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# U.S. Dairy Programs

Richard Fallert  
(202) 786-1710

**T**he dairy industries of most developed countries are extensively regulated. Many subsidize part or all of their domestic production and frequently their exports. Imports are restricted by practically all major dairy-producing countries. Consequently, only about 5 percent of world milk production enters world trade in the form of cheese and other dairy products.

The U.S. dairy industry, influenced by several Government programs, is no exception. Dairy product imports are curtailed by quotas and have averaged less than 2 percent of U.S. annual milk production, or about 3 percent of our consumption of manufactured dairy products. Most imports are made up of specialty cheeses and casein. Exports of as much as 2 percent of U.S. milk production are mainly concessional sales or food aid donations from Government supplies.

One reason the United States restricts imports is to prevent other countries' subsidized dairy products from directly, or indirectly, increasing dairy product purchases by the Commodity Credit Corporation (CCC) under the Federal dairy price support program. If imports were unlimited, the United States would be supporting the price of dairy products worldwide.

## The U.S. Dairy Industry

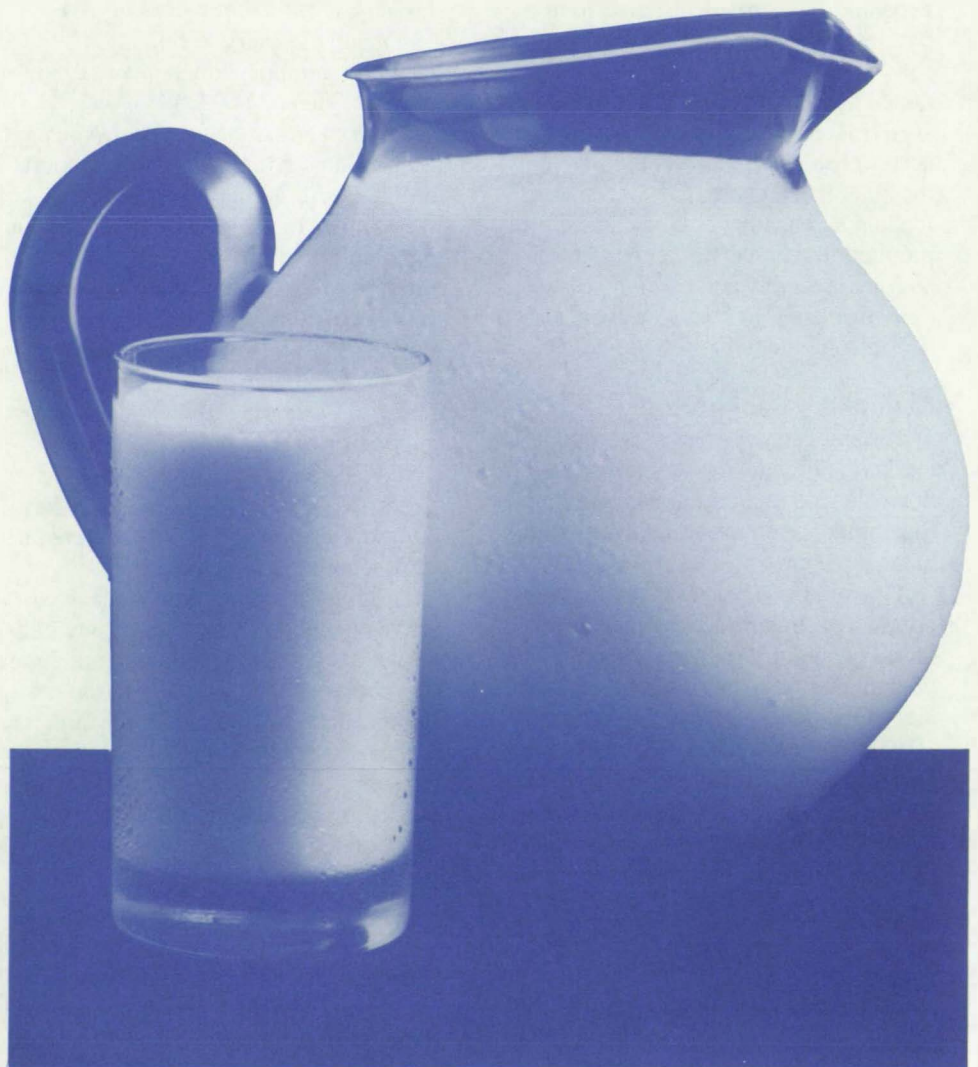
Milk is bulky, highly perishable, and subject to bacterial and other contamination. So, it must be produced and handled under sanitary conditions. It also must be marketed quickly, either for drinking or for manufacturing into storable products, such as cheese, butter,

and nonfat dry milk. Prices—even though influenced by Government programs—allocate raw milk supplies among competing demands, such as the fluid milk and processing markets, and give production and marketing signals to dairy farmers, processors, and marketing firms.

