

**Bovine Tuberculosis and Brucellosis Surveillance Results**  
**Monthly Reports, Federal Fiscal Year (FY) 2013**  
**May 1–31, 2013**

**New Information – Bovine Tuberculosis (TB)**

- Two new TB cases were detected in May.
- One new TB case was detected in a steer slaughtered in Texas. Tissue from this animal was compatible for mycobacteriosis and PCR was positive for *Mycobacterium tuberculosis* complex; culture is pending. An investigation has been initiated.
- The second new slaughter case occurred in a fed steer slaughtered in Texas. Tissues were compatible for mycobacteriosis and PCR was positive for *M. tuberculosis* complex, culture is pending. This animal had eartags indicating origin from Nuevo Leon. This is the first TB case detected in an animal from Nuevo Leon in FY 2013; three Nuevo Leon origin cases were found through slaughter surveillance in FY 2012.

**Update of Previously Reported Information**

- The investigation is ongoing for an adult cow that was slaughtered in California in April. Histology was compatible for mycobacteriosis and PCR was positive for *M. tuberculosis* complex. Culture is positive for *M. bovis*.
- The investigation is ongoing for an affected dairy in the accredited free zone of Saginaw county, Michigan. The herd was detected through slaughter surveillance. Eighty test-positive animals have been necropsied, and the estimated within herd prevalence is approximately nine percent based on gross lesions. Seventeen barn/feral cats were euthanized and five had gross lesions consistent with TB infection. Histology and culture are pending. Wildlife surveillance is ongoing within a two-mile radius of the dairy. Genotyping results of the *M. bovis* isolate from the slaughter case match the Michigan strain. This dairy will be depopulated.
- Bovine TB has been confirmed in two Michigan beef herds as a result of investigating the Saginaw county dairy. These herds are located in Gratiot and Midland counties. One herd has been depopulated.
- A total of 13 TB cases have been detected in fed cattle. Of these, 12 are Mexican origin animals. The States of origin are Chihuahua (1), Coahuila (1), Durango (5), Tamaulipas (2), Veracruz (1), and Nuevo Leon (1). The Mexican State of origin could not be determined for one case, which has been determined to be of Mexican origin through the case investigation. The origin is under investigation for one new case, reported above. Culture is positive for *M. bovis* for 11 of these cases and is pending for two.

Table 1. Bovine tuberculosis slaughter surveillance results, FY 2013.

Laboratory Status	New TB Cases May 1-31, 2013		Cumulative TB Cases October 1, 2012 to May 31, 2013		
	Fed cattle	Adult cattle	Fed cattle	Adult cattle	Total
<i>M. bovis</i> cases, confirmed <sup>a</sup>	2	0	13	3	16
PCR pending	0	0	0	0	0
PCR negative, culture pending	0	0	0	0	0

<sup>a</sup> Confirmed by PCR testing and/or culture.

Table 2. Livestock herds confirmed infected with bovine tuberculosis, FY 2013, including test-and-remove managed herds under quarantine and carried forward from previous fiscal years.

State (MI herd No.)	Federal Fiscal Year Detected	Method of Detection	Herd Type	Herd Management Plan	Origin and Number of Genotype Matches	Wildlife Surveillance Planned?	Approximate Number of Animal Traces	States With Traced Cattle
MI <sup>a</sup> (33)	2004	Area Test	Dairy	Test and removal	MI	Ongoing	Not applicable	Not applicable
MI <sup>a</sup>	2008	Surveillance	Cervid	Test and removal	MI	Ongoing	None	None
MI <sup>a</sup>	2008	Surveillance	Cervid	Test and removal	MI	Ongoing	None	None
MI <sup>a</sup> (53)	2012	Area Test	Beef	Partial depop <sup>b</sup> Balance of herd test and remove	New spoligo-type; VNTR <sup>c</sup> matches MI strains	Ongoing	73 traces of 166 animals None pending	MI
MI <sup>a</sup> (54)	2012	Area Test	Dairy	Test and removal	MI	Ongoing	58 traces of 163 animals	IN, MI
MI (55)	2013	Area Test	Dairy	Test and Remove	MI	Ongoing	109 traces of 200 animals	MI, IN
CA	2013	Slaughter	Dairy	Test and remove	Same as FY 2002 CA case	Pending	609 EMRS traces of 2500 cattle	AZ (2), CA (132), FL (2), IA (7), ID (7), MN (1), NE (1), NM (2)
MI (56)	2013	Slaughter	Dairy	Depopulation	MI	Ongoing	94 traces of 594 animals, incomplete	MI, IN, OH, IA, MN
MI (57)	2013	Annual Test	Beef	Depopulation	MI	Ongoing	3 traces of 22 animals, incomplete	TX
MI (58)	2013	Trace	Beef	Pending	MI	Ongoing	22 6-4B traces of 191 animals, 15 6-4A traces of 45 animals, incomplete	MI, IN, IA, MN, NE
MI (59)	2013	Trace	Beef	Depopulation	MI	Ongoing	1 trace	MI

<sup>a</sup> Five herds detected in previous fiscal years that remain under quarantine are included.

