

Catastrophic Mortalities

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HEADLINES

- Weather
 - Heat
 - Snow
 - Tornadoes

1,500 pigs die at N. Indiana farm after power outage



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KNOX, Ind. (AP) -- An owner of a northern Indiana hog farm says about 1,500 pigs died of apparent suffocation after a power outage caused a loss of ventilation.

N&L Pork Inc. co-owner Brad Lawrence says electricity went out over the weekend to the farm near the Starke County community of Knox. He tells the South Bend Tribune that the diesel generator and curtains for ventilation also failed.

Summer heat turns lethal for cattle



JULY 19, 2013 11:00 AM • BY ART HOVEY | LINCOLN JOURNAL STAR

A Nebraska Cattlemen official declined to talk numbers Thursday, but he compared the high feedlot cattle deaths that occurred in the state early last week to those of 2009.

A similar combination of heat, humidity and calm winds in June of that year pushed the death count as high as 4,000 in a casualty count by the Nebraska Farm Service Agency.

"It's probably safe to say it's as severe as it was four years ago," said Pete McClymont, "which was 2009, which was the last year we had losses like this."

The federal agency isn't counting this year because there is no livestock indemnity program available to partially compensate producers for losses.

The losses come at a time when beef prices are near historic highs. That means the loss of one 1,350-pound animal adds up to about \$1,600. The loss of 4,000 would be in the range of \$6.4 million.

Fire kills thousands of pigs on hog farm in south-central Minnesota

“Early estimates place the damages into multimillions” of dollars, the Truman Fire Department said in a statement.

The blaze killed about 4,000 sows and 6,000 to 7,000 piglets, according to Pipestone System CEO Luke Minion. Another 1,300 sows were saved, Minion added.

Once investigators clear the site, the rebuilding process will begin, he said.

“A farm this size is going to take seven months [to rebuild],” Minion said. “It could be a year before producers can get back to normal pig flow.”



Cattle lie dead and frozen in the ditch along Highway 34 east of Sturgis days after the Oct. 4 blizzard. The blizzard is estimated to have killed more than 21,000 cattle, making it the AP's choice for the second biggest story of the year in South Dakota.

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Why Did South Dakota Snowstorm Kill So Many Cattle?



Estimates of cattle losses are rising as the state digs out.

PHOTOGRAPH FROM KOTA-TV/POOL/AP

Rancher Marvin Jobgen has weathered many storms in his 40 years in business, but he's never lost as many cattle as he did during the record-setting winter storm Atlas. A third of his cows, about 100, and 15 percent of his calves died. Two weeks after the October 4 blizzard, livestock producers in western South Dakota are still counting their losses and burying would-be profits in bone pits.

The storm was especially deadly for cattle partly because the animals had not yet grown their winter coats and were grazing in summer pastures rather than more protected winter pastures. In addition, the ground hadn't frozen, so cattle that sought protection in low-lying areas became stuck in mud. Rain soaked the cattle; then winds up to 70 miles (113 kilometers) per hour and heavy snow froze them.

Jobgen says he found some of his cows dead behind protective barriers against the wind where there wasn't even an inch of snow. But the strain that the cold and snow placed on the animals' heart and lungs, and the resulting buildup of fluids, possibly caused many of the deaths.

As many as 75,000 cattle have perished since the storm slammed the western part of the state Thursday through Saturday with snowfall that set records for the entire month of October in just three days, state and industry officials said.

Across the state, snow totals averaged 30 inches, with some isolated areas recording almost 5 feet, [The Weather Channel reported](#).

The South Dakota Stock Growers Association estimated that 15 percent to 20 percent of all cattle were killed in some parts of the state. Some ranchers reported that they lost half or more of their herds.



Meteorologist Tony Laubach

www.tonylaubach.info

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Feedlots 'a total rebuild' after northeast Nebraska tornadoes

Story

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POSTED: WEDNESDAY, JUNE 18, 2014 1:00 AM

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By Kate Howard Perry / World-Herald staff writer

WISNER, Neb. — Jeff Dinklage answered call after call at Herman Dinklage Inc. on Tuesday, accepting offers of help and organizing the triage.

The office he sat in off Highway 275 near Wisner was mostly spared, except for the broken back windows, now boarded up.