The ability of market prices to efficiently coordinate these economic activities depends in part on the inherent

characteristics of milk and its products. Most of these characteristics are not unique to milk, but in combination, they create unique conditions and problems. They include:

- Extreme perishability of the raw product. There is a high potential for transmitting diseases in raw milk. It must be transported, refrigerated, and pasteurized quickly.
- Highly inelastic demand. This means that changes in quantities purchased are



Over 88 percent of the total U.S. milk supply is Grade A. Courtesy of American Dairy Association

The author is an agricultural economist in the Livestock, Dairy, and Poultry Branch, Commodity Economics Division.

relatively small when prices change.

- **Bulkiness.** At 87 percent water, milk takes up considerable space.
- **Continuous production.** The biological process of milk production requires, among other things, skilled workers daily.
- **Unsynchronized seasonality of production and demand.** Production is highest in the spring, while consumption is strongest in the fall.
- **Biological lags in output.** It takes about 30 months for a newborn calf to become a cow and begin producing milk. Therefore, it takes the industry a while to expand dairy herds in response to increases in demand. In the shorter run, some additional milk output can be obtained by more concentrate feeding, and small increases in cow numbers can be accomplished with slower culling. On the other hand, decreased concentrate feeding and heavier culling can cut milk production relatively quickly.
- **Joint assembly and hauling.** Most dairy farmers find it is more cost effective to combine their milk to market it.

## Regulatory Background

Federal dairy price supports and milk marketing orders, import restrictions, domestic and international food aid, and State milk regulations directly affect the industry.

Overall, these programs play an important role in the pricing and marketing of milk and dairy products. Most Federal dairy regulations evolved from legislation enacted in the 1930's and 1940's. For instance, the Agricultural Marketing Agreement Act of 1937, as amended, provides for classified pricing in fluid milk markets under Federal milk marketing orders. The Agricultural Act

of 1949 established the ongoing dairy price support program.

While there have been significant changes in marketing orders, the basic structure of the dairy price support and import control programs remained nearly the same from 1949 to 1981.

Since 1981, three major departures from traditional dairy price support policy have occurred. First, price supports were removed from parity. Second, voluntary supply management provisions were added. The Dairy Diversion Program, which operated from January 1, 1984, through March 31, 1985, and the Dairy Termination Program, running from April 1, 1986, through September 31, 1987, were authorized under the new provisions. Finally, changes in dairy price supports on January 1, 1988, 1989, and 1990, were linked to projected annual Government purchases. If purchases are projected to be under 2.5 billion pounds (milk equivalent), the support rate goes up 50 cents a hundredweight (cwt). Conversely, if purchases look like they are going to be over 5 billion pounds, the support price goes down 50 cents. To avoid burdensome supplies in these 3 years, the Secretary of Agriculture has authority to establish another diversion or production termination program.

Many of these legislative changes were attempts to reduce the supply of excess milk and cut Government purchases and costs. In 1983, dairy farmers produced over 10 percent more milk than consumers were willing to buy at the supported prices. The excess milk supply problems continue, albeit at a lower level, and there are signs that lower prices will be needed in coming years if

price is used to balance supply and demand.

## How the Dairy Price Support Program Works

Because milk is a perishable commodity, the Government indirectly supports the price farmers receive for it by buying dairy products. Specifically, the CCC buys surplus butter, nonfat dry milk, and cheddar cheese from processors at specified prices.

The support price—currently \$10.60 per hundredweight for milk containing 3.67 percent butterfat—is what the Government would like farmers to receive from processors for Grade B milk used in making manufactured products. The CCC sets its purchase prices for butter, nonfat dry milk, and cheese using a formula that combines the support price with margins, or "make allowances," to cover the costs of processing milk into these products. The margins are calculated so that dairy farmers, on average, should receive the support price for Grade B milk (*see sidebar*).

The actual prices received by dairy farmers depend on many factors other than the support level. Plant location, the type of product manufactured, the quantity of milk delivered, its butterfat content, local competition between processors for milk, and plant operating efficiency all play a role. Prices to farmers for Grade B milk are free to move above or below the support level depending on local supply and demand.

Another Federal program, milk marketing orders, regulates the prices of Grade A (fluid) milk. However, since most fluid milk prices are based on those



### Federal Price Support Purchases

The Federal Government supports milk prices through purchases of butter, nonfat dry milk, and cheddar cheese. The following example illustrates the connection between the prices USDA pays for these dairy products and the price support rate for milk, currently \$10.60 per hundredweight (cwt).

