NATIONAL JOHNE'S EDUCATION INITIATIVE

JOHNE'S DISEASE – DAIRY

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Voluntary Bovine Johne's Disease Control Program Revised, Has 3 Components: Education, Management, Classification

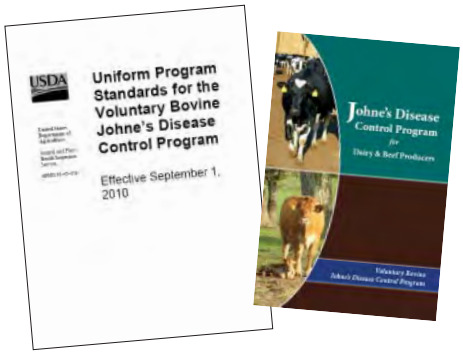
Dairy producers and their veterinarians are encouraged to check out the revised Uniform Program Standards for the Voluntary Bovine Johne's Disease Control Program developed by USDA in conjunction with the U.S. Animal Health Association that went into effect Sept 1. The good news for producers and veterinarians is that the updated Control Program is less cumbersome, has three levels of producer involvement and has an easier-to-understand-and-follow system for classifying herds that have a lower risk of transmitting *Mycobacterium avium paratuberculosis (MAP)*, the bacteria known to cause Johne's disease.

"All producers participating in the revised Voluntary Bovine Johne's Disease Control Program will start with the education component, then they can choose whether to proceed to the management component that incorporates best management practices or move on to the classification component that incorporates best management strategies and testing," states Dr. Michael Carter, National Johne's Disease Control Program Coordinator, National Center for Animal Health Programs, USDA-APHIS-VS. "This is a progressive program, and producers can determine their level of involvement. The more producers know about and test for Johne's disease, the better for them and their customers."

When asked why dairy producers should participate in the Voluntary Bovine Johne's Disease Control Program, Dr. Carter stressed that the incidence of Johne's disease in dairy and beef herds can be reduced significantly when producers know about Johne's disease and implement measures—including testing—to reduce the transmission of *MAP*. He pointed out that Johne's disease is estimated to be present in 68 percent of U.S. dairy operations. A National Animal Health Monitoring Systems study found that infected dairy herds experience an average loss of $40 per cow in herds with a low Johne's disease clinical cull rate while herds with a high Johne's disease clinical cull rate lost on average of $227 per cow.

"The most significant change in the updated Voluntary Bovine Johne's Disease Control Program is the new six-level testing classification system," adds Dr. Elisabeth Patton, chairman of U.S. Animal Health Association's Johne's Disease Committee. "Producers who participate in the testing component of the Program will find a new six-level classification system that has specific criteria for different sizes of herds: 1-99 head, 100-199 head, 200-299 head and more than 300 head. A significant amount of thought and work went into the development of this new six-level classification system to address concerns with the the previous system and to improve the accuracy of herd classification."

The revised Uniform Program Standards for the Voluntary Bovine Johne's Disease Control Program—September 201 can be read in full and printed off at *www.johnesdisease.org.*



Revised Uniform Program Standards for the Voluntary Bovine Johne's Disease Control Program—September 2010 (left) and the 16-page abridged version (right). Both are online at *www.johnesdisease.org.*

Condensed, Producer-Friendly Booklet Available

A 16-page reader-friendly abridged version of the recently revised Uniform Program Standards for the Voluntary Bovine Johne's Disease Control Program has been developed by the National Johne's Education Initiative and underwritten by the Wisconsin Department of Agriculture, Trade and Consumer Protection. Like the full version, this booklet is available online. A personal copy of the abridged booklet can also be obtained from your state State Designated Johne's Coordinator, online at *www.johnesdisease.org* or from the National Institute for Animal Agriculture by calling (719) 538-8843.

USDA

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NATIONAL INSTITUTE FOR ANIMAL AGRICULTURE

Voluntary Bovine Johne's Disease Control Program: Producer Decides Level of Involvement

Here's a quick look at the three components—Education, Management: Best Management Practices and Herd Testing—that comprise the recently revised Uniform Program Standards for the Voluntary Bovine Johne's Disease Control Program that went into effect in September.

Each producer can decide his/her level of involvement in the Voluntary Bovine Johne's Disease Control Program:

- Education component only
- Education and Management components only
- Education, Management and Testing without Herd Classification
- Education, Best Management and Testing to obtain a Herd Classification Level

Education Component

"The more you know about Johne's disease, the better you can prevent and/or control the disease. Thus, all producers who participate in the Voluntary Bovine Johne's Disease Control Program start with the Education Component," states Dr. Elisabeth Patton, chairman of U.S. Animal Health Association's Johne's Disease Committee.

