



PED

The USA Experience

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What did we do Wrong?



- Trans-boundary or FAD entry unlikely.
 - Disease was known
 - Active in Asia
 - Future?





What did we do Wrong?



- Trans-boundary or FAD entry unlikely.
- Secure in bio-exclusion practices
 - Lapses in recognizing input sources
 - Relied upon someone else to define risks/standards
 - 38 sources from risk regions





What did we do Wrong?



- Trans-boundary or FAD entry unlikely.
- Secure in bio-exclusion practices
- Limited Assays
 - Still unable to isolate virus efficiently
 - Epidemiological studies still limited





What did we do Wrong?



- Trans-boundary or FAD entry unlikely.
- Secure in bio-exclusion practices
- Limited Assays
- Did not fully understand this virus



Characteristics of Virus



- Replicates to very high levels- 13 logs of virus
 - Contamination
 - Sanitation difficult



Characteristics of Virus



- Replicates to very high levels- 13 logs of virus
- Robust Organism
 - Easy to disinfect/kill?
 - Infective 6 months in pit slurry



Characteristics of Virus



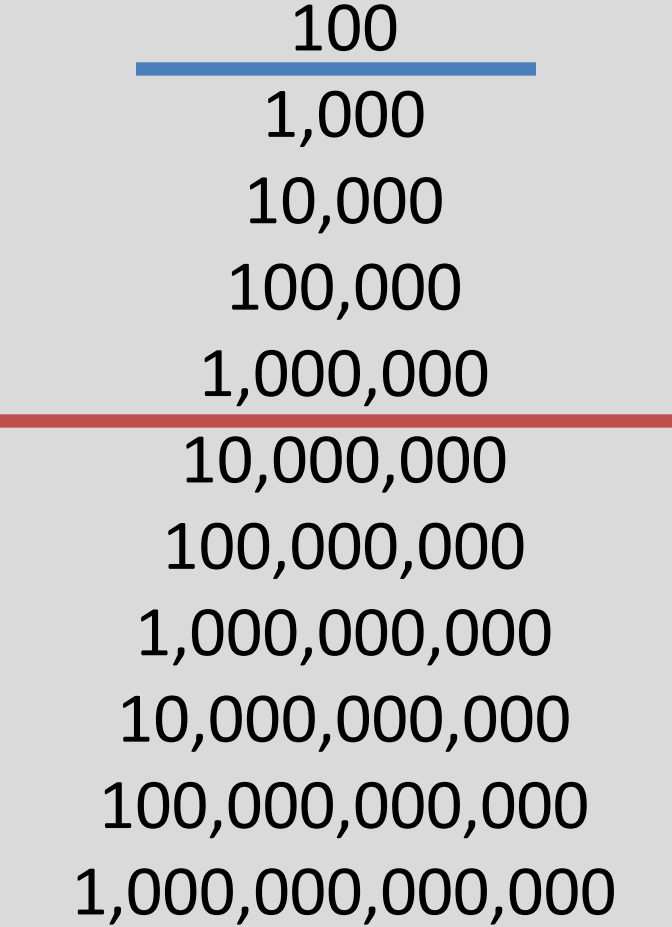
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Summary of pig bioassay results by treatment group

Group	% PED positive bioassays
Negative	0%
Positive	100%
71C10m	0%
62C10m	25%
54C10m	25%
38C12H	50%
20C24H	25%
20C7D	0%



Disinfectant 99.999%





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- Robust Organism
- Easy to Transmit
 - Direct



Characteristics of Virus



- Replicates to very high levels- 13 logs of virus
- Robust Organism
- Easy to Transmit
 - Direct
 - Indirect



Transmission of Virus



- Aerosol
 - 3.2-6.4 KM
 - Independent of particle size



Transmission of Virus



- Aerosol
 - 3.2-6.4 KM
 - Independent of particle size

Proximity to Neighbor

<2 miles = 4X Risk

2-4 Miles = 2X Risk



Transmission of Virus



- Aerosol
- Transportation
 - Live haul
 - Market Trucks
 - Lairage
 - Feed Delivery
 - Allied Industry





Transmission of Virus



- Aerosol
- Transportation
- Feed



Canadian Food Inspection Agency concluded the porcine plasma contained infectious PED virus



Transmission of Virus



- Aerosol
- Transportation
- Feed
- Manure
 - Of Course, Fecal-Oral
 - Sanitation priority
 - Manure handling

PED remains infective for at least 14 days in feces



Transmission of Virus



- Aerosol
- Transportation
- Feed
- Manure
- Fomites





Transmission of Virus



- Aerosol
- Transportation
- Feed
- Manure
- Fomites
- Visitors





USA Lessons Learned



1. Consider ALL source inputs

- Premix, vitamins
- Feed Supplements
- AI equipment
- Iron



USA Lessons Learned



1. Consider ALL source inputs
2. Transport biosecurity laxity
 - Not enough value to washing and disinfecting
 - Huge issue





USA Lessons Learned



1. Consider ALL source inputs
2. Transport biosecurity laxity
3. Feed management laxity
 - lack of biosecurity
 - Lack of understand of ingredient sources
 - Removed porcine products
 - Increased storage time (2 weeks)



USA Lessons Learned



1. Consider ALL source inputs
2. Transport biosecurity laxity
3. Feed management laxity
4. Purposeful pathogen exposure
 - Universal
 - Clinical disease
 - Immunity for 6-7 months?
 - Weak in young parity
 - Poorly controlled
 - Self limiting



USA Lessons Learned



1. Consider ALL source inputs
2. Transport biosecurity laxity
3. Feed management laxity
4. Purposeful pathogen exposure
5. Stakeholders cooperate

- Share status

- producers and allied industry

Golden Rule
of Shedding



USA Lessons Learned



1. Consider ALL source inputs
2. Transport biosecurity laxity
3. Feed management laxity
4. Purposeful pathogen exposure
5. Stakeholders cooperate
6. Too slow to respond





USA Lessons Learned



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7. Amazing speed of Spread



USA Lessons Learned



1. Consider ALL source inputs
2. Transport biosecurity laxity
3. Feed management laxity
4. Purposeful pathogen exposure
5. Stakeholders cooperate
6. Too slow to respond
7. Amazing speed of Spread
8. Holistic approach to control is best



Thoughts for Europe



- We thought our biosecurity was good



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- Devastation





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- Get Assays/tests in place now



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- Get response plan(s) in place





Thoughts for Europe



- We thought our biosecurity was good
- Devastation
- Get Assays/tests in place now
- Get response plan(s) in place
- Get educated now
 - Biosecurity, transportation, feed, sanitation, lairage
 - www.cadms.ucdavis.edu/ped/news.html



Thoughts for Europe



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- Devastation
- Get Assays/tests in place now
- Get response plan(s) in place
- Get educated now
- Eliminate as soon as identified



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- Work together



Thoughts for Europe



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- Devastation
- Get Assays/tests in place now
- Get response plan(s) in place
- Get educated now
- Eliminate as soon as identified
- Work together
- Prepare now!



THANK YOU

