

# Bovine TB in South Dakota

March 17, 2017

## **Background:**

Bovine Tuberculosis (TB) was identified in three beef cows during routine slaughter inspection by USDA Food Safety Inspection Service inspectors at two Nebraska slaughter plants in February, 2017. The cows had been in feedlots in Nebraska and South Dakota since November, 2016. Market records were used to identify the herd of origin, which was tested by state and federal animal health officials, revealing additional infected animals. The herd remains quarantined and 41 infected animals have been removed from the herd. Final disposition of remaining animals in the herd is being determined.

## **Current Herd Testing Information:**

Thirteen adjacent herds, comprised of over 8,000 head, were quarantined for testing. One herd has been released from quarantine with negative results of testing in all cattle two years of age and older. Testing is in progress in the remaining adjacent herds and the majority of that work should be completed over the next 3 weeks. State and federal animal health officials continue to identify potential source herds as well as herds that may have purchased cattle from the affected herd over the past five years. Cattle premises in 11 other states are also being investigated. Completion of the investigation can be expected to extend into the fall months of 2017.

Prioritization of testing and disposition of animals in these herds is based on risk assessment and in accordance with state and federal animal health regulations. Herd owners with concern regarding potentially exposed animals are encouraged to contact their local veterinarian or the state veterinarian's office. Caution is advised in commingling new additions into established herds if there is a concern that some animals may be involved in the ongoing investigation.

## **Wildlife:**

Bovine tuberculosis is caused by bacteria that can be transmitted among a wide range of other species, usually through close contact by either respiratory or oral routes. These other species include domestic livestock and wildlife (deer, coyotes, raccoons, and other mammals). At this time, TB is not known to exist in SD wildlife.

In response to the discovery of Bovine TB in Harding County, South Dakota Game, Fish and Parks is coordinating with the SD Animal Industry Board to sample area wildlife for the disease. "We recognize the importance of this situation to our farm and ranch partners and the livestock industry of South Dakota," said Tony Leif, director of the GFP Division of Wildlife. "We are in the process of designing and implementing a wildlife testing protocol for areas in and around the affected herd premises." The plan will include both immediate and long-term strategies for testing of wildlife that will include targeted animal collections by GFP staff.



## **Laboratory Update:**

The National Veterinary Services Laboratory (NVSL) in Ames, IA, has conducted whole genome analysis of the bacteria isolated from some of the affected animals from the Harding County herd. Experts have concluded that this strain of bacteria is nearly identical to a strain that is known to exist in dairy cattle in the Central region of Mexico and that it has not previously been identified in the United States. This strain is not related to the recent strain found in Canadian cattle, previous cases identified in South Dakota cattle or in Michigan wildlife and livestock. Additionally, it does not appear to be genetically similar to other strains that are sometimes found in the U.S. in feeder or rodeo cattle of Mexican origin, nor is it similar to the bacteria identified in captive cervids (deer and elk). Rather, this case appears to represent the introduction of a new strain of *Mycobacterium bovis* into the United States. State and federal animal health officials working with the case will continue to attempt to investigate possible pathways of introduction into this herd.