

ALTERNATIVE ORDER PROVISIONS TO FACILITATE THE ORDERLY MOVEMENT OF MILK TO FLUID MARKETS

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Introduction

The Federal Agriculture Improvement and Reform Act of 1996 requires the U.S. Secretary of Agriculture to reduce the number of federal milk marketing orders to no more than 14 and no less than 10. In addition, the Secretary is authorized to consider federal order reforms including a replacement for the Basic Formula Price, multiple basing points in establishing class I prices and uniform multiple component pricing for manufacturing use milk. This paper provides alternative pricing and pooling strategies that may be considered by the Secretary in the federal order reform process. These alternatives may assist or improve the ability of federal orders to meet the objectives as spelled out by the Agricultural Marketing and Agreement Act of 1937.

Basic Purposes and Mechanisms of Federal Orders

In one of its publications on the basics of Federal Milk Marketing Orders (FMMOs), USDA states that an objective of federal orders is to: assist farmers in developing steady, dependable markets by providing prices for their milk which are reasonable to economic conditions and assure consumers at all times of adequate supplies of pure and wholesome milk at reasonable prices.¹ In this regard, the focus is on fluid milk. Federal orders are a primary instrument for stabilizing marketing conditions for fluid, or class I milk.

The basic tools by which FMMOs seek to accomplish this objective are:

Classified Pricing: Minimum prices that handlers must pay producers are dependent upon how milk is used. Higher prices are set for class I sales, based on market supply-demand conditions, additional costs of meeting grade A sanitary regulations, costs of transporting milk from areas of production to areas of consumption, and the cost of producing milk in the supply area.

Pooling Provisions: These are rules for dividing up the proceeds generated from classified pricing. Traditionally, the method has been a simple weighted average of the class prices times the percentage of milk used in each class. Of the 31 FMMOs currently in effect, 30 use market-wide pooling.² A producer settlement fund, or pool, is operated by the Market Administrator, assuring that all producers receive the same average price regardless of the use of the milk by their buyer.

Ancillary Rules, Regulations and Definitions: These are terms specifying who, how, and under what circumstances producers and their buyers participate in the pool of revenues generated under each order.

Problems Incurred

The pricing and pooling provisions of FMMOs have encouraged the production of an adequate *national* supply of grade A milk, and more than an adequate supply in many markets. But they have not always effectively channeled that milk to class I use when

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¹ *Questions and Answers on Federal Milk Marketing Orders*, AMS-559, Dairy Division, Agricultural Marketing Service, U.S. Department of Agriculture, September 1989, p 4.

² The Michigan Upper Peninsula is an individual handler pool order.

needed, thus violating a fundamental, underlying premise of FMMOs. There have been insufficient incentives to encourage the movement of grade A milk from reserve areas to deficit fluid milk areas. Inefficient movements of milk for class I needs and high give-up charges by manufacturing plants to encourage their releasing Grade A milk for class I use are common. Over-order premiums established by some dairy cooperatives are only a partial solution to these problems.

In areas where manufacturing is significant, manufacturing plants typically can qualify for pooling on an order with ease. Being in the pool helps such manufacturing plants attract producers by allowing them to pass along to producers the proceeds from class I sales (pool draw) in the market place. This has been a major factor in the conversion of manufacturing grade producers to grade A. Despite this, many orders give little incentive for manufacturing plants to ship milk to the class I market when needed.

For example, the class I differential in the Chicago market is \$1.40 per hundredweight and in the Boston market \$3.24 per hundredweight. In October 1996, the class I price in Chicago was \$16.34 per hundredweight and in Boston \$18.18 per hundredweight. But, fluid plants in the Chicago area had to pay an over-order class I premium of \$2.10 per hundredweight to obtain milk for class I use. This made their cost of milk for class I use \$18.44 per hundredweight. Yet the Chicago Regional marketing area has less than 30 percent of its milk used in class I. If FMMO provisions truly guaranteed or encouraged the flow of milk to class I uses, such high premiums should not be needed. In comparison, fluid plants in Boston paid a \$.73 per hundredweight class I over-order premium in October 1996, which made their cost of milk for class I use \$18.91 per hundredweight, about the same as Chicago. The class I utilization in the New England area was substantially higher than Chicago at 50 percent. Thus, the size of the class I differential accounts for only part of the difference in prices paid for class I milk between market areas, and actual market prices can be quite different from FMMO minimum prices.

