



Testing to Confirm Brucellosis in an Individual Feral Boar in Texas, USA

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Field Investigation

- Feral boar discovered comingling with commercial outdoor-confined sow herd intended for harvest
- Blood, renal, testicular, epididymal tissues collected from boar at euthanasia
- Samples submitted to Texas State-Federal Cooperative Laboratory, Austin, TX

State-Federal Laboratory Investigation

	RAP	FPA	Card	CF	Rivanol	Culture
Initial analysis	+	-				
Supplemental analysis			-	+	+	+ <i>B. suis</i> , biovar 1

- RAP; Rapid Automated Presumptive
- FPA; Fluorescent Polarization Assay
- Card; Card agglutination test; widely used for surveillance testing
- CF; Compliment Fixation; frequently used to confirm diagnosis
- Rivanol; frequently used to confirm diagnosis

NVSL Investigation

RAP	FPA	Card	CF	Rivanol	Culture
+	-	-	+	+	+ <i>B.suis</i> , biovar 1; testicular, epididymal tissues

Serologic Sensitivity/Specificity

Test	Sensitivity	Specificity
RAP*	40-90%	100%
FPA [†]	99%	96-100%
Rivanol [†]	50-100%	22-100%
CF [†]	23-97%	30-100%

* Mikolon, A.B., et al., *Evaluation of North American antibody detection tests for diagnosis of brucellosis in goats*. Journal of Clinical Microbiology, 1998. **36**(6): p. 7

† Nielsen, K., *Diagnosis of brucellosis by serology*. Veterinary Microbiology, 2002. **90**: p. 1

Field Investigation Conclusion

- Pre-harvest brucellosis serology negative for confined sows intended for harvest
- Sows were released to the abattoir
- Individual brucellosis testing presents diagnostic challenges, especially in feral swine
- A good herd/animal history, clinical and laboratory experience are beneficial when trying to make the right diagnosis, especially with *Brucella* and swine
- Livestock producers coming into contact with feral swine potentially harboring *Brucella suis* *are at risk*

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