

MILLER: Udder nonsense about milk

Henry Miller

COMMENTARY:

Milk occupies a special place in our lives and language. It has been dubbed "Nature's most perfect food," and we speak sentimentally of the "land of milk and honey" and the "milk of human kindness." Dairy products represent important nutrient sources in much of the world, containing calcium and high-quality protein.

Fourteen years ago, after a lengthy review, the Food and Drug Administration approved a protein called recombinant bovine somatotropin (rbST), or bovine growth hormone, that stimulates milk production in dairy cows. ("Recombinant" indicates that the protein is made with gene-splicing techniques.) A cow's pituitary gland normally produces bST, one of a group of natural protein hormones that control milk production. (The gene-spliced and natural versions are functionally indistinguishable.)

Thus, low levels of bST are found in milk from all cows, both supplemented and un-supplemented. Comprehensive and sophisticated studies by academics and government regulatory agencies around the world have found no differences in the composition of the milk or meat from bST-supplemented cows.

Farmers loved rbST because it offered them greater yields per cow, more efficient use of feed, and higher profits, but things quickly soured. Activists were adamantly opposed to rbST, however, and they have continued to raise a variety of spurious, specious objections ever since. A recently published article by Cornell University Professor Dale Bauman and his colleagues in the prestigious Proceedings of the National Academy of Sciences concluded the protein is a "valuable tool for use in dairy production to improve productive efficiency" (defined as milk output per feed resource input), and at the same time has "less negative effects of the environment than conventional dairying."

This elegant study should put any remaining concerns to rest, but it won't. The food kooks and enviro-fanatics won't let facts get in the way of their prejudices.

When rbST is injected into cows, their digestive systems become more efficient at converting feed to milk. It induces the average cow, which produces about 8 gallons of milk each day, to make nearly a gallon more. More feed, water, barn space and grazing land are devoted to milk production, rather than other aspects of bovine metabolism, so that you get seven cows' worth of milk from six.

This may not seem like a big deal, but when applied widely the effects are profound. For every million cows treated with rbST each year, 6.6 billion gallons of water (enough to supply 26,000

homes) are conserved. With much of the nation enduring a drought and many cities in the West experiencing water shortages, this is a significant benefit.

The amount of animal feed consumed each year by those million rbST-supplemented cows is reduced by more than 3 billion pounds. This helps to keep the lid on corn prices, even as much of the nation's corn harvest is diverted to producing ethanol for cars. And the land required to raise the cattle and grow their food is reduced by more than 417 square miles.

At the same time, more than 5.5 million gallons of gasoline and diesel fuel (enough to power 8,800 homes) are saved, greenhouse gas emissions are lowered by 30,000 metric tons (because fewer cows means less methane produced by bovine intestinal tracts), and manure production is cut by about 3.6 million tons, reducing the runoff into waterways and groundwater.

Comprehensive studies by academics and government regulatory agencies around the world have found no differences in the composition of milk or meat between rbST-supplemented and non-supplemented cows.

Consumers are apparently happy to drink milk from supplemented cows, despite efforts by biotechnology opponents to bamboozle milk processors and retailers into believing that consumers don't want it. In various surveys to ascertain the factors that influence consumers' milk purchasing decisions, the predominant considerations have been: price (80 percent to 99 percent), freshness (60 percent to 97 percent), brand loyalty (30 percent to 60 percent) and a claim of "organic" (1 percent to 4 percent). Only the "organic" claim is even remotely related to rbST supplementation. Unless prompted, the consumers surveyed didn't mention rbST as a concern.

Some milk suppliers and food stores have increased the price of milk labeled "rbST-free," even though it is indistinguishable from supplemented milk, and offer only this more expensive option, pre-empting consumers' ability to choose on the basis of price.

Activists' purely speculative concerns about rbST - ranging from the destruction of small family farms to the risk of cancer - have proven baseless. Before approval by the FDA, rbST underwent the longest and most comprehensive regulatory review of any veterinary product in history. Three years before the FDA approved the marketing of milk from supplemented cows, its scientists, in an article published in the journal *Science*, summarized more than 120 studies showing rbST poses no known risk to human health.

Their conclusion was affirmed over the next several years by additional scientific reviews conducted by the National Institutes of Health, the Congressional Office of Technology Assessment and the drug-regulatory agencies of Britain, Canada and the European Union, and by an issues audit done by the Department of Health and Human Services inspector general. These reviews noted that small amounts of bST are found in milk from all cows, supplemented or not. They also noted that, like other proteins, rbST is digested in the human gut. Moreover, even if it is injected into the human bloodstream, it has no biological activity.

Disingenuous activists have unfairly stigmatized a scientifically proven product that has consistently delivered economic and environmental benefits to dairy farmers and consumers; and

opportunistic retailers are ripping off their customers. In a more rational world, activists would embrace - and enlightened consumers would demand - milk with a label that boasted, "A Proud Product of rbST-Supplemented Cows."

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