

## Progress With Johne's Disease

No one can relate to the impact of a devastating herd health problem better than a dairy business owner who is confronted with it. The reason is simple according to Helene Dreisbach, chair of the AJCA Biosecurity Task Force. "If you have it, you're the expert."

Alan Kozak, Millersburg, Ohio, is an expert on Johne's Disease. A former AJCA-NAJ Area Representative and, with his wife Sharon, recipient of the AJCA Young Jersey Breeder Award in 1997, he's been notably public in communicating the havoc Johne's has wreaked at Clover Patch Jerseys. Here, in his own words, is that story and what the Kozaks have learned.



Every calf born at Clover Patch Jerseys, owned by Sharon and Alan Kozak, is vaccinated at 28 to 35 days of age for Johne's Disease. The first heifers to be vaccinated, approximately 70 in all, are now calving for the first time.

We share this information in hope that others will learn from our mistakes and from our limited success.

My wife, Sharon, and I began our venture in the dairy business and grazing by renting a farm in Washington County, Pennsylvania. With the help of Jersey Marketing Service, we purchased 156 Registered Jerseys from 20 different herds in six states. We began selling milk in April, 1992.

We moved to Ohio as the pastures were turning green in the spring of 1993.

In the summer of 1996, we had two cows that we just could not get back on track after a spoiled feed episode that had affected 11 cows in all. Fecal cultures for *Salmonella* and two blood tests for Johne's did not provide any answers. The cows were dry and open. Our veterinarian at the time said, "The good news is that they do not have Johne's. The bad news is that we don't know what they have." When I indicated that I was going to cull them, the veterinarian collected a fecal sample for Johne's culturing.

When the culture results came back positive for both cows, we asked our

veterinarian to culture the whole herd. He indicated that we consistently had one of the top producing Jersey herds in the county (at that time, 16,377 lbs. milk, 755 lbs. fat and 604 lbs. protein) and did a great job with our calves. He said we should not worry about Johne's.

As we learned more about Johne's, we felt that we had lost a number of cows to Johne's prior to the diagnosis of the first two in our herd. We insisted that the herd of 150 be cultured. Our veterinarian begrudgingly agreed and sent the two junior veterinarians of the practice to collect the fecal samples. The herd culture yielded one more positive cow and she was shipped immediately.

The combined effect of finding only one infected cow, the insistence of our veterinarians that we were doing a great job with the herd, and the large bill for collecting and sending the samples made us somewhat complacent about Johne's. In retrospect, we can recall at least seven cows that we are sure we lost to Johne's in 1996.

During the spring of 1997 calving season, we had several cows that broke with Johne's. Some were confirmed with blood tests and/or fecal cultures; others were just lost of culled without confirmation. We finally realized that Johne's was a problem on our farm. We were able to convince our veterinarian to test the whole herd again. This time, the one partner collected

the samples and the charge for the work was half as much as the first time. The whole herd fecal culture in June, 1997 showed seven positives. We tested four more animals that we thought might be infected using the ELISA blood test in November. One was positive.

We lost at least 13 cows that had a positive blood test or fecal

### How The Losses Mounted Up

"According to the USDA," Alan Kozak says, "losses from Johne's total \$244.94 per cow when 10% or more of a herd's culls are clinical with Johne's." The numbers at Clover Patch Jerseys:

	1994	1995	1996	1997	1998	1999	2000	2001
Cows	120	132	141	132	132	160	174	189
Total culls	21	34	38	51	46	41	37	48
Johne's culls	?	?	7	13	15	17	11	14
% Johne's culls	?	?	18%	25%	33%	41%	22%	29%

From 1996 to 2001, 28% of culls were clinical with Johne's (average herd size, 155 cows). Kozak calculates that his total losses due to Johne's are \$227,942, an average of \$37,966 annually.

culture, or that were clinical in 1997. Our culling rate was 39%.

The winter of 1997-98 had us preparing to move to a new farm. The farm we were renting had been sold and our five-year lease would end in March of 1998.

We began pasteurizing colostrums, and feeding milk replacer instead of whole milk.

The new farm had been vacant for a year and we had hopes that starting over on a clean farm would help us in our effort to overcome the negative effects of Johne's Disease on our economically distressed business.

A crew of four government veterinarians collected blood for ELISA tests in February of 1998. My crying wife delivered the results of the lab work

to the new farm as we were remodeling the parlor. There were 11 positive, including a 12-year-old cow named "Liza," my wife's favorite cow.

By then we knew that the ELISA test finds less than half of the positives. We also realized that we had made poor decisions and had not made management changes that could have significantly reduced Johne's transmission in our herd. We were sure that the situation would get worse before it would begin to show improvement in response to our changes in management.

We were so right. Moving the cows in the middle of the calving seasons kicked the Johne's into high gear. We sold or lost 38 cows from late March through early September. There were three different times that we loaded five or more cows on the same day; once there were seven. There were several people that would haul the cattle, but we chose a fellow who helped on his family's Jersey dairy. He had some compassion for the situation and seemed to understand my wet eyes as we loaded another group of what once were promising young cows.

We lost 15 cows that were positive to a Johne's test and/or were clinical with the disease. We culled 46 cows. Our

## Biosecurity Task Force Formed

A task force to advise the Boards of Directors of the American Jersey Cattle Association and National All-Jersey Inc. on animal health issues of particular importance to activities of the organizations, has been named by AJCA President James S. Huffard III.

