

# MARKETING SERVICE

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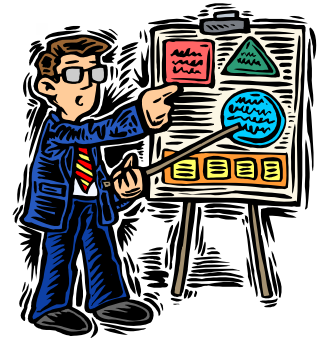
## What is a Federal Milk Marketing Order, and ... What Does it Mean to Me ?

### -- Part II : Classified Pricing --



Last month's issue of this bulletin presented an overview of Federal milk marketing orders, with a brief description of important aspects of this program. Marketwide pooling and how it translates into producer pricing will be explored in a future edition. In this issue we will examine classified pricing and how it is utilized under the Federal milk order program.

To fully comprehend the Federal milk order system of classified pricing, however, we first need to examine ...



**Some Pricing History.** Classified pricing, in theory and in practice, existed well before the advent of Federal milk marketing orders. While government intervention into milk marketing first appeared in the 1930's, classified milk pricing plans surfaced decades earlier. Dairy historians have documented an industry-sponsored classified pricing plan in the Boston market as early as 1886, with other markets implementing similar plans into the early decades of the twentieth century. These pricing systems were the result of negotiations between cooperative associations and the larger milk "dealers" in each city market.



Effective implementation and administration of these industry-sponsored plans proved problematic, however. Inevitably, milk in excess of the fluid needs of the market surfaced, and this "surplus" put substantial downward pressure on existing prices. When milk producers who held health department shipping permits could not find a buyer, it was in their best interest to undercut current prices in order to sell their milk. The reality of "sell it or smell it" often led to "take it or leave it" pricing offers by milk processors, resulting in lower price levels for all producers in the market.



Similarly, cooperatives who could not secure a market for all of their producers' milk lost members and bargaining influence. This put additional downward pressure on prices, and the resulting disorderly marketing conditions limited the effectiveness of early classified pricing plans in most markets. The economic depression of the early 1930's resulted in the complete collapse of these voluntary classified pricing plans. Emergency actions were taken by Congress to aid milk producers during the Great Depression, and these efforts eventually evolved into the



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Federal milk order program. This early regulatory intervention marked the first instance of government administered classified pricing with marketwide pooling of the resulting revenue. Classified pricing of milk became an effective and stable reality for the dairy industry with the passage of the Agricultural Marketing Agreement Act and the implementation of the Federal milk order program.

Classified pricing is an essential marketing tool utilized by the Federal milk order program. This pricing feature enables dairy farmers to recover additional costs of supplying the fluid market and expenses associated with disposing of any market surplus. Prices administered by orders are designed to reflect the dynamic nature of producer milk supplies and dairy product demand. Underlying the entire classified pricing system, as it is utilized by Federal orders, is the linkage between class prices and the wholesale prices of manufactured dairy products. (This relationship is examined in more detail later in this bulletin.)

***Last month we stated the milk order program's primary objective is to provide a framework to make buying and selling milk a more orderly process for producers and processors. If milk orders provide a marketing framework for the dairy industry, then classified pricing provides the foundation for the Federal milk order program.***

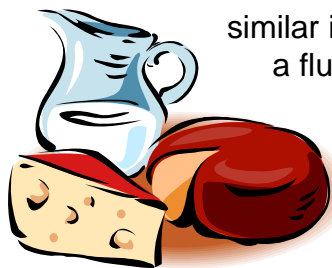


### ***What type of classified pricing does the Federal milk order program use?***

Classified pricing is a system that assigns minimum prices for milk based on its end use. Theoretically, this type of pricing system could assign a different value for each end product based on market supply and demand dynamics. However, that would necessitate a multitude of pricing categories and is simply not practical in most real world situations, including the pricing of raw milk. The current Federal milk order program employs a system that categorizes each dairy product into one of four classes. This has not always been the case, however. In the past, milk orders have employed systems with two and three classes, sometimes utilizing subcategories within classes. Classification has evolved over time to accommodate changing industry marketing conditions, the increased number of consumer dairy products, and altered industry objectives.



