Northeast Illinois PRRS ARC
The Road to PRRS Elimination?

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Bethany Swine Health & Management Services
Where Are We?

- DeKalb County
  - #2 hog county in Illinois
  - ~230,000 head total
  - ~35,000 sows
  - Borders Chicago suburbs on one side
Who Are We?

• Bethany Swine Health Services (BSHS)
  – 4 veterinarians & 11 support staff
  – Manage 5 sow centers – 12,500 sows
  – Own/decision-making on another 12,000 sows
  – Long-term vet-client relationships
    • Independent, farrow to finish
    • Independent, wean to finish
      (receiving wean pigs from managed sow centers)
Keys to Success

• Communication
  • Communication with producers
    • At least monthly

• Coordination
  • BSHS serves as “hub” for information & diagnostics
  • Lots of knowledge of area, producers, flows, & therefore, status
  • Central point for grants, paperwork, submissions

• Producers
  • Progressive
    • Long-term, multiple generation
    • Very concerned about “passing on” the farm, including the pigs
  • Independent
  • Intelligent
  • Key leaders are onboard
Successful Project

• High participation among producers
  – > 85% of producers, ~90% of pigs

• Forward movement of project
  – Start control procedures
    • 75% of previously positive sow farms initiated vaccine and/or McRebel (*every farm >300 hd that is enrolled*)
  – Elimination plans
    • Successful herd closures
      – 7 Breed to Wean, 5 Farrow to Finish
    • Successful downstream push (WTM)
      – 7 sites – removed field PRRSv by biosecurity alone
      – 6 sites – removed field PRRSv via vaccination & biosecurity
      – 2 sites – depop/repop
Challenges

• Found “old” PRRS strains hiding out in some farms
• Rebreak on rolled out sow herds
• Rebreak on depop-repop finishing site
• Closure periods longer than 200 days
• Show pigs are still a risk
• Not 100% participation, yet
  – 2 years into project
Forward On...

- Reinstated control procedures
  - McRebel
  - Vaccine
- Rethink next biosecurity level
  - Filtration
  - Truck Washes
- Communication in area
  - All must be moving together at LEAST on control
Success Story
Sows

• Farm A & B
  – 1200 hd Farrow to Finish
    • Former Genetic Nucleus
  – 3500 hd Breed to Wean
    • Former Genetic Multiplier

• ARC Plan
  – Control – December 2009
  – Elimination in Sows– May 2010
  – Elimination in W-F – Dec 2011?
Success Story

Sows

• Area

  - #1 - 8000 hd W-F
    (1.6 mi W)
  
  - #2 - 9000 hd W-F
    (1.8 mi S)
  
  - #3 - 12,000 hd W-F
    (0.8 mi S)
    Believed to be source of previous PRRSv break
  
  - #4 – 12,000 hd W-F
    (2 mi W)
    Downstream flow
Success Story - Sows
Reproductive Performance

Farrowing Rate
Farm A

<table>
<thead>
<tr>
<th>Year</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>83</td>
</tr>
<tr>
<td>2010</td>
<td>85</td>
</tr>
<tr>
<td>2011</td>
<td>87</td>
</tr>
</tbody>
</table>
Success Story - Sows
Reproductive Performance

Live Born

- Farm A
- Farm B

<table>
<thead>
<tr>
<th>Year</th>
<th>Liveborn Pigs/Litter</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>10.3</td>
</tr>
<tr>
<td>2010</td>
<td>10.7</td>
</tr>
<tr>
<td>2011</td>
<td>11.5</td>
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</tbody>
</table>
Success Story - Sows
Reproductive Performance

Sow Death Rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Farm A</th>
<th>Farm B</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>7.0%</td>
<td>6.5%</td>
</tr>
<tr>
<td>2010</td>
<td>6.0%</td>
<td>5.8%</td>
</tr>
<tr>
<td>2011</td>
<td>5.5%</td>
<td>5.2%</td>
</tr>
</tbody>
</table>

Legend:
- Farm A
- Farm B
Success Story - Sows
Finishing Performance

Average Daily Gain

<table>
<thead>
<tr>
<th>Year</th>
<th>Lbs/Pig/Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>1.53</td>
</tr>
<tr>
<td>2011</td>
<td>1.55</td>
</tr>
</tbody>
</table>
Success Story - Sows
Finishing Performance

% Mortality

- 2009: 5.5%
- 2011: 5.0%
Success Story - Sows
Finishing Performance

![Bar chart showing full value pigs finishing performance from 2009 to 2011.]

