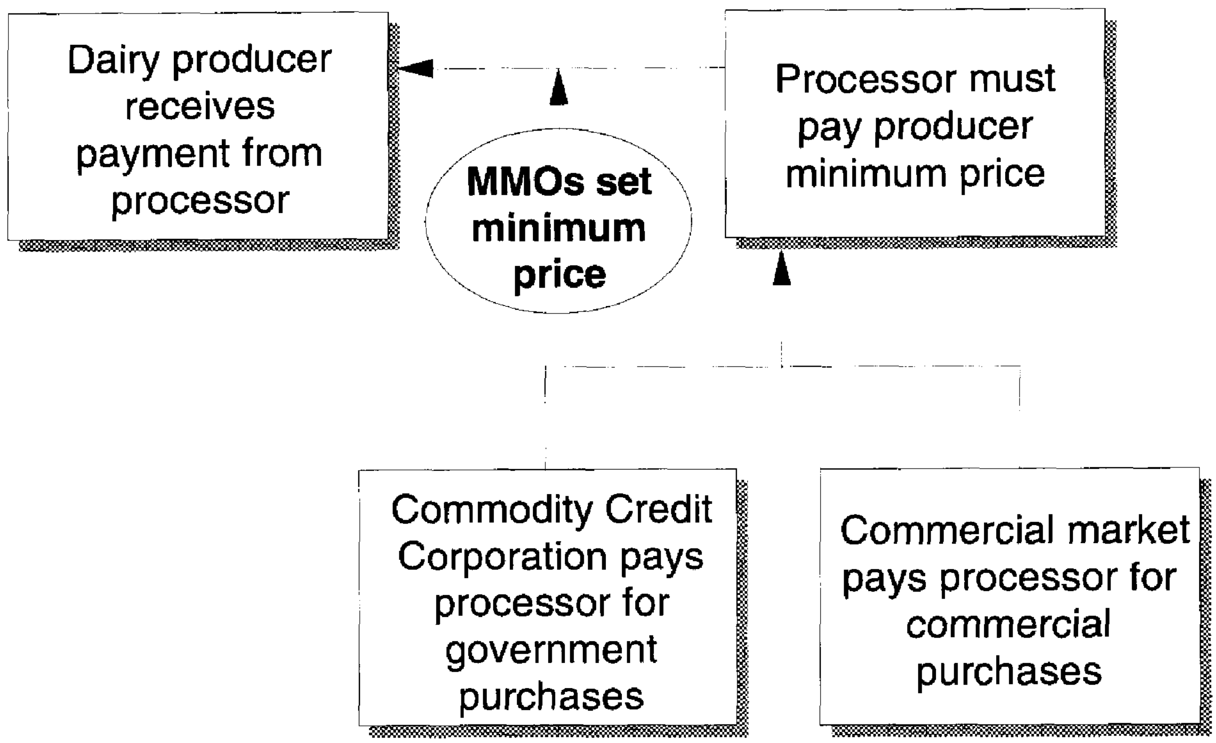
Milk Marketing Orders -- Producer Guaranteed Minimum Price



Marketing Orders Set Minimum Prices for Grade A Milk

Marketing orders regulate only Grade A milk and establish the minimum prices processors must pay producers for this milk. Federal milk marketing orders intervene in the pricing system between the processor and the dairy producer for Grade A milk.

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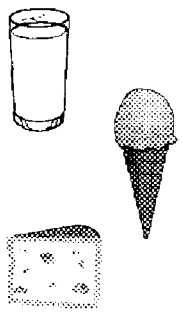
Milk Marketing Orders -- Classes of Milk Usage

- Grade A milk is divided into three classes based on milk usage:
  - Class I - Fluid products
  - Class II - Soft products
  - Class III - Hard products



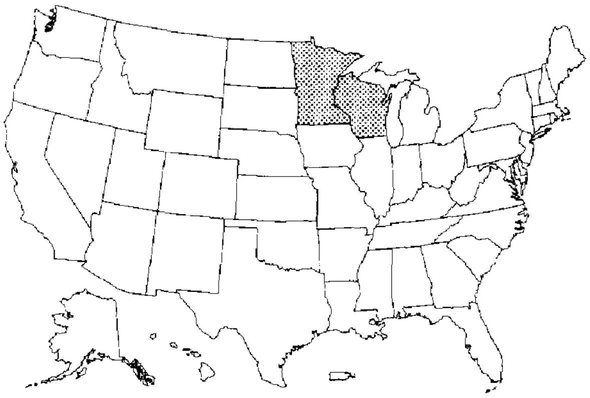
Marketing Orders Classify Grade a Milk

Minimum prices for Grade A milk are established through three basic classes on the basis of how the milk is used in end products:

- Class I milk, which is sold for fluid consumption, generally receives the highest price. This class includes whole milk, low-fat milk, skim milk, milk drinks, and buttermilk.
- Class II soft products include ice cream, cottage cheese, and yogurt.
- Class III hard products include cheese and butter. Recently, a separate Class IIIA was established for nonfat dry milk, which is a co-product of butter production. The Class IIIA price for nonfat dry milk was added to the pricing system in 1993 and is below the Class III price.

