

## Which Cows Do You Trust?

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MONROE, Wash. — For demanding consumers, some dairy producers are demanding less milk from their cows — and charging more for it.



Kevin P. Casey for The New York Times

Cleaning up at Jim Werkhoven's farm in Monroe.

The dairy companies are bowing to the natural-foods trend by shunning milk from cows treated with genetically engineered growth hormone.

By labeling milk free of the artificial hormone, the dairy industry can ride the popularity of natural foods, without the greater expense and special feeds required to produce milk that can be fully certified as “organic.”

As a result hormone-free milk can be priced higher than conventionally labeled milk, but less than organic.

At a [Safeway](#) near central Seattle, for example, a half gallon of conventional Lucerne-brand whole milk was recently selling for \$1.69, while the Horizon organic brand was priced at \$3.69.

Priced neatly in between, at \$2.79, was the Darigold milk labeled as “coming from cows not treated with the growth hormone rBST\*”

The asterisk referred to tiny letters near the bottom of the carton indicating that the [Food and Drug Administration](#) says there is no difference between milk from treated and untreated cows.

Some milk producers have long avoided the hormone rBST, which is made by [Monsanto](#) and was approved by the F.D.A. in 1993. Still, it has been in wide enough use since then, as a way to increase a cow’s milk supply by a gallon or more a day, that many of the nation’s dairy products probably contain milk from cows injected with the hormone.

Many pure-food advocates oppose the hormone’s use on health grounds, saying it can require cows to be treated with extra [antibiotics](#) and can result in milk with higher amounts of a separate hormone linked to [cancer](#) in some studies. But only recently do more consumers appear to be paying heed to those concerns, as part of the growing interest in whole and natural foods.

Experts say that avoiding the hormone is the main reason people buy organic milk, whose sales have been growing rapidly the last few years. But organic sales still account for only about 3 percent of the total milk market, so marketers see an opportunity to tap the demand for organic milk by simply eliminating the hormone.

“It seems to be an explosion in the industry,” said Kurt Williams, general manager of Lanco-Pennland Milk Producers, a cooperative in the mid-Atlantic region, most of whose members do not use the hormone. “All of a sudden we have national processors like Dean Foods taking entire plants hormone-free.”

In June, Dean Foods, the nation’s largest milk producer, stopped accepting milk from hormone-treated cows at a big bottling plant it owns in Florence, N.J.,

which sells milk under the Tuscan name. That means most of the Tuscan milk sold in the New York metropolitan area is now free of the artificial hormone.

Dean Foods is now beginning a similar shift at its New England plants, which market the Garelick Farms brand, and is considering a similar move in Texas. Still, Dean Foods says only 10 of its 100 milk processing plants around the country offer milk from untreated cows.

“Are we doing a wholesale shift? No,” said Marguerite Copel, a spokeswoman for Dean. “Are we seeing movement? Yes.”

Darigold, which is owned by the Northwest Dairy Association, a large cooperative, recently began selling milk only from cows not treated with growth hormone. Several other dairy companies in the Northwest have recently done likewise.

“I think it’s going to become a competitive disadvantage if you are not rBST-free,” said Randy Eronymous, the director of marketing for Darigold. He said surveys had shown that use of the hormone was beginning to affect consumer decisions on what milk to buy.

But at least one of the co-op’s farmers, Jim Werkhoven, says he is not convinced that consumers are really clamoring for milk from untreated cows — or at least would not be without prodding from marketers.

“It’s really about milk processors trying to position themselves on the grocery store shelf,” said Mr. Werkhoven, 47, who has been farming since 1979. “All they’re doing is selling fear, and I think that’s a miserable deal.”

For about a dozen years Mr. Werkhoven, who runs a herd of 800 cows on a farm in Monroe, about 25 miles northeast of Seattle, injects his cows every two weeks with the hormone.

“It’s worth 10 to 12 pounds a cow a day, a little over a gallon a day,” Mr. Werkhoven said, explaining that the hormone raised a typical cow’s daily output from over 70 pounds of milk to somewhat less than 90. He showed a visitor

through his barns, where cows with yellow identification tags in their ears munched on a ration made mainly of corn plants or lolled about in sandy stalls.

Mr. Werkhoven said it was difficult to estimate the effects on his profit because that depends somewhat on the price of milk. But he is convinced the hormone lowers his cost per gallon.

For now, Mr. Werkhoven can continue to use the hormone, because the co-op's ban applies only to bottled milk, which is consumed in large quantities by children, and not for other dairy products like cheese. Some milk bottlers, including Darigold, are paying small premiums to farmers who sign affidavits certifying they do not use the hormone. (Since there is no test to distinguish milk from treated and untreated cows, claims of hormone-free milk are based on the honor system).