RYAN SODERLIN



Nearly 50 homes, several businesses and 140,000 chickens fall victim to the tornado

Wednesday, June 18th, 2014

One report from Monday's storm indicates that once the tornado left Pilger the path of destruction continued through Cuming County, Wayne County, and into Dixon County just east of Wakefield. Incident command for the residents of the Wayne & Dixon counties is being conducted at the Wakefield Fire Hall. Estimated homes that were affected: Wayne County: 22 severely, 4 moderately, and 7 minor, also a dairy. Dixon County: 13 residences severely hit and the Gardner Growers #1 with approximately 140,000 chickens.

HEADLINES

- Diseases
 - Avian Influenza (AI)
 - Porcine Epidemic Diarrhea virus (PEDv)
 - Seneca Valley Virus (SVV)
 - Vesicular Stomatitis
 - Foreign Animal Diseases (FAD) – Foot and Mouth Disease
-

AVIAN INFLUENZA - H5N2

Avian flu strikes more flocks in Nebraska, Minnesota, Iowa

Filed Under: **Avian Influenza (Bird Flu)**

Lisa Schnirring | Staff Writer | CIDRAP News | May 27, 2015

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Nebraska authorities reported the state's fourth avian flu outbreak, while Minnesota announced additional detections at turkey farms in three different counties and Iowa revealed another outbreak at an egg farm.

Nationally, as of May 26 the US Department of Agriculture (USDA) has received reports of 181 highly pathogenic avian influenza detections in the United States since December 19. So far the outbreaks have affected more than **41 million birds**. The USDA's update, posted by its Animal and Plant Health Inspection Service (APHIS), doesn't appear to include today's outbreaks.

Fourth Nebraska detection

The Nebraska Department of Agriculture (NDA) said today that early tests show the highly pathogenic H5N2 virus as responsible for an outbreak at a poultry farm housing **3 million hens** in Knox County, located in the northeastern part of the state.



Steve Harwood/ Flickr cc

AVIAN INFLUENZA – H5N2

NEWS RELEASE For Immediate Release



June 26, 2015
www.nda.nebraska.gov

Contact: **Christin Kamm**
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HPAI DEPOPULATION PROCESS IN NORTHEAST NEBRASKA COMPLETE

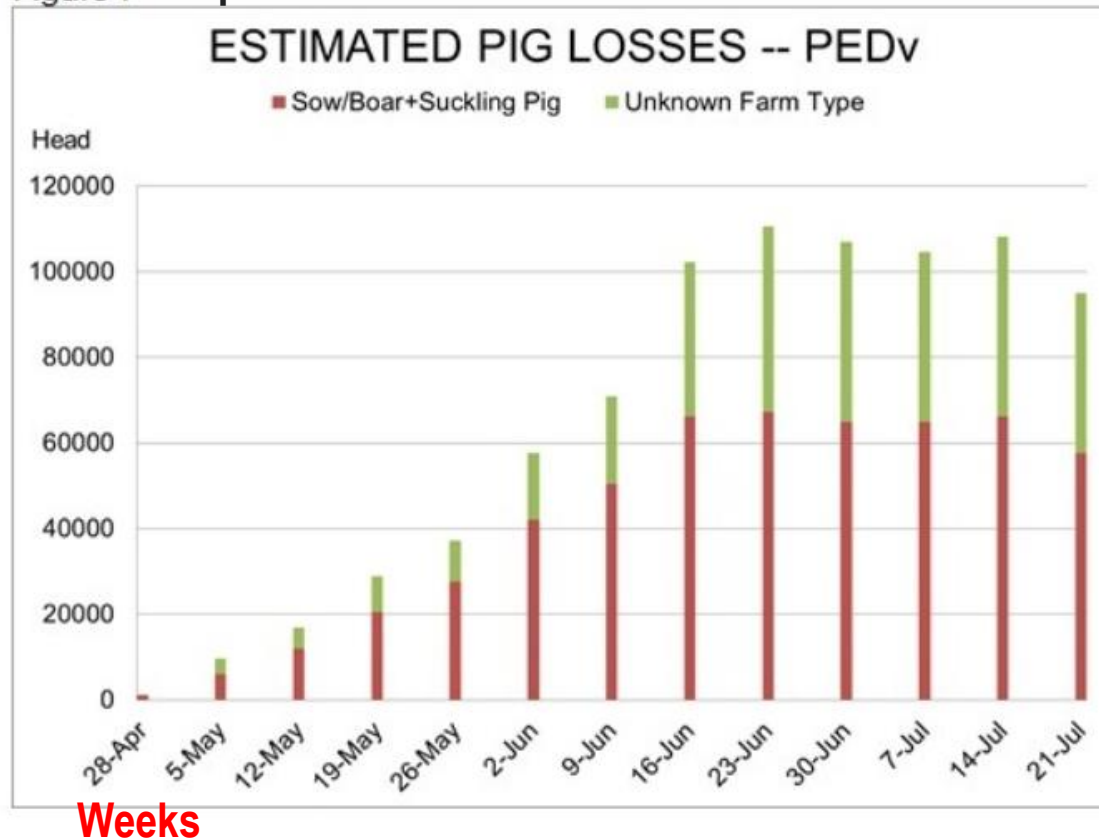
LINCOLN - Nebraska Department of Agriculture (NDA) Director Greg Ibach today announced that the depopulation of birds with, or exposed to, highly pathogenic H5N2 avian influenza (HPAI) in Dixon County is now complete.

