Bovine Growth Hormone Claims Refuted by Scientists

ITHACA, N.Y. – Cornell University scientists say that nothing in their studies supports claims being made by a coalition of environmentalists, farmers, and animal rights activists opposed to the commercial introduction of bovine somatotropin (growth hormone), a biotechnology product that promises to boost the production efficiency of dairy animals.

In a recent petition calling on the Food and Drug Administration to prepare an environmental impact statement on growth hormone, the Foundation on Economic Trends of Washington, DC, charged that the use of growth hormone "will damage the environment, cause unnecessary suffering to cows, and wreak havoc on the dairy economy."

The foundation, which is headed by Jeremy Rifkin, a critic of biotechnology, is joined in the petition by a Wisconsin farm group called the Wisconsin Family Farm Defense Fund, the Humane Society of the United States in Washington, DC, and Wisconsin's Secretary of State Douglas LaFollette.

In a sharp rebuttal against this and other claims made in the petition, animal scientist Dale E. Bauman and agricultural economist Robert J. Kalter, both in the New York State College of Agriculture and Life Sciences at Cornell, called those assertions totally erroneous and unfounded.

Bauman, who has pioneered the somatotropin technology, countered: "These groups cited our studies in making these claims, but our actual research data do not back such allegations."

In their petition, the groups cited Kalter's study on the economic implications of the biotechnology product for the nation's dairy industry and contended that, among other things, "entire dairy communities will be economically and socially devastated by the widespread commercial use of bGH (bovine growth hormone)."

"They used our economic study to support their claims in such a way that it sounds as if we were making those allegations," Kalter complained. "We were taken completely out of context."

The central issue in this controversy is bovine somatotropin created through genetically engineered microorganisms. This laboratory-produced product has the ability to boost cows' milk yields dramatically, just as the natural one secreted by the pituitary gland in cattle does. In a series of studies conducted over the past several years, Cornell's Bauman and his colleagues have discovered that the substance has the potential for an unprecedented increase in the efficiency of dairy production.

The petitioners claimed that the use of bGH "will require an increase in total feed requirements," thus affecting agricultural land use, with adverse effects on the environment.

Bauman said he was astonished that his "studies were cited as a basis for that claim."

"Our results show exactly the opposite effects on total feed requirements," he pointed out. "Because of the dramatic increases in efficiency achieved with bGH treatment, the same quantity of milk is produced with less total feed and fewer cows."

Citing the economic study conducted in 1984 by Cornell's Kalter, the groups also charged that bGH will have adverse economic and social impacts, claiming that "within five years, nearly one out of every two dairy farms will be eliminated."

Calling that claim "totally off the wall," Kalter said, "There is nothing in our study that says anything remotely like this."

"Over the past two decades– from 1964 to 1984– the nation has seen a 77 percent decline in the number of dairy farms," he pointed out. "This has happened without the hormone technology, and the trend is expected to continue regardless of the hormone, although bGH may speed up the process a little."

Reacting to still another claim that bGH will create "additional surpluses for an industry already plagued by overproduction," Kalter said, that the new technology may produce "a few bubbles" in the short run, but the root cause of the surplus problem lies squarely in the long-standing government price support program.

Kalter, chairman of Cornell's Department of Agricultural Economics, argued that poorly designed government programs have caused the surplus problem to persist even without the bGH technology.

"Surpluses would disappear and milk consumption would increase if we let market forces operate more efficiently," he contended.

In yet another claim, the groups opposing the use of bGH maintained that "animals injected with bGH will be under greater physiological stress and will be subject to a host of diseases, including mastitis, crippling lameness, fatty liver disease, and metabolic disorders including ketosis and acetonemia. Their resistance to infections and contagious diseases will also be lowered which will increase the probability of sickness and suffering."

Rebuffing these claims as totally groundless, Bauman said: "Scientific evidence does not support the idea that bGH treatment would incude physiological stress or health abnormalities."

