HPAI in Washington State 2014-2015...and Beyond?

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A Map of Washington State

(Or, HPAI in Washington, November, 2014)
December 1, 2014:
HPAI H5N2 Reported in the Fraser Valley, British Columbia

- A commercial turkey flock and a broiler operation found positive for HPAI H5N2.
- 12 flocks found H5N2 positive over the following 3 weeks.
- **February 6, 2015 - A backyard flock HPAI H5N1 positive near Chilliwack, B.C.**
December 8, 2014

High-Risk Surveillance Zone - Northern Whatcom County
December 8, 2014:
First Documentation of HPAI in Washington

- HPAI H5N8 was isolated from three Gyrfalcons.
  - Owner reported death of four Gyrfalcons fed wild duck meat.
  - The premises was quarantined
  - Subsequent testing of birds and environmental swabs found negative

- HPAI H5N2 was isolated from Pin-Tail Duck
  - WA State Fish and Wildlife reported a duck die off in Wiser Lake area
  - One pintail duck tested positive for H5N2
  - Die off actually determined to be due to Aspergillosis
High-Risk Surveillance Zone Established in Northern Whatcom County Washington
Approximately 50 residents of Whatcom County and surrounding areas attended our town hall meeting.
January 3, 2015:
Benton County - First Domestic Poultry HPAI Positive

- HPAI H5N2 was isolated from backyard flock in Benton County
  - Reported the death of turkeys, chickens and one goose.
  - Sampled New Year’s Eve, confirmed H5-positive on January 1, 2015
  - There had been active commingling of domestic birds with wild waterfowl.
  - Flock was depopulated on 1/5/15, C&D completed 1/9/15
January 6, 2015
Second Benton County Infected Premises

• The IP owner disclosed days later that a large number of domestic ducks had been moved to another property.

• Due to epi link with IP and positive results for AI matrix and H5 tests, this second flock was depopulated on January 6, 2015. HPAI H5N2 was isolated from this contact premises.

• Because of the nature of the property, it was decided to allow a fallow period rather than perform C&D.
January 16, 2015:
Clallam County - Domestic Flock Positive for HPAI

- HPAI H5N2 was isolated from a backyard domestic flock
  - The owner of about 120 geese, ducks and chickens reported the death of a single Sebastopol goose.
  - By the time HPAI H5N2 was confirmed, only one additional goose and one chicken dead.
  - The flock was depopulated on January 18, 2015.
January 29, 2015:
Okanogan County – Gamebird Farm Positive for HPAI

- HPAI H5N2 was isolated from a gamebird farm.
  - The owner had pheasants, mallard ducks, geese, partridges, and chickens.
  - Reported death of 40 pheasants and 12/12 turkeys over 1 week.
  - The depopulation of approx. 3500 birds was done on February 3, 2015.
February 3, 2015:
Second Okanogan County Flock HPAI Positive

- HPAI H5N2 was isolated from a small backyard mixed flock.
  - The backyard mixed flock owner reported the death of 40 of 70 chickens in a little over a week.
  - The flock was depopulated on February 4, 2015.
Okanogan County Quarantine Zone #2
Surveillance in Quarantine Zones

Active Surveillance (3 km)
- Door-to-door canvassing of all premises and sampling as allowed by owners. HPAI info sheets distributed.

Passive Surveillance (10 km)
- Volunteer flocks from outreach activities and previously identified high-risk flocks, trace flocks, etc.
- Sampling of sick/dead birds as they are reported.
SOP for Release of Quarantine Zones

• Requirements to lift quarantine zone
  ▪ Surveillance deemed adequate by USDA and international trading partners.
  ▪ 21 days post-depopulation of positive premises IF no additional positives found in quarantine zone.

• Quarantines Lifted to Date – All lifted after 21 days
  ▪ Benton County/Franklin County quarantine lifted January 27, 2015.
  ▪ Clallam County quarantine lifted February 10, 2015.
  ▪ Okanogan County quarantines lifted February 25, 2015
Additional Surveillance Efforts in Washington

• Commercial operations were asked to submit samples from all mortalities on a daily basis.

• Samples were taken from poultry on each sale day at all livestock markets in the state that sell poultry.

• Increased sampling was done on existing high-risk flocks in Whatcom County high-risk zone.

• Sampling was done on the majority of reported cases of sick or dead domestic birds.
Unified Federal and State Response

- WSDA AND USDA personnel have conducted depopulation, disposal, cleaning/disinfection.
- USDA and WSDA personnel performed active surveillance in the infected zones.
- WSDA, WDFW and USDA personnel responded to sick and dead bird reports.
- WSDA has conducted surveillance sampling at livestock markets.
- WSDA has conducted ongoing sampling of high-risk program flocks.
- NVSL, WADDL and AHFSL have conducted all of the AI testing.

