



Legislative Report
October 12, 2020

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

Act No. 166, Public Acts of 2020, approved by the Governor September 30, 2020, EFFECTIVE DATE: September 30, 2020.

(1) On or before October 15, 2020, 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 Bovine TB Eradication Program protects citizens from exposure to the bovine tuberculosis (TB) organism. The Michigan Bovine TB Program was established under Public Act 466, of 1988, as amended, the Animal Industry Act, and is required by Federal Law 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 also 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. Approximately 12,000 cattle producers in Michigan maintain over 1.15 million cattle. The Michigan bovine TB program works to prevent, detect, and respond to cases of bovine TB and provides access to national and international markets for Michigan producers. The 38 dairy producers located within the Modified Accredited Zone (MAZ) can sell Grade A milk because of the program we have in place and the herds in the remainder of the state (AFZ) can freely move milk because of our split state status.

B. Special Surveillance Areas

Special TB Surveillance Areas in Allegan and Saginaw Counties

As a result of finding herd #78 and feedlot #6 in Allegan and Saginaw Counties respectively, on April 16, 2020 Special TB Surveillance areas three miles in radius were established around each of these premises. All cattle herds located within this radius must complete a whole herd TB test within six months of the designation, or by October 16, 2020. If a farm is unable to test within that six-month period, the farm will be quarantined, and a herd plan will be developed until the testing can be completed. At this time in the Saginaw County TB Surveillance Area, there are a total of ten herds that require testing; eight have been tested and two are scheduled for testing. In the Allegan County TB Surveillance Area, there are a total of 19 herds that require testing; 18 have been tested and one herd is scheduled for testing. No findings of bovine TB have occurred from the testing so far.

Beginning April 1, 2020 surveillance is required in MAZ Buffer Counties:

(Cheboygan, Crawford, Iosco, Ogemaw, Otsego, and Roscommon Counties)

MDARD's MOU with MDNR and USDA, signed in December 2019, and the current zoning order, effective April 1, 2020, require that 150 cattle herds be tested for TB annually for at least two years. Herds are selected for whole herd surveillance testing from the combined counties of Cheboygan, Crawford, Iosco, Ogemaw, Otsego, and Roscommon. At this time, 62 herds have been tested and 37 have been scheduled. 150 herds must be tested by March 31, 2021 to be compliant with the MOU. No findings of bovine TB have occurred from the testing so far.

Beginning April 1, 2020 surveillance required in Presque Isle County:

MDARD's MOU with MDNR and USDA, signed in December 2019, and the current zoning order, effective April 1, 2020, require all cattle herds in Presque Isle County which have not completed a whole herd bovine tuberculosis test since January 1, 2019 to complete a whole herd bovine tuberculosis test prior to December 31, 2020. There are 30 herds that have been identified as requiring a test under the new requirement and at this time 11 herds have been tested and 11 are scheduled for testing. If a farm is unable to complete a whole herd TB test by December 31, 2020, the farm will be quarantined, and a herd plan developed until testing is completed.

C. Bovine Tuberculosis Affected Herds

Infected Feedlot #4

On October 10, 2016, a bovine TB positive steer was discovered during routine slaughter surveillance at a federally inspected slaughter plant. The animal originated from a feedlot in Huron County which was declared affected on October 25, 2016 and placed under quarantine. All cattle have been slaughtered with no further finding of disease. Partial cleaning has been completed by the producer with disinfection completed by MDARD. The quarantine remains in effect pending complete cleaning of the remaining barns by the producer, after which MDARD can perform disinfection followed by 30 days downtime before the quarantine can be released.

Infected Herd #75

As part of required triennial whole herd testing in Presque Isle County, a small cow-calf beef herd was found to be positive for bovine TB in March 2019. This was the first positive herd in Presque Isle County since 2000. The herd was depopulated, the premises has been cleaned and disinfected. If the farm owner chooses to get more cattle, a herd plan which outlines the wildlife risk mitigation measures to protect the herd from re-infection in the future will be developed. The quarantine is expected to be released in October 2020.

