

**Surveillance, Preparedness and Response Services (SPRS)
Cattle Health Center
Bovine Tuberculosis and Brucellosis Surveillance Results
Monthly Reports, Federal Fiscal Year (FY) 2018**

TUBERCULOSIS

New Information – Bovine Tuberculosis (TB)

June 2018

- Three histo compatible cases were identified during routine slaughter inspection.
 - PCR (+) case in a fed steer. Official ID not received. Whole genome sequencing (WGS) indicates a new strain not previously identified or associated with any TB affected U.S. cattle herd.
 - PCR (+) case in bull. Awaiting culture results.
 - PCR (+) case in a cow. Awaiting culture results.
- The National Veterinary Services Laboratories (NVSL) reported a 4-month old dairy calf was culture positive for *M. tuberculosis*.
- A TB-affected dairy was identified in Texas as a result of area testing around a known TB-affected dairy. Herd has approximately 2,500 cows.

May 2018

- Two histo compatible cases from April.
 - PCR (-) case in a fed steer; *Mycobacterium asiaticum*.
 - PCR (-) case in a fed steer with MX official ID which matched the lesion; no isolation made.

April 2018

- Two histo compatible cases were identified during routine slaughter.
 - PCR (-) case in a fed steer; awaiting culture results.
 - PCR (-) case in a fed steer with MX official ID which matched the lesion; awaiting culture results.
- The WGS from the PCR (+) cow from Michigan reported last month differed from previous WGS in the affected herd.
 - Unable to definitively determine if this was an introduction after the herd completed its test-and-remove herd management plan or if this animal was missed during herd testing.

March 2018

- Three histo compatible cases were identified during routine slaughter.
 - PCR (+) case in a fed steer. Lesion and official Mexican ID did not match.
 - PCR (+) case in a fed steer. Official ID was not received.

- PCR (+) case in a cow with confirmed official identification device tracing to a herd in Michigan's MAZ which had recently been released from quarantine after completing a test-and-remove herd management plan. WGS may assist in determining the source of infection in this cow.

February 2018

- One histo compatible case was identified during routine slaughter.
 - PCR (+)/culture (+) case in a fed heifer with confirmed official identification device tracing to the State of Tamaulipas, Mexico.
- A second TB-affected beef herd was identified in Michigan's accredited-free zone as a result of traces of the two histo compatible cases identified during routine slaughter reported in December. The herd has been depopulated with Michigan State funds. Isolates from the original slaughter cases are genetically identical to a slaughter case from Texas.

January 2018

- A TB-affected beef herd was identified in Michigan's accredited-free zone as a result of a slaughter trace of the two histo compatible cases identified during routine slaughter reported in December. The herd has been depopulated with Michigan State funds. Isolates from this slaughter cases are genetically identical to a slaughter case from Texas.
- The slaughter case reported in December as tracing to Tabasco actually originated in Tamaulipas. The blue metal eartag was mis-stamped at manufacture with "TAB M" instead of "TAM B."

December 2017

- One histo compatible case was identified during routine slaughter.
 - PCR (+) case in a fed heifer with confirmed official identification device tracing to the State of Tabasco, Mexico.
- Two histo compatible cases were identified during routine slaughter.
 - Both steers PCR (+).
 - No official ID was present.
- A TB-affected beef herd was identified in Nebraska as a result of investigation of the South Dakota TB-affected herd. The herd is approximately 270 head.

November 2017

- A TB-affected beef herd was identified in South Dakota as a result of investigation of the October slaughter case. The herd is approximately 340 head.

October 2017

- One histo compatible case was identified during routine slaughter.
 - PCR (+) case in a cow with confirmed official identification device tracing to South Dakota.

Table 1. Bovine TB cases found through routine slaughter inspection, FY 2018.^a

Laboratory Status	New TB Cases June 1 -30, 2018		Cumulative TB Cases October 1, 2018 – June 30, 2018		
	Fed cattle	Adult cattle	Fed cattle	Adult cattle	Total
<i>M. bovis</i> cases, confirmed	1	2	5	6	11

^a Animals detected only through routine Food Safety Inspection Service (FSIS)/State-inspected slaughter. Animals sent to slaughter for diagnostic purposes on a 1-27 permit, “Permit for Movement of Restricted Animals” are not included.

