PEDV – Is it really that bad?

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YES... and even worst!
My presentation

• Overview of PEDV situation in Manitoba
• How is it spreading?
• What are we trying?
• Emotional toll of PEDV
• What can you do about PEDV?
Manitoba PEDV updates

Manitoba # cases per month

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<tbody>
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<td>Total # cases/year</td>
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<td>80</td>
<td>17</td>
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<td>Total</td>
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<td>4</td>
<td>1</td>
<td>5</td>
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Total 185
This is how I feel about 2019!
2019

Of the 79 cases;
– 29 are sow barns or farrow-to-finish
  • 19 broke for the first time
  • 10 broke for the second time
– Over 80 000 sows infected
Swine Production in Manitoba VS 2019 PEDV cases
Where is PEDV coming from?

• Every year Manitoba has PEDV outbreaks...

• Every year these barns eradicate PEDV...in time for the next PEDV season...

• BUT
  – High traffic sites (ex: assembly yards)
  – Manure lagoons of all previously infected barns...
Where is PEDV coming from?

- PEDV escapes from one of these locations to infect a barn... and with the right factors, spread from there!
  - High density of pigs, barns in close proximity
  - Pig movements
  - Biosecurity breaches
  - Field work (seeding, harvesting), manure spreading, etc...
  - Etc...
How does it spread?

- Extremely contagious
- Extremely infectious
  - 1 gram of PEDV feces (pencil eraser size)
  - Dilute in 2 large swimming pools of water
  - Still capable of infecting a pig.
Haven’t we learned anything yet?

- **BIOSECURITY** is critical!
  - Strict CAZ & RAZ
  - Strict shower in / Danish entry protocols
  - Feed, transport, deadstock, supplies, visitors, etc...
  - *Any contact event with your barn = RISK*
Haven’t we learned anything yet?

- **BIOCONTAINMENT** is critical too!
  - And not just after the outbreak! By then, it is too late.
    - **CAZ & RAZ**
    - *Shower OUT / Danish entry*
    - *Feed, transport, deadstock, supplies, visitors, etc...*
What else?

- Manure lagoon
  - What is the risk?
    - Manure spreading?
    - Agitation?
    - Field work after manure is applied to a field?
  - How long do they stay positive?
    - And how long the virus stay live?
What else?

• Aerosol spread
  – What is the risk?
  – How far can it spread by “air”
  – DUST
    • Anything creating dust increases the risk!!!
What can we do???

• Minimize dust!
  – Dust control on yard
  – Limit traffic in CAZ
  – “Tarp”
  – Air filtration?
What have we learned?

• PEDV is expensive!
• We can eradicate PEDV *(again and again!)*
• Collaboration & Communication
• Biosecurity AND Biocontainment
• Improve our response to an epidemic!
• Outbreaks require a lot of resources:
  – People, infrastructure, equipment, ...
What have we learned?

• It is emotionally, mentally and physically hard on people...
  – No more routine
  – Loose their landmarks
  – “Reactive” and “emergency” work

• Need a strong team, with strong leaders
Impact of PEDV

• Sow barn (4-6 weeks 100% PWM)

• Nursery = not much impact on pigs, but source of infection for other barns!

• Finishing
  – Not much affect but...
  – If ready to ship to market = High risk of spreading PEDV if sent when highly shedding...
HyLife 3000 sow barn example

Pigs weaned / month

- Over 9000 pigs loss over 6 weeks
- Producing PEDV negative piglets

- April: 6000
- May: 7000
- June: 4000
- July: 1500
- August: 8000
- September: 6000
HyLife PEDV effect...

Feb 02, 2019

HyLife W PED - 8 Farms & 21,700 Mated Females

Pigs Weaned / Mated Female / Year

SMS - 917 Farms & 1,579,800 Mated Females

Same 12 Quarters are used for all charts - Solid black line is a linear trend line for the last 12 quarters.
Sow barn = life changing

• Day-to-day jobs drastically change
  – Instead of attending sow, you are aborting them
  – Instead of caring for piglets, you are euthanizing
  – Instead of creating nurse-on, you are hauling hundreds of dead piglets
  – Instead of treating sows, you are backfeeding
  – Instead of weaning piglets, you are moving truck loads of dead piglets
1\textsuperscript{st} outbreak in a sow barn

- Devastating
- Heartbreaking
- Really hard physically & emotionally
- Disheartening
2\textsuperscript{nd} time?

• Exactly the same...
• It does not get better with experience!

• Many people, even managers, told us they would quit if their barn would get PEDV again...
  – Fortunately, they did not! But it does not make it any easier!
LIFECHEANGING
DISEASE
PITY
FAILRUE
MESSY
POOP
MANURE
DIARRHEA
EMERGENCY
DEMORALIZING
DIARRHEA
NIGHTMARE
SADDEATH
OHNO
WHERE
ACTION
PRODUCTIONLOSS
FRUSTRATING
PAINFUL
HARDONPEOPLE
HEARTBREAKING
FAILURE
STRESS
PITTY
STRESS
DISEASE
POOP
MANURE
DISSASTER
FRUSTRATING
PAINFUL
HARDONPEOPLE
How does this information apply to you?
How do I not get PEDV in my barn?

• Review your biosecurity protocols!
  – If you think they are good... Are you sure?
    • PEDV finds its way even in the barns with the highest biosecurity...
  – You can always be better!
    = Continuous improvement: Review, Assess, Improve, start again!
High traffic sites

• They are NEVER safe
• They should NEVER be considered “negative”
  – Even if testing daily!
• Testing in high traffic sites = surveillance
  – Does not PREVENT outbreak
  – Help to find infection that could have been missed
What if I think I have PEDV?

• Have a disease outbreak emergency plan ready
  – Stop movements!
    • Pig movements, feed delivery, deadstock, maintenance, visitors, etc...
  – Who do you contact?
    • How soon can you talk to your vet?
  – Test!
    • Do you have the supplies to collect samples RUSH?
    • How fast can you get results back?
Comments...

- PEDV is NOT always obvious!
  - Yes, you can miss a PEDV outbreak!
    - Nursery & Finishing pigs
    - Gestation sows
  - Source of infection to other barns
What if I have PEDV???

• Time to put your emergency plan in action!

• Take a deep breath... PEDV can be eradicated...
  – But it will require A LOT of work!
  – Sow barn = Load-Close-Expose...and Clean!
  – Nursery/Finishing = Biocontainment and time!

• Contact people that went through PEDV!
  – Learn from others experiences (good and bad)
Any good things about PEDV?

- Continuously assess & improve your biosecurity
- Develop strong biocontainment plans
- Develop and practice emergency plans
- Help us prepare for worst...

ASF!!!
Questions?