

## Ration-all Milk Pricing

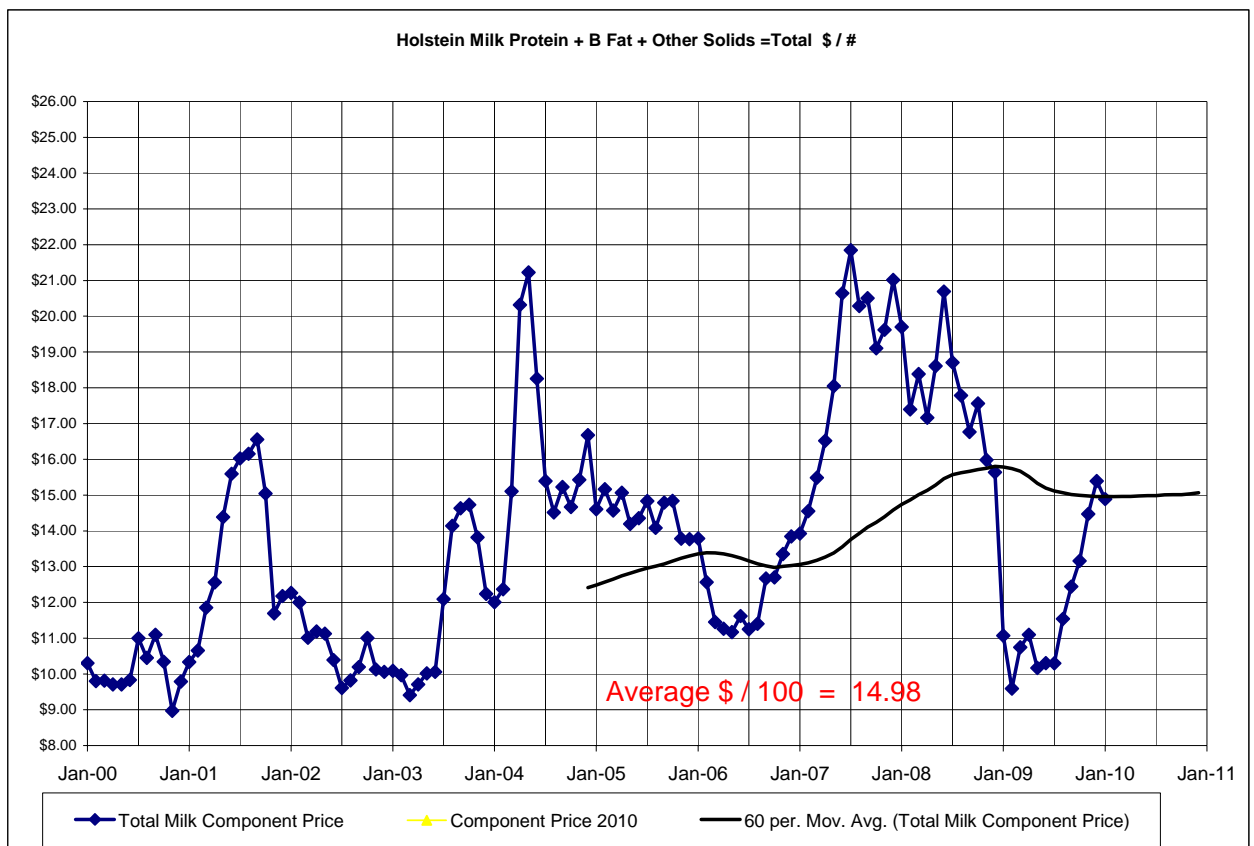
### Two Tiered 100% Market Based

- First Tier: Stabilizes Prices using 5 year market history.
  - Prices 90% of the dairy farm's 3 year average production base for each month at the 60 month moving average as projected 12 months prior.
  - Dairyman know base price 12 months in advance.
  - Production base is not a quota.
  - Production base + 5 year trend price = Stable Pricing for all.
  - 60 month moving average trend price stabilizes the price based on the pricing history of each federal order and its utilization.
  - Stabilizes cash flow to allow better long and short term business and management decisions.
  - Eliminates the need for price supports and subsidies.
  - Stabilizes the prices for the producers, processors, co-ops, retailers and the consumer.
  - Allows processors to enter long term contracts with the retailers and restaurants.
  - Stable base price allows dairyman to respond properly to market signals of excess supply vs. demand situations quickly.
  - Stable base price reduces over expansion incentives on the up side when the market signals excess demand vs. supply situations.
  - Stable base price mutes price swings at the processor, retailer and consumer level reducing chances of demand reduction, product substitutions and possibly import demand.
- Second Tier: Price Discovery with a bidding system in each Federal order.
