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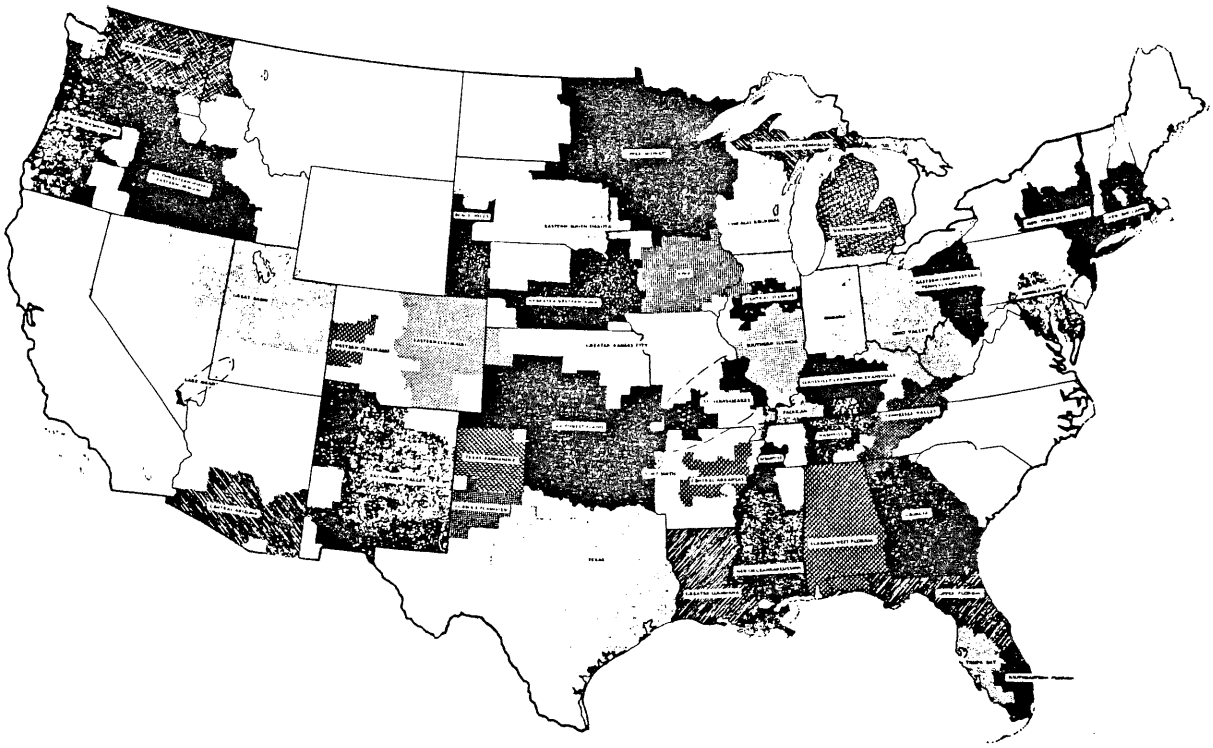
A PRIMER ON FEDERAL MILK MARKETING ORDERS IN THE UNITED STATES

MARKETING AREAS UNDER FEDERAL MILK ORDERS AS OF JANUARY 1, 1984



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Preface

Harry M. Kaiser is an Assistant Professor in the Department of Agricultural Economics at Cornell University. There are many people who provided an enormous amount of help in the preparation of this report. The thorough review of an earlier draft of the paper by Robert Story is especially appreciated. The useful comments and suggestions by Norm Garber, Andrew Novakovic, and Robert Wellington are gratefully acknowledged. Finally, Deborah Streeter and Walter Wasserman provided helpful comments on an earlier draft of this report. The manuscript was prepared for publication by Wendy Barrett.

This report is the first in a two part series that looks at Federal milk marketing orders in the U.S. and in New York. In this paper, an overview of the nation's Federal milk marketing orders is presented. In the companion report (entitled "A Primer on Federal and State Milk Marketing Orders in New York," A.E.Ext. 86-16, Department of Agricultural Economics, Cornell University, April 1986) the State and Federal milk marketing orders in New York are described.

The literature on Federal milk marketing orders is voluminous. However, in reviewing the literature, it became clear that much of it was either easy to understand, but very general, or quite detailed, but difficult to comprehend (e.g. Code of Federal Regulations for Marketing Orders). The intent of this report is to present in more detail and in more clarity a description of these programs. The information in this report draws from a number of references on Federal orders, which are listed in the reference section of the paper. Three sources that were drawn upon the most and ones that are recommended as supplemental readings for this paper are:

Quinn, W. and W. Wasserman. "The Dairyman's Guide to Milk Marketing." A.E.Ext. 83-19, Department of Agricultural Economics, Cornell University, September 1983.

U.S. Department of Agriculture, Dairy Division, Agricultural Marketing Service. Summary of Major Provisions in Federal Milk Marketing Orders. Washington, D.C., July 1984.

U.S. Department of Agriculture, Dairy Division, Agricultural Marketing Service. The Federal Milk Marketing Order Program. Washington, D.C., June 1981.

Additional copies of this bulletin can be obtained from the author or from:

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A Primer on Federal Milk Marketing Orders in the United States

Introduction

The marketing of milk in the U.S. is a highly regulated and complex process. The prices received by dairy farmers for their milk is influenced significantly by the combined effects of the government price support program and a system of milk marketing orders. Federal marketing orders currently define the terms and conditions for about 81 percent of all fluid grade (Grade A) milk marketed nationwide. Much of the remaining Grade A milk is sold under state marketing orders.

The purpose of this paper is to provide the reader with a basic understanding of the system of integrated Federal milk marketing orders in the U.S. A knowledge of these programs is essential for those interested and involved in the state's dairy industry. The paper is organized into three main sections which address the following aspects of Federal milk marketing orders:

1) What Federal milk marketing orders are and are not;

2) The rationale and historical background of Federal milk marketing orders; and

3) The major purposes and provisions of Federal milk marketing orders.

