# Using Standard Processes to Minimize the Impact of PRRS Over Time in Breeding Herds

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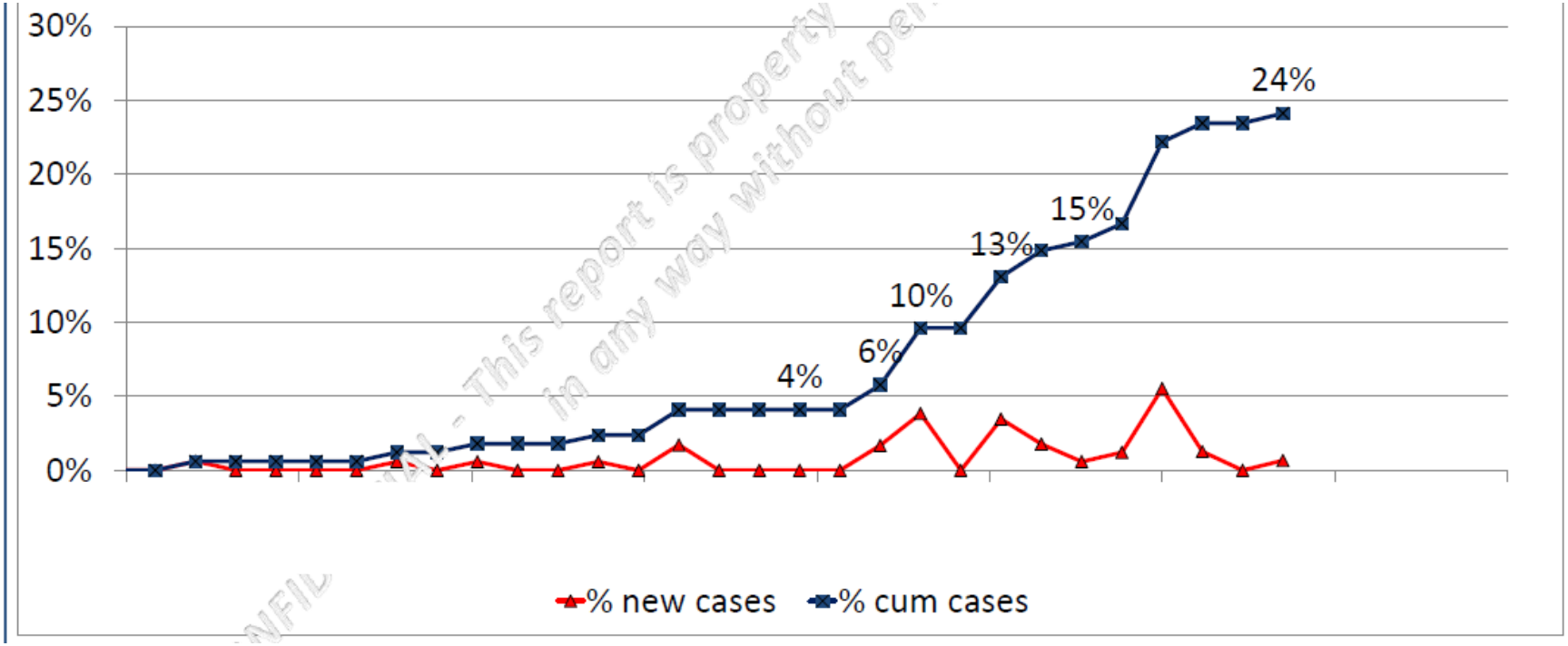
# PRRS Has Not Gone Away….




AASV and PRRS CAP PRRS Incidence Pilot Project – 2011-2012

# The Basics of PRRS Control in My Feeble Mind

- There are only 2 kinds of sow farms – PRRS positive and PRRS Naïve
  - Stable in my world means reproductive stability – nothing about the pigs
  - "Stable farms" have positive pigs on a regular basis we just don't test enough to know it.
- Positive pigs cost $$$$$$ - like $6 per head
- Therefore sow farms have to be PRRS naïve to optimize profit.

# Holtkamp PRRS Cost Study - 2011

- Stevens Co. MN project financial assessment
- The cost of productivity losses due to PRRS virus breeding herd and growing pigs combined range from $78 - $255.
  - No negative pigs when breed herd positive
    - $255/sow
  - Frequently weans negative pigs – positive/positive stable
    - No break in the breeding last 12 months
    - Pigs placed in finisher negative and stayed negative
    - $78/sow – best case
- What's it worth to wean negative pigs?
  - $4.63 – negative at market
  - $2.13 – if positive at market (breaks in finishing)

# The $2,050,000 Question

- Is TEST NEGATIVE really NEGATIVE?????

# The problem with sampling….

- If you sample 30 weaned pigs once a month in a sow farm with PRRS antibodies for PRRS PCR and they are all negative is the farm always negative?
- In any given month with 30 samples, assuming that the test finds all the positives (100% sensitive), **the true infection rate is between 0 and 1.7% for the WEEK that you sampled**. It says nothing about all the other weeks.

