Animal Welfare During a Disease Outbreak

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Making the “A” List.....
Economic Impacts of FMD

- Center for Agricultural and Rural Development Food and Agricultural Policy Research Institute (CARD FAPRI) model
  - Cumulative losses over 10 years to:
    - Pork – 57 Billion
    - Beef – 71 Billion
    - Poultry – 1 Billion
    - Corn – 44 Billion
    - Soybeans – 25 Billion
    - Wheat – 1.8 Billion
Economic Impacts of FMD

- Estimated revenue losses just to pork and beef: $12.9 Billion per year which equates to a loss of 58,000 full time jobs

- Estimates the annual economic benefit of prevention just to the pork industry is worth $137 million
Disease Awareness & Prevention

**FIEBRE AFTOSA EN CERDOS**
**PROGRESIÓN DE LAS LESIONES**

**POSTINFECCIÓN DÍAS 2, 4 Y 6**

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**ATTENTION VISITORS**
**VISITORS ARE A POTENTIAL BIOSECURITY RISK**

Please review these guidelines before entering the facility.

- Wear coveralls and gloves before entering the facility.
- Wash hands before and after entering the facility.
- Cover all visible skin with clothing.
- Sanitize your shoes before entering the facility.

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The diseases themselves...
On-Farm Euthanasia of Swine
Recommendations for the Producer
The response....
Emergency Response 101
GOALS

It’s best to avoid standing directly between a competitive jerk and his goals.
Goals!

- The goals of an FMD response are to (1) detect, control, and contain FMD in animals as quickly as possible; (2) eradicate FMD using strategies that seek to stabilize animal agriculture, the food supply, the economy, and protect public health; and (3) provide science- and risk-based approaches and systems to facilitate continuity of business for non-infected animals and non-contaminated animal products.
Quiz Time

• What is the number one thing needed in an outbreak?

Good & Accurate Information!
Accurate information is vital to...

determining the **scope** which leads to...

initiating the **appropriate response** which leads to...

the **best opportunity** for recovery.
The day of an FAD event
- name of entity
- owner or appropriate contact person
- street address, city, state, and zip or postal code
- contact phone number
- operation type (farm, vet clinic, sale barn)
- date activated, date retired, and the reason
- alternative phone numbers

Data Associated with a PIN (State)
- Species + Above Info
Movements = 3 loads a week

1. Premises 123456A to Premises 123456B
   Pigs placed 5 weeks ago

2. Premises 123456A to 1234567C
   Pigs placed 4 weeks ago

3. ETC…..

Disease Status = +/- or Unknown

8 Finishers with 1250 Pigs per barn

Sow Farm = 5000 Sows

Movements:

Sending PIN 123456A
Pigs will be shipped to PIN 765432A on X date

Disease Status = +/- or Unknown

Packer
Received Pigs from
AA13579 on XX / XX /2012
BB24688 on XX / XX /2012
ETC…..

PIN#-765432A: Pork Packer

PIN#-1234567B: Swine

PIN#-1234567C: Swine

PIN#-123456A: Swine

PIN#-AA13579: Swine

PIN#-BB24688: Swine
Exploring stop movements..
Pigs On Wheels

• 2008 Data:
  – 113,000,000 market hogs harvested
  – 7,000,000 feeder pigs from Canada
  – ~35.6 million in-shipments
  – 3,000,000 sows harvested

• Assume 5 day / week harvest
  – 624,508 pigs under wheels
  – That’s over 2200 semi-loads a day just for slaughter!
Estimated Daily Slaughter Capacity
(Spring 2009) *

• 56 Companies
  – 84 Packing Plants
  • Total Capacity
    444,925 head

* Source: Paragon Economics, Inc. and National Hog Farmer, May 2009
NORMAL WEEKLY U.S. PIG/PORK FLOW*

• Pork Producers
  – 2.4 million pigs to packers

• Packers / Processors
  – Produce 450 million pounds of product
    • 360 million pounds for domestic use
    • 90 million pounds for export

* Source: Paragon Economics, Inc.
Pork Packing Plants
Stop Movements

• On the Truck
  – Concerning from a return on investment
    • What value is gained?
  – Concerning from a disease perspective
    • Comingling event at checkpoints
  – Concerning from a welfare perspective
    • Every 10 min a semi is stopped the temperature in the trailer goes up 1.4 degrees*

Stop Movements

• On the Farm
  – 3 day holding capacity
    • Welfare becomes a factor with space and feed
  – Economics
    • Contract disruption (production)
    • Contract disruption (slaughter)
    • Additional feed
Real World Numbers

• Basic FMD parameters

  – World Organization for Animal Health
    • Maximum Incubation for FMD = 14 days

  – USDA’s FAD Prep FMD Redbook
    • Tracing = 2x max incubation = 28 days
Real World Numbers

• FMD is introduced to a herd
  – Assuming a 48 latent period clinical signs are detected by producer at 3 days

• Producer reports
  – Assuming 24 hours for investigation, transportation, laboratory workup

• At least 4 days till stop movement enacted
Real World Numbers

• By 4 days over 2.5 million pigs have moved on 8800 semi loads
  – Each day the disease goes undetected add another 625,000 or more pigs backed up in the system
  – Each day movements are stopped add another 625,000 or more pigs backed up in the system

• What is the value of stop movement vs. managed movement?
Exploring euthanasia...
Selecting the method
Carrying out the Task
Critical Incident Stress
Helping to manage welfare

- Accurate information
- Secure food supply plans
- Producer education and resources
Helping to manage welfare

• Planning

  – Stop movement plans

  – Euthanasia plans

  – Disposal plans