In collaborative studies conducted with scientists at USDA's Agricultural Research Service and the New York State College of Veterinary Medicine at Cornell, "we have never observed any health abnormalities or evidence of stress," Bauman said. "In fact, the dramatic increases in efficiency we have observed with bGH treatment would have never occurred if cows were unhealthy or stressed in any way."

A nutritional biochemist in Cornell's Department of Animal Science, Bauman emphasized that "because the discovery is new, it has not yet been examined under a broad range of environmental and husbandry conditions. Such studies are prerequisite to FDA's regulatory review process."

Citing numerous technological advances made over the past several decades that have dramatically improved production efficiency of today's dairy animals, the Cornell scientist stressed that the bGH technology is yet another research milestone that has the potential to ensure an abundance of food at costs affordable to consumers.

In addition to boosting the production efficiency of dairy animals, the bGH technology, according to Kalter and Bauman, would have several other positive effects on the dairy industry and consumers.

Among them is the fact that the technology is important for small and medium farms to survive. "Efficient farmers can use bGH to their advantage regardless of the size of their operation," Kalter said. "This technology is not capital intensive, hence it can be used by every farmer whether he has 10 cows or 1,000."

Also widespread use of bGH will help farmers to be more competitive and offset rising farm costs. In Kalter's view, the dairy industry should encourage this technology because it will help make the industry as a whole more competitive with other sources of food and beverages. "If the dairy industry rejects new technological advances that improve production efficiency, it will suffer in the long run," he warned.

In addition to this, the consumer will benefit since the cost-reducing technology will lead to lower milk prices.

"New technology is essential for the farmers to make a living and for the consumer as well to improve the standard of living," Bauman emphasized.

With the world population expected to double in the next 40 years, gains in agricultural efficiency are even more critical in the long run.

"The amount of food needed for the next four decades is equal to all the food produced in the history of mankind," Bauman said.

US Senate shows view on European ag trade

WASHINGTON, DC – The US Senate recently unanimously passed a resolution expressing the sense of Congress in opposition to the European Community's latest restrictions on U.S. agricultural exports and urging the President to use his authority to respond to these actions.

Senator Jesse Helms, Chairman of the Senate Agriculture Committee, introduced the resolution. It was cosponsored by Majority Leader Bob Dole, Senator Edward Zorinsky, ranking Democrat on the Agriculture Committee, and many other Senators of both parties.

"The United States has allowed the European Community, through its pernicious agricultural trade policies, to wage economic warfare on our farmers for too long," said Helms. "President Reagan has already announced his intention to fight back on behalf of our farmers, and this resolution demonstrates the fact the Congress backs him up in that fight."

Helms explained that Secretary of Agriculture Richard Lyng and Special Trade Representative Clayton Yeutter leave Thursday for negotiations with top EC officials to discuss these restrictions. The resolution, said Helms, will strengthen the negotiating hand of the U.S. team by "showing that Congress is fed up with European attacks on our farmers and their utter disregard for fair trade."

The dispute arises out of additional restrictions placed on American agricultural exports to Spain and Portugal as a condition of those two countries joining the European Community. The new restrictions will reduce U.S. exports to the EC by as much as $1 billion annually.

On March 31, the President announced that the United States will retaliate by imposing quotas and tariffs on $1 billion of EC products entering the United States. The resolution passed today urges the President to implement this retaliatory strike unless the EC rescinds its trade-restrictive measures or otherwise compensates the United States for the loss in trade resulting from the new restrictions.

"The United States has talked, cajoled and warned the Europeans for the last four years, while they have escalated their predatory trade practices against American farmers," said Helms. "At some point, Congress and the Administration must draw a line in the dirt, and sooner is better than later. We must demand relief on these new restrictions so that the EC knows there is a price to pay for its predation, and so our American farmers know the U.S. government will stand behind them to insure fair trade in world markets."