Smith and Jones are average dairy farmers living near Plainville, USA. Dairyman Smith sells milk to the local processing plant that makes butter and nonfat dry milk. For each hundredweight (100 pounds) of milk he sells, the plant makes 4.48 pounds of butter and 8.13 pounds of nonfat dry milk. With the CCC prices of but-

ter and nonfat dry milk set at about \$1.32 and 73 cents per pound, respectively, the products made from Smith's 100 pounds of milk are worth \$11.82. However, the plant's allowance for manufacturing these products is \$1.22 per cwt, leaving \$10.60 to Smith for his milk.

Jones sells milk to the cheese plant on the other side of town. For every hundredweight of milk purchased, the plant manufactures 10.1 pounds of cheese and 6 pounds of whey solids. The CCC pays about \$1.15 per pound for the cheese. The whey is worth 33 cents, making the market value of the products made from Jones' milk equal to \$11.97. Since the plant's allowance for manufacturing the cheese is \$1.37 per cwt, Jones will receive \$10.60 per cwt for the milk.

paid for Grade B (manufacturing) milk, the price support program undergirds all dairy prices.

### How Federal Milk Marketing Orders Work

Milk marketing orders were first instituted to ensure that local markets had adequate supplies of higher quality Grade A milk for beverage uses. They were also designed to raise dairy farmers' incomes during the Depression, provide stability and orderliness in fluid

milk markets, and establish reasonable prices for consumers.

Federal milk marketing orders set minimum prices that processors must pay for Grade A milk in markets covered by the orders. The 43 Federal milk marketing orders operating January 1, 1988, regulate the handling and pricing of about 70 percent of all milk sold to plants and dealers, and about 81 percent of the Grade A milk marketed in the United States. About 88 percent of the Nation's milk supply is Grade A, and about 45 per-

cent of all Grade A milk sold is used for beverage products.

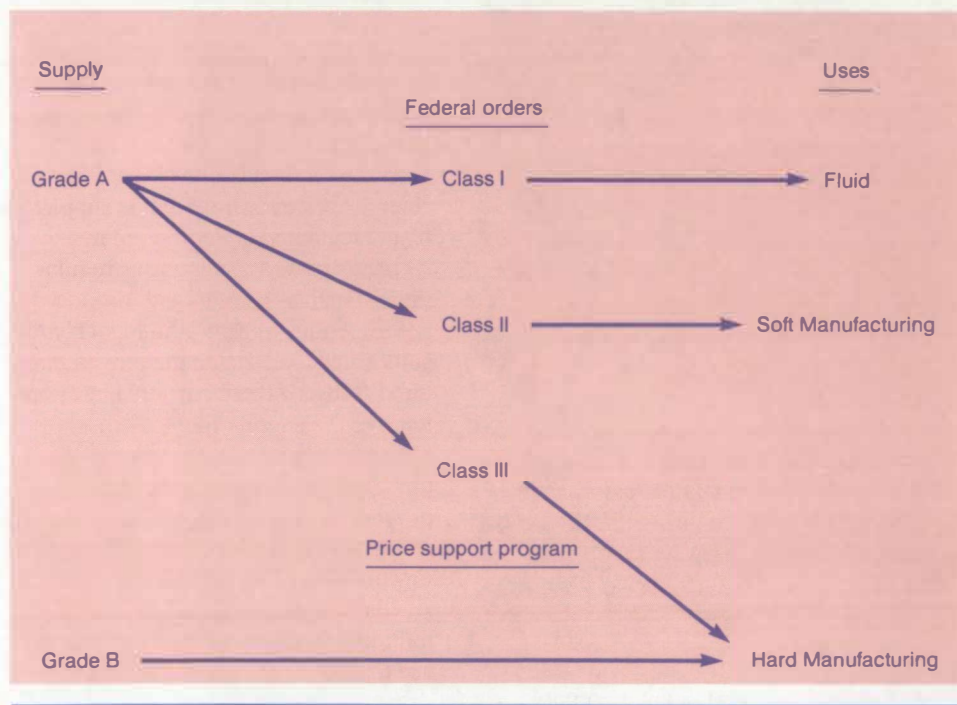
Federal milk marketing orders have two major characteristics: classified pricing of milk according to use and pooling or combining all revenue from the sale of milk in the area covered by an order. These revenue pools provide all producers with a single uniform, or "blend," price for milk that is supplied to plants regulated under the order.

In earlier years, numerous regulations—such as sanitary and product specifications of State and local health authorities—restricted the movement of milk. Most of these barriers have been removed. Federal orders, themselves, do not generally restrict the movement of milk, but classified pricing and provisions affecting ingredients used for reconstituted fluid milk and unregulated raw milk may be constraining.

Classified pricing breaks Grade A milk into categories based on its actual use (*figure 1*). Grade A milk for beverages is designated as Class I. Most orders have two other classes. Class II includes milk used for soft (semiperishable) manufactured products including cream, ice cream, cottage cheese, and yogurt. Class III includes milk used for hard (storable) manufactured products like cheese, butter, and nonfat dry milk.

