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# MINNESOTA AGRICULTURAL ECONOMIST

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## Midwest Dairy Farmers Lose Share of U.S. Dairy Markets Boyd M. Buxton\*

IN THIS

Always controversial, the subject of support prices for milk is often in the headlines. Two authors in this issue of Minnesota Agricultural Economist take a look at the controversy and some of the issues to be considered before a 1981 Farm Bill is fully hammered out by Congress over summer.

Milk production has decreased in most north central, central and plains states over the last decade. For the same span milk production has increased in many western, southern, and eastern states.1 Milk that is not marketed as a fluid beverage is used to make manufactured products such as ice cream, nonfat dry milk, butter, and cheese. When fluid milk consumption on a fat solids basis is considered along with the increased milk production, some major regional shifts in the amount of milk used to make manufactured products emerge. The areas with greatest gains in milk production are also becoming more important sources of manufactured dairy products. When accounting for milk on a fat solids basis the traditional manufacturing area in the north central and central areas are declining in importance as suppliers for the U.S. manufactured dairy product markets.

## Manufactured Dairy Products' Shift

The percentage change in the average amount of milk equivalent used for manufacturing was calculated for each state between two periods, 1967-69 and 1977-79. Sharp increases occurred in most eastern, western, and southwestern states (states shaded in figure 1). Except for Wisconsin, most north central, central and plains states decreased (states not shaded in figure 1).

MIDWEST DAIRY (continued on page 2)

## Are Dairy Price Supports in for Another Cut?

Jerome W. Hammond\*\*

President Reagan signed a bill on March 31 that eliminated a previously mandated increase (equal to 88 cents per hundredweight) in the producer support price for milk. This is part of the Administration's effort to reduce government expenditures. The dairy program was singled out because of significant increases in milk production and cost to the government in price support purchases of dairy products.

The 1980 cost of the program was a record high and indications are that purchases and costs for 1981 will be even higher. However, this may not be

the only change that the dairy price support program faces in the next few months. The current price support program expires on September 30, 1981. The Farm Bill that emerges from Congress later this year could continue the existing program, substantially change the program, or simply let the dairy support revert to the basic program authorized under the 1949 Agricultural Act.

The current milk price support program was authorized in the Agricultural Act of 1949 and it has operated with only a few modifications since. It provided for the purchase of butter, nonfat dry milk, and cheese at prices necessary to maintain the farm price for raw milk at a specified percentage of parity.

(The parity price is a price that would maintain the 1910-1914 purchasing power of a hundredweight of milk.) The 1949 Act directed the Secretary of Agriculture to set the support price at the beginning of each marketing year at from 75 to 90 percent of parity. The current minimum of 80 percent parity with mandatory semi-annual adjustments was enacted in 1977. This feature of the program expires September 30, 1981. Without some Congressional action, the program reverts on October 1, 1981 to the 75 to 90 percent parity range with only annual mandatory adjustments to the minimum support level.

ARE DAIRY PRICE (continued on page 4)

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<sup>&</sup>lt;sup>1</sup> Lynn Stalbaum, "Milk Production Goes West...Farm Belt Area Loses," *Hoards Dairyman*, December 10 and 15 issue, 1980, p. 1572.

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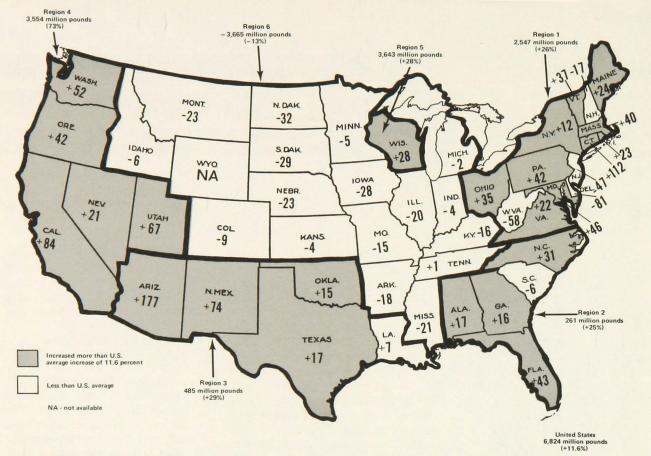


Figure 1. Absolute and percentage change in whole milk equivalents used in manufactured dairy products for six regions of the U.S. from 1967-69 period to the 1977-79 period. (Numbers for individual states are percent changes.)

