



Legislative Report
July 6, 2017

Bovine Tuberculosis Eradication Program Quarterly Update
Provided by the Animal Industry Division
Michigan Department of Agriculture and Rural Development (MDARD)

Act No. 268 Public Acts of 2016, Approved by the Governor June 29, 2016, Filed with the Secretary of State June 29, 2016, EFFECTIVE DATE: June 29, 2016.

AN ACT to make appropriations Sec. 457.

- (1) On or before October 15, 2016, the department shall report to the subcommittees and the fiscal agencies 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 and fiscal agencies. 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, and changes in USDA requirements or movement orders, 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 Michigan, as well as those that slaughter a significant number of animals from Michigan; educational programs and information for Michigan's livestock community; any other item the legislature should be aware of that will promote or hinder efforts to achieve bovine TB-free status for Michigan.

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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 63 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

31 of 33 trace investigations relating to TB affected herd 67 have been completed. Three of four required whole herd tests have been completed with no finding of disease.

109 of 121 trace investigations relating to TB affected herd 68 have been completed. 13 of the 18 required whole herd tests relating to these trace herds have been completed with no finding of disease.

14 of 18 trace investigations relating to TB affected feedlot 5 have been completed. One of four required whole herd tests have been completed with no findings of disease.

Circle Testing

Circle Testing in Huron County

As a result of discovering a TB infected feedlot in Huron County (see infected Feedlot #4 below for details), a special surveillance area was established on October 31, 2016 for herds within three miles of the affected feedlot. TB testing was completed in this circle on May 12, 2017 with 658 head from 12 cattle herds being tested. No further evidence of disease was discovered.

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 are 38 herds in this circle that will need to TB test by September 14, 2017. To date, 18 of the 38 herds have completed their testing with no findings 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 40 herds in this circle that will need to TB test by September 20, 2017. To date one of the 40 herds has 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 17 herds in this 6.2-mile circle that will need to test by October 14, 2017. To date, five of the 17 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 is only one herd in this 6.2-mile circle that will need to test by October 14, 2017.

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 six herds in this 6.2-mile circle that will need to test by October 14, 2017.

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 counties 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, 39 of these 2017-2018 herds have tested.
- For the period of January 1 to June 30, 2017, 157 whole herd tests were completed in the MAZ and 57 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 #64

On March 30, 2015, a beef herd in Oscoda County had one animal that responded to TB testing. That animal was removed from the premises for confirmatory testing at the Michigan State University's Veterinary Diagnostic Lab and had lesions consistent with bovine TB. The herd was designated as affected on April 7, 2016. The herd completed a test-and-remove process April 3, 2017 during which a second TB positive animal was found. A Herd Plan was signed April 7, 2017 and the quarantine was released April 11, 2017.

Infected Herd #65

An Alcona County beef herd epidemiologically linked to infected herd #64 was tested April 12-18, 2016 and 8 animals were taken to the Michigan State University's Veterinary Diagnostic Lab for further diagnostic testing. One animal was found to be positive for bovine TB. The herd was designated as affected on May 12, 2016. This is the second time this herd has been infected. The first infection occurred in 2003. The herd completed a test-and-remove process April 13, 2017. A Herd Plan was signed April 26, 2017 and the quarantine was released the same day.

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 and had lesions consistent with bovine TB. The herd was designated as affected on August 31, 2016. Whole herd tests were performed on the herd September 19-22 and December 5-8, 2016, and again February 14-17, 2017. The next test in the process will be in mid-August 2017. The TB Program is working with the herd owner to improve the herd's biosecurity.

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. Seven loads of cattle have gone to slaughter since the process began with no further findings of disease. The TB Program, using the affected animal's RFID, was able to trace the animal back to two farms in Presque Isle County. Both of these herds were placed under quarantine and TB tested with no disease being found on either farm.

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 the Michigan State University's Veterinary Diagnostic Lab 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 the Michigan State University's Veterinary Diagnostic Lab and had lesions consistent with bovine TB. The herd was designated as affected on December 1, 2016. This herd is following a test and removal process and was retested January 6 and March 14, 2017. The next TB test will be in mid-September 2017. The TB Program is working with the herd owner to improve the herd's biosecurity.

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. Four loads of cattle have gone to slaughter since the process began and one additional TB affected animal was found. The TB Program, using the animal's RFID, was able to trace the animal back to a farm in Newaygo County. This herd was TB tested, with no disease being found. On March 14, 2017, a report of the genome of the TB organism that was found in the first animal was received which clearly linked this infection to TB that is circulating in the Modified Accredited Zone (MAZ). Movement records also demonstrate that this farm had purchased animals originating in the MAZ.

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 Michigan State University's Veterinary Diagnostic Lab. 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. MDARD is working with the producer to complete the cleaning and disinfecting of the premises.

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 these farmers to 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, 510 of the 615 active commercial farms (83%) 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 145 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 145 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 29 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. The goal is to complete evaluations on an additional 40 of these at-risk farms during 2017.

E. Movement Permitting Data

Below is the movement permitting data from the seven counties where movement permits are required: four MAZ counties (Alcona, Alpena, Montmorency, Oscoda) – all movements require a permit; 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 – June 30, 2017	634	2,590
Movement Permits April 1 – June 30, 2017	385	1,595

F. Communications/Outreach

Newaygo County Public Meeting

A public meeting was held March 27, 2017 at 7:00 PM at the Grant Community Center in Grant, Michigan for TB Program staff to discuss the 4th TB affected feedlot, and the three-mile circle to be conducted in the area around the affected feedlot from April 14 to September 14, 2017.

Presque Isle Public Meeting

A public meeting was held Monday, April 24, 2017 at 7:00 PM in Onaway at the Allis Township Hall for TB Program staff to discuss the finding of a TB affected free-ranging white-tailed deer in 2016 and the need to do a 6.2-mile circle test around that deer. The TB testing will be conducted on 18 Presque Isle cattle farms from April 14 to November 14, 2017.

Alpena-Alcona County Meeting

A public meeting was held Tuesday, April 25, 2017 at 7:00 PM at the Hubbard Lake Community Center for TB Program staff to discuss the 70th TB affected herd and the need to improved biosecurity on cattle farms in the area.

Lake County Meeting

A public meeting was held Monday, May 8, 2017 at 7:00 PM at the Reed City High School for the TB Program staff to discuss the 69th TB affected herd and the three mile circle to be conducted in the area around the affected herd from April 26 to October 26, 2017. It was explained that genetic testing conclusively demonstrated that this was bovine TB that was imported from Indiana and not Michigan TB.

Michigan Cattlemen's Association Sumer Roundup

On June 23, MDARD field staff presented an educational meeting for beef producers at the Michigan Cattlemen's Association Summer Round-Up at Michigan State University. The group presented to approximately 75 beef producers on animal disease traceability and cattle identification.