What Federal Milk Marketing Orders Are and Are Not

A Federal milk marketing order (hereafter referred to as Federal order or order) is a regulation issued by the Secretary of Agriculture which specifies certain requirements on the handlers of Grade A (fluid grade) milk for the area in which it is issued. Federal orders require that milk handlers in the regulated marketing area pay at least the minimum prices to farmers set by the order. These minimum prices are set for different classifications according to how the milk is utilized, including a fluid use class and one or more manufacturing use classes. The minimum prices for the fluid class are higher than those for the manufacturing class.

Federal marketing orders also require that the payments for milk be pooled and paid to producers or cooperative associations on the basis of a uniform price. Federal orders are not automatically in place. Rather they are instituted in a specific area if two-thirds of the dairy farmers in the area approve the order in a referendum. A map of all Federal orders in the U.S. as of 1984 is presented in Figure 1.

There are several common misconceptions about Federal orders that are worth clarifying. First of all, Federal orders do not regulate dairy farmers. The terms and conditions only apply to handlers of Grade A milk. Orders do not regulate or set retail prices, they only set minimum levels on the prices that must be paid to dairy farmers. Also, orders do not guarantee "good"

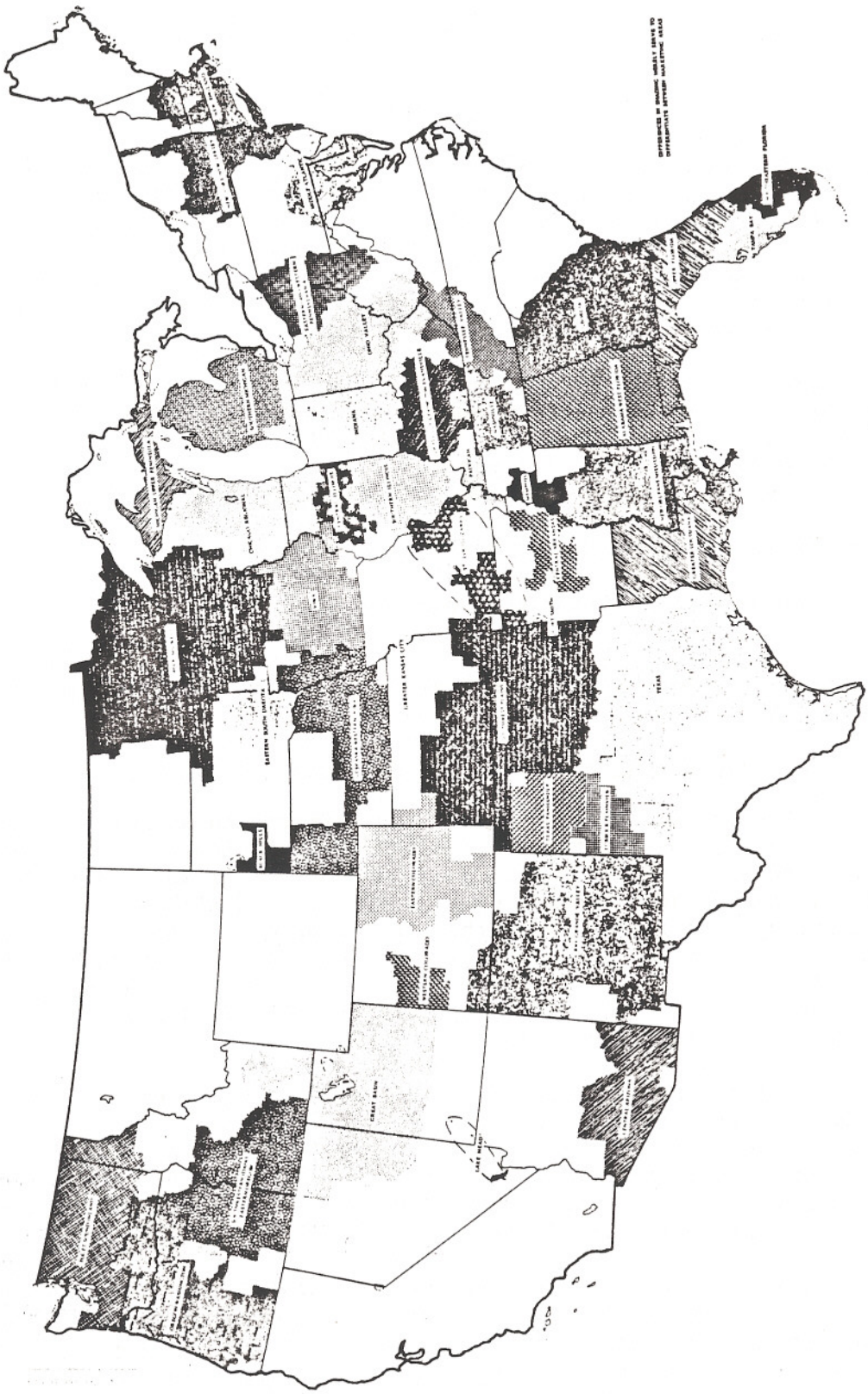

Figure 1. Map of Marketing Areas Under Federal Milk Orders as of January 1, 1984

prices to producers nor do they assure that a producer's milk will be purchased. Finally, Federal milk marketing orders do not control production, curtail marketing by farmers, and set sanitary standards for Grade A milk. In the next two sections of this paper a thorough examination of Federal orders is presented by describing why Federal orders exist and how they operate.

The Rationale and Historical Background of Federal Orders

Problems and Events Prior to the Federal Order System

Federal milk marketing orders are authorized by the Agricultural Marketing Agreement Act of 1937 and its subsequent amendments. This Act, and its predecessors (the Agricultural Adjustment Acts of 1933 and 1935), were passed in order to help producers achieve more bargaining power over the prices they received for raw milk. The inherent instability in milk markets that existed prior to the passage of this act has been attributed to two sets of problems associated with milk and milk markets.