According to Ibach, a total of **4.9 million laying hens** and pullets were humanely depopulated and composted at five farms owned and operated by the same producer in Dixon County. Four of those farms had confirmed cases of HPAI, while the producer voluntarily depopulated the birds at the fifth farm in an effort to contain the spread of the virus within their operation. A **backyard flock** with epidemiological connections to the **five farms**, and located within the 6.2 mile quarantine zone established by NDA, also tested positive for the virus. Fewer than 100 mixed fowl were depopulated and buried on that property.

PEDV

Figure 1 is a chart that I have used a few times recently to provide some context for pig losses since PED broke in April. I arrived at these numbers by using “accession” numbers from the summary first compiled by the American Association of Swine Veterinarians and now by the National Animal Health Laboratory Network, a system run by USDA’s Animal Plant Health Inspection Service. The summary, with data from two weeks past, is updated weekly and is available at www.aasv.org.

Figure 1 **April 2013**




What started as a trickle has become, by these calculations, a significant number since mid-June potentially impacting slaughter beginning in mid-December by 2 to 4%. The trouble is that the numbers may not be good at all.

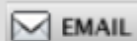
C+S Focus on Ag DIGEST

PEDV impact on the swine industry

by Kent Thiesse in Focus on Ag

Mar 18, 2014

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COMMENTS  1

Porcine epidemic diarrhea virus (PEDV) is a newer swine disease that first entered the United States in May 2013, and is now causing major economic loss to some hog producers, as well as impacting several other aspects of the swine industry. PEDV is deadly to baby pigs from birth until about three weeks of age, and infected swine herds can suffer a 75-100% loss of baby pigs for a four to five week period. PEDV poses no threat to humans, or has no food safety impact on retail pork supplies.

As of March 12, the National Animal Health Laboratory Network reported 4,458 confirmed PEDV cases in the U.S., with at least one case in 27 different states. Iowa has the most confirmed cases with 1,521, followed by Minnesota with 701 cases, and North Carolina with 486 cases. The top 10 states in pork production account for over 85% of all the PEDV cases in the U.S. The number of confirmed PEDV cases in the U.S. grew by 352, or 8.5%, from March 1 to March 12. It is estimated that 4-5 million baby pigs have been lost from PEDV in the U.S. during the past 9 months.



Chinese Tote Bags Thought to be Cause of US PED Outbreaks, says USDA

01 October 2015

US - An investigation by the USDA has found that Porcine Epidemic Diarrhoea (PED) may have entered the US through reusable containers used to transport bulk material, such as feed or pet food, from China, writes Lucy Towers, ThePigSite Editor.

The US APHIS investigation into the root cause of the US Swine Enteric Coronavirus Disease (SECD) outbreaks, including PED which started ravaging through pig farms across the country back in 2013, looked at a variety of possible scenarios.

Although the investigation report did not conclude with definite proof for any of the scenarios, a small number of them were deemed plausible.