Minimum class prices for all Federal marketing orders are based on the average price of Grade B milk in Minnesota and Wisconsin, known as the

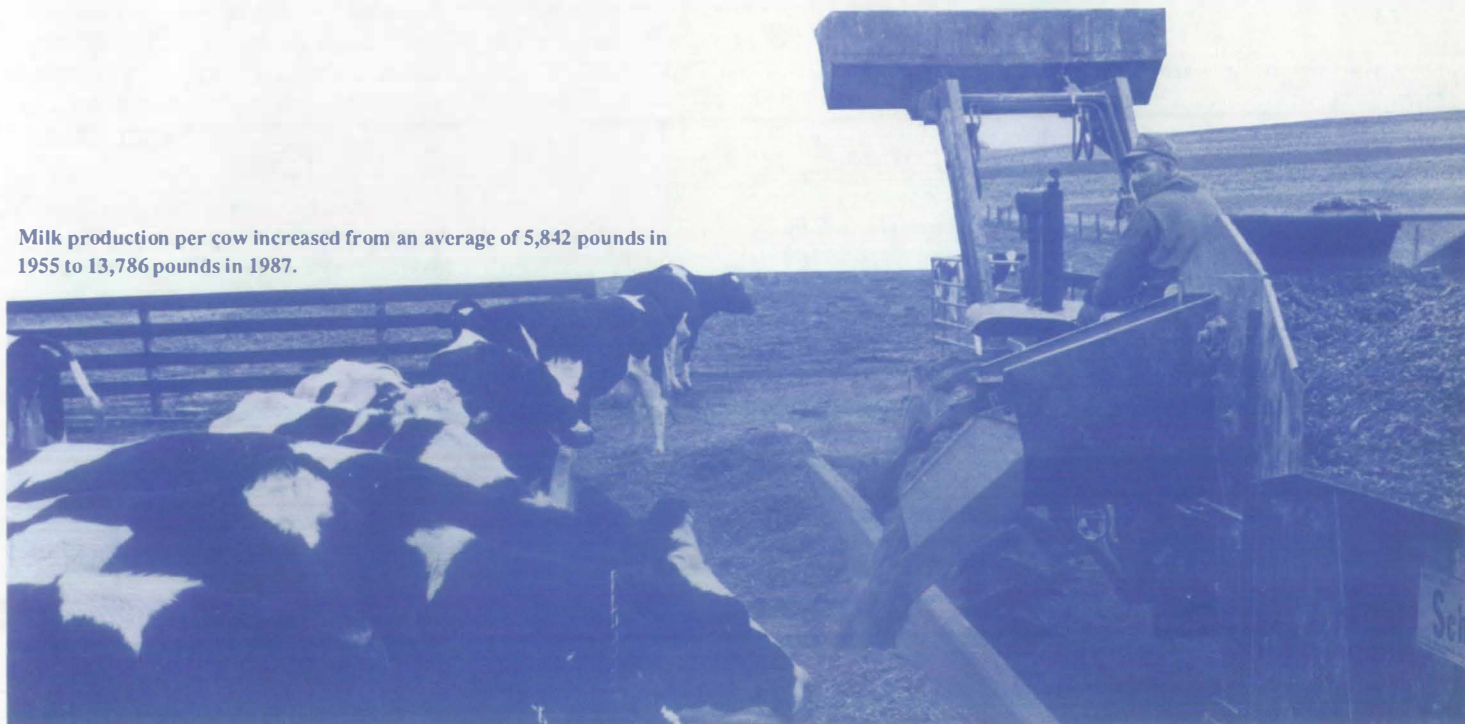
**Figure 1. Federal Marketing Orders Categorize Milk According to Use**



M-W price. With a few minor exceptions, Federal order prices for Grade A milk used in manufactured products are set at or near the M-W price. Minimum prices for Class I milk are higher than the M-W level by fixed differentials unique to each Federal order.

Since the 1950's, new interstate highways and improved transportation systems have allowed milk to be moved over longer distances. This has made fluid milk markets more interdependent and regional in nature. When Federal order pricing provisions were changed in the late 1960's to reflect this greater mobility, the Upper Midwest had the largest overall reserve supply of Grade A milk. Dairy farmers there produced more fluid milk than could be consumed in the region. Over time, however, other areas of the country—such as southwest Missouri, Kentucky-Tennessee, and the Northeast—began developing Grade A milk supplies in excess of local needs. The Federal order pricing system was not

Milk production per cow increased from an average of 5,842 pounds in 1955 to 13,786 pounds in 1987.



