



**Presentation for:
Bovine TB Public Meeting**

Franklin County High School

Brookville, IN

29 August 2016



**Bovine TB:
Background**

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District 9 Veterinarian

Director, Bovine Tuberculosis Program

Indiana State Board of Animal Health



Bovine Tuberculosis

- **Bacteria, *Mycobacterium bovis***
 - **Slow, insidious disease**
- **Mammals**
 - **cattle, deer, humans, other**
- **Transmission**
 - **nose-to-nose or aerosol**
 - **ingestion**
 - contaminated feed, carcasses
- **Generally detected at slaughter**



TB: Clinical Signs

- **Not always obvious**
- **Lesions develop slowly in lungs**
 - **40% positive deer had lesions recognizable as unusual by most hunters** (MI study)
- **Tan or yellow lumps (pearl lesions)**
 - **lung, inside surface of rib cage**
 - **lymph nodes throughout body**



TB: Appearance

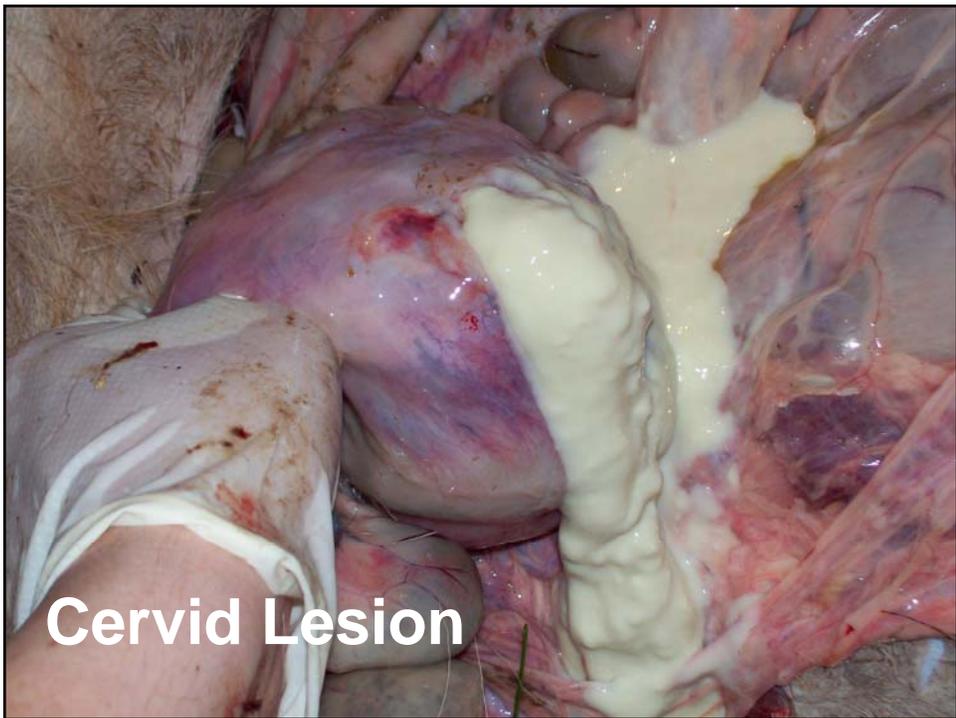
- **Lesions**
 - Solitary or multiple lesions
 - Small or large
 - May involve one organ, one system or may be multi-systemic
- **Cattle Historically: Cheesy, gritty lesions**
- **Cervids: Typical abscesses**

