

Bovine Tuberculosis and Brucellosis Surveillance Results
Monthly Reports, Federal Fiscal Year (FY) 2013
June 1–30, 2013

New Information – Bovine Tuberculosis (TB)

- A new affected beef herd was detected in North Dakota, as a result of a trace investigation of an affected Texas beef herd that was depopulated in June 2012. Tissue from the traced adult beef cow was compatible for mycobacteriosis, PCR was positive for *Mycobacterium tuberculosis* complex, and culture was positive for *M. bovis*. The whole genome sequencing results show the North Dakota isolate is consistent with isolates from the Texas herd. Other cattle in South Dakota and Texas may have been in contact with this affected cow after it left the affected Texas herd in 2009 and before it was added to the North Dakota herd; investigations in those States are underway.
- One new TB case was detected in a steer slaughtered in Texas in March. Culture is positive for *M. bovis*. This animal had had eartags indicating origin from Coahuila. This animal is the second case from Coahuila detected this fiscal year.

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, PCR was positive for *M. tuberculosis* complex, and culture was 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.
- The investigation is ongoing for two Michigan beef herds that were infected from the Saginaw county dairy. The two beef herds are located in Gratiot and Midland counties. One herd has been depopulated.
- A total of 14 TB cases have been detected in fed cattle. Of these, 13 are Mexican origin animals. The States of origin are Chihuahua (1), Coahuila (2), 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 animal’s origin is under investigation for one case. Culture was positive for *M. bovis* for 12 cases and is pending for two.

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

Laboratory Status	New TB Cases June 1-30, 2013		Cumulative TB Cases October 1, 2012 to June 30, 2013		
	Fed cattle	Adult cattle	Fed cattle	Adult cattle	Total
<i>M. bovis</i> cases, confirmed ^a	1	0	14	3	17
PCR pending	0	0	0	0	0
PCR negative, culture pending	0	0	0	0	0

^a 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 ^a (33)	2004	Area Test	Dairy	Test and removal	MI	Ongoing	Not applicable	Not applicable
MI ^a	2008	Surveillance	Cervid	Test and removal	MI	Ongoing	None	None
MI ^a	2008	Surveillance	Cervid	Test and removal	MI	Ongoing	None	None
MI ^a (53)	2012	Area Test	Beef	Partial depop ^b Balance of herd test and remove	New spoligo-type; VNTR ^c matches MI strains	Ongoing	73 traces of 166 animals None pending	MI
MI ^a (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 FY 2002 CA case	Pending	624 EMRS traces of 2500 cattle, 77% complete	AZ (2), CA (130), FL (2), IA (2), ID (7), MN (2), NE, NM (1)
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
ND	2013	Trace	Beef	Pending	Same as FY 2012 TX herd	Pending	Pending	SD, TX

^a Five herds detected in previous fiscal years that remain under quarantine are included.

^b State funded partial depopulation.

^c 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. This herd is under quarantine with movement controls and an affected herd management plan in place. All trace-out and trace-in epidemiological investigations associated with this herd have been completed and closed. The whole herd test on April 23, 2013 revealed a reactor cow. There had been two negative whole herd tests prior to this post-calving April 23, 2013 test.
Updates: Bacterial culture result for April reactor cow was positive for biovar 1. The next herd tests are planned for mid-summer and late fall. Planning to conduct three whole-herd tests before late Fall 2014.
- 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. Quarantine and movement controls are in place. Updated affected herd management plan is pending owner's signature. All trace-out and trace-in epidemiological investigations associated with this herd have been completed and closed.
Updates: Sixty-three heifers tested June 21, 2013; all negative. Next herd test planned for 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. This herd is under quarantine with movement controls and an affected herd management plan in place. All trace-out and trace-in epidemiological investigations associated with this herd have been completed and closed.
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. This herd is under quarantine with movement controls and an affected herd management plan in place. All trace-out and trace-in epidemiological investigations associated with this herd have been completed and closed. Next complete herd test is scheduled for September/October 2013.
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 consists of two groups – the Main herd and the Preferred herd. The Main herd remains under quarantine with movement controls and 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-out and trace-in 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	One trace-in State: ID, 3 herds - all negative All trace-ins closed. 4 trace-out States: 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	5 trace-in States: ND, SD, MT, OK, ID. All trace-ins closed. One trace-out State: 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	One trace-in State: NE closed. 6 trace-out States: MT, CO, OR, SD, NE & ID All trace-outs closed
MT 2011	DSA herd management plan testing	Bison	Quarantine with test & remove	Exact match to a 2009 MT elk isolate	Yes	7510 animals	3 trace-in States: NM, NE & MT All trace-ins closed. 5 trace-out States: 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	1 trace-in State: SD - closed. 4 trace-out States: MT, WY, CO & NV All trace-outs closed.