Source: Dairy Products, Annual Summary for 1976, 1977, 1978, and 1979, Economics and Cooperatives Service, USDA, and Production of Manufactured Dairy Products for 1967, 1968, and 1969, Statistical Reporting Service, USDA.

Table 1. Changes in the amount of whole milk equivalents used in manufacturing dairy products<sup>a</sup>

	Three year	r average			
Area	1967-69	9 1977-79 Cha		inge	
		million pounds		percent	
Shaded states east of Mississippi River <sup>b</sup> in figure 1	10,244 (17.4)	13,341 (20.3)	3,097	+30.2	
Shaded states west of Mississippi River <sup>c</sup> in figure 1	3,278 (5.6)	4,699 (7.1)	1,421	+43.3	
Nonshaded states in figure 1 (mostly north central and central states)	29,307 (49.7)	25,367 (38.6)	-3,940	-13.4	
Wisconsin	13,058 (22.1)	16,701 (25.4)	3,643	+ 27.9	
California	3,089 (5.2)	5,692 (8.6)	2,603	+84.3	
Total U.S.	58,976 (100)	65,800 (100)	6,824	+11.6	

apercent of total U.S. is indicated in parentheses, measured on a fat solids basis.

The increase was about 30 percent for states in the far eastern United States (table 1). Their share of U.S. total milk used for manufacturing increased from 17.4 to 20.3 percent over the 10 years considered. In the west and south (all states except California that

are shaded in figure 1 and east of the Mississippi River) the increase was about 43 percent. Their share of U.S. total milk used for manufacturing increased from 5.6 to 7.1 percent over the 10 years considered (table 1). The increase in Wisconsin was 3.6 billion

pounds or 28 percent while California went up by 2.6 billion pounds or 84 percent. In contrast, the amount of milk used for manufacturing decreased in most north central and central states by 3.9 billion pounds or over 13 percent (states not shaded in figure 1). Their share of the U.S. total decreased from 49.7 percent to 38.6 percent over the 10 year period considered (table 1).

Because some milk, cream, or both may move across state boundaries to be processed, the change for individual states may be distorted. For example, an increase in the movement of milk or cream from Illinois to Wisconsin for processing would overstate the increase for Wisconsin and the decrease for Illinois. Much of this possible distortion could be eliminated by grouping states into regions as less milk would move across regional boundaries than across state boundaries. For this purpose the shift was calculated for six regions comprised of contiguous states (figure 1). The amount of milk equivalent used in manufactured dairy products increased 25.8 percent in all northeast states, 24.5 percent in the southeast states, 28.7 percent in the southern states and 27.9 percent in

bexcluding Wisconsin

cexcluding California

Table 2. Changes in the amount of whole milk equivalent used in manufacturing dairy products<sup>a</sup>

	Three year	ır average			
Region (see figure 2)	1967-69	1977-79	Change		
		million pounds		percent	
1 Northeast	9,860	12,406	2,547	+ 25.8	
2 Southeast	1,067	1,328	261	+ 24.5	
3 South	1,689	2,174	485	+ 28.7	
4 West	4,892	8,446	3,554	+72.6	
5 Wisconsin	13,058	16,701	3,643	+ 27.9	
6 North central and central U.S. Total	28,410 58,976	24,745 65,800	-3,665 6,824	-12.9 +11.6	

measured on a fat solids basis.

