



From the Farm to the Table

A brief explanation of the why's
and how's of Federal Milk
Marketing Orders



Understanding FO's

In a land of plenty, . . .



In a land of plenty, . . . it is difficult to imagine not having enough product to supply the market place...

Understanding FO's

In a land of plenty, . . .



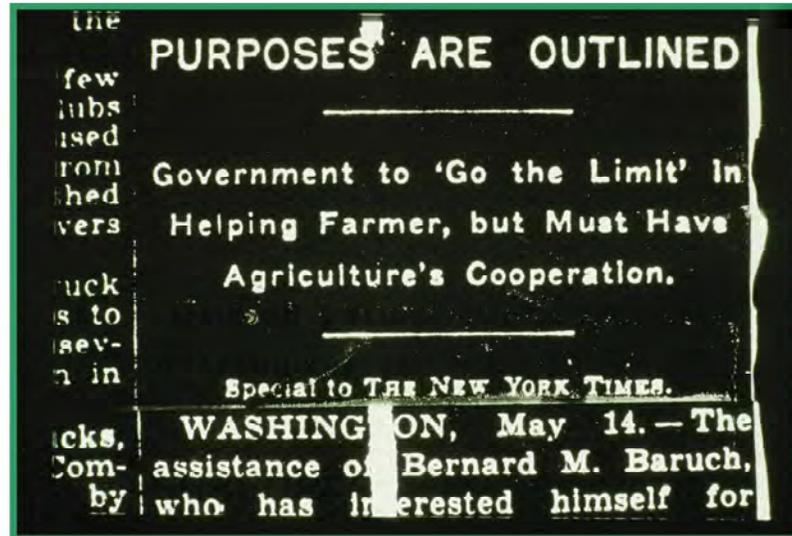
... but it has happened . . .

In a time when the majority of Americans were born after 1950, . . .

Illinois Strike Ineffective.
Special to THE NEW YORK TIMES.
CHICAGO, May 13.—A threatened strike of Illinois milk producers appeared today to have fallen flat. The city Health Department and the Pure Milk Association reported that supplies slightly in excess of those usually received were sent in. Peaceful picketing was started at four plants in McHenry County, which has been the hotbed of agi-

In a time when the majority of Americans were born after 1950, . . . it is difficult for most people to remember the chaos which existed in the milk industry in the 1920's . . . but it was there.

Federal Regulation



It was that marketing chaos that actually brought about regulation which assured the consumer an adequate and constant supply of pure & wholesome dairy products by assuring the producer of those products that they also could depend on fair treatment in the market place and facilitate the efficient marketing of milk.

Federal Milk Marketing Orders

Page 1 of 1



AMS PROGRAM ANNOUNCEMENT

AMS No. 004-02
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USDA TO HOLD HEARING ON PROPOSED CHANGES TO WESTERN AND PACIFIC NORTHWEST MILK ORDERS

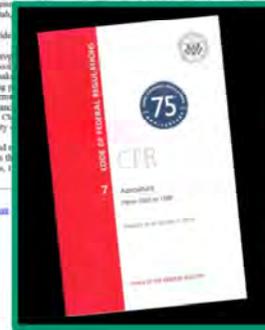
WASHINGTON, March 1, 2002 – The United States Department of Agriculture invites dairy producers, milk processors and the public to testify at a hearing on proposals that would amend certain pooling and related provisions in the Western and Pacific Northwest orders. The hearing will be held on Tuesday, April 16, 2002, beginning at 10:00 a.m. in the West Ball Room, USDA Building, 14th and Constitution Avenue, NW, Washington, DC 20250.

Dairy producers who provide

The hearing will include provisions that would amend certain pooling and related provisions in the Western and Pacific Northwest orders. The hearing will be held on Tuesday, April 16, 2002, beginning at 10:00 a.m. in the West Ball Room, USDA Building, 14th and Constitution Avenue, NW, Washington, DC 20250.

Details of the proposals and a copy may be obtained from the USDA/AMS Dairy Programs, 1400 Independence Avenue, NW, Washington, DC 20250.

Return to [AMS News Release](#)

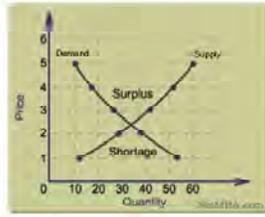


 United States Department of Agriculture

The system which was developed, Federal Milk Marketing Orders, has worked well – largely because of continued fine-tuning through a public hearing process which keeps the Federal order system relevant to changes in the market place.

Understanding FO's

Perspectives



Economics



Consumers



Dairy Farm Management



Banking

Milk Handling



From a variety of perspectives, . . . Banking, Dairy Farm Management, Economics, Milk Handling, and the Consumers, . . . the Federal Milk Marketing Order program helps the intricate functioning and close coordination of the dairy industry, or as mentioned earlier, FO's facilitate the efficient marketing of milk.

Understanding FO's



Banking

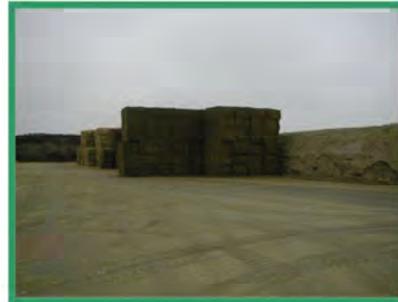
From a banker's perspective, the FO program provides a sense of security for loans and repayments of loans. The typical dairy farmer has in the neighborhood of 2-3 million dollars and up invested if you consider their total investment in land, facilities, equipment and livestock.

Investments in Cows



After all the investments have been made in the facilities, the dairy farmer makes significant investments in each young calf that will be a part of the milking herd some day. It takes about two years from the time a calf is born before it is mature enough to join the milking herd.

Investments in Cows



During those two years, the dairy farmer incurs costs for housing, feed and veterinary services for the young dairy cow. These costs, along with many others, are typically not recouped until one year after that cow enters the milking herd and starts to generate revenue with her milk production. It is a financial tight rope balancing the short and long term costs of production and the revenues from the dairy cows' milk.

Understanding FO's



Milking Cows



Once the dairy farm is up and running and the barns are full, there are the day to day tasks of operating the dairy farm. Cows are milked typically two, three and sometimes four times a day, 365 days per year. Dairy cows are the original 24/7 workers and the dairy farmer has the difficult job of managing each cow on the cow's schedule, not his or hers.

Understanding FO's

Milking Cows



Dairy farming has changed significantly over the past few decades with dairy farms becoming more and more efficient. But one thing has not changed, the constant care and attention that dairy cow's need. Likewise, the perishable nature of milk has not changed. Once milk is produced, it must be moved quickly to the market. As has been said of milk, "you either sell it or smell it."

Understanding FO's



Perishability



Economics



From an economist's perspective... Fluid milk is one of the most perishable commodities that is produced on the farm and marketed in this country. The perishability of a product affects how that product is valued in the market place and creates logistical hurdles that must be overcome to get the product to market.

Understanding FO's

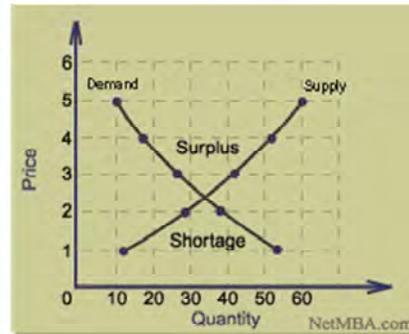


Perishability



Economics

Inelastic Demand
Small Change in Demand
Large Change in Price



At the same time, fluid milk has a more inelastic demand structure than most other food products. An inelastic demand curve means that for a change in price, demand changes relatively little. Lower prices do not lead to more product being consumed. But lower prices do affect the economic viability of the dairy farm.

Understanding FO's



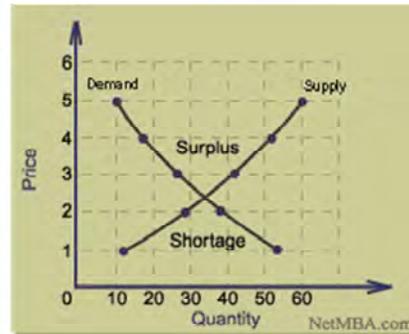
Perishability



Economics

Inelastic Demand
Small Change in Demand
Large Change in Price

High
Fixed
Costs



Lastly, the dairy industry is a high fixed cost industry and if the market does not support the investment then the alternative is to change the use of those resources, then, in turn, when those facilities are lost, we don't have the production and then a shortage develops and those facilities need to be replaced. All the characteristics of dairy farms and the milk they produce conspire to create marketing conditions that are unique and inherently unstable.

Understanding FO's

Milk Handlers



The handler of milk has concerns that are separate from the dairy farmer but also very similar. In order to sell packaged milk products to consumers, the handler has to invest in plant and equipment, train staff to deal with the unique nature of milk, and deal with the many issues of processing a highly perishable commodity into a great variety of products. From the receipt of a load of milk at the plant, to the loading of finished product for delivery to retail customers, plant personnel constantly check quality, weights, components and product specifications to guarantee consumer satisfaction.

Understanding FO's

Milk Handlers



Some of the milk receipts are destined for the fluid market and must move quicker than other products to maximize the shelf life for the consumer.

Understanding FO's

Milk Handlers



Other milk is destined for products that are slightly more shelf stable than fluid milk such as cottage cheese, ice cream, and yogurt. Speed, none-the-less, is still critical in moving the milk from pasteurization, to manufacturing, to packaging, and finally on to the consumer.

Understanding FO's

Milk Handlers



The last step for milk products is the warehouse from which store orders are put together and loaded quickly onto awaiting trucks. The inventory of fresh dairy products is something a handler watches closely; the handler only wants to package what they can sell quickly. No one wants to buy spoiled milk products.

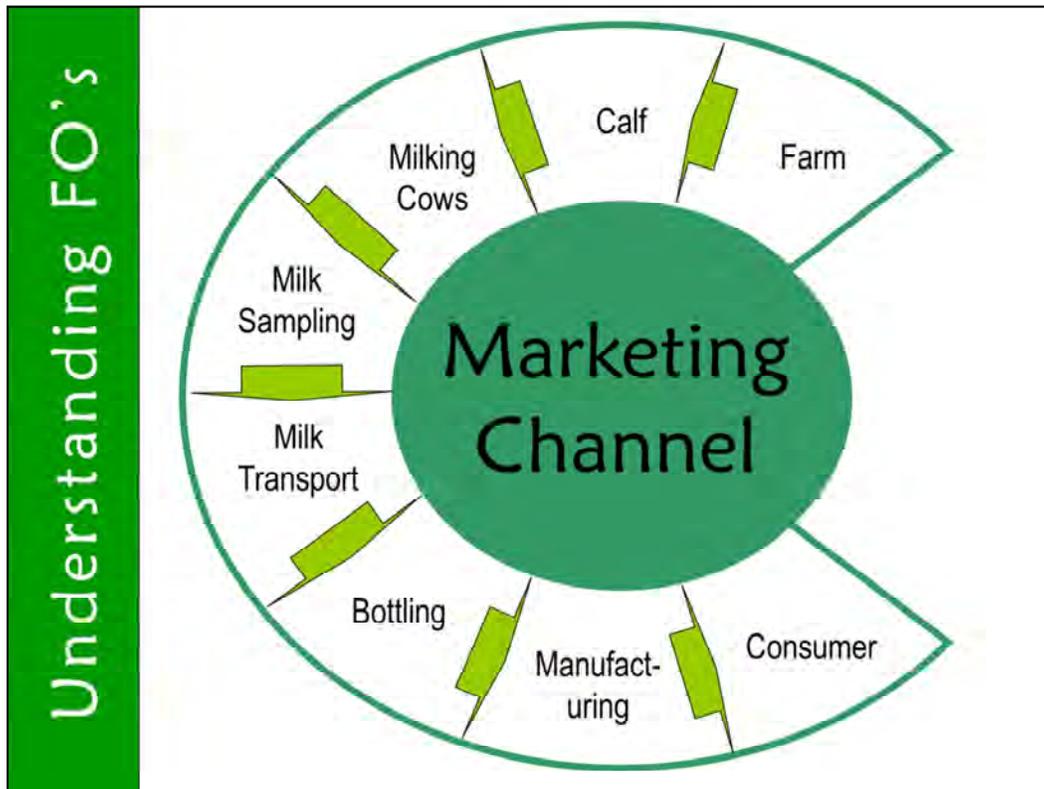


It is the handler who is regulated by a Federal order. Being regulated means that handlers are responsible to report receipts and utilization of milk and maintain adequate records for the Market Administrator to audit and verify the accuracy of the reported uses. Being regulated also means that a handler's competitor is treated in the same way and does not have an unfair advantage based on a cheaper milk supply.

In short, being regulated allows the handler to focus more attention on the efficiency of internal operations and not have to worry about whether another handler has a cheaper milk supply. Each fluid handler is also assured a steady supply of milk.



Lastly, one of the primary goals of Federal orders is to ensure that pure and wholesome milk is consistently and constantly available to the consumer. Consumers spend about 90 billion dollars a year on dairy products (USDA, Economic Research Service). Yet, consumers often do not realize or even know of the operations of Federal orders and how they create stability in dairy markets.



Looking at the marketing channel through which milk flows can also give you an idea of how the Federal order system relates to the dairy industry. The marketing channel of milk starts on the farm and ends in the consumers grocery basket. Due to the high perishability of milk, the marketing channel must operate quickly and efficiently and it does. The Federal order system is designed to assist the dairy industry in operating efficiently and fairly, and to change with the evolution of the industry it regulates.



