

Recent History of disease outbreaks

A SAMPLING OF CHALLENGES IN MISSOURI



Corinne Bromfield, DVM

Swine Extension Veterinarian

- Background with Agricultural animal species in research
- Herd health
- Individual animal care

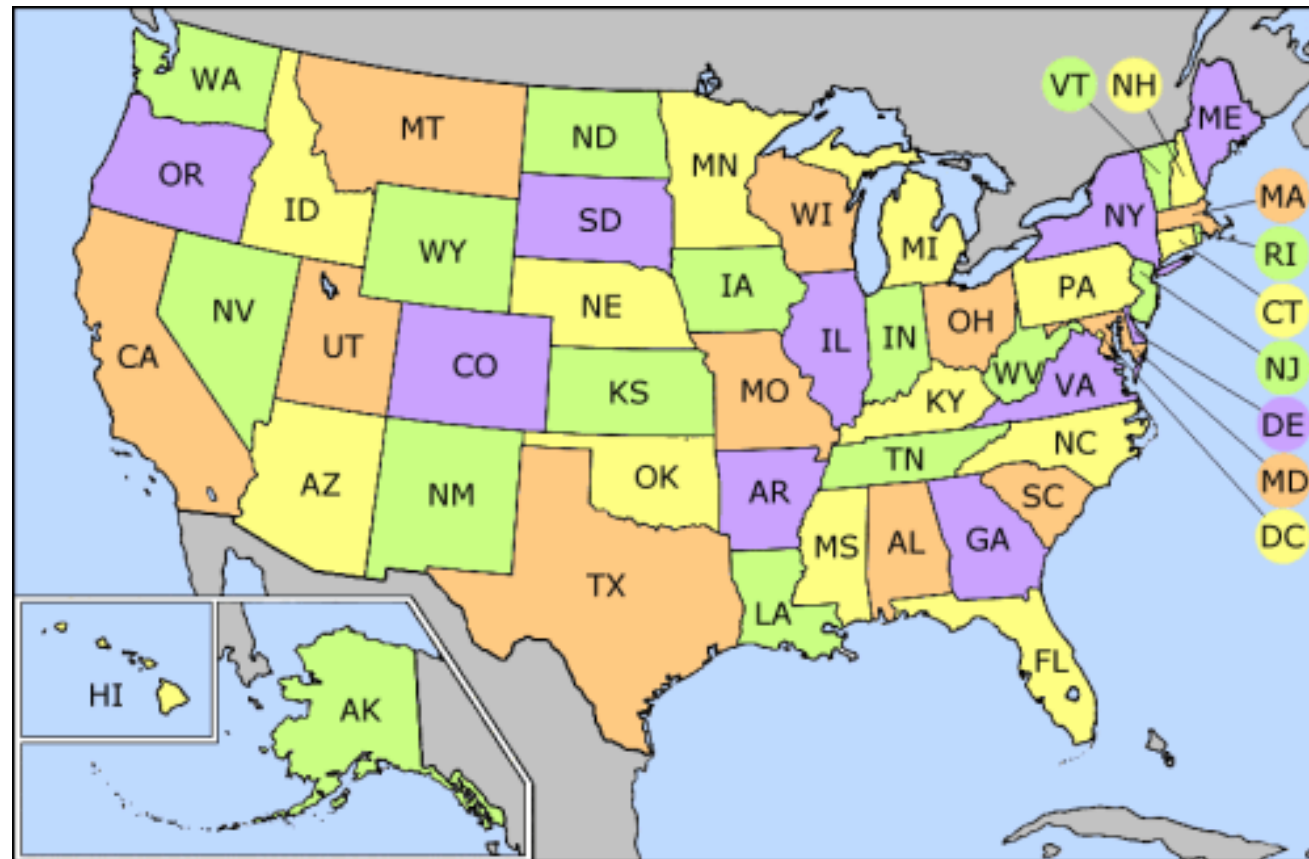
Disease challenge in MO poultry

Avian influenza

- Highly Pathogenic Avian Influenza (HPAI)
- Low Pathogenic Avian Influenza (LPAI)
 - Sudden death.
 - Marked loss of appetite, reduced feed consumption.
 - Cessation of normal flock vocalisation.
 - Drops in egg production.
 - Depression.
 - Coughing.
 - Nasal and ocular discharge.
 - Swollen face.
 - Cyanosis of comb/wattles.
 - Diarrhea (often green).
 - Nervous signs such as paralysis

