North Dakota Tuberculosis Report

USAHA TB Subcommittee

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One untraceable, TB+, black steer (less than 18 months of age) found in a SD feedlot meant 99 herds from 5 states needed to test their herds for TB

Of the 24 herds in ND requiring investigation:

• 3 dispersed their herds prior to the investigation
• 19 herds consisting of 3,145 cattle were tested – Negative results
• 2 herds remain to complete their herd tests (~800 head)
TB trace from TB affected herd in TX

• Texas dairy trace: Received 315 heifers from Kansas that included an unknown number of heifers from an affected dairy in Texas. 29 heifers traced back to the dairy via official ID and were removed with indemnity. Multiple ID devices were present but were not recorded/correlated, and some heifers had lost tags, so the origin of 28 additional heifers in the group could not be determined with official ID and USDA has not, at this time, approved indemnity.

• However, these 28 heifers have management tags that are in the same series as those that were indemnified. Due to the obvious likelihood that there are other exposed animals in the group, the ND BOAH will not release the Quarantine on them until they go to slaughter. Alternatively, that group may be held under quarantine and remain under a herd plan applied to the animals on that premises in an approved isolation pen.
Would anyone like to buy the 28 heifers with management tags that put them in the same group of other heifers with same type and series of management tags and with a hole missing in an ear where the other older metal NEUS tags may have been located?
Sargent County TB Investigation Summary

Cull cow with ND Brucellosis tag was found TB + at slaughter plant on 11/8/18-reported 11/13
• DNA analysis of lesion did not match blood on ear tag
Cull cow (same herd) found TB + at slaughter (diff. plant) 11/29/18-reported 12/3
• DNA analysis of lesion matched tag.
• Re-analysis of initial case showed contamination of ear tag due to attempts at plant to “clean” it
Whole Herd Test conducted on 103 head (60 d. thru Adult ages)
• 2 – 2 month old calves,
• 45 feeders (6 months to 18 months)
• 56 bred cows/heifers
Results of the testing........

- 14 Caudal Fold Responders (CFT)
  - 9/14 - Suspect or Reactors on the Comparative Cervical Test (CCT)
    - The 9 were necropsied at NDSU on January 7th and 8th.
      - Five of them were TB + by PCR and or culture.
    - The 5 CCT negative animals were necropsied at NDSU on February 14th.
      - 2 of them were TB+ by PCR and/or culture.
    - The remaining adult cattle were indemnified and shipped to slaughter on February 28th.
      Two of those (originally negative on the CFT) were determined to be positive by PCR and/or culture.
  - 11 Positive animals Total out of 103= ~11% confirmed positives in the herd (all adults)
Challenges in depopulating and moving carcasses to the NDSU Diagnostic Lab
Cleaning and disinfection Completed

- On September 10th, staff and Board members gathered final information and visited and inspected the premises.

- Based on compliance with the TB Eradication program requirements for C&D and the conditions of the lots and with support from Veterinary Services, the Board voted on 9/11/19 to allow the owners to restock later this Fall.

- A TB test of all animals put back in the pens will be conducted ~6 months after restocking to help ensure no risk remains associated with this case.

- All surveyed wildlife (coyotes, raccoons, feral cats) in the surrounding area have been negative for TB.

- Wildlife surveillance will continue this Fall in hunter harvested deer and for up to a year for meso-carnivores.
Major points learned or questions that should be asked:

• How can well fed/ managed herd selling culls with large lesions go undetected in this country for what appears to be a long time?
  • ~fist size lesions identified upon sampling of carcasses
  • And multiple variations in the WGS indicating decades within the herd which indicates TB was possibly in the herd for a decade….. or two. How could that happen?
  • Would more periodic live animal testing find these type of cases earlier than reliance on slaughter surveillance?
Definitions and Questions to consider and reconsider?

- The CFR currently states that a herd is group of animals held together for 4 months.
- Do you think that definition still makes sense? Has it increased or decreased the risk of the spread of TB in our country and in others?
- How do you view negative CCTs after hearing the results from this case?
- Is there maybe some logic to encourage a producer, who has much at stake, to consider also selling CFT responders (who clear on a CCT) to consider selling them directly to slaughter also, as part of their own Best Management Practices (BMPs)?
- Who should be suggesting that information?
Long time ago (~2 decades ago), the herd owners bought a cow/heifer from a relative who was selling out their herd.

That relative at one time was part of a large TB investigation in that area of the state where an entire cooperative grazing operation was impacted by a case of TB that traced back to one of the cooperative grazers. Not all herds tested the same number of times due to their known proximity to the affected herd.

No DNA is available from that 1988 investigation. Epi information indicated that someone in ND had some cull roping type cattle in their feedlot with their own herd’s replacement heifers that then became part of their herd. That herd is where the TB positive animal found at slaughter traced back to.

One veterinarian commented in a summary report that they hoped they had done enough follow up testing when they closed the investigation of that outbreak. Local producers still well remember that case to this day and the fear it caused in their community.
THE END

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