Missouri Agriculture

• Top Ten in the United States

- **SOYBEANS - 9TH**  
  181 million bushels

- **BROILERS - 9TH**  
  294 million head

- **BEEF COWS - 3RD**  
  2 million head

- **HOGS - 7TH**  
  3 million head

- **CORN - 10TH**  
  437 million bushels

- **TURKEYS - 5TH**  
  19 million head

- **RICE - 4TH**  
  12 million cwt

- **COTTON - 8TH**  
  400,000 bales

• Export Market is growing
Surveillance Activities

- **Program Disease testing**
  - Testing for movement or change of ownership
  - Voluntary programs
- **Livestock Markets**
  - Veterinary inspections
- **Slaughter plants**
- **Accredited Veterinarians**
- **Shared information for wildlife testing**
Contacts for Reporting

1. Local veterinarian
2. State or Federal Veterinarian
Overview of Response

- Suspicion of Disease
- Diagnosis of Disease and confirmation
- Quarantine and Control Zones
- Release of Quarantine Control Zones
- Release of Quarantine of Infected Premise
Response Activities

- Quarantine
- FADD (Foreign Animal Disease Diagnostician)
  - Assigned to case for investigation and sampling if needed
- Conduct necessary testing/sampling
  - Samples submitted to state regulatory diagnostic laboratory
  - Confirmation by National Veterinary Services Laboratory (NVSL)
- Perform Epidemiological Investigation
- Determine course of action
  - Monitor herd/flock and/or controlled marketing
  - Test and remove positive animals
  - Depopulate the herd/flock
FADReDisease ResponRedocuments

Last modified: Jan 26, 2018

- Disease Response Plans - The Red Books
  - Foot-and-Mouth Disease (September 2014)
    - FMD Response: The Red Book Presentation (Long/Short)
  - Highly Pathogenic Avian Influenza (May 2017)
    - HPAI Response: The Red Book Presentation (Long/Short)
  - Classical Swine Fever (May 2013)
    - CSF Response: The Red Book Presentation (Long/Short)
  - Newcastle Disease (February 2014)
    - ND Response: The Red Book Presentation (Long/Short)

- Disease Response Strategies
  - African Swine Fever - (draft September 2013)
  - Japanese Encephalitis - (draft August 2013)
  - New World Screwworm Myiasis - (January 2018)
  - Peste Des Petits Ruminants - (draft May 2013)
  - Rift Valley Fever - (draft August 2013)

- FAD PReP Strategy Documents
  - Classification of Phases and types of a Foot-and-Mouth Disease Outbreak and Response (draft March 2013)
Summary of MO HPAI Incidents

Jasper County

- **Commercial Turkey Flock 1– 30,100 toms age 20 weeks of age**
  - March 6, 2015 Report to MDA of increased mortality
  - 35 & 70 to 300 & 900 the next day, 2 additional barns with normal mortality
  - Samples collected by company veterinarian and to MDA lab for testing
  - Flock/Premises placed under quarantine
  - March 7 Samples tested at MDA NAHLN lab – presumptive positive AI Matrix and H5, samples were then delivered to NVSL by MDA personnel for confirmation testing
  - March 8 Samples confirmed HPAI H5 positive, appraisal on flock was completed by USDA
  - March 9 KS State Veterinarian and ADD notified that Control Zone included part of KS, MO surveillance for backyard flocks and testing begins
  - March 10 Flock depopulated by company, was determined that carcass disposal would be by in house composting
Summary of MO HPAI Incidents

Jasper County

- 19 backyard flocks identified in the 10K Control Zone and tested 2 times 2 weeks apart (24 flocks in KS)
- Equipment on infected premise was cleaned and disinfected by MDA and USDA
- No other commercial operations were in the 10K Control Zone (Including KS)
- April 8 Control zones released in MO and KS
- Infected Premise remained under quarantine pending removal of compost from houses, cleaning and disinfection of houses
- Infected premises released from quarantine June 13, 2015
Moniteau County