Highly pathogenic avian Influenza

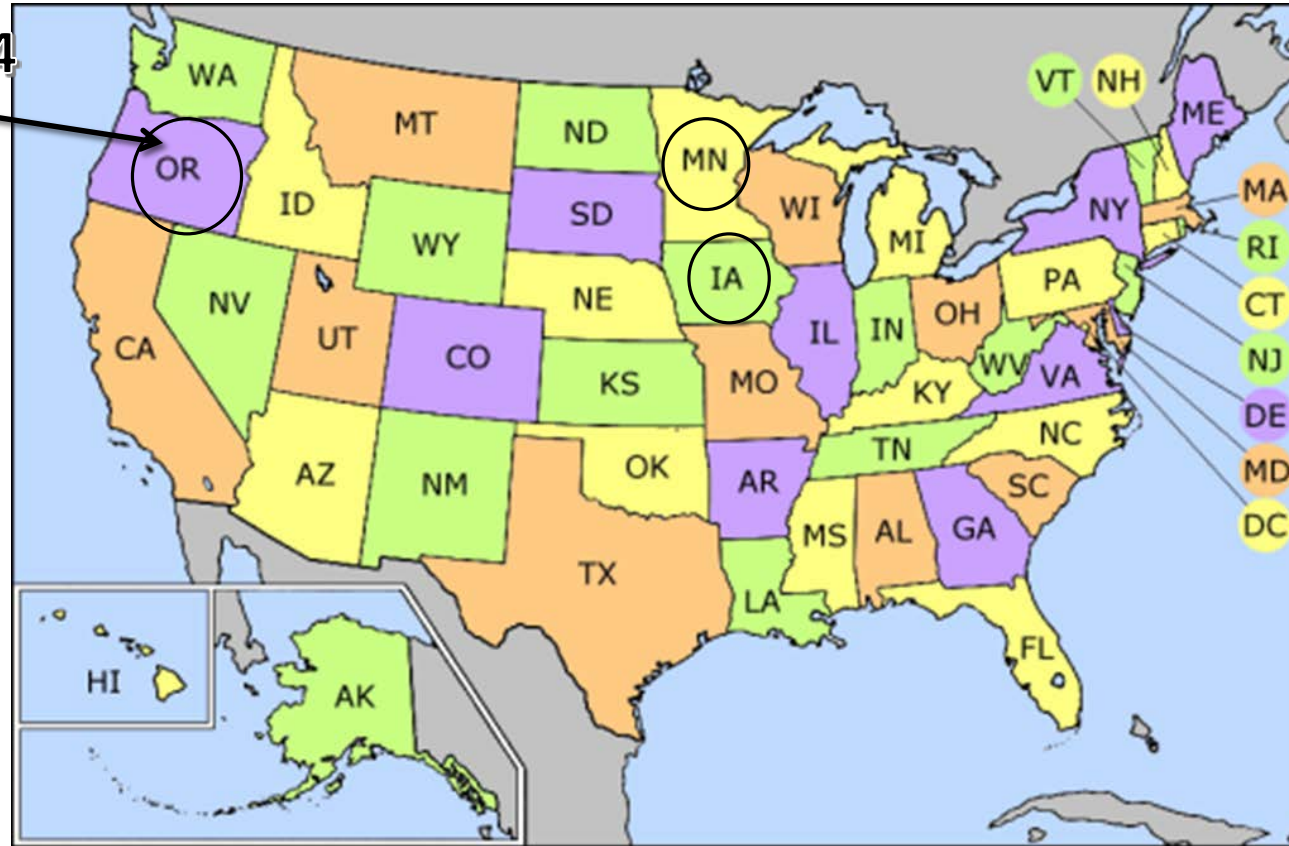
USA outbreaks seen in 1924, 1983, 2004 and 2014



