DEPARTMENT OF AGRICULTURE
COMMONWEALTH OF PENNSYLVANIA

AVIAN INFLUENZA RESPONSE PLAN

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2005
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I. INTRODUCTION

A. Purpose

1. The purpose of this document is to describe the basic procedures for addressing the potential or actual presence of Avian Influenza (AI) in poultry in the Commonwealth of Pennsylvania. This document includes the following components with respect to potential and actual outbreaks: prevention, preparation, response, and recovery. The objective is to minimize the impact of a potential or actual outbreak of AI on animal and public health and the state and national economy.

2. This document is intended as a general reference, and shall not be construed to limit the statutory or regulatory authority of the Pennsylvania Department of Agriculture to take actions, issue orders or impose requirements that are not specified in this document or that vary from the general guidance provided by this document. The Pennsylvania Department of Agriculture shall not be obligated to use this plan or impose standards or protocols set forth in this plan if it determines other protocols or standards are more appropriate in a given situation.

B. Scope of Operation

1. This document was developed by the Pennsylvania Department of Agriculture Bureau of Animal Health and Diagnostic Services and provides guidance to state and local government agencies, other support agencies/organizations, and the agriculture industry.

2. Operations discussed in this document are aimed at detecting, containing, and eliminating Avian Influenza in poultry.

C. Levels of Activation

The Department of Agriculture, in cooperation with the Pennsylvania Emergency Management Agency (PEMA), has developed four levels of activation for coordination of multiple agencies in the event of a highly contagious disease, foreign animal disease, or zoonotic disease requiring assistance/input from other agencies in the Commonwealth. Depending upon the subtype and pathogenicity of the AI virus involved in an outbreak, the Department of Agriculture may require assistance/input from other agencies. PEMA may be asked to act as a coordinating agency in such an event.

❖ LEVEL 4 – Possible but not Likely

Definition: PDA has been alerted to a possible case of High Path AI/Zoonotic AI. PDA notifies USDA, PEMA and the Pennsylvania Department of Health.
LEVEL 3 – Likely
Definition: There has been no case of High Path AI/Zoonotic AI diagnosed in the United States, but a premise is under investigation and High Path/Zoonotic AI is suspected. PDA notifies USDA, PEMA, the Pennsylvania Department of Health, and surrounding state veterinarians.

LEVEL 2 – Highly likely
Definition: A flock has been quarantined because of a high suspicion of High Path AI/Zoonotic AI. High Path AI/Zoonotic AI may have been confirmed outside of Pennsylvania, but in the United States. All contacts are notified of the situation.

LEVEL 1 – Confirmed
Definition: The laboratory has confirmed a diagnosis of High Path AI/Zoonotic AI. All contacts are notified of the situation.

II. SITUATION
A. Avian Influenza

AI, like other highly contagious diseases of livestock and poultry, has the potential for rapid spread between birds and between flocks and farms. Certain subtypes, especially H5, H7, or other subtypes that have serious animal/public health implications, and/or highly pathogenic AI, can have serious economic and public health consequences and are of major importance in international trade of animals and animal products. Transmission can occur through direct and indirect modes. The discovery of AI requires rapid response to contain, through quarantine and movement control, and eliminate, through testing and depopulation of infected and dangerous contact animals, the disease agent.

The Office of International Epizootics (OIE) has developed a list of transmissible diseases that have the potential for very serious and rapid spread, irrespective of national borders, that are of serious socio-economic or public health consequence and that are of major importance in the international trade of animals and animal products. Diseases on this list are known as “List A” diseases. Highly Pathogenic AI is included on the “A” list.

B. Poultry Industry in Pennsylvania

The most recent agricultural statistics survey (2002) reports that the combined value of Pennsylvania’s poultry production from broilers, eggs, and turkeys, plus the value of chicken sales, totals approximately $597 million. Pennsylvania was rated third in egg production.
C. Public Health Issues

Many disease agents that affect animals are zoonotic and are capable of causing disease and death in humans. This leads to a public health factor above and beyond safety of the food supply - human illness and death could occur as a direct result of animal-to-human transmission. (The H5N1 subtype of Avian Influenza has recently caused human disease and death in Asia in addition to the mass culling of millions of poultry). In the event that a zoonotic subtype is identified in Pennsylvania, the Department of Agriculture will work closely with the Department of Health to protect public health and the health of response personnel while eliminating the disease in poultry as rapidly as possible. The Pennsylvania Department of Health has developed a Poultry Worker Protection Plan for Avian Influenza in Pennsylvania (refer to the Appendix of this document).

III. MISSION

A. Mission Statement

It is the mission of the Department of Agriculture to protect Pennsylvania agriculture, public health, and the general economic health of the Commonwealth.

B. Goals and Objectives

The mission will be carried out through development and implementation of plans that will encompass four areas:

i. Prevent the introduction and/or spread of a Avian Influenza in the Commonwealth.

ii. Prepare for rapid and coordinated response to Avian Influenza in the Commonwealth.

iii. Respond to the presence of Avian Influenza to minimize the spread of disease and to eliminate the disease with minimal loss of animals and economic disruption. (through testing, quarantine, and depopulation as necessary).

iv. Recover from the economic impact of Avian Influenza on Pennsylvania’s poultry industry and allied industries.

C. Statutes and Regulations

i. Domestic Animal Act of 1996: Allows the Secretary of Agriculture to designate a disease as “dangerous and transmissible”, thus giving the Pennsylvania Department of Agriculture the authority to regulate this disease under the act.
ii. USDA APHIS TITLE 9—Animals and Animal Products (9CFR53.2)

iii. Solid Waste Management Act, PA Department of Environmental Protection

IV. ORGANIZATION

A. Direction and Control

i. The Secretary of Agriculture, the State Veterinarian, and the USDA Area Veterinarian in Charge (AVIC) will jointly provide direction and leadership during an outbreak of Avian Influenza to the extent of each authority.

ii. Poultry disease experts from the PADLS laboratories, Penn State University, and the University of Pennsylvania, in addition to members of the Commonwealth’s poultry industry, have been involved in development and revision of the AI protocols included in the appendix to this plan. Their input will be sought as necessary throughout the response to an outbreak of AI in the Commonwealth.

iii. Collection of samples for testing will be coordinated by the Department of Agriculture. University personnel may assist the Department with sample collection.

iv. Testing of samples will be done at the Pennsylvania Animal Diagnostic Laboratory System (PADLS) laboratories. Additional confirmatory testing/subtyping will be done at the National Veterinary Laboratory Services laboratory (NVSL) in Ames, Iowa.

v. If criminal activity is suspected, officials will notify state and/or local law enforcement.

vi. If terrorist activity is suspected, officials will notify the FBI.

B. Incident Management

The Pennsylvania Department of Agriculture has adopted the Incident Management System for emergency response, which will be utilized within the Department and the Bureau of Animal Health to respond to an outbreak of Avian Influenza in the Commonwealth. The Bureau of Animal Health and Diagnostic Services Incident Management flow chart will be modified as necessary to allow the most efficient response to an outbreak of AI and may utilize personnel from other departments, agencies, and organizations, including universities.

C. Premises Identification and Geographic Information Systems (GIS)

Epidemiological investigation is an integral part of any response. The ability to rapidly identify an infected flock, trace its origin and movements,
and identify contact animals, is vital to an effective response and containment of disease. The Department of Agriculture will utilize all available information, including Global Positioning System (GPS) coordinates and mapping, to identify poultry premises located within quarantine zones. This information will allow the Department to notify poultry owners of recommended enhanced biosecurity measures, in addition to testing requirements and animal movement restrictions. The locations and/or names of premises involved will not be released to the public. However, posted quarantines are public information.

V. CONCEPT OF OPERATIONS

A. Prevention (reducing the risk of the introduction and/or spread of AI):

Reducing the risk of the introduction and/or spread of a AI in the Commonwealth is a cooperative effort and is dependent upon interaction between the Department of Agriculture, poultry disease experts at the universities and the PADLS laboratories, and the Commonwealth’s poultry industry representatives. Prevention is maximized through a combination of biosecurity, importation requirements, and surveillance testing.