- Commercial Turkey Flock – 23,000 toms 17 weeks of age and 11,000 week old poults (poults did not test positive or experience increased mortality)
  - March 4 – slight increase in mortality in 1 house
  - March 6 – mortality increases in the one house and samples are collected and submitted to UMC for diagnostic work up
  - March 7 – mortality in 1 house increases to >1000 and 486 in the other house. Samples collected for AI testing. Flock placed under quarantine
  - March 8 – samples submitted to MDA NAHLN lab, presumptive positive AI matrix and H5 samples delivered to NVSL by MDA personnel
  - March 9 – samples confirmed positive HPAI H5 at NVSL
  - March 12 – flock depopulated by USDA contractor, disposal by in house composting
Summary of MO HPAI Incidents

Moniteau County

- 10K Control Zone established
  - 168 backyard flocks identified and tested 2 times 2 weeks apart (began March 11 completed April 3)
  - 11 small enterprise flocks identified and tested weekly
  - 44 commercial flocks involving 3 companies
  - 1 State Inspected poultry processing plant
  - Mennonite community outreach
  - Protocols for permitted movements developed and approved
  - **Permitted movements** allowed after all in zone had at least one negative test (Began issuing permits March 19, 10 days after control zone established)

- April 3 Control zone released
- Infected premises released from quarantine July 5, 2015
Lewis County

- **Backyard flock in 2 locations – one premise positive the other a dangerous contact tested negative**
  - April 24 phone call from accredited veterinarian concerned about client that had a couple of dead chickens
  - April 28 samples submitted to UMC
  - May 1 presumptive positive AI matrix and H5
  - May 3 both flocks depopulated and disposal was by burial
  - May 5 confirmed positive H5 at NVSL
  - 10 K quarantine zone established no commercial flocks present and 1 small enterprise flock producing eggs
  - 46 backyard flocks tested twice
  - May 24 Control zone released
  - Infected premises released from quarantine July 13, 2015
Summary of LPAI 2018

• **Commercial Turkey flock**
  – Detected 3/2 on routine sampling confirmed 3/3
  – 2 commercial and 4 backyard flocks in control zone
  – Controlled marketing 3/23
  – Quarantine released May 10

• **Backyard layer for commercial hatchery**
  – Detected due to increased testing requirements for movement to IA
  – Detected 3/14 at lab Confirmed 3/15
  – Depopulated 3/27 by CO2
  – Flocks tested in control zone – 43
  – Quarantine released 6/15
Continuity of Business
Secure Food Supply Plans

Secure Poultry Supply Plan
Secure Egg Supply Plan
Secure Egg Supply: Summary of Products and Permitting Requirements (August 2013)
  Supplement 1: Surveillance guidelines
  Supplement 2: Cleaning and disinfection guidelines
  Supplement 3: Permitted movement checklists
  Supplement 4: Proactive product-specific risk assessments
  Supplement 5: Permit examples
  Supplement 6: Voluntary Preparedness Components
Secure Egg Supply Demonstration Videos (ISU CFSPH)
Secure Egg Supply Training & Educational Materials

Secure Broiler Supply Plan
Secure Turkey Supply Plan
Secure Pork Supply Plan
Secure Milk Supply Plan
State/Regional Secure Milk Supply Projects
Costs of Outbreaks

- **HPAI December 2014 – June 2015**
  - 211 commercial premises and 21 backyard flocks
  - Depopulated 7.5 million turkeys, 42.1 million egg layers and pullets
  - >$950 million in indemnity payments
  - USDA estimated losses
    - Turkey and chicken losses $1.6 billion
    - Economy wide losses $3.3 billion
Lessons Learned

- **Biosecurity, Biosecurity, Biosecurity**
  - Have a written plan
  - Plan needs to work for my operation
  - Keep plan up to date with operation
  - Have plan to increase level of security when a disease threat is near
  - Have plan to increase level of security when a disease is confirmed in the area
  - Is there an area of my operation that I can make more secure if necessary
Lessons Learned continued

• What to expect
  – We need to know where you are located
  – Quarantine of farm and control zone
  – Biosecurity requirements for movements
  – Testing for permitted movements
  – Secure Supply Plans
    • Biosecurity audits
Lessons Learned continued

• Be as prepared as possible
  – Have a plan
    • How will I get feed to my livestock?
    • How will I manage without moving animals for several days or weeks? May include those not affected by this disease.
    • What resources do I have available or will be able to acquire in an emergency?
    • How will my family be affected with movement restrictions?
Lessons Learned continued

- Secure Supply Plan
  - Key to permitted movements
  - Science based information
  - Know what information is contained in plans and how it will work for your operation
Questions?