EQUINE PIROPLASMOSIS, VESICULAR STomatitis, AND EQUINE ARBOVIRUS UPDATES

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OCTOBER 19, 2016
EP 2016: 68 new cases of *T. equi*

- Of the 68 new EP cases, 67 were in QH racehorses with involvement of iatrogenic transmission, 1 was an Azteca mare suspected of illegal movement from Mexico
  - Arkansas - 2 bushtrack QH (1 co-infected with EIA), 1 Azteca in same neighborhood; suspected illegal movement from Mexico
  - Arizona – Cluster of 3 QH racehorses
  - Illinois – 1 QH racehorse
  - New Mexico – 1 QH racehorse
  - Tennessee – Cluster of 17 QH bushtrack; unrelated cluster of 7 QH bushtrack
  - Texas – Cluster of 10 – QH racehorses associated with same trainer – some recently raced in Louisiana; unrelated cluster of 4 QH racehorses; new single positive QH racehorse (Sept) under investigation
  - Wyoming/Utah – Cluster of 21 QH racehorses

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Horses Tested</th>
<th># EP Positive</th>
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</thead>
<tbody>
<tr>
<td>2009</td>
<td>9,170</td>
<td>9</td>
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<tr>
<td>2010</td>
<td>76,803</td>
<td>143</td>
</tr>
<tr>
<td>2011</td>
<td>75,680</td>
<td>31</td>
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<tr>
<td>2012</td>
<td>45,617</td>
<td>6</td>
</tr>
<tr>
<td>2013</td>
<td>38,939</td>
<td>27</td>
</tr>
<tr>
<td>2014</td>
<td>27,781</td>
<td>31</td>
</tr>
<tr>
<td>2015</td>
<td>23,212</td>
<td>16</td>
</tr>
<tr>
<td>2016 (Jan-Sept)</td>
<td>17,507</td>
<td>68</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>314,709</strong></td>
<td><strong>331</strong></td>
</tr>
</tbody>
</table>

*11 states had EP test requirements to enter racetracks in 2010, now only 4 states have current EP test entry requirements (NM, TX, UT, WY)
*Of the 331 positive horses found, 293 were racehorses (280 QH race)
EIA Case Update

• Increase in EIA cases found in QH racehorses over the past few years
• Increase in EP/EIA dual infections found
• Example: California has identified 37 EIA infected QH racehorses since 2013; 10 of them were EP/EIA dual infected
• Recent findings of EIA cases in historically EIA-negative states (NY, PA, Pacific NW)
Recent EIA/EP cases – California

Is this the new face of EIA?

Photos courtesy of Dr. Katie Flynn, CDFA
EIA 2015: 69 positive on 36 premises

Full 2015 EIA Report available on USDA-APHIS website
EIA Cases: 2016

• 36 EIA cases confirmed so far by NVSL in 2016 in 11 states (more cases likely confirmed at the state-level and not yet reported)

• Interesting findings include:
  • 2 separate unrelated cases in PA (1st reported EIA cases in PA in more than 10 years)
  • 2 EIA clusters in Amish horses in NY – historically untested population
  • 1 case in FL with traceback to tribal lands – large untested population where offers to provide free testing have been declined
  • QH and bushtrack racehorse cases in AL, AR, OR, TX
Vesicular Stomatitis Update

823 infected premises in 8 states
We prepared for VSV 2016, but….

• No confirmed VSV cases have been identified to date
• 2016 VSV Field Guidance went out to state/federal animal health officials in early June
• Same response procedures used in 2015
• Reminders:
  • Suspicion of VSV in any species is still reportable to state and federal animal health officials in the U.S. and necessitates action outlined in the 2016 VSV Field Guidance.
  • Suspect equine cases in currently VSV-negative states still need to be assigned an FAD number and have samples collected for submission to NVSL-Ames. More flexibility in investigation and management of equine cases occurs in confirmed VSV-positive states.
Historic EEE/WNV Case Counts

![Historic EEE/WNV Case Counts Chart]

- **X-axis:** Years (2004 to 2014)
- **Y-axis:** Case Counts (0 to 1600)
- **Legend:**
  - WNV
  - EEE
2016 Case Counts via ArboNET

• As of October 4, 2016:
  • EEE – 81 equine cases reported in 12 states
  • WNV – 183 equine cases reported in 26 states

• Challenges in reporting process
  • CDC contact begins providing ArboNET data to APHIS in August each year
  • Validation of data through state animal health officials shows significant lag time in ArboNET data entry or absence of data entry in some states
  • Occasional issues with incorrect classification of cases
  • No epidemiology information available
## Current issues with EEE and WNV

- Vaccination is highly protective, but regular booster vaccination is necessary
- Cases are in unvaccinated or under-vaccinated equids
- Trends toward increase in cases during economic downturns – reduced spending on vaccinations
- Cases under-reported (case definition requires diagnostic testing - $$)