B. Preparation (for identifying, containing, and eliminating AI in the Commonwealth):

Preparing for AI in the Commonwealth requires development of response plans and partnerships with other agencies, organizations, and individuals, as well as training in Incident Management, Personal Protection Equipment (PPE), recognition of disease, and response. Preparation also requires rapid and accurate diagnostic capabilities at the PADLS laboratories and the National Veterinary Services Laboratory, and capabilities/plans for rapid communication between partners.

C. Response (to an incident of AI in the Commonwealth):

i. Communications

Response to an incident of AI in the Commonwealth involves rapid and accurate communications with partners and stakeholders as well as rapid and accurate diagnosis, containment, and elimination of the virus. When a PADLS laboratory identifies AI, a laboratory representative notifies the Bureau. The Bureau notifies USDA and alerts the industry through primary contacts in the PennAg Poultry Council. State Veterinarians in surrounding states may also be notified. If the Bureau determines that the outbreak is going to require assistance from other agencies, PEMA may be notified and the levels of response for a highly contagious disease may be implemented. If the Bureau determines that the outbreak involves a subtype that has serious implications to public health, the Pennsylvania Department of Health will also be notified.
ii. Response Plan Execution

The strategy for dealing with AI may vary depending upon the virus subtype and industry sector involved. Therefore, rapid and accurate diagnosis is imperative. H5, H7, and other subtypes which pose a serious threat to animal and/or human health will, in most circumstances, be handled differently than other subtypes. Highly pathogenic AI may be handled differently than low pathogenic AI.

a. Quarantine and movement control

Authority to Quarantine

State and Federal regulatory officials have authority to impose quarantines or hold orders. Generally, State quarantines are imposed on individual flocks and premises when AI is suspected. State quarantines are used to control intrastate movements. Federal quarantines are used to stop interstate movement of poultry. Both Federal and State quarantines may be used simultaneously.

Quarantine Zones

In all cases, the initial response to the identification of AI in the Commonwealth is quarantine and movement control, and may be followed by depopulation and disposal of infected and exposed poultry, and disposal of contaminated products and materials, on infected and dangerous contact premises. The initial quarantine zones will include a 2-mile “infected or high risk zone”, and a 5-mile “surveillance zone or general quarantine area” surrounding the infected premise(s). The size of these zones may be altered to allow reasonable geographical boundaries. The size of the zones is also subject to change as determined by the Department of Agriculture in cooperation with USDA to allow rapid and efficient containment and elimination of the virus.

b. Epidemiology/tracing

Epidemiologists will gain an understanding of the characteristics of the disease, identify risk factors, provide information to authorities on control measures, and monitor the effectiveness of implemented control measures. The standard surveillance plan may be modified for each situation.

Epidemiologists will conduct rapid trace back and trace forward investigations of all infected and potential contact (exposed) flocks to identify the origin of disease and identify all infected and exposed flocks. Tracing will include all movements to and
from premises under investigation, including movement of susceptible and non-susceptible animals, products, equipment, vehicles, and people. The actual index premises will be identified if possible.

Wildlife and other vectors, both mechanical and biological, will be considered in the investigation.

c. Surveillance

Initial submission of samples for surveillance testing of flocks within the 2-mile quarantine zone will be required within 48 hours after the announcement from the Department of Agriculture. Initial samples required are tracheal/oropharyngeal or cloacal (waterfowl) swabs for virus detection testing (PCR/virus isolation). Initial swab samples will be replaced by blood samples as per the protocol.

Initial submission of samples for surveillance testing of flocks within the general quarantine area will be required within 72 hours after the announcement from the Department of Agriculture. Initial samples required are tracheal/oropharyngeal or cloacal (waterfowl) swabs for virus detection testing (PCR/virus isolation). Initial swab samples will be replaced by blood samples as per the protocol.

The option of leaving dead birds in leak-proof containers at the end of farm lanes for swabbing by government-authorized personnel may be offered. If swabbing (and/or blood sample collection) is done in-house, all samples must be collected by government-authorized personnel.

d. Biosecurity

Department of Agriculture, university, and other authorized personnel will follow strict biosecurity guidelines within quarantine zones and when entering and leaving a poultry premises to reduce the risk of spreading disease.

e. Personnel Safety

All personnel responding to contain and eradicate AI will be provided with proper personal protective equipment (PPE) and will be trained in the proper use of the equipment.

In the event of a zoonotic AI outbreak, only responders who have been trained in advanced PPE will be allowed to enter the area. Appropriate PPE and training will be provided to those who need it. The Department of Health will advise on issues of personnel safety in the event of a zoonotic AI outbreak.
f. Euthanasia

Euthanasia of condemned poultry must be carried out as rapidly and humanely as possible, using methods approved by the AVMA. Carbon dioxide is an option for poultry and certain livestock and has been used successfully in Pennsylvania to euthanize large numbers of poultry.

Euthanasia will be conducted on site to minimize the risk of spreading disease. The most appropriate method of euthanasia for each location must be determined with consideration of the following factors:

- Safety of personnel;
- Risk of spreading disease;
- Age/size of the birds;
- Environment and confinement capabilities;
- Requirement and availability of specialized equipment/training;
- Public perception/acceptance; and
- Environmental impact.

g. Disposal of Poultry and Products

Disposal of poultry carcasses, litter/manure, and other contaminated materials will be carried out as soon as possible. Disposal will be done in a manner that will minimize the risk of spreading disease and will have minimal negative impact on the environment.

Burial is often the preferred method of disposal of carcasses. Burial must be done in cooperation with DEP due to considerations of topography, soil type, water-table levels, etc. Burial is often done at landfills. For transport of carcasses to a landfill, carcasses must be contained in closed leak-proof vehicles which can be easily cleaned and disinfected. The vehicle must be built in such a way that leakage and aerosol dispersal during transport is prevented. USDA guidelines must be followed. The handling of the carcasses will be kept to a minimum and should not take place in windy conditions.

Other methods of disposal include:

- Rendering;
- Incineration;
- Composting;
- Chemical digestion; and
- Other options under investigation (PDA will continue to support investigation into other feasible disposal options).
h. Valuation/Indemnity

Poultry and products/materials that are condemned by the Department of Agriculture and destroyed as part of the disease eradication effort will be eligible for a fair market value appraisal for indemnification purposes. Cleaning and disinfection costs may be also be indemnified.

i. Strategic Vaccination

Vaccination may be considered as part of the AI eradication effort. Many factors must be considered before vaccination will be implemented, including availability, resources, trade and economic impact, etc. USDA will determine if vaccination is an option.

j. Wildlife Management

If it is determined that wildlife may play a role in the spread of disease, USDA Wildlife Services will lead wildlife surveillance and control.

Biosecurity guidelines, testing requirements for removal of quarantine and for movement purposes, surveillance testing requirements, and other requirements and recommendations are included in the AI protocols in the appendix of this document.

D. Recovery:

Recovery actions necessary following an AI outbreak will depend upon the extent of the outbreak, the subtype involved, and other factors. Basic recovery initiatives involve the following:

i. Partnerships with other agencies and organizations;
ii. Plan review and revision;
iii. Indemnification; and
iv. Restocking.
APPENDIX
Pennsylvania Department of Agriculture Biosecurity Guidelines for Department Personnel in Animal Disease Outbreak Situations

Specific biosecurity protocols in an outbreak situation will be determined by the nature of the disease involved in the outbreak. The following is meant to give a sense of heightened biosecurity procedures that may be required. In these situations, the Pennsylvania Department of Agriculture will develop specific guidance for officials, industry participants, and visitors.

Traffic Flow

- One entrance and exit site must be maintained at the premises, and strict security at that site must be maintained.
- Other entrances and exits must be closed.
- Equipment and supplies for cleaning and disinfection of personnel, equipment, and supplies must be maintained at the chosen site.
- Vehicles may be required to be parked off-premises.
- Vehicles that enter premises will be required to be cleaned and disinfected before exiting premises.
- Vehicles must be washed after leaving premises.
- Visiting multiple operations the same day may be prohibited.