  - Prices the milk produced over the production base with a bidding system in each federal order separately and openly.
  - Processors submit bids to market administrator up to the 20<sup>th</sup> of the month prior to the month being bid.
  - The administrator will arrange bids from high to low and then based on the amount of milk expected to be produced over the production base will then accepts bids that expect to be filled.

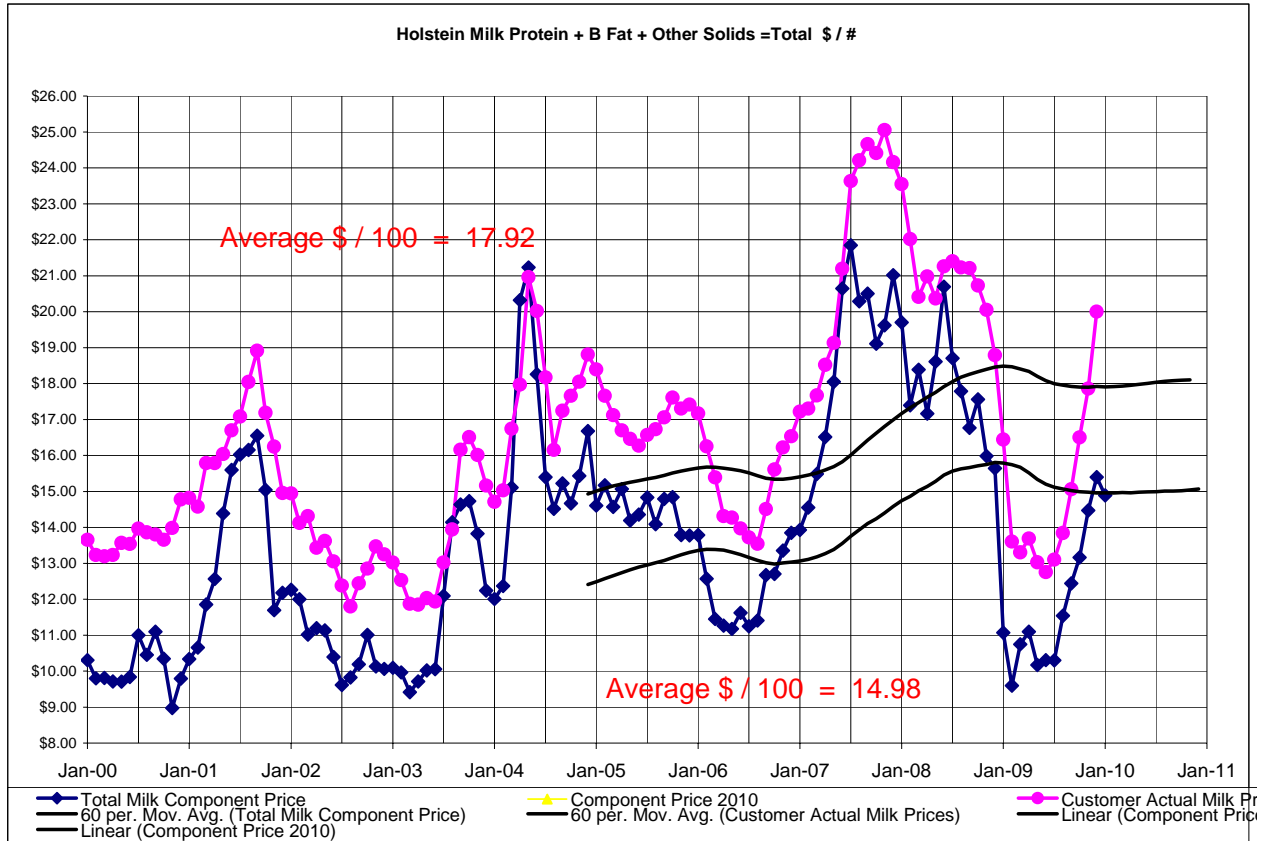
- Bids that expect to be filled will be averaged and that price will be announced by the 25<sup>th</sup> of the month prior to the month being bid for.
- More dairyman are likely to respond properly to market signals sent by the bid price by reducing production when the bid price is below trend price or expanding production when bid price is above trend price.
- If market signals of excess supply are ignored they will likely get stronger and longer lasting as the bid prices begin to affect the trend price for the future as each new month replaces the 60<sup>th</sup> month of the trend
- Bid prices can be above the trend line in some federal orders and below in other federal orders in the same month depending on the supply and demand situations in that area.
- The bidding system allows milk to go to the highest value products.
- Each bid is made using the price per pound of milk components and then a minimum class I premium for the milk to be used for class I purposes. Processors can bid more than the minimum class I premium but not less.
- Processors are free to bid for over base milk in other federal orders, but are responsible for the transportation cost from the receiving plant to their own plant. This allows milk to be produced in areas that are capable of producing milk for less only to the extent that it includes the cost to transport the milk to the processor and the consumer.
- This will over time provide the information processors need to determine where to build, expand or contract their processing plants in each area.
- At the end of each month a new blended average price is determined by a weighted average price of the milk that was produced in each federal order using the 90% base price and the accepted bid price that got filled.
- This new price is then entered into the chart and the 60<sup>th</sup> month is removed.
- A new 60 month moving average price is generated and projected out 12 months to determine the base milk price for the same month for the next year.
- If production is in excess of demand in any federal order to the point that there are not enough bids to cover the amount of milk that the market administrator expect to be produced, he can then start with the highest SCC herds and notify those herds that they can ship their 90% base level the next month, but not the over base milk.

