Thank you for participating in SowBridge 2012-13.

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Defining Biosecurity

- The measures and production practices used to protect a pig population against the introduction or spread of disease
- Prevention is the key
- Constant monitoring and evaluation of herd health
- Established guidelines for farm employees and visitors

Successful Biosecurity

- Requirements for successful biosecurity
  - The adoption of attitudes and behaviors by farm personnel
  - Written plans, documenting a farm’s biosecurity plan and protocols
  - Good communication and discussion among everyone involved
  - Continuous monitoring of herd health progress

Why does Biosecurity Matter?

Research shows that Porcine reproductive and respiratory syndrome (PRRS) has been estimated to cost the US industry approximately $634 million a year. Other research has shown that herds that are PRRS negative show an increase of $24 per pig sold when compared to an infected herd.

Biosecurity and Site Assessments

Biosecurity and site assessments are critical for maintaining a healthy herd. Assessments help in identifying and addressing potential biosecurity risks. The chart shows the percentage of sites marked as acceptable in 2012.

Employee’s Role in Health Management

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2012-2013 Sowbridge Breeding Herd Series
Expanding the Biosecurity Mindset

• Improving herd health
• Maximizing on-farm efficiencies
• Stabilize production ability of the farm
• Ensure food safety for consumers
• Guarantee market access for pork products

Biosecurity is a “Whole Farm” Process

- External Biosecurity
  - Preventing disease introduction to your farm/site from external vectors
- Internal Biosecurity
  - Protection from the spread of disease between animals on the farm or premises
- Bio-containment
  - Prevention of the spread of disease from your farm to another premise

External Biosecurity

- Direct routes of contamination
  - Introduction of new stock or genetic material
  - Purchase of genetics should be from a supplier of known health status
    - Routine monitoring of health status
    - Pig flow - minimize number of times new stock is introduced to the farm
    - Defined protocols for delivery and transportation vehicles & drivers
    - Transportation vehicle cleaning and sanitation standards
    - Ability for receiving farm to turn load away

- Indirect Routes of Contamination
  - Feed/delivery trucks
    - Route, cleaning specifications
    - Drying and disinfection protocols
  - Insects & Rodents
    - Vectors to transport disease
      - Clean up feed spills
      - Control program: bait and spray protocols
      - Proper maintenance of farm site
Internal or On-Farm Biosecurity

• What can you do as a farm employee to help prevent or reduce the spread of disease on your farm?
  • Create your biosecurity “toolbox”

People: Employees and Visitors

• People can be a transporter or vector of disease
  • Pathogens are most often found on the palms of your hands, boots & coveralls
  • Not found on:
    • Hair
    • Finger & fingernails
    • Nose
  • Glow in the dark paint activity

Entry Protocols

• Downtime
  • Current standard: established time after contact with pigs before allowed to enter farm
• Visitors log
  • Maintain a complete list of visitors
  • Including date and time of visit
  • EXTREMELY important when completing a disease outbreak trace back
• Lock all exterior doors

Entry Protocols that Prevent Infection

• New research shows various entry protocols are effective in preventing infection
  • Shower in/out plus 12 hours of downtime
  • Shower in/out, with no downtime
  • Danish system
    • Change boots, coveralls and washing hands
  • All effective in disease prevention

Entry Protocols that Prevent Infection

• Other research:
  • PCR positive tests for PRRS on:
    • Hands, coveralls, boots, snares, feed bags and bleeding supplies
  • No intervention = positive disease transfer to herd
  • One night downtime (14 to 16 hours)
    • Trial replicated numerous times
    • All swabs returned negative
    • No resulting infection
  • One hour downtime, with shower
    • Same result
On Farm Protocols

- Pig Flow
  - Employees should work pig flow from youngest to oldest at all times
  - Identify sick pigs within the farm/room
  - Work flow should be from healthy to sick pigs

- Hands
  - Frequent hand washing, especially when handling pigs
  - Gloves can be utilized to prevent disease transfer
  - Handle infected pigs last, wash between handling

- Farm are task oriented
  - Time between tasks to complete biosecurity procedures should be taken

Cleaning Protocols

- Cleaning & Sanitation
  - Once rooms are emptied, they need to be washed, cleaned and disinfected
    - Remove all organic material from the room
    - Using hot water and soap if available
    - Apply disinfectant to room
    - Allow room to completely dry prior to loading room
  - Minimum standard:
    - Ideal: Wash, disinfect, allow for complete day, load room
    - Or: Wash, allow to completely dry, load room
    - Or: Wash, disinfect, load room

How Clean is Clean?

- Power washing standards should be set for sites
  - No organic matter visible
    - Sidewalk chalk check
  - Areas most often missed: dust
    - Sides of feeders
    - Top of pipes
    - Corner of stalls
    - Mats
    - Heat lamps
    - Fans

Fomites

- Incoming materials can also be vectors for disease
  - Includes equipment, containers and supplies
- Equipment
  - Ideal: dedicated equipment to each site
  - Minimum: dedicated equipment to flow, following herd health protocol, double bagging
- Supplies
  - All incoming supplies should be disinfected before entry
    - Mist, Clorox wipes, UV light
D & D Rooms
- Drying and Disinfecting rooms
- Utilized for incoming supplies and equipment
- Supplies placed in sealed room through exit door
- Employee enters room from inside farm
- Disinfects supplies by misting
  - Fogging can also be used but containers must be rotated to ensure coverage
- Allow dry time, a minimum of two hours before moving supplies onto farm
- Requires preparation, forethought

Injection Methods
- Effective method of disease transfer
- Spread pig to pig
- Change needles frequently
- Needle free injection methods
  - Decreases the spread of disease but does not prevent infection

Communication & Training
- In order to establish effective biosecurity protocols good communication and training must occur
- Reminders of proper practices are required, as well as continued training
- Spot checks and checklists are tools that can be utilized to help train employees
- Compliance and commitment from all employees is a must

10 Biosecurity Good Production Practices
1. Use proper signage on your farm
2. Have visitors sign in
3. Require down-time
4. Provide proper clothing for employees/visitors
5. Do not comingle equipment/supplies
6. Isolate incoming animals
7. Change boots/coveralls/wash hands returning to facility
8. Establish biosecurity standards for all employees
9. Be aware of pig flow/movement in regards to care
10. Have an open relationship with your veterinarian

Monitoring the Herd Health on Your Farm
- Assess your biosecurity practices and protocols on an annual basis
- Quick checks or evaluations of the day to day happenings on the farm
  - Have a frequent visitor of the farm randomly evaluate daily practices and report back to employees
  - Set goals & rewards for these evaluations
- Complete a PADRAP evaluation for your site
  - Done with your veterinarian’s assistance
  - Goal: reduce 2 risks for your farm on a yearly basis
Thank you!