



## Poultry Regulatory Potpourri



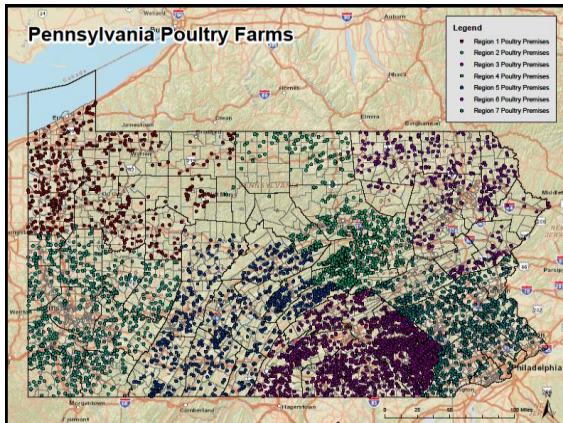


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## Topics for Discussion

- ✓ Avian Influenza
- ✓ Biosecurity
- ✓ Live Bird Markets
- ✓ Sampling

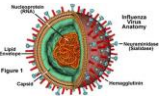
## Helpful Definitions

- **Avian Influenza (AI)** – a highly contagious disease caused by the influenza A virus
- **AI Virus Classifications** – characterized by combining 2 groups of proteins labeled as H (Hemagglutinin) and N (Neuraminidase)
  - Many possible combinations





## Low Path vs High Path

- **Low pathogenic AI (LPAI)**
  - No disease or mild to moderate disease
  - Severity of disease related to environmental conditions and other infections/mgmt issues
  - H5/H7 LPAI can mutate to High Path
  - Waterfowl natural host
  - Can have trade implications
- **Highly pathogenic AI (HPAI)**
  - Severe disease possible
    - Decreased egg production
    - Quiet, depressed birds
    - Rapid spread
  - High mortality in gallinaceous birds
  - Trade implications
  - Can be carried by waterfowl



## U.S. AI History

- 1983-1984: PA H5N2 HPAI outbreak due to LPAI allowed to persist in poultry
  - 17 million birds/\$65 million negative impact to PA economy

## U.S. AI History

- 2014-2015: HPAI outbreaks in western and midwestern U.S. lead to loss of 50 million birds/\$1 billion cost
- 2016, 2017 and 2020: HPAI outbreaks in a few states much more limited due to quick response



## HPAI Clinical Signs, Lesions



Sites courtesy of Dr. Eva Pendleton, PSU/ADL

## BIOSECURITY

***Number one risk factor for spreading AI was poor biosecurity!***

Biosecurity will be expected in future situations and having and following written biosecurity plans may affect indemnity.



## Biosecurity—general tips for owners

- Avoid poultry auctions/swap meets, and live bird markets
- Avoid equipment you can't disinfect(wood)
- Don't spread manure/litter if suspect infection
- Register premises with PDA (email)
- Address rodent/wild bird/insect issues



## Sick birds?

- Watch records for patterns
- **If HPAI is suspected (high mortality), call PDA right away!**
- **Err on the side of caution/enhanced biosecurity**
- **If you are a service person/vet, don't go to next farm**



## Cleanliness

- Wear clean protective clothing and unique to poultry footwear when working with birds
- Remove manure, egg material, other "dirt" before disinfecting
- Wash hands regularly and thoroughly before entering bird area



## Restrict Visitors

- Do not allow visitors free access to poultry areas--post Biosecurity signs, fence off poultry area
- Have a visitor's log
- Visitors need disinfected or disposable footwear, clean clothing plus coveralls, and washed and/or gloved hands at a minimum
- Foot bath?\*



## How helpful are these foot pans?



## Outside vs. Inside

- AI can easily be tracked into the poultry house from wild bird contamination outside on the same property!
- Need to take precautions between properties AND from outside ("dirty") to inside with the poultry ("clean") for people, equipment and stored feed and bedding



## Vehicles



- Park in a low traffic location
- Try not to drive through manure
- Disinfect tires and wheel wells if needed



## Sometimes it is NOT nice to share

- Poultry equipment, tools, or lawn/garden equipment used around poultry
- Egg packing materials/crates/baskets
- Poultry transport crates
- Manure spreaders



## Bird Sources, Transport and Handling

- Replacement poultry from well managed flocks/hatcheries on NPIP
- Transport should be in clean, disinfected crates on clean, disinfected vehicles
- Personnel involved in transport and handling (including catch crews!) should be considered in biosecurity plans