**Table 1. The Food Security Act of 1985 Mandated Higher Minimum Class I Differentials for Most Federal Milk Orders<sup>1</sup>**

Federal order	Mandated increase	Minimum Class I differential	Federal order	Mandated increase	Minimum Class I differential
<i>Dollars per cwt</i>			<i>Dollars per cwt</i>		
New England	0.24	3.24	Tennessee Valley	0.67	2.77
New York-New Jersey	0.30	3.14	Nashville	0.67	2.52
Middle Atlantic	0.25	3.03	Paducah	0.69	2.39
			Memphis	0.83	2.77
Georgia	0.78	3.08	Fort Smith	0.82	2.77
Alabama-West Florida	0.78	3.08			
Upper Florida	0.73	3.58	Central Arkansas	0.83	2.77
Tampa Bay	0.93	3.88	Southwest Plains	0.79	2.77
Southeastern Florida	1.03	4.18	Texas Panhandle	0.24	2.49
			Lubbock	0.07	2.49
Upper Michigan	0	1.35	Texas	0.96	3.28
Southern Michigan	0.15	1.75	Louisiana	0.81	3.28
Eastern Ohio-Western Pennsylvania	0.15	2.00	New Orleans-Mississippi	1.00	3.85
Ohio Valley	0.34	2.04			
Indiana	0.47	2.00	Eastern Colorado	0.43	2.73
Chicago	0.14	1.40	Western Colorado	0	2.00
Central Illinois	0.22	1.61	Southwestern Idaho-		
Southern Illinois	0.39	1.92	Eastern Oregon	0	1.50
Louisville			Great Basin	0	1.90
Lexington-Evans	0.41	2.11	Lake Mead	0	1.60
			Central Arizona	0	2.52
Upper Midwest	0.08	1.20	Rio Grande Valley	0	2.35
Eastern South Dakota	0.10	1.50			
Black Hills	0.10	2.05	Puget Sound-Inland	0	1.85
Iowa	0.15	1.55	Oregon-Washington	0	1.95
Nebraska-Western Iowa	0.15	1.75			
Kansas City	0.18	1.92			

<sup>1</sup>Changes became effective May 1, 1986.

adjusted to reflect these changing Grade A supply conditions.

The 1985 Food Security Act legislated higher minimum Class I differentials in 35 of 44 Federal milk orders—primarily in southern milk-deficit markets east of the Rockies (*table 1*). Until these changes became effective May 1, 1986, the basic structure of minimum Class I differentials, especially the portion designed to reflect transportation

costs between markets, had remained unchanged since 1968.

The other major provision of Federal milk orders is marketwide pooling. Under this system, producers in each marketing order receive a monthly weighted average, or blend, price. Each processor operating under the order must pay at least the announced minimum marketwide blend price to producers delivering milk to the plant, regardless of how it is used (*see sidebar*).

## Reconstituted Milk

Federal marketing order provisions are applied to milk-derived ingredients that are used in reconstituted milk. This often makes the ingredients, nonfat dry or condensed milk and butterfat, more costly than without regulation. The pricing and accounting provisions are intended to balance costs among handlers. They also keep unregulated reconstituted milk from displacing locally produced Grade A milk in higher valued uses, and thus lowering producer blend prices. The rules treat milk as a highly perishable product and emphasize using local supplies to minimize the time between production and consumption. They encourage balancing daily and seasonal fluid needs with fresh reserves, even though techniques for prolonging the storage life and quality of processed milk ingredients have been developed. To the extent these provisions increase marketing costs and discourage longer distance movements, prices of fluid milk products for consumers in milk-deficit areas are increased.

## State Marketing Regulations

The States also play an important, albeit declining, role in milk regulation. Most State regulations cover setting milk prices at the producer, wholesale, or retail levels, licensing milk processors and distributors, and regulating unfair trade practices, product dating, identity standards, and sanitation (*table 2*).

Most producer price regulation occurs in the Federal milk marketing order system, where over 80 percent of the Grade A milk is priced. In January 1986, only 14 States regulated producer prices. The highest volume by far occurred in California, where the State's dairy industry has long been regulated. Price regulation at other than the producer



## Understanding Marketing Order Pricing

The pricing mechanisms in Federal milk marketing orders are complex. They set the minimum prices that processors must pay for milk based on how it is used. However, those minimum prices are not paid directly to producers. Instead, receipts are pooled by a market administrator and producers receive a weighted-average, or blend, price based on how the milk was used by processors during each month. To understand more clearly how orders work, consider this hypothetical Omaha order.

In April, there were three processing plants in the Omaha area regulated by the order. The cheese plant northwest of the city buys milk from dairyman Clark. Because it is regulated by the Omaha order, the plant must pay the Class III price of \$10.40 per cwt for milk, the same amount that unregulated processors in Minnesota and Wisconsin pay for Grade B milk (the M-W price).