Classification is based on a variety of factors, prominent ones being the product's intended use, its composition, and its role in market balancing (e.g. - reserve milk that is not needed for fluid use is manufactured into storable dairy products). Categorization in this manner is sometimes referred to as "form and use" classification. This expression indicates the physical characteristics of a product, along with its intended consumer use, determine its classification. Physical characteristics include items such as shelf life, fluid form versus solid or semisolid consistency, component content, etc. Intended use refers to the manner in which consumers typically utilize the product, with products that have similar intended uses categorized together. For example, if a dairy product is consumed in a fluid or "drinkable" form, it is typically assigned to the same class as other bottled products.

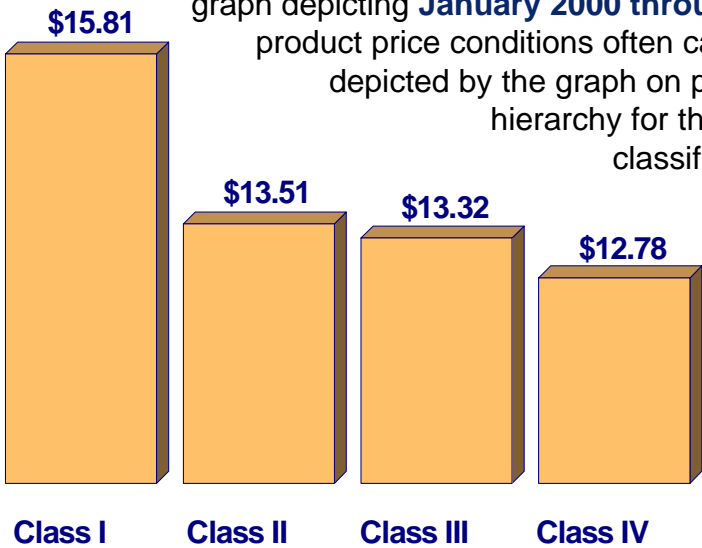


The highest price category under the current classification system is Class I. This reflects the preference for fluid products from fresh milk meeting the most stringent sanitary requirements, and items in this class are generally the most perishable among all dairy products. Class I encompasses most bottled milk items, and a few common examples of these "drinkable" products are whole milk, lowfat milk, skim milk, chocolate milk, and buttermilk. Class II includes fluid cream and "soft" manufactured products, and these products are sometimes referred to as "spoonable" dairy products. Examples include half-and-half, whipping cream, yogurt, ice cream, and cottage cheese. Classes III and IV include the longer shelf life, "hard" manufactured dairy products. Class III encompasses all hard cheeses, such as cheddar, mozzarella, swiss, provolone,

etc., as well as cream cheese. Class IV includes butter and dried milk items such as nonfat dry milk. *Table 1 on page 3 has a more comprehensive listing of dairy products by class.*

**How are class prices determined?**

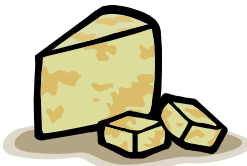
Federal milk orders have been designed to assign the highest price to milk used in Class I products, with lower prices for the manufacturing categories, Classes II, III, and IV. Historical data indicates that *average* class prices have conformed to a descending price hierarchy over time, as indicated by the accompanying graph depicting **January 2000 through June 2009 Central Order average prices**. Market product price conditions often cause this alignment of prices to vary, however, as depicted by the graph on page 6. Moreover, there is no predetermined price hierarchy for the three manufacturing classes under the Federal order classified pricing system since it is designed to allow market conditions determine these class prices.



Under the Federal milk order classified pricing system, prices paid by handlers for milk utilized in Classes II, III, and IV are based on wholesale market prices for cheddar cheese, butter, nonfat dry milk, and whey. These class prices are identical for all locations each month, and are based on U.S. average wholesale prices as reported by the National Agricultural Statistics Service (NASS). Prices for milk used



in Classes III and IV are determined through the use of mathematical formulas constructed to take into account product yields and make allowances for the specified manufactured dairy products. (These formulas are detailed in Table 2 on page 7.) The Class II price is computed by adding a differential of \$0.70 to the advance Class IV price.



**Table 1**  
**Dairy Products by Classification\***

- Class I:** Includes, but is not limited to: whole milk; fat-free milk; lowfat milk; reduced-fat milk; light milk; milk drinks; eggnog; holiday nog; buttermilk; flavored milk; fat-free flavored milk; lowfat flavored milk; reduced-fat flavored milk; and all versions of the above list that are organic, fortified, reconstituted, concentrated, or sterilized.
- Class II:** Includes, but is not limited to: all varieties of cottage and similar cheeses; ice cream; milkshake and ice cream mixes; frozen desserts and mixes; sour cream; half-and-half; yogurt; aerated cream; frozen cream; buttermilk mixes; custards; puddings; pancake mixes; and infant and dietary formulas in hermetically-sealed containers.
- Class III:** Includes, but is not limited to: all hard cheeses; cream cheese and other spreadable cheeses; plastic cream; anhydrous milkfat; and butteroil.
- Class IV:** Includes, but is not limited to: butter; evaporated or sweetened condensed milk in consumer-type packages; and any milk product in dried form.

