

Bovine Tuberculosis

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Outline

- Background
- Infected Herds
- Trace Investigations
- Circle Testing
- Wildlife Testing
- Likely Source
- Lessons Learned

Background

- **February 19** - cow discovered at slaughter
- **February 25** - Saginaw herd quarantined
- **February 28** - slaughter cow bovine TB positive
- **March 12** - Michigan strain of bovine TB

Background

- **March 4-7** - herd TB tested.
 - 18% of cattle responded to TB testing
- **March 25** - Saginaw herd designated TB affected
- **May 1** - **Gratiot and Midland County** herds designated as TB affected
- **September 5** - **Arenac County** feedlot designated as TB affected

Outcomes - Infected Herds

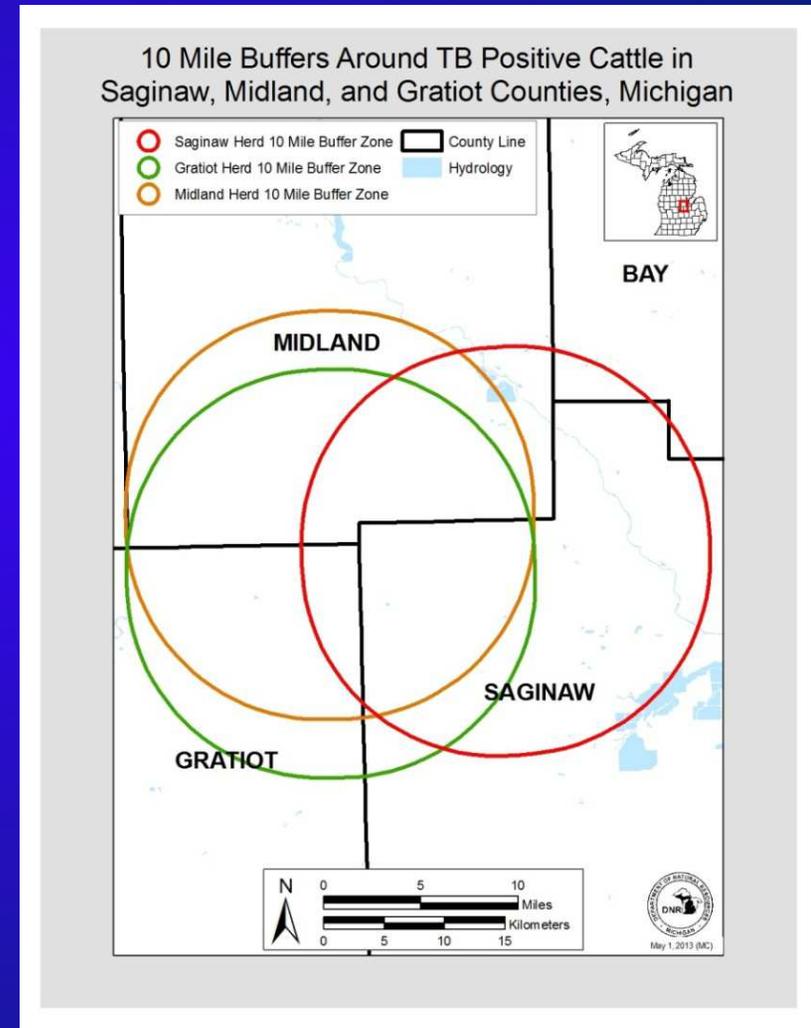
- **June 7** - Small freezer beef herd depopulated in Midland County.
- **June 19** - Small dairy beef herd depopulated in Gratiot County.
- **August 8** - Saginaw dairy herd completed depopulation.
- Arenac feedlot in process of depopulating.

Trace Investigations Outcomes

- Three additional TB affected herds were found – Gratiot, Midland, Arenac herds
- 230 farms visited that were linked to the four infected farms
- 83 of the 230 herds needed TB test - **14,994** head of cattle TB tested.