East of town, another processing plant manufacturing ice cream buys milk from Clark's neighbor, Thompson. Like the cheese plant, the ice cream manufacturer is regulated by the order. Since ice cream is a soft dairy product, the plant pays the Class II price of \$10.50 per cwt for milk. The price is calculated using a product price formula and is usually about 10 cents over the M-W price.

A fluid processor south of the city buys milk from Miller. The marketing order requires the plant to pay the Class I price of \$12.50 per cwt. This is the sum of the Class I differential of \$2.00 and the February M-W price of \$10.50 (there is a 2-month lag in this calculation).

Even though the producers sell to different types of plants, they all receive the same price for their milk. The monthly blend price is calculated by multiplying the amounts used in each of the classes by their respective prices. Assume the cheese plant bought 40,000 cwt of milk, the ice cream plant purchased 20,000 cwt,

and the fluid milk processor, 80,000 cwt. Thus, the total volume and value of milk purchased during April was:

Class III	\$10.40	x	40,000 cwt	=	\$416,000
Class II	\$10.50	x	20,000 cwt	=	210,000
Class I	\$12.50	x	80,000 cwt	=	1,000,000
Totals			140,000 cwt		\$1,626,000

To get the blend price, total value is divided by total volume. Therefore, no matter where they sold their milk, Clark, Thompson, and Miller all received \$11.61 per cwt for the milk they sold during April.

In reality, most plants produce multiple products and over the year at least some milk must be used in beverage products or some bulk milk must be sold to fluid processing plants as Class I, in order to qualify as a "pool plant" under a Federal order. In any event, this same pooling concept applies to both the costs of processors and the receipts of Grade A dairy farmers. "Pool plant" rules are complex and vary by individual Federal orders and months of the year.

level is primarily a State function, where such regulations exist at all.

## How the Programs Interact

Federal milk marketing orders and the Federal price support program are closely interrelated. The reason is that Federal milk marketing order class prices are based on the M-W price. Since the M-W price reflects the market value of unregulated manufacturing grade milk, it tends to represent the supply and demand

balance for the entire industry (*figure 2*). When market prices are above the support level, the price support program is inactive. On the other hand, when milk prices fall to, or below, the support level, the CCC's purchases of butter, cheese, and nonfat dry milk tend to prevent further price declines, thus supporting the M-W price and all milk prices. In this situation, changes in the support price have a direct effect on all milk prices.

The M-W price, as the prime mover of class prices in all Federal order markets, provides a coordinating link be-

tween milk orders and the price support program. It assures that minimum class prices will not rise when large Government purchases might require a reduction in the support price. (Under the 1985 Food Security Act, increases in Class I differentials became effective at a time of excess milk supplies in the overall system and deviated from this basic concept.)

Processors in all States can rely on the Federal price support program as a

**Table 2. Twenty-Nine States Had Milk Marketing Regulations in January 1986**

State	Minimum prices established at			Trade practice regulations	Producer base <sup>1</sup>
	Producer level	Wholesale level	Retail level		
Alabama		( <sup>2</sup> <sup>3</sup> )	( <sup>2</sup> <sup>3</sup> )		
Arkansas				X	
California	X	( <sup>4</sup> )	( <sup>4</sup> )	X	X
Colorado				X	
Connecticut				X	
Hawaii	X				
Idaho				X	
Iowa				X	
Kansas				X	
Louisiana	( <sup>2</sup> )			X	
Maine	X	X	X	X	
Massachusetts	X	( <sup>2</sup> )	( <sup>2</sup> )	X	
Minnesota				X	
Missouri				X	
Montana	X	X	X	X	X
Nevada	X	( <sup>2</sup> )	X	X	X
New Jersey	X	( <sup>2</sup> )	( <sup>2</sup> )	X	
New York	X			X	
North Carolina	X	( <sup>2</sup> <sup>3</sup> )	( <sup>2</sup> <sup>3</sup> )	X	
North Dakota	X	X <sup>3</sup>	X <sup>3</sup>	X	
Oklahoma				X	
Oregon	X	( <sup>3</sup> )			X
Pennsylvania	X	X	X		
South Carolina	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	X	
Tennessee				X	
Vermont	( <sup>2</sup> )	( <sup>2</sup> <sup>3</sup> )	( <sup>2</sup> <sup>3</sup> )	X	
Virginia	X	X <sup>5</sup>	( <sup>4</sup> <sup>5</sup> )	X	X
Wisconsin				X	
Puerto Rico	X	( <sup>5</sup> )	( <sup>5</sup> )	X	

<sup>1</sup>State administers a base plan which affects farm production levels. <sup>2</sup>Authorized but not used. <sup>3</sup>Maximum pricing authorized but not used. <sup>4</sup>Authorized only in the event of price disruption. <sup>5</sup>Also establishes maximum prices.

