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Agriculture

Animal and Plant  
Health Inspection  
Service

Veterinary Services

Emergency  
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**TO:** State Animal Health Officials, AVICs

**FROM:** APHIS CEM Coordination Group

**SUBJECT:** FY 2009 CEM Incident Situation Report; Includes Data Reported Through COB February 26, 2009

### A. Epidemiology Summary

A total of 11 stallions have been confirmed by USDA's National Veterinary Services Laboratories (NVSL) as positive for *Taylorella equigenitalis*, the causative organism of contagious equine metritis (CEM). In addition to the positive stallions, the NVSL has confirmed that three mares have CEM. Three of the positive stallions are located in Indiana, four are in Kentucky, one is in Texas, and three are in Wisconsin. One of the positive mares is located in California, one is in Illinois, and one is in Wisconsin. None of the positive horses have yet been identified as the source of the outbreak; the epidemiologic investigation continues to pursue all available information relative to determining the origin of this outbreak, but no conclusions can yet be drawn.

The Texas stallion and all three Indiana stallions were resident in 2008 on the central Kentucky premises where the initial *T. equigenitalis* detection occurred, but the three positive Wisconsin stallions have not been on the Kentucky premises. The first Wisconsin stallion detected as positive for *T. equigenitalis* was imported from the Netherlands in late 2004 and was co-located during the 2007 breeding season in Wisconsin with one of the three positive stallions currently in Indiana. That Indiana stallion was on the Kentucky premises in 2008. The second and third Wisconsin stallions were co-located on the same premises as the first positive Wisconsin stallion during both the 2007 and 2008 breeding seasons.

The positive Wisconsin mare was bred by live cover to one of the positive stallions in Wisconsin. The positive Illinois mare was bred by artificial insemination (AI) in 2008 with semen from one of the positive stallions currently located in Indiana. The positive California mare was bred by AI in 2008 with semen from the first positive stallion detected in Wisconsin.

In addition to the 11 positive stallions and 3 positive mares, locations have been confirmed for 609 additional horses exposed to *T. equigenitalis*. The total of 623 horses, located in 45 States, includes 86 stallions and 537 mares.

There are 17 States known to have exposed or positive stallions: Alabama, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Michigan, Mississippi, Nebraska, North Carolina, Ohio, Texas, Washington, Wisconsin, and Wyoming. The exposure for most of the stallions has been co-location at a breeding facility with at

least one positive stallion. There are no additional exposed stallions currently being traced. Table 1 has more details on the status of all stallions that have been located to date.

There are 44 States known to have exposed or positive mares: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, and Wisconsin. The exposure for most of the mares has been through AI. There is one additional exposed mare still actively being traced. Table 2 has more details on the locations and testing results of exposed mares.

All positive horses, and all exposed horses that have been located, are currently under quarantine or hold order. Testing and treatment protocols are being put into action for all located horses.

Five exposed stallions have now completed their entire testing and treatment protocol and been determined to be negative for *T. equigenitalis*, and another 40 exposed stallions have had at least one set of negative cultures prior to test breeding. A total of 188 exposed mares have completed their testing and treatment protocol and are negative for *T. equigenitalis*. At least another 251 exposed mares are pregnant and will not complete their protocols until after foaling.

An exposed horse is one that was bred, either naturally or via artificial insemination, to a horse positive for *T. equigenitalis*, or one that is otherwise epidemiologically linked to a positive horse, as determined by State and Federal animal health officials.

The USDA APHIS Hot Issues web link for CEM is:

[http://www.aphis.usda.gov/newsroom/hot\\_issues/cem/index.shtml](http://www.aphis.usda.gov/newsroom/hot_issues/cem/index.shtml)

The USDA APHIS National Center for Import Center (NCIE) International Animal Export Regulations web link is:

<http://www.aphis.usda.gov/regulations/vs/iregs/animals/>

## **B. Diagnostic Testing Summary**

NVSL has completed antibiotic susceptibility testing of *Taylorella equigenitalis* isolates from all 11 positive stallions. The isolates from the positive mares are on test and complete results will be reported when available.

