NVSL SALMONELLA, MYCOPLASMA AND PASTEURELLA MULTOCIDA UPDATE

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Salmonella Serotyping

- 13,103 isolates submitted in 2017
  - 5,479 clinical isolates
  - 5,489 non-clinical isolates
  - 2,135 research and other isolates
- 4,397 isolates from chicken
- 1,084 isolates from turkey
Most Common Serotypes – Chicken 2017

<table>
<thead>
<tr>
<th>Rank</th>
<th>Clinical</th>
<th>Non-Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enteritidis</td>
<td>Kentucky</td>
</tr>
<tr>
<td>2</td>
<td>Typhimurium</td>
<td>Senftenberg</td>
</tr>
<tr>
<td>3</td>
<td>Kentucky</td>
<td>Mbandaka</td>
</tr>
<tr>
<td>4</td>
<td>Mbandaka</td>
<td>Enteritidis</td>
</tr>
<tr>
<td>5</td>
<td>Infantis</td>
<td>Worthington</td>
</tr>
</tbody>
</table>
Chicken 2017

**Clinical**
- Enteritidis: 33%
- Typhimurium: 24%
- Kentucky: 14%
- Mbandaka: 7%
- Infantis: 5%
- All other: 17%

**Non-Clinical**
- Kentucky: 20%
- Senftenberg: 13%
- Mbandaka: 7%
- Worthington: 6%
- All others: 49%
Salmonella Group D

- Chicken submissions - all roles
- 435 Group D isolates
- 358 (88%) isolates were SE
- 77 (12%) Group D serotypes other than SE
  - S. Berta, S. Javiana, S. Ouakam
# Most Common Serotypes – Turkeys 2017

<table>
<thead>
<tr>
<th>Rank</th>
<th>Clinical</th>
<th>Non-Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Senftenberg</td>
<td>London</td>
</tr>
<tr>
<td>2</td>
<td>Uganda</td>
<td>Senftenberg</td>
</tr>
<tr>
<td>3</td>
<td>Bredeney</td>
<td>Muenchen</td>
</tr>
<tr>
<td>4</td>
<td>Ouakam</td>
<td>Infantis</td>
</tr>
<tr>
<td>5</td>
<td>Typhimurium</td>
<td>Hadar</td>
</tr>
</tbody>
</table>
Turkey 2017

Clinical

- Senftenberg: 17%
- Uganda: 9%
- Bredeney: 8%
- Ouakam: 7%
- Typhimurium: 6%
- All other: 53%

Non-Clinical

- London: 33%
- Senftenberg: 27%
- Muenchen: 3%
- Infantis: 4%
- Hadar: 7%
- All other: 26%
Salmonella Pullorum

- 808 Salmonella Pullorum serological tests
- 2,255 mL Salmonella Pullorum tube test antigen provided
- 1,275 mL Salmonella Pullorum stained microtiter antigen provided
- 384 mL of control antisera provided
*Pasteurella multocida*

- 186 isolates for Gel-Diffusion Precipitin Test
- 134 isolates for DNA fingerprinting
- 45 mL of antisera provided
- 3 reference isolates provided
Avian *Mycoplasma*

- 359 sera for HI testing
- 615 mL of HA antigen supplied
  - 290 mL MG
  - 90 mL MM
  - 235 mL MS
- 1,136 mL of control antisera supplied
  - 376 mL MG
  - 58 mL MM
  - 362 mL MS
  - 340 mL Negative control
## NPIP Group D *Salmonella* Proficiency Test

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>61</td>
<td>0</td>
<td>94</td>
<td>98</td>
<td>101</td>
</tr>
<tr>
<td>Mean Score</td>
<td>94%</td>
<td>98%</td>
<td>98%</td>
<td>97%</td>
<td>95%</td>
</tr>
<tr>
<td>Score Range</td>
<td>100-68%</td>
<td>100-80%</td>
<td>100-68%</td>
<td>100-80%</td>
<td>100-75%</td>
</tr>
<tr>
<td>Below Passing</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
VS Electronic Forms

https://ncahappspub.aphis.usda.gov/NCAHPortal/auth/salmonellaSampleSubmission/create

- NCAH Portal used for electronic sample submissions
- eAuthentication account made prior to access
- Submitter information will auto populate after receipt of samples
- Additional email & fax numbers are easily added
- Easily clone past submissions with similar data
- Reports remain in the system for one year
Contact Information

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