The first set of problems concerns several unique traits of milk itself. Milk in its natural state is a bulky and highly perishable product that must be quickly moved to the market for processing and distribution. While milk, unlike most agricultural products, must be produced every day of the year, adjustments in production levels take much longer due to the high proportion of resources that are fixed over the short run. Thus, prior to marketing orders, the balance of power rested with milk handlers since individual dairymen, in the short run, had little choice other than to accept the handler's price or dump their milk.

To complicate matters, the supply of raw milk and demand for fluid products vary seasonally. Milk production tends to be highest in the spring/summer months and lowest in the fall, while fluid milk consumption is generally highest in the fall and lowest in the summer. Perishability adds to this problem since fluid milk cannot be stored during the high supply-low demand season for use later in the low supply-high demand months. These seasonal imbalances between supply and demand for fluid milk, in the absence of marketing orders, could lead to large variability in fluid milk prices and could foster disorderly market conditions.

The second problem with milk markets commonly acknowledged as a justification for marketing orders is the oligopsonistic (i.e. many sellers relative to very few buyers of raw milk) structure of the market. Prior to the enactment of legislation authorizing marketing orders, milk markets were highly localized with farmers typically having few alternative buyers for their milk. Because of this, farmer were in the situation (especially when there were market surpluses of raw milk, such as in the spring) of being "price takers," having virtually no control over what price they received for their product. Furthermore, during times of surplus production, many farmers not only had to cope with low farm prices, but also with no outlets to sell their milk.

Farmers that challenged handlers' price offers were often vulnerable to this situation.

This era of price domination by milk handlers dates back to the late 1870's with the emergence of much larger milk distribution firms and rapid market growth.[1] Producers realized that they would have to organize and work collectively to gain some control over unstable prices and achieve some bargaining power. Although several attempts were made to organize in the late 1800's, it wasn't until 1914, under the Clayton Act, that farmers were given the legal right to organize cooperatives to market their products collectively. Between this time and the outset of the Great Depression, attempts were made by producers and their cooperative associations to negotiate various pricing policies with milk handlers. Although some of the negotiated pricing plans between cooperatives and milk dealers worked relatively well, many were unsuccessful. The unsuccessful negotiated plans generally failed because many of the new cooperatives did not have enough control over local supplies to gain much bargaining power. Most of the successful plans were negotiated during the prosperous times of the 1920's when handlers could afford to pass down some of their revenue gains to the farm level. However, by the time that the Depression hit the nation, even most of the successful negotiated price plans fell apart.

Federal Government Action

The Depression struck the nation's agricultural economy hard and fast. Dairy farmers were again faced with unstable markets for their milk. Even with sharp drops in the price of milk, demand decreased as well due to drastically declining consumer income.

To deal with these chaotic conditions, Congress passed the Agricultural Adjustment Act (AAA) of 1933, which among other things authorized the use of licenses to assist dairymen. The purpose of the license provision, as stated in the Act, was to eliminate unfair trade practices on the part of handlers. All handlers in any market were required to have licenses to handle milk. To be licensed, handlers were required to pay producers on a classified price basis. In addition, handlers were required to "pool" the revenue to farmers either on an individual handler or marketwide pooling basis and pay a uniform price to all their farmers (see next section for an explanation of classified pricing and handler pools).

Problems immediately arose with the terms of this law. These problems arose primarily because the Act gave the Secretary of Agriculture broad discretionary power and the provisions were not clearly defined. Moreover, parts of the AAA were ruled unconstitutional by the U.S. Supreme Court.

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[1]For a more detailed review of the dairy industry at the end and beginning of the nineteenth and twentieth century, see Spencer and Blanford (1977) and Novakovic and Boynton (1984).

In an attempt to deal with this turmoil, the AAA was revised in January 1934. Attempts were made to more clearly annunciate the provisions of the previous act. The license provision was kept in the revised act, which caused several problems. Enforceability of milk licenses remained a major problem. Violations became commonplace with handlers refusing to pay established prices. Moreover, the Justice Department refused to enforce many of the provisions set forth by the licenses. By late 1934, the issuance of new licenses virtually ceased. In addition, some of the old licenses were cancelled by the courts as being in violation of the interstate commerce clause.

Due to pressures by the Supreme Court, Congress passed the AAA of 1935. This legislation amended the 1933 Act by replacing the system of licenses with marketing orders in an attempt to more accurately define the extent of their regulatory power. The 1935 Act is really the basis for Federal order programs in operation today. Many of the current provisions such as determination of minimum class prices, producer and cooperative voting procedures, and locational and seasonal price differentials were formulated by this Act.

In 1937, Congress passed the Agricultural Marketing Agreement Act, which added several provisions and more clearly defined the provisions of the 1935 Act. For the first time, a policy statement was declared for the maintenance of orderly marketing of agricultural commodities in interstate commerce and guarantee of parity prices for farmers. The 1937 Act has withstood constitutional scrutiny by the courts and remains as the statutory authority for all Federal milk marketing orders currently in existence.

Marketing orders replaced licenses after the 1935 Act was adopted. Since 1937, marketing orders have been issued under the Marketing Agreement Act of 1937 in most major markets. The number of orders steadily grew until 1962 when there were 83 orders in the U.S. The number of orders has since declined due to merger of many existing Federal orders. Yet, as Table 1 illustrates, the volume of milk and the population covered by these orders has continued its steady growth and is at an all time high today.

Major Purposes and Provisions of Federal Orders

Major Purposes

The main purpose of Federal milk marketing orders is to stabilize milk markets through eliminating those attributes of unregulated market which cause instability and chaos. Federal milk orders seek to (1) help producers in achieving reliable and stable markets for their milk through the terms of the order; and (2) ensure an adequate supply of pure and wholesome fluid milk to consumers at all times.

