

Avian Influenza

Poultry – Turkey or Chickens



Avian Influenza

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List of Hazards

Infected livestock, biological contaminated materials, Avian influenza virus and dusts, gases (e.g. ammonia), cleaning and disinfecting compounds, composted animals, mental health

PPE

- Respirator
 - Half or Full Face with Particulate Filters
- Safety Glasses
- Rubber Gloves
- Rubber Boots
- Coveralls

Things to Remember

- ▶ Working in affected poultry facilities involves exposures to dust (including the influenza virus), toxic gases, and disinfecting chemicals. Different types of respiratory protection may be needed for all of these exposures.
- ▶ Ammonia levels may be high during manure and litter removal, building clean-out, and composting of carcasses and litter.
- ▶ Know how to properly put on and remove PPE to prevent incidental exposures.
- ▶ All PPE will need to be disposed or disinfected after each use.

Flood



Flood



List of Hazards

Mold/mildew, unstable land surfaces, chemical residues, chemical spills, electrocution, carbon monoxide, mental health

PPE

- Respirator
 - N95
 - Half or Full Face with Particulate Filters
- Safety Glasses
- Rubber Gloves
- Rubber Boots

Things to Remember

- ▶ Have an evacuation and Emergency Action Plan ready.
- ▶ Flood waters can carry chemicals, debris, microorganisms. Moisture can lead to the development of favorable conditions for mold and mildew growth on building surfaces and in HVAC systems.
- ▶ Electrical outages are common, so workers may rely on of gas powered generators, which can generate high and dangerous levels of carbon monoxide in enclosed spaces.
- ▶ During flood events, electrical services and gas-powered equipment can malfunction. Agricultural workers should be aware of any potential electrical hazards.
- ▶ Floods can be devastating. Agricultural workers are at high risk for stress and other mental health issues during or after floods. Symptoms can last months or even years. Check in with your neighbors.

Drought



Drought



List of Hazards

Poor air quality, increased risk of wildfires and dust storms, Valley Fever fungus, mental health

PPE

- Respirator
 - N95
- Safety Glasses

Things to Remember

- ▶ Drought conditions can increase risk of dust storms and wildfires.
- ▶ During severe drought, pay attention to the local Air Quality Index. Poor air quality can worsen chronic respiratory illnesses.
- ▶ In drought conditions, fire prevention should be prioritized and discussed often.
- ▶ Workers disturbing soil may be at risk for Valley Fever, which may be linked to drought and rainy season cycles. Proper controls should be taken to reduce exposure to dust.

Chemicals in Storage



Chemicals in Storage



List of Hazards

Chemicals, gases/vapors, slippery surfaces

PPE

- Respirator
 - N95
 - Half or Full Face with Particulate Filters and Gas/Vapor Filters
- Safety Glasses or Goggles
- Rubber Gloves
- Rubber Boots
- Coveralls

Things to Remember

- ▶ An Emergency Action Plan should include information on buildings and location of chemical storage (e.g., pesticides, anhydrous ammonia) for first responders.
- ▶ All agricultural workers should be informed how to clean up a chemical spill or who to notify in case of a spill.
- ▶ All agricultural workers on site should have quick access to Safety Data Sheets, which contain important information on PPE and other protective measures.
- ▶ When handling agrichemicals, it is important to read the label to identify the appropriate PPE, since PPE types vary among different compounds.

Wildfire Smoke



Wildfire Smoke



List of Hazards

Smoke and ash, chemical residues, burned debris, mental health

PPE

- Respirator
 - N95
 - Half or Full Face with Particulate Filters
- Safety Glasses

Things to Remember

- ▶ Stay tuned to local media (radio, TV) for information from local officials and updates to the Air Quality Index.
- ▶ Have an Emergency Action Plan and evacuation plan ready if a wildfire is nearby.
- ▶ There are several ways to prep the field before a wildfire, including storing combustible supplies off site and clearing safe zones free of vegetation around machinery and fuel tanks.
- ▶ Workers and owners are at high risk for stress and other mental health issues during or after wildfires. Check in with your neighbors.

