NEW YORK SWINE BRUCELLOSIS
2016

TOM MCKENNA, DVM, PHD
DISTRICT DIRECTOR, SPRS, DISTRICT 1
U.S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
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”)
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.
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.
Tom McKenna, DVM, PhD
District Director, SPRS, District 1
U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Veterinary Services
508-363-2278 (Office)
Thomas.S.McKenna@aphis.usda.gov