Sources: "Recent Changes in State Milk Control Programs," *Dairy Situation and Outlook Yearbook*, DS-406, ERS, USDA, July 1986, and *State Milk Regulation: Extent, Economic Effects, and Legal Status*, Staff Report AGES860404, ERS, USDA, April 1986.

market for surplus milk. Thus, Government expenditures for dairy products are affected not only by Federal price support and marketing order provisions, but also by State programs. Since the Food Security Act linked annual changes in dairy price supports to projected annual Government purchases, there is renewed interest in regional milk production and in the effects of State and Federal programs on the prices received by farmers in different regions.

### Current Conditions

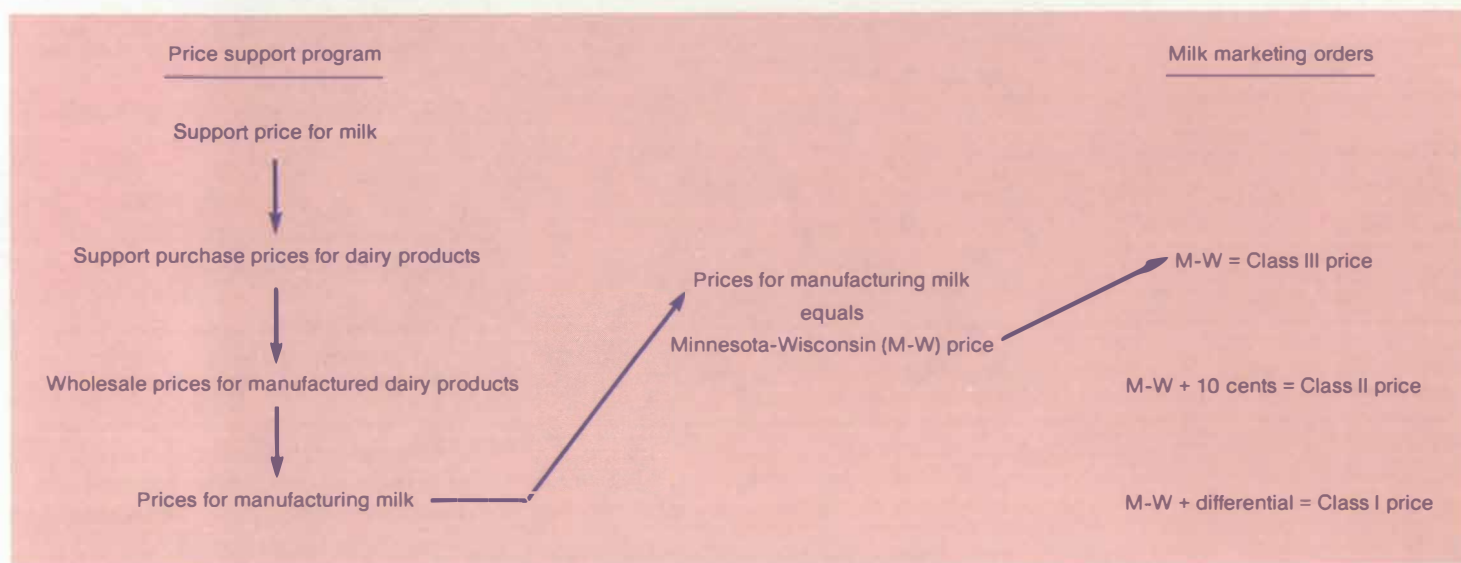
Many characteristics of the dairy industry have changed since Federal regulation began in the early 1930's. There is considerable debate among analysts, policymakers, industry leaders, and consumer interest groups as to the extent to which Government involvement is still needed. Some changing characteristics and conditions that influence the types and extent of Federal dairy programs are:

- Conversion from Grade B to Grade A milk production. Over 88 percent of the total U.S. milk supply is now Grade A, which meets the higher quality standards required for use in fluid products.

However, over half of this Grade A supply is used in manufactured products. As a result, the reserve supplies of Grade A milk are substantially larger than they were before milk was so heavily regulated. Furthermore, due to technological advances in production and increasing sanitation standards for Grade B milk, the additional costs of producing Grade A milk are negligible.

- Specialized and larger dairy farms. The industry has become more concentrated over the past three decades,



**Figure 2. The Minnesota-Wisconsin Price Links the Price Support Program and Marketing Orders**

with dairy farm numbers dropping from 2.8 million in 1955 to about 233,000 in 1987, and milk production rising from 123 million pounds to 142 million pounds. (Milk production per cow increased from an average of 5,842 pounds in 1955 to 13,786 in 1987.)