Wisconsin (table 2). In the far west, including California, the increase was 72.6 percent. In contrast the north central and central states declined 12.9 percent. Their share of the U.S. total declined from about 48 to 38 percent during the ten years considered.

#### **Factors Affecting the Shift**

There are many factors underlying the observed shift in the location of milk equivalent used for manufactured dairy products. Some are factors that directly affect supply and some are factors that directly affect fluid consumption. One question is whether or not some of the factors are due to specific government policies.

On the supply side the location of milk production can be affected by the profitability of dairy farming relative to alternative enterprises. Dairy has tended to decline in much of Iowa and south central Minnesota, in part, because these areas are particularly well suited for crop production. Dairy is still relatively important in southeast Minnesota and Wisconsin where the land is not as well suited to crop production as that in Iowa or south central Minnesota. Distance to markets, transportation costs and even urban pressures for agricultural land can be important factors in the location of milk production. Climate and a shift to drylot feeding have contributed to large scale dairy farms in California, Florida, and some parts of the south.

On the fluid demand side population shifts and changes in incomes, tastes, and preferences are important factors.

The price of milk affects both supply and fluid demand and, therefore, may be a factor in the observed shift in the amount of milk equivalent used for manufactured dairy products. This

raises the question as to whether the two major government programs that affect milk prices (price support and market order) might also be factors contributing to the observed shift. An increase in the support price for milk under the price support program would increase producer and consumer prices equally in all regions of the U.S. Hence, this type of decision probably would not be expected to be a major factor in shifting the advantage of milk production from any particular region to another.

However, under federal milk orders, different minimum fluid milk prices are established depending on where the order is located in the U.S. East of the Rocky Mountains the further an order is located from Eau Claire, Wisconsin, the higher the required minimum price for fluid milk. Such a policy can affect (1) the pattern of fluid milk consumption and, (2) the pattern of milk production because local farmers share in the higher fluid milk price in their particular order.

Prices established in milk orders are to a large extent a matter of discretionary policy. Because this pricing policy is discretionary and can affect the location of milk equivalent used for manufactured dairy products, it is discussed in more detail. The next section briefly describes the pricing policy; then the following section discusses how a change in federal order pricing can affect the location of the manufacturing milk industry.

#### **Federal Order Pricing Policy**

Plants that process milk into manufactured dairy products pay about the same price per hundredweight of raw milk regardless of their location. Federal orders set minimum prices for this

milk equal to the average price paid for manufacturing grade milk by about 110 plants in the Minnesota-Wisconsin area.<sup>2</sup> This means that the farm value of milk used for manufacturing is essentially the same whether in Florida, New York, California, Minnesota, or Wisconsin.

In contrast, plants that process milk for fluid sales pay much different prices depending on location. East of the Rocky Mountains, the minimum price a plant is required to pay for milk used as fluid increases with distance from Eau Claire, Wisconsin (the basing point for setting the minimum price paid for milk used as fluid). The minimum federal order price per hundred pounds of milk used as fluid can be estimated east of the Rockies by adding to the Minnesota-Wisconsin manufacturing price, 90 cents plus an additional 15 cents each 100 miles distance the fluid plant is from Eau Claire. California has a state milk order similar to a federal milk order under which the fluid milk price is set above the price paid for manufacturing milk.

## How Pricing Policy May Affect Location

New minimum prices could be established across all federal milk orders to reflect the actual transportation cost of whole milk from Eau Claire, Wisconsin. Such a policy would use at least 32 cents per hundredweight for each 100 miles the order is located from Eau Claire rather than the present policy based on 15 cents. In the southeastern Florida market order this policy change would result in milk used for fluid costing at least \$5.70 (90 cents + 32cents × 15) more per hundredweight rather than the present \$3.15. The average price paid to farmers who supply the southwestern Florida milk order could increase \$2.22 per hundredweight. In contrast the price paid to farmers in the north central states would increase only 2 cents per hundredweight. In the north central states the fluid price would change little because it is located near Eau Claire. The same policy change could increase

<sup>&</sup>lt;sup>2</sup>Ten cents extra per hundredweight is added to the M-W price for milk in some manufactured products such as ice cream.

farm prices \$1.07 per hundredweight in New England and 80 cents in Texas.