GAO **Milk Marketing Orders -- Pricing System**

- Class III price is based on a monthly survey of milk prices paid by processors in Minnesota and Wisconsin that purchase Grade B milk



The federally established Class III price is the basis for setting the class II and class I minimum prices within the milk marketing order pricing system. It is based on a monthly survey of milk prices paid by processors in Minnesota and Wisconsin that purchase Grade B milk. Grade B milk is not covered by federal orders, and its price is basically determined by market conditions.

GAO **Milk Marketing Orders -- Pricing System**

- Class II prices average about 15 cents above the Class III price

Class III price
+ $ 0.15
Class II price

Class II prices are slightly higher than class III prices, are determined by a federal formula, and average about 15 cents per hundredweight[2] above the Class III price.

[2]Hundredweight is a measure of milk equating to about 11.6 gallons of milk.

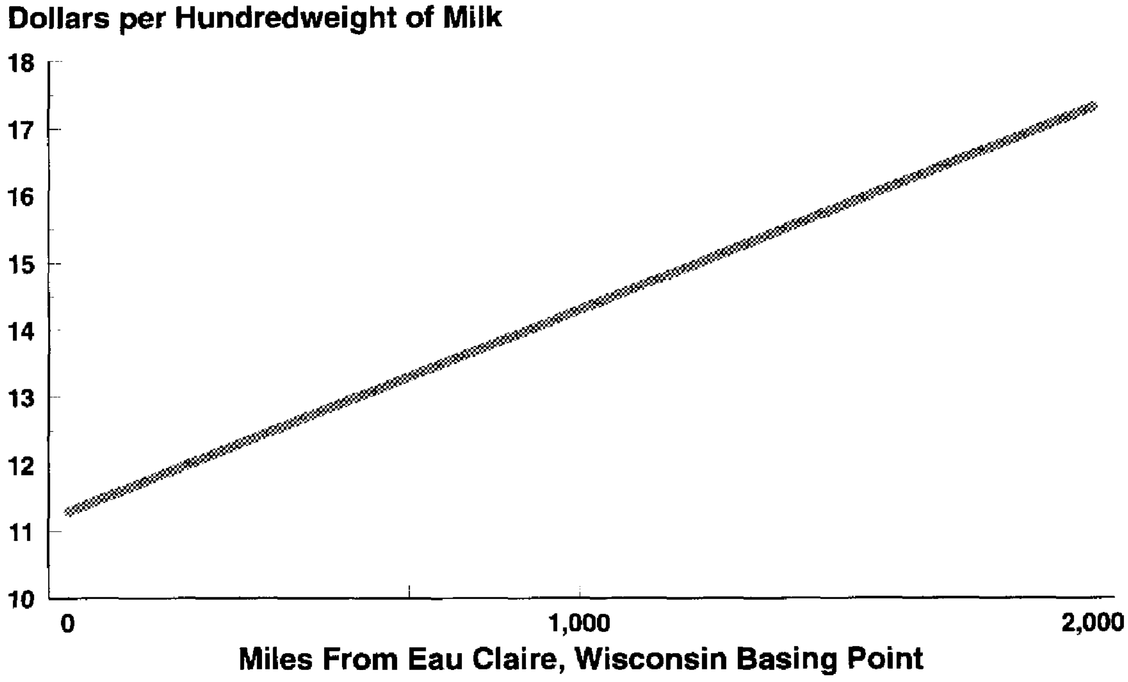
GAO **Milk Marketing Orders -- Pricing System**

- Class I price has three components:
  - Class III price
  - + $1.04 (Grade A differential)
  - + about $0.15 for every 100 miles from Eau Claire, Wisconsin (distance differential)

