

**Update on the Bovine Tuberculosis Eradication Program
Secretary's Advisory Committee on Animal Health**

July 22, 2011

Bovine tuberculosis (TB) is a serious disease with animal health, public health, and international trade consequences. The cooperative Federal-State-industry effort to eradicate bovine TB from cattle in the United States has made significant progress. Since the program's inception in 1917, the disease prevalence rate in cattle herds dropped from 5 percent to less than 0.001 percent. Many consider this to be one of the great animal and public health achievements in the United States. Our ultimate goal of eradication remains elusive as animal health officials continue to detect TB sporadically in livestock herds.

**Current TB-Affected Herds
Fiscal Years 2010 and 2011**

Thirteen TB-affected herds (eleven beef and two dairy) were detected during fiscal year (FY) 2010. These herds were located in Colorado (one dairy, one beef), Kentucky (one beef), Michigan (five beef), Mississippi (one beef), Nebraska (one beef), Ohio (one dairy), and South Dakota (two beef). Ten cattle herds were depopulated and compensated with Federal indemnity funds. Two Michigan beef herds are under test-and-remove management. The Ohio dairy herd was dispersing when it was identified, and all remaining cattle in that herd were sent to slaughter.

Since the beginning of FY 2011, nine TB-affected herds have been identified (six beef herds, two dairy herds, and one rodeo operation). These herds are located in Colorado (one dairy and three beef herds all epidemiologically linked to a Colorado dairy herd identified in FY 2010); Indiana (one beef); Michigan (two beef); California (one dairy); and Arizona (one rodeo operation). Seven of these herds have been depopulated with Federal indemnity funds. The remaining Michigan herd was depopulated with State indemnity funds. The California dairy herd will be under test-and-remove management.

Bovine State Status

Currently, 46 States, 2 Territories, and 3 zones—including Puerto Rico and the U.S. Virgin Islands, are TB accredited-free (AF). California is modified accredited advanced (MAA) and three States have split-State status (New Mexico and Minnesota have AF and MAA status; Michigan has AF, MAA, and modified accredited (MA) status). Of the AF States and zones, 20 States and the U.S. Virgin Islands have maintained AF status for over 25 years; 20 States have been AF for 15 or more years; 5 States have been AF for 10 or more years; 1 State and Puerto Rico have been AF for 5 or more years; and 1 State and 1 zone have had AF status for less than 5 years.

Later this year, APHIS expects to publish an interim rule that will advance 57 counties on the Lower Peninsula of Michigan and portions of Iosco and Ogemaw counties to AF status. Presque Isle County will also be moved to MAA status. Additionally, APHIS is evaluating applications from both Minnesota and New Mexico requesting that their MAA zones be reclassified as AF.

Captive Cervid State Status

All States and territories currently have MA status.

National TB Surveillance

Surveillance for TB consists of slaughter surveillance in cattle and live-animal testing in cattle, bison, and captive cervids.

Slaughter Surveillance: During FY 2010, 157 U.S. establishments identified 10,914 granulomas during postmortem slaughter inspection and submitted them for diagnostic testing. These establishments slaughtered 31.4 million cattle (6.9 million adult). The minimum standard for slaughter surveillance is five granulomas submitted per ten thousand adult cattle slaughtered annually. This standard is applied to each slaughter establishment. Many establishments substantially exceeded the minimum submission rate in FY 2010. Of the 40 highest volume adult cattle slaughter establishments, 35 establishments met or exceeded the submission standard, and 5 establishments did not. These establishments slaughtered 6.7 million cattle, which represents 95.5 percent of all adult cattle slaughtered in the United States.

During the first two quarters of FY 2011 (October 1, 2010, through March 31, 2011), 6,885 granulomas were identified during postmortem slaughter inspection and submitted for diagnostic testing. Of these submissions, TB was confirmed in 18 cattle. Six of nine the TB-affected herds identified in FY 2011 (two dairy and four beef herds) were detected as a result of slaughter surveillance, which demonstrates the integral role of slaughter surveillance in the TB program.

Live Animal Testing: In FY 2010, 1,275,815 caudal fold tuberculin tests of cattle and bison were reported, with 18,217 responders (48 States and Puerto Rico/U.S. Virgin Islands). The response fraction by State, for 46 States testing more than 300 animals, ranged from 0.1 to 6.8 percent (with a median of 1.0 percent). Caudal fold test performance appears to be improving (see Figure 1).

Tuberculin testing is the primary means of surveillance for TB in captive cervids as there are no standards for granuloma submissions for establishments that slaughter cervids. During FY 2010, 11,029 single-cervical tests were conducted in captive cervid species resulting in 182 suspects. The number of captive cervids tested annually has ranged from 25,000 in FY 2006 to just over 10,000 in FY 2007.

Preliminary live animal testing summaries for FY 2011 are not available at this time.