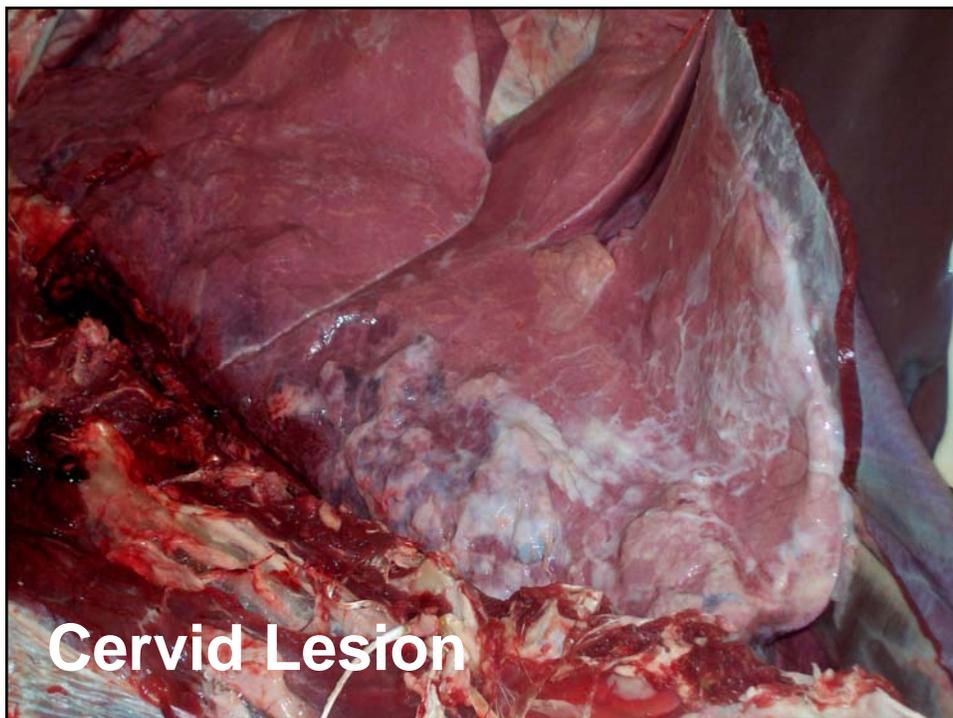


Distribution of Lesions

Lesions may be seen:

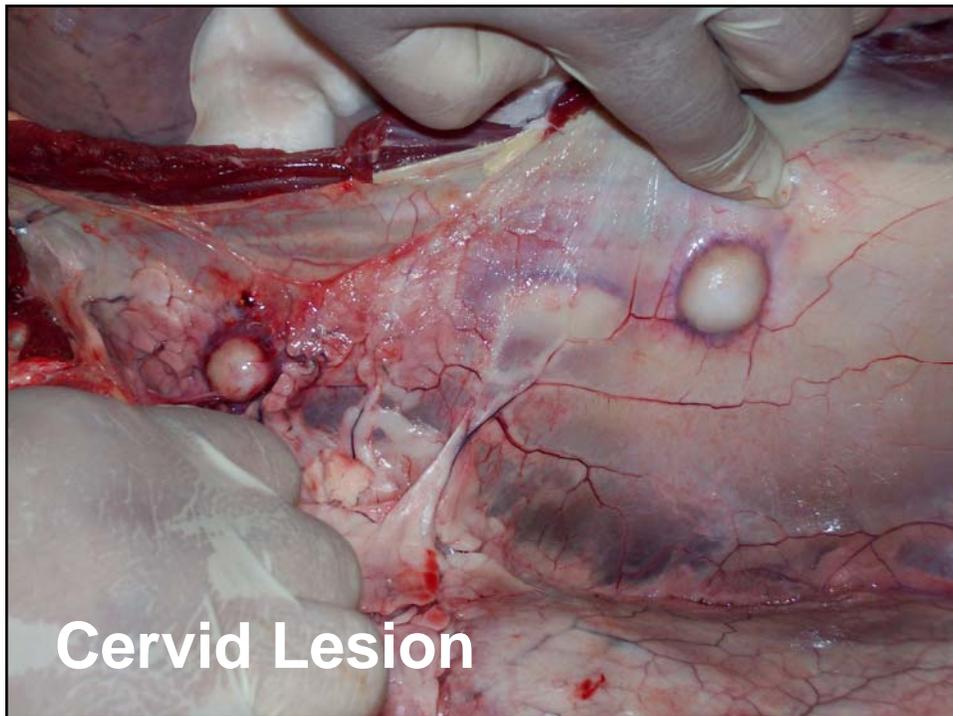
- **Respiratory tract**
- **Associated lymph nodes**
- **Digestive tract**







Cervid Lesion



Cervid Lesion



Cattle Lesion



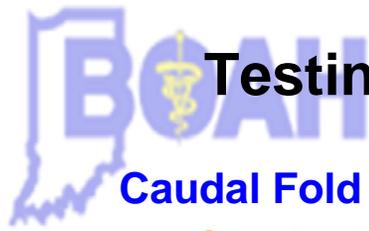
Cattle Lesion



Cattle Lesion



Cattle Lesion



Testing Methods

Caudal Fold Test (CFT)

- Standard skin injection, 72-hr read

Comparative Cervical Test (CCT)

- Confirmatory to CFT, 72-hr read

Bovigam

- Confirmatory blood test

Culture

- In-lab grow-out; up to 8+ weeks



Food Safety

- Freezer Beef

- Inspected Source

- Hunter-harvested Deer

- Caution while field-dressing; Call us!
- Proper cooking, handling

- Raw Milk and Dairy Products

- Unpasteurized dairy foods unsafe
- *NOTE:* Not found in dairy animals to date



Southeastern Indiana TB Investigation

Bret D. Marsh, D.V.M.