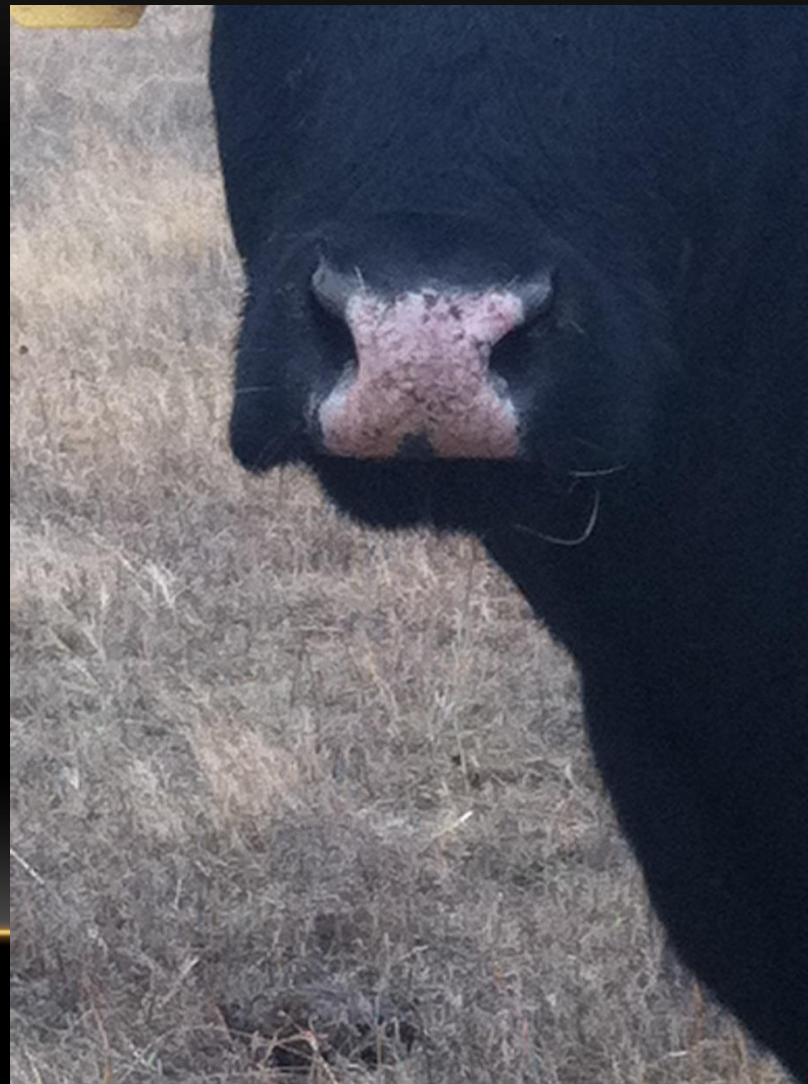
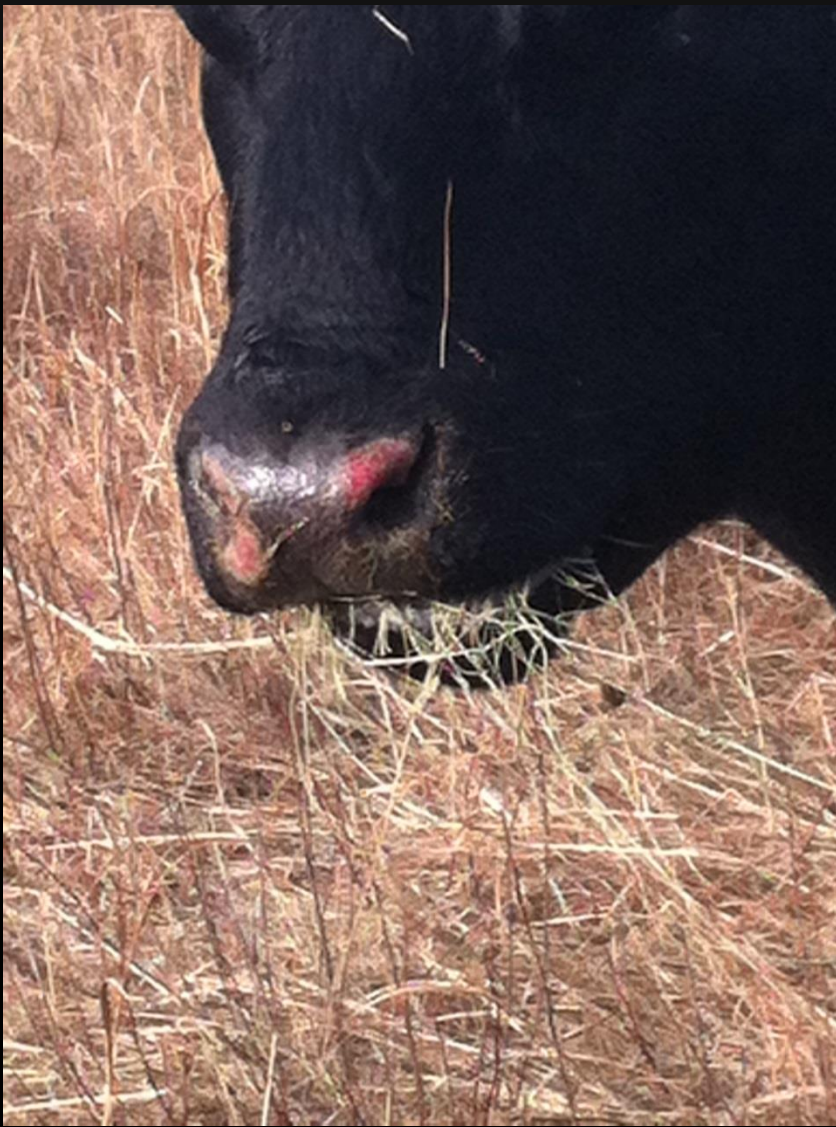
The most likely scenario is that Flexible Intermediate Bulk Containers (FIBC) coming from China to the US were contaminated with the virus back in China.