Disinfection

Use of specific disinfectants and procedures may be required.

Protective Clothing

- Non-porous disposable coveralls, gloves, hair caps, face shields, respirators, etc could all be required depending on the nature of the disease outbreak.
- All items worn on premises must be removed and bagged before leaving the premises.
- Proper disposal is required.
- Street clothes are not to be worn on the premises. Any non-disposable clothing, such as that required during inclement weather, that is worn on the premises may only leave the premises after being soaked in an approved disinfectant for the required length of time, placed in a sealed container for transport, and then washed. Rubber boots must be scrubbed clean and disinfected before removal from premises.

Equipment

- Equipment must always be carefully cleaned and disinfected prior to use on a premises.
- Only necessary equipment that can be adequately cleaned and disinfected may be utilized.
• Equipment may be quarantined and confined to the operation where it was used for a period of time, or may require disposal, depending upon the nature of the disease outbreak.

End of Lane Swabbing

• If collecting samples from dead birds at the end of a farm lane, return birds to the container after sampling.
• All disposable clothing and equipment will be bagged and left on site for disposal with the birds.
• Other equipment and supplies will be cleaned and disinfected before leaving the premises.
Quarantined Flock: A flock that is under quarantine must meet PDA requirements and obtain permission prior to movement of poultry from that flock.

Quarantine Zone: A quarantine zone is a geographic area defined by the Department of Agriculture. Within this zone, movement of susceptible animals is restricted and is allowed by Pennsylvania Department of Agriculture permit only.

Infected Quarantine Zone: Area surrounding a known infected premises. Usually 2 miles in radius.

General Quarantine Area: Area surrounding the infected quarantine zone. Usually approximately 5 miles in radius for AI.

Epidemiological evidence of exposure: An epidemiological investigation reveals evidence that a flock of susceptible birds may have been exposed to AI. Methods of exposure include but not limited to direct exposure (bird to bird) and indirect exposure (via people, vehicles, etc).

Flock: For the purpose of these Pennsylvania Department of Agriculture Avian Influenza protocols, a flock is defined as all poultry in a poultry house, regardless of the number of floors in that house.
PROTOCOL #1: BIOSECURITY RECOMMENDATIONS FOR REDUCING THE RISK OF AVIAN INFLUENZA DURING AN OUTBREAK

1. Minimize social gatherings and visiting. Plan necessary gatherings to take place at a location where there is no poultry.

2. Avoid visiting farms that keep poultry/waterfowl/game birds.

3. Do not attend livestock auctions where poultry is sold.

4. Keep your poultry house(s) locked. Allow only essential personnel into your poultry house(s). Provide clean or disposable coveralls, head covers, and plastic boots or boots that can be cleaned and disinfected.

5. Before working with your own flock, put on clean clothing and footwear.

6. Do not share equipment or vehicles with other farms.

7. Change disinfectant foot baths daily. Place foot baths at outside entries to poultry house(s) and egg room(s).

8. Reduce traffic coming onto your premises.

9. Insist that vehicles and equipment entering your premises be cleaned and disinfected. (Personnel and equipment that have been in direct or indirect contact with the live bird markets pose a great risk).

10. Trucks from the Live Bird Market should not be going directly to any farm to load birds. It is recommended that birds are taken to a central location for loading onto trucks for the Live Bird Market. Vehicles transporting birds should be thoroughly cleaned and disinfected before returning to the farm. Special attention should be paid to the coops. If you must allow trucks from the LBM onto your premises, do not allow personnel or coops from the live bird markets to enter your poultry house(s) unless those personnel are wearing proper clothing and coops have been cleaned and disinfected.

11. Insist that supplies brought to your premises (egg flats, carts, etc.) be new (if disposable) or be washed and disinfected (plastic flats, carts, shelves, or dividers).

12. Follow the “all-in/all-out” philosophy of flock management.

13. Protect open range or backyard poultry flocks from contact with wild birds and water that may have been contaminated by wild birds.

14. Dispose of dead birds safely (incineration, burial, composting, rendering). Never pile dead birds outside of a building or spread in fields.
15. If multiple loadouts are required on your farm, try to have all birds off the farm within 3-4 days.

16. Report any increased illness or mortality to your company or to the Pennsylvania Department of Agriculture at (717) 772-2852.
PROTOCOL #2: DISPOSITION OF EGGS FROM A FLOCK QUARANTINED DUE TO AI

- Certain requirements must be met for the release of eggs from quarantine.
- To have eggs released from quarantine, each flock owner must submit a plan, which addresses the requirements listed below, for approval by the Dept. of Agriculture.
- Wood materials are not easily cleaned and disinfected and thus should not be used for transport of quarantined eggs.
- Egg transport materials should be returned to the premises from which they came if possible.

Part I: Eggs Processed On-farm:

- Permission for transport of washed eggs:
  - Eggs may be transported under written permit only.
- Washing of eggs:
  - Eggs must be washed with an approved detergent and sanitized with an approved sanitizer.
- Packing materials:
  - All eggs must be packed in disposable packing materials or must be packed in plastic packing materials that have been cleaned and disinfected.
  - Disposable packing materials may not be used more than once.
  - Disposable packing materials must be properly disposed of after being used (this includes the utilization of dedicated dumpsters if materials are not incinerated on site) – disposal must be addressed in the plan presented to the Department of Agriculture.
  - Packing materials used for eggs from a quarantined flock must be kept in a designated area of the cooler and must not contaminate other materials/eggs.
- Transport vehicles:
  - Transport vehicles must be cleaned and disinfected on the outside as they leave the farm.
  - Transport vehicles must deliver eggs directly to a wholesale/retail facility and must not visit another farm prior to delivering the eggs and being cleaned and disinfected inside and outside.

Part II: Eggs Transported Off-farm for Processing:

- Permission for transport of unwashed eggs:
  - Eggs may be transported under written permit only.
- Packing materials:
  - All eggs must be packed in disposable packing materials or must be packed in plastic packing materials that have been cleaned and disinfected.
- Disposable packing materials may not be used more than once.
- Disposable packing materials must be properly disposed of after being used (this includes the utilization of dedicated dumpsters if materials are not incinerated on site) – disposal must be addressed in the plan presented to the Department of Agriculture.
- Packing materials used for eggs from a quarantined flock must be kept in a designated area of the cooler and must not contaminate other materials/eggs.
  - **Transport vehicles:**
    - Transport vehicles must be cleaned and disinfected on the outside as they leave the farm.
    - Transport vehicles must be cleaned and disinfected inside and outside after leaving a processing plant and prior to visiting another farm.
  - **Mixing of Eggs at the Plant:**
    - Quarantined eggs may not be mixed with non-quarantined eggs before being washed and sanitized.
    - Quarantined eggs should be the last delivery of the day to the plant, or the plant should have dedicated days for delivery of quarantined eggs only.
    - The plant must clean and disinfect (or dispose of) egg transport materials and must clean and disinfect delivery and storage areas utilized for quarantined, unwashed eggs.

**Part III: Eggs Destined for Hatchery:**

  - **Permission for transport of eggs:**
    - Eggs may be transported under written permit only.
  - **Disinfection/fumigation of eggs:**
    - Eggs must be thoroughly sprayed with an approved disinfectant or fumigated with formaldehyde or other approved product before leaving the quarantined farm.
  - **Transport vehicles:**
    - Transport vehicles must be cleaned and disinfected on the outside as they leave the quarantined farm after picking up eggs.
    - Transport vehicles must deliver eggs directly to a hatchery and must not visit another farm prior to delivering the eggs and being cleaned and disinfected inside and outside.
  - **Packing materials:**
    - All eggs must be packed in disposable packing materials or must be packed in plastic packing materials that have been cleaned and disinfected.
    - Disposable packing materials may not be used more than once.
    - Disposable packing materials must be properly disposed of after being used (this includes the utilization of dedicated dumpsters if materials are not incinerated on site) – disposal
must be addressed in the plan presented to the Department of Agriculture.

