

# Update on Results of the Ontario Johnne's Dairy Program

**Ann Godkin, Veterinary Science and Policy Unit, OMAFRA, and Nicole Perkins, Ontario Johnne's Program Coordinator**

As of September 1, 2011, we are almost half way through the Ontario Dairy Industry Johnne's program. The program started in January 2010 and will be completed by May 2013. Herd owners are offered the chance (a testing "window") to test their herds, based on county or region. Each window is approximately six weeks in length, allowing for the inclusion of at least one DHI test date per herd.

Using either the milk or blood Johnne's ELISA test, 78,868 Ontario dairy cows from 1,154 herds have been tested. Of the cows tested, 563 cows (0.7%) have had a positive Johnne's test result. Only 108 cows (0.1%) in 74 herds have had High-Positive (titre > 1.0) test results. So far 63 of those herds have removed the High-Positive cows as required by the program.

Of the 1,154 herds tested, 260 (23%) have had at least one test-positive cow. For 894 herds, or approximately 77% of the herds tested so far, the news has been good – all cows have had negative test results on the test day. While this does not mean these herds are "free" of Johnne's, it does mean that the prevalence of infection is likely to be low.

Of the herds with positive tests, 224 (19% of the 1,154 herds tested) have had 5% or fewer cows with positive test results, and 24 herds (2% of the tested herds) have had between 5 and 10% of cows test positive. At the high end of the Ontario prevalence scale, 12 herds (1% of herds tested) have had 11% or more of cows with positive test results.

Unfortunately, 74 herds received herd test results that showed at least one cow with a High-Positive result. While this seems like bad news, participation in the program offers these herd owners and their veterinarians an opportunity to assess the full herd infection picture and it assists the owner in obtaining veterinary advice to manage Johnne's disease. These herd owners have received \$500 per High-Positive cow (removed according to program requirements) to help them to reduce Johnne's spread to the rest of the herd.

Many herd owners think that their herd does not have Johnne's disease and, therefore, testing is not important. The program reimburses a producer's testing costs. Completing the Johnne's Risk Assessment and Management Plan (RAMP) with the veterinarian provides the owner with herd management information, with a special focus on calf health and feeding issues. On a provincial basis, having as many herds as possible test and complete the program allows us to estimate the extent of Johnne's disease in Ontario.

To date, both producer and veterinarian participation has been excellent. As of late September, 943 herds (82% of the herds that have started the program) have completed all requirements and received compensation, and 232 veterinarians have been trained to do the RAMPs.

## The Ontario Johnne's Dairy Program: High-Positive Cows – Don't let them scare you away!

**Ann Godkin, Veterinary Science and Policy Unit, OMAFRA, and Nicole Perkins, Ontario Johnne's Program Coordinator**

As of early fall 2011, the 14<sup>th</sup> testing period or "window" of the Ontario Johnne's Dairy program has ended. Approximately half of Ontario's dairy producers have had a chance to have their herd tested for Johnne's disease at no charge. To date, 943 herds have completed the full herd test, the risk

assessment and management plan (RAMP) with their veterinarian and, if applicable, have removed High-Positive cows identified on the herd test. These herds have been reimbursed by the program and have received their certificates of completion. Others are in various stages of completion.

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We want to make sure that producers understand the opportunity that this program provides to them. The “window” for their county is the only opportunity for producers to participate and receive reimbursement for testing. The schedule for testing is on [www.johnes.ca](http://www.johnes.ca) or is available from herd veterinarians.

While almost 75% of eligible herds have participated in some windows, this has not consistently been the case. One reason given by some producers regarding why they have not enrolled is their worry about having to get rid of their “best” cows if they test positive. This indicates that there is some confusion about cow removal in the Ontario program. Cow removal remains rare and, if its role is fully understood, is not a reason to avoid enrolling in the program.

### **Which cows are removed?**

When cows are tested using milk or blood ELISA tests, each cow receives an ELISA score. Based on these scores, cows are classified as Negative, Low Positive or High Positive for Johnes’s. For reimbursement of test costs, the only cows that must be removed are those with High-Positive results. High-Positive (or high-titre) cows have a test result of 1.0 or higher. These cows need to be removed because they are shedding the Johnes’s bacteria in manure and possibly in milk. For reimbursement, the program requires that High-Positive cows go to deadstock (rendering) or burial, and not to future dairy or meat production. Many Low-Positive cows will remain in herds. With veterinary advice, these cows can be managed to prevent Johnes’s from spreading to other cattle in the herd. **All cow removal, including the High Positives, is voluntary – any producer can decide to keep any cow they want regardless of what the Johnes’s test results show.**

### **Payment for cows**

Payment of \$500 per High-Positive cow removed is offered to affected herd owners to help them manage Johnes’s risks. Testing costs (\$8 per cow test) are reimbursed by the program when all requirements are fulfilled within the program’s timeframe but, if a producer wants to keep a particular cow, even a High-Positive one, they can do so – they simply will forfeit reimbursement for testing costs.