What would be the economic implications of a decision to increase fluid milk prices under federal orders as described here? Higher fluid prices in Florida, New England, and Texas could reduce the use of this milk as a fluid beverage while higher farm prices would encourage more milk production. Increased production, combined with fewer fluid sales, means more milk going to manufacturing. The net result would be more incentive for further growth in the processing of manufactured dairy products relative to the north central and central states. This increases the economic incentive to continue or accelerate the shift in location of the manufactured dairy industry that has taken place in the last 10 years.

#### Conclusions

Many complex economic and non-economic factors underlie a shift that over the past 10 years has reduced the relative importance of the traditional dairy areas in supplying manufactured products for the U.S. market. Many of these factors are not related to government dairy pricing policies but some are. The federal order program has affected the relative profitability among regions of the U.S. and thereby, has been a factor in shifting the location of the U.S. dairy industry. How important the federal milk order pricing pol-



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icy has been relative to other factors in this shift is open to question but it has been a contributing factor.

An example of increasing fluid milk prices to reflect higher transportation cost suggests that the Eau Claire, Wisconsin single basing point policy established in 1968 could have encouraged milk production beyond fluid needs in many of the more distant markets from

Wisconsin and resulted in their becoming relatively more important suppliers for manufactured dairy products.

In 1968 the distance from Eau Claire, Wisconsin, was formally adopted to align minimum fluid milk prices in all milk orders east of the Rocky Mountains. Although there may have been a number of reasons for adopting such a single basing point pricing policy, an important result has been to make dairy farming relatively more profitable in the northeast, southeast, south and west than in the central states.

It should be emphasized that federal order pricing policy, not the federal order program in and of itself, has created this economic incentive to shift the location of manufacturing dairy industry. It would not be necessary to do away with the federal order program in order to remove this economic incentive. Numerous pricing policies are possible within the present market order program. However, it would be possible to create more or less economic incentive to continue the observed shift in location of the manufactured dairy industry. It depends on the specific policy adopted. Increasing (or decreasing) the minimum fluid price in the order markets distant from Eau Claire relative to the north central states would create more economic incentive to shift the manufacturing industry away from (or toward) the north central states.

ARE DAIRY PRICE (continued from page 1)

## Traditional Issues of the Price Support Program

Product Acquisition and Cost. Since 1949 large quantities of dairy products have been purchased frequently by the government to maintain the established support prices. Purchases of products have been made in every year since 1949. The milk equivalent of the products the government purchased for support has varied substantially, totaling more than 6 percent of total milk marketings in 10 of the 32 years (table 1). The 1980 level of removals is the third highest in the program's history. The program's dollar cost reached its highest level in 1980: approximately \$1.3 billion. It is significant that, until recently, there has been

no increasing trend in the volume of product removals. This contrasts with the dairy program of the European community which has expanded so that 10 to 15 percent of annual milk production must be government purchased and removed from commercial markets.

The periodic high levels of purchases and associated costs in the past raised questions about the level of support and the need for program changes, or both. The problem seemed always to be resolved by declines in milk production. Sometimes the declines came from lowering the level of support when that level had not previously been at the minimum allowed in the Act. The March 31 action to forego the April 1 price support increase was a step in this direction. In other instances, production declined or leveled off because of other supply factors.

The result of holding back on the price support will be to hold down the cost of government purchases by about 88 cents per hundredweight of milk equivalent purchased in butter and nonfat dry milk and in cheese. The action is not likely to have any immediate noticeable impact on milk production because the flush months of milk production are approaching as cows are being moved out to pasture. So, any response to the support action will not occur until later in the year.