Collaborations with Mexico

TB Program Reviews and State Status: APHIS continues to work with Mexican animal health officials to reduce the risk of importing TB-infected and -exposed animals into the United States. We conduct reviews to ensure equivalent requirements for the control of TB between countries. During FY 2010, we conducted reviews in Aquascalientes, Chihuahua, Chiapas, Campeche, and Zacatecas. Based on the finding of these reviews, zones in Aquascalientes, Campeche, and Zacatecas were granted accreditation preparatory (AP) status and Chiapas' zone maintained its AP status. Chihuahua maintained its MA status, but several action items were identified. At that time APHIS indicated that Chihuahua's status would be downgraded if those action items were not addressed. Finally, the MA

zone of Coahuila was downgraded from MA to AP status effective August 1, 2010. Mexico's efforts to address the recommendations from a 2009 review of Coahuila failed to reduce the risk of TB in imported Mexican cattle as TB continued to be found in imported cattle from Coahuila and exceeded the allowable standard.

In FY 2011 to date, APHIS has conducted reviews in Veracruz and Chiapas. The final reports for these reviews are pending. APHIS is reclassifying the bovine TB status of Chihuahua from MA to AP, effective August 18, 2011. We are taking this action because efforts to address recommendations from the FY 2010 review have failed to reduce the risk of TB in imported cattle from Chihuahua. Five cattle imported into the US from Chihuahua have been diagnosed with TB since February 2011. Additionally, Chihuahua reported the identification of 15 new TB cases during the past year. Both of these measures exceed the allowable standards. This change in status will help ensure that the risk of importation of TB-infected cattle is reduced.

Mexican-Origin Slaughter Cases: One method that APHIS uses to evaluate the effectiveness of our efforts to reduce the risk of importing TB-infected and TB-exposed animals into the United States is by monitoring TB cases identified in Mexican-origin cattle through routine slaughter surveillance. Since FY 2006, there has been a continued decrease in the number of fed cattle cases with official Mexican identification detected through slaughter surveillance (see Figure 2).

However, through June 30, 2011, six animals diagnosed with TB in FY 2011 presented at slaughter with official Mexican identification. Of those six, four animals originated from Chihuahua and one each originated from Nuevo Leon and Tamaulipas. Additionally, a fifth case of TB in Chihuahua-origin animals was confirmed in an Arizona roping steer through TB skin testing. These detections were a key factor APHIS' decision to reclassify Chihuahua to AP status effective August 18, 2011.

Figure 1. State-level Improvements in Caudal Fold Tuberculin Test Response Rates, FY 2008 – 2010.

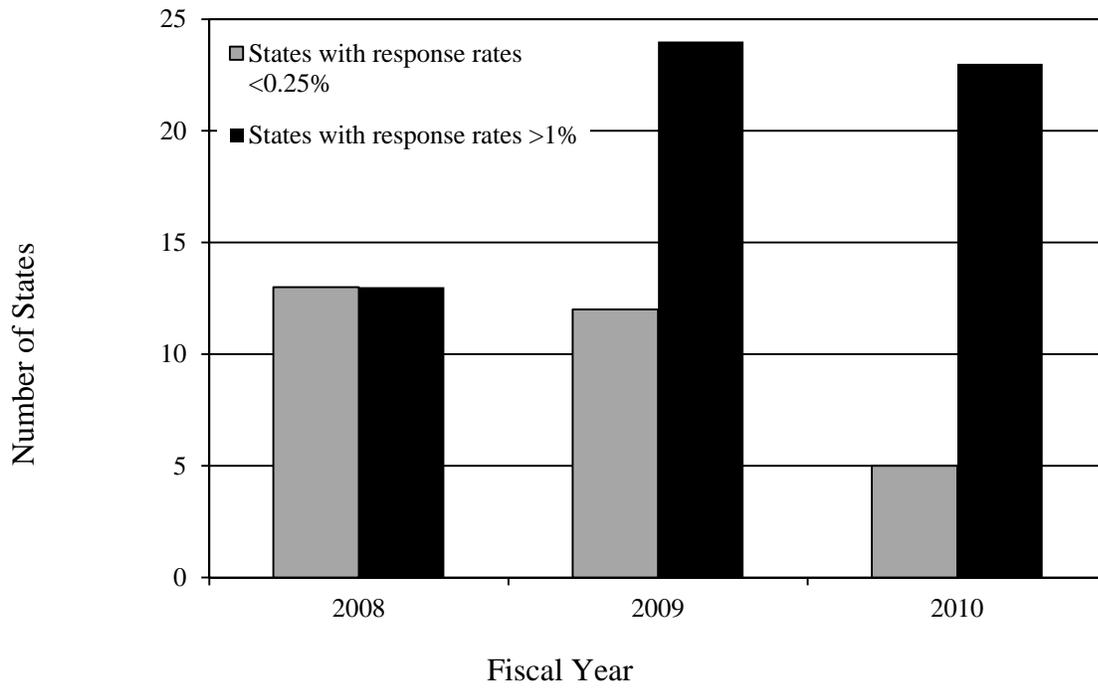


Figure 2. TB Cases Identified per 100,000 Cattle Imported from Mexico, FY 1995–2010.