- This allows the lowest quality milk to be eliminated before it can affect the price of all the milk and allows the dairyman time to fix the problem without losing his right to ship milk.
- With this scenario the bid price is likely to drop low enough to also reduce production quite rapidly.

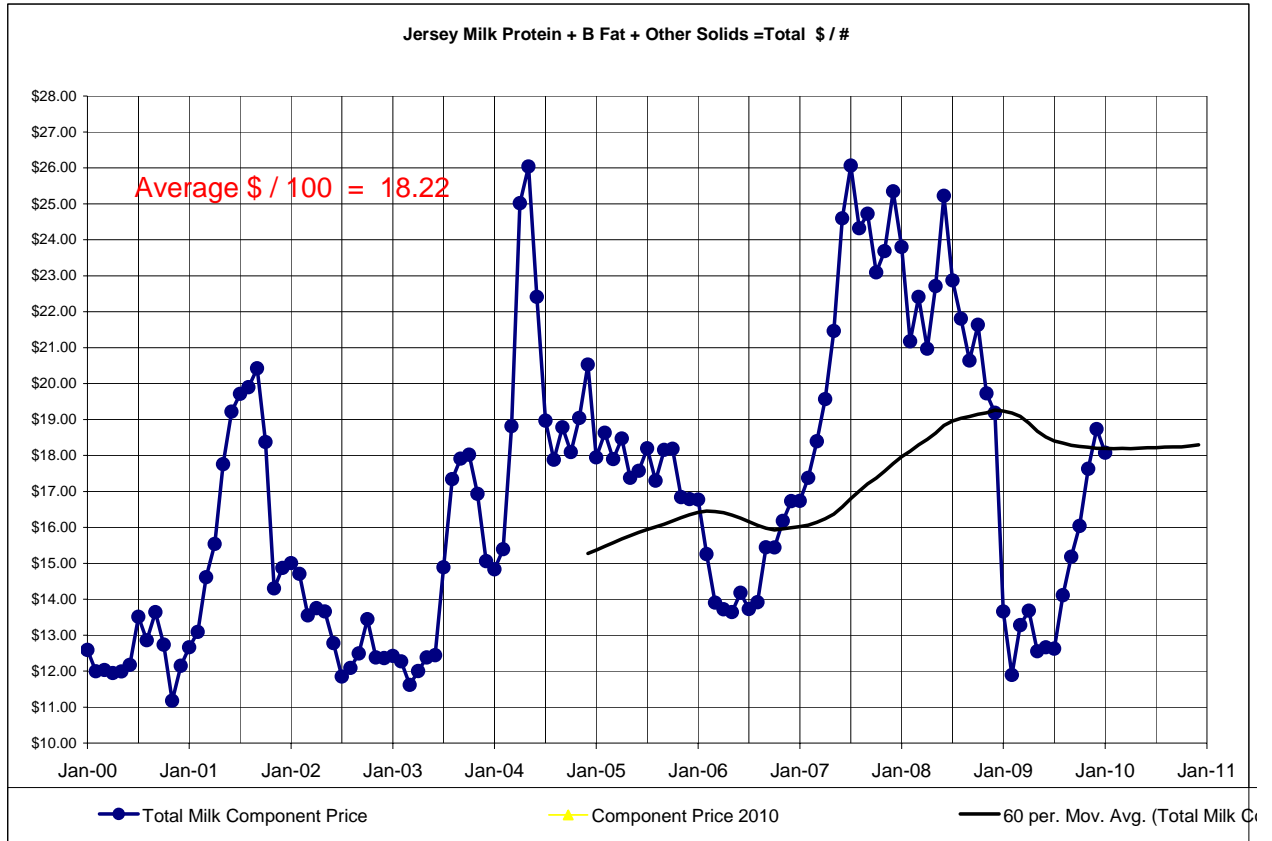
This chart plots the combined prices of milk protein, fat and other solids without any class I, processor or quality premiums and is the same in all federal orders. It is based on the actual prices paid for Holstein milk at 3.75% Fat, 3.0% Protein and 5.75% other solids. The blue line is the actual prices and the black line is the 60 month moving average projected out 12 months to form the 90% base price.



