

Biotechnology is Essential for Dairy Industry

ITHACA, N.Y. — The competitive position of the dairy industry in the Northeast will depend heavily on the use of new products created through modern biotechnology, says a Cornell University agricultural economist.

Robert J. Kalter, professor and chairman of Cornell's Department of Agricultural Economics, says that research has led to new biotechnology products, such as bovine growth hormone, that will cut production costs substantially for dairy farmers.

"Quick adoption of biotechnology products by the dairy industry will give it a competitive advantage over other food sources," he stresses.

Kalter made that prediction in a talk at a recent seminar on "Agricultural Research Policy" held under the sponsorship of the University of Minnesota. Kalter is a faculty member of the New York State College of Agriculture and Life Sciences at Cornell.

Milk and other dairy products, he said, are in constant competition for the consumer dollar with non-dairy beverages and food items.

"Fruit juices, soft drinks, coffee, and non-dairy snacks are all alternatives that consumers

consider buying each time they enter the supermarket," Kalter pointed out. "Therefore, dairy farmers will need to adopt cost-reducing technology to stay competitive with other products produced by the food system."

Citing such a competition now taking place between the red meat and poultry industries as an excellent example, Kalter said, "Increased efficiency in poultry production has resulted in lower consumer prices, and the market has seen a major displacement of red meat from the consumer's food basket."

Per capita red meat consumption continued to decline in 1984, while poultry and fish continued to make relative gains in American diets. Poultry showed the greatest gain — up 74 percent since 1964, Kalter noted. In 1984, red meat consumption was near its 1964 level, but eggs were down 18 percent. Fish consumption has gained rapidly since 1982.

A similar situation, he said, took place in the late 1950s when margarine began seriously affecting butter consumption.

Early adoption of biotechnology products, Kalter contended, will help dairy farmers in the Northeast and Midwest to remain competitive against large dairy

operations in the West and Southwest. California, Wisconsin, and New York are the top three dairy states in the nation.

"Biotechnology offers major benefits to all dairy farmers by improving production efficiency," Kalter emphasized. "It is of particular interest to small- and medium-sized operations because it is not a capital intensive innovation, compared to many technological advances made in the past."

"As a result, small operators will be financially able to adopt new biotechnology products without incurring large debts," Kalter explains. "The principle ingredient for successful use of products like bovine growth

hormone will be management ability."

Called "bovine somatotropin," the growth hormone is a product made through genetically engineered microorganisms. Considered a major research breakthrough, the growth hormone technology has the potential for an unprecedented increase in the efficiency of dairy production; it requires fewer animals and less total feed to produce the same quantity of milk.

Although biotechnology will cut production costs by boosting efficiency, the current milk surplus, Kalter argued, is not the result of adopting new technology, but rather is directly linked to government price support

programs for milk. Efforts to restore a free market system to the dairy industry in terms of bringing supply and demand into balance will result in fewer dairy animals and a reduction in farm operators, he said.

"However, adoption of cost-reducing technologies will be instrumental in increasing consumption of dairy products by lowering consumer prices," Kalter stressed. "Hence, the problem of overproduction will be reduced."

"Continued market pressure resulting from consumer demand and preferences will spur efforts to develop more efficient production techniques essential to the survival of the dairy industry," Kalter concluded.

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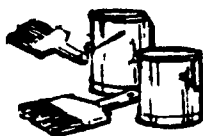


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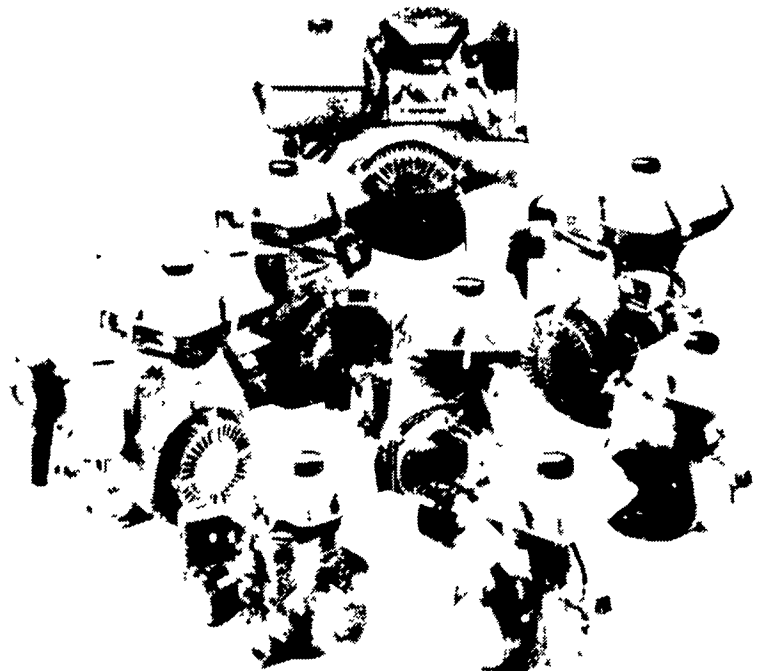
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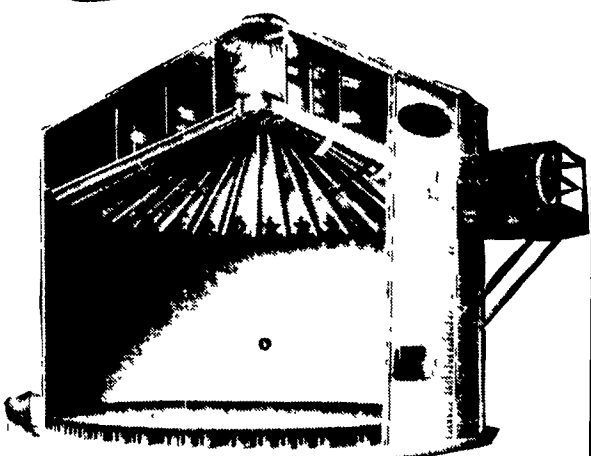
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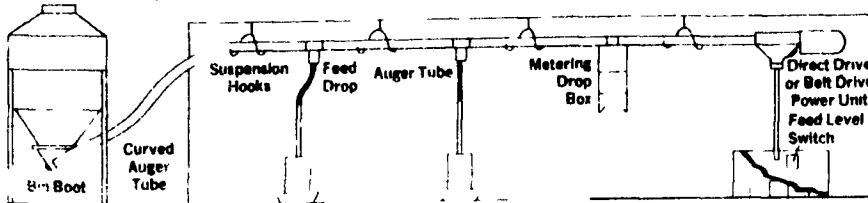


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