\* This listing of products is not intended to be all-inclusive.

The price for milk used in Class I products varies by location and each county in the continental U.S. is assigned a specific Class I price. The level of Class I prices generally increases in broad geographic "bands" as milk moves further south, as depicted by the accompanying map graphic. Class I prices are determined on a monthly basis by adding a predetermined, fixed differential for each county to the higher of the Class III or IV price. Differentials for Class I milk were assigned during Federal order reform and became effective in January 2000. These price differentials apply to the location where the milk is received, not where it is produced. ( As a result of the hearing process, adjustments are currently applied to the differentials for the Appalachian, Florida, and Southeast orders .)



### *How does classified pricing actually work?*

Each handler regulated under the Federal order program is responsible to the marketwide pool based on milk utilization during a given month. A handler's obligation to the pool is determined by taking the amount of milk used in each class by the applicable prices for that class. Four orders<sup>1</sup> use a pricing system based on two milk components - skim and butterfat. In these four orders, pounds of skim and butterfat used in each class are multiplied by the appropriate component prices for that class. The resulting value in each of the four classes is totaled to arrive at the handler's use value for the month.

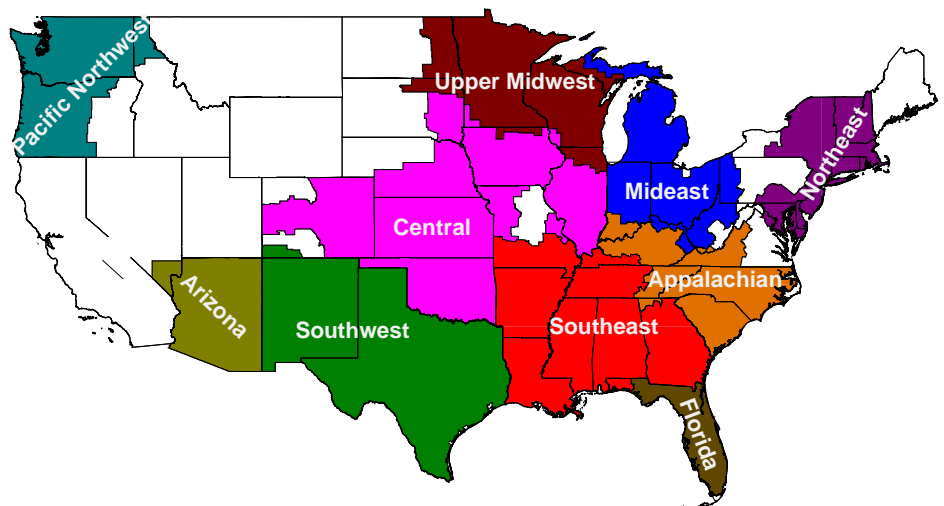


The remaining six orders<sup>2</sup> employ a classified pricing system that prices multiple components. The individual components priced varies by class in these markets. In Class I, skim and butterfat are priced in a manner similar to that described in the previous paragraph. Classes II and IV are priced based on the pounds of butterfat and nonfat solids contained in the milk used in each respective class. Protein, other solids, and butterfat are the components priced in Class III. The sum of the component values generated in each class are totaled to calculate each handler's monthly use value. Four of the six multiple-component markets include an additional value adjustment based on producer milk quality as measured by the somatic cell count. This adjustment is positive for milk with an average cell count below 350,000 and negative if the count is above that benchmark.

<sup>1</sup> Includes: Arizona, Appalachian, Florida, and Southeast Orders.

<sup>2</sup> Includes: Central, Mideast, Northeast, Pacific Northwest, Southwest, and Upper Midwest Orders.

## Federal Milk Marketing Orders





Following is an example of how a handler's use value is calculated, based on provisions of the Central Order. The prices used in this hypothetical example are averages for the period January 2000 through June 2009.

