Legislative Report
July 11, 2018

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 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 of 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. 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 57 dairy producers located within the Modified Accredited Zone (MAZ) can sell Grade A milk because of the program we have in place.

Circle Testing

Circle Testing in Presque Isle County

Because of finding TB infected, free-ranging, white-tailed deer in northern Montmorency, northern Alpena, and in Presque Isle Counties, potential high-risk areas were established on March 14, 2018. Only Presque Isle County had cattle within the potential high-risk area. There are 31 herds that required testing in this area and to date 23 of these herds have been tested with no finding of disease.

Circle Testing in Ottawa County

A trace investigation from two bovine tuberculosis positive cattle found at a processing facility led to the identification of a bovine TB positive roping cattle herd in Ottawa County Michigan (see discussion on Herd # 71 below). The infected animals originated from an infected herd in Indiana, prior to that herd testing positive for bovine TB in December 2016. A three-mile radius special surveillance area was established on February 14, 2018 in Ottawa County. Of the 93 herds that were initially shown to be in the circle, we have determined that 77 of those herds required a test by August 14, 2018. To date, 40 of these herds have completed their testing with no finding of disease.

Circle Testing in Kalamazoo/Barry Counties

A trace investigation from two bovine tuberculosis positive cattle found at a processing facility led to the identification of a bovine TB positive roping cattle herd in Kalamazoo County, Michigan (see discussion on Herd # 72 below). The infected animals originated from an infected herd in Indiana, prior to the Indiana herd testing positive for bovine TB in December 2016. A three-mile radius special surveillance area was established on February 20, 2018 in Kalamazoo and Barry Counties. Of the 10 herds that were initially shown to be in the circle, we have determined that 9 of those herds required a test by August 20, 2018 and to date 6 of these herds have completed their testing with no finding of disease.

B. MDARD Bovine Tuberculosis Surveillance (SECTION CORRECTED)

On March 21, 2018, a new zoning order was signed by the Director and went into effect removing surveillance testing for Otsego and Cheboygan Counties.

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.
- Triennial testing of all non-freezer beef herds in Presque Isle County.

Producers in the Enhanced Wildlife Biosecurity Area, in and around DMU 452 of the MAZ, must do the following or they will not be allowed to sell cattle other than directly to slaughter:

- They must have a signed contract with the USDA Wildlife Services (USDA-WS) by July 15, 2018 to allow USDA-WS to target the removal of habituated deer near their cattle facilities and pastures.
- They must have their farm assessed for risks that have not been adequately addressed by the current WRM program by June 1, 2019 and have completed the necessary actions for the risks identified by December 31, 2019.

Producers in Presque Isle County must have their farm WRM verified by September 1, 2018 or they will not be able to sell cattle other than directly to slaughter and the cattle will not be able to move through a livestock market.

C. Bovine Tuberculosis Affected Herds

Infected Feedlot #4
On October 10, 2016 a bovine 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. As of June 13, 2018, all cattle have been slaughtered with no further finding of disease. Once the feedlot is emptied it must be cleaned by the producer, disinfected by MDARD, and permitted to sit empty for 30 days prior to being restocked.

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 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 producer 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 of 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 portion of the premises that the producer will use as a small feedlot in the future was cleaned and disinfected in October 2017 and completed 30 days of sitting vacant. The producer signed a herd plan December 8, 2017. Additionally, a fence was placed around the farm's feed storage area. As a result of these actions the quarantine on the feed lot portion of the premises was released December 14, 2017. At this time, 6 animals remain and will eventually be sent to custom slaughter or to an FSIS inspected processing plant.

Infected Feedlot #5
On January 25, 2017 a bovine 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. One additional infected animal was found early in the process. Since then all quarantined animals have been slaughtered with no further disease found. All areas of this operation have been cleaned and disinfected and released from quarantine as of July 1, 2018.

Infected Herd #70
One animal responded to this Alcona County beef herd's annual bovine 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 began on June 5, 2017 with the first removal test.

The second removal test was on August 8, 2017 with the verification test February 9, 2018. The quarantines were released on both premises. As one premises was not WRM verified, MDARD transported 17cows and one bull to a FSIS slaughter facility for processing on March 15, 2018. One cow was found to have a lesion consistent with bovine TB and the National Veterinary Service Laboratory (NVSL) confirmed it by PCR testing on March 21, 2018. There are 13 animals under a new quarantine. This herd is required to be retested in September 2018.