Federal milk marketing orders are designed to promote orderly markets and guarantee some producer bargaining power by specifying a legal set of rules that are binding on all participants in the market. To that end, these rules seek to:

Table 1. Measures of Growth in Federal Milk Marketing Orders, 1947-1984

Year	Number of markets 1/	Population of Federal milk marketing areas 2/	Number of handlers 1/	Number of producers 3/	Producer deliveries	Producer deliveries used in Class I	Percentage of producer deliveries used in Class I	Prices at 3.5% butterfat content 4/		Receipts as percentage of milk sold to plants and dealers		Daily deliveries per producer	Gross value at blend price adjusted for butterfat content	
								Class I	Blend	Fluid grade	All milk		Per producer	All producers
	Number	1,000	Number	Number	Million pounds		Percent	Dol. per 100 lb.		Percent		Pounds	Dollars	1,000 dol.
1947	29	*	991	135,830	14,980	9,808	65.5	4.65	4.34	*	21	302	5,024	682,407
1950	39	*	1,101	156,584	18,660	11,000	58.9	4.51	3.93	41	25	326	4,914	769,442
1955	63	46,963	1,483	188,611	28,948	18,032	62.3	4.67	4.08	51	32	420	6,510	1,227,815
1956	68	48,575	1,486	183,830	31,380	19,615	62.5	4.90	4.24	51	33	466	7,534	1,384,995
1957	68	57,297	1,889	182,551	33,455	21,339	63.8	4.87	4.51	53	34	502	8,147	1,487,153
1958	74	60,717	1,962	186,155	36,356	23,309	64.1	4.72	4.40	56	36	535	8,500	1,582,310
1959	77	67,720	2,197	187,576	40,149	26,250	65.4	4.79	4.43	60	40	586	9,466	1,775,583
1960	80	88,818	2,259	189,816	44,812	28,758	64.2	4.88	4.47	64	43	648	10,482	1,989,615
1961	81	93,727	2,314	192,947	48,803	29,859	61.2	4.91	4.45	67	45	704	11,131	2,147,656
1962	83	97,353	2,258	186,468	51,648	31,606	61.2	4.80	4.14	70	47	761	11,854	2,210,330
1963	82	100,083	2,144	176,477	52,860	32,964	62.4	4.78	4.15	70	48	821	12,814	2,261,437
1964	77	99,333	2,010	167,503	54,447	33,965	62.4	4.87	4.23	70	48	888	14,174	2,374,137
1965	73	102,351	1,891	158,077	54,444	34,561	63.5	4.93	4.31	70	48	944	15,300	2,418,526
1966	71	98,307	1,724	145,964	53,012	34,805	65.7	5.55	4.95	70	48	994	18,526	2,630,908
1967	74	103,566	1,650	140,657	53,761	34,412	64.0	5.85	5.17	71	49	1,056	20,321	2,858,351
1968	67	117,013	1,637	141,623	56,444	36,490	64.6	6.23	5.53	74	52	1,089	22,561	3,195,087
1969	67	122,319	1,628	144,275	61,026	39,219	64.3	6.50	5.74	77	56	1,164	24,892	3,591,293
1970	62	125,721	1,588	143,411	65,104	40,063	61.5	6.74	5.95	79	59	1,244	27,636	3,963,311
1971	62	142,934	1,529	141,347	67,872	40,268	59.3	6.90	6.08	80	60	1,316	29,893	4,225,340
1972	62	142,934	1,487	136,881	68,719	40,938	59.6	7.10	6.31	78	60	1,372	32,439	4,440,288
1973	61	141,472	1,355	131,565	66,229	40,519	61.2	8.03	7.31	78	60	1,386	37,461	4,928,514
1974	61	141,546	1,312	126,805	67,778	39,293	58.0	9.35	8.36	78	61	1,464	45,376	5,753,852
1975	56	144,467	1,315	123,855	69,249	40,106	57.9	9.36	8.64	78	63	1,532	49,233	6,097,768
1976	50	149,493	1,305	122,675	74,586	40,985	54.9	10.70	9.75	79	65	1,661	60,277	7,394,486
1977	47	150,093	1,260	122,755	77,947	41,125	52.8	10.59	9.69	80	66	1,740	62,692	7,695,764
1978	47	150,131	1,189	119,326	78,091	41,143	52.7	11.40	10.57	80	67	1,793	70,538	8,415,787
1979	47	150,131	1,127	116,447	79,436	41,011	51.6	12.88	11.97	80	67	1,870	83,262	9,695,637
1980	47	164,908	1,091	117,490	83,998	41,034	48.9	13.77	12.86	80	67	1,954	93,685	11,007,001
1981	48	165,459	1,058	119,323	87,989	40,746	46.3	14.69	13.63	80	68	2,021	102,354	12,213,199
1982	49	169,770	1,010	120,743	91,611	40,807	44.5	14.63	13.53	81	69	2,079	104,573	12,626,510
1983	46	170,882	958	121,052	95,757	41,091	42.9	14.69	13.53	82	70	2,168	109,142	13,211,805
1984	45	171,044	912	118,880	91,679	41,516	45.3	14.41	13.33	81	70	2,108	105,073	12,491,133

* Data not available.
1/ End of year. (Date on which pricing provisions became effective.)
2/ End of year. 1955-59, 1960-70, 1971-79, 1980 -1984 according to 1950, 1960, 1970, and 1980 U.S. census, respectively.
3/ Average for year.
4/ Prices are simple averages for 1947-61 and weighted averages for 1962-84.
5/ Estimated.

SOURCE: Federal Milk Order Market Statistics, Annual Summary, 1984

1. Set minimum monthly milk prices for all Grade A farmers such that they reflect market supply and demand conditions and insure adequate supplies of milk.

2. Provide farmers, milk handlers, and the public with an opportunity to be heard in the establishment of these minimum prices and other provisions adopted through a public hearing process.

3. Promote stability in reserve milk marketing by classified pricing provisions and paying all producers a uniform or blend price based on market or individual handler utilization rates.

4. Insure farmers that their milk is accurately weighed, tested, classified, and accounted for by regulated milk handlers through regular audits of those handlers.

5. Supply the market with public information and research results in order to enable participants to better evaluate market conditions.

