Legislative Report
October 4, 2017

Bovine Tuberculosis Eradication Program Quarterly Update

Provided by the Animal Industry Division
Michigan Department of Agriculture and Rural Development (MDARD)

Act No. 107, Public Acts of 2017, Approved by the Governor July 14, 2017, EFFECTIVE DATE: July 14, 2017

AN ACT to make appropriations Sec. 457.

(1) On or before October 15, 2017, the department shall provide to the subcommittees, the fiscal agencies, and the state budget office a report on bovine TB status and department activities.

(2) For each fiscal quarter following the report required in subsection (1), the department shall provide an update to the subcommittees, the fiscal agencies, and the state budget office. The quarterly update reports shall identify significant impacts to the program, including new incidence of bovine TB in this state, department activity associated with specific new incidence of bovine TB, any changes in USDA requirements or movement orders, and information and data on wildlife risk mitigation plan implementation in the modified accredited zone; implementation of a movement certificate process; progress toward annual surveillance test requirements; efforts to work with slaughter facilities in this state, as well as those that slaughter a significant number of animals from this state; educational programs and information for this state's livestock community; and any other item the legislature should be aware of that will promote or hinder efforts to achieve bovine TB-free status for this state.

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A. MDARD Bovine Tuberculosis Eradication Program Activities

Why We Do What We Do

Michigan's citizens are protected from exposure to the bovine tuberculosis (TB) organism as a result of the Bovine TB Eradication Program. The Michigan Bovine TB Program was established under Public Act 466, of 1988, as amended, the Animal Industry Act, and is required under Federal Law in order for Michigan producers to participate in interstate commerce of animals (9CFR Part 77) and to maintain a state status (9CFR Part 92). Bovine TB has economic and human health implications and the program is of high visibility and interest to farmers, producer groups, hunters, and the federal government. The disease is of high interest at the national level, and other states would close their markets to Michigan cattle, meat, and milk products if the program were reduced or eliminated. More than 13,000 cattle producers in Michigan maintain over 1.1 million cattle each year. The Michigan program prevents farm to farm transmission of bovine TB and provides access to national and international markets. The 62 dairy producers located within the Modified Accredited Zone (MAZ) are able to sell Grade A milk because of the program we have in place.

Trace Testing

All 33 trace investigations relating to TB affected herd #67 have been completed. All four of the required trace tests have been completed with no finding of disease.

All 123 trace investigations relating to TB affected herd #68 have been completed. 15 of 18 required whole herd tests relating to these trace herds have been completed with no finding of disease.

There were no trace investigations relating to TB affected herd #69.

Two of three trace investigations relating to TB affected herd #70 have been completed. The one required whole herd test relating to these trace herds has been completed with no finding of disease.

All 18 trace investigations relating to TB affected feedlot #5 have been completed. All five required whole herd tests have been completed with no findings of disease.

Circle Testing

Circle Testing in Newaygo County

As a result of discovering a TB infected feedlot in Newaygo County (see infected Feedlot #5 below for details), a special surveillance area was established on March 14, 2016 for herds within three miles of the affected feedlot. There were 28 herds in this circle that needed to TB test by September 14, 2017. All 28 herds have completed their testing with no finding of disease.

Circle Testing in Lake County

As a result of discovering a TB infected animal from Indiana in Lake County (see infected Herd #69 below for details), a special surveillance area was established March 20, 2017. There are 45 herds in this circle that will need to TB test by September 20, 2017. To date, 26 of these herds have completed their testing with no finding of disease.

Circle Testing in Presque Isle County
As a result of finding a TB infected free-ranging white-tailed deer in Presque Isle County a potential high-risk area was established April 14, 2017. This is the 21st infected deer found in Presque Isle in 21 years. There are 16 herds in this 6.2-mile circle that will need to test by October 14, 2017. To date, 9 of the 16 herds have TB tested with no finding of disease.

Circle Testing in Iosco County
As a result of finding a TB infected free-ranging white-tailed deer in Iosco County a potential high-risk area was established April 14, 2017. There was only one herd in this 6.2-mile circle and the whole herd test has been completed with no finding of disease.

Circle Testing in Ogemaw County
As a result of finding a TB infected free-ranging white-tailed deer in southern Oscoda County a potential high-risk zone was established April 14, 2017. This is the first infected deer found in Iosco County since 2008. There are four herds in this 6.2-mile circle that will need to test by October 14, 2017. To date, three of the herds have completed their testing with no finding of disease.