### Dead Bird disposal is part of biosecurity!

- Dispose of dead birds promptly and properly
- Permitted disposal methods include: burial, rendering, composting, incineration



### Good biosecurity can prevent a disaster!



### Take Home Biosecurity Messages

- HPAI poses a serious threat to the US & PA poultry industry
- If not identified and controlled, H5 and H7 LPAI can turn into HPAI
- Stay informed of current cases
- Know who and when to call with problems
  - PDA 717-772-2852
  - PDA Regional Vet
  - PADLS lab



### What is the Live Bird Marketing System (LBMS)?

- This term includes the farms, haulers, distributors/dealers, and Live Bird Markets themselves.
- This is a separate distribution system from our commercial poultry industry
- The LBMS provides poultry (and other animals) for a specific sector of the population, usually in urban areas, which demands fresh-killed meat, certain animal products not readily available in stores (such as chicken feet or duck blood) or certain ritual slaughter practices.



### What are Live Bird Markets in the U.S.?

- Can be regional differences
  - Botanicas in Florida
  - Hmong markets in Minnesota
- In general, they are stores where custom slaughtered poultry and other animals (goats, sheep, rabbits, etc.) are sold to the public.



### Why do we worry about the Live Bird Marketing System so much?

- The Live Bird Marketing System is considered to be a risk sector for the development of highly pathogenic avian influenza (HPAI) viruses
- Pennsylvania had a large outbreak of HPAI in 1983-1984 affecting our poultry industry severely which involved a strain of AI antigenically and genetically very closely related to the circulating LPAI-H5N2 in the NY LBMS at that time



## What makes the LBMS so risky for AI?

- Lots of bird movement in and out of markets
- Many sources of birds
- Many species (waterfowl and gallinaceous birds) intermingled in market
- Confined spaces



## Why not just prohibit them?

- Culturally important
- If prohibited, then just go “underground”
- Would rather regulate them strongly and monitor them than not know where they are or what is happening



## Some of the Specific Requirements from the Uniform Standards

- Participating states must require licensing or registration of all businesses involved with the LBMS
- All LBMS facilities in participating states must have biosecurity protocols and employees must receive biosecurity training
- Specific minimum responses required when H5/H7 LPAI is detected (sell down, cleaning and disinfection, inspection)
- Increased surveillance for H5/H7 LPAI is required at specified levels and using specified tests performed at approved labs



## How Does PA Minimize and Mitigate the Risk of the LBMS ?

- Surveillance (~150,000 samples tested for AI/year in PA)
- Laboratory Support (3 avian labs in PA)
- Cooperation and information sharing with USDA and other states
- Education
- Meaningful regulatory response



## Surveillance at Pennsylvania LBMs

Inspection at least monthly in PA with testing at least every other month (nationally, at least quarterly)

- Tracheal Swabs for PCR
- Cloacal Swabs for PCR/VI
- Environmental swabs (VI)—following a closure
- 50-100 swabs per market unless very low inventory



## Other LBM Requirements

- All employees must be trained in proper biosecurity precautions to prevent disease transmission
- Quarterly bird-free closures and cleaning and disinfection to break the cycle of any circulating virus in the market
- Market sanitation and dead animal disposal requirements
- Record keeping requirements for bird sources





## On Farm LBMS related AI Surveillance

- Tested for movement into NJ/NY LBMS: >225 flocks
- PA-AI monitored program: 309 active flocks (5/31/2017)
- 30 birds representative of the flock (e.g. some ducks, some geese, some chickens even if only chickens are moving) test negative for AI every 21-28 days.



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## Exhibition Poultry



Testing for PA Shows

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## Why does PA have test requirements for show?

- Disease control and prevention
- Surveillance of backyard poultry
- NPIP requirement for state status (pullorum)
- PA has a large and diverse poultry industry to protect
- Backyard birds and commercial birds can be close together in PA

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## What are the two tests required?

- Avian Influenza (AI)
- Salmonella pullorum (PT)



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## What else is required other than testing?

- Unique identification-LEG BANDS
- Owner endorsed health certificate



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## How do you find out the requirements?