And the assistance is not theoretical or at arms length, the Federal order interacts closely with the industry and the people and processes that take milk from the farm to the table.



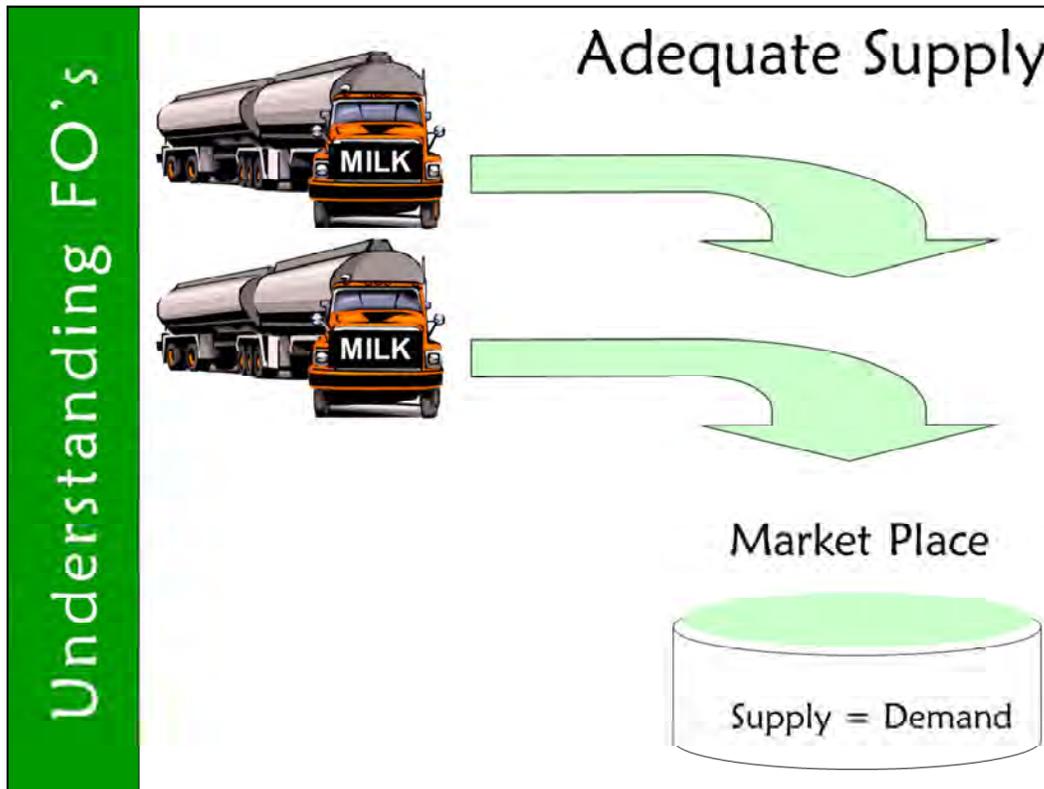
As you have briefly seen, the system for marketing milk must be fast, efficient and highly organized to get a highly perishable product to market. Milk marketing is highly regulated because there really is a totally interdependent relationship between the farm and the grocery cart.

Federal Milk Marketing Orders

- 1) Assure Consumers of an Adequate Supply
- 2) Assure Producers of a Predictable Value for their Product

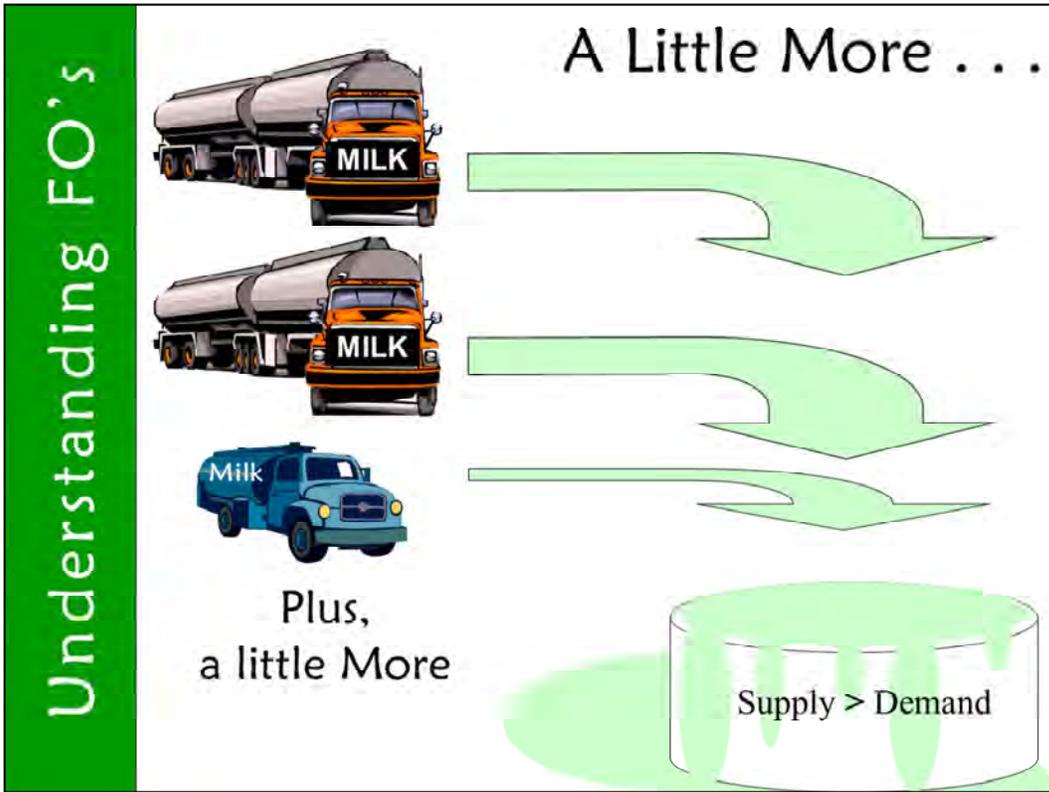


Two of the primary ideas behind Federal milk marketing orders are: 1) to assure consumers of an adequate supply; and 2) to assure dairy farmers or producers of a predictable value for their product. First we will look at how Federal orders assure consumers of an adequate supply.



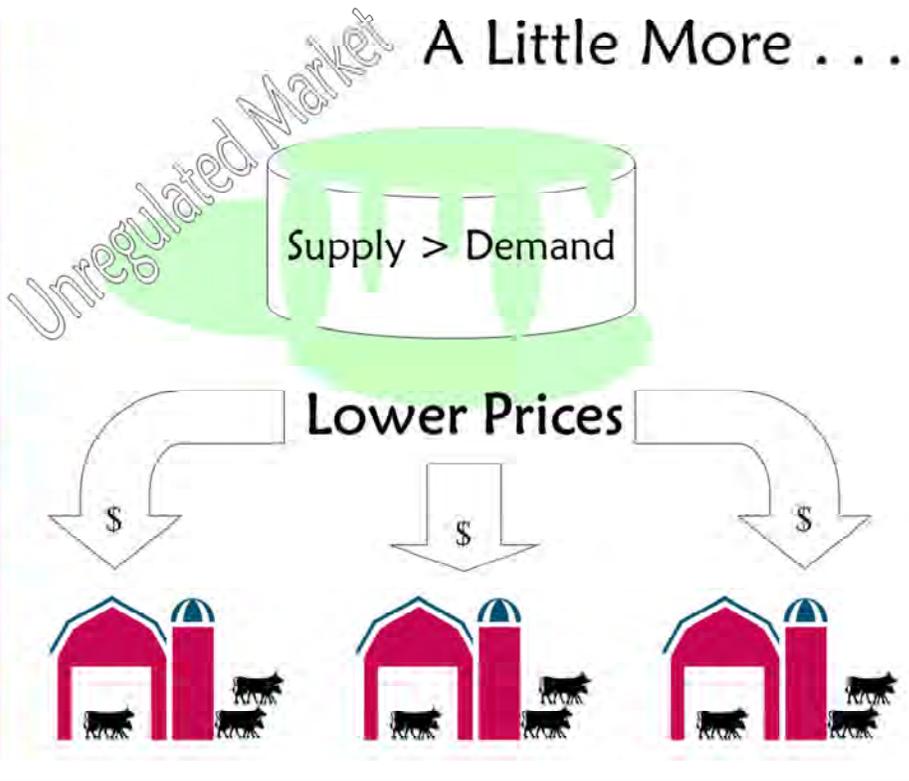
The consumer expects and must be assured of an adequate and reliable supply of pure and wholesome dairy products. When supply equals demand, all is well. Dairy farmers sell all that they produce and consumers purchase all that they desire.

But the demand for dairy products does not normally match the milk production of the cows supplying a market. Consumer demand for milk and dairy products changes from day to day, week to week and season to season. Milk production likewise varies across the seasons. In fact, at the beginning of the school year, when the amount of milk is seasonally at a low point, demand for milk is at its greatest. As you can see, it is not normal that supply equals demand.



So the only way to insure an adequate supply across the year is to have a little more than enough. But just a little more than enough can totally disrupt the unregulated marketplace.

Understanding FO's



In an unregulated marketplace, even a few 100 pounds of a highly perishable product will result in lower prices at the farm.

A Little More . . . Lower Prices



Lower prices obviously affect the dairy farmer's ability to make a living . . .



And eventually the unregulated market means a short supply...

A Little More . . . Lower Prices



... and higher prices to the consumer.

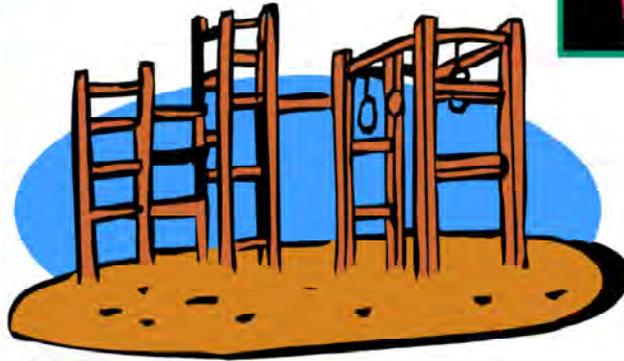
Predictable Value

- 1) Assure Consumers of an Adequate Supply
- 2) Assure Producer of a Predictable Value for their Product

Thus to insure the consumer of an adequate supply, the dairy farmer must also be assured of receiving a predictable value for what they produce so they can afford to stay in business.

Understanding FO's

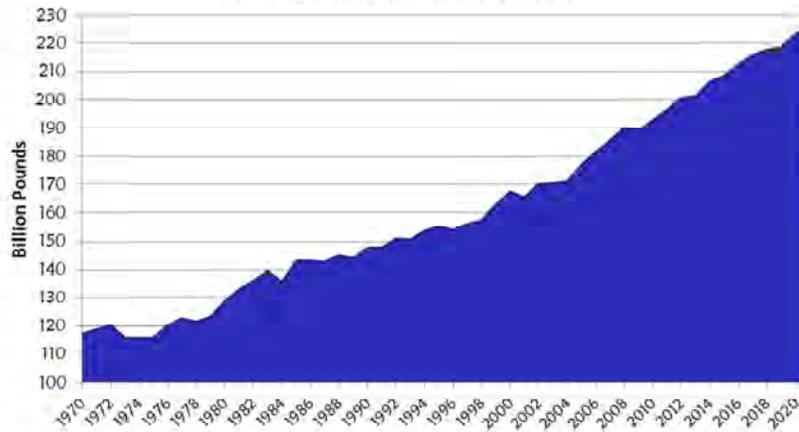
Federal Milk Orders



The Federal order system has been key to eliminating a history of chaos and enabling orderly marketing. Federal order language and its enforcement helps provide stability to the market place as a framework around which the dairy industry can function and continue to change. Federal orders act like a school yard jungle gym - the dairy industry works within and around its structure and rules. . . rules that the dairy industry itself developed and has changed over time. The Market Administrator's office monitors each and all handlers under the Federal order to ensure they follow the rules the industry has set for itself.

Federal Milk Orders

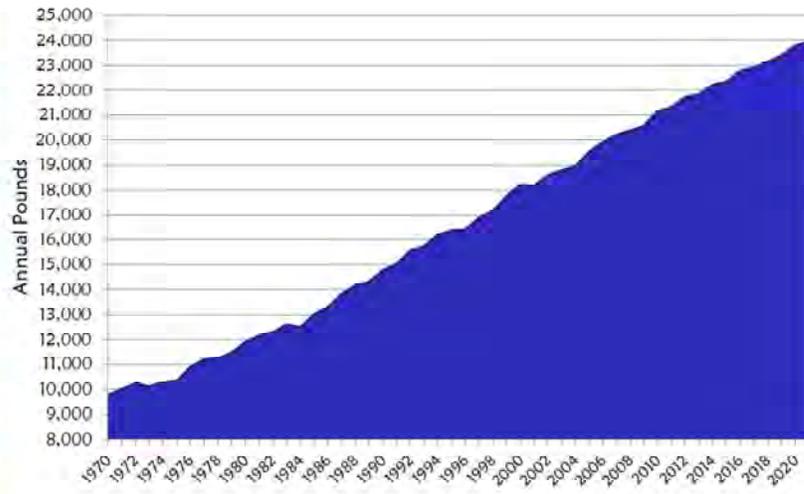
Milk Production United States, NASS



Federal milk orders, voted into existence by the dairy farmers themselves, have provided the stability necessary for the dairy industry to survive.