Circle Testing Outcomes

- Public Act 466 - requires circle testing
- Typically 10-mile circles
- Three overlapping circles



Circle Testing Outcomes

- March 26 - Special Surveillance Area declared around Saginaw herd
 - 63 farms in 10-mile circle
 - All testing done by regulatory veterinarians
 - 26 farms verified as not having cattle
 - 37 farms TB tested - 876 head of cattle
- **No further disease discovered !**

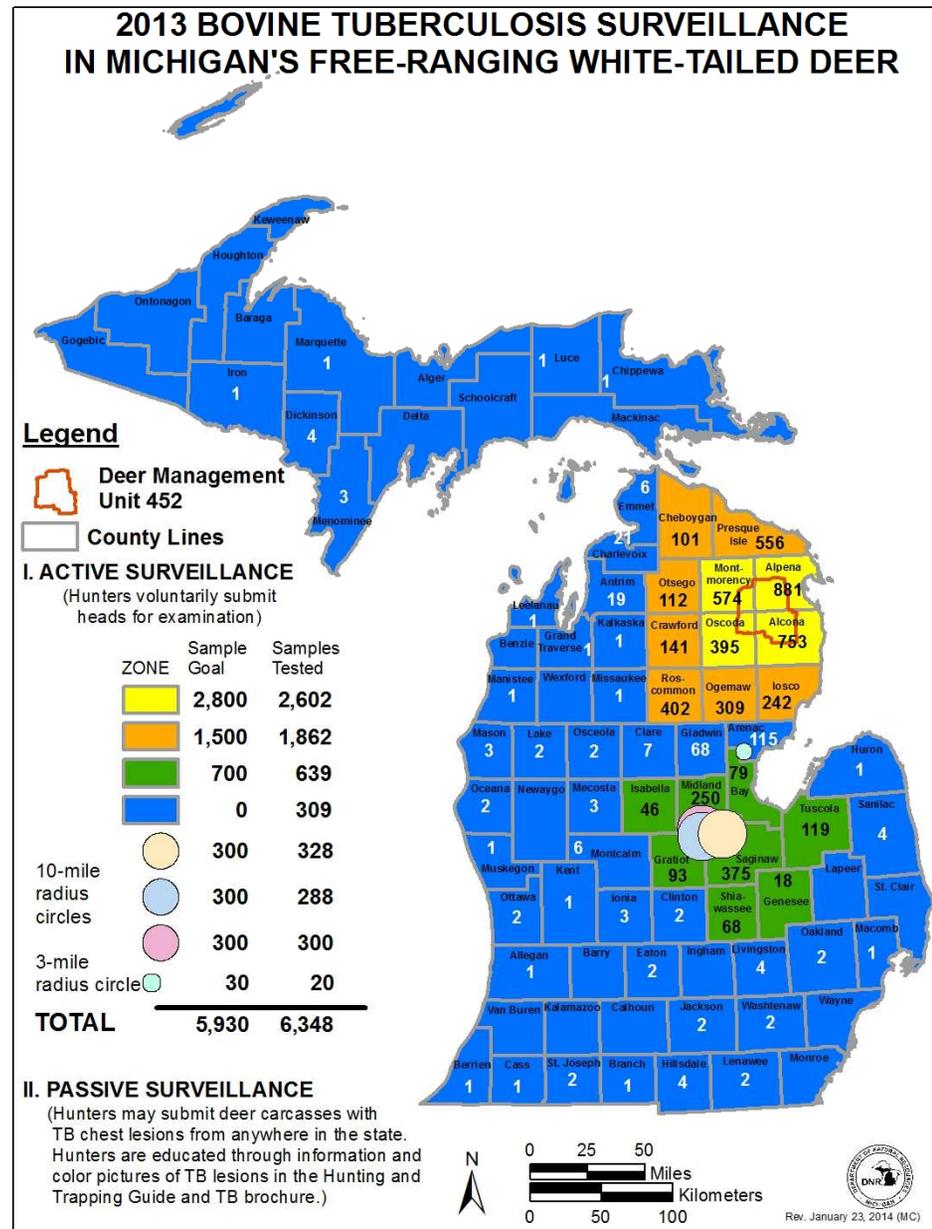
Circle Testing Outcomes

- May 6 - Special Surveillance Area declared around Gratiot herd
 - 67 farms in 10-mile circle
 - 19 farms verified as not having cattle
 - 48 farms TB tested - 4,415 head of cattle
- **No further disease discovered !**