# Ah but getting rid of the virus on the sow farm costs more than $6 a pig so I will be “positive stable”…

- To paraphrase Suzi Orman…. SHOW ME THE MONEY…
- Large data set – PRRS Infected breeding farms (Positive Stable) – 2 PSY lower than Naïve farms with similar Management
  - $35 per pig value X 2 PSY reduction in output = $70 lost value per sow
- “Positive Stable” farms have between 0.5 and 1.5 periods of shedding virus to pigs per year that lasts for 3-6 weeks.
  - 1 event x 4 weeks = 8% of pig flow per year x $6 per pig = ~$0.50 per pig cost x 24 PSY = $12 per sow per year
- **Net Cost is $82 per sow per year for PRRS on the Positive Stable Farm compared to the Naïve Farm or $205,000 per year on a 2500 sow farm!!!**

# But I get PRRS every year anyway so why clean up?

- **There is no data to support that prior infection in a sow herd reduces the ECONOMIC impact of a new infection…. The money is in the pigs and the pigs are still a challenge with the new infection.**

# So how do I get from here to there?

1. Understand where you are today
   - **AASV Herd Status definitions** – Stage 1 to 4
2. Use **Standard Testing** to define status
3. Utilize **Standard Management Processes** based on herd status to minimize risk.
   - AASV is coordinating project to summarize Scientific data on best management practices for each herd stage.
   - Process to be finalized by November 2011

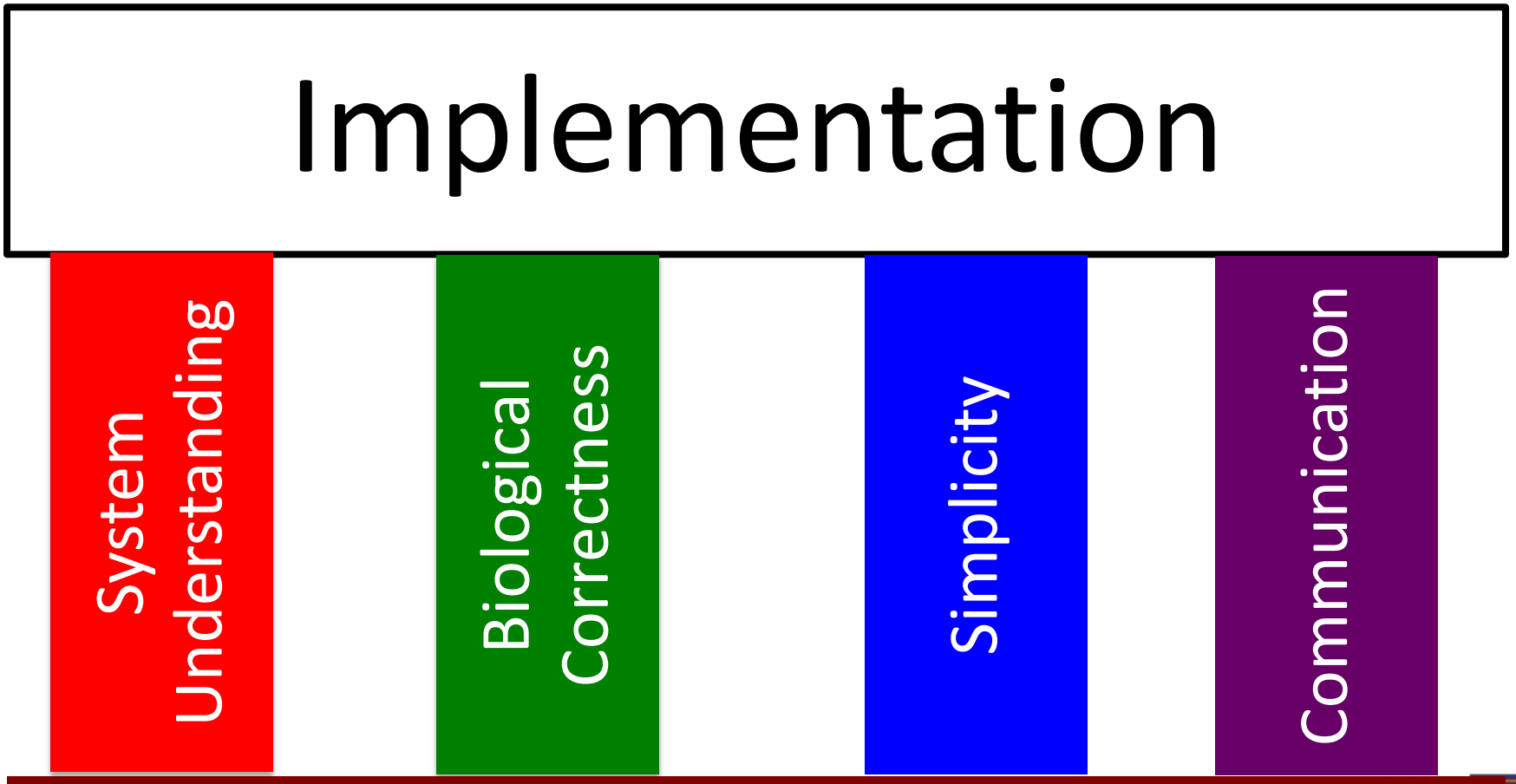
# Why a standard process?