Through the use of marketwide pooling, the use value of producer milk for all handlers is combined. This combined value is dispersed to all producers whose milk is pooled in a uniform manner according to order provisions. An upcoming issue of this bulletin will examine the marketwide pooling process and how it translates into producer prices in more detail.

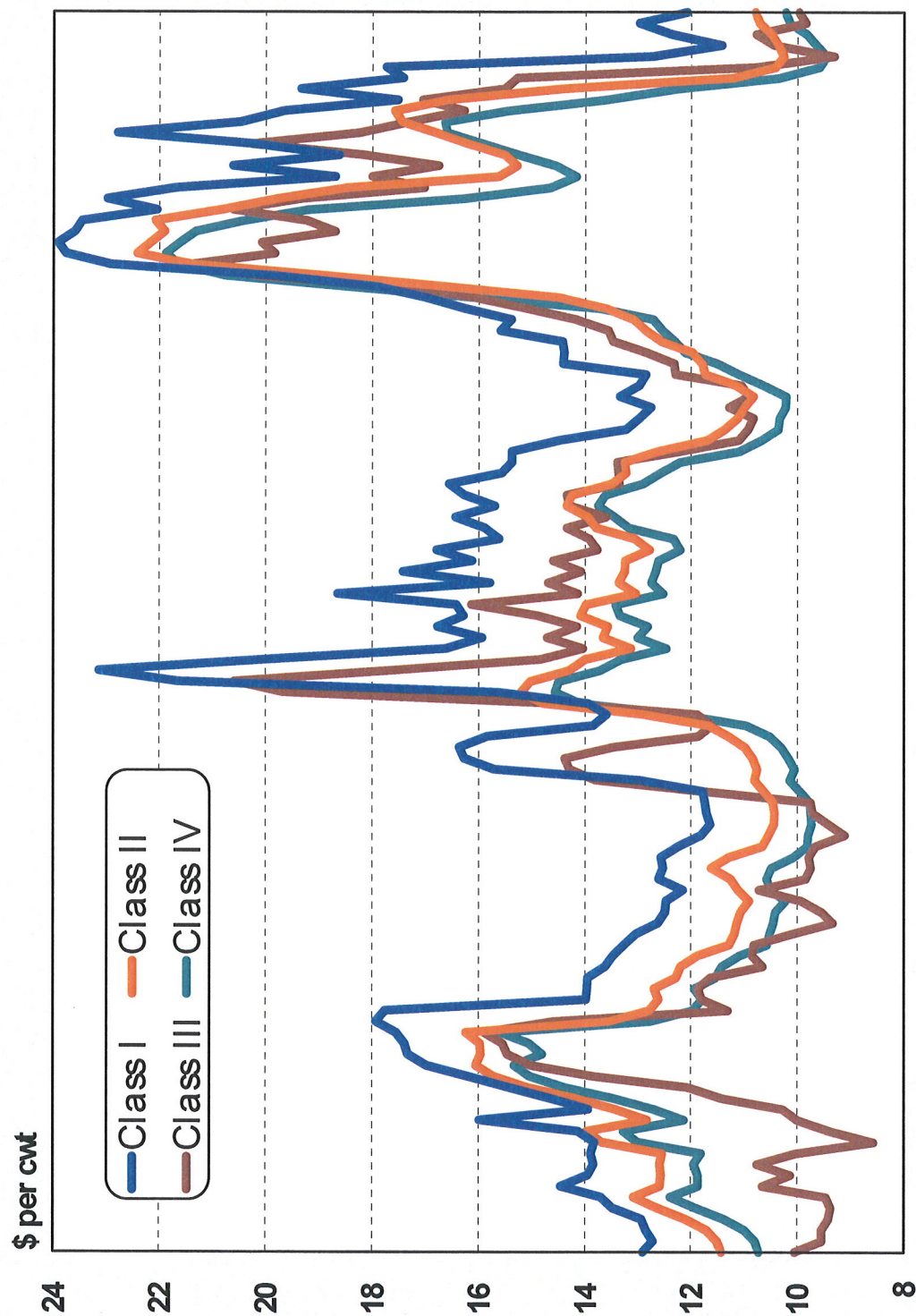
## ***HANDLER OBLIGATION TO POOL***

### **XYZ Distributing Plant**

	<b>Pounds</b>	<b>Value</b>	<b>Rate</b>
<b>Class I Value</b>			
Class I Skim Value	14,730,000	\$1,607,043.00	@ \$10.91 per cwt.
Class I Butterfat Value	270,000	<u>\$407,862.00</u>	@ \$1.5106 per lb.
Total Class I Value		\$2,014,905.00	
<b>Class II Value</b>			
Class II Nonfat Solids Value	611,565	\$580,436.34	@ \$0.9491 per lb.
Class II Butterfat Value	602,000	<u>\$905,046.80</u>	@ \$1.5034 per lb.
Total Class II Value		\$1,485,483.14	
<b>Class III Value</b>			
Class III Protein Value	3,038	\$7,539.10	@ \$2.4816 per lb.
Class III Other Solids Value	5,586	\$649.65	@ \$0.1163 per lb.
Class III Butterfat Value	3,577	<u>\$5,352.62</u>	@ \$1.4964 per lb.
Total Class III Value		\$13,541.37	
<b>Class IV Value</b>			
Class IV Nonfat Solids Value	240,201	\$208,710.65	@ \$0.8689 per lb.
Class IV Butterfat Value	54,423	<u>\$81,438.57</u>	@ \$1.4964 per lb.
Total Class IV Value		\$290,149.22	
<b>Classified Value of Producer Milk</b>	25,000,000	\$3,804,078.73	
<b>Somatic Cell Adjustment on Classes II, III, IV</b>		\$2,352.55	
<b>Handler Use Value of Producer Milk</b>		<b>\$3,806,431.28</b>	<b>@ \$15.23 per cwt.</b>

## Central Federal Milk Order Class Prices

January 2000 through June 2009



## Table 2

# **2009 Price Formulas :**

### **Class I:**

Class I Price = (Class I skim milk price x 0.965) + (Class I butterfat price x 3.5).

Class I Skim Milk Price = Higher of advanced Class III or IV skim milk pricing factors + applicable Class I differential.

Class I Butterfat Price = Advanced butterfat pricing factor+ (applicable Class I differential divided by 100).