All isolates tested so far show the exact same profile:

Amikacin - susceptible

Gentamicin - susceptible

Nitrofurantoin - susceptible (this is the only nitrofurantoin tested; unable to find nitrofurazone disks)

Penicillin - susceptible

Streptomycin - resistant (matches results observed on Strep Eugon plates)

Sulfadiazine - susceptible  
 Sulfamethoxazole/trimethoprim - susceptible  
 Tetracycline - susceptible  
 Ticarcillin - susceptible

<b>Table 1. Location and Testing Status of Stallions</b>									
<b>State</b>	<b>Number of Stallions</b>	<b>Pre-Breeding Culture</b>					<b>Test Breeding</b>		
		<b>Scheduled?</b>		<b>In Process</b>	<b>Negative*</b>	<b>Positive</b>	<b>In Process</b>	<b>Negative</b>	<b>Positive</b>
		<b>No</b>	<b>Yes</b>						
Alabama	1	-	-	-	1	-	-	-	-
Delaware	1	-	-	-	1	-	-	-	-
Florida	2	-	-	-	2	-	2	-	-
Georgia	3	-	-	-	3	-	-	2	-
Illinois	1	-	-	1	-	-	-	-	-
Indiana	4	-	-	-	1	3	4	-	-
Kentucky	16	-	-	-	12	4	13	3	-
Louisiana	1	-	-	-	1	-	1	-	-
Michigan	1	-	-	1	-	-	-	-	-
Mississippi	2	-	1	-	1	-	-	-	-
Nebraska	1	1	-	-	-	-	-	-	-
North Carolina	1	-	-	-	1	-	-	-	-
Ohio	14	4	-	7	3	-	2	-	-
Texas	2	-	-	-	1	1	1	-	-
Washington	1	-	-	1	-	-	-	-	-
Wisconsin	34	1	1	11	18	3	7	-	-
Wyoming	1	-	-	1	-	-	-	-	-
<b>Totals</b>	<b>86</b>	<b>6</b>	<b>2</b>	<b>22</b>	<b>45</b>	<b>11</b>	<b>30</b>	<b>5</b>	<b>0</b>

\* Negative results to date, but multiple cultures may be performed before a final negative culture result is declared; final negative culture is followed by test breeding.

**Table 2. Location and Testing Results of Exposed Mares**

Eastern Region States	Mares Located	Testing Completed		Mares Being Traced	Western Region States	Mares Located	Testing Completed		Mares Being Traced
		Positive*	Negative				Positive*	Negative	
Alabama	2	-	-	-	Alaska	1	-	1	-
Connecticut	3	-	1	-	Arizona	4	-	1	-
Delaware	1	-	1	-	Arkansas	3	-	2	-
Florida	26	-	7	-	California	35	1	7	1
Georgia	8	-	6	-	Colorado	7	-	-	-
Illinois	10	1	4	-	Hawaii	-	-	-	-
Indiana	34	-	28	-	Idaho	8	-	2	-
Kentucky	40	-	32	-	Iowa	19	-	7	-
Maine	7	-	3	-	Kansas	10	-	3	-
Maryland	-	-	-	-	Louisiana	1	-	-	-
Massachusetts	2	-	1	-	Missouri	7	-	-	-
Michigan	44	-	4	-	Montana	1	-	1	-
Minnesota	26	-	5	-	Nebraska	5	-	-	-
Mississippi	6	-	5	-	Nevada	2	-	1	-
North Carolina	12	-	3	-	New Mexico	1	-	-	-
New Hampshire	-	-	-	-	North Dakota	1	-	-	-
New Jersey	8	-	3	-	Oklahoma	4	-	1	-
New York	9	-	2	-	Oregon	1	-	-	-
Ohio	33	-	18	-	South Dakota	4	-	3	-
Pennsylvania	5	-	3	-	Texas	29	-	12	-
Puerto Rico / USVI	-	-	-	-	Utah	1	-	-	-
Rhode Island	-	-	-	-	Washington	12	-	5	-
South Carolina	9	-	-	-	Wyoming	-	-	-	-
Tennessee	7	-	3	-	<b>Totals</b>	<b>156</b>	<b>1</b>	<b>46</b>	<b>1</b>
Vermont	-	-	-	-					
Virginia	8	-	2	-					
West Virginia	3	-	-	-					
Wisconsin	78	1	11	-					
<b>Totals</b>	<b>381</b>	<b>2</b>	<b>142</b>	<b>0</b>					

\* Positive mares require additional treatment and testing.