- It is all about repeatability
  - Let the science drive the decisions
- It is all about transparency
  - Make it clear so EVERYBODY knows what is going on
- It is all about accountability
  - Production team has to know what they are accountable for and leadership has to make it happen

# Implementation

1. DEFINE the issue to be addressed within the context of the SYSTEM
2. Design a PROCESS by developing a series of TASKS in a logical order
3. TEACH the tasks to the people
4. MONITORING the success and performance of the process
5. CORRECT errors by refining tasks or retraining people

# The Four Pillars



# Herd Status – Defining the Issue

| Herd PRRS Status[1] | I (positive unstable) | II (positive stable) | | | III (provisional negative) | IV (negative) |
|---|---|---|---|---|---|---|
| Status Description | **1: Unstable / Active Infection** | **2a: Short Term Stable** | **2b: Undergoing Elimination** | **2C: Long Term Stable** - no shedding detected for >= 6 mon | **3: Transitioning to Negative - n**egative gilt replacements remain seronegaive for >= 2 mon | **4: Negative** - no ELISA positive and previously infected sows have been removed |

# The Plan – Standardized Testing

| Herd PRRS Status[1] | I (positive unstable) | II (positive stable) | | | III (provisional negative) | IV (negative) |
|---|---|---|---|---|---|---|
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| Testing to Prove Status[2] | Defaut State with out diagnotics | 60 pigs per sampling; 4 consecutive weeks of 4 day old pigs; PRRR PCR Pool 5 | 60 pigs per sample: 4 weeks of 4 day old pigs and pigs at weaning; PRRS PCR, Pool 5 (total of 8 consecutive weeks of negative testing) | 60 pigs at weaning every 4 weeks,; PRRS PCR, Pool 5; 6 months consecutive months | >= 30 gilts are PCR and ELISA negative at least 1 month post introduction and remain negative; on going monthly testing of 30 weaned pigs; PCR, Pool 5 | 60 head PCR and ELISA negative over 2 consecutive samplingings at least 30 day apart |
| Earliest to initiate testing to confirm status after herd closure | n/a | >= 22 weeks post infection (inoculation) and pigs born dead <12% of TB | After 4 consecutive negative tests of >= 60 4 day old pigs | 6 months after 1st neg weaned pig testing. | 9 months | |

# The Plan – Science Based Management

| Herd PRRS Status[1] | I (positive unstable) | II (positive stable) | | | III (provisional negative) | IV (negative) |
|---|---|---|---|---|---|---|
| | Sow Management | | | | | |
| Gilt Introductions | No | No | Yes | Yes – Prev. Infected | Yes – Naïve | Yes – Naïve |
| Prebreeding vaccines | No | Yes | Yes | Yes | Yes | Yes |
| Prefarrowing vaccines | No | Yes | Yes | Yes | Yes | yes |
| Change needles between sows and gilts | Yes | Yes | Yes | Yes | Yes | No |
| Manure feedback prefarrow | No | No | No | No | No | Yes |
| Manure Feedback prebreeding | No | Yes | Yes | Yes | Yes | Yes |
| Tissue or serum feedback to gilts | No | No | No | No | No | Yes |
| | Farrowing House Management Practices | | | | | |
| Wash all crates with dry time between litters | Yes | Yes | Yes | Yes | Yes | No |
| Allow part weaning of rooms | No | No | No | Yes | Yes | Yes |
| Change needles and blades between litters | Yes | Yes | Yes | Yes | Yes | No |
| Use of warming tubs/ split suckle boxes | No | Yes | Yes | Yes | Yes | Yes |
| Use Processing carts | No | Yes | Yes | Yes | Yes | Yes |
| | Piglet Movements | | | | | |
| Movements at less than 24 hours of age only for litter size[3] | No | No | Yes | Yes | Yes | Yes |
| Fall back litter (1 nurse sow per 26 crates)[4] | No | No | Yes | Yes | Yes | Yes |
| Pool small pigs in one litter[5] | No | No | No | Yes | Yes | Yes |
| Holding pigs at weaning for quality | No | No | No | No | No | Yes |

# Clean Up Costs

- The basic "Jim Lowe Plan"
  - Close herd for 30 weeks
  - Place as many gilts **in farm** as possible – up to 20 weeks
  - Do offsite breeding project for last 15 weeks to keep making breed target – but only at normal replacement rate
  - ***IMPLEMENT STANDARD MANGEMENT PRACTICES***
- Costs
  - Breeding project – Rent $20,000 per 2500 sows, Extra labor $5,000-10,000 bonus to pay crew to go off site
  - Increased testing - $5000
  - Total $30,000-35,000 – or $13-14 per sow
- Payback time of 10-12 weeks!

# Summary for success

- Long term view of business and willing to keep score in long term margin not sort term ups and downs
- Understand herd status
- Belief in standard processes and willingness to stick to them long term
- Willingness to challenge teams on behavior and old dogmas– reduce both internal transmission and external introduction risks

# Thank you


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