Current pricing provisions do not provide sufficient incentives to encourage the movement of milk from surplus areas when local supplies in seasonally deficit fluid markets are inadequate to meet local needs. This has been the case when the class I prices for the deficit milk markets have been based, at least partially, on transportation costs for the purpose of attracting milk

from surplus areas. Despite the apparent logic of order price structures, selling milk for class I use for an individual handler may be unattractive because the increased return is distributed across all producers in the market and fixed costs for manufacturing plants must be allocated to a lower manufacturing milk volume. Consequently, milk suppliers in surplus areas having manufacturing milk plants require very high give-up charges on sales of milk for class I use. In the summer and fall of 1996, when milk supplies were extremely tight in the southeast, give-up charges as high as \$5.00 per hundredweight were reported in the upper Midwest.

Changing class I differentials in the pricing structure of orders will not likely solve the problem of assuring orderly movement of grade A milk to class I use when needed; but rather, the solutions may be of addressed through changing the pooling provisions and changing the rules on how proceeds from the pool are shared. Solutions need to encourage efficient movements of grade A milk for class I use to population centers within individual orders and movements of grade A milk across orders when needed. One of the issues will be whether new order provisions would be better than the over-order pricing now negotiated by cooperatives with class I handlers, either from the standpoint of efficiency or equity.

Alternative Pooling and Pricing Provisions

The alternatives discussed below represent several general types of order modifications to attract or encourage class I milk movements to class I handlers. One or a combination of the alternatives may achieve the desired objective. The alternatives are classified as either the stick approach—an economic loss to a plant may be incurred, if it doesn't supply milk for class I use; or the carrot approach—sufficient economic gain to a plant may be realized, if it does supply milk for class I use. The description of these alternatives are summarized in the table on the following page.

Stick Approach

Stricter Shipping Requirements: Perhaps the most straightforward means of ensuring that needed milk flows to the class I market would be to mandate and enforce stricter performance standards. Qualification standards have been the traditional means that orders have used to circumvent the “pool-riding” problem. In other words, plants that don't perform as expected or needed should not qualify to receive a share of the order pool funds. In this case, “performance” means shipping