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Photographs by Kevin P. Casey for The New York Times

Monsanto calls its artificial growth hormone for cows Posilac. The company does not release sales figures.

A Department of Agriculture survey in 2002 found that 22 percent of the nation's dairy cows were being injected with the hormone. Currently, about one-third of the nation's dairy herds are managed using the bovine growth hormone — though not every cow in each herd gets it, according to Monsanto.

The substance, one of the first applications of genetic engineering to make its way into food production, is a synthetic version of a natural cow hormone called bovine somatotropin, or BST. Monsanto makes its version — recombinant BST, or rBST — by splicing the cow gene for the hormone into bacteria.

Critics say that milk from treated cows contains higher levels of a different hormone — insulin-like growth factor 1 — that has been linked to an increased risk of cancer in people. They also say that inducing the cow to produce more milk increases the risk of udder inflammation, which then leads to increased antibiotic use.

Canada has not approved use of the hormone because of its harmful effects on cows.

But Monsanto and other proponents of the technology say the amount of extra insulin-like growth factor in the milk is insignificant compared with the amount

made naturally in the human body. They also say milk is screened for antibiotics before it can be sold. Dairy companies that are now rejecting the hormone say they are doing so not because milk is unsafe but simply in response to customer demand.

“People have become more educated on what they buy,” said Heidi Horn, marketing manager for Wilcox Family Farms.

At the company’s milk processing plant in the bucolic countryside south of Tacoma, about 110 gallons of milk a minute are pasteurized, homogenized and squirted into cartons amid a near-deafening clatter of machinery. Since July the cartons have borne the name “Wilcox Natural” instead of just “Wilcox,” because the company eliminated milk from hormone-treated cows.

Executives of the dairy said they had been getting requests for rBST-free milk from consumers as well as from school boards, hospitals and retailers, including a big customer, Costco.

Judging the true level of consumer demand is difficult. Susan Ruland, a spokeswoman for the International Dairy Foods Association, a trade group, said that in studies her group helped sponsor, only 30 percent of consumers said they were aware of any issue regarding [hormones](#) and milk. And 70 percent of those who were aware said they did not care about it, she said.

But when one dairy company makes the shift to rBST-free, it puts pressure on others.

The move away from the hormone has been strongest on the West Coast and in the Northeast. But there are signs the trend is spreading. For example Shamrock Farms, a major dairy company in Arizona, recently went rBST-free for all its products.

The Prairie Farms Dairy in Carlinville, Ill., has started a review of its policies, said Gary Lee, vice president for procurement. “It’s moving toward the Midwest,” he said.

Monsanto is worried enough that in late August it mailed brochures to its farmer customers urging them to defend their rights to use the hormone.

“Consumers have choices ... but so do you,” said the brochure. It included a sample calculation to help farmers assess how much money they would lose if they gave up the hormone and asked them to demand compensation.

Monsanto does not disclose its sales of the hormone, which it calls Posilac. Kevin McCarthy, an analyst at Banc of America Securities, estimates they will be \$250 million this year out of Monsanto’s total sales of \$7.2 billion, which will come mainly from seeds, both genetically engineered and conventional, and herbicides.

A few years ago Monsanto sued Oakhurst Dairy in Maine, saying its labeling of milk as coming from cows not treated with the hormone was misleading. The dairy added a sentence to the effect that the F.D.A. had found no significant difference between the milk from treated and untreated cows.

Some farmers and dairy marketers say that advertising rBST-free milk pits one form of milk against another and could undermine consumer confidence in conventional milk.

“If certain products can make these unsettling claims, what does that then say about the milk my family has been drinking for years?” Jerry Kozak, president of the National Milk Producers Federation, a trade group, said in his monthly message to members for September.

To be sure, many farmers do not use the hormone, either because they are philosophically opposed to it or because its use requires more work for them and more food for the cows.

“It’s like [steroids](#) for athletes,” said Stephen H. Taylor, New Hampshire’s commissioner of agriculture, markets and food and a dairy farmer himself. He said he had tried the hormone but it put stress on his cows and made them thinner.

Last month, his wife signed an affidavit, requested by Agri-Mark, a big New England co-op, certifying that the couple’s 80-cow farm does not use the

hormone. “A lot of people in the dairy industry say goodbye and good riddance to BST,” he said.

But in Monroe, Mr. Werkhoven, who has a refrigerator full of boxes of Posilac, each containing 25 syringes, said his cows had not had any problems.

The move to eliminate the hormone, he said, “puts at risk a valuable tool for agriculture and it adds cost to the customer with absolutely no benefit,” he said. “If this is a technology that’s going to go away, I’d be shocked and stunned.”