Emerging Disease Response Planning

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National Pork Board
The best laid plans .....
Swine Futures Project: A Cooperative Strategy for the 21st Century
Emerging Swine Production Diseases

PRRS, + PCVAD + nH1N1 + PEDv
+SDCoV

=
Lessons learned from PEDv

Pathways for Disease Introduction
- Overconfidence

Response to non-regulatory diseases
- No tools & no plan

Better State-Federal-Industry Coordination
- Not who is in charge but who is in charge of what
Cooperative Approach

Swine Pathogen Matrix

Response Plan

Preparedness

Swine disease information sharing
Col Boyd’s OODA “Loop” Source: www.hroarr.com/the-ooda-loop-hema
Observe
# Swine Pathogen Matrix Project

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Diagnostics, Treatment, Prevention, Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PCR</td>
</tr>
<tr>
<td>Porcine Circovirus Type 2b</td>
<td>yes</td>
</tr>
<tr>
<td>Porcine Epidemic Diarrhea virus</td>
<td>yes</td>
</tr>
<tr>
<td>Porcine Deltacorona virus</td>
<td></td>
</tr>
<tr>
<td>Porcine Kubovirus</td>
<td></td>
</tr>
</tbody>
</table>
Swine Pathogen Matrix Project

- Establish system to detect introduction of ESPD of concern
- Address gaps
- Prioritize & evaluate resource and knowledge gaps
- Global Identification of Emerging Swine Production Diseases (ESPD)
Orient

Shared

ANALYSIS
Mission
To protect and enhance the health of the US swine herd through:

Target research to minimize impact of ESPD

Collection & Analysis of Swine Health Data

Global Disease Monitoring
Swine Health & Information Center

5 Year Lifespan unless extended

Board of Directors &
Executive Director

Research Selection Taskforce
Endemic Swine Disease Taskforce
International Swine Disease Taskforce
Swine Health & Information Center

Scope of Work

- Swine Disease Matrix project
- Swine health data management, monitoring for trends and analysis of data
- Improve the biosecurity and biocontainment ability of the US swine herd
- Global swine health and issues identification

- Swine Health Monitoring Project
- Emerging disease monitoring data
- Production Animal Disease Risk Assessment Program (PADRAP)
- Secure Pork Supply database
- Trade support

People. Pigs. Planet.
Swine Health and Information Center

- What this isn’t . . .
  - A disease response plan
  - FAD surveillance or response
  - A duplication of USDA, AASV, NPPC or NPB

- What this is . . .
  - A tool to implement industry preparedness
  - A tool to improve swine health management
  - A tool to improve non-regulatory disease response
  - A tool to enhance AASV, NPPC and NPB
US Swine Health Board

- Based on the successes from the PRV Control Board
  - Federal, state and industry cooperation

- Two roles:
  - Suggest actions to respond to known pathogens in other countries
  - Suggest actions to respond to identification of emerging diseases in the U.S.
    - Following an FADD investigation that would require regulatory action
Members of US Swine Health Board

• Pork producer leaders
  – NPB, NPPC, and ad hoc

• Swine Veterinarians
  – AASV president, practicing veterinarians

• Members of USDA Veterinary Services

• State Animal Health Officials

• Other experts will be brought in on an as needed basis
US Swine Health Board

• Options for recommendation will be selected from lists of options
  – Defined actions
  – Defined responsibilities
Outside of the U.S.
Swine ID Plan

Packer Records:

<table>
<thead>
<tr>
<th>Source PIN</th>
<th>Group/Lot</th>
<th>Owner</th>
<th>Head</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>234567B</td>
<td>234567B010107</td>
<td>Bob Smith</td>
<td>150</td>
<td>6/6/07</td>
</tr>
</tbody>
</table>

Producer Records (kept 3 years):

<table>
<thead>
<tr>
<th>Source PIN</th>
<th>Destination PIN</th>
<th>Group/Lot</th>
<th>Head</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>123456A</td>
<td>234567B</td>
<td>234567B010107</td>
<td>150</td>
<td>1/1/07</td>
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<tr>
<td>234567B</td>
<td>987654C</td>
<td>234567B010107</td>
<td>150</td>
<td>6/6/07</td>
</tr>
</tbody>
</table>
Validated PIN’s
Surveillance
E2E Proof-of-Concept Demonstration

Premises and Plants (SCS) → Producer Census and Movement Data → Testing Results (Diag. Lab)

- State Premises and Plant Data
- Producer (3rd Party S/W)

Show premises disease status and support the decision on whether or not to move animals.

Show the day-to-day usefulness for monitoring facility disease status.
This message funded by America’s Pork Producers and the Pork Checkoff