Class I Prices Are Higher Than Class II and III Prices

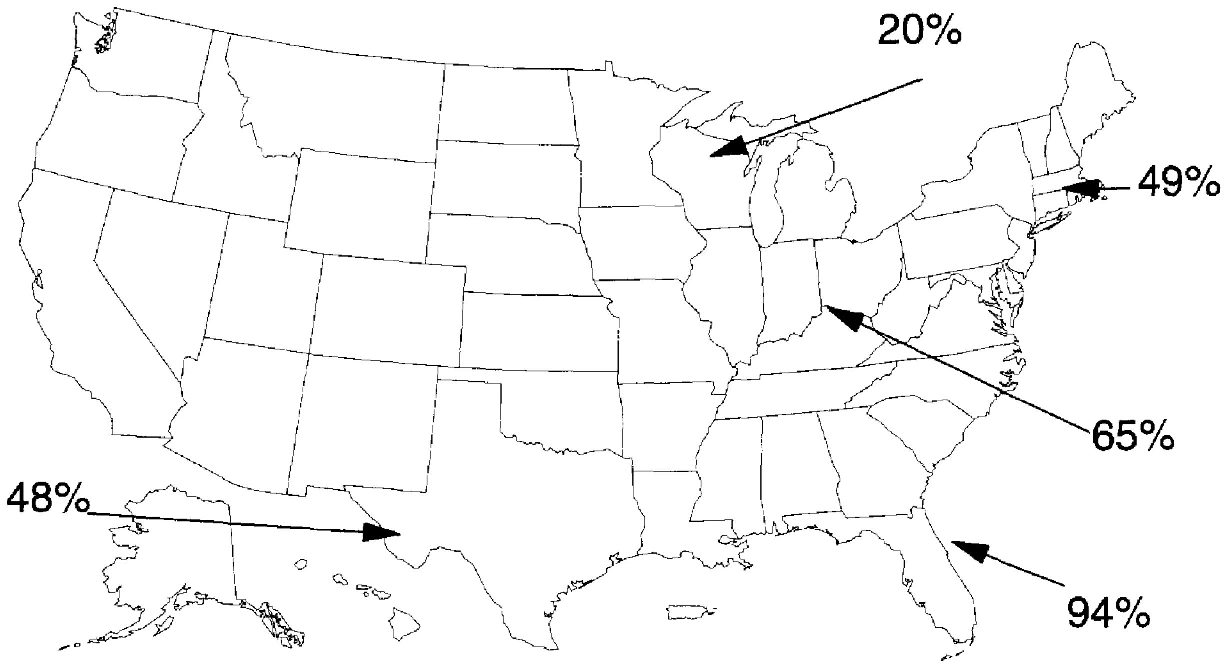
With the exception of some western states, including Arizona, Idaho, Oregon, Utah, and Washington, Class I prices are also based on the Class III price and include three components—(1) the Class III price plus (2) a Grade A differential of $1.04 per hundredweight plus (3) a distance differential of about 15 cents per hundredweight for every 100 miles that a processor is from Eau Claire, Wisconsin. The Grade A differential was established to encourage adequate production of Grade A milk for fluid consumption throughout the United States. When a national pricing system was established in the 1960s, the Upper Midwest was considered the nation's primary milk surplus region. Distance differentials were intended to represent the cost of transporting milk from surplus milk-producing areas to deficit areas to avert shortages that might develop otherwise. They were established to encourage Upper Midwest producers to ship milk elsewhere when necessary.

GAO **Milk Marketing Orders -- How Distance Affects Class I Prices**



Because of the Class I distance differential, Class I milk prices vary by location. Generally, locations that are further away from Eau Claire, Wisconsin, receive higher prices for Class I milk.

GAO **Milk Marketing Orders -- Class I Utilization Varies by Area**



Class I utilization—fluid consumption—tends to vary by area. For example, about 20 percent of the Upper Midwest's production, including portions of Minnesota and Wisconsin is used for fluid consumption; in contrast, over 90 percent of southern Florida's production is used for fluid consumption.

GAO **Milk Marketing Orders -- Utilization Determines Classification**

- Each of the 38 marketing orders must determine the overall usage of milk for its particular order
- Each order must calculate a monthly average or "blend" price on the basis of milk utilization

After establishing milk classes, and the prices per class, each order must determine how it has used milk by class in determining how much to pay its producers. Each of the 38 marketing order areas calculates a monthly average or "blend" price to be paid to producers that is based on the class utilization rates for that marketing area. This blend price becomes the minimum price that processors must pay producers for milk in each of the marketing areas.

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Milk Marketing Orders -- Blend Price Calculation

Hypothetical case

Milk class	Utilization	Minimum price per hundredweight	Adjusted class price
Class I	90%	$16.00	$14.40
Class II	5%	11.15	0.56
Class III	5%	11.00	0.55
Blend price	100%		$15.51

As this hypothetical case shows, the blend price is equal to the percentage utilization for each class times the respective class price. The total of the three classes then becomes the overall blend price.