- Packing materials used for eggs from a quarantined flock must be kept in a designated area of the cooler and must not contaminate other materials/eggs.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #3: DISPOSITION OF EGGS FROM NON-QUARANTINED FLOCKS LOCATED WITHIN THE GENERAL QUARANTINE AREA SURROUNDING INFECTED FARMS

- Eggs may not be moved until the flock has negative test results for AI.

- Eggs from non-quarantined flocks (flocks with no signs of AI and with negative test results) within the general quarantine area leaving the premise of origin must be accompanied by a permit for movement.

- A copy of negative test results (serology or virus detection testing (PCR or Virus Isolation)) with the date of sample collection within 10 days prior to movement may be used as a permit.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
Recitals

A. Avian influenza is an infectious disease of poultry and is designated a "dangerous transmissible disease" of animals under 3 Pa.C.S. § 2321(d) (relating to dangerous transmissible diseases).

B. The Department of Agriculture (Department) has broad authority under the Domestic Animal Law to regulate the keeping and handling of domestic animals to exclude, contain or eliminate dangerous transmissible diseases.

C. In the past, avian influenza has caused significant loss to the poultry industry in this Commonwealth. It is of particular concern to the entire poultry industry in this Commonwealth and may severely limit the market for Pennsylvania products.

D. The Domestic Animal Law allows, in 3 Pa.C.S. § 2329(d) (relating to quarantine), for the establishment of a General Quarantine, under the circumstances described, with respect to any area or locality within this Commonwealth.

E. The United States Department of Agriculture (USDA) protocols for handling outbreaks of avian influenza recommend a quarantine perimeter be established. Due to the highly contagious nature of avian influenza, a quarantine zone should be established to prevent the spread of the virus. A quarantine should place restrictions upon poultry movement prior to appropriate testing.

The Department, under the authority granted it under the Domestic Animal Law and section 1702 of The Administrative Code of 1929 (71 P. S. § 442), can order the establishment of a general quarantine as described in the Order.

Order

A. The previous recitals are incorporated into this Order by reference.

B. The area subject to this Order of General Quarantine (the quarantine area) will be described.

C. The movement of chickens, turkeys, water fowl, guinea fowl and game fowl and the eggs of these birds (collectively, "subject birds") to destinations within or outside of the quarantine area is prohibited, unless under authority of a written permit issued by the Department in accordance with the requirements of this Order. A copy of negative test results may be used in place of a written permit, with the date of sample collection within 10 days prior to movement.
D. A person who seeks to move subject birds to a destination within or outside of the quarantine area shall:

1. Within 10 days before the planned movement of subject birds, submit to a PADLS laboratory required samples from the subject birds in each poultry house or other biosecure unit from which the subject birds are to be moved. Refer to protocol # 9, Requirements for Bird Movement from Test-negative Flocks in the General Quarantine Area Surrounding Infected Farms for Birds Moving but not to Slaughter and to protocol #10, Requirements for Bird Movement from Test-negative Flocks in the General Quarantine Area Surrounding Infected Farms for Birds Moving to Slaughter. Sampling shall be done by:
   a. A Department-licensed poultry technician;
   b. An accredited veterinarian;
   c. A PADLS veterinarian, or
   d. Department personnel. Questions regarding the appropriate testing unit from which samples shall be drawn shall be resolved with the Department prior to the sampling.

2. Have the referenced samples tested at an accredited laboratory—whether within the Pennsylvania Animal Diagnostic Laboratory System (PADLS) or another USDA-accredited laboratory. If an accredited laboratory other than a PADLS laboratory performs the testing, have that laboratory communicate the test results to the Department.

E. Questions regarding this general quarantine order should be directed to ATTN: Chief, Regulations and Compliance Division, PA Department of Agriculture, Bureau of Animal Health and Diagnostic Services, 2301 North Cameron Street, Harrisburg, PA 17110-9408, (717) 783-9550.

F. This Order shall not be construed as limiting the Department's authority to establish additional quarantine or testing requirements on poultry. The Pennsylvania Department of Agriculture reserves the right to amend all Quarantine Imposition and Release Requirements, and enhanced surveillance requirements, for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.

G. This order is effective_____________, and shall remain in effect until rescinded by the Department.

____________________________________
DENNIS C WOLFF,
Secretary of Agriculture
An order of immediate special quarantine of a premise is placed when a presumptive diagnosis of avian influenza is made due to:

- Clinical presentation suggestive of avian influenza;
- Positive test results on any Al test; or
- Epidemiological evidence of exposure to Al.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
Whereas, avian influenza is an infectious disease of poultry;

Whereas, avian influenza is designated a “dangerous transmissible disease” of animals under the provisions of the Domestic Animal Law (3 Pa.C.S.A. §§ 2301-2389), at 3 Pa.C.S.A. § 2321(d);

Whereas, the Pennsylvania Department of Agriculture (PDA) has broad authority under the Domestic Animal Law to regulate the keeping and handling of domestic animals in order to exclude, contain or eliminate dangerous transmissible diseases;

Whereas, avian influenza has caused significant loss in the past to the Pennsylvania poultry industry;

Whereas, avian influenza is of particular concern to the entire Pennsylvania poultry industry and may severely limit the market for Pennsylvania product;

Whereas, avian influenza sub-types H5 and H7 are of particular concern due to their potential for developing into a virulent (highly pathogenic) form of disease;

Whereas, avian influenza exists, or is suspected to exist, outside this Commonwealth;

Whereas, the Domestic Animal Law allows (at 3 Pa.C.S.A. § 2329(c)) for the establishment of an Interstate/International Quarantine under the circumstances described above;

Whereas, pursuant to that authority, PDA issued an Interstate/International Quarantine Order addressing avian influenza, effective May 1, 2005; and

Whereas, PDA has since determined it appropriate to issue another Interstate/International Quarantine Order to supplant the referenced May 1, 2005 Order in order to further clarify the testing requirements applicable to poultry flocks.

Now, therefore, the Pennsylvania Department of Agriculture, pursuant to the authority granted it under the Domestic Animal Law and § 1702 of the Administrative Code of 1929 (71 P.S. § 442), orders the establishment of an interstate/international quarantine with respect to the shipment of live poultry into the Commonwealth. The quarantine restrictions are as follows:

1. Poultry will be defined as all domesticated fowl, including chickens, turkeys, ostriches, emus, rheas, cassowaries, waterfowl, and game birds, except doves and pigeons, or as otherwise defined, under subpart A of the current version of the National Poultry Improvement Plan (NPIP) and Auxiliary Provisions, and shall be 3 weeks of age or older.

2. Poultry shall only be allowed into the Commonwealth under any of the following circumstances:
   a. The poultry originate from a flock that participates in the current version of the National Poultry Improvement Plan and Auxiliary Provisions “U.S. Avian Influenza Clean” program and the shipment is accompanied by a USDA form 9-3 or other approved NPIP form; or
b. The poultry originate from a flock that participates (in good standing) in a state, foreign nation, or foreign provincial-sponsored avian influenza monitoring program and the shipment is accompanied by a document from the state, nation, or province of origin indicating participation. The following requirements must be met to be in good standing: a) The flock must be tested every thirty (30) days; b) The flock must be tested negative for avian influenza for three (3) consecutive months; and c) Poultry must be three (3) weeks of age or older to be tested. The date of sample collection with negative test results for avian influenza (serology, virus isolation, or real-time reverse polymerase chain reaction (RRT-PCR)) must be within forty (40) days of entry into Pennsylvania. The shipment must be accompanied by the test report; or

c. The poultry originate from a flock in which a minimum of thirty (30) birds, three (3) weeks of age or older, were tested negative for avian influenza (serology, virus isolation, or real-time reverse-transcriptase polymerase chain reaction (RRT-PCR)). The date of sample collection must be within thirty (30) days of entry into Pennsylvania and the shipment must be accompanied by the test report. If there are less than 30 birds in the flock, test all birds (RRT-PCR, virus isolation, or serology); or

d. Each individual bird destined for import from a flock not known to be test-positive for avian influenza must be test-negative for avian influenza virus (RRT-PCR or virus isolation only). The date of sample collection must be within thirty (30) days of entry into Pennsylvania and the shipment must be accompanied by the test report; or

e. The poultry originate from a flock that participates in an equivalent testing/surveillance program, as approved by the Pennsylvania State Veterinarian.