Note: Advanced pricing factors are computed using applicable price formulas listed below, except that product price averages are for two weeks.

### **Class II:**

Class II Price = (Class II skim milk price x 0.965) + (Class II butterfat price x 3.5).

Class II Skim Milk Price = Advanced Class IV skim milk pricing factor + \$0.70.

Class II Butterfat Price = Butterfat price + \$0.007.

Class II Nonfat Solids Price = Class II skim milk price divided by 9.

### **Class III:**

Class III Price = (Class III skim milk price x 0.965) + (Butterfat price x 3.5).

Class III Skim Milk Price = (Protein price x 3.1) + (Other solids price x 5.9).

Protein Price = ((Cheese price – 0.2003) x 1.383) + (((Cheese price – 0.2003) x 1.572) – Butterfat price x 0.9) x 1.17).

Other Solids Price = (Dry whey price – 0.1991) times 1.03.

Butterfat Price = (Butter price – 0.1715) times 1.211.

### **Class IV:**

Class IV Price = (Class IV skim milk price x 0.965) + (Butterfat price x 3.5).

Class IV Skim Milk Price = Nonfat solids price times 9.

Nonfat Solids Price = (Nonfat dry milk price - 0.1678) times 0.99.

Butterfat Price = See Class III.

### **Somatic Cell Adjustment Rate:**

Cheese price x 0.0005, rounded to fifth decimal place. Rate is per 1,000 somatic cell count difference from 350,000.

**Statistical  
Uniform Price****Producer Price  
Differential****Class I  
Utilization**

	<u>Jun '09</u>	<u>May '09</u>	<u>June '09</u>	<u>May '09</u>	<u>June '09</u>	<u>May '09</u>
Northeast	11.93	12.18	1.96	2.34	41.20	39.91
Appalachian	12.66	13.28	-----	-----	64.19	64.70
Florida	14.96	15.65	-----	-----	88.74	85.68
Southeast	12.83	13.21	-----	-----	61.19	57.18
Upper Midwest	10.29	10.30	0.32	0.46	12.32	12.43
<b>Central</b>	<b>10.70</b>	<b>10.82</b>	<b>0.73</b>	<b>0.98</b>	<b>26.47</b>	<b>26.78</b>
Mideast	10.99	11.27	1.02	1.43	36.92	37.74
Pacific Northwest	10.70	10.83	0.73	0.99	26.86	26.18
Southwest	11.64	11.84	1.67	2.00	32.91	32.56
Arizona	10.95	11.15	-----	-----	33.18	30.68

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