Infected Herd #77

A medium sized beef herd in Alcona County was found to be infected with TB during an annual whole herd test in December 2019. Seven animals from that test went to MSU VDL in January with six of the animals having lesions consistent with bovine TB. Confirmation of infection was made by PCR at the USDA's National Veterinary Services Laboratory (NVSL) on January 13, 2020. At this time, 28 animals have been found to be lesioned in the herd, an additional 15 animals are scheduled to go to the lab for follow up testing in October 2020. The Whole Genome Sequence (WGS) of the bTB was consistent with an Alcona County bovine TB strain, indicating infection was likely due to exposure to TB infected free ranging deer. A test and removal program is ongoing and a plan has been put in place to protect this herd from re-infection in the future.

Infected Herd #78

This is a medium sized beef herd in Allegan County. This farm purchased cattle from herd #77 before it was known to be infected. The animals sold from herd #77 had completed all required testing prior to movement. An epidemiologic trace investigation was performed, and all exposed animals were removed to MSU VDL for necropsy, where one animal was found to have lesions consistent with TB. On March 9, 2020 that animal was confirmed positive for bovine TB by PCR at the USDA's NVSL. The WGS of this herd confirms that the infection occurred at herd #77. The remaining animals from this herd were moved to a feedlot to feed out to slaughter and C&D has been completed. The quarantine on this herd was released in September 2020.

Infected Feedlot #6

This feedlot was found by the epidemiologic trace from herd #77. Typically, exposed animals moved to a feedlot are fed out under quarantine until slaughter. However, the feedlot owner elected to have the exposed animals tested and one animal was a reactor to the test. The animal was taken to MSU VDL for necropsy and had lesions consistent with TB. On March 16, 2020 that animal was confirmed positive by PCR at the USDA's NVSL. The WGS of this herd confirms that the infection occurred at herd #77. The remaining animals from this herd were fed out and moved to slaughter, and the herd will be released from quarantine following cleaning and disinfection of the facilities which is expected to be completed in October 2020.

Infected Herd #79

A small sized dairy herd in Montmorency County was found to be infected with TB during an annual whole herd test in July 2020. One animal from that test went to MSU VDL in June and had lesions consistent with bovine TB. Confirmation of infection was made by PCR at the USDA's National Veterinary Services Laboratory (NVSL) on July 1, 2020. Whole Genome Sequence (WGS) of the bTB is pending. This herd has been previously infected with TB and the likely source of infection is from local TB infected free-ranging deer. At this time, one positive animal has been found in the herd, an additional four animals are scheduled to go to the lab for follow up testing in October 2020. The owner of the herd has decided to no longer operate as a dairy herd and the milking animals have been moved to a federally inspected slaughter plant. No evidence of TB was seen in any of these animals. The calves and feeder cattle remaining in the herd are continuing a test and removal program. The protection program for this herd has been assessed and modifications to that program to prevent re-infection in the future are being implemented.

D. Wildlife Risk Mitigation and Enhanced Wildlife Biosecurity

The Wildlife Risk Mitigation Project began in 2008 with a goal to enroll all commercial cattle farms. Under this program, farmers implement measures which reduce the risk of cattle exposure to bovine tuberculosis from infected free-ranging white-tailed deer. The following steps help prevent disease transmission to cattle:

- Store feed behind a fence or in a building
- Feed cattle away from deer habitat
- Feed cattle daily so feed is not left over
- 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, 366 of the 460 active commercial farms (80%) in the present TB surveillance zone (MAZ and Presque Isle Counties) have a verified Wildlife Risk Mitigation plan in place.

Because of higher bovine TB prevalence in free-ranging white tailed deer in the core area of the MAZ, the risk to cattle herds is greater than in other areas. Therefore, the TB Program, in conjunction with the TB Advisory Committee, developed an Enhanced Wildlife Biosecurity (EWB) Program to assist farmers with protection of their herds. Herd owners in the EWB Area work with specialized staff to evaluate their farm's specific risks and are provided a plan of action to mitigate the risk. Some risks may be addressed by changing the farm's management practices, while in other cases the pressure from wildlife necessitates an investment in physical improvements – primarily fencing. Producers in the EWB area were able to participate in a 90% State /10% Producer cost share program to construct fences and protect feed storage facilities. On January 1, 2020, any commercial producer in the EWB area that was not verified under that program is limited to selling cattle direct to slaughter only.

