

Bovine Tuberculosis and Brucellosis Surveillance Results
Monthly Reports, Federal Fiscal Year (FY) 2013
February 1–28, 2013

New Information – Bovine Tuberculosis (TB)

- Four new suspect TB cases were detected during February 2013.
- One case was in an adult dairy cow slaughtered in Michigan. Histology was compatible for mycobacteriosis and PCR was positive for *Mycobacterium tuberculosis* complex; culture is pending. The cow was traced back to a dairy herd in Saginaw County, which is located in Michigan’s accredited-free zone. The herd of origin was TB tested in early March and results are pending.
- Two cases were detected in Mexican-origin fed cattle. One case each was slaughtered in Colorado and Texas. Both cases are compatible for mycobacteriosis and PCR was positive for *M. tuberculosis* complex; culture is pending. These cases had Mexican official eartags indicating origin from Durango and Veracruz.
- One new suspect case occurred in a heifer slaughtered in Pennsylvania. The tissue is compatible for mycobacteriosis and PCR is negative; culture is pending.

Update of Previously Reported Information

- Bovine TB has not been confirmed in a Washington dairy. Two herds were tested, including the animal’s birth herd and most recent herd of origin, in association with the investigation of a TB-infected cow that was slaughtered in Washington in January. A second herd test is scheduled for the animal’s most recent herd of origin. Genotyping did not identify any close matches to the *M. bovis* strain isolated from the slaughter case, though the isolate was distantly related to fed cattle originating from Mexico.
- A total of eight TB cases have occurred in fed cattle and all were Mexican-origin animals. The States of origin are Coahuila (1), Durango (3), Tamaulipas (2), and Veracruz (1). The Mexican State of origin could not be determined for the eighth case. Culture is pending for five cases.
- An adult beef cow confirmed to be infected with TB was slaughtered in Texas in March 2012. All potential source herds in Oklahoma and Texas have been tested; no additional infected animals were found. This case is considered closed.
- California released a dairy from quarantine in February. Bovine TB was confirmed in the herd in FY 2011 as a result of a slaughter trace. The herd utilized a test-and-remove management strategy to meet the quarantine release requirements.

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

Laboratory Status	New TB Cases February 1-28, 2013		Cumulative TB Cases October 1, 2012 to February 28, 2013		
	Fed cattle	Adult cattle	Fed cattle	Adult cattle	Total
<i>M. bovis</i> cases, confirmed ^a	2	1	8	2	10
PCR pending	0	0	0	0	0
PCR negative, culture pending	1	0	1	0	1

^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	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	2005	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	2012	Area Test	Beef	Partial depop ^b	New spoligotype; VNTR ^c matches MI strains	Ongoing	73 traces of 166 animals None pending	MI
MI ^a	2012	Area Test	Dairy	Test and removal	MI	Ongoing	58 traces of 163 animals	IN, MI
MI	2013	Area Test	Dairy	Test and Remove	MI	Ongoing	109 traces of 200 animals	MI, IN
CA	2013	Slaughter	Dairy	Pending	Same as FY 2002 CA case	Pending	Exact numbers pending, approximately 2500 cattle being investigated, mostly in CA	FL, IA, ID, KS, NM, 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. Two of three trace-in herds have tested negative, and the remaining one is scheduled for testing in spring 2013. Movement controls are in place. All trace-out epidemiological investigations of these herds have been closed.
Updates: None
- 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. A second whole-herd test, December 12, 2012, of animals remaining on the premises was negative. A test on December 13 of adult males shipped to a feedlot detected one reactor adult bull. This reactor bull was slaughtered on January 31, 2013. Quarantine and movement controls are in place.
Updates: NVSL was unable to isolate *Brucella* sp. from the tissues of bull slaughtered on January 31, 2013. Updated affected herd management plan is pending owner's signature.

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. The trace-in epidemiological investigation has been closed. One of six trace-out epidemiological investigations remains open.
Updates: None

Wyoming:

- Affected beef cattle herd: One beef herd located in Park County within Wyoming's DSA was determined to be brucellosis affected in October 13, 2011 as a result of pre-sale testing of 30 heifers (out of 250 heifers). The quarantine was released August 28, 2012. An affected herd management plan is in place. No trace-in or trace-outs herds. A whole-herd assurance test began in October 2012 and is partially completed.
Updates: None

FY 2011

Montana:

- Affected beef cattle herd: In September 2011, six yearling heifers in a group of 65 animals tested serologically positive on a change of ownership test for movement out of the MT DSA (Park County). The assurance test for this herd was completed November 30, 2012 and all animals tested negative. An affected herd management plan is in place.
Updates: Six of seven trace epidemiological investigations have been closed.
- 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?	Cattle Being Traced	States Receiving Traced Cattle/ Bison
ID 2012	MCI trace	Beef	Quarantine with test and remove	Similar to 2006 and 2010 ID cattle isolates	Yes	48 animals	One trace-in State: ID, 3 herds, 2 closed and one scheduled for testing spring 2013. 4 trace-out States: TX, UT, ID, & NM. All trace-outs closed.
ID 2012	DSA required test	Bison	Quarantine with test and remove	Similar to ID elk isolates	No	349 animals	5 trace –in States: ND, SD, MT, OK, ID. One trace-out State: ID All trace-ins and trace-outs 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 and bison	Yes	3169 animals	1 trace-in State: NE closed. 6 trace-out States: MT, CO, OR, SD, & NE closed. ID open
WY 2012	Pre-sale test on farm	Beef	Test and remove. Quarantine released	Similar to 2007 & 2010 WY elk and 2010-2011 cattle	Yes	0	No trace-in herds; No trace-out herds; animals sold only to terminal feedlots or slaughter.
MT 2011	DSA herd management plan testing	Beef	Test and remove. Quarantine released.	Most similar to elk and previous cattle herd isolates from the area	Yes	22 herds	7 trace-out States: MT, MN, SD, UT, WA & NE closed. ID open.
MT 2011	DSA herd management plan testing	Bison	Quarantine with test and remove	Exact match to a 2009 MT elk isolate	Yes	7510 animals	3 trace-in States: NM open; NE & MT closed. 5 trace-out States: MT, NE, WY, KS & ID closed.
WY 2011	Pre-sale test on farm	Bison	Test and remove. Main herd remains under quarantine. Preferred herd released from quarantine	Similar to 2007 & 2010 WY elk and 2010-2011 cattle	Yes	870 animals	1 trace-in State: SD closed. 4 trace-out States: MT, WY, CO, & NV closed.