^b Confirmed by *M. bovis* identification; or Histo compatible and PCR positive for *M. TB* complex.

Table 2. Livestock herds confirmed infected with bovine TB and under quarantine. Includes test-and-remove managed herds under quarantine from previous years. Herds will be removed when the quarantine on the TB-affected premises has been released.

Location	Date Detected	Method of Detection	Herd Type	Herd Management Plan
New Mexico	June 2017	Epi Investigation	Dairy	Test-and-Remove
New Mexico	February 2017	Slaughter Trace	Dairy	Test-and-Remove
Indiana	December 2016	Area Surveillance	Beef	Test-and-Remove
MI-MAZ	November 2016	Area Testing	Beef	Test-and-Remove
Texas	June 2015	Slaughter Trace	Dairy	Test-and-Remove
South Dakota	November 2017	Slaughter Trace	Beef	Depop
Michigan - AFZ	January 2018	Slaughter trace	Beef	Quarantine Released
Michigan – AFZ	February 2018	Slaughter Trace	Beef	Quarantine Released
Texas	June 2018	Area Surveillance	Dairy	Pending

BRUCELLOSIS

New Information

June 2018

- The Idaho Designated Surveillance Area (DSA) affected beef herd post calving test was delayed. The post calving test of cows and heifers (2016) will begin July 16. Mature bulls will be tested July 9.

May 2018

- No updated information.

April 2018

- The Idaho DSA affected beef herd began a whole herd test in late April.
- The Montana DSA (Madison County) livestock herd detected in August 2017 completed a post-calving whole herd test in April. All tests were negative and the quarantine was lifted. Assurance test is proposed for this fall.

March 2018

- The Montana DSA (Madison County) livestock herd detected in August 2017 will complete a post-calving whole herd test on April 5, 2018. If all tests are negative and the investigation is complete, the herd will be released from quarantine.

February 2018

- The Montana DSA (Gallatin County) livestock herd detected in November 2010 completed the annual test of all adults in the herd in mid-February, finding seven reactors and eight suspects. The test of ~600 yearlings that remain will complete the annual test.

January 2018

- The Montana DSA (Madison County) livestock herd detected in August 2017 completed a whole herd test in January 2018. One suspect was identified.

December 2017

- The Idaho DSA affected beef herd had a negative whole herd test the second week of December. Testing of adjacent premises is proceeding with all results negative so far.
- The Montana DSA (Madison County) livestock herd detected in August 2017 completed a partial herd test in early December. All heifer calves, bred replacements, and bulls tested negative. The balance of the testing for the second whole herd test will be completed on January 11-12, 2018.

November 2017

- A brucellosis-affected herd was identified in Idaho’s DSA as a result of voluntary herd testing. A culture of *B. abortus* was confirmed by NVSL. The herd is approximately 1,000 head.

October 2017

- The Montana DSA livestock herd detected in August 2017 completed first whole herd test in September. Three non-negative animals were found, with *B. abortus* biovar 1 being isolated from the index animal. Next test is scheduled for mid-January 2018.
- The Montana DSA livestock herd that was detected in November 2016 completed its whole herd post-calving test. One sero suspect animal was detected and went negative upon retest. The quarantine was lifted October 14, and the assurance test is scheduled for December 2017.

Table 1. Livestock herds confirmed with brucellosis and under quarantine. Includes test-and-remove managed herds under quarantine from previous years. Herds will be removed when the quarantine on the brucellosis-affected premises has been released.

Location	Date Detected	Method of Detection	Herd Type ^a	Herd Management Plan
ID-DSA	November 2017	DSA Surveillance testing	Beef	Test-and-remove
MT-DSA	November 2010	DSA Surveillance testing	Bison	Test-and-Remove

- a. Current Montana state statute prevents public disclosure of herd type. Previous herd type identification is “grandfathered” in prior to this law.