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NEW YORK SWINE BRUCELLOSIS 2016

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VETERINARY SERVICES
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Swine Industries in the U.S.

Three Swine “Industries” in the US:

- **Commercial** - Raised in confinement, no exposure to feral
- **Transitional** – Primarily raised outdoors, possible exposure to feral
- **Feral** – Razorbacks, wild boar, etc.






Initial Detection

Initial Indication of disease was a human case

- History of chronic malaise, intermittent fever, joint pain
- Blood culture in March 2016 revealed *B. suis*, biotype 1
- Patient lived on farm that had transitional swine
- No history of contact with feral swine, no known feral swine in the area.

NYS Dept. of Agriculture and Markets investigated the swine herd

- Herd test of 23 test eligible swine yielded 7 positive results
 - 40+ cattle and 1 dog on farm also tested, all negative
 - Modified whole herd depop of swine (two high value, test negative animals were kept alive for “testing out”)
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Index Herd

Trace outs from index herd:

- Three in NY, two of which were also infected
- Two in other states, both infected
- All cultures came back as Biotype 1

Source of index herd's infection:

- All swine came from a now defunct herd in NY
- Further investigation revealed source of defunct herd's stock – a transitional swine breeder in same county. Had feral swine contact > 8 years ago.





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VS/SPRS District 1 Response

Breeding herd discovery led to rapid expansion of incident:


- VS DISTRICT 1 incident management team activated
- Total of 50 herds in 13 states were investigated.
- A total of 9 brucellosis infected herds were found, all transitional swine
- 6 of the infected herds were in NY
- As of Sept 26th, all infected and/or exposed animals were depopulated



Photos courtesy of Dr. Todd Johnson, USDA VS



Lessons Learned

- “Specialty” livestock operations rapidly multiplying to meet demands of urban consumers. They are not adequately covered by existing surveillance plans.
 - Diagnostics:
 - BAPA, followed by FPA, CF for non-negatives
 - Sero-positive animals were sometimes culture negative, and some sero-negatives were culture positive
 - Euthanasia: Captive bolt with pithing worked well.
 - Disposal:
 - Composting worked best
 - The future of sending reactors and exposed animals to slaughter is doubtful.
 - Coordination between VS, States, and APHIS WS was crucial.
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