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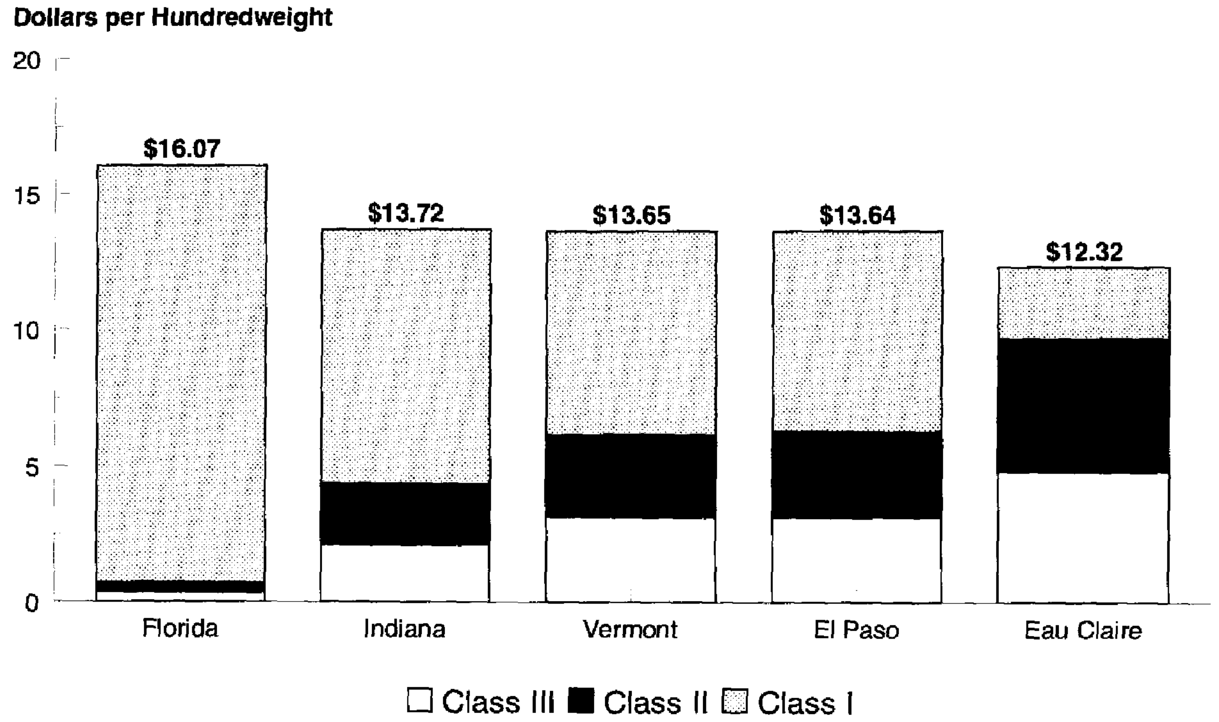
Milk Marketing Orders -- Blend Prices Vary by Area



Blend Prices Vary by Area

Because of differing class utilization rates and differing Class I distance differentials, blend prices differ by marketing area. As shown above, Florida uses a much larger portion of the milk produced in this order for Class I usage as compared to Eau Claire. Because Class I dairy products are guaranteed a higher price, the average blend price is higher in Florida than Eau Claire.

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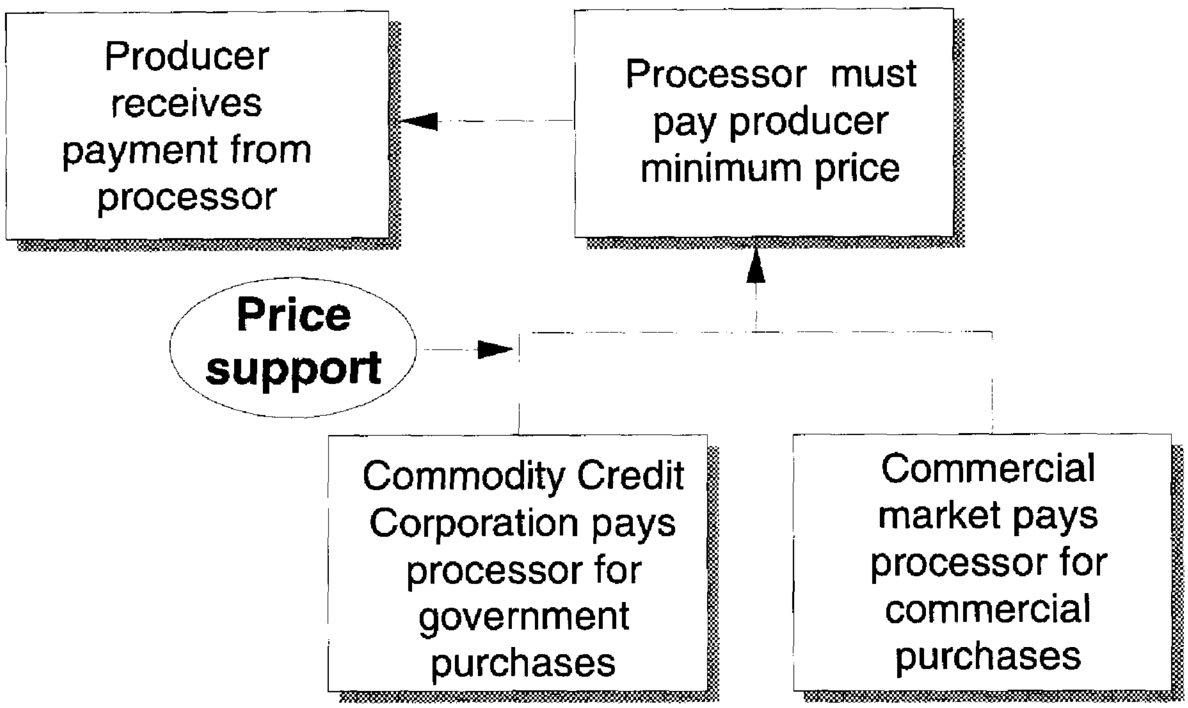
Dairy Pricing System -- Price Support Program



