

## Lebanon County/Atlantic Dairy Day

## Water quality can threaten dairy animals in Southeast Pa.

BY WENDY WEHR

PRESCOTT — Lebanon County dairymen combined education and recognition at the Lebanon County Dairy Day on Tuesday, Feb. 12, in Prescott. In the morning the dairy farmers quizzed Extension specialists about two dairy health concerns, and in the afternoon Atlantic Breeders Cooperative members earned certificates for high producing herds.

Water quality and Johne's disease are two growing dairy health concerns for Southeast Pa. dairy farmers. During the morning dairy day program, Dr. Karen Mancl, Penn State water specialist, described some solutions to the chief water problems of Lebanon and surrounding counties, and Dr. Larry Hutchinson updated the dairymen on the threat of Johne's disease.

"I will discuss the treatment of private water systems," said Mancl, "because no regulatory agency controls private systems. The home owner or farmer is solely responsible for quality." Private water systems in the Southeast are contaminated by both biological and chemical agents.

"Many dairy cattle have a delicate palate and will not drink if water has an off taste or odor," she reminded the dairymen.

Bacterial contamination of spring water is a particularly serious problem in the Southeast, said Mancl. While throughout the region about 35 percent of water systems are contaminated by bacteria, a shocking 73 percent of spring water systems test above the acceptable standard for bacteria.

Illustrating her presentation with slides, Mancl carefully described the methods of disinfection that will kill the bacteria and reduce the risk of exposure to water-borne disease organisms. "You want to pick something that will do a good job on the bacteria, but not on you and your cattle," she said.

The primary choices for disinfection are chlorination, iodization, and ultraviolet light. Each method has limitations and advantages, said Mancl, as the farmers quizzed her on what will best solve their problems and pose no threats to their dairy herd.

Three chemical contaminants — total dissolved solids (TDS), sulfates, and nitrates — are most common in Pennsylvania, continued Mancl, but of the three, nitrates pose the greatest threat in the Southeast.

"Twenty-eight percent of the wells tested here exceed the nitrate level," reported Mancl. Nitrates ingested from water are serious threats to human infants and all ruminant animals. The nitrates react with natural bacteria in their bodies and become nitrites.

Increased levels of nitrites in the body unite with hemoglobin and cause "methemoglobinemia," or the blockage of oxygen transfer. The nitrate threat is greater for ruminants, added Mancl, because the animals probably receive increased nitrate levels from both water and feed.

The Penn State specialist went on to explain three treatments for excessive nitrates in the water: ion exchange, distillation, and reverse osmosis.

"We're talking about a major investment in water treatment equipment for a nitrate problem, said Mancl. All of these treatments are extreme methods because nitrates like to be dissolved in the water and are very hard to remove, she explained.

Other water problems that Mancl briefly described were

corrosion, which does have a health effect on ruminants, iron, and hardness.

When questioned by a member of the audience about the "quick tests" that are offered by local water equipment salesman, Mancl was quick to reply. "I would want to have water tested by someone who is not selling water-treatment equipment. It might seem a little expensive for the test, but it's nothing compared to the cost of equipment."

"If you're in business I would recommend testing once a year for bacteria and nitrates, and every three years for sulfates, TDS, and pH," said Mancl. DER conducts bacteria tests and certified laboratories do all of the water tests.

Detailed information on water quality is available in a series of Extension bulletins that you can obtain from your local county Extension office or Penn State.