It is likely that the virus was then spread onto US farms as the bags are designed to be reused and may have transported feed or ingredients to a feed mill.

Once the contaminated material reached here, it would be easy for feed destined for farms around the country to become



VESICULAR DISEASES



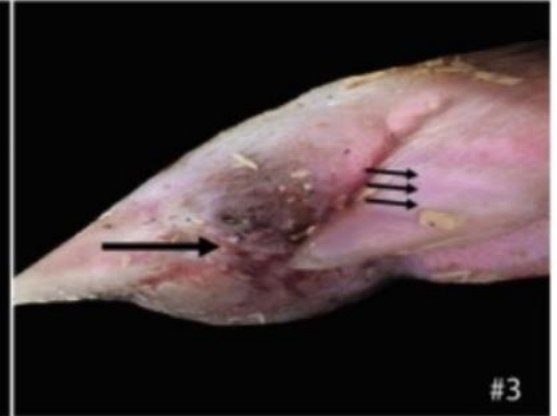
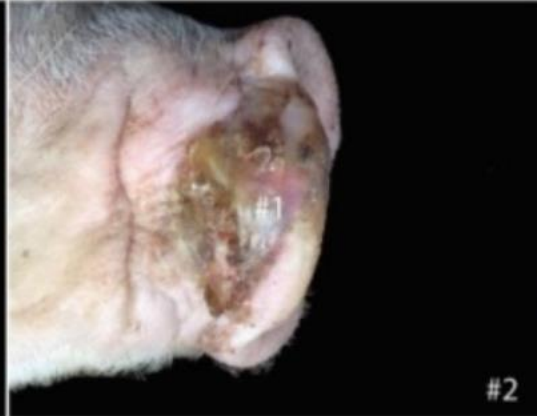
VESICULAR DISEASES



VESICULAR DISEASES



VESICULAR DISEASES



Photos courtesy of: AJ Smit (#1 and #2) and Aubrey Cordray (#3)

Clinical signs in sows and gilts

VESICULAR DISEASES

- VSV (Vesicular Stomatitis)
 - Horses, Cattle, Pigs
- Seneca Valley Virus (SVV)
 - Pigs
- Epizootic Hemorrhagic Disease (EHD)
 - Ruminants – Deer, Cattle
- Blue Tongue
 - Sheep, Cattle, Goats, Deer

FMD

- Foot and Mouth Disease (FMD) # 1 FAD World Wide
 - Cattle, Pigs, Sheep, Goats (**NOT HORSES**)
 - Cloven hooved animals – Deer, Feral Hogs
 - Low mortality – Adults; High in young – Endocarditis
 - High Morbidity near 100%
 - **Very** Contagious between animals (**NOT ZOOONOTIC!!**)
 - Aerosolized virus
 - Direct contact – respiratory secretions, milk, semen, ingestion of meat (garbage feeding to pigs)
 - Fomites – boots, vehicles etc.