Dr. Patton explains that, during the Education Component, producers will learn basic Johne's disease information such as the cause, clinical stages, transmission, etc. The Education Component of the Program also focuses in on management strategies related to manure and waste, colostrum and milk, calves and young stock, herd additions and high-risk animals, biosecurity, infected animals, control and testing strategies, testing options, test interpretation and using test results. State program components are also discussed.

The educational part may be delivered through classroom settings, one-on-one sessions or online training courses provided by your State Designated Johne's Coordinator (DJC). The method of delivery is determined by the State DJC and what is available in a particular state.

"A number of resources are available to increase one's understanding of this disease," Dr. Patton adds.

Management Component

The Management Component of the Program recognizes dairy producers who implement specific management practices to control the introduction and/or spread of *MAP*, the bacteria known to cause Johne's disease.

To participate in the Management Component, a producer must start by having a Johne's Certified Veterinarian or a trained State or Federal animal health official conduct an on-farm risk assessment to identify management practices and facility issues likely to introduce or spread *MAP* throughout the herd. A copy of the risk assessment must then be submitted to the producer's state Designated Johne's Coordinator for review.

The second "must do" item is for the producer to partner with a Johne's Certified Veterinarian or a trained State or Federal animal health official to develop a herd management plan—together these are known as a Risk Assessment and Management Plan or RAMP— to minimize the spread and/or introduction of *MAP* in the herd. A copy of the management plan must be submitted to the producer's state Designated Johne's Coordinator for review and approval.

During Part 3 of the Management Component the producer must implement Johne's disease Best Management Practices identified and outlined in the herd management plan.

To continue in the Program, the producer and a Johne's Certified Veterinarian must then review and update the Risk Assessment and Management Plan—RAMP—at least every three years after enrollment and make appropriate changes to the herd management plan as needed. The updated RAMP must be completed and submitted to the producer's state Designated Johne's Coordinator during a window of 60 days either side of the original RAMP anniversary date.

"Individual animal or herd testing for Johne's disease at this level of participation in the National Johne's Disease Control Program is optional," Dr. Patton states. "During the initial and renewal RAMPs with your certified Johne's veterinarian, however, I would strongly encourage producers to discuss whether Johne's disease testing is right for their herd."

Producers participating in the Management Component of the Program are required to have all cattle individually identified with ear tags and are asked to implement minimum biosecurity measures to help reduce exposure to manure or milk from cattle of unknown Johne's disease status. Minimum biosecurity measures include:

- Maternity calving areas should be kept clean, dry and free of manure. Individual calving pens should be utilized. If individual calving pens are not used, then cow density should be minimized. The maternity/calving area should not house non-calving or sick

animals, nor should it be immediately adjacent to mature animal housing areas.

• Heifer calves and bull calves that will be retained in the herd or sold for dairy purposes should be immediately separated from adult animals.

• Each calf should be fed colostrum from an identified, low-risk, test-negative cow or given a suitable, quality colostrum replacer.

• After receiving colostrum, calves should receive only pasteurized or a quality milk replacer.

• Young stock should be housed by age, separated from older animals and kept free from exposure to the manure of mature cattle.

• Animals added to the herd should come only from status-level or documented low-risk sources. Unless a producer has evidence to the contrary, herd additions should be managed as higher risk animals and the source of the additions recorded.

• Manure contamination of feed, water, equipment and vehicles should be minimized.

• Clinical suspects should be segregated, tested and removed from the herd as soon as possible. Official test-positive cattle should be humanely euthanized or sent to slaughter.

Testing for Non-Classification Purposes

Dr. Michael Carter, National Johne's Disease Control Program Coordinator, National Center for Animal Health Programs, USDA-APHIS-VS, says approved testing methods that can be used to determine the presence or absence of *MAP* within a dairy herd include USDA-approved ELISA testing on milk or serum, *MAP* detection tests include fecal culture, fecal direct PCR, pooled fecal sampling with manure samples are collected from individual animals then pooled in groups of five and/or environmental sampling with mixed manure samples collected in areas where a large proportion of the herd is commingled.

A chart listing the recommended test regimen for the detection of Johne's disease in dairy cattle based on herd type and testing purpose is provided in the 16-page abridged version of the Program.

Testing for Classification Program

Herd Testing for Classification is the highest level of the Voluntary Bovine Johne's Disease Control Program.

"Herd testing for classification helps you identify the risk of Johne's disease within your herd based upon the level of infection identified by testing," Dr. Patton states. "The higher the Classification level, the lower the risk for transmitting Johne's disease.

"Therefore, you can use your Classification Level to communicate your herd's level of risk of Johne's disease."