Federal Milk Orders

Milk Production Per Cow United States, NASS

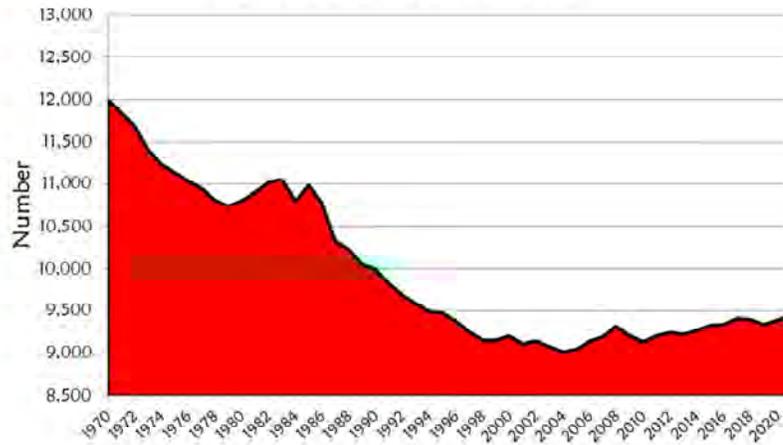


and to grow...

Understanding FO's

Federal Milk Orders

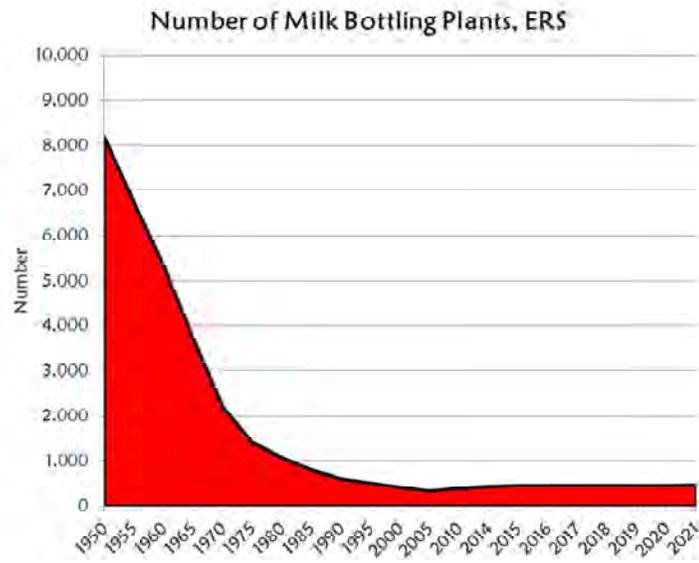
Number of Milk Cows
United States, NASS



...and to change.

Understanding FO's

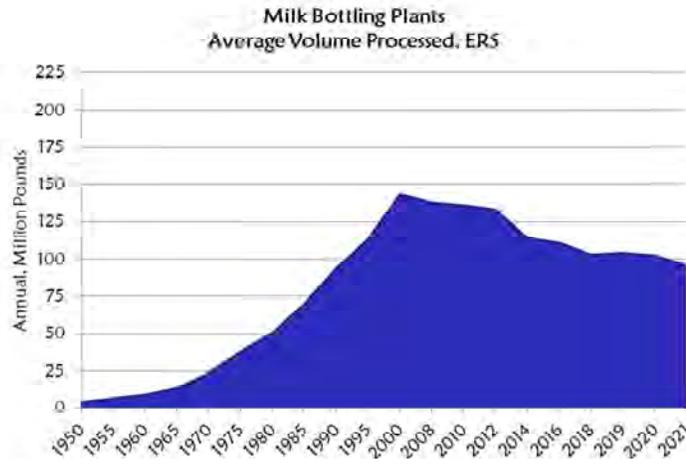
Federal Milk Orders



and change . . .

Understanding FO's

Federal Milk Orders



and change yet more.

Federal Orders do not...

- Regulate Producers, Nor Guarantee Them a Market for Their Milk
- Establish Sanitary or Quality Standards
- Set Wholesale or Retail Prices

But it is important to realize and remember that there are many things that Federal orders do not do...

Federal orders do not:

- Regulate Producers, Nor Guarantee Them a Market for Their Milk.
- Establish Sanitary or Quality Standards.
- Set Wholesale or Retail Prices.

Federal Orders do not...

- Set Maximum Prices Paid to Producers
- Guarantee a Fixed Level of Price to Producers

Federal orders also do not:

- Set Maximum Prices Paid to Producers, or
- Guarantee a Fixed Level of Price to Producers.

Federal Orders do not...

- Regulate:
 - From Whom a Plant May Buy Milk;
 - To Whom a Plant Shall Sell Milk;
 - How Much Milk a Plant Shall Buy or Sell;
 - At What Price a Plant May Sell the Milk; or
- Restrict Milk Production In Any Way

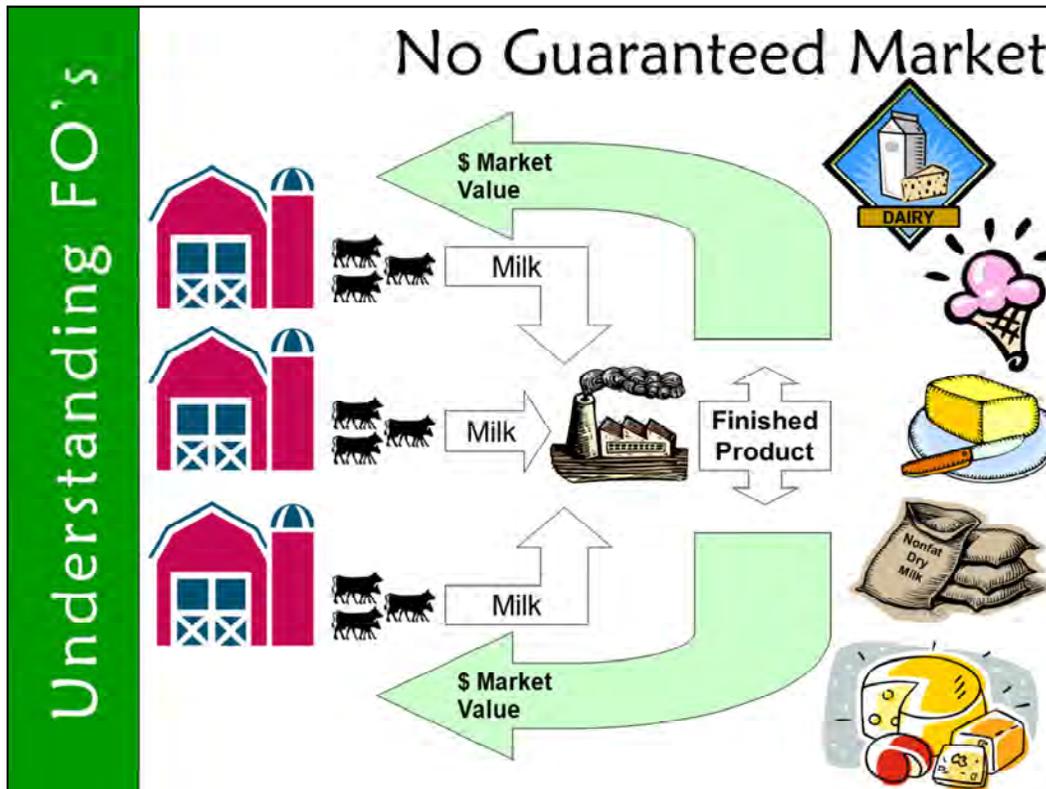
Lastly, Federal orders do not...

Regulate:

- From Whom a Plant May Buy Milk;
- To Whom a Plant Shall Sell Milk;
- How Much Milk a Plant Shall Buy or Sell; or
- At What Price a Plant May Sell the Milk.

Nor do Federal orders:

- Restrict Milk Production.



Federal orders cannot and do not guarantee markets – that is not their function – but Federal orders CAN & DO guarantee producers that they will share and share alike in the markets with which they are associated.

Federal Orders do...

- Classify Milk According to its Use
- Establish Minimum Class Prices Monthly
- Determine a Uniform Price Monthly
- Conduct Impartial Audits
- Verify Weights and Tests of Milk
- Provide Market Information

While there are many things that Federal orders do not do, there are many critical things that they do. Federal orders do...

- Classify Milk According to its Use.
- Establish Minimum Class Prices Monthly.
- Determine a Uniform Price Monthly.
- Conduct Impartial Audits.
- Verifies Weights and Tests of Milk. and
- Provide Market Information.



Let's look again at how milk flows from the farm to table to see the vital role that a Federal order and the Market Administrator's office that implements the order play at some key steps along the way.

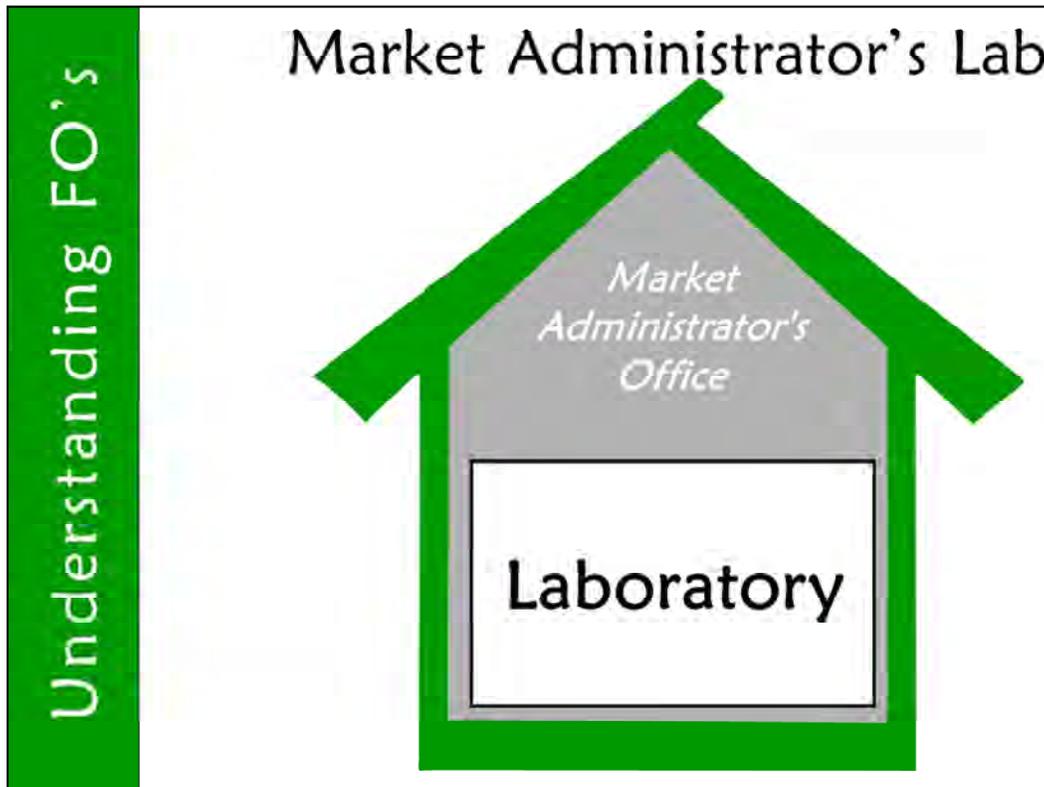
Market Administrator



Market administrators or MA's – those individuals in charge of administering the Federal Order Program – have a variety of responsibilities. Those responsibilities include:

- 1) operating a laboratory for the testing of milk;
- 2) establishing market-wide values that must be paid to producers, i.e., pooling;
- 3) the auditing of milk handler records to assure compliance with order language; and
- 4) the publication of market information.

We will first look at what the laboratory does and how it interacts with the industry. The other three areas, Pool, Audit and Market Information, will be left for later. However, all of the functions are focused on determining the market value of the milk.



The primary function of the MA laboratory is to test for and verify tests of milk components and sometimes work with the industry to verify volumes. The verification of component tests is critical as these tests can be the primary determinant of how much a dairy farmer is paid for their milk. The other measurement, bulk tank volume, can determine up to about half of a dairy farmer's income from milk in some markets. Some Administrators use specially equipped metering equipment to check the accuracy of measurement of farm tanks, others rely on the State agencies when it offers this type of program.

Accurate measurements of components and volume are also very important to the handler, as no business wants to pay for something that is not actually received.

Measurement and Testing



Determining the market value of milk begins on the farm. The milk in the bulk tank has a measurable volume. It also has a measurable component content. These components include: butterfat, protein and other solids which is a combination of Lactose and miscellaneous minerals. These two types of measurements of volume and component content are the first important factors in determining the value of milk that is sent to the market.

Understanding FO's



The MA Lab



The Market Administrator's laboratory monitors the testing of milk to assure that proper techniques and procedures are followed in the industry labs that test producer milk. Like the marketing channel of milk, the testing of milk for butterfat, protein and other solids is a finely tuned process that must happen quickly, efficiently and accurately. In most Federal orders, all but a small portion of a producer's pay check is dependent on the accuracy of the component tests of their milk.