FMD

- Transmission cont:
 - Pigs – Amplifiers of the virus (Produce the most amt of airborne virus)
 - Cattle – Indicator (very sensitive to showing clinical signs)
 - Sm. Ruminants – Maintainers (not much for c/s but shed virus)
 - Virus is very resistant to high temps
- Why not just vaccinate everything???
 - 7 Serotypes of virus – vaccine provides no cross protection.
 - Carrier states in cattle (3.5yrs) 50% - vaccinated or infected and then recover



2001 – UK Foot and Mouth Disease Outbreak

FMD EXAMPLE - CUMING COUNTY, NE

Ranked items among the 93 state counties and 3,079 U.S. counties, 2012

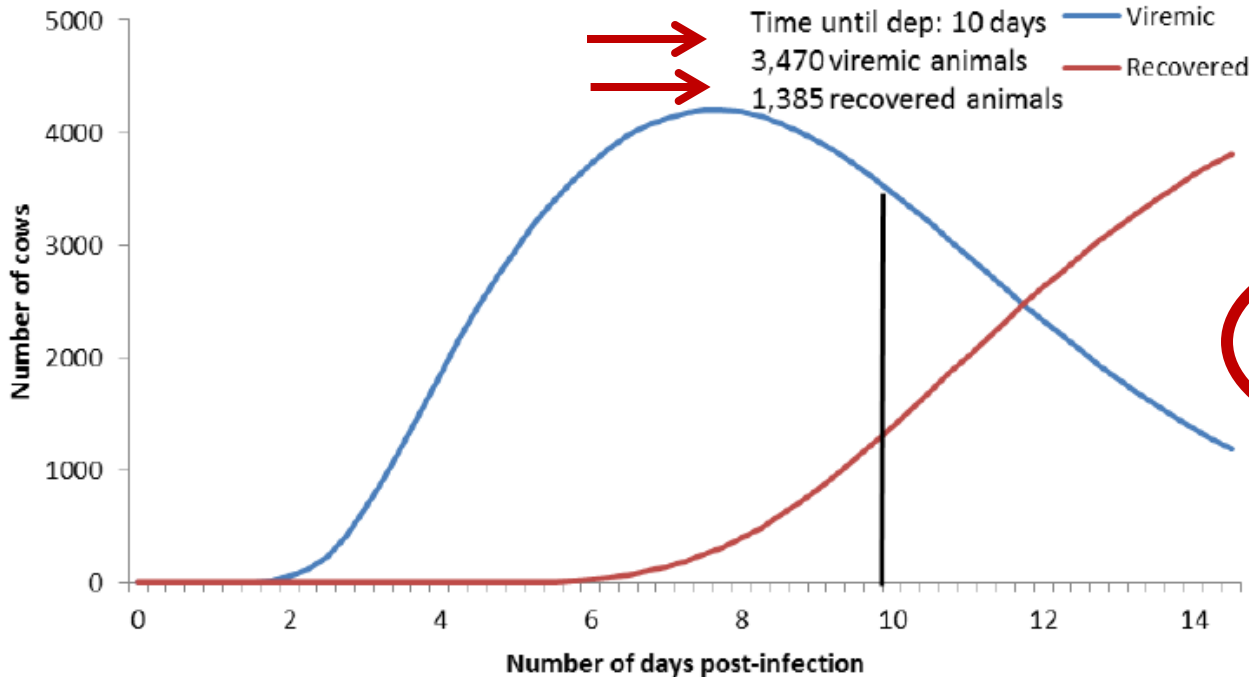
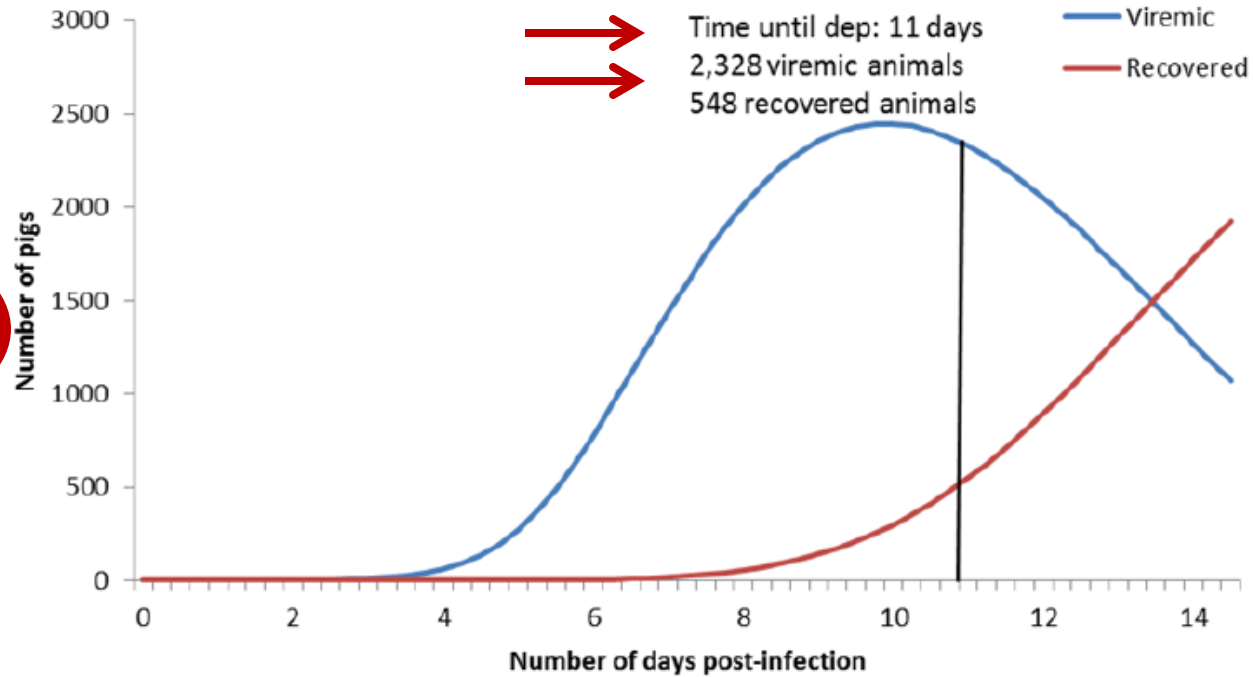
Item	Quantity	State Rank	Universe ¹	U.S. Rank	Universe ¹
TOP LIVESTOCK INVENTORY ITEMS (number)					
Cattle and calves	297,672	1	93	17	3,063
Hogs and pigs	125,043	8	90	144	2,889
Colonies of bees	(D)	10	64	(D)	2,761
Layers	1,458	22	93	1,559	3,040
Sheep and lambs	1,143	19	89	786	2,897