3. No poultry from any untested or unmonitored flocks shall have been added to the flock within twenty-one (21) days of movement of birds into Pennsylvania.

4. Poultry from flocks that are serologically positive shall not be imported unless the flock is determined to be free of virus by virtue of a negative virus detection test (virus isolation or RRT-PCR) of oropharyngeal, tracheal and/or cloacal specimens from a minimum of one hundred and fifty (150) birds. If there are less than 150 birds in the flock, test all birds. The date of sample collection must be within 30 days of entry into Pennsylvania and the shipment must be accompanied by the test report.

5. Poultry three (3) weeks of age and older, imported into the Commonwealth, shall meet all other import requirements required under Title 7, PA Code.

6. This Order shall not be construed as limiting PDA’s authority to establish additional quarantine or testing requirements on imported poultry and/or poultry products.

7. This Order is effective January 24, 2006, and supplants the referenced Interstate/International Quarantine Order of May 1, 2005.

BY THE PENNSYLVANIA DEPARTMENT OF AGRICULTURE
PROTOCOL #7: Poultry Dealer Premise - Inspection Report
U. S. Department of Agriculture, APHIS, Veterinary Services / Pennsylvania Department of Agriculture, Bureau of Animal Health and Diagnostic Services

Date of Inspection: ______________________________________
Time Inspection Began: ____________
Time Inspection Concluded: ____________
Veterinarian or animal health technician(s) making inspection: ________________
______________________________________________________________________
Accompanied by: ____________________________________________________________________________

DEALER INFORMATION –
Name: ________________________________________________________________
Address: ________________________________________________________________________________
Phone Number / Fax: _________________________________________________________________________
Email Address: ____________________________________________________________________________

1) Cleanliness of crates and coops on premises:
   __Satisfactory  ___Needs Improvement
   Comments:

2) Adequate facilities for sanitation of vehicles, crates, and equipment:
   __Satisfactory  ___Needs Improvement
   Comments:
   Crate wash / truck wash agreement?
   Power washer / Mechanical crate wash / hose and water / other?
   Is wash area over an impervious surface?

3) Vehicles are sanitized properly:
   __Satisfactory  ___Needs Improvement
   Comments:
4) Poultry are maintained on the premise greater than 3 days:
   ___Yes ___No

5) Person(s) on this premise have regular contact with poultry premises other than this location:
   ___Yes ___No

6) Address(s) of other premises on which dealer maintains poultry:

7) Mortality is disposed of in a proper manner:
   ___Satisfactory ___Needs Improvement
   Comments:
   How are dead birds disposed of? Burial, incineration, composting, rendering, transporting to another location, other? If other, specify.

8) Personnel change footwear and clothes between farms:
   ___Yes ___Needs Improvement
   Comments:

9) Records are maintained of flock illnesses, mortality and production (if applicable):
   ___Yes ___Needs Improvement
   Comments:

10) Sales records are maintained of purchasing, sale, and transport of poultry:
    ___Yes ___No

SAMPLES COLLECTED (1 vial = 5 swabs):
   _____ 30 blood samples (indicate number if less than 30 birds in flock)
   _____ Environmental Swabs of Poultry Areas – 2 vials (Floors)
      Describe areas: 3/3/05  32 of 107 Protocol # 7
_____ Environmental Swabs – 1 vial (Walls)
    Describe area:

_____ Environmental Swabs – 1 vial (Feed Bins / Waterers)
    Describe area:

_____ Clean crates and other transportation equipment – 2 vials

COMMENTS:

Signatures: ________________________________ (Inspector)

______________________________ (Witness of Inspection)

______________________________ (Dealer Representative)
PROTOCOL #8: PROCEDURES FOR AVIAN INFLUENZA SURVEILLANCE AT PENNSYLVANIA POULTRY MARKETS LOCATED OUTSIDE OF A QUARANTINE ZONE DURING AN AVIAN INFLUENZA OUTBREAK

An Authorized Pennsylvania Department of Agriculture representative will:

- Provide copies of current quarantine prohibitions
- Provide copies of Interstate/International Quarantine Order signed by the Secretary of Agriculture
- Provide copies of Biosecurity Recommendations for Reducing the Risk of Avian Influenza During an Outbreak.
- Submit a completed AI Sample Submission form to the laboratory with samples

Please note that all poultry markets located within quarantine zones in place due to Avian Influenza will be closed.

Protocol for Sample Collection for Avian Influenza from Poultry:

- Select up to 10 birds per lot and take up to 5 tracheal/oropharyngeal swabs per tube of viral transport medium **
- Select as many lots as possible
- Wet swab with clean medium prior to swabbing
- Sample more than 10 birds per lot (if available) from any out-of-state bird lots

**Waterfowl: Cloacal swabs and virus isolation testing required

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #9: REQUIREMENTS FOR BIRD MOVEMENT FROM TEST-NEGATIVE FLOCKS IN THE GENERAL QUARANTINE AREA SURROUNDING INFECTED FARMS FOR BIRDS MOVING BUT NOT TO SLAUGHTER

Please note that by law, if poultry houses in the general quarantine area are repopulated with birds before the quarantine is lifted, birds placed during the quarantine are not eligible for indemnity.

The option of leaving dead birds at the end of the farm lane for swabbing by authorized personnel may be offered as an alternative to in-house collection and submission of swabs.

- Do not move birds showing signs of respiratory problems, or birds from flocks with significantly increased mortality, from the farm. Have any flocks with birds showing signs of respiratory problems examined by a veterinarian from PADLS (Pennsylvania Animal Diagnostic Laboratory System).

- Within the general quarantine area all flocks must be virus detection-tested (PCR or virus isolation). The date of sample collection must be within 10 days prior to movement.
  - Collect tracheal/oropharyngeal swabs for virus detection testing from thirty (30) birds representative of the flock*. Take swab samples from any dead or sick birds first, and then swab other birds to collect 30 swabs.**
  - If there are less than 30 birds in the flock, collect samples from all birds.

- Refer to the guidelines for collection and submission of samples included in this document.

- Poultry within the general quarantine area must be accompanied by a permit if moved. A copy of negative virus detection test results (samples collected within 10 days prior to movement) may be used as a permit.
Guidelines for Collection and Submission of Samples

Please Note: Include the Premise ID number on all submission forms. Call the Pennsylvania Department of Agriculture for a number if you do not have one.

Collection of Samples

Swabs from Dead Birds

Tracheal/oropharyngeal swabs:
- Collect tracheal/oropharyngeal swabs for virus detection testing from thirty (30) birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect 30 swabs. If there are less than 30 birds in the flock, collect samples from all birds.
- Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
- Insert the swab and rub the mucosa vigorously.
- Use 1 swab for each bird.
- Place swabs into tubes containing enough VTM to moisten and cover the swabs.
- Place 5 swabs (from 5 different birds) into one tube.
- Submit a total of 6 tubes, each containing 5 swabs.
- Write the farm name and Premise ID on the side of the box of samples (not on the lid).
- Submit a completed submission form which includes Premise ID.

Cloacal swabs**
- Collect cloacal swabs for virus detection testing from thirty (30) birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect 30 swabs. If there are less than 30 birds in the flock, collect samples from all birds.
- Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
- Insert the swab and rub the mucosa vigorously.
- Use 1 swab for each bird.
- Place swabs into tubes containing enough VTM to moisten and cover the swabs.
- Place 5 swabs (from 5 different birds) into one tube.
- Submit a total of 6 tubes, each containing 5 swabs.
- Write the farm name and Premise ID on the side of the box of samples (not on the lid).
- Submit a completed submission form which includes Premise ID.

