HPAI Update
Lessons Learned
Next Steps

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HPAI in the U.S.

- Largest animal health emergency (232 premises)
  - 211 commercial poultry farms
  - 9 States
  - 7.5 M turkeys (3% of annual production)
  - 42 M chickens, pullets, and laying hens (11% of the population)
- Federal emergency response (approximately $600M)
  - >400 USDA and 3,000 contracted personnel
  - Depopulation, disposal, cleaning and disinfection
  - Indemnities (fair market value live birds only)
- State resources (Minnesota and Iowa) were overwhelmed, declared state of emergency

Economic impact

- Losses estimated in > $1.6 billion
- Prolonged down-time and out of production
- Employee layoffs
- Disruptions in domestic trade
- Partial or complete export bans >$1.2 billion
  - poultry products
  - breeding stock
- Reduced business for industry suppliers
- Upgrades in biosecurity (physical and operational)
No human cases (H5) were detected.
CDC considers low risk for people.
Sensitive to Tamiflu® (oseltamivir).
Food supply has been safe.
Consumption of poultry products has been and continues to be strong.
As predicted, summer temperatures reduced the risk of transmission.
What have we learned?

Can we turn this into an opportunity?
The lessons

- AI has become a global problem
- Migratory birds spread the virus
- Direct or indirect contact with infected wild birds introduced the virus to commercial poultry farms

But, the virus spread in other ways

- Loopholes in biosecurity
  - Virus was introduced from the outside and from infected to non-infected farms
  - Proximity to surface water is a high risk
  - People movements (farmers, servicemen, work crews)
  - Sharing of equipment
  - Vehicle movements
  - Rodents and small wild birds
  - Grain stored in the open

- Routine biosecurity practices FAILED!
  - Lack of farm clothing and shoes
  - Weak C & D practices
  - Poor or lack of education and training

- Environmental factors
  - Air “plumes” with virus
  - Sustained high winds

Further Lessons

- EPI investigations are high priority
- Lab diagnostic capabilities are a big deal
- Biosecurity is the best defense (some companies were unaffected)
- Surveillance helps detect the virus early
  - Bird movements (i.e. pullets to hen houses)
  - NPIP programs and pre-slaughter
  - Increased testing during high risk periods

- The faster the response, the better the control
  - Mass depopulation must be done within 24 hours
  - Ventilation shutdown proposed as an alternative

- Emergency responses require partnerships and coordination between Federal, State Officials and Industry

HPAI virus still around

Coming this Fall or Spring

Are you prepared?
Ongoing
- Government officials and producers testified on
  - the response efforts and
  - ways to improve along with prevention and control
- Federal and State officials, industry organizations, regional associations have and continue to work with industry to ensure biosecurity is more stringent, and to be better prepared collectively.

Global Trade
- International standards
- Zoning/regionalization and compartmentalization
- Biosecurity
- Vaccination
- Risk-based mitigation – Appropriate restrictions
- Surveillance methods
- Further research – options for control

Vaccination?
- USDA is developing a "seed strain" to match the H5 virus
- Live boost (vectored) followed by inactivated vaccine will give best protection, reduce risk shedding
- Vaccination must be used ONLY as a tool in an eradication plan
  - Does not prevent infection
  - Under official control
  - Biosecurity improvements
  - Surveillance (vaccinated vs. non-vaccinated)
  - Exit strategy
- Unfortunately, could lead to further export bans

Preparedness... planning ahead for “the worst case scenario”
- ... make yourself accountable or you will be made accountable by the circumstances
- Review, update and upgrade biosecurity plans, requirements and SOPs
  - Focus on training
  - Monitor execution
- Participate with Federal, State officials and industry organizations to ensure effectiveness of response plans
  - Incident command system
  - Flock plans (depopulation, carcass disposal, C&D, testing and re-stocking)
  - Premises ID (permitting of chick, pullet, and hatching egg movements)
  - Communications (manage traffic and routes)

Sport enthusiasts

- All producers and bird owners MUST practice effective biosecurity to prevent introduction and spread
  - Avoid contact with wild birds and other flocks
  - Limit visitors and farm employees
  - Establish dirty vs. clean areas (Danish system)
  - Implement shower-in or donning and doffing PPE
  - Vehicles and equipment management (don’t borrow disease from the neighbors)
  - Feed and water management
  - Pest control management
  - Prevent contact or access to open water
- Training and routine evaluation of biosecurity protocols!
- Formal auditing system proposed
- Report sick or unusual bird deaths to veterinarians and State officials
“Broilers less susceptible than turkeys”…

Experiences HPAI viruses and cause huge losses in breeders and broilers.

Production systems at risk

Free range, back yard

Too many eggs in one basket? 

It won’t happen to me?

Biosecurity - The first and most important line of defense
An effective **Biosecurity Program is essential** to:
- Prevent disease introduction and spread
- Maintain the desired health status and well-being
- Meet customer and regulatory requirements
- Guarantee supply of product
- Ensure ROI and profitability

Must become part of the **Company Culture**:
- Commitment (top down) and mandatory
- Company policies and SOPs
- Responsibility for employment and contract growing
- Policies reviewed and updated periodically
- Incentives and consequences

Supported/encouraged by **Training**:
- Team work (employees, contract growers and labor)
- Communications
  - Meetings
  - Newsletters
  - Alerts

Procedure which may be implemented by a country to define and manage animal **subpopulations of distinct health status** and common **biosecurity program** within its territory for the purpose of disease control and international trade.

**Compartmentalization**