To participate at this level, a producer must participate in the Program's Education and Management components, maintain a current approved Risk Assessment and Management Plan (RAMP) and test for Johne's disease to determine the herd's test status and to establish a herd classification.

Testing methods that can be used to determine the presence or absence of *MAP* within a dairy herd include USDA-approved ELISA testing or *MAP* detection test: fecal culture, fecal direct PCR and/or pooled fecal sampling with fecal samples collected from individual animals then pooled together in groups of five. Testing samples must be collected by, or under the supervision of, an accredited veterinarian, animal health official or authorized agent, with all samples submitted to a National Veterinary Services Laboratories-approved laboratory.

"The Program has pinpointed minimal testing numbers for herd classification that are dependent on herd size," Dr. Patton states.

Minimal testing numbers, along with testing/sampling requirements are provided in the full version of the revised Uniform National Standards Program of the Voluntary Bovine Johne's Disease Control Program and in the 16-page abridged version of the Program.

Both documents also contain a chart detailing the maximum percentage of positive animals in a herd possible to achieve each of the six Classification Levels for the various herd sizes: 1-99, 100-199, 200-299 and 300 head or more.

"As with the previous version of the Program, no level of classification certifies a herd as free from Johne's disease infection," Dr. Patton adds. "We simply have herds with less risk.

"That said, what an achievement it is when a herd owner can make the

claim that his or her herd has reached Classification 6 level—the highest level in the Program."

Why Participate in Program

Participating in this national program is designed to help producers improve their understanding of Johne's disease and its impact on their bottom line, learn and implement Best Management Practices that can help prevent and control Johne's disease in their herd, prevent the spread of Johne's disease to their customers' herds and have the opportunity to achieve a Classification Level that shows their customers their commitment to helping prevent and control the spread of Johne's disease to their customers' herds.

"These are definitely four good reasons why a producer should participate in the Voluntary Bovine Johne's Disease Control Program," states Dr. Elisabeth Patton, chairman of U.S. Animal Health Association's Johne's Disease Committee. "Producers will achieve a lot even if they choose to only participate in the education and management components, but adding testing gives you additional information that can be used to help control this costly disease."

If you would like to learn more about participating in the Voluntary Bovine Johne's Disease Control Program, please contact your state Designated Johne's Coordinator. A list of state DJCs is available online at www.johnesdisease.org. Your state DJC can also provide you with the full Voluntary Bovine Johne's Disease Control Program document or with the abridged version.

"The more you know about Johne's disease and implement Best Management Practices and testing, the greater the opportunity for a healthier bottom line," Dr. Carter summarizes.

The Cost of Johne's Disease to Dairy Producers Booklet Now Offered in Spanish

The 12-page "The Cost of Johne's Disease to Dairy Producers" booklet developed and published last spring has been translated to Spanish, and the Spanish version is now available—and free to producers and veterinarians. Underwritten by IDEXX Laboratories, the booklet was developed in partnership with USDA-APHIS-VS and the National Johne's Education Initiative.

"With government budgets severely cut, partnering with corporations such as IDEXX Laboratories allows us to provide producers with needed educational material, and this time we're fortunate to have the same booklet offered in English and in Spanish" Dr. Carter states. "Johne's disease causes significant economic loss for producers whose animals have the disease, and producers should be aware of what this economic loss might be. In the same vein, producers should be testing and implementing various management strategies to help prevent and/or control the disease."

The economics-oriented booklet shares facts about Johne's disease, explains the "iceberg phenomenon" and provides three ways to calculate the potential cost of Johne's disease within a dairy herd. The booklet also points out potential "hidden" costs associated with Johne's disease in a herd: premature culling of clinical or infected animals, increased veterinary costs, increased susceptibility other disease and possible breeding problems, increase in overall cull rate, decreased milk production in infected but normal-looking animals, decreased slaughter value of 20% to 30%, decreased pool of available replacements—thereby limiting genetic pool, decreased feed efficiency, loss of marketing animals for sale and loss of investment in young stock that have been infected or exposed since birth. In addition.

"We are excited to have a booklet that addresses the economics aspect of Johne's disease on a producer level," states Dr. Elisabeth Patton, chairman of U.S. Animal Health Association's Johne's Disease Committee. "One chart even allows a producer to plug in his or her numbers so an on-farm estimate can be calculated in regards to clinically affected cows."

To obtain your free copy of the Spanish or English version of this Johne's disease booklet, go to *www.johnesdisease.org* or call the National Institute for Animal Agriculture at (719) 538-8843.

To learn more about Johne's disease prevention and control, please contact your state Designated Johne's Coordinator. A list of state DJCs is available online at *www.johnesdisease.org*.

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