Circle Testing Outcomes

- May 6 - Special Surveillance Area declared around Midland herd
 - 20 farms in 10-mile circle
 - 5 farms verified as not having cattle
 - 15 farms TB tested - 5,508 head of cattle
- **No further disease discovered !**

- Enhanced Surveillance to detect TB in the Deer Herd
- If TB is found – the DNR will respond appropriately



How Saginaw Herd Infection Happened

- Genetic test show similar to cattle and wildlife in NE Lower Peninsula's
- To date all wildlife testing in Saginaw region has been negative.

How Saginaw Herd Infection Happened

- Trace investigation found that Saginaw herd last purchased female cattle in mid-90s.
- Three source herds -
6,085 head of cattle were negative
- Cattle purchased in mid-90's -
most likely source of infection

How Saginaw Herd Infection Happened

- Multiple factors likely involved
 - Stress of heat and drought
 - High concentration of cattle
 - Stress of calving
 - Feeding unpasteurized milk to calves

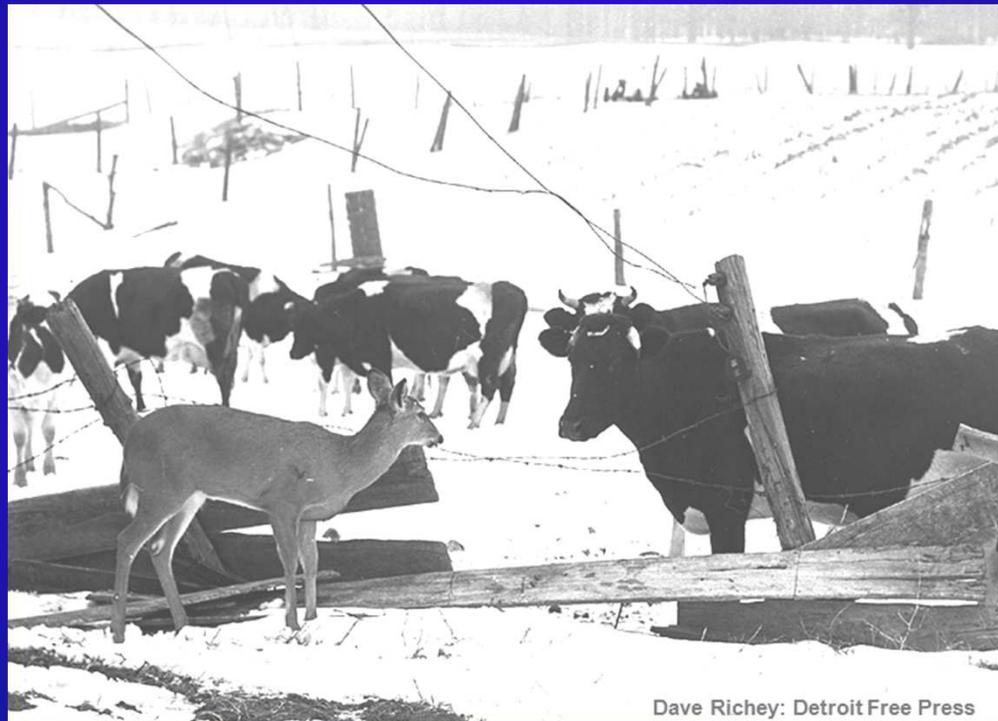
How Other Herd Infections Happened

- **Gratiot infection** - unpasteurized milk from Saginaw dairy
- **Midland infection** - infected animal originated from Saginaw dairy
- **Arenac infection** - unpasteurized milk from Saginaw dairy at Gratiot farm in 2012

Lessons Learned

- Important to identify all cattle with RFID tags
 - 2012 bull calves without RFID tags complicated the investigation
- Raw milk viable source of infection
 - Source of infection for two of three additional farms

Questions



Dave Richey: Detroit Free Press