Final Update on the EWB Program

- Number of herds participating in EWB program: 99
- Percentage of farms in EWB Area that, if required, have a fully implemented biosecurity plan: 100%
- State cost-share funds spent to date in Enhanced Wildlife Biosecurity Area: \$985,320 **
- Pending project cost in EWB: \$0

**Current grant funding, which began 2014

New Cost-Share Projects Underway

- Funding which remained after the EWB effort was completed is being used to provide cost share assistance to producers for feed storage protection. This is a 90% State/10% producer cost share program. This program was offered to 68 herd owners in the non-EWB area of Alcona county as well as to higher risk herds in other areas of the MAZ. Ten producers requested participation in the program. The maximum amount per farm was originally \$3,000 but it was found that additional funds would be needed for most projects and with few producers participating, there were sufficient funds to raise the cap to \$6,000. Funding is provided on a first-come, first-served basis.
- A limited amount of cost share money will be available in FY 2021. The plan for the new cost share program is currently in development.

E. Movement Permits

Under the new Zoning Order, effective April 1, 2020, all movements of cattle from herds in the MAZ counties (Alcona, Alpena, Montmorency, Oscoda), and from herds in the Accredited Free Zone (AFZ) County of Presque Isle, require a movement permit. Below is the movement permitting data for these counties.

| | Number of Movement Permits | Number of Animals Moved |
|---|----------------------------|-------------------------|
| MAZ (Alcona, Alpena, Montmorency, and Oscoda Counties) Permits issued July 1, 2020 – September 30, 2020 | 311 | 1006 |
| TB Free Surveillance Zone (Presque Isle County) Permits issued July 1, 2020 – September 30, 2020 | 15 | 31 |

F. Communications/Outreach

Goals

- To ensure that cattle producers, hunters, and Michigan's citizens have a high level of trust and understanding of what we do and why.
- To provide information routinely to cattle producers, hunters, and community members about bovine tuberculosis program activities and initiatives.

MDARD has been working to keep the resources informing producers and the general public about the details of the bovine tuberculosis program accurate and up to date. Some brochures and website content have recently been updated.

As for outreach, the program has written and sent letters to producers to inform them about unique cost-share opportunities to better protect their herds and designed a number of presentations to inform those outside of the state of Michigan about TB and the measures taken to mitigate the spread of the disease.

In addition, MDARD and the DNR have been working closely on communications to promote deer head collection in the MAZ, Presque Isle, and MAZ buffer counties in order to meet the surveillance requirements set by the MOU. So far, the departments have partnered to author an article that was included in the September edition of *The Michigan Cattleman*, a publication of the Michigan Cattlemen's Association. Also, on September 23, 2020, both departments participated in a webinar hosted by MSU Extension. In the webinar, an audience comprised of hunters from across Michigan were able to learn about the history of TB and CWD in the state and the importance of submitting heads at check stations and drop boxes for testing.

In the coming weeks, as more operational details are confirmed about this year's hunting season, more communications will be planned to reinforce the importance of these deer head collections.

G. Michigan's Bovine TB Memorandum of Understanding and Zoning Order

A Memorandum of Understanding (MOU) between the Michigan Department of Agriculture and Rural Development (MDARD), the Michigan Department of Natural Resources (MDNR), and the United States Department of Agriculture (USDA), was signed on December 16, 2019. This MOU required MDARD to issue a new Zoning Order which became effective April 1, 2020 and can be found at: www.michigan.gov/emergingdiseases in the bovine TB section.

H. USDA's Review of Michigan's TB Program

In August 2020, a USDA Team conducted a review of Michigan's TB eradication program. The initial assessment from the team was generally positive. The report on the findings of the review team are expected in October 2020.

I. Covid 19 Impacts on Michigan's TB Program

MDARD field staff have been able to continue with TB testing throughout the Covid restrictions. Although a few producers chose to delay their testing due to the pandemic, most allowed the testing to occur. This was critically important with the increased testing that the December 2019 MOU required of MDARD. USDA testing staff was impacted, with one of the two testing veterinarians unable to continue testing during this time. In addition, the MDNR Wildlife Disease Lab was closed until late September 2020, which caused backlogs of deer to be tested. At this time, the lab is back open and testing has resumed. There will be impacts on deer check stations due to the Covid requirements for safely operating them. This may negatively affect the deer surveillance numbers that are required. However, MDARD and MDNR have been working closely together to find innovative ways to ensure that the necessary samples are collected.