Understanding FO's

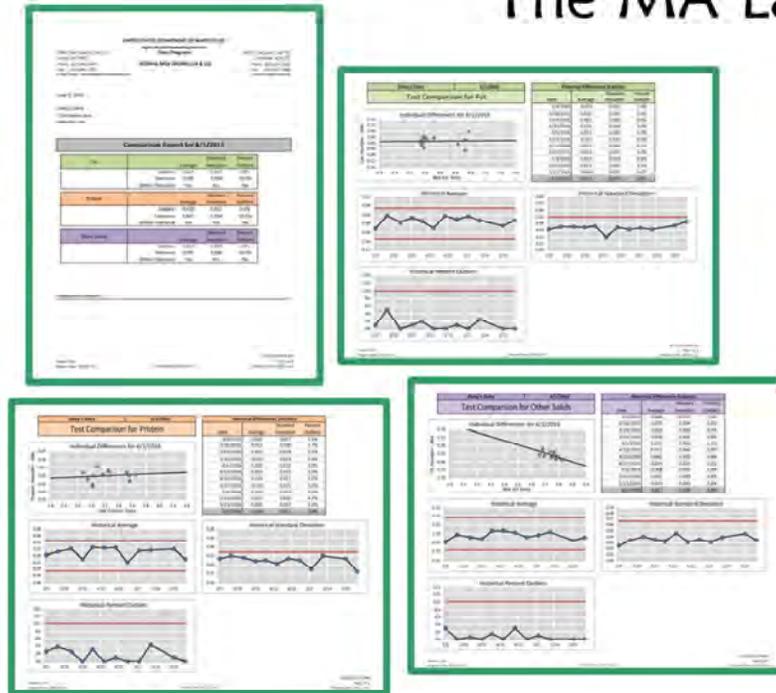
The MA Lab



For an accurate test of the components, care must be taken in the initial sampling of the bulk tank to the testing procedure in the laboratory. Proper procedures include: proper cooling of the milk, gentle agitation before sampling, keeping the samples cool but not letting them freeze in transport, and proper warming and agitation just before testing. Milk testing equipment is extremely sensitive so the MA lab consistently and constantly verifies the results with chemical analyses to adjust the calibration of the testing equipment.

Understanding FO's

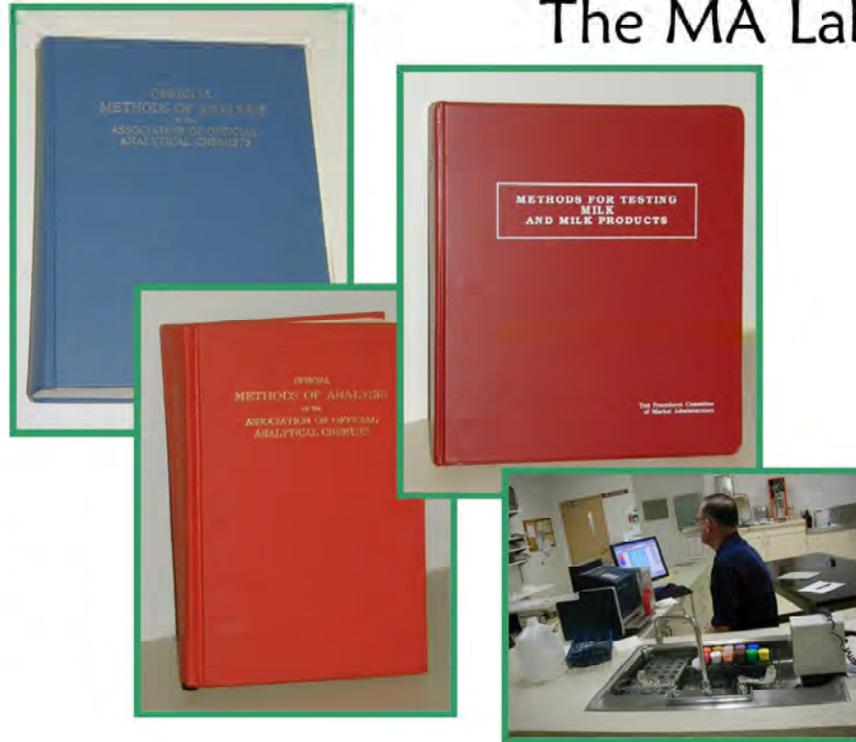
The MA Lab



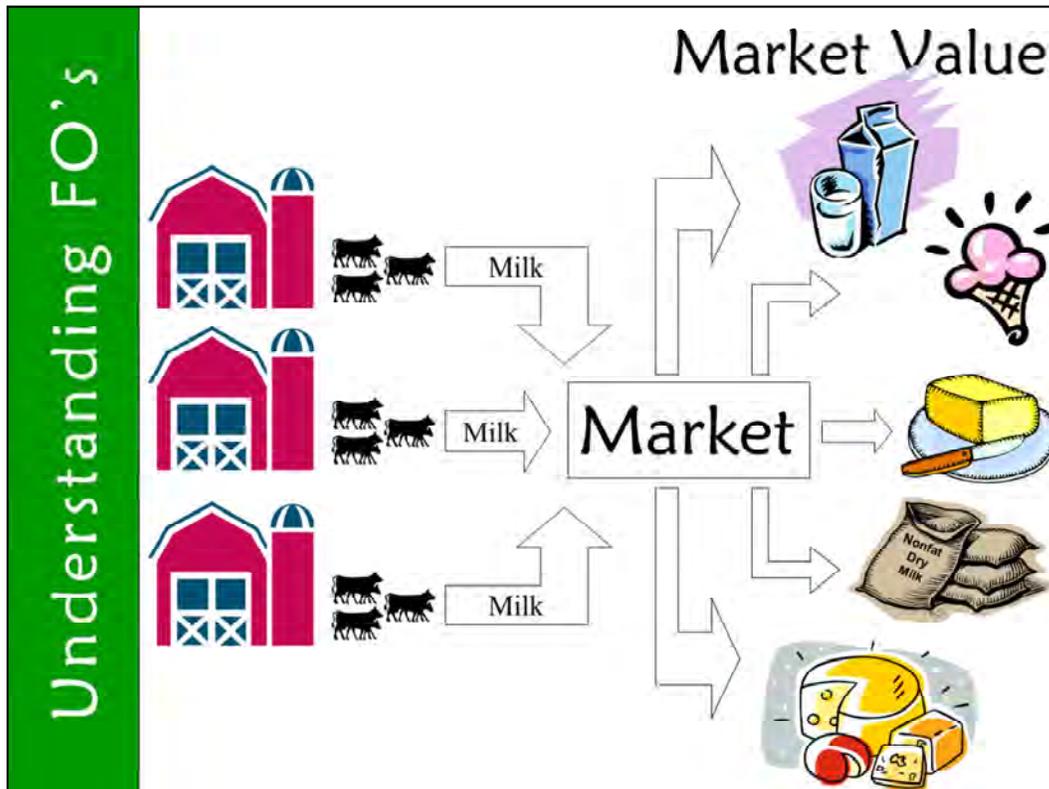
Each month the MA laboratory staff and handlers communicate on producer test results. When a handler's tests are out of tolerance with the MA tests, the Federal order can require the handler to change their tests to more accurate tests. When persistent problems in testing develop, the MA laboratory staff work with the industry to trouble shoot the problems and recommend adjustments in procedures and techniques.

Understanding FO's

The MA Lab



In addition to the normal lab work involved in testing milk, the MA lab also monitors and follows AOAC (Association of Official Analytical Chemists) methods and procedures. Most MA labs also cooperate in running identical samples and comparing results and providing calibration samples to industry labs. This cooperative activity among MA offices provides an even greater assurance of accuracy and consistency of milk testing of the milk pooled on Federal orders around the country.



But even after determining accurate component tests and volume measurements of milk in the dairy farmer's bulk tank . . . this milk still does not have definable economic value UNTIL it reaches the market place . . . and until the neighbor's milk reaches the market place . . . and his neighbor's . . . and his neighbor's – and on and on.

We must wait to learn the value of the milk – wait until the utilization for all milk related to a specific marketing area can be established.

Now is a good time to stop and define some terms used in Federal orders.

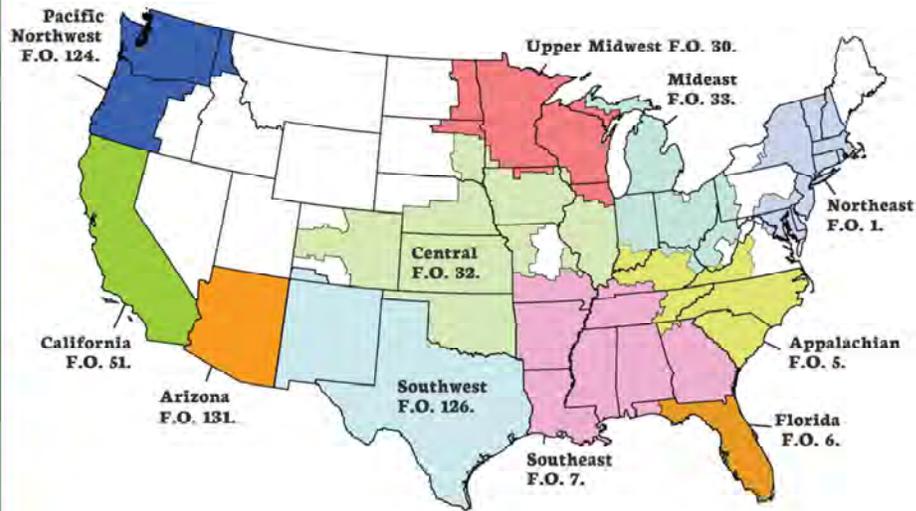
Definitions

- Marketing Area
 - Where a Handler's Sales Are Regulated

The first term that needs a definition is the marketing area. The marketing area is the geographic region within which a Federal order applies or where a milk handler is regulated.

Marketing Area

11 Federal Milk Marketing Order Areas



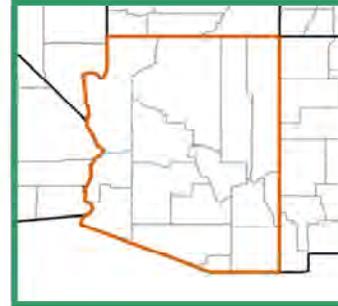
MARKETING AREAS are specific geographic areas where handlers compete for fluid milk sales. These are man-made geographic delineations for the purpose of regulation. It is not necessarily where dairy farmers are located.

Marketing Area

Pacific Northwest, FO 124



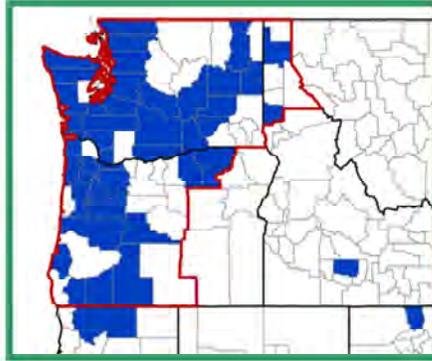
Arizona, FO 131



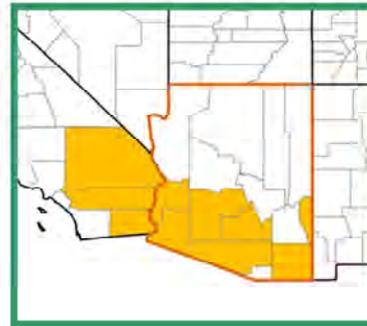
The area outlined in red is the marketing area for the Pacific Northwest Order. The area outlined in orange is the marketing area for the Arizona Order. The marketing area is where handlers are regulated. Federal order areas do not overlap.

Marketing Area vs Milkshed

Pacific Northwest, FO 124



Arizona, FO 131



The next term, MILKSHED, is where the dairy farmers are located who supply regulated handlers.

It is important to understand the distinction between market areas and milksheds. The counties shaded in blue and yellow are the “milk shed” for each of the two marketing areas and represent where the dairy farmers are located who supply handlers who are regulated under the Federal order. Milk Sheds can and do overlap in many areas – two neighbors may ship to handlers in two different Federal order areas.

Definitions

- Marketing Area
 - Where a Handler's Sales Are Regulated
- Handler
 - A Distributor or Processor of Milk in a Regulated Marketing Area

The next important concept after the marketing area is the HANDLER. A handler is anyone who purchases Grade A milk from dairy farmers or other handlers.

They may process and distribute fluid milk products, or may manufacture milk into yogurt, ice cream, cheese, butter, nonfat dry milk or other dairy products. Cooperative Associations which market milk for their members may be handlers for a portion or all of a member's milk picked up at the farm. Co-ops may also operate plants.

Definitions

- Marketing Area
 - Where a Handler's Sales Are Regulated
- Handler
 - A Distributor or Processor of Milk in a Regulated Marketing Area
- Regulation
 - In the Marketing Area Where They Qualify for Full or Partial Regulation

The next definition after the marketing area and the handler is regulation. Handlers are regulated in the marketing area where they qualify for full or partial regulation. If a plant has sales into a marketing area and meets certain criteria its milk sales can be fully or partially regulated. Typically a plant is fully regulated in the marketing area where they distribute the most milk. There are exceptions to this rule but in general it holds true. A partially regulated plant has sales into a marketing area but does not meet certain criteria.

Definitions

- Marketing Area
 - Where a Handler's Sales Are Regulated
- Handler
 - A Distributor or Processor of Milk in a Regulated Marketing Area
- Regulated in
 - In the Marketing Area Where They Distribute the Most Milk

No Tax Dollars

And it is also the handler who actually pays the bill for the administration of the operations of the Federal Order Program in that specific marketing area. This is unique among government programs in that no tax dollars are involved in its operation and where the industry pays an administrative fee for the operation of the Federal order and its related duties.

- Classified Pricing
 - Product Price Formulas
 - Component Prices

The next term which must be defined is CLASSIFIED PRICING. Classified pricing is based on the idea a commodity has different values depending on how it may be sold, that is, sold into the fresh market or converted into a form that is more storable. The Federal order system currently groups milk used to manufacture different products into 4 classes. Each class has its own price, thus we use the term “Classified Pricing”. Product price formulas and component prices, which will be described after the system of Classes is defined, are the current way Federal orders calculate the value of milk used in different commodities and classes.