- READ THE SHOW BOOK (or show website)
- Ask the show organizers
- Ask the Department of Agriculture
- Exhibitor's responsibility



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### Options: How to meet test requirements



### Options for Pullorum testing:

- NPIP
- PA-NPIP pullorum equivalent program
- No program- just test to show
- Testing must be performed by a Certified Poultry Technician (CPT) or Category II Accredited Vet



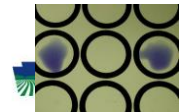
### What birds are tested for Pullorum?

- Chickens greater than 4 months old
- Turkeys greater than 12 weeks old
- Game birds greater than 4 months old or at sexual maturity, whichever comes first
- Ratites (ostriches, rheas, emus...) at 12 months of age.
- NOT waterfowl or pigeons for show purposes



### What are the ways to test for PT?

- In some cases, the plate test can be performed on the farm with a drop of whole blood
- In most cases, a blood sample is sent to the lab and the serum is tested (costs about \$0.50 a bird)



### Option 1: PA PT Equivalent Program

- Enroll by applying with PDA
- Test whole flock up to 300 birds (only the bird types and ages on the previous slide)
- Test only once a year
- All flock additions must be from NPIP PT clean or approved equivalent sources
- Other birds can be added to flock AFTER testing negative



### Option 2: Individual Bird testing for PT

- Test just those birds going to show for PT
- Test result qualifies the bird to show for 90 days only
- Testing close to show date=more risk of missing show due to quarantine
- Multiple shows/year may mean multiple PT tests each year



## Avian Influenza



## AI Testing



- **Flock test**
  - No individual bird testing option
    - Doesn't change based on number of birds going to show
  - Need to test variety of birds on the premises
- 2019-20: Test result qualifies the flock to show for 30 days (time frame may change from year to year)



## AI Testing for PA Exhibition

- Test at least 30 birds (or whole flock if fewer than 30), at least 3 weeks old, within 30 days of the start of the show



## AI Testing

- Cloacal swabs required for waterfowl (\$15 for 5 swabs in one tube)
- Blood (serum) samples can be used for other poultry (about \$0.55 per bird)
- Tracheal/oropharyngeal swab samples can be used for other poultry instead of blood (\$15/tube, number of swabs varies from 5-11 swabs/tube depending on bird assortment)



## Common Mistakes: How to Avoid Them



## Common mistake #1: Confusion between AI and PT

- Think of the tests separately first
  - AI—flock test
    - 30 birds, including waterfowl, 3 weeks old and up
    - Within 30 days of show
  - PT—doesn't include waterfowl, minimum age varies by species
    - Program test for whole flock annually OR
    - Test individual birds going to show within 90 days of show





## Examples

- AI: Even if you are taking only 2 birds to the show, if you have 40 mature chickens at home, you need to test 30 of them for AI
- PT: Test at least the birds going to the show that are test eligible (or whole flock for the program). If you have 50 chickens going to the show, you have to test all of them for PT



## Common mistake #2: Testing more than necessary

- Butchering or selling half your flock next week? Wait to test until AFTER they are gone!
- PT testing just for show? (not on annual program)
  - Don't test birds definitely NOT going to show for PT
  - Submit their blood for AI test only
  - Request both AI/PT tests for the birds going to show



## Common mistake #3: Sample issues

- Submitting the samples right before show
- Not getting samples to the lab promptly
- Need enough blood from hydrated birds
  - For AI and PT test at lab: 2+ cc of blood
  - Not enough blood submitted?
    - Samples may not be run
    - May not be able to run follow up tests needed



## Biggest mistake: Not asking for help

- Your regional PDA Veterinarian can help figure out the most efficient way to test birds for show.
- If you aren't sure what to do for a poultry movement to another location, just check before doing anything!



## Basic Poultry "Rules" for Vets

- Know your resources! Even if you don't work with poultry, you will see them/hear about them
  - New Bolton Center poultry vets
  - Animal Diagnostic Lab at PSU poultry vets
  - PDA Regional Vets



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## Poultry Testing

- Talk to the PADLS lab and PDA Regional Vet about regulatory testing/supplies
- Regulatory tests should go to regulatory lab (AI, VND, PT, etc.) Ask if you aren't sure! Some private labs will run, but aren't valid for regulatory/movement



## Scary bird disease

- **Sudden increase in mortality**
- Sudden decrease in egg production
- Coughing, gasping, sneezing
- Swollen heads—around eyes, combs, wattles
- Bruised looking combs, wattles, legs
- Mis-shapen, thin shelled eggs
- Neurological signs (torticollis, ataxia, etc.)

See any of these, call us!

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## The End



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