Only the producer and their veterinarian know what the herd Johnes’s test results show. We encourage producers to seek veterinary advice about managing any test-positive cows they retain in the herd.

### **How likely is it that a herd will have a High-Positive cow?**

The program statistics show that 94% of the herds tested have NOT had a cow with a High-Positive test result. High-Positive cows remain rare (0.1% of 78,868 cows tested).

In many cases, the herd owners, whose herd test has shown a High-Positive cow, are not surprised with their results. Many of these herds have a history of previous Johnes’s disease cases prior to joining the program. The program offers these herds a chance to “benchmark” their full herd’s Johnes’s status by helping them to test all cows at one time.

It is very unusual for an Ontario herd to have a High-Positive cow without some indication that this might occur, based on the herd’s history. If a producer is concerned, they should discuss the risks and benefits of testing with their veterinarian.

### **Will the herd’s “best cow” be a High Positive for Johnes’s?**

It is unlikely that the best cow will have a High-Positive test result. High-Positive cows have advanced infection, which is why they produce a very high level of antibody. If not already sick at testing time, most are close to developing the diarrhea and weight loss that are the signs of Johnes’s disease. A High-Positive cow may appear healthy on the day of testing; however, research clearly shows that their milk production has been declining. Even though some High-Positive cows appear healthy, they are shedding very large numbers of Johnes’s bacteria in manure. These bacteria can infect young cattle. Many times, when producers take a closer look at a particular cow with a High-Positive test result, they see that she already has signs of Johnes’s disease.

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## Program benefits – herds and province

Herd owners should use the Ontario Johnne's program to find out where their own herd stands with regard to Johnne's disease. The herd test provides a "snapshot", a picture at one point in time, which helps to predict if Johnne's is likely to be present and whether it should be a big or small priority for a particular herd manager.

Even if a producer does not suspect a Johnne's problem, testing under the program helps us to put the full Ontario dairy industry on the record. If most herds in Ontario are "low Johnne's", this would be good news for everyone. Documenting this with 4,100 herds enrolled and tested via the Ontario Johnne's program will benefit both cattle breeders and milk producers alike.

## In summary

- The Johnne's program offers each producer a one-time opportunity to test their herd for Johnne's disease.
- Once the herd is tested, the producer can decide whether or not they want to continue and do all program requirements (RAMP and removal of High-Positive cows).
- Tests done as part of the program are reimbursed at \$8 per cow tested.
- All cow removal is voluntary.
- High-Positive cows identified in herds continuing in the program must be removed to deadstock or burial.
- Producers receive \$500 per High-Positive cow removed as part of the program.

## Update on the Johnne's Beef Program – Last Call!

**Ann Godkin, Veterinary Science and Policy Unit, OMAFRA**

The Johnne's Beef program began in December 2010 and provides an opportunity for seed-stock producers to test mature cattle, two years of age and older. Blood samples are collected by the herd veterinarian and tested at the Animal Health Laboratory using the Johnne's serum ELISA test. Laboratory results are returned to the veterinarian, who provides interpretation for the producer. During a follow-up farm visit, based on the Johnne's information provided by the testing, the veterinarian and owner work through an on-farm consultation using the beef cattle Johnne's Risk Assessment and Management Plan (Beef RAMP). Together the veterinarian and the producer discuss changes to management that the herd owner can adopt to prevent the introduction and spread of Johnne's disease.

To date, 78 herds have enrolled. As of October 1, 2011, 44 herds have completed all of the required steps and have had reimbursement cheques issued. The remainder of the herds are progressing through the various stages to completion.

This program, with funds provided by the Ontario Cattlemen's Association and the Agricultural Biosecurity program, reimburses the herd owner for the herd testing cost and the veterinary consultation fees. **Only the producer and the veterinarian know the results of the Johnne's tests for a particular herd.**

The program ends in December 2011. There is still some funding available. **All herds must complete the program requirements by December 2011 in order to receive reimbursement.** Fall pregnancy testing is a good opportunity for herd blood sampling.

To enroll a herd in one of the few remaining places in the program, interested veterinarians should contact the project co-coordinator, Dr. Ann Godkin (519-846-3409 or [ann.godkin@ontario.ca](mailto:ann.godkin@ontario.ca)) as soon as possible. **Please contact the co-coordinator before testing to ensure that sufficient funds remain available.**