*All samples must be taken by a certified poultry technician or by government authorized personnel (PDA, USDA, universities, and laboratory personnel)
**Waterfowl: Cloacal swabs and virus isolation required
Submission of Samples to PADLS Laboratories

- Samples can be tested at any PADLS laboratory.
- Call the laboratory in advance to let them know when the samples will arrive:
  - PVL, Harrisburg: 717-787-8808
  - New Bolton Center: 610-444-4282
  - Penn State University Animal Diagnostic Laboratory: 814-863-0837
- When leaving dead birds at the end of the farm lane for swabbing, place birds in a sturdy, leak-proof container. Authorized personnel will collect swab samples and leave the dead birds at that site for disposal.
- To ensure the integrity of swab samples:
  - VTM should be an orange color when fresh. Check that the VTM has not changed to a violet color and has not passed the date of expiration.
  - VTM should be refrigerated at all times.
  - Keep the swabs in VTM on fresh ice packs until transporting to a PADLS laboratory (you may need to change ice packs at least every 24 hours).
  - If samples are stored in a freezer for more than 72 hours, place a plastic bag around each box and seal to prevent drying of the VTM.
  - Place a completed copy of an AI Sample Submission Form in each box with the corresponding samples. Samples must be identified with Premise ID, farm name, phone number, date of sample collection, and dates on which the dead bird carcasses were collected. If you need a Premise ID number, call the PA Department of Agriculture.

Reporting

- Report any signs suggestive of AI in the flock immediately to the Pennsylvania Department of Agriculture at: 717-772-2852.
- Signs suggestive of AI include the following:
  - Increased mortality;
  - Decreased egg production;
  - Swollen eyelids/sinuses/combs or wattles;
  - Purple or bluish discoloration of wattles and combs;
  - Respiratory snicking; and
  - Generally depressed birds.
  - Commonly, the producer will notice mortality increases and in the case of layers, decreased egg production, which usually trails the mortality by several days.
  - These are general guidelines only.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #10: REQUIREMENTS FOR BIRD MOVEMENT FROM TEST-NEGATIVE FLOCKS IN THE GENERAL QUARANTINE AREA SURROUNDING INFECTED FARMS FOR BIRDS MOVING TO SLAUGHTER

Please note that by law, if poultry houses in the general quarantine area are repopulated with birds before the quarantine is lifted, birds placed during the quarantine are not eligible for indemnity.

The option of leaving dead birds at the end of the farm lane for swabbing by authorized personnel may be offered as an alternative to in-house collection and submission of swabs.

- Do not move birds showing signs of respiratory problems, or birds from flocks with significantly increased mortality, from the farm. Have any flocks with birds showing signs of respiratory problems examined by a veterinarian from PADLS (Pennsylvania Animal Diagnostic Laboratory System).

- Within the general quarantine area all flocks must be virus-detection tested (PCR or virus isolation). The date of sample collection must be within 10 days prior to movement.
  
  • Collect tracheal/oropharyngeal swabs for virus detection testing from fifteen (15) birds representative of the flock*. Take swab samples from any dead or sick birds first, and then swab other birds to collect 15 swabs.**

  • If there are less than 15 birds in the flock, collect samples from all birds.

- Refer to the guidelines for collection and submission of samples included in this document.

- Poultry within the general quarantine area must be accompanied by a permit if moved. A copy of negative virus detection test results (samples collected within 10 days prior to movement) may be used as a permit.
Guidelines for Collection and Submission of Samples

Please Note: Include the Premise ID number on all submission forms. Call the Pennsylvania Department of Agriculture for a number if you do not have one.

Collection of Samples

Swabs from Dead Birds

Tracheal/oropharyngeal swabs:
- Collect tracheal/oropharyngeal swabs for virus detection testing from fifteen (15) birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect 15 swabs. If there are less than 15 birds in the flock, collect samples from all birds.
- Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
- Insert the swab and rub the mucosa vigorously.
- Use 1 swab for each bird.
- Place swabs into tubes containing enough VTM to moisten and cover the swabs.
- Place 5 swabs (from 5 different birds) into one tube.
- Submit a total of 3 tubes, each containing 5 swabs.
- Write the farm name and Premise ID on the side of the box of samples (not on the lid).
- Submit a completed submission form which includes Premise ID.

Cloacal swabs:
- Collect cloacal swabs for virus detection testing from fifteen (15) birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect 15 swabs. If there are less than 15 birds in the flock, collect samples from all birds.
- Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
- Insert the swab and rub the mucosa vigorously.
- Use 1 swab for each bird.
- Place swabs into tubes containing enough VTM to moisten and cover the swabs.
- Place 5 swabs (from 5 different birds) into one tube.
- Submit a total of 3 tubes, each containing 5 swabs.
- Write the farm name and Premise ID on the bottom of the box of samples (not on the lid).
- Submit a completed submission form which includes Premise ID.

*All samples must be taken by a certified poultry technician or by government authorized personnel (PDA, USDA, universities, and laboratory personnel)
**Waterfowl: Cloacal swabs and virus isolation required

Submission of Samples to PADLS Laboratories
Samples can be tested at any PADLS laboratory. Call the laboratory in advance to let them know when the samples will arrive:

- PVL, Harrisburg: 717-787-8808
- New Bolton Center: 610-444-4282 (ask for poultry lab)
- Penn State University Animal Diagnostic Laboratory: 814-863-0837

When leaving dead birds at the end of the farm lane for swabbing, place birds in a sturdy, leak-proof container. Authorized personnel will collect swab samples and leave the dead birds at that site for disposal.

To ensure the integrity of swab samples:

- VTM should be an orange color when fresh. Check that the VTM has not changed to a violet color and has not passed the date of expiration.
- VTM should be refrigerated at all times.
- Keep the swabs in VTM on fresh ice packs until transporting to a PADLS laboratory (you may need to change ice packs at least every 24 hours).
- If samples are stored in a freezer for more than 72 hours, place a plastic bag around each box and seal to prevent drying of the VTM.
- Place a completed copy of an AI Sample Submission Form in each box with the corresponding samples. Samples must be identified with Premise ID, farm name, phone number, date of sample collection, and dates on which dead bird carcasses were collected. If you need a Premise ID number, call the PA Department of Agriculture.

### Reporting

- Report any signs suggestive of AI in the flock immediately to the Pennsylvania Department of Agriculture at: 717-772-2852.
- Signs suggestive of AI include the following:
  - Increased mortality;
  - Decreased egg production;
  - Swollen eyelids/sinuses/combs or wattles;
  - Purple or bluish discoloration of wattles and combs;
  - Respiratory snicking; and
  - Generally depressed birds.
  - Commonly, the producer will notice mortality increases and in the case of layers, decreased egg production, which usually trails the mortality by several days.
  - These are general guidelines only.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #11: AVIAN INFLUENZA REQUIREMENTS FOR CLEANING AND DISINFECTION

SECTION 1: Identification and Date

Premises ID #:_______________________ Flock ID:_______________________
Owner Name:____________________________________________________
Farm Address:____________________________________________________
Date:___________________________________________________________

SECTION 2: Procedures (Which of the following C & D procedures were used?)