Classified Pricing

- Class I
 - fluid milk products meant to be beverages



“Class I” generally includes all fluid milk that is meant to be consumed as a beverage. This includes Whole Milk, 2%, 1%, Skim, etc., that you would find in the grocery in cartons and plastic jugs.

Milk which is delivered to the market in excess of the demand for Class I, goes into manufacturing and is designated as being used in three separate and lower priced Classes, i.e., II, III and IV.

Classified Pricing

- Class II
 - Soft Products, typically spoonable



Class II generally includes soft dairy products that are typically spoonable. Examples of Class II products are ice cream, cottage cheese, and yogurt. Class II products also include products with relatively high butterfat tests like whipping cream and half and half.

Classified Pricing

- Class III
 - Hard Products, Spreadable and hard Cheeses
- Class IV
 - Hard Products, Nonfat dry milk & butter



Class III and IV are generally referred to as the hard product categories as they include dairy products that are storable and have a longer shelf life than most other dairy products.

Class III represents milk used in the many types of cheese.

Class IV represents milk converted into butter, nonfat dry milk or other dried products.

Product Price Formula

- Product Price Formula
 - Unit of Commodity
 - Less the Cost of Making the Unit of Commodity (or a Make-Allowance)
 - Multiplied by a factor reflecting the relationship between the weight of the ingredients and the weight of the finished product (or a yield factor)
- Result: A valuation of the ingredient based on the value of the finished product, or a component price

Now let's switch gears and get an understanding of a product price formula, mentioned earlier. A product price formula is a fairly simple concept used to calculate the value of an ingredient in a finished product.

An ingredient's value is determined by taking the value of a unit of commodity like cheese or nonfat dry milk, subtracting the cost of making a unit of commodity, often called a make-allowance, and then multiplying the result by a yield factor relating units of ingredients to the final finished commodity. The result represents the value of an ingredient, say butterfat, in a finished product, say butter. The value of butterfat is a component price.

Product Price Formulas

- Basic Building Blocks
 - AMS Surveys prices received for:
 - Cheddar Cheese
 - Dry Whey
 - Butter
 - Nonfat Dry Milk



Now let's review the concept of product price formulas and see how they are related to classified pricing.

The basic building blocks for the Federal order classified pricing system are the prices received by wholesalers for cheese, butter, nonfat dry milk and whey. To determine the volumes and prices of these hard products, the Agricultural Marketing Service (or AMS) surveys wholesalers each week to determine the total volume sold and the average price received for that volume. It is these volumes of product and their values that are fed into product price formulas.

Classified Pricing

- Product Price Formulas are used to generate the value of milk components

$$\begin{aligned}
 & +\text{ROUND}((\text{WH}-0.1991)*1.03,4) \\
 & +\text{ROUND}((\text{CH}-0.2003)*1.383)+\text{ROUND}((\text{BT}-0.1715)*1.211,4) \\
 & +\text{ROUND}((\text{NF}-0.1678)*0.99,4) \\
 & +\text{ROUND}(((\text{CH}-0.2003)*1.572)-\text{BT}*0.9)*1.17,4)
 \end{aligned}$$

Butterfat Protein Solids-Not-Fat
 Other Solids

The product price formulas equate the value of the components in the hard products to their value in raw milk from the farm. Each formula determines the value of the components in raw milk when it is used in different hard products.

Formulas were last updated in October 2008.

Product Price Formula

	1 Lb. Butter	
AMS Survey		= \$1.2000
Less the Make-Allowance		- <u>\$0.1715</u>
		<u>\$1.0285</u>
Multiplied by Yield Factor		x <u>1.211</u>
	1 Lb. Butterfat	= <u>\$1.2455</u>

A good example of this concept is the relationship between the market value of a pound of butter and the value of the butterfat in the butter.

The process begins with the monthly average AMS survey price for a pound of wholesale butter.

From the butter price the cost of manufacturing a pound of butter is subtracted.

Lastly, the resulting value is multiplied by the yield factor. Since butter is about 80% butterfat, a pound of butterfat yields about 1.211 pounds of butter. Another way to see it is that butter is about 80% butterfat, the rest being moisture and small amounts of protein, other solids and salt.

The end result is that the value of one pound of butterfat, as it relates to butter, is \$1.2455 per pound.

Classified Pricing

- Component Prices are the building blocks of the Class Prices

Class III

Components: Butterfat, Protein & Other Solids

Commodities: Butter, Cheese & Dried Whey



Class IV

Components: Butterfat & Solids-Not-Fat

Commodities: Butter & Nonfat Dry Milk



Each manufacturing class price (Class III and IV) is a function of the component values important to the dairy products that are priced in the Class.

Class III component values for Butterfat, Protein and Other Solids are determined by the value of Butter, Cheese and Dried Whey

Class IV component values for Butterfat and Solids-Not-Fat are determined by the value of Butter and Nonfat Dry Milk

Classified Pricing

- Class I & II Prices
 - ADVANCED AMS Surveys
 - Class I
 - The “average of” the Class III/IV calculated using ADVANCED AMS Surveys (Plus \$0.74 for skim only)
 - Plus a differential (e.g. \$1.90)
 - Class II Skim
 - ADVANCED Class IV
 - Plus \$0.70

Per Cwt.

The setting of Class I and II prices is somewhat more complicated than we want to go onto here as they are not derived from the direct value of fluid or soft dairy products in the market place and involve some mental gymnastics. Suffice it to say, they are influenced across the year by the changing values of the dairy products represented in Class III and IV and change with supply and demand.

For the price of Class I & II dairy products, Dairy Programs of the USDA in Washington, DC, looks at the two weeks of AMS survey data of cheese, whey, butter and NFDM sales, available before the 24th of the month and uses this information to set the Class I price in the coming month.

The Class I price is a function of the “average of” the Class III or Class IV skim prices as determined by AMS’s “advanced surveys”, plus \$0.74, plus a Class I differential. The Class I butterfat is simply the advanced Class III/IV butterfat price plus a Class I differential. Two examples of a Class I differential are: \$1.90 for King County, Washington; and \$2.35 for Maricopa County, Arizona. There is a Class I differential for each county in each of the 48 states of the continental US. The “average of plus \$0.74” replaced the “higher of”, effective with prices announced on April 17th for milk pooled for May 2019.

The Class II price for skim is set in a similar way but is a function of the advanced Class IV price which is based on the value of nonfat dry milk.

All Class prices, I, II, III and IV, are announced on a per hundredweight basis. The announcement dates for what Federal orders call “Advanced Prices” and “Final Prices” will be discussed later in the context of the Market Administrator’s monthly cycle.

Understanding FO's

Farm Bulk Tank



Classified Pricing

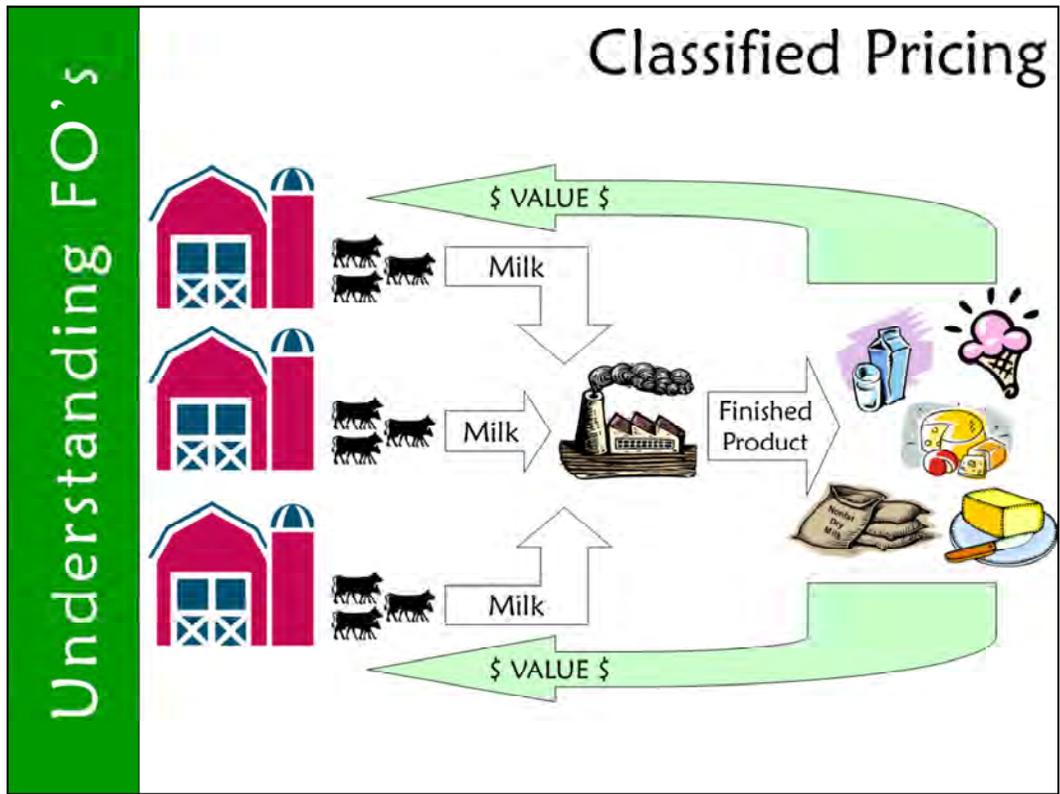
Classified
Value of
Milk

DEFINES

Value of
storable, hard
products



The value of milk in the various classes is a function of its value in the wholesale value of the hard products, that is the storable dairy products represented by cheese, butter and nonfat dry milk. As the prices of hard products rise and fall according to supply and demand, so too do the Class prices. As has been indicated, Class I and II prices are a function of Class III and IV prices. In the event too much milk is being produced, prices fall; and when milk is short or relatively scarce relative to demand, prices rise.



Looking back at the diagram of the milk flow, it is the handlers' utilization of the milk in the various classes that gives the value to the milk in the farms' bulk tanks.

Definitions

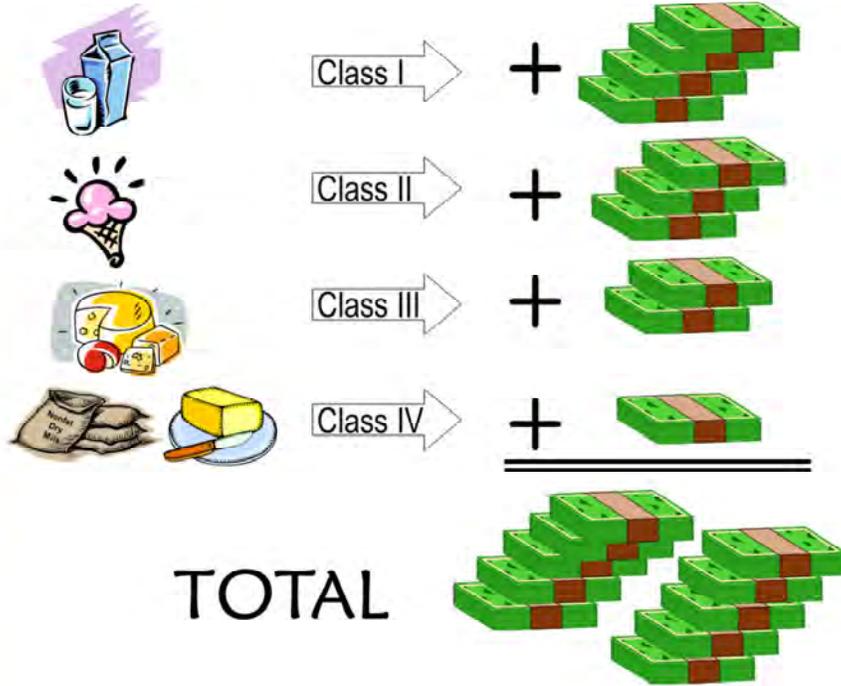
- Federal Order Pool
 - Brings together the value of all milk pooled on the Federal Order



The understanding of one other vital concept is necessary to understand the Federal order Program and that is the FEDERAL ORDER POOL. The pool brings together the classified value of all milk pooled on the Federal order.

Understanding FO's

Federal Order Pool



In pooling, the value of the uses of all handlers in a single market area are totaled for all classifications of milk for a specific month during the year.

