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Hearing Clerk  
Room 1081, South Building  
U.S. Department of Agriculture  
Washington, D.C. 20250

**Comments on Tentative Final Rule on Class III Butterfat and Pricing Formulas:**

I, David Mark Barbano, Ph.D., Professor of Food Science at Cornell University testified at the Hearing in May 2000 and presented my opinions on the Class III milk pricing formulae being used at that time and the limitations of the those formulae. In my opinion, there were many positive changes in the Tentative Final Decision. The Tentative Final Decision also has some serious shortcomings. First, the Tentative Final Decision uses a cheese yield formula approach that places an incorrect value (much too high) on milk fat for Class III. Second, as I indicated in my testimony, at the base point for establishing the value of fat and protein, the Class III milk price + (the cheese make allowance x the cheese yield) + (the whey powder make allowance x the whey powder yield) should equal the sum of the value of cheese + whey cream + whey powder based on the yield equations. In the original decision the value of cheese + whey cream + whey powder exceeded the milk price plus the make allowances. In method of calculation put forth in the Tentative Final Rule, this difference is even larger. In my opinion this is undesirable.

In my testimony, I explained a system of calculations based on the Van Slyke Cheese Yield formula for establishing the value of fat and protein in 3.5% fat milk used for Cheddar cheese making. I also explained the concept about the sum of the Class III price of milk plus the make allowance for cheese plus the make allowance for whey powder, at the milk composition used for establishment of fat and protein value, being equal to the value of the cheese, plus the whey cream, plus the whey powder based on the yield formulae. The system that I proposed was designed to produce a more correct Class III value for fat and protein, balance the milk price plus make allowance with product plus by-product values, and reduce volatility of prices for producers and processors. At the Hearing, it was my understanding that it was ruled that my proposal for establishing separate values for fat and protein in Class III milk and the method of calculation for establishing those values for fat and protein in Class III milk could not be used.

**Point One:** Establishing the Value of Fat and Protein in Class III

In the Tentative Final Rule it states *"The pricing concept of reflecting the value of a manufactured product in the prices for the milk components that are instrumental in the yield of that product require the Class III protein and butterfat prices be tied more directly to the value in the cheese that is produced using those components. Therefore, it is necessary to separate the value of butterfat used in the manufacture of cheese from the value of the component in butter."* I agree with this concept and the establishment of a separate value of fat and protein using the Van Slyke formula was the basis of my testimony in May 2000. The key words in the Tentative Final Rule are "component value" not yield. The use of the VanSlyke formula in the Tentative Final Rule does not, in my opinion, correctly establish the value of butter fat and milk protein for manufacture of Cheddar cheese using the VanSlyke formula. The method of calculation using the Van Slyke formula put forward in the Tentative Final Decision confuses an incremental yield effect with value and results in an extreme over valuation of fat used for cheese making. The result of this calculation places an incorrect and excessively high value on milk fat and will cause some very undesirable outcomes, in my opinion, in the dairy industry.

The undesirable outcomes will be in the form of utilization of other less expensive sources (e.g., anhydrous milk fat or high fat creams) of milk fat (imported or domestic) or other nondairy fats for ingredient use in "nonstandardized" cheeses, solely to avoid the unrealistically high value of milk fat in Class III. While it is not common practice today, the technology exists use these fat sources in cheese making. Cheese makers will have a large incentive to seek out less expensive fat sources. Another undesirable outcome of the Tentative Final Rule will be an increase in total volatility of milk prices in all classes of milk utilization.

**Point Two:** Balance of Milk Price plus Make Allowances with Product plus By-Product Values at the Milk Composition Where Milk Fat and Protein Value are Established.

Because a cheese and whey powder make allowance are provided for the processor at the milk composition at which the values of protein and fat and the yields of cheese and whey product are determined (i.e., 3.5% fat milk), then the system of calculation should produce an equality at this point. Even when this equality is achieved, it still results in a net positive for the cheese maker on the product revenues if milk composition is higher than 3.5% fat and a negative for milks lower than 3.5% fat. In reality, the composition of milk on average at cheese factories is higher than the 3.5% fat milk and therefore the cheese maker will on average be on the positive side (economically) of this relationship. The Tentative Final Decision produces a larger positive for the cheese maker at the 3.5% fat level than the Original Decision and is in my opinion a move to further imbalance the Class III pricing between producer and processor in the direction of the processor.

Therefore, I recommend that the new formulas proposed in the Tentative Final Decision for establishing the value of fat and protein not be adopted and in the interim I would recommend the continued use of the current formulas. I still firmly believe that a system with a separate class III value for fat and protein would produce a better pricing system

and more orderly marketing of milk in the Federal Milk Marketing Orders. However, I think that the dairy industry needs more time to understand, discuss, and develop a component pricing system, within the context of classified pricing, that will achieve a fair and equitable treatment of producers and processors. I am willing to provide technical support in the development of such a system.

Sincerely,

A handwritten signature in black ink that reads "David Mark Barbano". The signature is written in a cursive style with a large, looped initial "D".

David M. Barbano, Ph.D.  
Professor of Food Science  
And  
Director, Northeast Dairy Foods Research Center