Provisions of Federal Orders

To carry out these objectives, Federal milk marketing orders spell out in great detail the terms and conditions of market transactions. These provisions must be approved by two-thirds of all farmers affected in a well-defined market, and all handlers of milk in that area are regulated by them. In the following section, the major provisions and terms of Federal milk orders are discussed.

Marketing Area - The provisions of a marketing order apply solely to Grade A (fluid grade) milk not Grade B (manufacturing grade) milk. All milk handlers selling fluid products in a designated marketing area are regulated by the terms of a marketing order. Marketing areas are distribution areas where the handlers of fluid milk compete with each other for milk sales. The milk sold to handlers in a market area may be produced anywhere, i.e., a marketing area is not the same as a production area. Under existing orders, marketing areas vary substantially in size, ranging from those encompassing only a few counties to those whose boundaries cross several states.

It is crucial that the boundaries of each marketing area be drawn carefully and periodically modified to assure that the order is effective in carrying out its objectives. Boundaries must be defined so as to minimize the number of distribution routes crossing over boundary lines because only those handlers distributing milk within the area must pay the minimum prices established by the order. Regulated handlers have a disadvantage compared to unregulated handlers in that regulated handlers must pay Class I prices on all fluid sales, both inside and outside the marketing area. With the increased mobility of fluid milk, this objective has become more than merely an ambitious task. To deal with this, many marketing areas have either expanded or merged. Most orders also have provisions which partially regulate handlers outside the marketing area, but having distribution routes crossing into the market area. In addition, some orders have provisions which exempt regulated handlers from paying Class I prices on fluid sales outside the marketing area

(see, for example, the New York-New Jersey Order's pass through provision in the companion report to this publication).

Milk Handlers - Under most Federal orders, a handler is defined as any milk dealer who handles and sells fluid grade milk within a marketing area. Cooperatives, as well as proprietary firms, are considered to be handlers under order provisions. Handlers also include organizations such as bargaining cooperatives who sell their milk to other milk dealers. Although Federal orders require handlers to pay announced minimum prices to producers, they do not control from whom the handler must buy, to whom the handler must sell, how much the handler must buy, or at what wholesale or retail prices the handlers may sell.

The regulation of handlers would be a relatively simple task if all handlers conducted business in the same way and if marketing area boundaries could be drawn so that sales routes ended at them. Unfortunately this situation does not exist and Federal orders must deal with this problem. Federal orders address this problem by defining three general categories of handlers, with each being treated differently. These three classifications of handlers are: (1) operators of pool plants, who are fully regulated, (2) operators of nonpool plants, who are partially regulated, and (3) cooperative associations, who may either operate pool plants or may market their member's milk by delivery to pool or nonpool plants.

Pool Plants[2] - Handlers operating pool plants are fully regulated and must satisfy minimum performance standards set forth by the order to maintain their pool status. Most orders designate three types of pool plants: distributing plants, supply plants, and cooperative association plants. The following conditions apply to all orders with marketwide pooling arrangements. For a distributing plant to qualify for pool status, it normally must dispose of at least 30-50 percent (depending upon the order) of its milk receipts as fluid products. In addition, about 10 percent of its supply must be sold within the marketing area. Thus, even plants that sell the majority of their products outside the marketing area, e.g. 80 percent, can be fully regulated pool plants in secondary Federal orders, as well as its primary order.

Supply plants are those that primarily sell raw milk to other handlers for processing. For a supply plant to be included in the marketwide pool, it normally must ship about 50 percent of its milk (Grade A) received from farmers to distributing plants that have pool status. Before becoming a permanent pool plant, most orders grant supply plants with temporary pool

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[2]For a detailed summary of this and other provisions for every Federal order in the nation, the reader is referred to the following publication:

U.S. Department of Agriculture, Dairy Division, Agricultural Marketing Service. Summary of Major Provisions in Federal Milk Marketing Orders. Washington, D.C., July 1984.

status for a short period of time, usually about one year. In that period of time, if the supply plant satisfies all the performance standards specified for being a pool plant, then it becomes a permanent pool plant in that Federal order.

Performance standards for cooperative pool plants usually differ from order to order. To be such a plant, a certain portion of the cooperative's member milk must be delivered to pool plants, directly from farms or indirectly from its plants. Each of these three classes of handlers are subject to all the provisions specified in the Federal marketing order.

Nonpool Plants - Handlers operating nonpool plants are defined as those who fail to meet the performance standards for pool plants. The four types of nonpool plants are (1) other order plants, (2) producer-handler plants, (3) partially regulated distributing plants, and (4) unregulated supply plants.

The other order plant is any plant fully regulated by the provisions of another Federal order. Such plants are usually ones that dispose a small proportion of its fluid sales in marketing areas outside its primary order. These plants may be required to make additional reports to the market administrator in the area outside their primary marketing area.

The producer-handler plant is one operated by a dairy farmer, who processes and sells primarily his own milk. These plants are usually exempt from the price and pooling provisions of the order, however, they usually must submit reports, maintain accounts and records, and prove producer-handler status to the market administrator.

Partially regulated distributing plants are those that distribute fluid products in the marketing area, but are neither an other order nor a producer-handler plant. These plants are typically ones with small amounts of fluid disposition in any marketing area and fail to meet pool plant performance standards. Partially regulated distributing plants are required to prepare reports, maintain records and accounts, and make payments to the producer-settlement fund. Three options for payments are usually given to such handlers, which include 1) pay farmers the same price as fully regulated handlers; 2) balance sales in the marketing area by equivalent Class I purchases from the handlers fully regulated by an order; or 3) pay the difference between the Class I price and the blend price on all marketing area sales to the producer settlement fund.

An unregulated supply plant is a plant that sells bulk fluid milk to a pool plant, provided that the milk is used for manufacturing purposes only. These plants are usually not subject to order provisions, but may be required to submit reports to the market administrator.

