## EIRScience & Technology

## Jeremy Rifkin's crazies attack your children's milk

Marcia Merry proves how the environmentalist, anti-people crowd are hitting both the consumers and producers of this vital food product.

The unfolding events in the case of the bovine growth hormone (bGH, or the "more milk hormone"), show that the campaign of the radical environmentalists to prevent its use stems from their hatred of people, of population growth, and of science. What has happened in recent weeks is that an elaborate social engineering operation is under way in which it is said that "public opinion" opposes consumption of dairy products from cows that have received the "more milk" growth hormone. In fact, an "aura" of public fear over the hormone has been contrived by selective TV appearances, press conferences, and media hype by an anti-technology gang, which does not want the supplies of milk or other basic foods to be expanded in the world, but instead wants less food and fewer people.

What is bovine growth hormone? BGH is a protein that is produced naturally in the pituitary gland of cattle. The substance performs various metabolic functions, including regulating a cow's milk output. A few years ago, scientists were able to isolate this substance, whose technical name is bovine somatotropin (BST); and then researchers succeeded in creating genetically altered bacteria to produce bGH on a scale for commercial use. For all practical purposes, the "synthetic" hormone, and the hormone from the milk cow's pituitary gland are identical. When selected doses of bGH are given to a cow, her milk output may increase from 20% to over 35%, depending on what phase of her lactation she is in. The Food and Drug Administration has approved it for general use, pending the completion of field tests now under way. Approximately 100 herds have been involved in using the hormone. For evaluation reasons, the exact location of the herds, the number of cows, and the amounts of milk involved have not been made known. The tests are being conducted by private companies, in limited on-farm situations. According to the FDA timetable, bGH could be available for general use by early 1990 or by 1991.

Because of the costs involved in administering bGH, and the costs of the increased feed a more productive cow may need, most average dairy farmers cannot at present afford the option of bGH. Dairymen are getting only about \$12 per hundred pounds (cwt) of their milk, when their minimum costs are about \$14 per cwt, and the parity price, or fair price, for milk from the farm is \$22 per cwt.

However, there is an urgent need for more milk. If emergency measures were taken to phase in parity prices, build up herds, and give the farmer the means to decide whether bGH is useful for his animal husbandry plans, then there could be a dramatic increase in milk supplies, from both the use of bGH and from simple herd expansion.

To kill this potential, "public opinion" operations have been launched against both the general consuming public and the dairy-producing farmer. The consumer is told that milk from cows receiving the hormone is harmful. Farmers have been told that only the big operators with several thousand cows in their "milk factory herds" will be able to afford bGH, and that federal approval of bGH will drive the family-run dairy farm out of existence.

In August, Jeremy Rifkin, head of the Washington-based Center for Economic Trends, sent a threatening letter to the large supermarket chains and others, warning that there would be public hysteria if the stores sold dairy products from herds

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receiving the bovine growth hormone. Rifkin then appeared on national network television with scare stories about the dangers of milk from cows receiving bGH. He cited as evidence baseless assertions from a report prepared by Dr. Samuel S. Epstein, from Chicago. Typical was the claim that bovine somatotropin could potentially be absorbed from milk into the bloodstream, particularly in infants, and produce "hormonal and allergic effects."

Five major supermarket chains then announced they would not handle dairy products from milk from bGH herds. Also, Ben and Jerry's Homemade Ice Cream—whose "unadulterated" product caters to the "thirtysomething" crowd's cravings for designer foods, announced they would not only shun bGH-connected milk, but they would carry an ad on their ice cream cartons, proclaiming "Save Family Farms!"

The timing of this Rifkin anti-bGH campaign before schools opened was key. There is a national and international shortage of milk, which became very visible when schools opened in September. Rifkin's campaign for "pure milk" was designed to divert attention from the fact that depleted herds need to be built up, dairymen and other farmers need emergency assistance, and growing, healthy children need milk.

The U.S. Department of Agriculture, as of this fall, has cut off the distribution of all federal stocks of cheese to school lunch programs. For the first time since 1974, there is none to give out. The USDA has discontinued supplying dried milk powder to the WIC—Women, Infants and Children—program. There is none to give out. Local dairy-processing plants are scrambling to get enough raw milk for fresh, fluid milk supplies for schools. In one instance, at Johanna Farms in New Jersey, milk was brought by tank truck from Washington State, a practice which guarantees that milk arrives "stale," no matter how carefully it is handled.

In May, House Agriculture Committee Chairman Kika de la Garza (D-Tex.) released a statement saying, "The Deputy Secretary of Agriculture Jack Parnall has confirmed that due to reduced surplus production of dairy goods there will be far less milk and other dairy products to distribute to school districts for use in lunch programs across the nation." De la Garza pledged "Our continuing support of the school lunch program as a way of ensuring that youngsters receive proper nutrition during their early school years." The result of the pledge? Nothing. An estimated 12 million children from low income families are potentially suffering the loss of this high-protein food.

## What is Jeremy Rifkin?

Rifkin has specialized over the years in attacking technological advances, not just in agriculture, but also in defense and in energy production. Last spring, he lashed out against the threat of limitless energy from "cold fusion," because it would raise living standards and cause population growth. He uses specious arguments and plays on irrational fears and bogeymen: "If you interfere in Mother Nature, who knows where it may end?" Rifkin is one element in a grouping of anti-technology fanatics who are committed to drastic population reduction and want no advances in food production to derail their agenda. For example, a cohort of Rifkin's, Daniel S. Greenberg, who works out of Washington, D.C., wrote against the use of bGH in the Sacramento Bee, "In the perverse uses of science, it would be difficult to surpass the creation of a man-made hormone that induces cows to produce more milk, a commodity whose surpluses fill storage caves and drain treasuries in the United States and many European nations." The latter claim that there is overproduction is a straight lie. However, Greenberg makes his real point by asking, "A relevant question, of course, is who needs more milk, even if it's a bit cheaper?"

## The facts on bovine growth hormone

by Thomas H. Jukes

Dr. Thomas H. Jukes is a professor-in-residence in biophysics and nutritional sciences at the University of California at Berkeley. An earlier contribution refuting the cancer scare around the growth regulator alar in apples, "Consumers Union publishes bad science on good apples," appeared in our May 15, 1989 issue.

Recent allegations by Samuel Epstein about purported dangers of administering bovine growth hormones (bGH) to dairy cattle<sup>1,2</sup> have been adequately rebutted by the Food and Drug Administration (FDA)<sup>3,4,5</sup>. There are some obvious biochemical facts that Epstein has not mentioned, in addition to those listed by the FDA.

First, the ingestion of "foreign" proteins (proteins of nonhuman origin) is implied by Epstein to be generically dangerous<sup>2</sup> because of differences in amino acid sequences. But the main proteins of cow's milk are casein and lactalbumin, both of which are different in their amino acid sequences from the corresponding patterns in humans!

The amino acid sequences of bovine and human lactalbumin differ by about 23%<sup>6</sup>. Bovine and sheep kappa caseins differ by 19%. Human and bovine kappa caseins differ even more widely<sup>6,7</sup> because of their greater evolutionary divergence, as shown by the "molecular evolution-

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