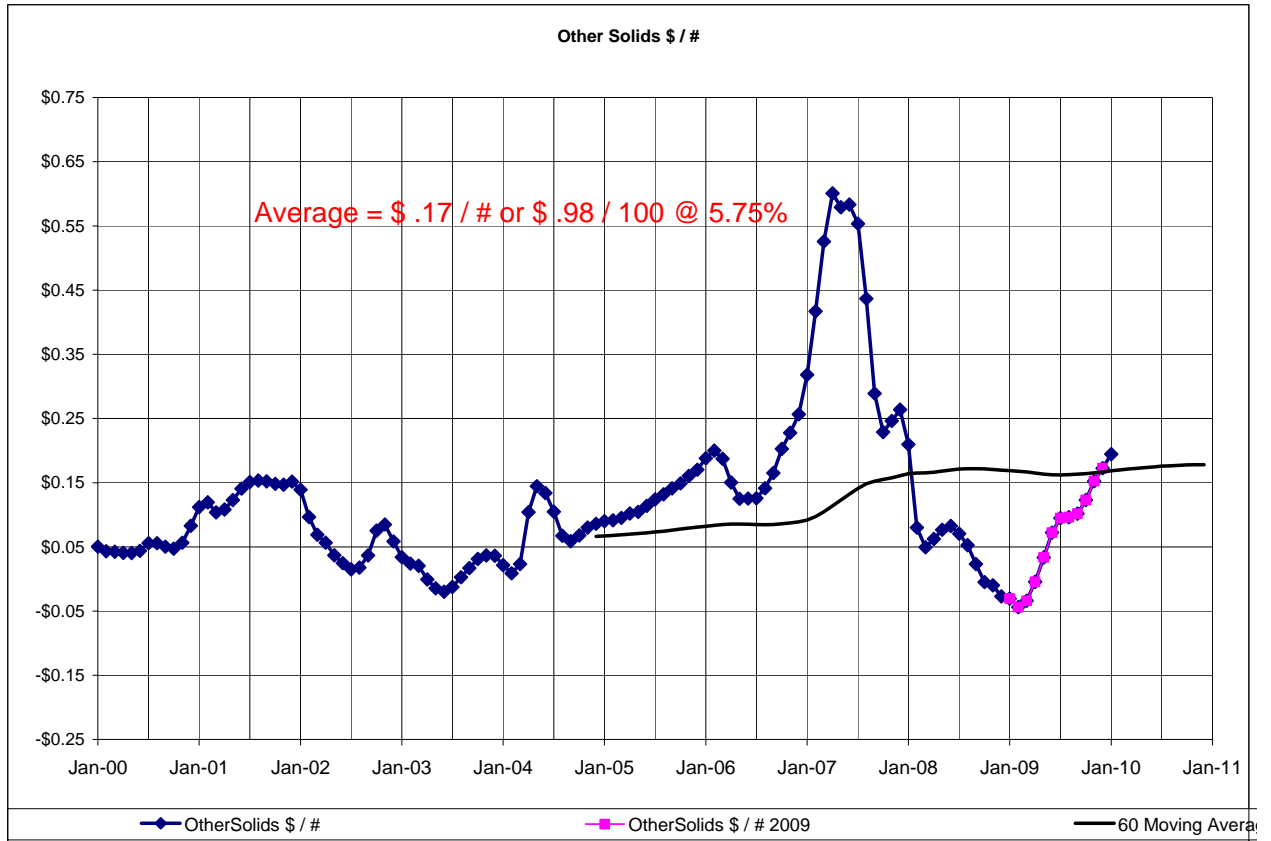
This next chart is the same component chart and trend with the addition of a customer's actual prices that includes the class I and quality premiums.



