Circovirus: Before and after the outbreak

Patrick Graham, DVM, MS
Ghrist Veterinary Clinic
Pittsfield, IL
Pike Pig Systems

John McIntire - Production Manager
Rodney Parsons
Peggy Douglas-Brown
David Bishop, PhD
History

1400 sow – stocked in 1995 w/PIC

PRRS (+)
- On-sight GDU
- Isowean

Health
- PRRS – 2 blips 1995-2005
- SIV – 2-3 blips 1995-2005
Pig Flow

- Farrowing: 3 x 60 farrowing crates
  - Load
  - Wean
- Target
  - 600 pigs/week
  - Stocks
    - 8 x 600 hd nursery rooms
    - 9 x 1200 hd finisher barns
    - Nursery – finisher: 600 yd apart
- Continuous flow - nursery and finishers
Pig health

- No serious health issues early on
- Slow progression
  - PRRS, Myco, Ery., Ileitis, Circo, other...
  - No vaccines used early on
- 1998 – Myco vx, feed med for ileitis
- 2001 – PRRS vx - pigs
Outbreak

- Vaccine failures – myco., PRRS
- No antibiotic response
- Clinical signs, slow, progressive:
  - Respiratory
  - Enteric
  - Culls
  - Death loss
Diagnostics

- PRRS, Myco, HPS, Strep, A suis, PCV2?, Ileitis?
- Aggressive antibiotic tx
- “Disease that’s not treatable!”
Method

- Aggressive sort-off
- Euthanasia
- “Good ones were good but the bad ones were bad!”
Performance

- Nursery performance not affected
- Increased wean-age
- Finisher performance
  - Crashed!
  - Increased death loss 3-4 weeks
  - Scours, wasting, PDNS
Common signs
Before Vaccination:
10-7-05 to 2-23-06

Mortality

Excede, Drax.

Period

Percent

The goods ones did well!

Growth Performance

ADG

FCR

Period

The goods ones did well!
After vaccination:

3-10-06 to 4-30-08

Mortality

2007 – 3.8%

Period

Percent

Wrong time

PRRSV Vx Stopped

No vaccine
After vaccination: 3-10-06 to 4-30-07

Growth Performance

<table>
<thead>
<tr>
<th>Period</th>
<th>ADG</th>
<th>FCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.25</td>
<td>2.5</td>
</tr>
<tr>
<td>2</td>
<td>1.45</td>
<td>2.6</td>
</tr>
<tr>
<td>3</td>
<td>1.65</td>
<td>2.7</td>
</tr>
<tr>
<td>4</td>
<td>1.85</td>
<td>2.8</td>
</tr>
<tr>
<td>5</td>
<td>2.05</td>
<td>2.9</td>
</tr>
<tr>
<td>6</td>
<td>2.25</td>
<td>3.0</td>
</tr>
<tr>
<td>7</td>
<td>2.45</td>
<td>3.1</td>
</tr>
<tr>
<td>8</td>
<td>2.65</td>
<td>3.2</td>
</tr>
<tr>
<td>9</td>
<td>2.85</td>
<td>3.3</td>
</tr>
</tbody>
</table>

2007
1.92 ADG
2.89 FCR
## Costs

<table>
<thead>
<tr>
<th></th>
<th>With Medication*</th>
<th>With Vaccination*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hd in</td>
<td>1174</td>
<td>1149</td>
</tr>
<tr>
<td>Hd out</td>
<td>954</td>
<td>1095</td>
</tr>
<tr>
<td>Death loss</td>
<td>17.1%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Lights/cull</td>
<td>2.1%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Cost/hd</td>
<td>$132.06</td>
<td>$117.51</td>
</tr>
</tbody>
</table>

*Excede & Draxxin
Recent changes

- Contract finishing – healthier pigs
- Co-mingled sow farm
- 1300 pigs per week – 3 days
Summary

- Circovirus had devastating effects on mortality and growth
- Circumvent PCV dramatically improved performance
- Vaccinate at the right time
- Highly cost effective
Thanks