

**Surveillance, Preparedness and Response Services (SPRS)
Cattle Health Center
Bovine Tuberculosis and Brucellosis Surveillance Results
Monthly Reports, Federal Fiscal Year (FY) 2017**

TUBERCULOSIS

New Information – Bovine Tuberculosis (TB)

July 2017

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

June 2017

- No histo compatible cases were found during routine slaughter inspection.
- No new TB-affected herds were identified.
- A TB-affected dairy herd was identified in New Mexico as a result of epi investigation of the previously reported TB-affected dairy in New Mexico. The herd is approximately 6,000 head.
- The May 2017 PCR positive slaughter case was identified as a spent roping steer. The isolate recovered contains only two additional SNPs from sharing a common ancestor with the Indiana 2009 cervid herd, indicating USA origin from Indiana. DNA from this steer was compared to registered Corriente and Texas Longhorn bulls and, while closely related to both, this animal appears to be more closely related to the Corriente bulls. Further DNA analysis is underway.

May 2017

- One histo compatible PCR positive case was identified during routine slaughter inspection. No official identification devices were recovered. Epi investigation is ongoing.

April 2017

- Two histo compatible cases were identified during routine slaughter inspection.
 - PCR (+) case in a feeder. DNA of the official identification device did not match the DNA of the lesion.
 - Histo (+) case in a feeder which was PCR (-). Culture is pending.
- One TB-affected beef herd was identified in Michigan's Modified Accredited Zone (MAZ) as a result of annual surveillance testing. This herd is approximately 40 head.

- One TB-affected beef herd was identified in South Dakota as a result of epidemiological investigation of a previously identified TB-affected herd.

March 2017

- No histo compatible cases were found during routine slaughter inspection.
- Two TB-affected beef herds were identified in South Dakota. The first was a result of tracing of three slaughter cases reported in February. The second was a result of epidemiological investigation of the first beef herd. Wildlife surveillance has been conducted in the area around these two herds.
- One TB-affected beef herd was identified in Michigan's accredited-free zone. This herd was a result of an epidemiological investigation of a TB-affected herd in Indiana.

February 2017

- A histo compatible case reported as PCR (-) in November 2016 cultured as *M. avium*.
- Three histo compatible cases were identified during routine slaughter inspection.
 - Three PCR (+) cases in cows with confirmed official identification devices tracing to South Dakota.
- A TB-affected dairy herd was identified in New Mexico as a result of a slaughter case reported in December 2016. The herd is approximately 6,000 head.

January 2017

- Two histo compatible cases were identified during routine slaughter inspection.
 - PCR (+) case in a feeder with confirmed official identification device tracing to Baja California.
 - PCR (+) case in a feeder with confirmed official identification device tracing to Michigan.

December 2016

- One histo compatible case was identified during routine slaughter.
 - PCR (+) case in a cow with confirmed unofficial identification device tracing to New Mexico.
- A TB-affected dairy herd was identified in Michigan's MAZ as a result of annual surveillance testing. The herd is approximately 275 head.
- A TB-affected beef herd was identified in Indiana as a result of area surveillance testing. The herd is approximately 50 head.

November 2016

- Two histo compatible cases were identified during routine slaughter.
 - One PCR (+) case in a feeder steer with confirmed identification devices tracing to the Yucatan Region in Mexico.
 - One PCR (-) case in a feeder steer with no official identification submitted. Culture is pending.
- A TB-affected beef herd was identified in Michigan's MAZ as a result of annual surveillance testing. The herd is approximately 150 head.

October 2016

- Three positive TB cases in fed cattle were identified during routine slaughter.

- One with confirmed identification devices tracing to Nuevo Leon.
- One with identification devices tracing to Michigan’s Presque Isle County north of Michigan’s MAZ.
- One with identification implicating a Mexican origin animal; however, identification devices and lesion tissue did not match.