State Veterinarian

Indiana State Board of Animal Health



Recent TB Traces to SE IN

2008: Single beef cow trace

- No other positives

2009: Cervid herd, infected

- Herd depopulated

2010: Two beef traces from PA

- Genetically linked to 2011 herd

2011: Beef herd, infected

- Investigation complete



2016: Beef Index Herd

Positives at slaughter

- One herd on two sites
- Whole-herd testing identified more
- Herd depopulation complete



2016: Beef Index Herd

Trace-Outs

- Most sales to slaughter
 - No positives previously reported
- Testing completed or underway on other sales, contacts
 - One fence-line contact
 - No new cases



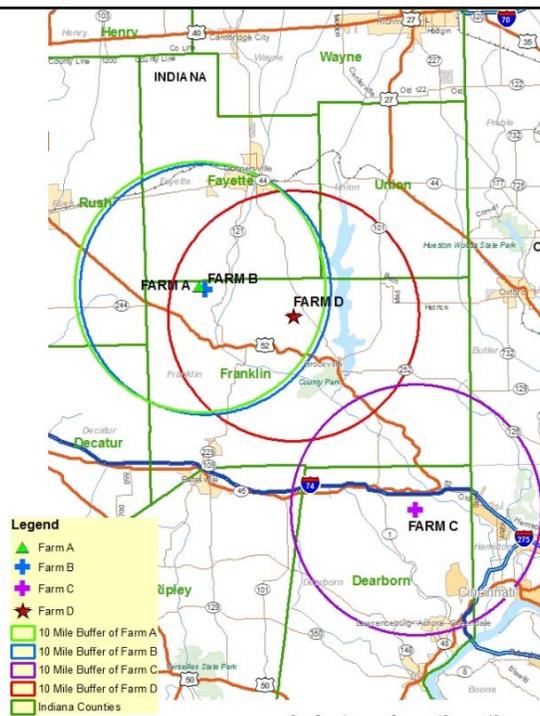
2016: Beef Index Herd

Trace-Ins

- Most animals natural additions
- Some from Union Stockyards (OH)
 - No records
- Testing nearly complete on sources
 - Accredited TB-Free herd

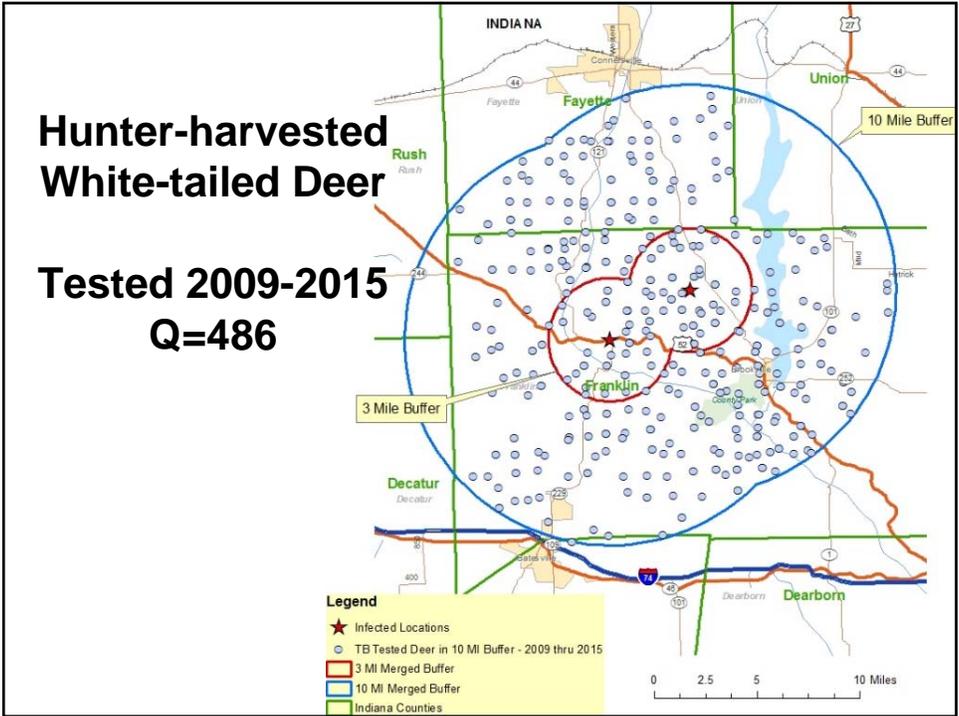
Proximity: Bovine TB Events w/ 10-mi Buffers