Substantial percentages of annual production of butter, nonfat dry milk, and cheese have been removed from commercial markets to maintain the support price (table 2). On an average, 38 percent of annual nonfat dry milk production, 8 percent of annual cheese production, and 14 percent of annual butter production have been removed

Table 1. Milk equivalent of products removed for commercial markets for price support 1949-1980

1949 2,489 2.6	1965	F 00F	
		5,665	5.0
1950 1,126 1.1	1966	645	.6
1951 -618 -	1967	7,427	6.6
1952 339 .4	1968	5,159	4.7
1953 10,200 9.7	1969	4,479	4.2
1954 8,588 8.0	1970	5,774	5.3
1955 4,685 4.3	1971	7,268	6.6
1956 5,206 4.7	1972	5,345	4.9
1957 5,870 5.2	1973	2,185	2.1
1958 4,658 4.2	1974	1,346	1.2
1959 3,214 2.9	1975	2,036	1.9
1960 3,101 2.9	1976	1,236	1.1
1961 8,019 6.9	1977	6,080	5.3
1962 10,724 9.1	1978	2,743	2.5
1963 7,745 6.7	1979	2,119	1.9
1964 7,676 6.5	1980	8,300	6.6

Source: "Dairy Situation" (selected issue) ESS, USDA, Washington, D.C.

Table 2. USDA purchases for price support as percentages of annual production

	Nonfat dry				Nonfat dry		
Year	milk	Cheese	Butter	Year	milk	Cheese	Butter
		%				%	
1949	35	3	8	1965	55	4	18
1950	37	7	8	1966	23	1	2
1951	5	0	-	1967	41	14	22
1952	5	8	1	1968	35	7	17
1953	49	36	25	1969	28	2	17
1954	52	12	14	1970	31	3	22
1955	39	14	12	1971	32	6	26
1956	48	19	11	1972	28	2	21
1957	51	24	13	1973	4	0	11
1958	52	8	14	1974	26	3	3
1959	48	6	10	1975	39	3	6
1960	47	0	11	1976	17	2	4
1961	54	9	22	1977	42	7	20
1962	62	19	26	1978	31	2	11
1963	58	10	22	1979	28	2	8
1964	54	11	21	1980	56	15	25

Source: "Dairy Situation" (selected issue) ESS, USDA, Washington, D.C.

from commercial markets by government purchase under the price support program. (Part of these purchases have been made to service other federal government food programs and commitments.)

Disposal. The dairy products purchased for price supports have been used in a variety of ways. In a few situations, they have been subsequently sold back into commercial markets when market prices rise above support levels. Products could be sold back to commercial markets at 105 percent of the current government purchase price for the commodity (just recently raised to 110 percent). Because market prices have generally been near support prices for dairy products, outlets need to be found for the acquisitions that are noncompetitive with commercial markets for dairy products. The government

formerly made extensive use of price support products in domestic and foreign welfare programs and foreign aid programs. Subsidized exports were also used. But food stamps have replaced most of the domestic food distribution. Foreign food aid based on food availability under price support programs and subsidized exports have become less acceptable in U.S. foreign relations.

Nonfat dry milk deteriorates in quality when it has been in storage for years. This product is sold for nonfood (principally animal feed) uses. Thus these sales are competing with high protein feeds.

Subsidized exports and donations to foreign governments have been widely used to dispose of dairy surplus. Under the Food for Peace (PL 480) program, dairy products have been donated to

foreign countries. Currently USAID partially reimburses the USDA for these products. During the early 1960s a payment-in-kind program was used to encourage commercial export sales of farm commodities including dairy. There also have been direct government-to-government sales. The USDA just concluded the sale of about 66 million pounds of nonfat dry milk and 66 million pounds of butter to Poland. This is about 16 percent of U.S. butter and 11 percent of nonfat dry milk price support holdings. These products were sold at about 50 percent of the Commodity Credit Corporation (CCC) purchase cost.

Competitiveness of Dairy Products. Price increases for dairy products during the past 3 or 4 years have been larger than for their substitutes. This encourages shifts to the substitutes.