☐Dry clean only
☐Dry clean with fumigation
☐Wet wash without disinfectant: ☐Hot ☐Cold ☐Was detergent used?
☐Wet wash with disinfectant ☐Was approved disinfectant used? (List):____________
☐Disinfection after wet wash ☐Disinfection after wet wash and dry
☐Down time allowed following C & D: Length of down time:____________________

SECTION 3: Results

Please note amount of organic matter present on the following surfaces (includes material such as manure, feathers, eggs, etc. which should be removed during C and D):

<table>
<thead>
<tr>
<th>Layers</th>
<th>None/slight</th>
<th>Moderate</th>
<th>Excessive</th>
<th>N/A</th>
<th>Not cleaned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cages</td>
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</tr>
<tr>
<td>Nipples/watercups</td>
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<td>Feeders</td>
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<td>Eggbelts/elevators</td>
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<td>Drop boards/curtains</td>
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<td>Manure scrapers</td>
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<td>Ceilings/walls</td>
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<td>Walkways/stairs</td>
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<td>Fans/louvers</td>
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<td>Pit basement/utility room</td>
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<td>Feed pans</td>
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<td>Drop boards/curtains</td>
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<td>Walls</td>
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<td>Utility room</td>
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<td>Drop boards/curtains</td>
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<td>Walls</td>
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<td>Air inlets/cool cells/curtains</td>
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<th><strong>BROILER TURKEYS</strong></th>
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<tr>
<td>Litter heaped and composted</td>
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<td>Litter rototilled</td>
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<td>Litter not treated</td>
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PROTOCOL #12: REVOCATION OF ORDER OF SPECIAL QUARANTINE –
HANDLING OF MANURE AND CLEANING AND DISINFECTION

Please note that by law, if poultry houses are repopulated with birds before those houses are released from quarantine, birds placed during the quarantine are not eligible for indemnity.

PART I: Requirements for Handling of Litter/Manure and Poultry House if Birds are Removed from the House:

A. Litter/manure shall be kept in the house for thirty (30) days after the birds have been removed.
   i. A minimum of twenty (20) days after the birds have been removed from the poultry house PDA, USDA or university personnel may obtain environmental samples to test for avian influenza. For commercial flocks, refer to Sampling of Commercial Poultry Houses for Avian Influenza. For flocks with less than 3,000 birds, refer to Sampling of Poultry Houses for Avian Influenza for Small Flocks.
   ii. Litter/manure must remain in the poultry house for at least 30 days, even if samples collected at day 20 are negative for AI.
   iii. If litter/manure samples test positive for AI, additional samples must be collected and tested at least 20 days after the positive samples were collected.
   iv. If the second set of samples tests negative for AI, litter/manure must remain in the poultry house for at least 10 days after the negative samples were collected.
   v. Therefore, if positive samples are collected on day 20, additional samples may be collected and tested on day 40. If the second set of samples tests negative, litter/manure may not be removed before at least day 50.

IF CLEANING AND DISINFECTION DONE IN HOUSE

❖ Litter/manure shall be removed from the house following negative environmental test results and with adherence to the protocols listed above, before cleaning and disinfection of the house occurs.
❖ The house must be cleaned by wet wash until all areas are considered none or slight on evaluation for organic material by PDA or USDA personnel. Refer to Requirements for Cleaning and Disinfection.
❖ The house must be disinfected with products approved by the Department of Agriculture.
IF NO CLEANING AND DISINFECTION DONE IN HOUSE

❖ Instead of cleaning and disinfection, 60 sero-negative sentinel birds may be placed in the house after litter/manure is removed.
❖ Sentinels may be placed on day 30 if environmental tests are negative.
❖ Sentinels are eligible for testing a minimum of 21 days after placement.
❖ Blood samples collected from the all of the sentinels must be submitted to a PADLS laboratory for antibody testing.
❖ The house may be released from quarantine when all of the criteria listed below have been met:
   • There is no indication of clinical disease suggestive of avian influenza in the sentinels, and
   • Sentinel birds do not sero-convert when tested after twenty-one (21) days in the poultry house.
❖ If the sentinels test positive, environmental testing must be repeated 20 days after the samples were collected from the sentinels. If the environmental tests are negative, fresh sentinels must be placed in the house after 30 days and the cycle begins again.

OR (If not A, use B)

B. Litter/manure shall be removed immediately and stored in a dedicated structure, or stored outside of the building and covered with vinyl tarps or plastic (as approved by PDA or USDA), for a minimum of thirty (30) days prior to spreading on or moving off of the premises.
   i. Litter/manure samples must be tested for AI at least 30 days after removal from the poultry house and must have a negative test result before being moved off of the premises.
   ii. If litter/manure is stored under a tarp, the tarp shall not be lifted for at least 30 days after removal of litter/manure from the poultry house.

IF CLEANING AND DISINFECTION DONE IN HOUSE

❖ The house must be cleaned by wet wash until all areas are considered none or slight on evaluation for organic material by PDA or USDA personnel. Refer to Requirements for Cleaning and Disinfection.
❖ The house must be disinfected with products approved by the Department of Agriculture.
❖ PDA, USDA or university personnel will collect environmental samples from each house for avian influenza testing when the house is dry or nearly dry. For
commercial flocks, refer to Sampling of Commercial Poultry Houses for Avian Influenza. For flocks with less than 3,000 birds, refer to Sampling of Poultry Houses for Avian Influenza for Small Flocks.

- The Order of Special Quarantine will be revoked when the steps listed above are successfully completed, and final virus culture isolation results of environmental samples are negative for avian influenza virus.

IF NO CLEANING AND DISINFECTION DONE IN HOUSE

- Instead of cleaning and disinfection, 60 sero-negative sentinel birds may be placed in the house.
- Sentinels may be placed on day 30 if environmental tests are negative.
- Sentinels are eligible for testing a minimum of 21 days after placement.
- Blood samples collected from the all of the sentinels must be submitted to a PADLS laboratory for antibody testing.
- The house may be released from quarantine when all of the criteria listed below have been met:
  - There is no indication of clinical disease suggestive of avian influenza in the sentinels, and
  - Sentinel birds do not sero-convert when tested after twenty-one (21) days in the poultry house(s).
- If the sentinels test positive, environmental testing must be repeated 20 days after the samples were collected from the sentinels. If the environmental tests are negative, fresh sentinels must be placed in the house after 30 days and the cycle begins again.

PART II: Requirements for Handling of Litter/Manure and Poultry Houses if Birds (and Litter/Manure) are Composted in the Poultry House:

- Composted material shall be kept in the house for thirty (30) days and will be composted according to established guidelines.
- A minimum of twenty (20) days after composting has begun, PDA, USDA, or university personnel may obtain environmental samples to test for avian influenza.
  - Composted material must remain in the poultry house for at least 30 days, even if samples collected at day 20 are negative for AI.
  - If composted material/manure samples test positive for AI, additional samples must be tested at least 20 days after the positive samples were collected.
  - If the second set of samples tests negative for AI, composted material must remain in the poultry house
for at least 10 days after the negative samples were collected.

• Therefore, if positive samples are collected on day 20, additional samples may be collected and tested at day 40. If the second set of samples test negative, composted material may not be removed before at least day 50.

**IF CLEANING AND DISINFECTION DONE IN HOUSE**

❖ Composted material shall be removed from the house following negative environmental test results, with adherence to the protocols listed above, and when PDA, USDA or university personnel have determined that adequate composting has occurred, before cleaning and disinfection of the house occurs. Refer to *Requirements for Cleaning and Disinfection*.

❖ PDA personnel are responsible for ensuring that composting is in compliance with 1996- Act 100, The Domestic Animal Act, and applicable regulations.

**IF NO CLEANING AND DISINFECTION DONE IN HOUSE**

❖ Composted material shall be removed from the house following negative environmental test results, with adherence to the protocols listed above, and when PDA, USDA or university personnel have determined that adequate composting has occurred.

❖ PDA personnel are responsible for ensuring that composting is in compliance with 1996- Act 100, The Domestic Animal Act, and applicable regulations.

❖ Instead of cleaning and disinfection, 60 sero-negative sentinel birds may be placed in the house.

❖ Sentinels may be placed on day 30 if environmental tests are negative.

❖ Sentinels are eligible for testing a minimum of 21 days after placement.

❖ Blood samples collected from all of the sentinels must be submitted to a PADLS laboratory for antibody testing.

❖ The house may be released from quarantine when all of the criteria listed below have been met:
  • There is no indication of clinical disease suggestive of avian influenza in the sentinels, and
  • Sentinel birds do not sero-convert when tested after twenty-one (21) days in the poultry house(s).