Summary of Alternative Pooling and Pricing Provisions

APPROACH	DESCRIPTION	PENALTY/BENEFIT	LIMITATIONS	HAS BEEN OR IS IN USE
STICK APPROACH: ^{a/}				
Stricter Shipping Requirements	Mandate/enforce performance standards; plants ship a percentage of their milk for class I needs when needed.	If plant doesn't ship, it doesn't share in the pool funds.	Potential unneeded milk shipments if performance standards are not set correctly.	Yes
Call Provisions	If there is insufficient milk for class I needs, the market administrator issues a call to a manufacturing plant to ship milk.	If plant doesn't ship when called, it doesn't share in pool funds.	Closer milk may be available to serve class I needs than what is shipped from the plant receiving the call.	Yes
Excluding plants from pooling	Manufacturing plants receive the blend price only on shipments to class I handlers instead of equalization payments on all milk.	Receive blend price on actual shipments for class I use.	Reduces benefits of manufacturing plant associated with a pool.	No
CARROT APPROACH: ^{b/}				
Location differentials	Adjust class I prices downward to handlers distant from population centers.	Equalize net milk cost to class I handlers serving the order.	Not flexible; assumes milk moves in only one direction.	Yes
Individual handler pool—all or part of class I revenues.	Blend price for each handler according to its own milk utilization.	Strong incentive for all milk in supply area to meet class I needs; awards producers and plants that serve class I needs.	Moves away from the order objective of equal treatment to all producers.	Yes
Balancing payments	Part of class I differentials designated as a supply balancing component and paid to each handler for class I milk in excess of a base.	Incentive to producers to ship milk to handlers that serve the class I market.	Difficulty in estimating appropriate funds for balancing payments.	No
Standby Pool	Total costs of obtaining supplementary class I milk when local supplies are insufficient are assessed against all class I sales to compensate handlers that import milk or used to pay designated supply plants in supply area having an obligation to ship to deficit fluid market when milk is needed for class I.	Shares the costs of obtaining supplementary milk among all handlers in the order, not just those that import reserve milk supplies for class I use.	Difficulty in estimating appropriate funds for the standby pool.	No ^{c/}
Class I Differential Composed of Two Parts	The class I differential has two parts: 1) An amount sufficient to encourage the production of an adequate supply of Grade A milk and this would be pooled among all producers; 2) A performance component paid to those plants that serve the class I market, and to producers for direct shipped milk; this part is composed of two parts—a transportation credit (revenues pooled and distributed to class I handlers for actual distance of transport of class I milk and to producers who ship directly to class I handlers), and a balancing credit (revenues pooled and paid to a supply plant that actually serves the class I market).	Pays a portion of pool funds directly for compensation to handlers and producers who serve the class I market and to plants that perform the balancing function; hence an incentive to serve the class I market.	Difficulty in estimating average transportation and balancing assessments on all class I milk sufficient to compensate for the transport of class I milk and balancing costs.	No
Open or Liberal Pooling	Supply plant would choose which order it wishes to be associated with; call provisions would be implemented.	Supply plants most likely would associate with high class I utilization markets.	Supply plants may be distant from the population centers and therefore, milk may move relatively long distances when milk closer may be available.	No
Transfer Payments	When milk is shipped between orders it will receive payment based on how it is actually utilized in the receiving market rather than the existing pro-rata system of passing back the utilization of the receiving order or receiving plant, whichever is lower.	More incentive to ship milk between orders for class I use when needed.	Class I prices of neighboring orders must be aligned so that lower cost milk from inter-order shipments does not erode the class I market for local producers.	No

^{a/} An economic loss to a plant may be incurred, if it doesn't supply milk for class I use.

^{b/} Sufficient economic gain to a plant may be realized, if it does supply milk for class I use.

^{c/} A voluntary standby pool outside the federal order system was used for a short period during the 1970s. Cooperatives in the southeast paid an assessment on their class I sales into a fund that was paid out to manufacturing plants in the Midwest with the obligation to ship milk to the Southeast cooperatives for class I use when needed.

milk to class I markets as needed and without exorbitant over-order charges.

The philosophy behind shipping requirements is a simple one—if you want to share in the class I pool, you must sell milk for class I use, especially when it is needed. Unfortunately, this alternative can lead to unintended marketing inefficiencies. Milk may be shipped long distances just for the purpose of qualification, even when adequate supplies exist that are closer to buyers. In orders that use shipping requirements, there have been occasions when milk not needed for class I use has been shipped to class I buyers and then returned right back to original sellers for use in manufactured dairy products just so the manufacturing plant can meet the paper requirements. Manufacturing plants might also construct otherwise uneconomic and unneeded class I product lines just to meet qualification requirements. These sorts of problems seem to be greatest in markets that have large amounts of milk for manufacturing, and one could argue that these are markets where more rigid standards are most needed. Fine tuning performance standards (specifying days of the week, critical months, flexible quantities, allowing exceptions) could reduce but may not eliminate such side effects.

Call Provisions: Another mechanism that has been used is the call provision. In orders that have this provision, when the Market Administrator determines that insufficient milk is flowing to class I buyers, a call on milk from manufacturing handlers is issued; in essence a specific and short-term shipping requirement. Milk does move under call, but there has been dissatisfaction with such provisions. As with fixed shipping requirements, inefficient milk movements may occur. Closer milk to the buyer may be available than from the handler receiving the call. In addition, cooperatives complain that over-order premiums are curtailed when the Market Administrator issues the call provision. Market Administrators may dislike having to exercise such power, as such decisions are usually controversial.