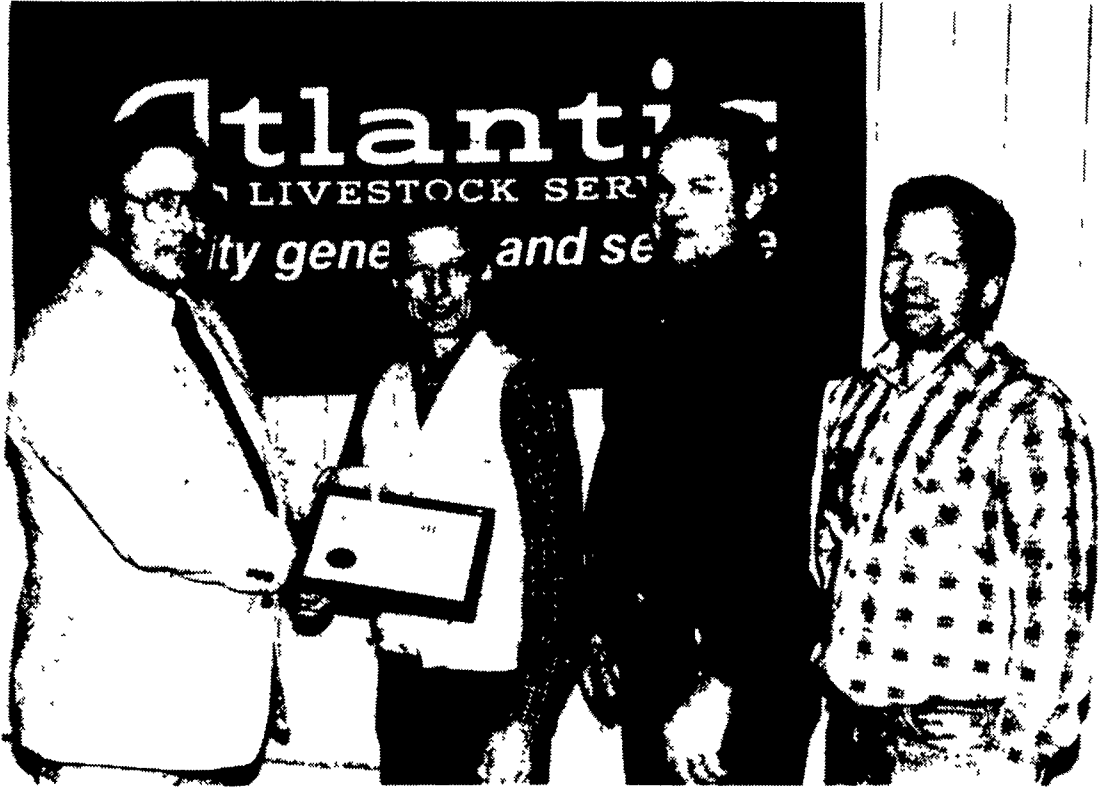
## Johne's Disease

Following Mancl's presentation, Dr. Larry Hutchinson, Penn State Extension veterinarian, took over the podium and briefed the farmers on Johne's disease. Johne's, or paratuberculosis, is also a special problem in Southeast Pennsylvania. Hutchinson estimated that Johne's can be found in 300 dairy herds in Pennsylvania, and perhaps 100 of those are in Lancaster County alone.

The preliminary findings from a Johne's research project being conducted by Penn State and the University of Pennsylvania Veterinary School indicate that a little under 10 percent of the dairy cows in the state have Johne's, said Hutchinson.

"The economic loss due to Johne's has been estimated at \$1.5 billion per year in the United States," he noted. The economic impact to Pennsylvania dairy cattle includes death and culling, production loss and costs of sickness, tests, and quarantine.

The joint Johne's research project includes a survey of 1400 cull dairy cows in the state and a study of 20 random-sampled DHIA herds to "discover how much Johne's is in an ordinary herd." Hutchinson encouraged any farmers who received questionnaires



Alan Henry (left), Atlantic Breeders Cooperative field supervisor, presented production certificates to (left to right) Robert Martin, David Brandt, and Don Bollinger of Willow Maple Farm. These presentations to Atlantic members were part of the activities and programs at the Lebanon County/Atlantic Dairy Day, held Tuesday in Prescott.

about the cull cows to fill them out and help everyone get some answers to the threat of Johne's.

The clinical signs of Johne's include weight loss, unresponsive diarrhea, secondary mastitis, infertility and "bottle jaw." Hutchinson reminded the dairymen that the Pa. Department of Agriculture does pay an indemnity for Johne's reactors that are quarantined, appraised and slaughtered within a given time period. "That's a kind of carrot out there to persuade you to get rid of the animal," he added.

While Johne's shows up only in adult animals, the disease is picked up in the early stages of life. "Get your calves away from your cow herd as soon as possible after birth," urged Hutchinson. Controlling Johne's will require a three-pronged approach: testing, culling positive animals, and keeping calves away from the cows.

