NATIONAL JOHNE'S DISEASE EDUCATION INITIATIVE

JOHNE'S DISEASE – DAIRY

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Hard Lesson for Dairy Producer

The following is a message posted on a web site by a frustrated and disappointed dairy producer: "The cow had very watery poo and she was getting thin and her milk production was about one-third normal. We have found out from a blood screening test and a vet diagnosis that she had Johne's disease and we have had our herd tested and found another cow that may possiblly have this disease.

"Anyone who has or buys a cow should know about this disease and they should ask whenever purchasing if the seller has a Johne's free herd. I knew nothing about this disease until it was way too late, so I am trying to help others from the fate and heartbreak that I have gone through.

"Please bear with me as this is a long story.

"We purchased 3 cows from a state recommended dairy that sells a few of their cows to individuals for family cows. They are purebred Jerseys and we paid good money for them.

"Everything went along fairly smoothly for the first year and then we purchased 4 more cows from the same people. We had them for 6-8 months when the first cow started getting sick. My vet was out of town and I could not get any help with a diagnosis on the sick cow.

"I did have a fecal test done, but it was only for worms. I tried a lot of things and even got on this forum looking for help and she seemed to get better. My vet returned and she came to check her and said she was afraid it was Johne's.

"I just wanted to write and say that more people need to be aware of this and be cautious about purchasing cows and also read about this disease and learn from my mistakes!!!"

"She took blood to do as test and a fecal sample for a second test to confirm the first test. The first test is a blood screening and it shows that they have a certain amount of the disease present (this cow tested full blown on the first test) and then you have the second test done to confirm.

"Well by that time the cow was going downhill again and we opted for the humane treatment of destroying her. Our vet said she was 95% sure the cow had Johne's disease.

"So, of course we then proceeded to test our other cows.

"We did at that point have another cow that wasn't 'right.' The test for her came back suspect, so we are now having the fecal test done. . . .

"I just wanted to write and say that more people need to be aware of this and be cautious about purchasing cows and also read about this disease and learn from my mistakes!!!

"It is a terrible way for a cow to die, it is pretty much a chronic wasting disease and the cow will still eat and everything but she is not 'right' and it is VERY HEARTBREAKING for the owner. . ."

This dairy producer's experience is the perfect example of how Johne's disease can easily be introduced into a herd. As many dairy experts state "Don't buy Johne's disease."

USDA

This e-newsletter is brought to you by the National Johne's Disease Educational Initiative funded by USDA/APHIS/VS and managed by the National Institute for Animal Agriculture. Editor: Teres Lambert. To learn more about Johne's, visit ***www.johnesdisease.org***.

NATIONAL INSTITUTE FOR ANIMAL AGRICULTURE

Johne's Disease– Veterinarian Roundtable

Three veterinarians participated in a brief question-and-answer interview about Johne's disease as it relates to seedstock producers and those who purchase animals from seedstock producers. Here are the remarks provided by Jesse Vollmer, DVM, and the Designated Johne's Coordinator for North Dakota; Don Hansen, DVM, Oregon Department of Agriculture state veterinarian; and Michelle Arnold, DVM, large ruminant extension veterinarian, University of Kentucky.

Don't buy Johne's disease! Purchase replacements from a herd that has individual cow/offspring records, good management practices and is currently a Johne's disease test-negative herd. A second choice would be to purchase replacements from an owner who will sign a statement with the veterinarian of record that states, to the best of their knowledge, Johne's disease has not been in the herd for the past five years.

Question #1: Purebred breeders are in the business to market cattle. How important is it that seedstock breeders know their herd's Johne's disease status?

Dr. Jesse Vollmer: From a marketing standpoint, it is hugely important that seedstock producers know their Johne's disease status. Three key reasons for knowing if you are a low-risk herd are to 1) build confidence in their customers; 2) to limit your liability; and 3) to do the right thing and not spread *Mycobacterium avium* ssp. *paratuberculosis (MAP)* to your customers' herds.

Dr. Don Hansen: Prevention is the name of the game. In general, I think purebred breeders are smart to document their Johne's disease infection status. They are selling genetics and they do not need to sell Johne's disease as well.

If purebred breeders are marketing their herd as a healthy, low-risk herd, then Johne's disease is one of the diseases that they should have tested for and know their herd's status.

Purebred breeders sometimes feel like they are in a "Catch 22" situation. If they test for Johne's disease and find it, they may be out of the business. If they test for Johne's disease and do not find it, they may be challenged because some buyers unfortunately perceive "if you test for it, you must have it." In a worst case scenario, if seedstock producers do not test for Johne's disease and someone buys an infected animal from them, they may be liable and may be out of the business.

Dr. Michelle Arnold: Seedstock producers should anticipate buyers of breeding livestock wanting to purchase animals that are not *MAP* infected.

Seedstock herd owners are commonly reluctant to test for Johne's disease for fear that a positive diagnosis will ruin their reputation. However, a herd's reputation may be damaged much more severely by selling a *MAP*-infected animal to a customer and introducing this contagious, incurable disease into his or her herd.

The Voluntary Bovine Johne's Disease Control Program specifies the testing requirements to officially classify the herd. The higher the classification level, the lower the risk for transmitting Johne's disease. The more years of testing following this consistent regimen will yield greater confidence and knowledge of the true Johne's status of the herd.