Excluding Plants From Pooling: Under this approach manufacturing plants would be excluded from participating in the order pool. Instead of receiving equalization payments (pool draw) from the pool on all of their milk supply, they would be treated like producers and receive the blend price only on shipments to class I handlers. Without question, this would improve

the incentive for producers to directly serve class I markets, but needless to say, the large segment of the manufacturing industry that is benefitting from the current set of rules would be opposed.

Carrot Approach

Location Differentials: Location differentials are used in some orders. These differentials account for the cost to transport milk for class I use to the population centers by adjusting the class I price downward to distant handlers. An example, for each 15 miles (zones) out from the center of the class I market, the class I price is reduced to the handler (also the blend price to producers selling to a handler) by 3 or 4 cents per hundred-weight. The purpose of location differentials is to permit each fluid milk handler regulated under the order to obtain milk at the same price, not counting transport costs.

An issue with this approach is that there may be more than one major population center in rather large geographic orders. This could be a greater issue when the existing 32 orders are consolidated into 10 to 14 orders as required by the 1996 FAIR Act. In addition, location differentials are not flexible; they assume milk moves only in one direction. Further, milk may still be shipped long distances even though adequate supplies of milk are available closer to the buyer.

Individual Handler Pooling of All or Part of the Class I Revenues: In contrast to market-wide pooling, the individual handler pool does provide substantial incentive to sell class I milk to handlers.³ Individual handler pools mean that producers selling to the same plant get the same blend price, but each plant has its own blend price, calculated according to its own milk utilization. Consequently, producers have a much stronger incentive to sell milk to the plants paying the higher prices.

The drawback of this approach is that it moves away from the objective of equal treatment of producers. That is, it may be a good way to achieve one objective of orderly marketing, but is counter-productive to another which is producer price equity. Nevertheless, it has two distinct advantages. One, it channels all class I revenues to those plants and producers who are actually serving the class I market. There is a substantial incentive for all milk in the supply area to be readily available to meet class I requirements. There is

³ Only one order is an individual handler pool, the Michigan Upper Peninsula order.

little or no need for qualification requirements or call provisions. Second, there is little incentive for the supply area to expand beyond that which is sufficient to meet class I needs of the market. Milk producers and buyers who are not selling milk for class I use do not participate in the class I revenues.

To obtain the advantages of the individual handler pool and to provide for some degree of price equalization among producers, part of the class I revenues could be pooled on an individual handler basis and the remainder could be pooled on a market-wide or multi-market basis.

Balancing Payments: Balancing payments could provide an incentive to supply milk to class I handlers. Part of the class I differential would be designated as a supply balancing component. Under one approach, each handler would receive a base of class I disposition in the market for a specified month of each year. For each month the handler would receive a balancing payment, from the supply balancing fund, for all class I milk in excess of the base. The balancing fund would be distributed to the producers by handlers. As with the individual handler pool, the system would provide an incentive for producers to sell milk to handlers who are serving the class I needs of the market.

A Standby Pool: The purpose of a standby pool would be to equitably distribute the costs of obtaining supplementary class I milk supplies when local supplies are insufficient. Operation of the standby pool would require estimation of the annual volume of supplementary milk requirements and the costs of obtaining it. Costs would include transportation in excess of class I price differences between exporting and importing markets, and reasonable plant give-up charges. This total additional cost for supplementary supplies would be used to determine an assessment on all class I sales in the market throughout the year. Handlers that import milk from other areas could pay suppliers directly for the milk as they buy it and would then be reimbursed from these funds. Determination of the rate of reimbursement would need to be no more than the actual additional costs to avoid an incentive to buy milk outside the local pool. Alternatively, funds could be generated from buyers in the seasonal deficit market throughout the year and transferred to designated supply plants in surplus markets as collected. Receipt of these funds would then obligate such plants to ship to the deficit market when milk for class I use is needed,

freight prepaid and with no give-up charge, up to the projected amount of shipments.

