

- **HPAI Background**

- High Path Avian Influenza (HPAI) virus is a respiratory disease (bird flu) that can infect chickens, ducks, quail, pheasants, turkeys and some wild bird species. It is extremely infectious and spreads rapidly with often fatal results to domestic poultry.
- From December 2014 to June 2015, HPAI had been detected in 21 states and was within 150 miles of Pennsylvania. It is carried by migratory water fowl that excrete it into the environment. Once in the landscape, it can be spread by the wind, clothing, equipment, vehicles, insects, rodents, etc. The colder temperatures of fall, winter, or spring are likely to cause a resurgence in the virus.

- **Potential Impact to the Poultry Industry and the Commonwealth**

- 53,500 jobs with \$3.2 billion in employee wages.
- \$13 billion economic impact with an estimated 64.7 million total poultry (2012 census) inventory.

- **Terminology**

- Poultry Production Areas – areas such as the poultry house or where close contact to birds is a possibility.
- Infected Zone (IZ) – at least 3 kilometer (1.86 mile) perimeter to extend from infected premises.
- Buffer Zone (BZ) – at least 7 kilometer (4.35 mile) perimeter beyond infected zone to surround infected zone.
- Control Zone = (IZ + BZ) – a 10 kilometer perimeter that is subject to change depending on outbreak circumstances.
- Flock plan – every farm should have a plan that describes how that farm plans to conduct depopulation and disposal activities.
 - Depopulation, Disposal and Disinfection (3D)
 - A depopulation method for “floor” birds is the use of high or medium expansion foam in a poultry house.
 - Foaming operations require between 3-5,000 gallons of water per house.
 - A depopulation method for multiple-floor egg laying operations is the use of CO2 gas.
 - Stringent biosecurity is the best safeguard the poultry industry can employ to defend itself from HPAI.

- **Pre-Event Biosecurity Measures for Local Responders (Day-to-Day Best Practices)**

- While PA is in a heightened state of biosecurity for HPAI, limit poultry farm visits unless necessary, and avoid poultry production areas completely. If you must enter, do not visit more than one poultry premises per day.
- Avoid entering a poultry premises for at least 72 hours after hunting or walking in waterfowl or gamebird areas.
- Be aware of site “biosecurity recommendations”, such as posted signs or notices before entering any poultry premises.



Fire Service and Avian Flu

- If entering, boot covers or booties are preferred.
 - Ensure footwear and vehicle tires are disinfected before leaving. If no means are available to clean vehicle tires on site, clean at first available opportunity.
 - Responders should refrain from coming in contact with poultry where possible.
 - Always shower between any exposure to wildlife or wildlife habitat and any entrance onto a poultry facility.
- **Emergency Biosecurity Measures for Local Responders**
 - Avoid parking in high dust areas. Paved areas free of dirt or soil away from poultry areas are recommended. Avoid areas near or in front of ventilation fans.
 - If visiting a poultry premises, but poultry is in a completely separate area that can be avoided, wearing boots and clean clothing to enter the non-poultry areas is sufficient. Ensure boots and tires are disinfected before entering and leaving the property and if wearing plastic or Tyvek booties, place them in a garbage bag for disposal on-site.
 - If close contact with poultry is made, properly disinfect before leaving property. If necessary, bag clothes and change into clean clothes before departing. If you cannot change, launder clothes ASAP after departure.
- **Suggested Decontamination Methods**
 - A 1:10 part Clorox to water solution is adequate for disinfecting footwear and tires (scrub brush, water spray bottle, rinse bottle is sufficient).
 - Other disinfectants such as Synergy and Virkon can be used to decontaminate tires and equipment.
 - If possible, don/doff PPE such as Tyvek coveralls, booties, nitrile or latex gloves and bouffant cap before entering poultry production areas. Do off all PPE and leave it with the property owner.
 - If a quarantined premise is entered, cleaning and disinfecting of personnel and equipment needs to occur before exiting site. A decon station will assist with personnel and equipment. Contact PDA for information before entering a quarantined premise.
 - Do not handle wild birds that are obviously sick or found dead.
- **Who is the Lead Agency for an HPAI outbreak?**
 - Pennsylvania Department of Agriculture (PDA) and the USDA Animal Plant Health Inspection Services (APHIS).
 - PDA and USDA will initiate an Incident Command System (ICS) with logistical support and will work in coordination with the State Emergency Operations Center (SEOC) and affected counties.
- **What is the Potential Fire Department Role During a HPAI Response?**
 - May need local fire assistance as a water source for foaming and cleaning & disinfection activities.
 - May need law enforcement or fire police for traffic control, in limited instances.
 - Local responders should keep detailed records of any related responses, requests, etc.
 - If a fire occurs within the infected zone, extinguish the fire and decontaminate equipment/apparatus.
 - For additional information, please contact the Pennsylvania State Fire Academy or the Pennsylvania Department of Agriculture (PDA).