



# PROGRAM ACTIVITY REPORT (PAR)

## BRUCELLOSIS CULTURE PROJECT UPDATE

*Brucella suis* and the role of feral swine in transmission and maintenance of both *B. suis* and *B. abortus* are of interest to the domestic livestock industry for many reasons. Domestic swine in the United States are considered brucellosis-free. However, *B. abortus* and *B. suis* have been detected in cattle and can lead to abortions in unvaccinated cattle. Other possible consequences of infection are stillborn calves, retained placenta, and reduced milk yield.

The diagnostic tests that are available for *Brucella* testing were originally designed to detect *B. abortus* in cattle. Consequently, despite annual submissions of approximately 2,200 samples by the NWDP for *Brucella* serology, results only indicate *Brucella* antibody presence and cannot distinguish between *B. suis* and *B. abortus*. In an effort to better understand the specific strain or strains circulating in feral swine, the NWDP is partnering with the NVSL to test lymph nodes from feral swine to culture brucellosis to distinguish between

species. NWDP will use the information to assess current testing proto-

counties known to be one of the top 5 swine producing counties within a state and have had a *Brucella* detection were targeted for sampling. Sample collection began during fiscal year 2011 and will conclude on September 30, 2012. Number of feral swine to be sampled is 250. Thus far, 185 samples have been tested from 9 states and all of the culture positive samples have been identified as *B. suis*.

State	# Samples Tested	# Culture Positives
Alabama	1	0
Arkansas	1	0
Florida	69	9
Hawaii	67	1
Louisiana	3	1
Mississippi	30	1
North Carolina	0	0
South Carolina	12	1
Texas	3	0



Results to date indicate that feral swine are carriers of *B. suis* and the diagnostic test for serology is most likely identifying *B. suis*. However, once all of the samples have been submitted and tested NWDP will have more confidence in strain detection and in our ability

to rule out *B. abortus* infection in feral swine.

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Counties where swine have been identified as serologically positive for brucellosis over multiple years and/or

For more information, please contact Kerri Pedersen.

[Kerri.Pedersen@aphis.usda.gov](mailto:Kerri.Pedersen@aphis.usda.gov).

The original artwork on this page was created by the National Wildlife Disease Program's Erika Kampe and Sarah Goff