Highly pathogenic avian influenza

December 2014

H5N8

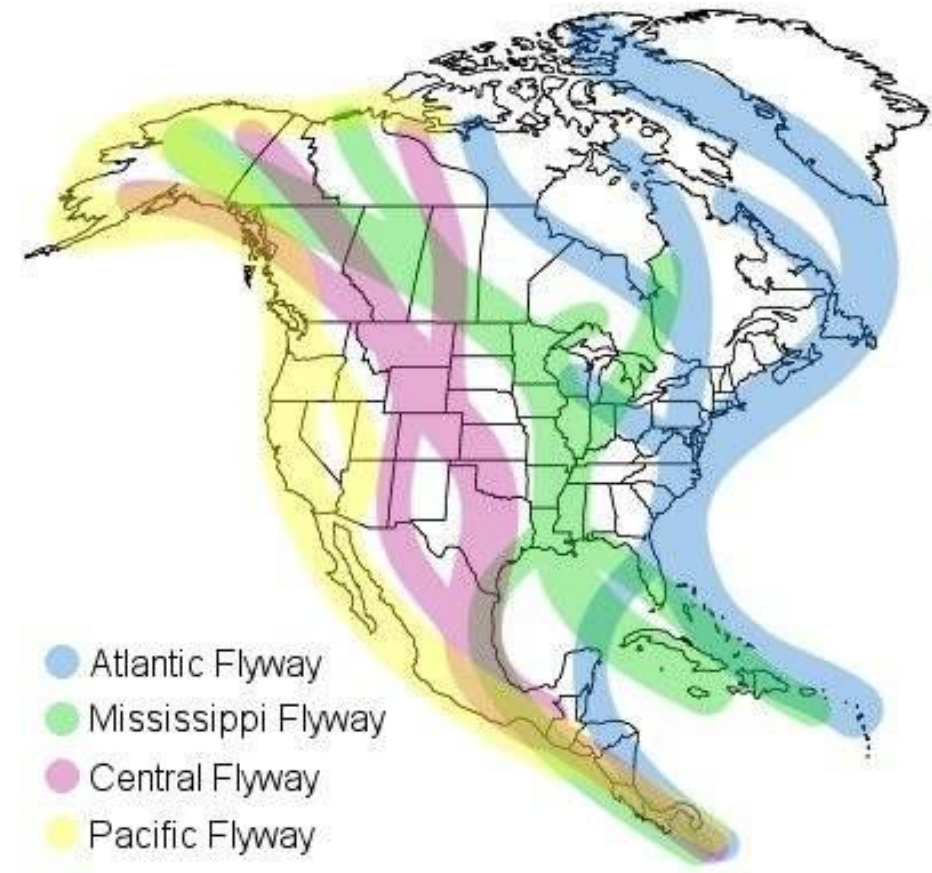


WA, OR,
ID, CA,
NE, UT,
NM, WY,
KS, MO,
KY, MI,
WI

Highly pathogenic avian influenza

Carried by wild fowl

- Thought to be introduced to domestic flocks through lapses in biosecurity
- +/- airborne spread
- Last reported case in Iowa June 2015



Highly pathogenic avian influenza

Missouri effects

- 3 farms- Turkey/mixed poultry farms
- 53,000 birds affected
- 2014 outbreak affected 48million birds

Highly pathogenic avian influenza

5 step process

- Quarantine
- Eradicate
- Monitor region
- Disinfect
- Test

Disease challenge in MO pork

Porcine epidemic Diarrhea Virus (PEDV)

- Porcine Delta Corona Virus (PDCoV)

Seneca Valley Virus

Porcine Epidemic Diarrhea Virus

No longer an exotic diarrheal disease

- April 29th, 2013 index case in Iowa
- Severe outbreak of diarrhea/vomiting large sow unit
- Watery diarrhea
- High morbidity
- All ages
- Suckling pigs high mortality



