Poultry Owners: Batten Down the Hatches Against Influenza

With the COVID-19 pandemic, we all can understand how it feels to be cooped up. The only thing worse than a human health pandemic is having an animal health pandemic with zoonotic potential at the same time! Informed poultry owners always have concerns about avian influenza in the back of their minds. Due to the amount and locations of highly pathogenic avian influenza (HPAI) currently active around the globe, it is more important than ever for U.S. poultry caretakers to have and implement effective biosecurity farm plans.

The World Organisation for Animal Health (OIE) reports ongoing HPAI outbreaks in 26 countries across Asia, Europe, and the Middle East. The USDA Animal and Plant Health Inspection Service recently reported the current rates of HPAI in Asia and Europe are similar to the rates in 2014-2015, when HPAI was identified in the U.S., including Washington State. This pattern suggests the risk of HPAI showing up in the U.S. is likely, so enhanced biosecurity measures should be implemented NOW to reduce your birds’ risk of infection.

How does avian influenza spread?
Birds ingest or inhale the virus. Ingestion can be through feed or water contaminated by wild waterfowl or activities of rodents, flies, humans, etc. that move the virus around. Infected birds exhale the virus and contaminate the air and surfaces, putting other birds at risk.

Signs of avian influenza
- Comb, wattle, and/or leg discoloration
- Swollen eye tissues, comb, or wattles
- Eye discharge
- Difficulty breathing
- Ruffled feathers
- Decreased appetite
- Lethargy
- Decreased egg production
- Depression
- Sudden death

Why are we so concerned about avian influenza?
The HPAI virus is always circulating somewhere around the globe. It is carried by wild waterfowl, which are usually not affected by it. They discharge the virus in their feces, contaminating water, soil, and other environmental surfaces. Migratory flyways for waterfowl are at greatest risk of such transmission; Washington State is part of one of these flyways, so risk is elevated in the state (see graphic below).
The virus spreads rapidly in poultry environments and either kills or necessitates euthanasia of all birds on a premises to contain an outbreak. Infection of commercial operations can cost millions of dollars in lost birds and containment costs.

Investigation of past outbreaks revealed human exposures were due to caretakers not wearing personal protective equipment (gloves, masks, coveralls, boots) when collecting eggs, feeding birds, cleaning bird facilities, touching or butchering infected birds, removing dead birds, or otherwise being in close contact with infected birds or environments. Humans exposed to the HPAI virus can then transport it to other farms, thereby expanding the outbreak.

**HPAI: A public health concern**
Avian influenza is also sometimes a human health concern. The virus is constantly mutating, and some versions affect humans; the same is true for swine influenza. In a worst-case scenario, the human, swine, and avian influenza viruses could all be present in one of those species at the same time. The viruses could exchange genes, and the subsequent mutation could be highly contagious between people as well as deadly. This is why poultry and swine should not have contact, and humans should avoid contact with animals when sick, especially with influenza.

**U.S. avian influenza surveillance and response efforts**
To protect poultry health and the $40B poultry industry, jobs, local and national economies, and food supply, the USDA routinely monitors chickens in every state for avian influenza. Rapid identification of and response to infection is critical for effective containment of an outbreak, which minimizes the number of birds lost and resultant economic damage. Cooperation between local/state/federal government and industry,
improved detection methods, and enhanced response measures over time are all geared to reduce the impact of an outbreak. For example, the 2020 HPAI outbreak in South Carolina was detected quickly and contained to one farm.

What can YOU do to protect your birds’ health?
Investigation of the 2014-15 outbreaks revealed there were only two sources of infection in the Midwest, meaning all other infections were due to biosecurity breaches. Biosecurity measures reduce the risk of disease agents entering or spreading on your property. Make these actions habits on your farm:

- Do not let birds roam; coop them up to reduce viral exposure
- Prevent visitors, especially those with contact with other birds
- Establish gates and signage stating “No Entry” or other statements to control access
- Keep a closed flock, if possible
- Quarantine new or returning birds for 30 days and monitor for signs of illness
- If buying/selling birds or eggs, meet buyers/sellers away from your farm
- Do not share equipment with others
- Control vermin, wild birds, flies, wildlife, and pets in bird area
- Wash your hands with soap and water before and after contacting poultry
- Provide disposable boot covers and/or footwear disinfectant for anyone having contact with your flock
- Have farm-specific clothing and footwear; clean and disinfect after use
- Clean and disinfect tools or equipment before and after use, including vehicles
- Avoid contact with birds if you are sick
- Do not allow contact between poultry and swine
- Prevent poultry contact with land or water frequented by wild waterfowl
- Know and watch for the warning signs of infectious bird diseases
- Isolate and treat or cull sick birds ASAP
- Keep up to date regarding the presence of poultry diseases in your area
- Get a human flu vaccination every year
- Report sick birds to your veterinarian, Extension office, or state veterinarian. USDA can be reached toll-free at (866) 536-7593. WSDA can be reached via ahealth@agr.wa.gov, (360) 902-1878, or (800) 942-1035 after hours

For more info
- https://www.cdc.gov/flu/avianflu/

To disinfect footwear: remove all droppings, mud, or debris from boots and shoes with a scrub brush, wash footwear with soap and water, rinse, then apply an effective disinfectant for the contact time specified on the label.