Cooperative Associations - Cooperatives that do not operate pool plants may qualify for handler status under most orders if they meet several conditions. If cooperatives either divert producer milk or deliver its members' milk to pool plants, then they are considered handlers. The direct shipment

of milk is required to be transported in tank trucks that are owned or controlled by the cooperative.

Classified Pricing - All Federal orders require that the minimum price paid by handlers be classified according to how the raw milk is used. Under this pricing system, producers receive a higher price for milk that is used in fluid markets than for milk going into manufacturing dairy products. The differentials by utilization classes reflects the fact that the value of the same milk is higher in fluid than in manufacturing milk markets.

Milk utilization is generally categorized into two or three classes, depending on the order. Orders with a three-class system usually divide milk use into the following groups:

Class I (fluid use) - whole, lowfat, and skim milk and other milk drinks.

Class II (soft manufacturing products) - fluid cream, cottage cheese, yogurt, ice cream, and frozen desserts.

Class III (hard manufacturing products) - cheese, butter, dry milk, and nonfat dry milk.

Orders with a two-tier pricing system (all three northeastern orders use two class prices) lump all manufacturing products into Class II.

In most Federal orders, the minimum manufacturing class price is based on the average monthly price paid by manufacturing plants for Grade B milk (f.o.b. plant) in Minnesota and Wisconsin (M-W price). The M-W price is used because this area has the greatest pool of unregulated milk as well as the largest reserve of milk for fluid use and therefore is considered to be a good indicator of market conditions. In orders that specify two classes of Grade A milk for manufacturing, Class III minimum prices are set equal to the M-W price and Class II prices are set at the M-W price plus a premium, typically around 10 cents/cwt.

While the manufacturing class minimum prices are about the same among orders, Class I prices are not. Class I prices under almost all Federal orders are equal to the M-W price plus a designated Class I differential. These differentials were originally designed to reflect the additional cost of producing Grade A milk and the transportation costs of shipping the milk from the upper midwest to each order. However, now these differentials are much lower than the transportation costs.

Pooling - Another major provision of Federal orders is the pooling of all regulated milk receipts from the alternative classes of utilization. From this revenue pool, a uniform or blend price is calculated and used as a basis to pay pool producers. The blend price is determined by either a marketwide or an individual handler utilization basis of milk among classes, depending upon the type of pool in the order. Consider the following example to illustrate how blend prices are calculated.

Suppose that there are only two handlers, A and B, selling milk products in some defined marketing area. Handlers A and B receive the same amount of milk each month (100,000 pounds) but A uses more of it (80 percent) in Class I products than B, who only uses 40 percent of the milk in this class. Table 2 shows the class prices, sales, and payments for milk by each handler and the total market for this example. There are two pooling procedures used in Federal orders to calculate the uniform monthly price; both are illustrated below.

Table 2. Hypothetical Market and Example of Pooling Arrangements Under Federal Marketing Orders

		Handler A		Handler B		Total Market	
Use	Price ($/cwt)	Sales (cwt)	Payment ($)	Sales (cwt)	Payment ($)	Sales (cwt)	Payment ($)
Class I	14.50	800	11,600	400	5,800	1,200	17,400
Class II	12.60	200	2,520	600	7,560	800	10,080
Total		1,000	14,120	1,000	13,360	2,000	27,480
Average Price		14.12		13.36		13.74	

Under an individual handler pooling procedure, blend prices are determined for each handler rather than on a marketwide basis. The uniform price each handler must pay is based on two factors: the level of class prices and his utilization of milk between the classes. This price is equal to the weighted average of class prices. Weights are based on utilization. In this example, A must pay producers a minimum of $14.12/cwt, which is equal to 80 percent of the Class I price ($14.50) plus 20 percent of the Class II price ($12.60). Handler B pays a lower price because he uses less of the milk in higher valued fluid products. In this case, B must pay producers a minimum price of $13.36/cwt, which is calculated by taking 40 percent of the Class I price (i.e., his Class I utilization rate is 40 percent), plus 60 percent of the Class II price. It is clear that producers have strong incentives to sell to handlers that process a greater share of their milk into Class I products because these dealers must pay relatively higher uniform prices. It is also clear that handlers with low Class I utilization rates, e.g., Handler B, may actually have to pay more than the minimum blend price to obtain the necessary supplies he or she desires. Because of potential disparities in prices received by farmers and the potential for destructive trade practices that may result from such price disparities under this system, Federal orders generally use a pooling procedure based on marketwide rather than individual handler class utilization. Only three Federal orders--Fort Smith, Memphis, and Michigan Upper Peninsula--use individual handler pools. The rest use marketwide pools.

Under the marketwide pooling arrangement, blend prices are determined on a total market utilization basis and all producers receive the same blend price regardless of which handlers they sell to. The uniform price is again based on two factors: the level of class prices (as before) and the market utilization rate. In the above example, Class I and II market utilization is 60 and 40 percent, respectively. Thus, the blend price is $13.74/cwt, which is equal to 60 percent of the Class I price ($14.50) plus 40 percent of the Class II price ($12.60). Although both handlers are required to pay producers $13.74/cwt, they end up paying the same weighted average price as was determined before in the individual handler pool. This is accomplished through what is called a producer's settlement fund. For instance, in this example handler A pays producers the blend price ($13.74), but since his average class utilization price is higher ($14.12), he contributes the difference (38 cents) to the fund. Handler B also pays producers $13.74, but since his average class utilization price is lower ($13.36) he receives a refund of 38 cents from this fund. Consequently, under a marketwide pool, each handler is able to pay the same price to all producers regardless of how he uses the milk.

Adjustments in the Blend Price - All producers in a marketing order are not guaranteed the exact blend price calculated for each month. The actual price received by dairymen reflect several adjustments in the uniform price which are based on his location and the butterfat content of his milk. In general, each Federal order specifies geographic zones on the milk supply that are defined relative to the nearest major population center. Some orders base these zones on multiple major population centers. To reflect variations in transportation costs, producers delivering to plants in more distant zones receive lower prices than producers delivering to plants closer to metropolitan areas.