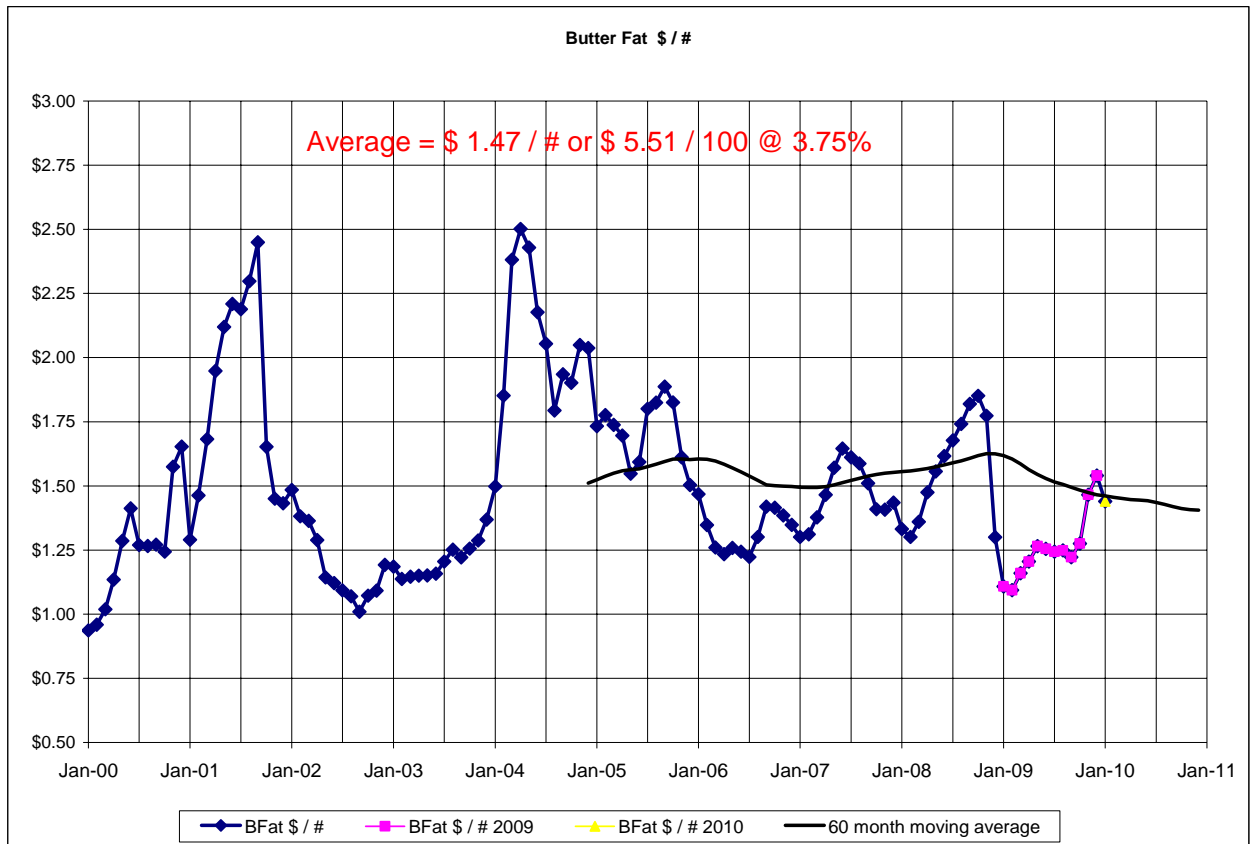
This next chart is the same price per pound for the three milk components applied to Jersey components of 4.75% Fat, 3.6% Protein and 5.75% Other Solids.



This chart is the actual price per pound paid in all federal orders for the other solids along with the 60 month moving average. As you can see except for 2007 the price is very flat over the last ten years. The last 5 years averaged \$.17 / pound and contributes \$.98 / 100 at 5.75% other solids.



The next chart is the same time period and what was actually paid for milk butter fat. As you see there were a couple peaks but has done little over the last ten years. In fact, the prices for 2009 turned the trend down. The last 5 years have averaged \$1.47 so at 3.75 % fat it would contribute \$5.51 / 100 for Holstein milk or at 4.75% fat it would contribute \$6.98 / 100 for Jersey milk.



This chart is the price actually paid for the milk protein over the same period along with the 60 month moving average that shows a strong up trend over the last ten years. The last 5 years has averaged \$2.83 / pound and has contributed \$8.49 / 100 for Holstein milk or \$10.18 / 100 for 3.6% Jersey milk. As you can see as bad as 2009 was it reduced the strong up trend, but it is still increasing. An example of the extreme volatility is the price dropped from \$4.72 / # in June of 2008 and dropped to \$1.73 / # in June of 2009. I believe this chart overall illustrates that the demand for milk protein is growing much faster than the other milk components. This is likely why the importation of MPC's has become an issue. I believe the dairy industry will need to address this issue by developing new uses for the milk fat or try to get the butter market back from the substitutions. I think this is a big problem that has not even been discussed let alone addressed. If the price of butter fat had increased the same % as the protein has instead of being flat, it would be adding about \$2.75 / 100 to the current price of milk.