- 2009: 92.6%
- 2011: 93.2%
Success Story
Finishing

• 3 age groups (9 wk wheel flow)
• 2800 hd/group
Success Story
Finishing

• Day 0:
  – Receive last pigs from sow farm
  – Vaccinate every pig on farm
    • Full dose Ingelvac PRRS-MLV
  – Improve farm biosecurity
    • Separate boots per group
    • New mindset in employees
    • Audit biosecurity
Success Story
Finishing

• Day 21:
  – Vaccinate every pig on farm – 2\textsuperscript{nd} dose
    • Full dose Ingelvac PRRS-MLV

• Day 42-52:
  – Receive new pigs from sow farm
Success Story

Finishing

Average Daily Gain

<table>
<thead>
<tr>
<th>Year</th>
<th>Lbs/Head/Day</th>
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<tbody>
<tr>
<td>2009</td>
<td>1.55</td>
</tr>
<tr>
<td>2010</td>
<td>1.50</td>
</tr>
<tr>
<td>2011</td>
<td>1.65</td>
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</table>
Success Story
Finishing

Feed Conversion

<table>
<thead>
<tr>
<th>Year</th>
<th>Feed/Lb of Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>2.75</td>
</tr>
<tr>
<td>2010</td>
<td>2.70</td>
</tr>
<tr>
<td>2011</td>
<td>2.60</td>
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Key Factors for Success

• Commitment by all producers in “area”:  
  – At LEAST to control  
  – Elimination plans worked in tandem  
    • Individual herd plans  
    • Area herd plan  
  – Communication amongst producers/vets  
    • Teach don’t Tell rule
Results of ARC Project
New Strain = >4% NT difference on dendogram
PRRS Strains in Area

New Strain = >4% NT difference on dendogram
Quarterly Herd Status Reports – Sow Farms

- NEG
- NEG PROV
- POS-STABLE
- POS
- UNK

Graph showing the quarterly status reports from 2010 Q1 to 2011 Q3.
Quarterly Herd Status Reports - WF
Next Step: NW IL

• New ARC Project started – May 2011
  – Where: NW Illinois

  – Why: Desired by producers receiving pigs from NE IL, as they have seen early success of that project

  – Characteristics:
    • Few sows
    • Net importer of pigs
Next Step: NW IL

• Advantages:
  – Today’s economics should help drive project
  – Veterinarians on board

• Challenges:
  – Coordinating from a distance
  – Taking longer to move forward
  – NE IL project sending positive pigs to area
How One Area Project Affects Another

2009

71,000

37,000

2010

0

108,000

2011

21,000

87,000
Future

• Future project funding
  – Where is it going to come from?

• Encourage more ARC projects
  – Need more projects to take more sow farms negative
  – Reduce the total virus load
  – Coordinate amongst projects
Acknowledgements

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• PRRS CAP II
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• Jan Hueber
• Darwin Hall
• Ed Arndt, Jr.
• Carl Heide
THANK YOU!

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Success Story - Sows
Finishing Performance

Feed Conversion

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<tr>
<td>2009</td>
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<tr>
<td>2011</td>
<td>2.62</td>
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Case Study – Success Finishing

• Area
  – #1 - 8000 hd W-F
    (1.6 mi W)
  – #2 - 9000 hd W-F
    (1.8 mi S)
  – #3 - 12,000 hd W-F
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    Downstream flow from A&B