## Atlantic honors dairymen

In the afternoon, area dairymen were honored at the 21st Annual District III Meeting for the Atlantic Breeders Cooperative. Dairy farmers from western Berks, Lebanon, and southern Dauphin counties received certificates of merit for having high producing herds this past year.

Top DHIA averages were achieved by: Willow Maple Farm, Robert Martin, Conewago Farm - Tim Tyson, David Brandt, Mark Bomberger and Sons, Irvin Brubaker, Marvin Horst, Restful Acres - Frank Graybill, and Lloyd Burkholder.

All herds were at least 10 percent above the state average for milk or butterfat production last year, and at least two-thirds of the cows in these herds are progeny of Atlantic sires. Awards were presented by Alan Henry, Atlantic's field supervisor for the area.

District III director Harold

Bollinger, of Newmanstown, informed members of the retirement of David Yoder after 41 years of service to Atlantic and to the AI Industry. Harry Roth was appointed the new general manager. Bollinger noted that management emphasis will remain on membership services.

Following a new film showing Atlantic's facilities and service programs, management representative Gary Heckman pointed out that Atlantic is dedicated to giving members the service they want by emphasizing quality technician and direct-herd service in the entire member area.

Coordinators of the Lebanon County/Atlantic Dairy Day were Alan Henry of Atlantic, and Lebanon County Extension Agent Ken Winebark. Also shown in the morning was an educational slide set on the cost of poor calf and heifer management.

## Basketball star Jones promoting milk

PHILADELPHIA — Bobby Jones, defense star of the Philadelphia 76ers basketball team, will be promoting milk this month to thousands of fans at the Philadelphia Spectrum. MAMMA, the Advertising and Promotion Agency of the Middle Atlantic Milk Marketing Area, has contracted with Jones to appear on a milk growth poster. Fans 16-years-old and younger who attend the February 24th 76ers vs. Utah Jazz game will receive the complimentary poster as they enter the Spectrum.

Jones and the 76ers are ex-

periencing a good season, with the 76ers doing well in the Atlantic Division of the NBA. Jones is one of the top defensive players in the game and was named NBA's Outstanding Sixth Man in 1983. He has sparked the 76ers to numerous come-from-behind victories over the years with last minute heroics. He has also been honored as Most Courageous Athlete of 1983 by the Philadelphia Sports Writers Association.

The poster featuring Jones is the sixth in a series of posters produced by MAMMA that feature sports stars endorsing milk. On the

life-size poster Jones is pictured with a carton of milk in one hand while he palms a basketball with the other hand. The poster reads, "DRINK YOUR MILK AND SEE HOW YOU MEASURE UP TO BOBBY JONES." A scale along the side edge of the poster allows a child to measure and chart his or her growth. Colorful and aesthetically pleasing, the poster is designed to hang in a child's room for years, serving as a constant reminder that milk is essential for growth and good health.

The 76ers club is promoting the giveaway event on Philadelphia radio and at home games this month. On the day of the promotion the game announcer and electronic scoreboard will also tout, "Milk. It's Fitness You Can Drink."

In addition to the 7500 posters to be given away at the game, an estimated 500 to 1000 posters will be placed in school cafeterias in the greater Philadelphia metropolitan area.

Tickets for the game can be purchased at ticket offices in Veteran Stadium, the Spectrum, Mellon Bank at Broad & Chestnut Sts., and all Ticketron outlets. For ticket information call 76ers ticket office (215) 339-7676.



Bobby Jones "stands tall" for milk.

## Ohio Corn and Soybeans Day

"Corn and Soybean Day" for farmers of eastern Ohio and western Pennsylvania will be held Monday at the Columbiana County Joint Vocational School, just south of Lisbon, Ohio on Route 45. There will be exhibits of such supplies as seeds, chemicals and fertilizers, and three or four discussion groups and lectures each hour of the day.

"The margin between costs and selling price has been mighty small this year, and according to economists will probably not get better in the coming season," says

Craig Ells, of Lisbon, one of the organizers of the event. "To survive, the farmer must learn all he possibly can about economical production."

One speaker is George Sherac from Trumbull county, who is well known for the large crops of corn, soybeans and wheat he has grown with no-till farming methods in an area with "heavy" soils.

Other speakers will discuss weed control, varieties, fertilization, computers, farm records, income tax, forage production, and wheat growing.