Class I Differential Composed of Two Parts: As previously stated, there has been an adequate supply of grade A milk produced nationally, but the problem is that not always has an adequate supply of grade A milk been channeled to class I use when needed. Under this approach the class I differential would be composed of two parts. The first part would be an amount sufficient to encourage an adequate supply of grade A milk and this would be pooled among all producers. The second part would be a performance component and this would not be pooled among all producers but rather paid to those who serve the class I market. The part that is pooled among all producers may or may not be the same for all orders to recognize differences in costs of production and local supply and demand conditions. The second part would differ among orders because of differences in the cost of getting grade A milk allocated to class I needs.

The performance component would be composed of two parts, a transportation credit and a balancing credit. The Market Administrator would obtain data for a base period on the distance grade A milk is transported for all the order's class I needs. The supply area would be the milk nearest to the class I handlers. A cost per hundredweight of class I milk would be determined for the average transport distance. Handlers would be assessed this average per hundredweight cost on all class I milk. These revenues would be pooled and distributed to class I handlers for compensation of actual distance of transport for class I milk, and would also be paid to producers who direct ship milk to class I handlers. The compensation would be less than full transport cost to encourage the assembly of closest in milk for class I needs.

In 1996, a transportation credit payment system was implemented in the southeast federal orders. The purpose is to compensate handlers for the transfer cost of milk for class I use. Although the experience has been short, it appears that the compensation has been too generous and handlers are obtaining milk for class I use from distances greater than necessary.

Balancing credits would be paid to supply plants that actually serve the class I market. The objective is to make these supply plants at least as well off as manufacturing plants that do not ship milk for class I needs. That is, supply plants would be compensated for fixed costs

of operating their plants at lower capacity when milk is shipped for class I needs. As with transportation credits, the Market Administrator would determine an average cost per hundredweight assessment on all class I milk required for balancing payments. The revenues would be pooled and paid to supply plants for actual milk shipped for class I needs.

One major challenge would be estimating average transportation and balancing assessments on all class I milk sufficient to compensate for the transport of class I milk and balancing costs. Transportation and balancing credits would need to be restricted to nearby milk for class I needs. Credits should not be paid for the transport of milk long distances when closer milk supplies are available. But the administration of this approach would not be a simple task.

Open or Liberal Pooling: Under more open or liberal pooling, supply plants would choose, for example once a year, with which order they wish to be associated. Many may choose to associate with orders having relatively high class I utilizations and therefore, a significant pool draw to a supply plant. A call provision rather than shipping requirements might work best under this approach. If supply plants did associate with relatively high class I utilization orders, in time this would tend to equalize class I utilizations and producer blend prices among the orders.

Transfer Payments: When milk is shipped between orders a pro-rata payment system is used. That is,

the class I utilization of the receiving order or receiving plant, whichever is lower, is passed back to the shipping order and that same percentage of shipped milk is paid the class I price at the shipping order. The *pro-rata* payments do not apply to milk shipped among plants within an order. If all of the shipment is used for class I, all is paid the class I price. It has been suggested that there would be more incentive to ship milk across orders when needed if the transfer payments were handled in the same manner as intra-order shipments. Therefore, it would be very important that class I prices of neighboring orders be aligned in a manner so that lower-cost milk from inter-order shipments would not erode the class I market for local producers.

Summary

The alternatives discussed in this leaflet could result in a more orderly and reasonably priced flow of milk to class I markets. Consumers and class I handlers would be the major beneficiaries. Distribution of revenues among producers in orders would be altered. For some alternatives penalties are imposed for not serving the class I needs of the markets. Manufacturing plants and their producers would lose revenue from the order pool and might be less able to attract over-order premiums, give-up charges, and/or even participate in the federal order revenue pool. For other alternatives, monetary incentives are used to more directly encourage serving the class I milk needs.

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