# Testing protocols for beef producers who sell breeding stock

If you sell breeding stock, you need to know the Johne's disease status of your herd. Preventing, controlling, and managing Johne's is the right thing to do for your customers, your reputation, your cattle, and your pocketbook. Seedstock producers who ignore Johne's risk the loss of genetic improvement, cattle, and customers.

The 15th largest seedstock producer in the U.S., with almost 1,000 registered cows, tests the herd for Johne's disease annually. Many seedstock producers with 300 to 500 cows also have testing programs in place. This makes it hard to argue that you can't develop a testing program for your 10 (or 50 or 100) cows, doesn't it?

Ideally, you would test every adult every year using both a blood test (ELISA) and culture. This will cost between $25.00 and $30.00 per head, per year. As a seedstock producer with a small herd, this might be a very good investment to protect your market and increase confidence in your herd status.

### What about the large seedstock producer? Annual testing of all animals with the two tests may not be perceived as an economically viable option. What are the other options?

The goal is to decrease the risk of either buying or selling an animal with Johne's disease. The more animals you test, the more tests you use, and the more times you repeat the test, the more confidence you can have about the Johne's disease status of your herd. Working with your veterinarian, you need to design a cost effective Johne's testing and management program for your herd.

Let's say you have 200 cows, and you are very concerned about Johne's disease, but don't have the ready cash to test all animals every year using both tests. There are several things you could do: (1) You could test the entire herd using the blood test (this test costs less than $10/head), with follow up cultures of all ELISA-positive animals. (2) You could test half the herd with the blood test this year and half next year. (3) Or you could test 10 percent of the herd using both tests. You could also target your testing to animals in the age class most likely to test positive if infected with *Mycobacterium paratuberculosis,* the bacteria that causes Johne's disease. In beef cattle this would be cows and bulls 4-10 years old and animals you purchased or leased from herds of unknown Johne's status. This saves you time and money by not testing younger animals that are less likely to test positive, even if they are infected. Also remember that with embryo transfer (ET) calves, you are more interested in testing the ET recipient (foster mother) of that embryo calf, than the embryo donor cow.

Your Johne's disease prevention program needs to consider the risk you are willing to take, the money you are willing to spend, and your market. Johne's disease in a seedstock operation can destroy the business.

### Let's say I test 10 percent of my cows and there are three that test positive. Now what do I do?

Admit you have a Johne's disease problem and decide how you are going to attack it. Develop a Johne's disease control program with your veterinarian.

### Lets say I test 10 percent of my cows and they are all negative. Now what?

Remember, the more animals you test, the more tests you use, and the more times you repeat the test, the more confidence you can have about the Johne's disease status of your herd. So, you could test another 10 percent next year, or you could test 10 percent every six months until the whole herd has been tested, then repeat the test on representative animals.

### What are representative animals?

You want to test a group that (ideally) represents your entire herd. So you should test cattle of various ages, purchased from different producers, and from different sites on your operation.

### What if an animal tests positive?

There are different levels of aggressiveness in Johne's disease control programs depending on the producer, the risk they are willing to take, the value of the animal, the level of concern, and the type of test.

One approach for a test-positive animal showing signs of Johne's disease is to immediately cull the animal and notify the farm of origin. A less aggressive approach would be to isolate the animal on the farm and repeat the test. This might be rational if the animal is pregnant and showing no signs of disease. The ostrich approach would be to ignore it, but remember the ostrich can kill with its feet. Ignoring Johne's disease risks a lifetime of work.

### OK, so I have a test-positive cow and I cull her, why would I notify the herd of origin?

Remember, Johne's disease is virtually ALWAYS PURCHASED. When you bought this animal it was already infected with the bacteria that causes Johne's disease. The right thing to do is to notify the breeder. They may not know they have a Johne's problem. They will test and cull, no matter the cost, because they know that a seedstock operation that sells animals with Johne's disease and does nothing about it will not be in the business for long.

### If you contact the breeder, and they tell you that they don't have a problem with Johne's disease, that the animal you purchased from them must have gotten the disease from elsewhere, what can you do?

As a well-informed producer, you know that Johne's disease is virtually always purchased. Therefore, you can presume they are completely ignorant about the disease (in which case they would not be a good source of stock) or they are lying (in which case they would not be a good source of stock).

### Why isn't there a recipe that we can follow for testing and management of Johne's disease?

Johne's disease is an unusual and complicated infectious disease. There are no perfect tests, and interpretation of the test results is not straightforward. Management depends on presence or absence of disease in the herd, prevalence of disease, goals, markets, and risks producers are willing to take. Your veterinarian can help you understand the disease and create a prevention and control program that is right for your business.

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Number of copies printed: 30,000; Total cost: $ 1,139.70; Price per copy: $0.037