Circle Testing in Roscommon County
As a result of finding a TB infected free-ranging white-tailed deer in Roscommon County a potential high-risk zone was established April 14, 2017. This is the first infected deer found in Roscommon County since 2003. There are two herds in this 6.2-mile circle that will need to test by October 14, 2017. To date, one of the two herds has completed its TB test with no finding of disease.

B. MDARD Bovine Tuberculosis Surveillance

On June 7, 2016, the current zoning order went into effect and removed requirements for random testing and Wildlife Risk Mitigation inspections for the counties of Antrim, Charlevoix, and Emmet.

The zoning order requires the following surveillance:

- Annual testing of the non-freezer beef herds in the Modified Accredited Zone, comprised of Alcona, Alpena, Montmorency, and Oscoda counties.
- Random testing continues in all herds not tested since April 1, 2014 in the counties of Cheboygan, Otsego, and Presque Isle. Half of these herds will be tested from April 1, 2016 to March 31, 2017 and the remaining half will be tested from April 1, 2017 to March 31, 2018.
    - All 40 herds on the 2017 list to test from Cheboygan, Otsego, and Presque Isle completed their tests prior to March 31, 2018. A number of producers who did not have cattle in April 2017 have since purchased cattle. At present the TB Program is tracking 81 herds that will need to test prior to March 31, 2018. To date, 56 of these 2017-2018 herds have tested.
- For the period of January 1 to September 30, 2017, 253 whole herd tests were completed in the MAZ and 74 whole herd tests were completed in the surveillance area of the TB Free Zone (Cheboygan, Otsego and Presque Isle counties).

C. Bovine Tuberculosis Affected Herds

Infected Herd #66

On August 4, 2016, a beef herd in Alcona County had one animal that responded to a movement test. That animal was examined at the Michigan State University Veterinary's Diagnostic Lab (VDL) and had lesions consistent with bovine TB. The herd was designated as affected on August 31, 2016. All required TB testing has been performed with no further finding of disease, and a herd plan has been signed. The quarantine was released on October 2, 2017.

Infected Feedlot #4

On October 10, 2016, a TB positive steer was found during routine slaughter surveillance at a slaughter plant. The infected animal was traced back to a Huron County feedlot using the Radio Frequency ID (RFID) on the animal. This feedlot was declared affected on October 25, 2016 and placed under quarantine. Per federal regulation the feedlot will continue to send its animals to a federally inspected slaughter plant, under seal, until empty. Once portions of the feedlot are emptied they must be cleaned by the producer, disinfected by MDARD, and permitted to sit empty for 30 days prior to being restocked. Eight loads of cattle have gone to slaughter since the process began with no further findings of disease.

Infected Herd #67

On November 4, 2016, a beef herd in Montmorency County had one animal that responded during a whole herd test. That animal was examined at VDL and had lesions consistent with bovine TB. The herd was designated as affected on December 1, 2016. A second TB test was performed January 2, 2017 with no finding of disease. USDA indicated that the herd should follow a test and removal process and that no federal indemnity of this herd would be made available. The producers requested the state depopulate the adults in the herd. The adults were sent to slaughter and Animal Industry Division paid the difference between the fair market value to the animals and what was paid by the slaughter plant. In the process of having the adult animals inspected at slaughter a second TB positive animal was discovered that had not responded to either the November or January TB tests. This animal was condemned at slaughter. The producer plans to feed his 2016 calf crop until they are old enough to slaughter. The TB Program is working with the herd owner to improve the herd's biosecurity.

Infected Herd #68

On November 4, 2016, a dairy herd in Alpena County had one animal that responded during a whole herd test. That animal was examined at VDL and had lesions consistent with bovine TB. The herd was designated as affected on December 1, 2016. This herd has completed a test and removal process in September with no further finding of disease. The TB Program is working with the herd owner to finish implementing the final details of the herd's biosecurity plan.

Infected Feedlot #5

On January 25, 2017, a TB positive steer was found during routine slaughter surveillance at a slaughter plant. The infected animal was traced back to a Newaygo County feedlot using the Radio Frequency ID (RFID) on the animal. This feedlot was declared affected on February 3, 2016 and placed under quarantine. Per federal regulation the feedlot will continue to send its animals to a federally inspected slaughter plant, under seal, until empty. Once portions of the feedlot are emptied they must be cleaned by the producer, disinfected by MDARD, and permitted to sit empty for 30 days prior to being restocked. Eight loads of cattle have gone to slaughter since the process began and one additional TB affected animal was found.