Price Support Program Guarantees Processors a Minimum Price for Government Purchases

The milk price support program helps ensure dairy farmers a minimum price for the milk they produce. Under the program, the USDA, through its Commodity Credit Corporation (CCC), must purchase at specified prices all quantities of butter, cheese, and nonfat dry milk (Class III products) that are offered and meet USDA's specifications. Such purchases reduce excess supplies of dairy products on the commercial market and help maintain the minimum price farmers receive for milk. In general, the program's costs depend upon the degree to which milk production exceeds commercial use. The larger the surplus, the more dairy products the federal government purchases and the greater its costs.

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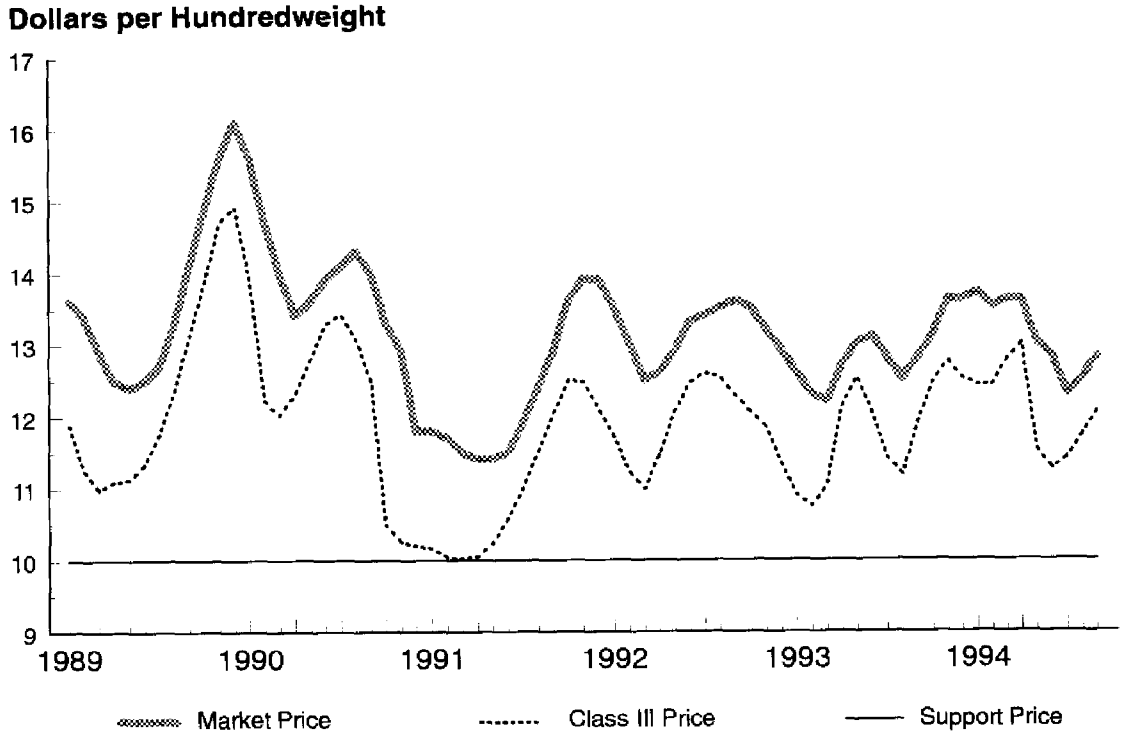
Market Prices Tend to Be Higher Than Government-Set Prices



The Price Support Program Tends to Act as a Minimum Price for Commercial Sales

By mandating that the federal government purchase all hard products offered to it for sale at specified prices, the price support program acts as a floor price for sales to the commercial market. That is, if the commercial market price falls to or below the support price level, processors will start to sell to the federal government because they can obtain an equivalent or better price.

