

Breeding cows for higher protein

UNIVERSITY PARK — Breeding cows for higher protein milk could result in consumers getting better milk and cheese products without paying more, says a dairy scientist at Penn State.

The technique could be economically rewarding to dairy farmers who sell high protein milk, says Dr. George Hargrove, University professor who conducted research in protein breeding.

"Protein content could be the trait of the future, or even now," he says. "So we have to give it some attention."

Though milk pricing historically has been determined by pounds of milk with a differential for fat

content, Dr. Hargrove says implementing a protein pricing system could benefit the dairy industry.

Fat has a poor reputation among consumers, he says, while "cheese right now is the bright spot in the

dairy industry. If the consumer public knew we were paying more for high-protein milk to produce better cheese, the whole system would be perceived more favorably."

For his study, Dr. Hargrove tested about 140 herds for protein content. In addition, dairy farmers from throughout Pennsylvania subscribed to protein testing at their own expense. Milk samples were analyzed for protein content with electronic machines at Penn State's Dairy Herd Improvement Service Center.

Dr. Hargrove says protein content is about 64 percent heritable. In order to breed for high protein, he explains, farmers use the data collected in protein testing to select the cows with highest protein content and then identify sires that will transmit the protein trait to their offspring.

"The principles and procedures of high-protein breeding are the same as in any order breeding," he says. "You need to select superior cows. The part of the process that makes it new is collecting the data."

Because it takes extra feed to produce high-protein milk, Dr. Hargrove suggests farmers receive more money for their high-protein milk from processors of milk and cheese.

In turn, the processors will be able to make more cheese with the high-protein milk. Because their increased production will represent improved efficiency, the extra price should not be picked up by the consumer, he says.

"If a protein premium were introduced, the person producing milk with higher protein would get more money from the processor. It can be a reward system for those producing the richer milk, but I don't see any real influence on the consumer. The processors will just pay more to farmers who can market high-protein milk."

Dr. Hargrove predicts the dairy industry will see a "creeping effect" of more processors "paying attention to protein in the pricing scheme. We've laid the basis and we're now getting the data to know which cows are good."

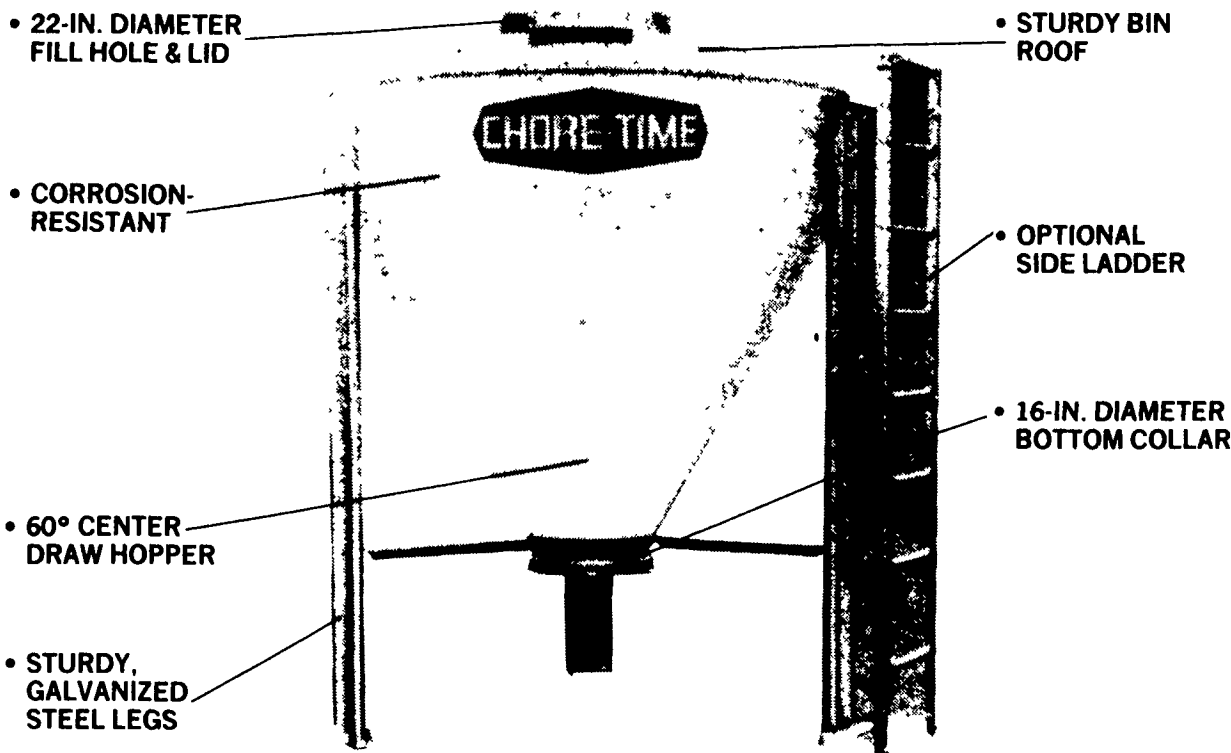
Currently all Pennsylvania cows enrolled with the Dairy Herd Improvement Association are tested for protein in their milk. "I sense an overall increased interest in protein information," he states.

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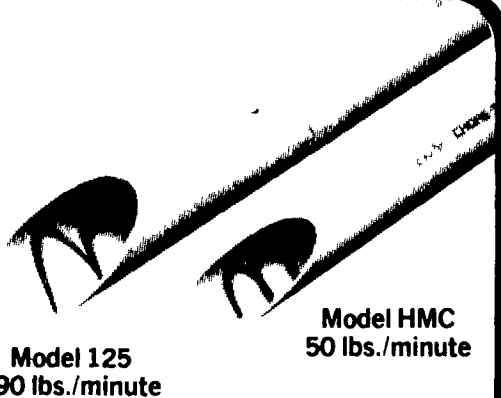
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Montana free of brucellosis

WASHINGTON, D.C. or longer. — All but a small portion of western Montana has been classified free of cattle brucellosis, a U.S. Department of Agriculture official said today.

"Montana's application to be classified as two areas was reviewed the approved by USDA and a special committee of the U.S. Animal Health Association," said Bert Hawkins, administrator of USDA's Animal and Plant Health Inspection Service.

"Montana is the second state to have a combination of class A and free areas. Wyoming is the other state so classified," he said.

"Montana was previously a class A state — which means no more than 0.25 percent of its market-tested cattle were infected. A free rating means the state has had no known infection for 12 months

or longer. "Normally, a whole state is rated free, class A, B or C, depending on its herd infection rate," said Hawkins. "A state may have two areas of classification, however, if it can exercise the necessary controls over cattle movements between the areas."

Since Montana has an effective brand law, state officials can control the movements of breeding cattle from the seven-county area that remains class A, Hawkins said. Also, the area is separated by mountains from the 48 counties that are brucellosis-free.

"Cattle from free areas or states can be moved without brucellosis tests if identified to source," Hawkins said. "Post-movement tests are recommended for shipments crossing state lines, however, because of possible exposure en route."