Table 1. Bovine TB cases found through routine slaughter inspection, FY 2017.^a

Laboratory Status	New TB Cases July 1 - 31, 2017		Cumulative TB Cases October 1, 2016- July 31, 2017		
	Fed cattle	Adult cattle	Fed cattle	Adult cattle	Total
<i>M. bovis</i> cases, confirmed ^b	0	1	8	5	13

^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	Pending
MI - MAZ	April 2017	Area Surveillance	Beef	Pending
South Dakota	April 2017	Epi Investigation	Beef	Test-and-Remove
South Dakota	March 2017	Epi Investigation	Beef	Test-and-Remove
Michigan - AFZ	March 2017	Epi Investigation	Beef	Depop
South Dakota	March 2017	Slaughter Trace	Beef	Depop
New Mexico	February 2017	Slaughter Trace	Dairy	Pending

Indiana	December 2016	Area Surveillance	Beef	Pending
MI-MAZ	December 2016	Area Testing	Dairy	Pending
MI-MAZ	November 2016	Area Testing	Beef	Pending
Texas	June 2015	Slaughter Trace	Dairy	Test-and-Remove
MI-MAZ	August 2016	Movement Test	Beef	Test-and-Remove

BRUCELLOSIS

New Information

July 2017

- **No Update**

June 2017

- The Montana Designated Surveillance Area (DSA) livestock herd detected in November 2016 will conduct their next whole herd test post-calving in September.

May 2017

- The Wyoming DSA-affected herd conducted an after-calving whole herd test from May 22-23, 2017. This was its third and final whole herd test, as all the animal tested negative. The quarantine was released May 25, 2017. An assurance test will be conducted in late fall 2017.

April 2017

- The Montana DSA livestock herd detected in November 2016 will conduct their next whole herd test post-calving in late June/early July .

March 2017

- The Wyoming DSA-affected herd will conduct its next whole herd test after calving in late May.

February 2017

- A whole herd test of the Wyoming DSA-affected herd was conducted February 20, 2017, and all animals were negative. The next whole herd test will be conducted post calving later this spring.

January 2017

- The Montana DSA livestock herd detected in November 2016 conducted a second whole herd test on January 10, 2017, and all 178 animals tested negative. The next scheduled

whole herd test will be conducted post-calving in the summer 2017.

- The Wyoming DSA-affected herd will conduct its next whole herd test in late February.
- Wyoming affected bison herd (off quarantine November 2015) conducted their assurance test on January 8, 2017. All animals tested negative.

December 2016

- The next herd test of the livestock herd detected in Montana’s DSA in November 2016 is scheduled for the second week in January 2017.
- Fall testing of a brucellosis-affected livestock herd detected in November 2010 in Montana’s DSA was completed December 7, 2016. Eight reactors total were found in the herd of ~4200 head. Next test is scheduled for fall 2017.
- The Wyoming DSA brucellosis-affected herd was tested on December 19-20, 2016. All 292 cattle tested were negative.

November 2016

- A new affected livestock herd was detected in the Montana DSA using DSA herd plan surveillance. Culture of *B. abortus* biovar 1 was confirmed by the National Veterinary Services Laboratories (NVSL) in two young bulls out of a herd of 180 head on November 22, 2016.

October 2016

- The Wyoming DSA brucellosis-affected herd was tested October 31-November 1, 2016. 404 head were tested with 2 reactors, serology confirmed at NVSL.

Table 1. Brucellosis cases found through routine slaughter inspection – cattle, FY 2017 Year to Date.^a

Laboratory Status	New Brucellosis Cases March 1 - 31, 2017		Cumulative Brucellosis Cases October 1 2016 – March 31, 2017		
	Fed cattle	Adult cattle	Fed cattle	Adult cattle	Total
<i>B. abortus</i> reactor cases	0	0	0	0	0

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

Table 2. 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
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MT-DSA	November 2016	DSA Surveillance testing	Livestock	Test and remove
MT - DSA	November 2010	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.