2008-2016

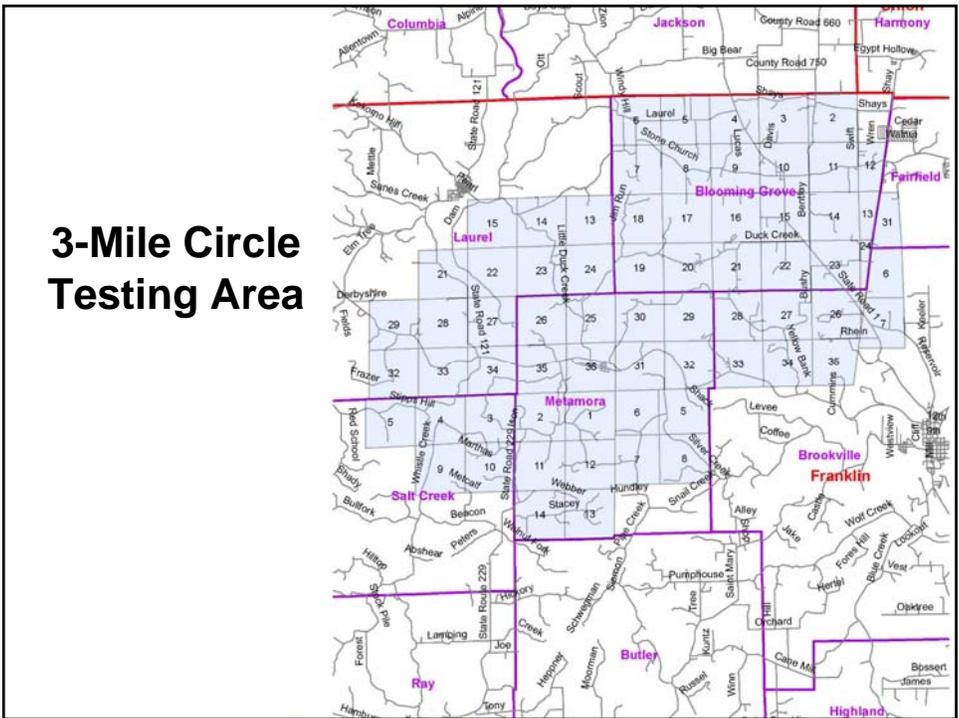


Hunter-harvested White-tailed Deer

Tested 2009-2015
Q=486



3-Mile Circle Testing Area

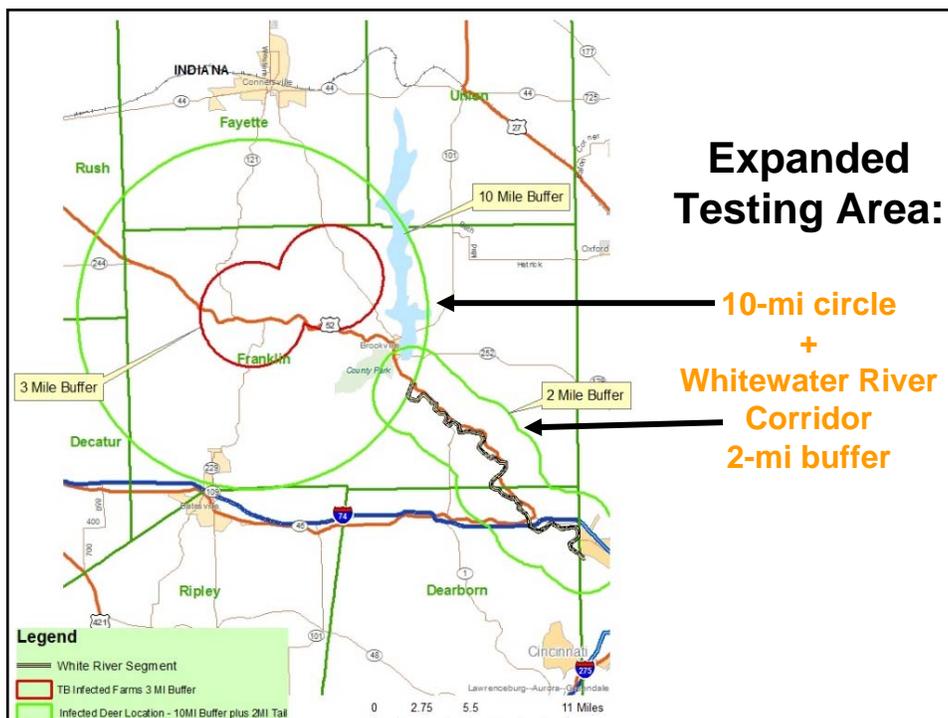


2016: Wild Deer Diagnosis



Positive 2-year-old white-tailed doe

- Culled from index farm
 - Others still pending test results
- First wild case in Indiana
- Expands test area from 3 miles to 10 miles





Testing Logistics



More Info...

www.in.gov/boah

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