Margarine continues to expand its share of the table spread market. In 1950, per capita consumption of butter and margarine was 10.5 and 6.1 pounds, respectively. In 1980, it was 4.1 and 11.7 pounds, respectively. The ratio of the average price of butter to stick margarine rose from 2.33 percent in 1950 to 2.69 percent in 1980.

Nonfat dry milk has steadily lost commercial outlets to lower priced substitutes since the 1960s. This shift coincides with the government price support policy to shift a larger part of the support price for milk from butter to nonfat dry milk. In 1960 the average wholesale selling price for nonfat dry milk was 13.7 cents a pound. In March 1980, wholesale prices for nonfat dry milk ranged from 90 cents to 96 cents per pound, approximately a seven fold increase. These increases have priced nonfat dry milk out of many of the markets it held 15 years ago when domestic nongovernment use was at its highest level: over 1 billion pounds annually. The home use market has declined by one-third. Bakery use has declined by 67 percent. Total use in 1979 was 590 million pounds. Even with substantial shifts of milk from nonfat dry milk to cheese production. 56 percent of 1980 nonfat dry milk production had to be purchased and removed from commercial markets under government price support.

Annual cheese consumption, on a per capita basis, has shown uninter-

rupted increases from 1960 to 1979, even with increasing prices. So, the markets lost for other dairy products were balanced by cheese gains. However, 1980 per capita cheese consumption declined.

Imports. Whenever domestic market prices are supported above free market prices, controls on imports from other countries are required to avoid supporting the entire world price structure. This authority for limiting imports is Section 22 of the Agricultural Adjustment Act of 1933. Because the U.S. is a large net exporter of farm products and a signer of international agreements to eliminate trade restrictions between countries, quotas are difficult to enact and unpopular in world trade.

Though the volume of U.S. dairy product imports is less than 2 percent of total milk production, it still concerns the industry. It is widely believed by producers that many U.S. government purchases for price support could be stopped if imports were eliminated. The recent expansion of dairy import quotas under the Multilateral Trade Negotiations (MTN) was viewed by much of the industry as a sacrifice of the U.S. dairy industry and a tradeoff for expanded exports in other sectors of U.S. agriculture. Then, too, increasing imports of casein, not now subject to import quotas, eliminates markets that might be available to domestic nonfat dry milk. Imitation cheese, which uses casein, is reported to be replacing large amounts of cheese used by prepared food processors.

The first concern is only partly true. Some price support purchases would be eliminated if all imports were prohibited. However, many dairy imports are somewhat noncompetitive with U.S. produced dairy products: the specialty foreign type cheeses, for example. Also, all 1980 dairy imports were considerably less than the amount purchased by the U.S. government.

The concern over the expanded cheese quotas was somewhat unfounded. Within the framework of the Tokyo Round of the Multilateral Trade Negotiations in 1979, the U.S. agreed to expand annual import quotas of cheese from 127.8 million pounds to 240.1 million pounds (table 3). This increase of 88 percent appeared, at first glance, to be a major opening for

Table 3. U.S. cheese imports and quotas, 1975-1980

	Quota typ	e cheese	Imports of	Total imports	
Year	Quota	Imports	nonquota cheese		
		Thousand	pounds		
1975	127,789.6	91,610	87,818	179,428	
1976	127,789.6	97,114	109,985	207,099	
1977	127,789.6	106,381	103,018	209,399	
1978	127,789.6	110,752	131,434	242,186	
1979	127,789.6	118,259	130,030	248,288	
1980	240,143.1	195,345	35,816	231,161	

Source: "Dairy Situation" (selected issue) ESS, USDA, Washington, D.C.