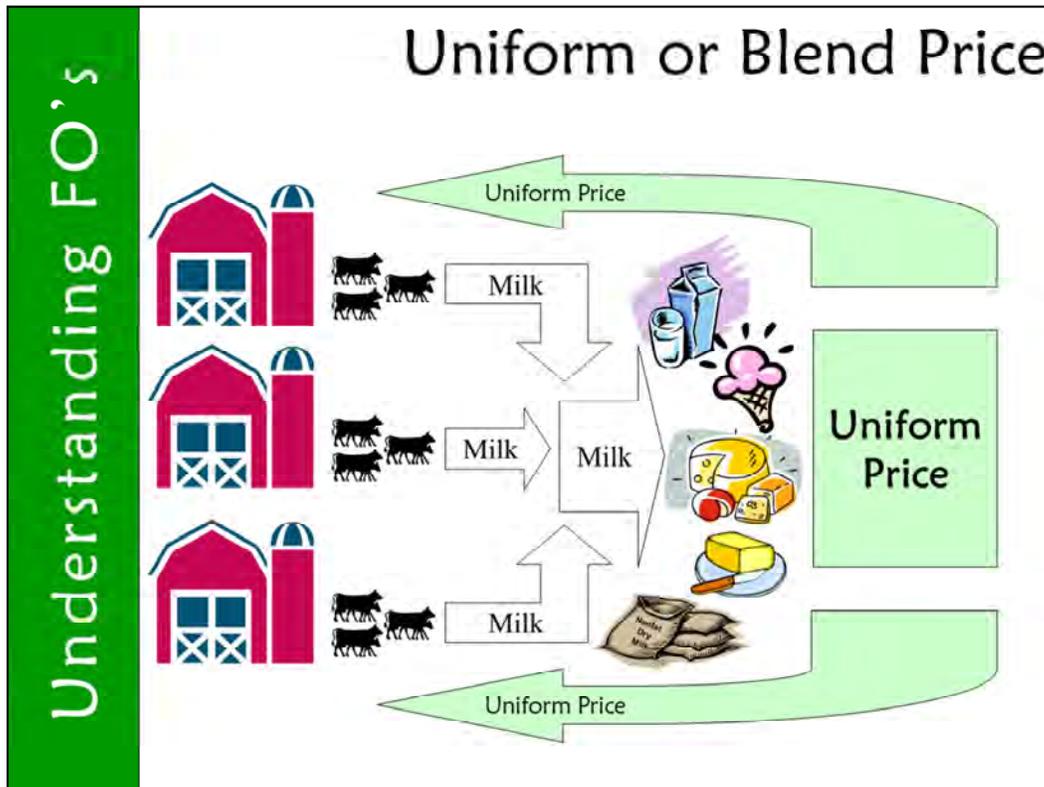
Definitions

- Uniform Price
 - Mathematical weighted average

$$\text{Dollar Value of All Classes Of Utilization} \div \text{Pounds of Producer Milk Receipts} = \text{Uniform Price}$$

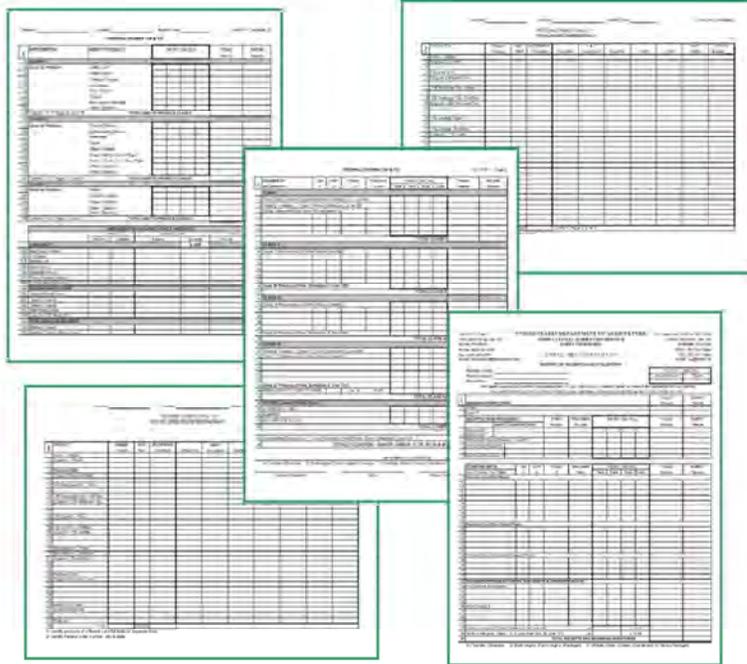
Per Cwt.

Once the total value of the pool is known, then the Uniform price can be calculated. A uniform price is a mathematical weighted average, sometimes referred to as a BLEND PRICE. The dollar value of all classes of utilization, divided by the pounds of producer milk pooled on the order is the Uniform price. The Uniform price, like the class prices, is calculated to reflect the value of one hundred pounds of milk or per hundredweight.

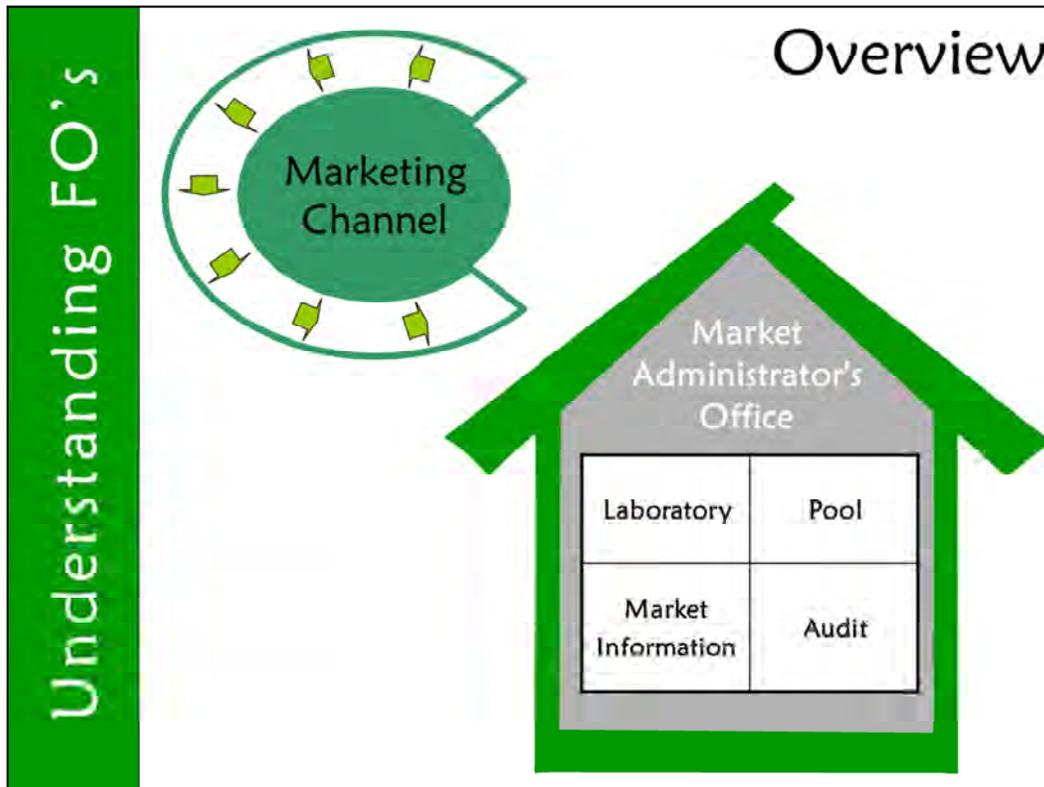


The Uniform price allocates to each producer who supplies the market their share of the utilization of the market...a portion of Class I, Class II, Class III and Class IV. The uniform price is a primary determinant of the milk check paid to each producer. For component orders, like the Pacific Northwest Order, the Uniform price is a function the value of a producers components, plus a Producer Price Differential. For a skim/butterfat order, like the Arizona-Las Vegas Order, the Uniform price is a function of uniform prices for skim milk and butterfat. While these two types of Uniform pricing appear very different, mathematically they are very similar.

Market Administrator

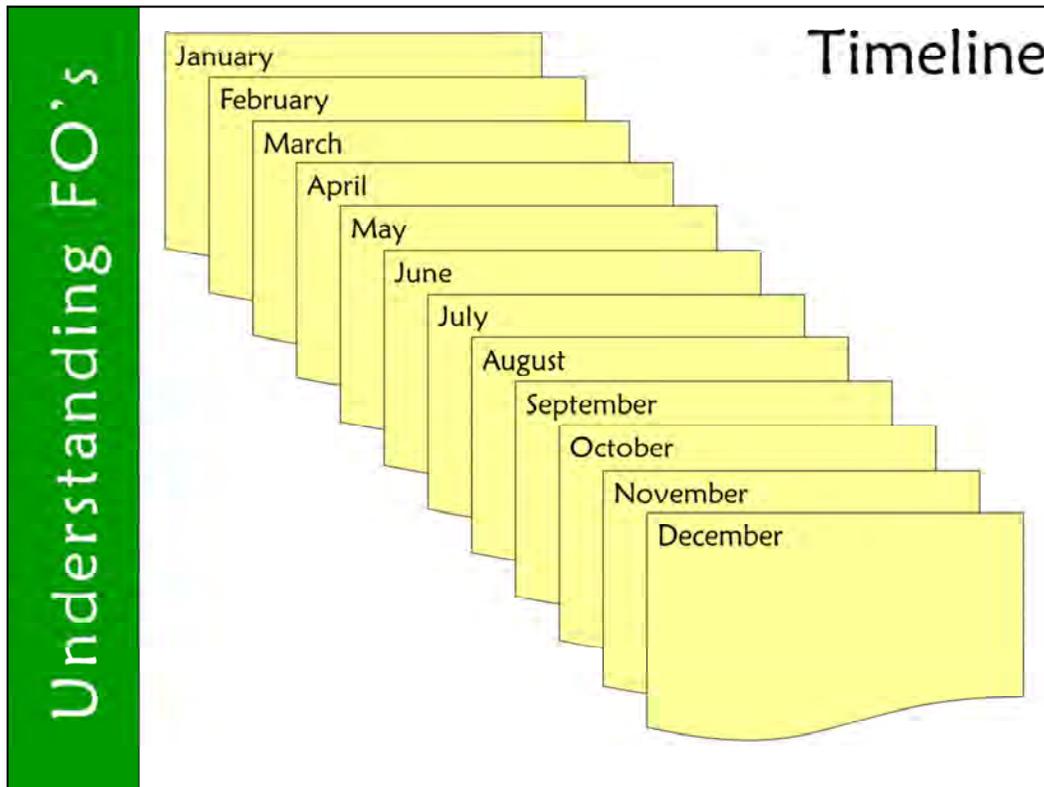


Since utilization and class prices determine the uniform price – it is important that utilization reports from handlers are accurate. It is the responsibility of the Market Administrator's office to make sure that all producers are paid for the way milk was actually used. Handler Reports communicate what milk is received and how it is used so an accurate price can be calculated.

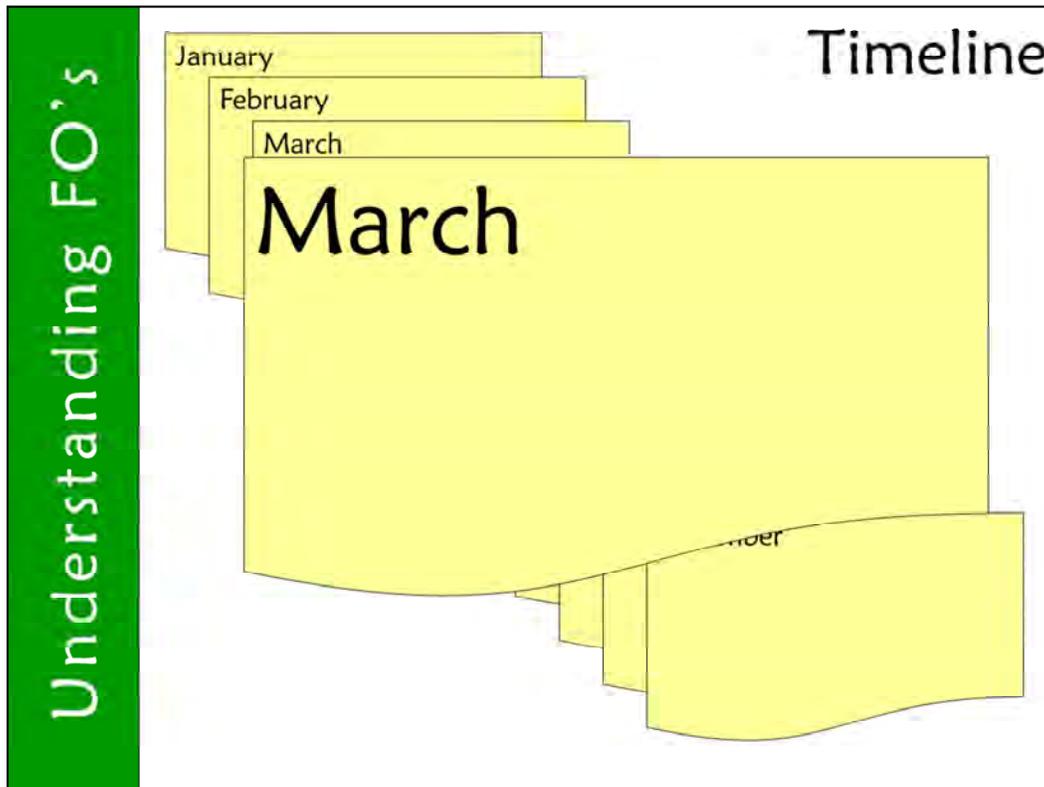


So far we've seen a brief overview of how milk moves through its marketing channel, looked at how the laboratory interacts with the dairy industry and defined many of the terms used in the jargon of Federal orders and introduced the concept of the Pool. . . Now, let's follow the Market Administrator's office through a typical month and see how many of the MA Office activities relate to the dairy industry across a month.

In reality there are some variations in dates from one Federal order to another but in principle, the following will occur in each order area.



Each calendar month constitutes an accounting period, ...but as you will soon see – no single month can be looked at in isolation because the real value of the milk is determined by reported utilization and class prices that change from month to month with supply and demand.



For our example, we will look at the month of March. The dates that will be shown are generally applicable. Some dates can be different due to how the calendar falls and holidays. Be prepared for some mental gymnastics, though, as even in a normal month price announcements reflect previous months' activities and coming months' activities. Most functions of the Market Administrator's office, however, occur one month after the delivery period in question.