Veterinary Services

- WSDA
- WADDL
- AHFSL
- NVSL
- USDA
Potential Pathways of Avian Influenza
Introduction from Asia to North America
Pacific Flyway System Extends Into North America

- States with confirmed HPAI cases (domestic or wild birds)
Genetic Reassortment in Avian Influenza

- HPAI H5N8 has circulated in Asia and Europe for several years.
- H5N8 virus in North America is genetically identical to the Eurasian strain.
- The H5N8 strain shares some genetic material with Asian H5N1, but it has not been found to have caused human illness at this time.
- The H5N2 and H5N1 strains found in North America are from genetic reassortment of Eurasian H5N8 and existing North American LPAI strains.
- The H5N1 found in North America is genetically different and distinct from the Asian H5N1.
- USDA views this H5N1 found in North American to be of low zoonotic risk.
Effect on the Commercial Poultry Industry

- Over 30 countries have placed partial or full restrictions on the importation of WA poultry and poultry products.

- Several Asian countries have banned shipments of poultry and poultry products from states in the U.S. with HPAI
  
  - Some will not even accept poultry or poultry products shipped through those states.
  
  - Day-old chick producer who ships to British Columbia has had to euthanize over 30,000 chicks due to Canadian restrictions.

- California, Minnesota and Missouri have now had commercial facilities found positive. Trade restrictions likely to increase.

- Will things change now that we have HPAI on both sides of the Pacific??
WSDA Expenditures During the HPAI Outbreak to Date

- WSDA tracks our employees’ time – added a category for HPAI response
- USDA allowed WA to spend CA funds on the response
- WSDA has spent approximately $145,000 in employee costs, vehicle costs, per diem/lodging and equipment/supply purchases
- Our agency costs would have been MUCH greater had USDA not agreed to pay for laboratory testing

- There were over 1900 AI matrix tests and 75 H5/H7 tests run on domestic bird samples submitted to the WA lab system from the state of Washington
Problems Encountered in Establishing Quarantine Zones in Washington

• USDA expects movement controls within 12 hours of confirmation of a positive flock – WA regulatory wording only allows us to quarantine individual premises – Issuing of emergency rules

• Mapping the quarantine zones in a timely fashion – first map took over 3 days to complete – establishing geopolitical boundaries on the maps

• Placing tribal lands under quarantine
  - mapping error with potentially serious repercussions

• Working with tribal officials to get movement restrictions and sampling done to mirror the USDA/state efforts
Additional Issues - Euthanasia

- Logistics of euthanasia
- Plan ahead, have equipment and supplies ready and functional
- Indemnity process precedes depopulation - $ for live birds only
- Delay in depopulation – costs producer $$

Depopulation


Public Perceptions
Issues Surrounding Disposal of Carcasses

• Burial
  o Environmental concerns
  o Shallow water table
  o Adequate carcass breakdown?
  o Season
  o Type of ground
• Landfill
  o Is facility approved for carcass disposal?
  o Will they accept diseased carcasses?
  o Scavengers – disease spread?
• Composting on-site
  o Environmental concerns
  o Willingness of producer
  o Availability of materials (carbon)
  o Ag-Bags?
• Burning
  o Environmental concerns
  o Materials (carbon, air curtain burner)
• Digester
  o Availability
• Incineration
  o Availability
• Rendering

Goals of Carcass Disposal

• Fulfills regulations
• Creates positive public perception
• Reduces diseased transmission
• Promotes environmental sustainability
• Produces beneficial by-product
• Economical
• Practical
Interagency Messaging Issues

• Messaging on zoonotic potential – WSDA vs. DOH/CDC
  o DOH representative on WSDA situation calls
  o Information not reaching DOH Influenza Specialist
  o Inconsistencies in messaging between agencies
  o Independent contact of owner of infected flock by DOH
  o Impact of reported H5N1 in wild waterfowl in WA

• Other agencies involved in public messaging
  o PIOs invaluable for coordinating messages
  o Extension Service – meetings in Okanogan County
  o BEWARE OF MIXED MESSAGES!
    - the public WILL catch your mistakes
Problems Associated with Time and Stress

• New State Veterinarian
• Time demands – email overload, interviews, conference calls, meetings
• STRESS – on flock owners, commercial producers, regulatory officials, laboratory personnel
I DON'T KNOW THE KEY TO SUCCESS, BUT THE KEY TO FAILURE IS TRYING TO PLEASE EVERYBODY.
Questions?