Porcine Epidemic Diarrhea Virus

USA Outbreak

- May 6th Sow unit in NE Iowa and NW Iowa break
- May 7th, 8th Sow units in SE Indiana break
- Gestation barns or Suckling pigs first
- Within days throughout the farm

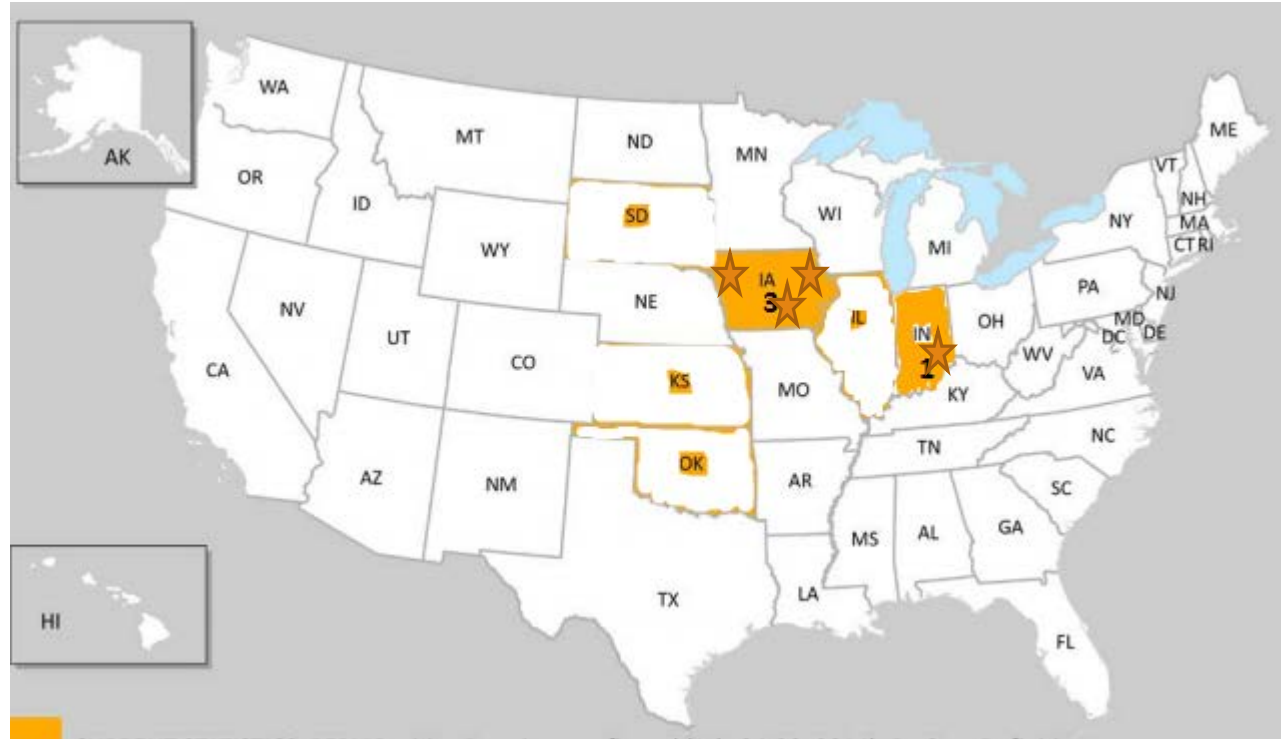


Porcine epidemic diarrhea virus

- Transmission
 - Fecal/oral
 - Fomite (feed, transportation, personnel)
 - Airborne?
 - Incubation 12-36 hours
 - Young pigs (<3 weeks) up to 100% mortality
 - Older pigs recover around 1 week
 - Shed in feces for up to 7 days post inoculation