Recently, federal purchases have been about 5 percent of dairy sales by processors—about 5 percent of all sales are to the federal government and about 95 percent are sales to the commercial sector.

Issues That May Need Consideration in Reauthorizing the Farm Bill in 1995

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Issues Facing Policymakers and Dairy Industry

- Current environment raises key issues about federal dairy pricing policies
    - Milk marketing orders are considered outdated and create pricing inequities for producers
    - Price support programs cause producers and processors to be production-oriented rather than market-oriented

Current Environment Raises Key Issues About Federal Dairy Pricing Policies

This section describes two issues GAO has previously reported on that have developed because (1) milk marketing orders are considered outdated and create pricing inequities and (2) the dairy industry faces the need to become more market-oriented.

As we have noted in previous reports,[3] the environment that led to the creation of the dairy pricing system has changed and the premises for milk pricing under federal orders are outdated. Milk marketing orders were created in part to encourage and maintain a locally produced supply of Grade A milk. At that time, transporting fluid milk was difficult because the necessary technologies to avoid spoilage—refrigeration and reconstitution—did not exist. Furthermore, the transportation infrastructure was not developed enough to make long hauls feasible. Likewise, when the order system was established, the federal government provided incentives for producers to upgrade their facilities to meet the higher sanitation standards for fluid milk (Grade A milk). Since these problems have long since been resolved, the rationale for the pricing inequities created by the marketing order system may need to be reconsidered.

At the same time, the Price Support Program has contributed to the U.S. dairy industry's placing more emphasis on production than on marketing. As a result, the industry is not taking full advantage of an expanding international market for dairy products.

[3] Milk Marketing Orders: Options for Change (GAO/RCED-88-89, Mar. 21, 1988) and Dairy Industry: Potential for and Barriers to Market Development (GAO/RCED-94-19, Dec. 21, 1993).

GAO Issues Facing Policymakers and Dairy Industry

- Marketing orders are considered outdated and create pricing inequities
  - Distance differential in marketing orders results in some producers receiving more revenues than others regardless of production costs
  - Grade A differential is no longer needed

Marketing Orders Can Result in Pricing Inequities

Initially, the distance differential was established to make it profitable for surplus milk-producing areas like the Upper Midwest to ship milk to deficit milk-producing areas if necessary. Since that time, however, the distance differential has served as an incentive for some of the historically deficit milk-producing areas to increase their production capacity. Some of these areas have now become surplus milk-producing areas. As a result, the distance differential has produced a regional price structure that in some cases bears no relationship to regional variations in the cost of production or to the cost of obtaining supplies from alternative sources.

Also, higher distance differentials in several regions of the United States encourage additional production, and at times surpluses, by guaranteeing higher milk prices and higher profits to producers in some regions at the expense of producers in other regions. This incentive is particularly strong in the Southwest, once a deficit milk-producing area, because its production costs are less than the Upper Midwest's. According to dairy industry sources, Southwestern producers sometime transport surplus milk as far as the Upper Midwest to find dairy plants with available processing capacity because processing plants are either operating at full capacity or are not available in the Southwest. As a result, the increased shipments of lower-cost milk to the Upper Midwest processor plants decreases milk prices paid to Upper Midwest producers.

Additionally, the grade A differential, originally created to provide farmers with financial incentives to produce Grade A milk, is far higher than the additional costs of producing Grade A milk rather than Grade B milk. According to a 1986 study, the added cost is no more than about 15 cents per hundredweight, while the current price differential is $1.04.

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Issues Facing Policymakers and Dairy Industry

- Industry needs to become more market-oriented
  - Industry has a production orientation because price support is higher than world price
  - Potential exists to expand international markets

