

# The real cost of Johne's

Most losses flow from premature culling. Contract heifer raising offers a cost-effective strategy, study finds

By Kim Bower-Spence

**Y**ou don't need to convince Ray Garber that Johne's disease robs dairy profits. This Chambersburg, Pa., farmer nearly gave up dairying when his Guernsey herd's average plunged to 8,000 lb. about a quarter-century ago.

Two frustrating years passed before veterinarians diagnosed Johne's, then a little-known disease. And it wasn't until the early '90s—after years of vaccinating and culling—that the last Johne's-positive animal left the farm.

"You can be doing everything right, and if you have the Johne's bug in there, they just won't milk," Garber says. He was fortunate to get into a short-lived state program that paid indemnity for culled animals—a program that officials quickly realized they couldn't afford on a large scale. The family culled 60% of its 60 cows and entered an experimental vaccination program.

Besides losing milk, Johne's robbed Garber of breeding efficiency and opportunity to cull for any reason other than the disease. He had to keep all animals that didn't have Johne's, notes his veterinarian of 27 years, Jerome Harness.

Today, the 60 Guernseys milked by Ray's son Roger average around 18,000 lb. The farm's hog business reminds the family of how close they came to exiting the dairy business due to Johne's. They originally bought the hogs to replace the dairy cows.

Harness credits Garber with raising fellow producers' awareness about the disease and encouraging them to fight it. Though much more is known about Johne's now than when Garber's herd was diagnosed, experts still struggle to determine its cost and decide the most cost-effective control strategy. A 1999 study by researchers at the University of Pennsylvania School of Veterinary Medicine tagged the price of Johne's disease at \$35 per cow per year, assuming an infected herd of 100 cows.

The study, by H. Groenendaal and



PHOTO BY THE AUTHOR

THE JOHNE'S VACCINE used to protect Ray and Roger Garber's Chambersburg, Pa., herd left visible bumps on cows' brisnets, as seen here. The last Johne's-positive animal left the herd more than 10 years ago.

D.T. Galligan, shows that most Johne's losses, about 77%, come from premature culling of clinical cows and those cows losing milk production to the disease. Losses from lower milk production itself amount to only 10% to 15% of total costs.

Culls showing clinical signs of Johne's will also weigh less than healthy animals. That could mean \$45 less for a Johne's-positive animal at the sale barn, according to Galligan.

Milk production in cows showing clinical symptoms—very thin cows with diarrhea, normal appetite and no fever—may drop 24%. Cows with Johne's that do not yet show the signs may be milking 3% to 4% less than they should. Other costs mount as stressed cows pose breeding challenges, sick cows require more veterinary care, and Johne's leaves animals more susceptible to other diseases.

A suspected link between Johne's disease in cows and Crohn's disease in humans also looms over the industry. Galligan strongly believes that evidence to date seems stacked against such a relationship, but "the mere allegation is a problem."

As that fear spurs states to take action, this researcher worries that regulators will emphasize testing and culling in an attempt to control the disease. Those strategies may be easier to regulate, but they'll prove less effective than management strategies, he says.

Improved hygiene and separating calves from adults promise much better results. "If they're at all interested in controlling Johne's disease, they have to look at the management factors first," Galligan says. "And when they do that, they also control other diseases, as well."

Contract rearing of replacement stock offers a profitable option, Galligan argues, because many farms lack in that area anyway. Those farms will find contract heifer raising a cheaper way to raise replacements, plus it can control Johne's disease.

Culling Johne's-positive cows isn't as critical in herds separating calves because calves won't come in contact with shedding cows, and they won't contract the disease. By the time they join the milking herd, they can no longer be infected. But you must eliminate contact between adult cows and calves.

"The younger the calves leave the dairy farm, the larger the effects on the Johne's disease prevalence and the higher the economic benefits," the study states. "The first months of age are very critical, so the younger the calf leaves the dairy farm, the better," he says.

Even if you don't contract out your heifers, you can slash the chance for Johne's to spread by separating calves from adults as quickly as possible after birth. Also, maintain a clean calving area and feed milk replacer rather than colostrum, which can harbor Johne's.

The study found that combining all management tools results in \$70,000 in benefits in 20 years, or an average of \$113 per cow per year in year 20. ◀