Infected Herd #69

In December of 2016, a beef herd in Indiana was found to be infected with Bovine TB. One of the exposed traces from that herd lead to a small beef herd in Lake County. One of exposed animals from Indiana were found to have lesions consistent with bovine TB during necropsy at VDL. The herd was designated as affected on March 31, 2017. Genetic testing at the National Veterinary Service Labs confirmed that the TB was the same as what had been found in Indiana. MDARD indemnified the remaining two beef animals on the affected premises, sending them to slaughter at a federally inspected plant on April 4, 2017. No further disease was found. The premises has been cleaned and disinfected and once the herd owner has signed his herd plan the quarantine on the premises will be released.

Infected Herd #70

One animal responded to this Alcona County beef herd's annual TB test on February 24, 2017. The animal was examined at Michigan State University's Veterinary Diagnostic Lab April 5, 2017 and found to have lesions compatible with Bovine TB. The herd was designated as affected on April 11, 2017. A test and removal process was begun June 5, 2017. The TB Program is working with the herd owner to improve the herd's biosecurity.

D. Wildlife Risk Mitigation Project

The Wildlife Risk Mitigation Project began in 2008 with a goal to enroll commercial farms. MDARD asked that these farmers adopt biosecurity practices that reduce the risk of cattle coming into direct or indirect contact with bovine tuberculosis infected free-ranging white-tailed deer. Farmers in Northern Lower Michigan whose cattle have been identified as at risk for bovine TB transmission from wildlife are using the following steps to prevent disease transmission and to market their cattle:

- Fence in feed – and keep the fences closed
- Store feed in buildings
- Feed cattle away from deer cover
- Feed cattle daily
- Provide water to cattle where it cannot be contaminated by deer
- Use disease control permits from DNR to keep deer numbers down on cattle farms

Presently, 536 of the 612 active commercial farms (88%) in the present TB surveillance zone have a verified Wildlife Risk Mitigation Action Plan in place.

Because there continues to be several infected herds annually in the MAZ, the TB Program, in conjunction with the TB Advisory Committee, has been working on an Enhanced Wildlife Risk Project that deals with the 149 herds located in the area with the most risk. These herds have been grouped into 14 clusters. Using the Epi Team approach that the TB Program has used on affected farms for years, the 149 herd owners will be given a chance to work with one of two teams that will take a more in depth look at each farm's risks and will give the producer some ideas of how to mitigate those risks. The two teams working on this effort are made up of Michigan State University Extension personnel, a wildlife biologist from either USDA Wildlife Services or the Alpena Conservation District, a local producer, and a MDARD field staff veterinarian. The two teams have completed 50 farms visits to date. They are finding some risks can be addressed by changing the farm's management practices. In other cases, the pressure from wildlife on either cattle feeding sites or cattle feed storage may require an investment in physical plant improvements – mainly fencing.

E. Movement Permitting Data

Below is the movement permitting data from the seven counties where movement permits are required: four Modified Accredited Zone counties (Alcona, Alpena, Montmorency, Oscoda) – all movements require a permit and three TB Free Surveillance counties (Cheboygan, Otsego, Presque Isle) – only herds that do not have biosecurity plan in place are required to have permit to move.

	Number of Movement Permits	Number of Animals Moved
Movement Permits Jan. 1 – Sept. 30, 2017	1,413	5,176
Movement Permits July 1 – Sept. 30, 2017	516	1,825

F. Update on Michigan's Bovine TB Status

Michigan's present Memorandum of Understanding with USDA allows three TB affected herds in Michigan's four county Modified Accredited Zone during a 12-month period. During 2016 there were five TB affected herds. As a result of the uptick in TB affected farms - a number of high level USDA Veterinary Services (VS) officials, including Dr. Jack Shere, the Deputy Administrator for Veterinary Services, visited Michigan to discuss the situation December 19-21, 2016. As a follow up to that meeting, representatives from the Michigan Department of Agriculture and Rural Development (MDARD) and the Department of Natural Resources MDNR) met with Dr. Shere and other VS officials on August 10, 2017 at the USDA East Lansing Office to continue the discussion. During this meeting VS proposed two options to deal with the 2016 uptick in bovine TB in Michigan's Modified Accredited Zone.

Option 1: Reclassify Michigan's modified accredited (MA) zone to accreditation preparatory status for TB.
Option 2: Rescind Michigan's current status and zones and classify the entire state as Modified Accredited.

A letter to Dr. Shere responding to the two proposals, and offering a third proposal, was sent September 29, 2017. Michigan's proposal doesn't involve any loss of status for any portion of the state, but focuses on the effort to improve biosecurity on the most at-risk farms in the MAZ, including a program of removing deer that are chronically intruding onto cattle farms. USDA has agreed to discuss the matter further with Michigan on October 16, 2017.