A More Market-Oriented Approach May Help Industry Expand International Markets

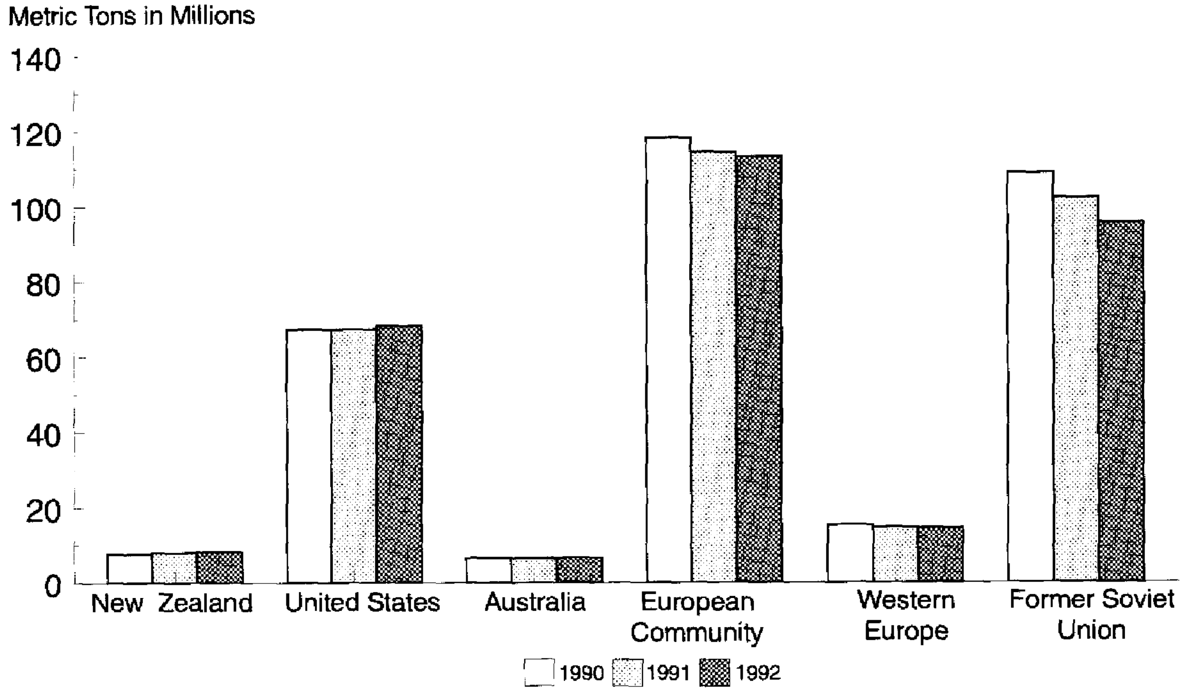
The dairy industry is not taking full advantage of what could be an expanding international market for dairy products. Although the United States is the world's third largest producer of milk, it plays a relatively small role in most foreign dairy markets, exporting only about 1 million out of 68 million milk-equivalent metric tons of U.S. domestic milk annually.

By comparison, New Zealand, which provides little or no subsidies to its farmers, is a major player in international dairy markets. According to industry studies, the U.S. dairy industry has opportunities to develop and expand markets. Exports to Mexico and the Pacific Rim countries, particularly, appear to offer the greatest potential for new market development and expansion because of their growing economies, current low level of dairy consumption, and changing diets and eating habits.

Two major interrelated factors have hindered the U.S. industry from more effectively expanding and competing in global markets. The price support program encourages the production of dairy products that do not always meet customers' demand and often results in U.S. prices that exceed world prices. The U.S. dairy industry has placed more emphasis on production than on marketing and has not developed a marketing mind-set that focuses on global consumers' preferences. Instead, it has emphasized domestic commercial sales and sales to the federal government under the price support program.

GAO **Comparison of U.S. Dairy Industry to Other Countries**

Milk Production for Selected Trading Blocs, 1990-92



The United States is a major player in world dairy production, ranking third after the European Community and the Former Soviet Union.

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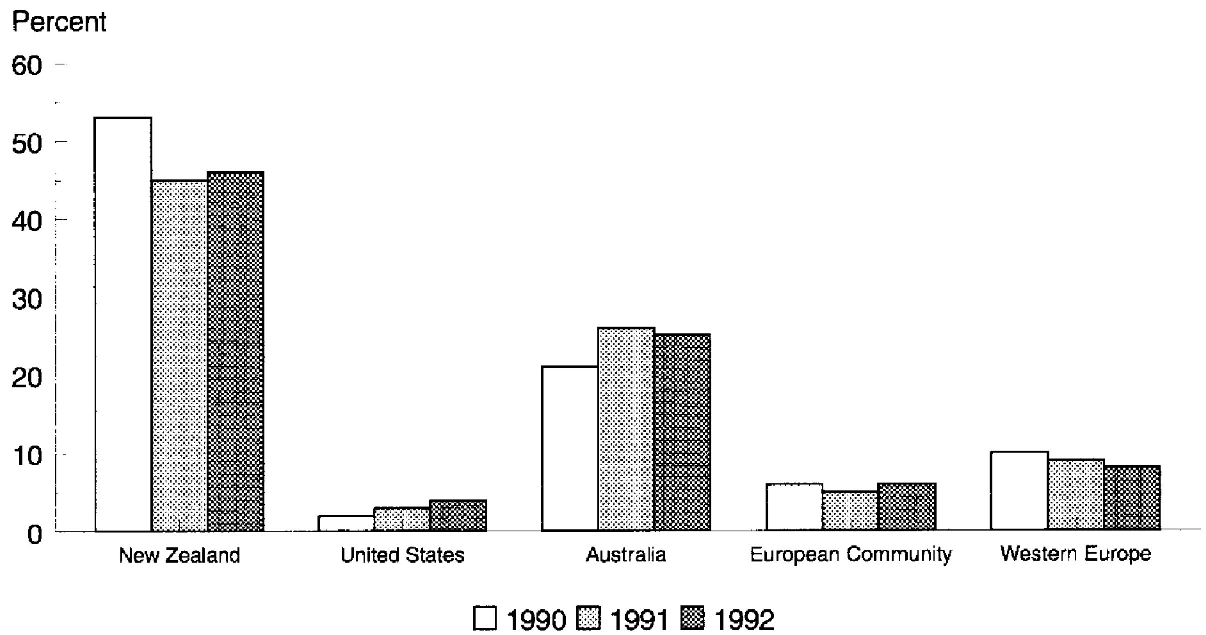
Comparison of U.S. Dairy Industry to Other Countries