Question #2: What questions about Johne's disease should beef/dairy producers who purchase cattle be asking?

Dr. Jesse Vollmer: I would ask the Johne's disease status of the herd because it can be so economically devastating. Cows are expensive. If you take a cow that should have a longevity of 10 to 12 years in a herd and you're culling her early, you're losing production on that animal. In addition, it can be extremely costly and time consuming to control the disease once it's in your herd. Producers should take steps to not buy Johne's disease.

Dr. Don Hansen: Any time you purchase from a herd and take those animals into your herd you're taking a biosecurity risk. It's not correct to assume the cattle that you are purchasing are free from disease—any disease, including Johne's disease.

From my perspective, if a buyer is concerned about Johne's disease, he should be the one doing the asking. We live in a buyer beware culture. This may sound callous, but it's just safe business practice.

I suggest that buyers ask if the herd has been tested for Johne's disease, what the test results have shown and the herd's official classification level if it's participating in the Voluntary Bovine Johne's Disease

For information about Johne's disease, contact your Designated Johne's Coordinator Dr. Jim Logan, *jlogan1@state.wy.us*, Ph (307) 777-7515 or visit *www.johnesdisease.org*

Control Program. They then should assess the risk based on the answers given. If the seedstock breeder has not tested for Johne's disease, then the buyer has to assess that risk too.

Dr. Michelle Arnold: Buyers of breeding livestock should strive to purchase animals that are not *MAP* infected. As such, before considering a purchase from a herd, they should be asking if the seller knows their herd's Johne's disease status.

Question #3: What advice would you give individuals who purchase animals from a herd that does not know its Johne's disease status?

Dr. Jesse Vollmer: Any time you're bringing in new cattle, you're opening up your herd to disease that could affect the economic viability of the herd. Each buyer knows what he or she is willing to risk, and buying cattle from herds that don't know their Johne's disease status can be risky.

Dr. Don Hansen: Individuals should know that purchasing animals from a herd that does not know its Johne's disease status could result in animals bringing the disease into your herd. Johne's disease is a disease that typically doesn't show symptoms until animals are three years of age or older, yet animals become infected with the bacteria as calves. An infected animal can shed *MAP* and infect herdmates even without showing signs of the disease.

Those purchasing animals should understand that herds that don't know their Johne's disease status might not be a safe herd to purchase cattle from. Individuals just need to know what level of risk they are comfortable with and then if they are willing to live with the consequences of their purchasing decisions.

Dr. Michelle Arnold: Individuals who buy in a situation like this should test the animal before bringing it on-farm or at minimum test and quarantine the animal once it's on the farm. The Johne's disease test of choice would be a fecal sample submitted to a laboratory approved for Johne's PCR.

A single negative test on an individual animal, however, does not guarantee that the animal is not infected with Johne's disease. Additionally, test results in animals under two years of age are even less reliable. That is why knowing the Johne's disease status of the herd from which you are purchasing is strongly recommended.

Secondly, whether an animal is tested for Johne's disease or not, all producers should have biosecurity measures in place to help prevent and control Johne's disease. For example, they should keep calving areas clean, avoid manure build up, keep feed and water sources free of manure. The risk assessment tool can help you and your veterinarian identify the highest risk areas on your farm for Johne's disease transmission, and the management plan is the tool used to identify methods to reduce these risks.

Editor's Note: *According to the Voluntary Bovine Johne's Disease Control Program's classification system, no herd should be stating that it is a Johne's disease-free herd. Instead, herds can state that they are a low-risk Johne's disease herd.*

If you would like to learn more about the Voluntary Bovine Johne's Disease Control Program, please contact your state Designated Johne's Coordinator or go online to ***www.johnesdisease.org****.*

Recommended test regimen for the detection of Johne's disease in dairy cattle based on herd type and testing purpose:

Testing Purpose	Seedstock - Dairy	Commercial - Dairy
Confirm a clinical diagnosis in a herd with no prior confirmed JD cases	Biopsy specimens, necropsy, bacterial culture or PCR assay – individual animals	Necropsy, bacterial culture or PCR assay – individual animals
Confirm a clinical diagnosis in a herd with prior confirmed JD cases	Biopsy specimens, necropsy, bacterial culture or PCR assay – individual animals	ELISA, bacterial culture or PCR assay – individual animals
Herd Classification – Rank level of risk*	Bacterial culture or PCR of environmental fecal samples	Bacterial culture or PCR of environmental fecal samples
Control disease in herd with known infection, high prevalence and clinical disease and owner is concerned	Bacterial culture – individual animals	ELISA
Surveillance (estimation of biological burden)	Not recommended	Bacterial culture of environmental fecal samples
Eradication	Bacterial culture by individual or by pooled fecal samples (5 fecal samples/pool)**	Bacterial culture by individual or by pooled fecal samples (5 fecal samples/pool)**

**For declaring a Voluntary Bovine Johne's Disease Control Program herd classification, use the testing strategies outlined in the Uniform Program Standards for the Voluntary Bovine Johne's Disease Control Program.*
***Pooled samples should be considered only with low prevalence herds. Pooled samples should be collected from individual animals in accordance with the Uniform Program Standards.*

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