The Biosecurity Task Force will also serve as "an active liaison" with Jersey dairy business owners in communicating best management practices.

"Our charge is to get up front and personal on biosecurity," explains AJCA Director Helene Dreisbach, Hamburg, Penna., who serves as chair of the seven-member group. "We as Jersey producers spend a lot of time going over the right bulls and improving our milk marketing.

"But as far as impacting our bottom line," she continues, "the health issues are more important on a day-to-day basis."

Dreisbach is joined by fellow Jersey breeders Marion Barlass, Janesville, Wis.; Alan Kozak, Millersburg, Ohio; Kevin Lutz, Lincolnton, N.C.; and Wayne Woods, Beaver, Ore. The remaining members of the task force are William L. Walker, DVM, of Lander Veterinary Clinic, Inc., Turlock, Calif.; and Dr. Robert E. James of the Virginia Tech Dairy Science Department, Blacksburg, Va. Each will serve one five-year term.

culling rate was 35%. We were milking 125 cows at the year's end and receiving up to \$23.62 for our milk. Losing 35% of the herd was tough. Not having their milk to sell was worse. Our move forced us to find a new veterinarian, and he helped us collect fecal cultures in the fall of 1998. The results from that test were 100% negative!

We geared up for 1999 by purchasing 15 head to replace some of our previous losses and in anticipation of future losses. We also purchased another skid loader to be used exclusively for feeding. Our spring fecal test results shows 15 positive cows. We started vaccinating the calves at the end of the calving season. The last 14

## The 10 Stupid Things We Have Done

- Fed pooled colostrum and pooled dump milk
- Walked across cow lanes to feed calves
- Feeding calves and milking at the same time
- Grazed heifers behind cows
- Mixed feed with the same skidsteer that was used to scrape the barn
- Let heifers in to the milk cow freestall barn to eat leftover feed
- Mowed calf pastures with the same manure-splattered tractor and mower used on cow pastures
- Spread liquid manure on all pastures
- Fed calves after milking cows
- Let key service providers convince us we didn't have a problem

calves born were vaccinated. We culled 41 cows in 1999. At least 17 of those were

Johne's cows.

We believe that the tide has turned. We lost 11 cows that we know of to Johne's in 2001. An ELISA test on the entire herd last December will help with our culling and colostrums management decisions. We should average 200 cows in the milking herd in 2002. There are 70 Johne's vaccinated heifers due starting in February.

## Johne's Control Today

Our Johne's control program is a combination of housing, feeding, and sanitation practices that break transmission of *Mycobacterium paratuberculosis*, testing and vaccination for Johne's, and continuous education and vigilance.

Our young stock and adults are kept in separate pastures and facilities. We feed and/or work calves *before* working with cows, as does our veterinarian.

We feed pasteurized colostrum from test-negative dams for five feedings, then milk replacer only. We feed young stock forages that have not had manure spread on the land on which it was grown.

We manage adult cattle to reduce stress, including feeding a high forage diet.

We use a second skidsteer for feeding. Our ATV is used in adult pastures only. We pressure-wash the tractor and mower before moving calf pastures. We spread manure on corn ground.

We do fecal cultures once a year, at 30 to 60 days fresh. Fecal positives are culled. We do a whole-herd ELISA test every January before freshening begins. Positives are fecal cultured and monitored for clinical signs. Suspicious cows are tested during the year.

We vaccinate calves that are 28 to 35 days old for Johne's every Monday morning.

We learn all that we can from different sources. We educate and remind our employees about Johne's and its impact.

We constantly evaluate our management and make changes as necessary.

(continued to page XX)

## For More Information

The Johne's Information Center is the clearinghouse for producer information on Johne's Disease. It was developed and is maintained by Dr. Michael Collins and Dr. Elizabeth Manning of the University of Wisconsin-Madison. On the World Wide Web, go to [www.johnes.org](http://www.johnes.org). Printed materials may be requested through the School of Veterinary Medicine at UW-Madison, 2015 Linden Drive West, Madison, WI 53706-1102.

The U.S. Department of Agriculture (USDA-APHIS-VS) has a website managed by the epidemiologist in charge of Johne's disease for the United States. The address is [www.aphis.usda.gov/vs/nahps/Johnes/jhns.htm](http://www.aphis.usda.gov/vs/nahps/Johnes/jhns.htm).

Formed in 1995, the National Johne's Working Group of the U.S. Animal Health Association is working to develop national disease control and herd certification programs. Its website is located at [www.usaha.org/njwg.html](http://www.usaha.org/njwg.html).

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### What You Can Do For Yourself

Our recommendations for all livestock producers:

If you think you have a problem, don't let others convince you that you don't. Get a second informed opinion.

Know the Johne's status of your herd. Testing is free or low cost in many states.

If Johne's is found, implement a control plan with the help of your local and/or state veterinarians.

If your herd is Johne's free, continue annual testing as cattle from clean herds will bring a premium in a market that is becoming more aware of Johne's.



Sharon Kozak shows her storehouse of "liquid gold," pasteurized colostrum from Johne's test-negative cows that is fed to newborn calves for the first five days of life.