Exports as a Percent of Production for Selected Trading Blocs, 1990-92



While the U.S. dairy industry is a major producer, it plays a smaller role in dairy export markets, ranking far behind other major industrialized countries. New Zealand, for example, exports approximately 50 percent of its dairy production, while the United States exports only about 2 percent of its dairy production.

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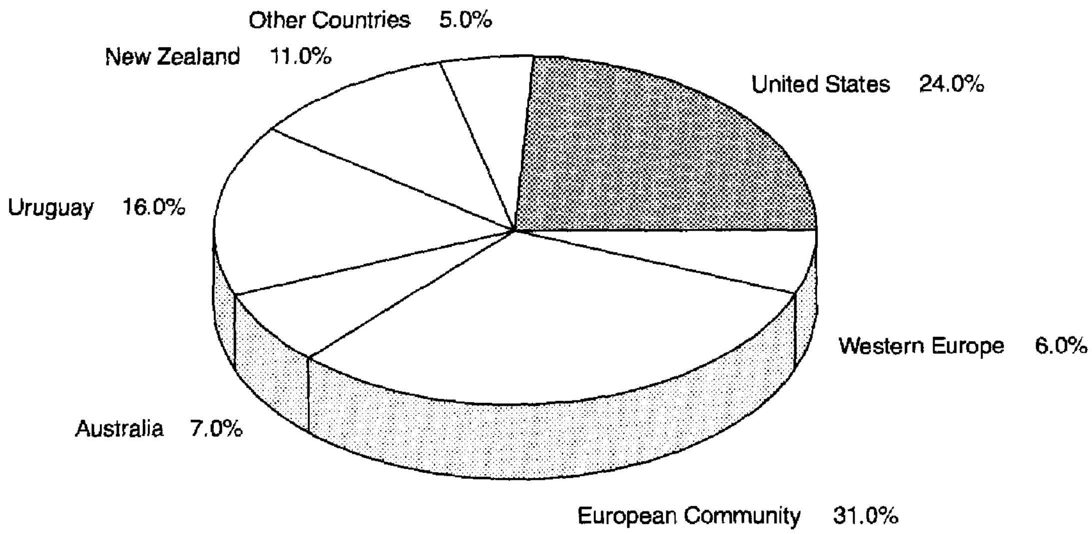
Mexican Cheese Import Market for Selected Trading Blocs



Although Mexico borders the United States, the United States provides only one-fourth of Mexico's cheese imports. In contrast, the European Community, which has significantly larger shipping costs, accounts for nearly one-third of all Mexican cheese imports.

Note: For presentation purposes, Western Europe comprises the non-EC countries of Austria, Finland, Norway, Sweden, and Switzerland.

Major Contributors to This Briefing Report

Resources, Community, and Economic Development

Luther L. Atkins, Jr., Assistant Director
Patrick J. Kalk, Project Leader
Carol Herrnstadt Shulman, Communications Analyst
Lynne L. Goldfarb, Publishing Adviser

Kansas City Regional Office

Sheldon H. Wood, Jr., Evaluator
Dale A. Wolden, Evaluator
Frederick C. Light, Evaluator
Thomas M. Cook, Evaluator

Related GAO Products

Dairy Industry: Potential for and Barriers to Market Development (GAO/RCED-94-19, Dec. 21, 1993).

Federal Dairy Programs: Insights Into Their Past Provide Perspectives on Their Future (GAO/RCED-90-88, Feb. 28, 1990).

Milk Pricing: New Method for Setting Farm Milk Prices Needs to Be Developed (GAO/RCED-90-8, Nov. 3, 1989).

Milk Marketing Orders: Options for Change (GAO/RCED-88-9, Mar. 21, 1988).

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