Reducing effects of PRRS in Wean-to-finish production

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Algona, Iowa
Full service, swine consulting practice in 4 locations

- Hartington, Nebraska
- Morris, Minnesota
- Algona, Iowa
- Lake City, Iowa

1 Dot = 10,000 Hogs and Pigs
We are a **SERVICE** company

175,000 sows worth of production

Predominantly small to mid-size, independent producers

1,000-12,000 sows

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Our goal is for our customers to think, “Wow, Suidae provided me with outstanding SERVICE.”
PRRS is real…always has been!

- We tend to blame PRRS for lots of problems.

- We tend to tolerate poor performance and chalk it up to, “Well, the pigs have PRRS and this group is not gonna be a good one.”

- Difficult to be excited about PRRS but…you don’t have to give up.
PRRS virus is intolerable today.

- We can now consistently and predictably eradicate this virus.
- Technology exists that can decrease our risk of a new virus introduction

Goal: PRRS negative piglets 3 weeks post-weaning

- Know your source
PRRS is intolerable

- Internal PRRS infection
  - Sow herd stability is measured by downstream performance
  - A sow farm producing 26-27 PSY is great…but not if they are sporadically PRRS positive
  - Awesome pigs in the farrowing house MUST look awesome in the nursery/finish stage
“200 days” was not enough to achieve TTNP for ~half of the herds:

- 61 herds
- 250 days ~90%

Cumulative TTNP - all farms

% herds that achieved TTNP

Weeks post whole-herd inoculation

84 days 200 days 300 days

Linhares, Cano, Torremorell & Morrison
PRRS is intolerable

- External risk...Filtration?
- Location...some farms simply cannot afford not to filter
- Prevent just 1 PRRS break and project is paid for

Data from 20 sow farms over 7 yrs (Alonso, et.al 2013)

- ~.75 breaks/yr before filtration
- .06-.22 breaks/yr after filtration
- 80% reduction in PRRS breaks
PRRS is intolerable

- There aren’t many “low risk” areas around here!
- 35-50% of pigs weaned negative are exposed
- There was no statistical difference between the location in relationship to US highway 30 P=0.91 or US Interstate 35 P=0.94

<table>
<thead>
<tr>
<th>Location</th>
<th>PRRS (+)</th>
<th># of Site</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>North of 30</td>
<td>22</td>
<td>53</td>
<td>41.5%</td>
</tr>
<tr>
<td>South of 30</td>
<td>22</td>
<td>43</td>
<td>51.2%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>44</td>
<td>96</td>
<td>45.8%</td>
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</tbody>
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Dr. Paul Yeske, 2011
Considerations

- **Modified live vaccines**
  - Appropriate timing is important
  - 2 weeks prior to exposure minimum, 4 weeks better
    - Ingelvac PRRS MLV
    - Ingelvac PRRS ATP
    - Fostera PRRS
    - Prime Pac PRRS
Vaccine timing

- **Internal PRRS - Sow source unstable**
  - Litter prevalence target <25% positive
  - Exposure period = weaning for remaining 75%
  - Earlier vaccination is better.
    - Processing?
    - Weaning?

- **External PRRS - Risk is in the neighborhood**
  - Give when convenient but earlier is better
PRRS vaccine

Every pig weaned into Iowa/southern Minnesota has a 35-50% chance of getting exposed to a new strain of PRRS.
Considerations

- **Antibiotics**
  - Control secondary “Suis-cide” diseases (Strep, H. parasuis, A. suis)
  - Often 2-3 waves of fallout in PRRS situation

- **Antiviral properties of an antibiotic?**
  - Draxxin at weaning
  - Pulmotil 10 days post-weaning
    - Water- easier to manage timing
    - Feed
Considerations

- **Pigflow**
  - All-in, all-out preferred
    - 35-50% external infection principal!
  - Large sites, continuous flow are difficult in Iowa
    - Even with stabile sow source
  - Manage biosecurity of feeder pig movement with Nursery-finish vs. Wean-finish facilities
Considerations

- Develop a culture of “Can Do” attitude

- Don’t let PRRS be an excuse for everything

- PRRS is not a death sentence…but lack of personal effort might be to the pigs!
Other considerations

- **Altering vaccination protocol**
  - Sick pigs = decreased vaccine efficacy
- **Avoid ‘rainbow pig syndrome’**
  - Is 1 more shot going to change the outcome?
- **Timely euthanasia**
  - Chronic, fading pigs - unresponsive to treatment
    - Welfare concern + ‘Thyphoid Mary’s’
  - Anything not fit for transport from nursery to finisher
Recognizing fallouts early

- Sick pigs don’t eat or drink = poor success with water and feed medication.
- Find them early and give them a shot.

Expected treatment success 85%
Recognizing fallouts early

Look for:

- Bellies with no bulge

Expected treatment success 70%
Recognizing fallouts early

Expected treatment success 75%
Recognizing fallouts early

Expected treatment success 85%
Recognizing fallouts early

Expected treatment success: 85%
Recognizing fallouts early
Recognizing fallouts early

Expected treatment success 70%
Organizing the barn

The concepts:

- Small pigs get along better with other small pigs
- The less time you move/mix pigs, the better.
- Allows focus on grueling specific “high maintenance” pigs
- Allows transition from gruel to ground feed by pen
- Most pigs that have not learned to eat will be easily recognized by 4-5 days… but it is not too late (Day 7-10).
- The best place for a sick pen is not often where it is most convenient!!
Organizing the barn

Sick pens:
- Adding new pigs to a sick pen every day disrupts social structure
- And then, having a recovery pen where they get mixed again?

Better option:
- Pull pigs as a group into the same pen at the same time from general population
- If a subset of these pigs do not thrive, pull them into your next pull pen when you make it to give them another chance.
Mat feeding

- 4 times/day
- Reduces fallout pigs
- Stimulates pigs to eat
- Too much = bedding
- Less feed, more often is better
Slat feeding

- Add feed in a line where 2 slat gangs meet
- Line up and eat similar to nursing from sow all at once
- You will be amazed how they all get up and eat together.
Gruel feeding

- 4 times/day
- Focus in small/sort/fallout pens
- Reduces fallout pigs
- Less feed, more water is better
- Should be consumed in 90 min
- A pig not eating dry feed after 7 days probably never will
Gruel feeding

Gruel Mixing guidelines

<table>
<thead>
<tr>
<th>Day</th>
<th>Feed amount</th>
<th>Water amount</th>
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<tbody>
<tr>
<td>1</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>2</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>3</td>
<td>33%</td>
<td>66%</td>
</tr>
<tr>
<td>4</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>5</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>6</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>7</td>
<td>75%</td>
<td>25%</td>
</tr>
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Gruel feeding

Proper Day 1 gruel 75:25

Improper Day 1 gruel 50:50
Brooder heater management

- Provides supplemental heat to pigs in first 7-14 days
- Control temperature setting
- Control probe placement
- Control brooder height
Conclusion

1. Be sure you have minimized risk at sow farm
2. Modified live PRRS vaccines work.
3. Antibiotic use can help the virus and secondary “Suis-cide” disease.
4. Poor Pigflow makes a bad problem worse.
5. Develop a “Can do” attitude for taking care of PRRS positive pigs.