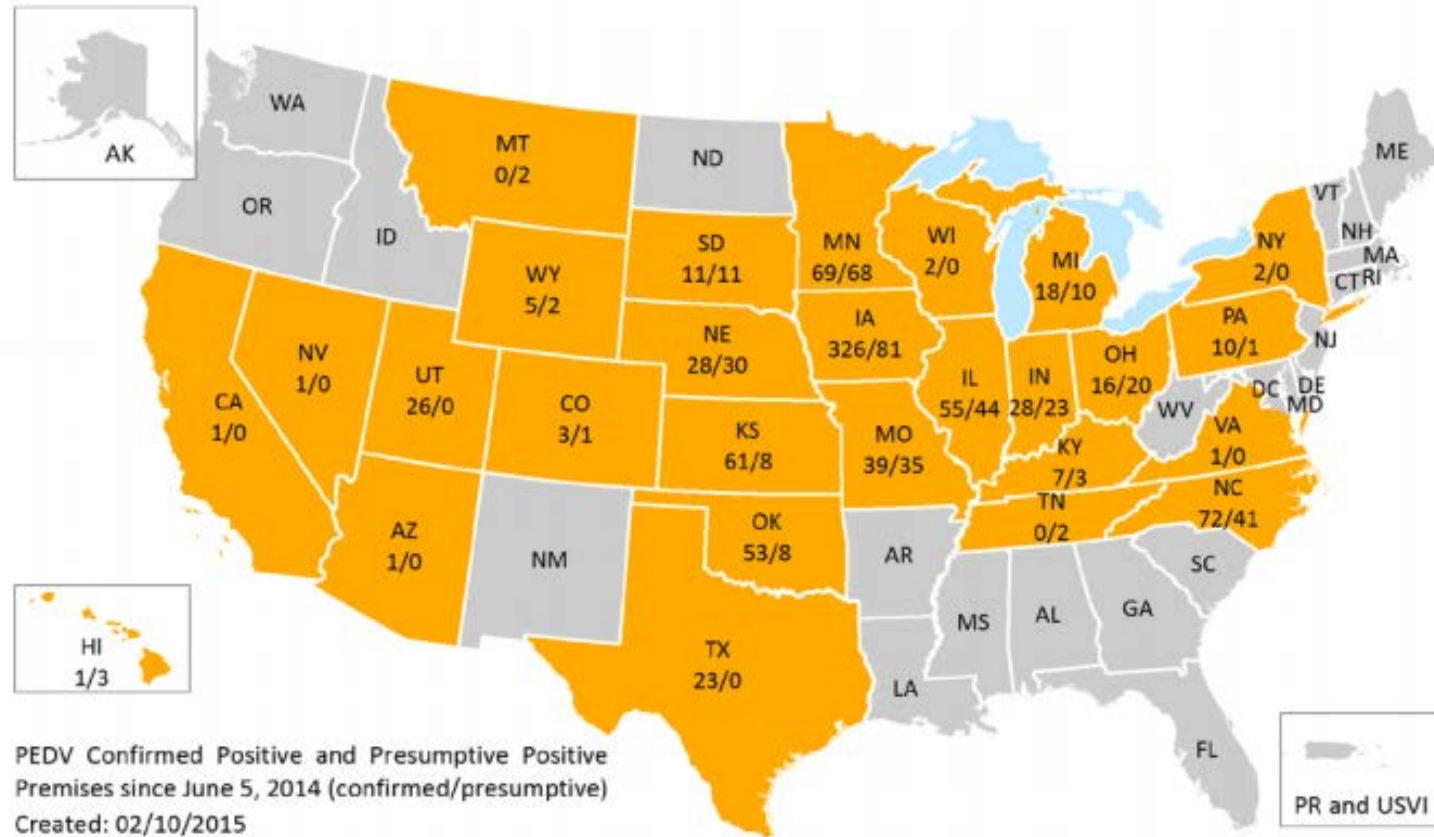
Porcine Epidemic Diarrhea Virus



Confirmed cases May 17, 2013



Porcine Epidemic Diarrhea Virus



Seneca Valley Virus

Since July 2015 found in MN, IA, SD, NE, IL, IN, MO, OK, NC

Idiopathic vesicular disease

- Not severely production limiting disease
- Acute outbreaks appear short lived
- Picornaviradae –same family as FMD

Seneca Valley Virus

Questions?

Corinne Bromfield, DVM

bromfieldc@missouri.edu

Swine Extension Veterinarian

