

**Chippewa Veterinary Clinic  
Dairy Herd Newsletter  
September 1, 2010**

**Johne's Disease and Milk ELISA testing**

Johne's disease continues to be one of the most economically important diseases we face in the dairy industry. Most every dairy has seen cases of Johne's disease: chronic diarrhea in cows that continue to eat, but lose weight and drop in milk production. We've been vaccinating against Johne's for over 30 years now, so you'd think we would be getting it under control. In fact, however, the most recent look at prevalence from the NAHMS 2007 Dairy Study suggests 80% of U.S. dairies harbor infection.

One of the keys to controlling Johne's is knowing where it's at. In the past, detection was always done by either blood ELISA testing or manure culturing for the organism. Today, DHI provides a milk ELISA test that can be incorporated into your monthly testing. The milk ELISA is just as sensitive and specific as the blood ELISA, costs less and the results are available as part of your monthly test results. The DHI-420 Johne's Report lists cows in decreasing Corr OD (Corrected Optical Density). The higher the Corr OD, the greater the risk of Johne's disease and the greater the risk of shedding of organisms by that animal. While milk (and blood) ELISA testing is NOT valid in herds that are vaccinated for Johne's, this is an excellent tool for unvaccinated herds and is strongly recommended as a way of keeping Johne's away from your dairy animals.

In preliminary evaluation using 200,000 Johne's milk ELISA data points, which were assimilated from samples submitted via the DHI system, the USDA's Animal Improvement Program Laboratory produced some telling statistics.\* The prevalence of ELISA-positive cows increased from 3.8% in 2002 to 7.5% in 2008. In addition, daughters of ELISA-positive cows have a prevalence rate 74% higher than daughters of test-negative cows. Clearly, this is a trend that must be identified and acknowledged, before being effectively reversed. When you consider that ELISA-positive cows produce 1,120 pounds less milk than contemporaries, even slight changes in prevalence have a tremendous impact. A change in prevalence of only one percentage point in either direction translates to a net gain, or loss of 100 million pounds of milk in the U.S. annually.

In our opinion, for herds not currently vaccinating for Johne's disease, milk ELISA testing though DHI is a "no brainer". Knowing your herd's Johne's prevalence and having ELISA results on every cow will help make Johne's prevention and control possible.

- From *Progressive Dairyman*, August 2010, by Todd Byrem