

Higher nonfat solids standards for fluid milk

AS LOW MILK prices extend into the second half of 2009, producers and dairy organizations are taking closer looks at policy and programs to fix current issues and prevent longer-term problems. Interestingly, one of the best options available may also be one of the oldest: raising the minimum solids-not-fat (SNF) standards for fluid milk.

Minimum standards for the majority of the U.S. are 8.25% SNF for fluid milk at retail. In 1962, the state of California first adopted higher minimum standards, which today are 8.7% SNF for whole milk, 10% for reduced fat (2% fat) milk, 11% for low fat (1% fat) milk and 9% nonfat solids in skim milk. Table 1 illustrates the differences between the national and California minimum solids standards and the resulting differences in protein and calcium content.

When National All-Jersey Inc. initiated Project Equity in 1976, higher minimum standards were one of its cornerstones. Numerous organizations have advocated for higher standards in past decades, with Congress requesting reports on the impact of increasing standards nationwide in both the 1980s and 1990s. There was a provision in the dairy title of the 1996 Federal Agriculture Improvement and Reform Act, but it was removed after opposition from dairy processors through the International Dairy Foods Association (IDFA). In 1999, the National All-Jersey Inc. (NAJ) board of directors adopted their current resolution advocating higher nonfat standards for fluid milk that remains in place today. A more recent attempt at a nationwide standards increase was thwarted when record-high product prices made fortification too costly.

The Impact of Higher Standards

While 8.25% SNF is the minimum required by federal standards, the vast majority of milk produced in the U.S. exceeds this level. Fluid processors remove butterfat from farm milk to bring the retail product within the allowable ranges for butterfat. However, they are not in the practice of removing SNF from farm milk to adjust bottled milk down to the minimum allowable nonfat solids levels. As a result, most milk sold in the U.S. has SNF levels that fall between the federal and California minimums.

To illustrate, 2008 Class I sales through plants operating in the Federal Milk Marketing Order (FMMO) system are estimated to have averaged 8.78% SNF. Whole milk sold in FMMOs exceeded the California standards, and skim milk was within 0.22% SNF of the higher levels. Only reduced fat and low fat milks would require significant SNF fortification to meet higher nationwide standards.

Fluid milk can be fortified using either nonfat dry milk or condensed skim milk, with condensed skim preferred by processors. Earlier this year, independent analyses done by Western United Dairymen and Dairy Farmers of America estimated an additional 280 million to 300 million pounds of nonfat solids would have been required in 2008 to fortify FMMO 2% and 1% milks to the California standards. That equates to approximately 3.5 billion pounds of producer milk, or roughly 2% of U.S. annual production.

Improved nutrition is the primary reason to increase the SNF in bottled milk. Compared to FMMO Class I sales, California reduced fat milk (2%) has a 14% advantage in protein and calcium per serving. Low fat (1%) milk has a 25% advantage in protein and calcium over FMMO milk. According to the USDA, 70% of teenage boys do not have enough calcium in their diet. That number jumps to 90% in teenage girls. The dairy industry has programs working to boost consumption among children and teens, and increasing the nutrition in each serving of milk could accelerate that success.

Along with improved nutrition, academic studies show consumers prefer the taste of milk with higher solids. J.E. Devero of the United Dairy Industry Association found an increase of solids-not-fat had a greater taste impact compared to additional fat, and products with added nonfat solids were preferred to average market products because of "cleaner, sweeter flavor."

From a policy side, fortifying fluid milk would move more milk solids into bottling plants, resulting in less nonfat dry milk being produced by balancing plants. In times of depressed prices, the government's Commodity Credit Corporation would purchase less nonfat dry milk, resulting in less taxpayer expense for buying and storing excess product.

	Nonfat Solids		Protein		Calcium	
	Federal	California	Federal	California	Federal	California
Whole milk	8.25%	8.70%	7.5g	7.9 g	261 mg	276 mg
2% milk	8.25%	10.00%	7.5g	9.1 g	261 mg	317 mg
1% milk	8.25%	11.00%	7.5g	10.0 g	261 mg	348 mg
Skim milk	8.25%	9.00%	7.5g	8.2 g	261 mg	285 mg

Processor Perspective

Fluid milk processors have historically opposed increasing minimum nonfat solids standards. The primary concern is the additional cost for the condensed skim itself and the plant equipment required to store and handle it. When implementing higher standards, California instituted a fortification allowance through their producer pool to credit processors for part of the additional handling and product cost. The cost-sharing arrangement with producers lessens processors' total cost obligation while still giving producers the market signal to produce more milk solids.

Another processor concern is that higher SNF standards would result in higher retail milk prices. A California Department of Food and Agriculture (CDFA) survey in 2002 found that California retail milk prices were competitive with milk prices in the rest of the country. California prices for higher solids milk were neither the highest nor the lowest prices for reduced fat milk.

Higher milk prices could also strain USDA nutrition program budgets. However, if higher SNF standards lead to lower CCC nonfat dry milk purchases, that money could be diverted to nutrition programs and targeted for milk purchases.

A newer processor concern is that additional solids would raise the calorie content of fluid milk at a time when the dairy industry is fighting to keep good-tasting flavored milks within calorie and sugar content guidelines for schools. While the calories may increase, so do the levels of protein and calcium, providing students with a better nutrient package. The National Dairy Council through the Nutrient Rich Foods Coalition is working to move consumers beyond simply counting calories to making sure those calories are nutrient rich.

Processors also point out that some bottlers have produced higher solids or higher protein milks as specialty products. None of these specialty milks have captured significant market share, therefore processors assume consumers have voiced their preference for basic milk. However, specialty milks are usually priced significantly higher than conventional milk; higher minimum standards would not increase price to the level of these specialty products.

The Next Steps

Higher minimum nonfat solids will not fix all the dairy industry's current problems, but now is the time to raise the standards. Consumers will get more nutrition and taste from each glass of milk at a time when a majority of teenagers are calcium deficient. Higher demand for milk solids will also decrease the product surplus being purchased and stored by the government.

NAJ will partner with industry organizations to raise minimum standards through regulation. In addition, NAJ members need to ask their co-op boards and members of Congress to support the issue and to work toward its adoption. NAJ will also work with processors to demonstrate the added nutrition and flavor in All-Jersey® milk.

Higher solids milk leads to higher profitability for processors, higher nutrition and taste for consumers, and more demand for high solids farm milk.

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