Infected Herd #71 On December 19, 2017, two roping steers were found to have lesions consistent with bovine TB during routine surveillance at a slaughter plant in Michigan. These two animals were originally purchased by the owner of herd #72 in 2016, sold to #71 in 2016 and repurchased by #72 in September 2017. The farm was quarantined on December 22, 2017. On January 5, 2018, the National Veterinary Service Laboratory (NVSL) confirmed the lesions were bovine TB. The remaining five head of cattle and three goats at this location were ordered destroyed and removed on January 23, 2018 for slaughter or necropsy. Three of the cattle, and one of the goats, had lesions consistent with bovine TB. None of these animals went for human consumption. Genetic testing at NVSL confirmed that the TB from the first two animals was similar to that found in a 2016 beef herd in Indiana. On February 14, 2018 the herd was designated as TB infected. This facility was cleaned and disinfected and released from quarantine on July 1, 2018.

Infected Herd #72
On December 19, 2017, two roping steers were found to have lesions resembling bovine TB during routine surveillance at a slaughter plant in Michigan. These two animals were originally purchased by the owner of herd #72 in 2016, sold to #71 in 2016 and repurchased by #72 in September 2017. The farm was quarantined on December 22, 2017. On January 5, 2018, the National Veterinary Service Laboratory (NVSL) confirmed the lesions were bovine TB.
The remaining ten head of cattle at this location were ordered destroyed and removed on January 30, 2018 for slaughter. Two of the cattle had lesions consistent with bovine TB. None of the infected animals went for human consumption. Genetic testing at NVSL confirmed that the TB from the first two animals was similar to that found in a 2016 beef herd in Indiana. On February 20, 2018 the herd was designated as TB infected. This facility was cleaned and disinfected and released from quarantine on July 1, 2018.

D. Wildlife Risk Mitigation Project

The Wildlife Risk Mitigation Project began in 2008 with a goal to enroll commercial cattle 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 gates 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, 534 of the 614 active commercial farms (87%) in the present TB surveillance zone have a verified Wildlife Risk Mitigation Action Plan in place.

Because the threat of infection for herds in the MAZ, and especially in the Enhanced Wildlife Biosecurity zone, is greater than in other areas, the TB Program, in conjunction with the TB Advisory Committee, has developed an Enhanced Wildlife Biosecurity Program that assists farmers to mitigate risks for those herds located in areas of highest risk for exposure. Using the Epi Team approach that the TB Program has used on affected farms for years, the herd owners in the Enhanced Wildlife Biosecurity Area are being given a chance to work with a team 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, a local producer, and a MDARD field staff veterinarian. 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 sites may require an investment in physical plant improvements – mainly fencing.

- Number of farms in Enhanced Wildlife Biosecurity (EWB) Area: 133
- Number of farms in EWB Area that have completed assessments: 59
- Number of farms in EWB Area that have fully implemented biosecurity plan: 6
- State cost-share funds spent to date in Enhanced Wildlife Biosecurity Area: $52,429

E. Movement Permitting Data

Below is the movement permitting data from the seven counties where movement permits are required: 4 Modified Accredited Zone (MAZ) counties (Alcona, Alpena, Montmorency, Oscoda) – all movements require a permit; 3 bovine 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
MAZ (All permits issued for Alcona, Alpena, Montmorency, and Oscoda county animals) Movement Permits Jan. 1 – June 30, 2018	536	2679
TB Free Surveillance Zone (All permits issued for Cheboygan, Otsego, and Presque Isle county animals) Movement Permits Jan. 1-June 30, 2018	11	28

F. Update on Michigan's Bovine TB Status

Discussions to update the 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) began April 26, 2018 with a broad outline of issues USDA wished to discuss with Michigan; cattle surveillance, deer surveillance, metrics, and risk to rest of the country. These discussions are ongoing, as four calls have taken place at this time. There is no clear date of completing these discussions, MDARD hopes to wrap up the conversations later this summer or early fall. Once MDARD understands what the requirements of the new MOU will be, there may be a need to update the TB Zoning Order in the autumn of 2018.