<sup>b</sup> State funded partial depopulation.

<sup>c</sup> Variable number tandem repeat.

## **Brucellosis – Herds Remaining under Quarantine, Test and Remove Procedures or Awaiting Assurance Test Results**

### **FY 2013**

No new brucellosis affected herds in the GYA thus far in FY 2013.

### **FY 2012**

#### **Idaho:**

- Affected beef herd: A cattle herd (65 head) was traced from a slaughter sample from California. This herd was outside of the Idaho's designated surveillance area (DSA). The ID DSA has been expanded since detection of this herd. Two of three trace-in herds have tested negative. Movement controls are in place. All trace-out epidemiological investigations of these herds have been closed.  
Updates: Bacterial culture results for April reactor cow are pending. The next herd tests are planned for mid-summer and late fall. Remaining trace-in herd tested negative. All trace-out and trace-in epidemiological investigations of these herds have been completed and closed.
  
- Affected privately owned bison herd: A privately owned bison herd (268 head), assembled and located in the DSA in 2010, was tested to meet Idaho's DSA requirements. Two reactors were detected and were found culture positive for *Brucella abortus* biovar 4. Quarantine and movement controls are in place. Updated affected herd management plan is pending owner's signature. A herd test was conducted on March 26, 2011, with one female reactor identified.  
Updates: *B. abortus* biovar 4 was isolated from the female reactor. Next whole-herd test of cows is planned for late fall 2013.

#### **Montana:**

- Affected privately owned bison herd: A brucellosis-affected privately owned bison herd located in Madison County within Montana's DSA was detected on November 14, 2011. A whole-herd test was conducted in October 2011 that detected a single two-year-old bison bull as a reactor. *B. abortus* biovar 1 was isolated from a single lymph node from this bull. An affected herd management plan and quarantine and movement controls are in place.  
Updates: None

### **FY 2011**

#### **Montana:**

- Affected privately owned bison herd: A brucellosis-affected privately owned bison herd was detected in Gallatin County in November 2010. This herd was detected as part of Montana's DSA herd management plan testing. Next complete herd test is scheduled for September/October 2013. The herd is under quarantine with an affected herd management plan in place.  
Updates: None

#### **Wyoming:**

- Affected bison herd: A brucellosis-affected privately owned bison herd inside the DSA (Park County) was disclosed in November 2010. This herd was detected via on-farm pre-sale testing. The Main herd remains under quarantine with an affected herd management plan in place. The Preferred herd has undergone four

negative tests and was released from quarantine in late January 2012. All trace epidemiological investigations associated with this herd have been completed and closed.

Updates: None

Table 3: Livestock herds confirmed infected with brucellosis FY 2013, 2012 and 2011

State	Method of Detection	Herd Type	Herd Management Plan	Genotyping Descriptive Results	Wildlife Surveillance Planned?	Animals Being Traced	States Receiving Traced Cattle/ Bison
ID 2012	MCI trace	Beef	Quarantine with test & remove	Similar to 2006 & 2010 ID cattle isolates	Yes	48 animals	<b>One trace-in State:</b> ID, 3 herds, 2 closed & one scheduled for testing May 2013. <b>4 trace-out States:</b> TX, UT, ID, & NM. All trace-outs closed.
ID 2012	DSA required test	Bison	Quarantine with test & remove	Similar to ID elk isolates	No	349 animals	<b>5 trace-in States:</b> ND, SD, MT, OK, ID All closed. <b>One trace-out State:</b> ID Closed
MT 2012	Epi link to 2011 bison herd	Bison	Quarantine with test and remove	Unique profile but the profile clusters with other isolates associated with GYA elk & bison	Yes	3169 animals	<b>1 trace-in State:</b> NE closed. <b>6 trace-out States:</b> MT, CO, OR, SD, & NE closed. ID open
MT 2011	DSA herd management plan testing	Bison	Quarantine with test & remove	Exact match to a 2009 MT elk isolate	Yes	7510 animals	<b>3 trace-in States:</b> NM, NE & MT All trace-ins closed. <b>5 trace-out States:</b> MT, NE, WY, KS & ID All trace-outs closed.
WY 2011	Pre-sale test on farm	Bison	Main herd remains under quarantine with test & remove. Preferred herd released from quarantine.	Similar to 2007 & 2010 WY elk & 2010-2011 cattle isolates.	Yes	870 animals	<b>1 trace-in State:</b> SD - closed. <b>4 trace-out States:</b> MT, WY, CO & NV All trace-outs closed.