The price received by each farmer is further adjusted to reflect the butterfat content of his milk. The class prices and uniform price are based on milk with a 3.5 percent butterfat content. Producers with higher fat milk receive a positive differential, while farmers having lower fat milk receive a negative differential to their blend price based on a specific formula.[3]

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[3]Prior to the butterfat differential system, milk was bought and sold strictly on the basis of volume which caused many abuses such as watering and skimming the milk. The butterfat system has been effective in eliminating these corrupt practices but many have argued for changing it to reflect protein or nonfat solids variations in milk as well. Proponents of multiple component pricing (MCP) of milk argue that butterfat and nonfat components are not produced in fixed proportions and results in inequitable payments to producers. They also make the case that consumers are demanding less fat and more protein in both fluid and manufacturing dairy products which has resulted in increases in the value of skim milk relative to butterfat value and the value of dried nonfat solids relative to butter. MCP is already operational under the state order in California and we may see them adopted in some Federal orders in the near future.

Producers who are members of or who sell their milk to cooperatives may also receive different blend prices than noncooperative producers. A cooperative has the discretion to "repool" total revenue and allocate certain charges and costs to its producers. However, cooperative repooling must be done on the basis of an agreed contract between the cooperative and its producers. A Federal order does not have the power to negate this contract.

Producer Settlement Fund - Under any Federal order, handlers use milk supplies differently, ranging from large proportions in Class I to large proportions in manufacturing class use. As was illustrated in the earlier example of a marketwide pool, all handlers are required to pay the blend price to its suppliers of raw milk. The difference between what the handler pays farmers and his utilization value of the milk is then paid or received from the producer-settlement fund. Handlers with fluid utilization above the market average pay into the fund, while handlers with fluid utilization below the market average draw from the fund. The results of this zero sum arrangement is that all producers in the order receive a minimum uniform price.

Seasonal Pricing Plans - To create economic incentives to even out seasonal fluctuations in production, 18 of the 48 Federal orders (including all three northeastern orders) utilize seasonal pricing plans. Two types of plans are used: the Louisville and seasonal-base excess plans.

Louisville (or takeout-payback) plans require that a specific amount of money be withheld from the blend price during the flush-production period (spring) and be deposited in an interest-bearing account. In the fall months, when production is traditionally low, specific amounts are then added back to the blend price. In the final payback month, the remaining balance and accrued interest is added to the blend price.

Seasonal-base excess plans establish production bases for each farmer in the order. The base is set equal to average daily deliveries during specified fall months when production is lowest. Prices paid to farmers depend on their base. When in effect, producers receive a base price for the quantities of milk sold up to their base, and a lower price (not lower than the lowest class price) for any excess over the base.

Provisions for Inter-Order Milk Shipments - Under current provisions, packaged and bulk milk is allowed to be shipped between Federal milk marketing orders. However, there are certain classification and pooling procedures designated by orders so as to discourage unnecessary and uneconomic importation of milk.

In the case of packaged milk, milk may be moved between orders on routes or through inter-plant shipments without any additional order requirements. When packaged milk is transferred through inter-plant shipments, this milk is classified as Class I to the shipping plant. For example, a handler who buys 100,000 pounds of packaged milk from another handler in another order will pass the Class I assignment back to the shipping handler. Thus, the shipping handler's order receives the benefit of higher Class I sales.

In the case of bulk milk, all milk received may be assigned to the manufacturing class (e.g. Class II or III) if both handlers agree. However, if both handlers cannot agree on this, then the milk is classified on the basis of the higher of the Class II or III utilization in the receiving market area or the receiving handler's Class II or III utilization. The remaining portion of the bulk milk is then assigned to Class I. Although the milk is classified in the receiving Federal order market, it is pooled and priced in the shipping order. Hence, the blend price in the shipping order is affected. The net effect of this provision is to insure that local producer milk and milk from another regulated area share on a comparable basis the receiving area's Class I, II, and III utilization.

Promotion - In 1971, the Agricultural Marketing Agreement Act of 1937 was amended to provide Federal orders with the statutory authority to allow producers to establish, through an amendment process, promotion and advertising programs in an order. The amendment authorizes the development of research and education, nonbrand advertising, sales promotion, and other demand enhancing programs be established at the producers' discretion. A separate referendum must be held to determine producer approval of such amendments.

Promotional programs are financed through producer assessments on monthly deliveries of milk. However, participation in the program is voluntary and producers may receive a refund by submitting written requests to the market administrator. In areas where states have adopted check-off programs for market research and promotion, credits are provided so that farmers do not have to pay for both programs.

The funds collected by these programs are administered by an agency composed of producers and producer representatives. The composition of agency members is specified in each order, with apportionment between cooperative members and nonmembers made relative to composition of each group in the marketing order. The agency is responsible for allocating the fund over various promotional and advertising programs. However, each program is subject to approval by the USDA.

In 1983, there were six advertising and promotion programs associated with Federal orders with combined budgets of 18.8 million dollars in effect in the U.S. Of this amount, 5.5 million dollars was refunded to producers. The remaining 13.8 million dollars was budgeted for local programs (84.5 percent), national programs (14.2 percent), and administrative costs (1.3 percent). The $18.8 million represents about 10 percent of farmer financed promotion in the U.S.

Reporting and Auditing - Federal milk marketing orders require that all handlers in the order submit monthly reports on: (1) how much milk they received from farmers and its butterfat tests, and (2) how the milk was used in terms of the use classes. The monthly report must include quantities and butterfat tests for any other milk or milk products received as well. The utilization reports show the quantities of butterfat and skim milk, broken down by each class, which is known as butterfat-skim milk accounting. The

objective of the report is to account for all milk and dairy products received by a handler and to show how these are used. In terms of the latter, the handler essentially must prove that not all his milk was Class I.