March 5th

AMS announces survey prices for commodities from February

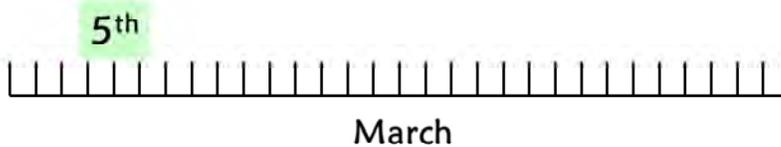
5th



March

On March 5th – All of the weekly AMS surveys for the preceding month are now available. From these surveys, a monthly weighted average price can be calculated for cheese, butter, nonfat dry milk and whey.

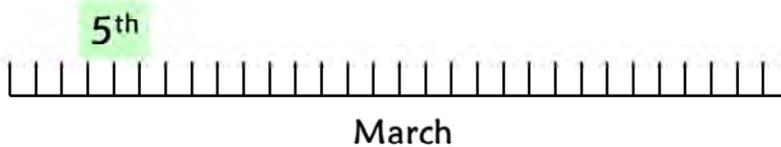
March 5th
Dairy Programs
announces Class Prices for
February



Also on March 5th – USDA's Dairy Programs calculates and announces the Class III and IV prices and the Class II butterfat price for February using the AMS survey prices.

The handlers already know the Class I price for March as it was announced on February 20 . . . remember that the March milk Class I price and the Class II skim prices are announced in advance.

March 5th
MA Publishes Final Class
Announcement for
February



Also on March 5th, moments after Dairy Programs releases its announcement, each Market Administrator, in turn, publishes a Final price announcement and handlers receive a complete picture of the minimum price that must be paid for milk they used in February.

All of this information – The Class I, II, III and IV prices are communicated via e-mail, mail, fax, to all handlers, co-ops, non-members and any other interested parties. This information is also quickly posted to the internet for easy access from wherever an interested person may find themselves.

March 9th
Handler reports of receipts and utilizations are due



9th



March

On March 9th, the handlers' reports of receipts and utilizations are due in the Market Administrator's office. This date does not change. With this information in hand, the Pool, one of the primary functions of the Market Administrator's office, begins.

March 9th - 14th
Pool Activities take place



9th - 14th



March

Pool activities are crucial in getting the "CORRECT PRICE" and a lot of attention is paid to the details. Handler equity across the year is determined by announcing the correct price each month and handler equity is one of the primary focuses of the Federal order and the Market Administrator's office. During pool, MA staff are busy examining reports for accuracy and processing each handler's information according to the complicated instructions of the Federal order.

March 14th
Uniform Price announced

14th

March

Today, an announcement is made of the February uniform price – this is the minimum value that will be paid to producers for February milk. This date, like the deadline for reporting receipts and utilizations, does not change. The 14th is a legal deadline and the price must be announced on or before this date. The dairy industry and dairy farmers rely on prices being announced on time and payments being made quickly and consistently. And while the announcement of the Uniform price is a key event, it is really only one intermediary event within a larger, more complex process.

March 14th-16th
Handlers take Uniform price and complete producer payrolls

14-16th



March

The announcement of the Uniform price begins the payroll process. During the next two days, handlers take the prices from the February Uniform price announcement and finish calculating each dairy farmer's pay check.

March 14th-16th
Certain Handlers pay
into Producer Settlement
Fund

14-16th

March

A question might be asked at this point: If a handler has a classified value of uses that is less than its value at the Uniform price, where does the difference in value come from? The answer is "The Producer Settlement Fund." The Producer Settlement Fund acts as a clearing house that receives monies from handlers whose classified value of uses is greater than the Uniform value and pays monies out to handlers whose classified value is less than the Uniform value. In the end, each handler has sufficient money to pay its dairy farmers the Uniform price. Payments into the Producer Settlement Fund occur between the 14th and the 16th.

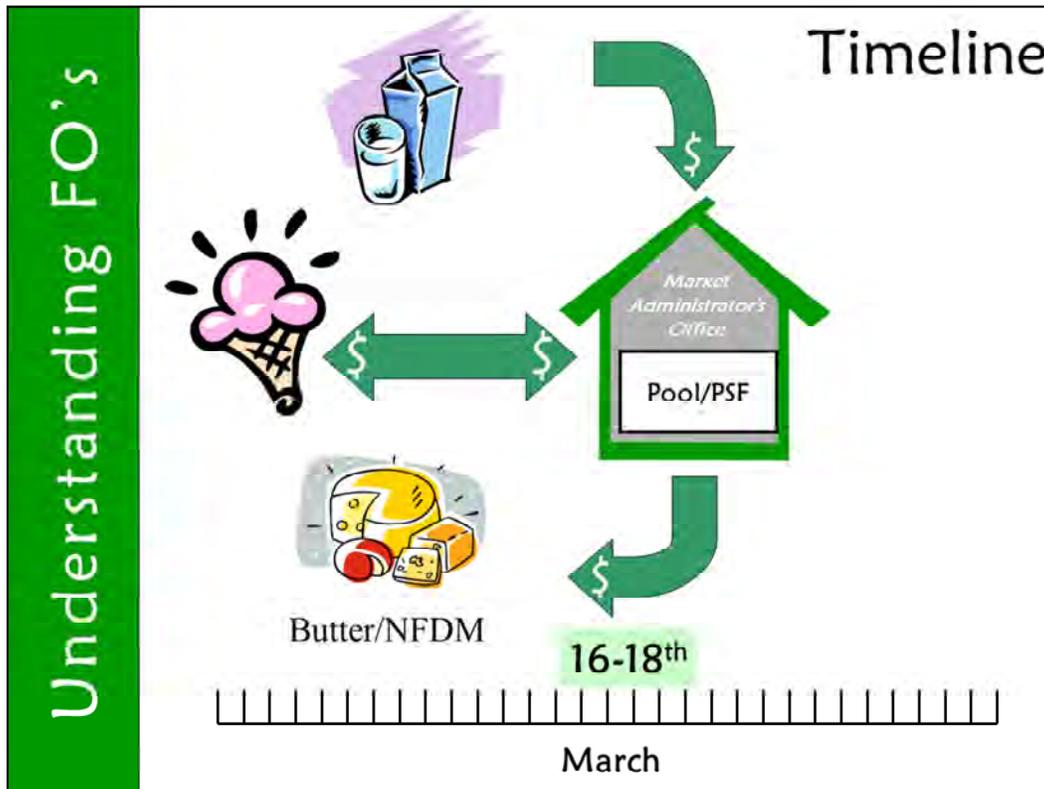
March 16th-18th
 Producer Settlement Fund
 transactions

16-18th

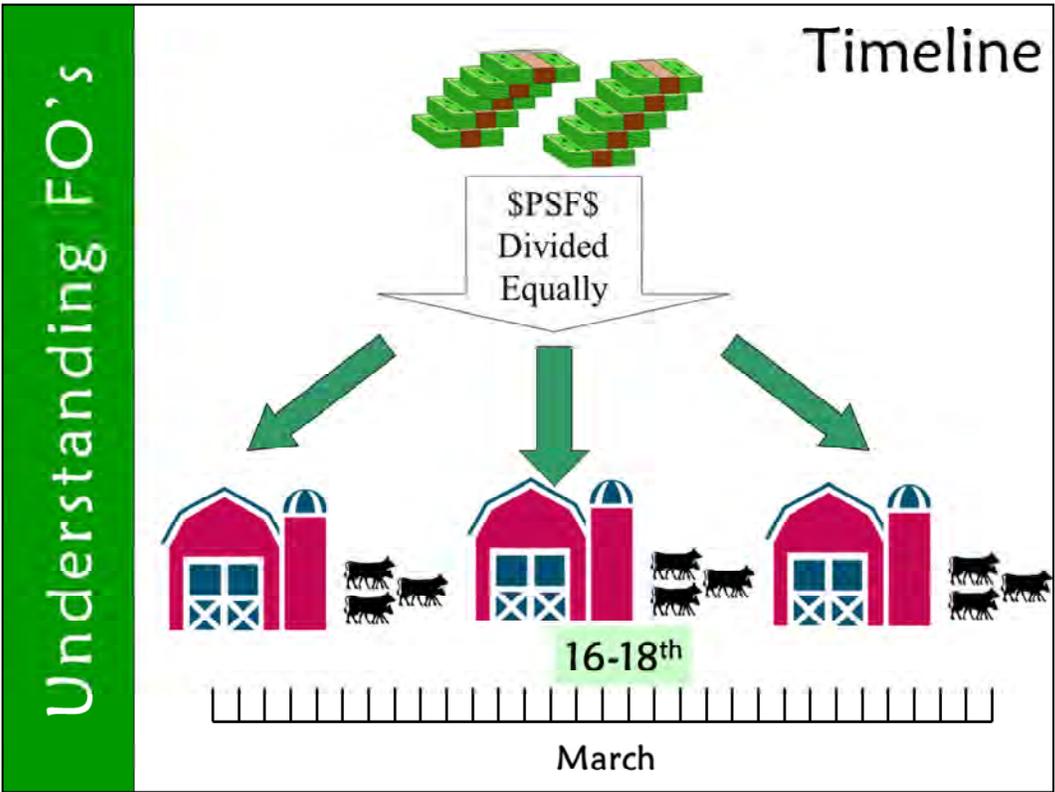


March

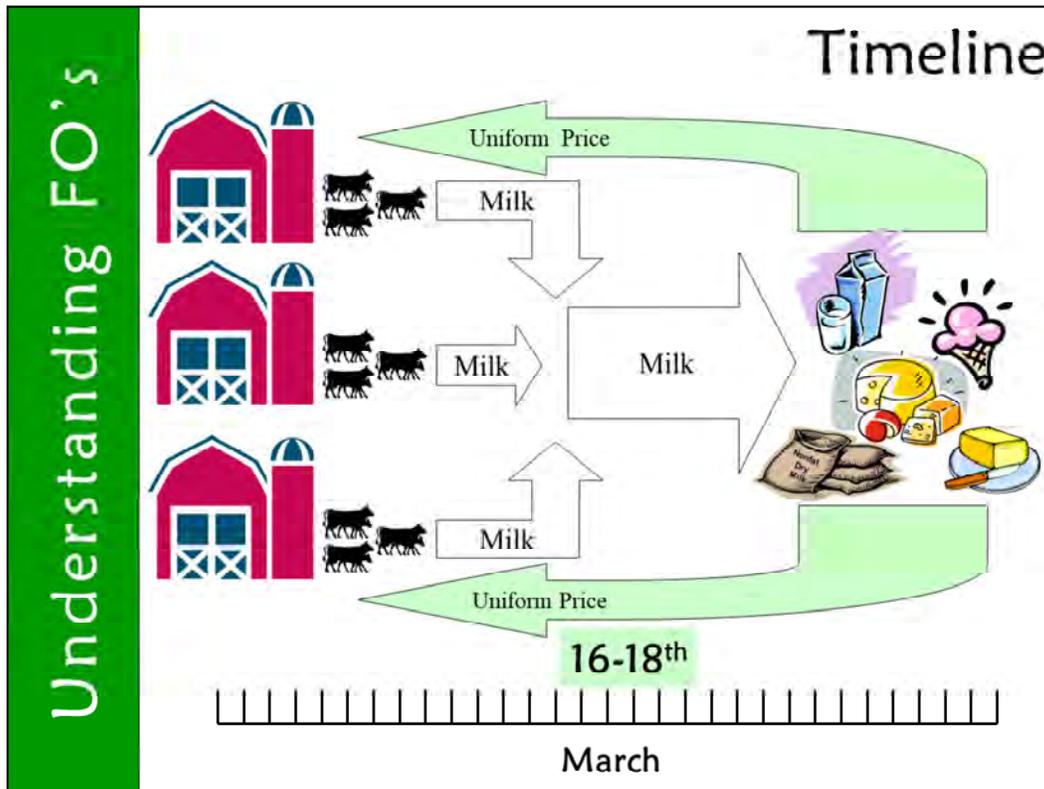
The settlement process continues over the next two days. After handlers with obligations to the pool have paid their monies into the Producer Settlement Fund, monies are paid out to the other handlers whose value of milk is less than the Uniform value. Again, after all payments are made into and out of the Producer Settlement Fund, all handlers have the Uniform value to pass back to the dairy farmers and cooperatives from whom the handlers received their milk supply. Also included in these transactions are assessments to cover administrative costs and any marketing service assessments to fund the Market Administrator's office operations.



To describe the Producer Settlement Fund or PSF activity differently, the PSF transactions perform a cross subsidization among handlers with the Uniform price acting as a bench mark. High valued utilization handlers pay monies in and low valued utilization handlers draw monies out. The MA office serves as clearing house for this process and, in the end, each handler is able to pay the uniform price to its producers or the cooperative from which they receive their milk supply.



The Producer Settlement Fund enables all handlers to pay the Uniform price to all producers and cooperatives from whom they have purchased milk . . .



Thus, the producer supplying the handler who sells milk for uses in manufactured products receives the same uniform price as the producer supplying the handler who is engaged in fluid bottling . . . This is pooling at work.