	2012	2007	% change
Market Value of Products Sold	\$1,081,302,000	\$856,613,000	+ 26
Crop Sales \$140,001,000 (13 percent)			
Livestock Sales \$941,300,000 (87 percent)			

FMD LOGISTICS

- Burial of 50,000 hd of cattle
 - 200,000 yd³
 - 64 Acres
 - Bury within 72 hrs
 - 100 yd³ / hr
 - 25 backhoes
 - 2 yd³ capacity
- Cuming County, NE
 - 300,000 hd of cattle on feed → 384 Acres needed to bury all the cattle.

3,000 pig farm
(index case)



5,000 feedlot
(index case)

Shirley Slingluff, DVM, MS
Fernando Sampedro, PhD
Timothy Goldsmith, DVM, MPH, DACVPM



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AND FOOD SAFETY

NDA'S ROLE

- **ANY** time vesicles are present (pigs, cattle, horses etc) they are reportable immediately.
 - Your veterinarian will contact the State veterinarian (Dr. Dennis Hughes), USDA VS in Lincoln, or State Area Field Veterinarian → There are 5 VFO's that cover the state.
 - The NDA will be intricately involved – keeping in mind that you have a business to run. (All movement of animals will be quarantined until a FADD visits your place.)
 - NDA will assign and Foreign Animal Disease Diagnostician (FADD) to the case
 - Area NDA VFO and USDA VMO
 - The FADD will be in contact with you and your veterinarian to come out immediately and collect appropriate samples. - Same Day. **No charge for the FAD samples.**
 - PPE
 - Indemnity - USDA will only pay for **live animals.**
 - We encourage you and your vet to be present during sample collection.
 - A written quarantine will be issued restricting animal movement until test results are reported.

NDA'S ROLE

- It is the FADD's discretion to determine the level of severity or threat to animals in the area. Results are usually reported in 24 – 48 hrs depending on the priority. Some samples go to Ames NVSL, some go to Plum Island.
- 6 mi Radius → Survey area to find animals within Control Zone
- → Issue stop movement Quarantine
 - Avian Influenza – backyard flocks
 - 404 Premises/68 QT
 - PPE
 - 2 Neg tests to be released
 - Permits for eggs/egg product movement