These reports are later audited by the staff of the market administrator's office to verify their accuracy. Under order provisions, the handler has the burden of proof in verifying the accuracy of his report. If the audit reveals an overpayment by the handler, then he receives a refund. If the audit shows an underpayment in the blend price to producers, then he must pay back that amount to the producers. If the audit reveals an under payment in class prices, then the handler must pay back the amount of the discrepancy to the producer settlement fund.

Administration of Federal Orders - The director of the Dairy Division, Agricultural Marketing Service, in the USDA is responsible for administering all approved Federal milk marketing orders in accordance with the provisions of the 1937 Act. His responsibilities include the supervision of the operation and activities of all orders.

Each Federal order has a market administrator, who is in charge of carrying out the above provisions of the order. The market administrator is appointed by and acts as an agent of the Secretary of Agriculture. Each order spells out the powers and duties of the market administrator. Such powers include daily decision making regarding the application of provisions to arising circumstances, administering the provisions of the order, and investigating complaints of violations in provisions and reporting them to the Secretary. The duties of the administrator include monthly calculation and announcement of minimum class prices, blend price, and butterfat differentials, verification and auditing of all handlers' monthly reports, and preparation and dissemination of market statistics on supply and demand information.

Each market administrator has a staff of auditors, statisticians, economists, and other personnel to assist him in his functions. The administrative costs of operating each order is paid by assessments on handlers in proportion to total volume of pool milk handled. Independent producers, in many orders, pay for the costs of providing marketing information and for verification of weights, samples, and butterfat tests not provided by cooperatives. This assessment, which is a market service deduction, is only levied on those producers receiving the service from the marketing order.

Special Provisions Relating to Cooperatives - Cooperatives play an important role in Federal order programs. In many markets, they assemble and supply much of the milk to proprietary handlers, acquire and manufacture most of the residual milk into storable manufactured products, and provide valuable market services to their members. Because a large proportion of producers in Federal orders belong to cooperatives, they usually are the primary group involved in promulgation and amendments to orders. In short, cooperatives serve a vital function in maintaining orderly market conditions.

Because of their special role in the market, dairy cooperatives are entitled to several benefits and privileges under most orders. Some of these special rights include:

1. Bloc vote for its members in referenda on establishing or amending orders.

2. Repool (or reblend) proceeds from total sales of milk to its members according to the approved contracts between the cooperative and its members.

3. Its members are exempt from paying for market services paid by non-members to the market administrator for services performed by cooperatives.

4. Special pricing provisions for member milk payments or diversion of milk.

To gain these benefits, cooperatives are required to submit a request to the Dairy Division to ascertain whether or not they qualify for cooperative status. The Division basically must determine whether the cooperative meets the conditions set by the Capper-Volstead Act to obtain cooperative status in milk orders. Once eligibility is approved, cooperatives undergo annual reviews to maintain their status in these programs.

Procedures for Establishing and Amending Federal Orders

To keep up with the ever-changing conditions in the dairy sector, the Federal order program is designed to be flexible so that changes can be readily made. The procedures for proposing or amending orders are defined by the 1937 Act.[4] These steps are designed to insure that anyone affected by the adoption or change in an order is informed and has ample opportunity to react in the public hearings that precede any promulgation or amendment to an order.

There are four steps in proposing or changing a Federal order. First, dairy farmers, dairy cooperatives, milk handlers, or any interested party must petition the Secretary of Agriculture to establish or amend an order for a specific marketing area. Upon receiving the petition, the Secretary initiates a preliminary investigation on the feasibility and need for the establishment or change in the order. If the investigation reveals that the order or change in order may be necessary, then the Secretary sends out a formal notice for a public hearing to elicit views on the proposal.

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[4]Provisions for terminating an order are also defined by the 1937 Act. The law requires that the Secretary of Agriculture abolish an order whenever one-half or more of all producers in the order request it through a referendum.

All groups (e.g., producers, handlers, and consumers) have the right to participate at the hearing. These parties may testify and file written briefs following the hearing on specific provisions for the Secretary to consider. Based on the evidence received at the public hearing, a recommended decision and order is issued for review and debate by all interested groups. Interested parties may file exceptions to all or any part of the recommended decision. A final decision is then issued by the Secretary of Agriculture and a referendum is held to determine whether producers support the amended order. If two-thirds of the producers voting in the referendum approve the amended order it goes into effect. If less than two-thirds of the producers voting in the referendum approve the promulgation of an order, then the order is not established. It is also important to note that in the case of an amendment to the order (except for promotion), if less than two-thirds of the voting producers approve the amendment, then actions are taken to terminate the order.

Conclusion

This paper presented a basic review of Federal milk marketing orders in the U.S. level. Marketing orders have their roots in the 1930's, a time of unprecedented chaos for both the agricultural and general economy. During this period dairy markets across the country were in tremendous disorder with farmers facing highly unstable prices and virtually no bargaining control in marketing their milk.

The Federal government responded to this by passing a series of legislation which eventually led to the authorization of Federal milk marketing orders in the Agricultural Marketing Agreement Act of 1937. Since 1937 producers have adopted Federal orders in virtually every major milk product market in the U.S.

In short, milk marketing orders establish minimum prices to be paid to farmers for milk sold within a specific marketing area. These class prices are based on the handlers' utilization of raw milk with higher prices assigned to the higher valued fluid products and lower prices set for manufactured dairy products. All producers selling milk to handlers regulated by an order receive a uniform or blend price which is either based on a handler's utilization (individual handler pool) or the total market utilization (marketwide pool). The general purposes of marketing orders are to stabilize marketing conditions and assure an adequate supply of fluid milk to consumers in the market area.

The dairy industry in the nation is an ever changing dynamic sector of our economy. The system of Federal orders have had to adjust to changes in the structure of dairy markets in the past and will face even farther-reaching challenges in the future. The success of orders in stabilizing the market and mitigating future problems will ultimately depend upon dairymen themselves since they have much of the control over adoption, termination, or changes in the orders. Therefore it is critical that farmers understand the nature and purposes of milk marketing orders and take an active role in shaping the direction of them to future structural changes in this important sector of the economy.

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