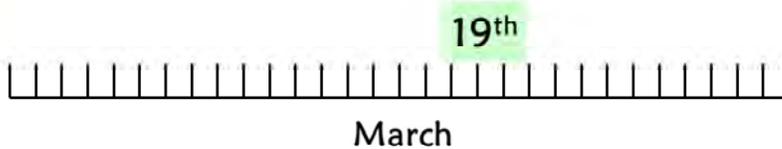
March 17th
Final Payment to
Cooperatives

17th

March

The next important day, which somewhat overlaps the Producer Settlement Fund transactions, is payday for cooperatives as each receives final payment for its February member milk delivered to regulated handlers based on the Uniform price. And approximately two days later, cooperatives turn around and pay their member producers.

March 19th
Final Payment to
producers



Today is payday for producers, both nonmembers and members of cooperatives, as each receives final payment for their February milk based on the uniform price. The final payment consists of the value of the producers milk at the Uniform price, less the value of the partial payment which will be discussed later. Producers can also receive premiums for quality, volume, and/or unique component characteristics such as high protein, butterfat, etc. But the Uniform price is the minimum price that the Federal order allows to be paid for Grade A milk pooled on the Federal order.

March 19th

Class I Skim/BF & Class II
Skim Prices Announced
for April

19th



March

Today is also the day Class I prices for skim and butterfat and the Class II skim prices are announced for April, the coming month. This is commonly called the “Advanced Price Announcement”. While the exact value of milk for producers is not known until after the milk has been produced and processed, Class I handlers know the cost of milk used in beverage milk before it comes off the farm and put into packages for the consumer.

March 20th

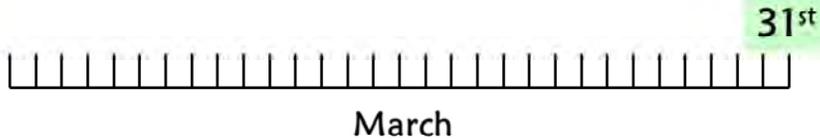
Producer payrolls are due
in MA Office

20th

March

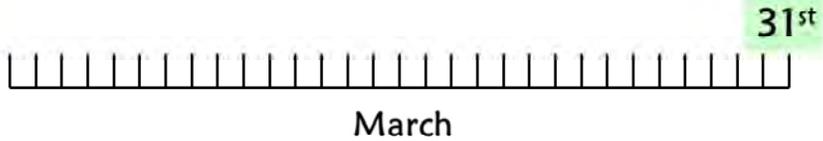
After producers are paid, handlers then report their producer payrolls to the MA Office today. Additional auditing is performed to insure that correct payments have been made to all producers and only eligible producers participated in the pool. The issue of producer qualification is sometimes dealt with during pool to make sure the information used in the pool is correct and results in a "Correct" price. Getting the price right is an important part of the pooling process and equity among handlers.

March 31st
Partial payment for
March 1-15 deliveries

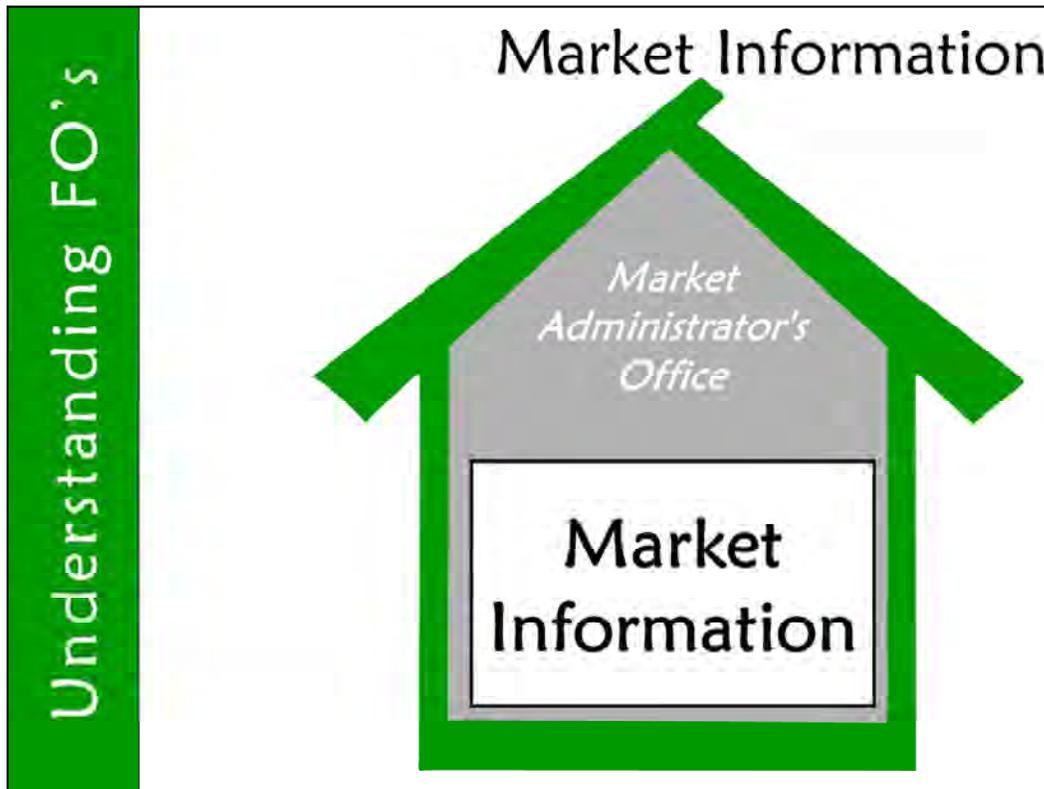


Today, a partial payment is due to the producers for those March 1 through 15th deliveries. The partial payment is at the lowest Class price of the previous month. In some orders, the partial payment is at some multiple of the lowest class price of the previous month, for example, 1.2. While most milk accounting is completed by the middle of the following month, producers' revenues from their milk production occur roughly every two weeks.

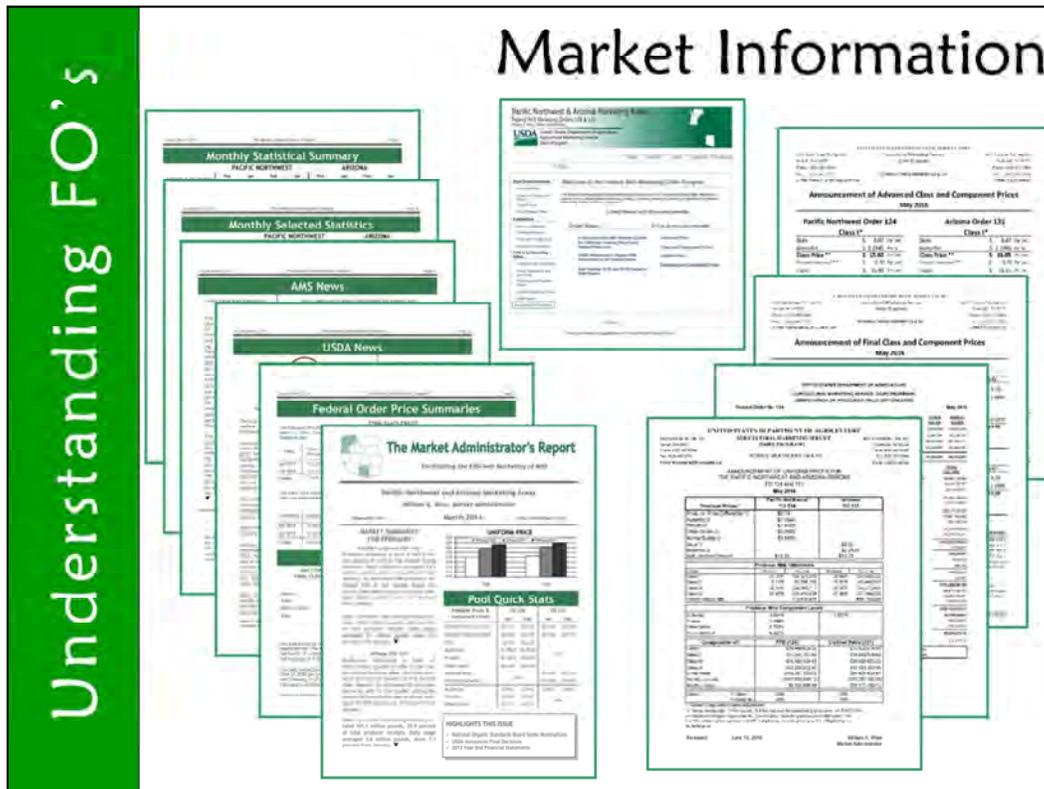
March 31st
End of the Monthly Cycle



And now, the March accounting period ends and on April 1, the cycle begins all over again. A similar monthly process takes place in each of the other marketing areas across the country. The dates for each event may differ between each Federal order due to regional needs and historic practices but the general sequence and timing is the same in all Federal orders.



There is another very important point to be made in regard to Federal orders. That point is that the Federal order program generates and makes possible the compilation of vitally important market information. Producers and handlers are not just interested in current prices.

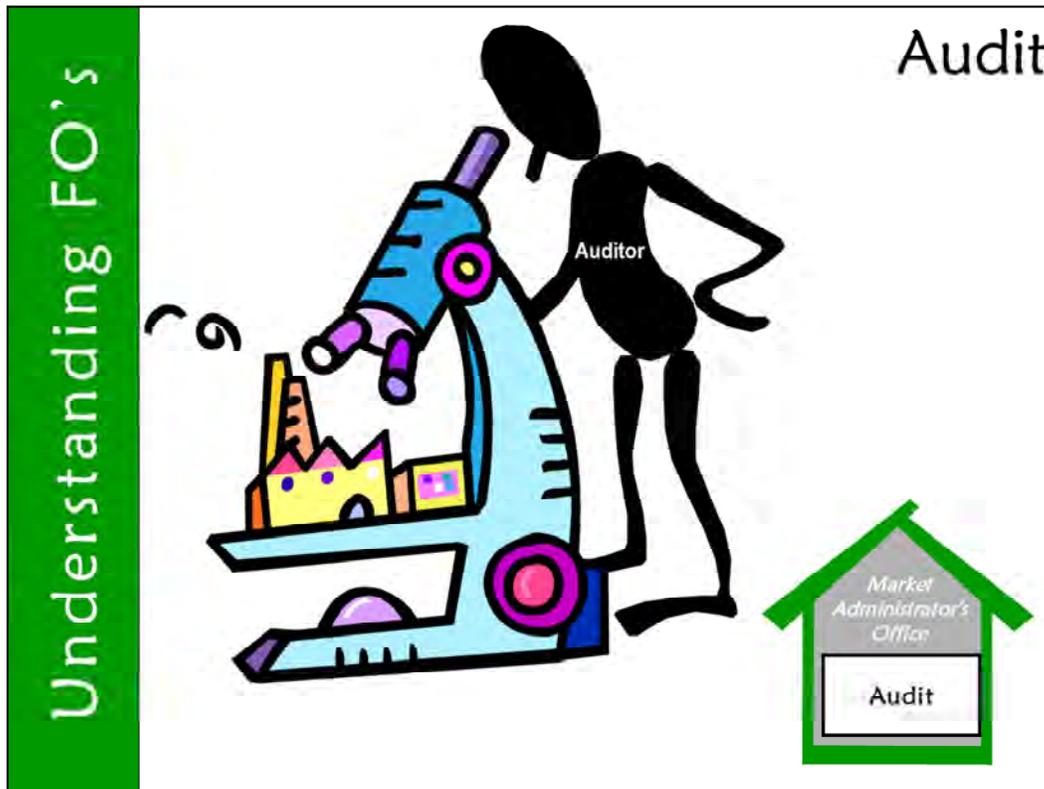


Producers and handlers have an interest in being kept up to date on trends in prices, supply and demand, and milk marketing through monthly publications, web sites and periodic studies.

Management decisions on the dairy farm and in the dairy plant depend on the outlook for the month and even years ahead. Because Market Administrators' offices currently regulate prices paid for about 70% of all Grade A milk marketed in the United States (excluding California & Montana which have State orders with market wide pools) and that regulation involves information on where milk is produced and how it is used, MA offices consistently and constantly supply this all important information in a format that preserves the confidentiality of each producer and handler.



Audit is the last critical function of the MA office. Similar to a company that hires a CPA firm to assure stock holders of the accuracy of their financial statements, the MA office analyzes each handler's business records and financial flows related to milk purchases and sales to make sure they are accurate.



In the months following the pool, the Market Administrator's office sends auditors to the handlers' plants to verify the information on receipts and utilization of milk reported at the time of pool. Proper milk accounting in the context of Federal orders can be crucial to a handler's bottom line. The auditors and other MA office personnel help handlers troubleshoot record-keeping and reporting issues and are often called upon to explain the complex process of how a handler's obligation comes to be. Handlers can use this knowledge to estimate and predict their handler's obligation to make their cash flow more predictable. MA personnel can also assist the handler in identifying areas where the handler can focus its accounting resources. But the primary function of the MA's audit responsibility is to assure that all handler's reports are accurate and correct so that the Federal order delivers on the goal of treating all handlers and producers equitably when it comes to the price of milk and while maintaining the confidentiality of all handlers records and information.



The Market Administrator's office exists to make the Federal order system work efficiently and effectively.

The Orders exist to assure that the market place will be adequately supplied in an orderly fashion.

The supply will be there because the program has proven itself to be a viable, effective and enforceable means of fair and equal compensation from the market place to the farm.

- The Milk Market Administrator's Service Unit No. 1 and JoNeil Beall & Associates (1981) whose original work is the basis for this presentation
- Northwest Dairy Association, Seattle, Washington
- Dairy farms in Washington
- Dairy plants in Washington and Oregon

July 2005

Updated: 2013, 2014, 2016, 2018, 2019, 2021, 2022.