- Production shifts to the Southwest and West. Thirty years ago, the Upper Midwest was the major milk producing region, but the Southwest and West have since emerged as major producers. Although population patterns have closely mirrored these shifts, the lower milk production costs on large-scale specialized units is probably the driving force behind these shifts in production. Many specialized dairies purchase their feed, especially grains and concentrates that can be economically transported long distances. This provides more flexibility and timeliness in altering milk supplies to meet fluid market demand. The more

pasture-based production, usually associated with pre-1950's small herds of Holsteins and red barns dotting the rolling hills, was much more rigid in this regard.

- Reduced seasonality of milk production. Increased feeding of grain and concentrates, less reliance on pasture, and greater reliance on quality hay and forage has eliminated much of the early winter declines and early-summer increases in production. This more even flow of milk production has reduced the costs of processing and marketing. Concerns about having adequate Grade A supplies during the peak fall demand season have also been reduced.

- Changes in consumption. A smaller proportion of the total milk supply is used in beverage products. For example, cheese consumption has increased substantially, especially mozzarella for pizza. This has reduced the relative importance of fluid milk in consumers'

budgets and the proportion of total producer revenue derived from the perishable fluid market. It also reduced the relative significance of beverage products under Government programs—particularly the Federal milk order system.

- Population shifts among regions. For instance, the U.S. population has been moving from the "frostbelt" to the "sunbelt" during the last 20 years. While this may not be a prime factor in the changing location of milk production, it is especially important for processors and marketers of beverage products, since transportation costs on fresh milk are relatively high. In contrast, processed dairy products are shipped across country and around the world at relatively low costs. For example, a pound of cheese can be shipped from Wisconsin to Florida for about 5 cents, but the 10 pounds of milk (1.2 gallons) required to

make the pound of cheese would cost about 50 cents to transport. Thus, the location of fluid milk processing facilities is more sensitive to changes in population, while hard manufactured dairy product processing facilities are relatively more sensitive to sources of milk available for manufacturing.

● **Technological changes.** New production, processing, and marketing techniques have contributed to substantial changes in the productivity and structure

of the dairy industry. Research continues on new technologies that could have a major impact. Developments in feed additives, hormone injections, reproduction practices, and computers could be used to increase productivity and efficiency of milk output. Overall, this could lead to lower milk prices, lower returns to producers who do not adopt the new technology, and also major structural adjustments since fewer cows and fewer herds will be needed to produce an adequate milk supply.

Since milk is a relatively bulky product containing 87 percent water, the emerging technology for removing water or separating milk into its components has potential for improving the processing industry's efficiency. If changes in Federal order provisions accommodate such developments, the structure and location of the milk production and processing sectors could change considerably. ■

### A California Alternative

Thirteen percent, 18 billion pounds, of the milk produced in the continental United States in 1987 came from California dairy herds. In 1977, California produced only 10 percent, and in 1967, only 7 percent. In 1987, it ranked second among States in its proportion of total U.S. milk production, surpassed only by Wisconsin's 17 percent. New York followed with 8 percent of the total, and Minnesota with 7 percent. California surpassed Minnesota in 1971, and New York in 1972.

Because of the large increases in California milk production and the high proportion of the Federal purchases of surplus dairy products coming from there, the State's alternative dairy policy has attracted considerable attention in the debate over regional allocation of industry proceeds. For example, in the 1987 marketing year, 23 percent of the cheese, 27 percent of the butter, and 35 percent of the nonfat dry milk purchased under the Federal dairy price support program came from California.

California has set its own prices since its milk control program began in 1935. It is the major State-regulated milk pricing and marketing system in the Nation. California is geographically isolated from most other major producing areas and has low prices. Therefore, only a small amount of raw milk or packaged fluid products move across the State line.

Prior to August 1978, the State established fluid milk prices based on information received at public hearings. These prices remained in effect until evidence gathered at a subsequent hearing supported a price change.

In the late 1970's, consumer groups petitioned the State to cut fluid milk prices when it became apparent that production costs, particularly feed costs, were dropping. These pressures prompted producers to request a shift from specified prices to formula pricing. In August 1978, after a public hearing, the State adopted a formula to automatically determine the fluid milk price based on costs of production, dairy product prices, and consumers' spendable earnings.

Another difference in California pricing is the quota plan associated

with the fluid milk market. A milk pooling plan, initiated in July 1969, terminated the individual handler pool system and gave each eligible Grade A producer a production base and pool quota that represented historical shares of California's fluid milk market. The base and quota belonged to the individual producer and could be bought and sold without arbitrary restrictions by a third party. On a per-cow basis, the average market value of a quota in 1987 was \$1,650.

New producers and those who expand milk production and are not covered by the quota receive a different price for the milk they market over the base. This "over-base" price is running about 75 cents per cwt lower than the Minnesota-Wisconsin Grade B price. Currently, about 12 percent of the producers have no quota, so they receive the over-base price for all of their milk, which represents about 8 percent of the total California Grade A supply. Grade A milk makes up about 97 percent of California milk production.