Table 4. Skim milk equivalent (SME) of imports of casein and mixtures of casein, of U.S. milk production, of nonfat dry milk production and comparisons for 1974-78

Item	1974	1975	1976	1977	1978
SME of casein imports and mixtures of casein—billion lbs.	4.0	2.1	4.0	5.1	4.9
SME of production of whole milk—billion lbs.	109.4	109.4	113.8	116.1	115.3
Ratio of imports to production of whole milk—percent	3.7	1.9	3.5	4.4	4.2
SME of production of nonfat dry milk—billion lbs.	11.5	11.4	10.5	12.6	10.5
Ratio of casein imports to SME of production of non fat dry milk—percent	34.8	18.4	38.1	40.5	46.7

Source: International Trade Commission, "Casein and Its Impact on Domestic Dairy Industry," USITC Publication 1025, Washington, D.C., December 1979, p.13.

foreign competition. However, the expanded quotas were obtained in exchange for elimination of nonquota price break imports. Previously, several types of cheese could be imported in unlimited quantities as long as they entered the U.S. just 7 cents a pound above the support price for American cheese. These price-break imports had been expanding rapidly. Consequently with fewer nonquota type cheeses, these imports fell 73 percent, from 130 million pounds in 1979 to 35.8 million pounds in 1980 (table 3). Total cheese imports for 1980, with the new quotas, declined from both the 1978 and 1979 levels by 4.5 and 7 percent, respectively.

Casein imports have and are likely to have much more serious impact on the U.S. dairy industry than cheese imports. This product of skim milk is not produced domestically, but it is a substitute for nonfat dry milk in a number of food uses and an ingredient in imitation cheese. Its import is not controlled by quotas. The skim milk equivalent (SME) of casein imports and its relation to U.S. skim milk production and nonfat dry milk production for 1974-78 is described in table 4. Except for 1975, imports were equal to about 4 percent of total U.S. skim milk production. It

was equal to 47 percent of the SME of U.S. dry milk production in 1979. And, in 1979, 28 percent of U.S. nonfat dry milk production was government purchased for price support.

In 1979 the International Trade Commission studied imported casein's impact on the domestic dairy industry and on dairy price supports. It concluded there was "...virtually no relationship between imports of casein... and purchases of nonfat dry milk under the price support program in recent years." That conclusion appeared to be based on hearing evidence from food users of casein stating that they would not use domestic nonfat dry milk if casein was not available. But some substitution would occur. Some proponents of casein import restrictions argue that one-third of a pound of casein would substitute for one pound of nonfat dry milk in food uses. At 1979 prices, the casein would have cost about 30 cents, the nonfat dry milk. about 84 cents. In some food uses, nonfat dry milk would be the best alternative to casein, even at the higher price, if casein imports were barred.

<sup>&</sup>lt;sup>1</sup>U.S. International Trade Commission, "Casein and Its Impact on the Domeslic Dairy Industry," USITC Publication 1025, Washington, D.C., December 1979, p. 4.

Less would be used (in equivalent units) at the higher prices and some users would shift to lower priced alternatives such as the soy-based proteins. In total, some domestic nonfat dry milk and cheese is displaced by imported casein, but analyses have not yet determined the actual quantities.

The major import issue for the dairy industry appears to be casein. All other dairy products of significant impact are subject to fixed quotas. The expanded 1979 cheese quota may have put a tighter limit on total cheese imports by eliminating imports of nonquota cheese.

#### The Current Situation

Stagnant Demand. The lack of growth in the total demand for dairy products has contributed to the problems of dairy price supports. An inflation-moved parity index, coupled with mandatory semiannual price support increases have brought large and frequent farm and retail price increases. Since the beginning of the 1977 marketing year, the price support level has increased \$4.10 per hundredweight of milk or 45 percent. This translates into retail price increases of 35 cents per gallon of milk, 36 cents per pound of cheese, and 44 cents per pound of butter. Throughout most of the 1970s, total U.S. dairy product consumption increased about 1 percent annually. But, the continuing price increases are now choking off demands for milk. Commercial disappearance (nongovernment purchase) of all milk and dairy products was down .8 percent for 1980 over year-earlier levels. Butter use was down 2.2 percent, American cheese down 4.1 percent, and nonfat dry milk down 12.3 percent. The cheese decline is important because in recent years public demand for cheese has offset declining purchases of most other dairy products. Retail dairy product prices, coupled with high unemployment and little or no increase in consumers' real income, will continue to reduce or limit expansion of commercial markets for dairy products throughout 1981.