African Swine Fever



African Swine Fever



List of Hazards

Infected livestock, biological contaminated materials, dust, composted animals, mental health

PPE

- Respirator
 - Full Face with Particulate Filters and Gas/Vapor Filters
- Rubber Gloves
- Rubber Boots
- Coveralls

Things to Remember

- ▶ Following appropriate biosecurity measures on the farm may lessen the impact or likelihood of ASF.
- ▶ Because ASF-infected animals can spread the virus 2 days before actual symptoms develop, it is important to keep all bedding, feed, and suspected infected animals (live or slaughters) contained.
- ▶ Know how to properly put on and remove PPE to prevent incidental exposures.
- ▶ All PPE will need to be disposed or disinfected after each use.

Slippery Floors



Slippery Floors



List of Hazards

Wet floors, icy/snow-covered surfaces, surfaces covered in sand or gravel

PPE

- Rubber Boots with Grip
- Ice Traction Cramp-Ons/Spikes

Things to Remember

- ▶ Slips, trips, and falls are one of the most common causes of injury in agriculture.
- ▶ Always clean up a spill immediately.
- ▶ If you feel uncomfortable in a slippery environment, notify someone immediately.
- ▶ Flooding, snow/ice storms, or other extreme weather events can significantly increase this hazard.

Earthquake



Earthquake



List of Hazards

Struck or crushed by structures/furnishings, fires, electrocution, chemicals

PPE

- Wear appropriate PPE based on the hazard. This could include respirator, safety glasses, hard hat, or other PPE.

Things to Remember

- ▶ Workers should be notified of "safe places" prior to an event. This may be near an interior wall, away from furnishings (if indoors) and away from unstable structures or large machinery (if outdoors).
- ▶ All workers on the farm or ranch should be trained on what to do in the event of an earthquake. Proper knowledge and training reduces anxiety and poor decision making during the emergency.
- ▶ Aftershocks are common after a large earthquake event.
- ▶ Never assume agricultural buildings are code compliant. Workers should not enter an affected building after an earthquake event until it has been properly inspected.

Emergency Stop/Shut Down

Lock Out Tag Out



Emergency Stop/Shut Down

Lock Out Tag Out



List of Hazards

Electrocution, pinching/crushing, engulfment, other hazards may be present if machine is not properly shut down

PPE

- Wear appropriate PPE based on the hazard. This could include respirator, safety glasses, work gloves, or other PPE.

Things to Remember

- ▶ Emergency stops or shut down buttons should be clearly labeled and accessible to all workers.
- ▶ Each year, the emergency stop should be inspected, and regular tests should be performed to make sure the stop works.
- ▶ Instruct all workers and family members on how to stop or shut off the equipment.
- ▶ If there is a large machine or system with no Emergency Stop button, notify a supervisor immediately.

Machinery



Machinery



List of Hazards

Noise

PPE

- Non-skid Shoes
- Safety Glasses
- Gloves
- Hearing Protection

Things to Remember

- ▶ Always read the manual and be trained on a piece of equipment before using it.
- ▶ Never remove protective guards or screens from machinery while it is operating.
- ▶ Know how to use the Emergency Stop function and turn off the machine before making repairs or doing maintenance.
- ▶ Identify where other workers, children, and animals are located before you drive the vehicle or use the machine.
- ▶ Take your time when operating large equipment. Working in a rushed manner will only increase chances of being injured.

Manure/Slurry



Manure/Slurry



List of Hazards

Gases, biological contaminated materials, dust

PPE

- Respirator
 - Half or Full Face with Gas/Vapor Filters
 - Supplied Air Respirator
- Safety Glasses or Goggles
- Rubber Gloves
- Rubber Boots
- Coveralls

Things to Remember

- ▶ Use warning signs to inform workers and visitors about potential deadly gasses near slurry facilities.
- ▶ Using appropriate gas detectors for hydrogen sulfide and oxygen levels can save lives.
- ▶ Air monitors must be tested with each use and adequately maintained.
- ▶ Gas hazards may be presented in manure storage, during pumping and mixing, field application, and even during pressure washing.