### **Expanding Supply**

Substantial increases in milk supply also contribute to the current dairy surplus situation. March 1981 was the 23nd consecutive month of increased milk production over year-earlier lev-

els. Total 1980 U.S. milk production of 128.4 billion pounds surpassed the previous 1964 record level.

Several factors have contributed to the expanding milk production. The continually rising farm milk prices, encouraged largely by the price supports during the last several years, have been a factor. During the last decade, farm level price increases have been greater for milk than for most other farm commodities. Until the last few months, relatively low feed prices have lessened production cost increases for dairy farmers who buy feed. The milkfeed ratio (measures the relationship between milk and feed prices and is partly an indicator of profitability) has been high since milk production began expanding in 1977. Beef prices have not been high enough to encourage high culling of dairy herds. Recession has reduced off-farm job opportunities. Consequently, during the last year there has been a slowing, if not reversal, of the long term net movement of resources from milk production to other farm and nonfarm enterprises. Concurrently, dairy cows' productivity increased. A long term increasing trend by about 200 pounds more of milk per cow per year has continued. This has been the result of improved management, feeding, and breeding programs.

There is strong evidence that milk production will continue to increase throughout 1981. The January 1, 1980 to January 1, 1981 cow count was the first beginning year increase since 1954. The ratio of replacement heifers in the dairy herd on January 1, 1981 was the highest on record for that date, 40.0 per 100 cows. Actual numbers of dairy replacements were the highest since 1966.

#### **Price Support Options**

Elimination of April 1 support price increase will help stave off any immediate increase in dairy program costs. It is not likely to be sufficient in the long term to meet the Reagan Administration's objective of reduced government expenditures. There will be proposals to further modify dairy price supports. The Administration has recommended a reduction of the minimum level of support to 70 percent with additional reductions if government acquisitions become too high.



Jerome W. Hammond

There may be proposals to shift to a different basis of price support. Parity has been dropped as a basis for most other major farm commodities and replaced with target prices that are related, at least partially, to production cost and market needs. A Congressional Budget Office study has recommended that parity be dropped for all commodities as a price support basis.

According to recent USDA milk production cost studies, cost of production would yield a lower support price than 80 percent of parity. For 1980, the preliminary estimates of average U.S. cost of production was \$11.33 per hundredweight of milk compared to an average all-farm milk price of \$13.22. That cost of production was only 69 percent of the parity manufacturing milk price on October 1, 1980. If this accurately reflects costs, it is not certain that a reduction in the level of support to 75 percent of parity would be enough to reduce surplus problems as previously.

Shifting from product purchases to deficiency payments as the means of support could avoid the need for large government stockpiling. This approach has the additional advantages of making the product competitive with other products, reducing, if not eliminating, the need for import controls, and moving all products into commercial mar-

kets. In terms of government cost, however, payments are a much more costly method of price support than product purchases. Though deficiency payments are used for other commodities, it's unlikely that they will be used now for dairy price supports. Furthermore the Secretary of Agriculture is on record as opposing them.

Production control or marketing allotments as a condition of price support may be proposed. Such controls on

U.S. milk producers have never been required and the industry is not likely to accept them. It is worth noting that milk is the only major farm commodity where limits on production or marketing have not, at some time, been a government option as a condition of price support.

In conclusion, the 32-year-old dairy price support program will face its strongest test in the coming months. No serious efforts have previously been

made to reduce the support below 75 percent of parity. The present Administration wants to reduce the minimum price to 70 percent of parity. Congress and the Administration may very well decide that some changes are necessary to maintain commercial markets for U.S. dairy products, to have dairy products compete with imitations, and to keep program costs within acceptable limits.

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