❖ If the sentinels test positive, environmental testing must be repeated 20 days after the samples were collected from the sentinels. If the environmental tests are negative, fresh sentinels must be placed in the house after 30 days and the cycle begins again.
Guidelines for Collection and Submission of Blood Samples

Please Note: Include the Premise ID number on all submission forms. Call the Pennsylvania Department of Agriculture for a number if you do not have one.

Collection of Samples

Blood

• Collect at least 2.5 milliliters (cc) of blood in tubes available from the PADLS laboratories.
• Allow blood to stand for 4 to 12 hours at room temperature.
• Place blood in refrigerator until it can be transported to the laboratory.
• Complete the submission form and send it with the samples.
• Write the farm name and Premise ID on the side of the box of samples (not on the lid).
• Submit a completed submission form which includes Premise ID.
• All samples must be taken by government authorized personnel (PDA, USDA, universities, and laboratory personnel).

Submission of Samples to PADLS Laboratories

• Samples can be tested at any PADLS laboratory.
• Call the laboratory in advance to let them know when the samples will arrive:
  • PVL, Harrisburg: 717-787-8808
  • New Bolton Center: 610-444-4282
  • Penn State University Animal Diagnostic Laboratory: 814-863-0837
• Place a completed copy of an AI Sample Submission Form in each box with the corresponding samples. Samples must be identified with Premise ID, farm name, phone number, and date of sample collection. If you need a Premise ID number, call the PA Department of Agriculture.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #13: REVOCATION OF ORDER OF SPECIAL QUARANTINE THROUGH DEPOPULATION OF COMMERCIAL POULTRY

{For All Subtypes}

Please note that by law, if poultry houses are repopulated with birds before those houses are released from quarantine, birds placed during the quarantine are not eligible for indemnity.

Revocation of ORDER OF SPECIAL QUARANTINE through depopulation of commercial poultry:

Under the direction of PDA or USDA, birds are depopulated, removed from the poultry house, and disposed of by the following method(s):

- Incineration;
- Chemical digestion;
- Burial at a landfill;
- Burial on the premises;
- Composting on the premises outside the poultry house;
- Composting in the poultry house; or
- Slaughter.

A poultry house in not released from quarantine following depopulation of birds until the manure from that house has been properly handled, according to Protocol # 12: REVOCATION OF ORDER OF SPECIAL QUARANTINE – HANDLING OF MANURE AND CLEANING AND DISINFECTION. (addendum 7-14-05)

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #14: REVOCATION OF ORDER OF SPECIAL QUARANTINE THROUGH DEPOPULATION OF SMALL POULTRY FLOCKS (LESS THAN 3,000 BIRDS)

{For All Subtypes}

Please note that by law, if poultry houses are repopulated with birds before those houses are released from quarantine, birds placed during the quarantine are not eligible for indemnity.

Revocation of ORDER OF SPECIAL QUARANTINE through depopulation of small flocks:

Under the direction of PDA or USDA, birds are depopulated, removed from the house, and disposed of by the following method(s):

- Incineration;
- Chemical digestion;
- Burial at a landfill;
- Burial on the premises;
- Composting on the premises outside the poultry house(s);
- Composting in the poultry house; or
- Slaughter.

A poultry house is not released from quarantine following depopulation of birds until the manure from that house has been properly handled, according to Protocol # 12: REVOCATION OF ORDER OF SPECIAL QUARANTINE – HANDLING OF MANURE AND CLEANING AND DISINFECTION. (addendum 7-14-05)

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #15: REVOCATION OF ORDER OF SPECIAL QUARANTINE THROUGH TESTING OF COMMERCIAL POULTRY

{FOR ALL SUBTYPES}

Please note that by law, if poultry houses are repopulated with birds before those houses are released from quarantine, birds placed during the quarantine are not eligible for indemnity.

The option of leaving dead birds at the end of the farm lane for swabbing by authorized personnel may be offered as an alternative to in-house collection and submission of swabs.

The Pennsylvania Department of Agriculture may order depopulation with indemnity if the subtype is unknown, or if the subtype is known to be H5, H7, or other subtype that poses a threat to the poultry industry and/or human health.

A. Positive Serology: When the flock is initially quarantined based on a positive serology test (AGID), one of the protocols presented below must be followed:

❖ If the subtype is unknown, or if the subtype is known to be H5, H7, or other subtype that poses a threat to the poultry industry and/or human health, choose one of the following options:

OPTION # 1:
• Collect tracheal/oropharyngeal swabs for virus detection testing from thirty (30) birds representative of the flock*. Take swab samples from any dead or sick birds first, and then swab other birds to collect 30 swabs**.
• Refer to the guidelines for collection and submission of samples included in this document.
• If any of these samples tests positive, submit 30 swabs a minimum of 14 days after the positive sample was collected. Continue this process until all samples submitted are virus detection test-negative.
• After all samples submitted are virus detection test-negative, place (sixty) 60 laboratory-verified sero-negative sentinel birds of the appropriate species in the house(s).
• Submit blood samples collected from all of the sentinel birds for antibody testing a minimum of 21 days after the birds were placed in the house(s).
• The flock is released from quarantine when all of the criteria listed below have been met:
  • There is no indication of clinical disease suggestive of avian influenza, and
  • Sentinel birds do not sero-convert when tested following twenty-one (21) days in the poultry house(s).
OR

OPTION # 2:

• Collect tracheal/oropharyngeal swabs for virus detection testing from one hundred and fifty (150) birds representative of the flock*. Take swab samples from any dead or sick birds first, and then swab other birds to collect 150 swabs**.
• Refer to the guidelines for collection and submission of samples included in this document.
• If any of these samples tests positive, repeat collection and submission of 150 swabs a minimum of 14 days after the positive sample was collected. Continue this process until all samples submitted are virus detection test-negative.
• The flock is released from quarantine when all of the criteria listed below have been met:
  ▪ There is no indication of clinical disease suggestive of avian influenza, and
  ▪ All samples submitted for testing are virus detection test-negative.

❖ If the subtype is known to be a subtype other than H5, H7, or is not another subtype that poses a threat to the poultry industry and/or human health, choose one of the following options:

OPTION # 1:

• Collect tracheal/oropharyngeal swabs for virus detection testing from thirty (30) birds representative of the flock*. Take swab samples from any dead or sick birds first, and then swab other birds to collect 30 swabs**.
• Refer to the guidelines for collection and submission of samples included in this document.
• If all samples are virus detection test-negative, and there is no indication of clinical disease suggestive of avian influenza, the flock is released from quarantine.
• If any of these samples tests positive, submit 30 swabs a minimum of 14 days after the positive sample was collected. Continue this process until all samples submitted are virus detection test-negative.
• After all samples submitted are virus detection test-negative, place (sixty) 60 laboratory-verified sero-negative sentinel birds of the appropriate species in the house(s).
• Submit blood samples collected from all of the sentinel birds for antibody testing a minimum of 21 days after the birds were placed in the house(s).
• The flock is released from quarantine when all of the criteria listed below have been met:
  ▪ There is no indication of clinical disease suggestive of avian influenza, and
  ▪ Sentinel birds do not sero-convert when tested following twenty-one (21) days in the poultry house(s).
OR

OPTION # 2:

• Collect tracheal/oropharyngeal swabs for virus detection testing from thirty (30) birds representative of the flock*. Take swab samples from any dead or sick birds first, and then swab other birds to collect 30 swabs**.
• Refer to the guidelines for collection and submission of samples included in this document.
• If all samples are virus detection test-negative, and there is no indication of clinical disease suggestive of avian influenza, the flock is released from quarantine.
• If any of these samples tests positive, collect 150 swabs from birds representative of the flock minimum of 14 days after the positive sample was collected. Take swab samples from any dead or sick birds first, and then swab other birds to collect 150 swabs.
• Continue this process until all samples submitted are virus detection test-negative.
• The flock is released from quarantine when all of the criteria listed below have been met:
  ▪ There is no indication of clinical disease suggestive of avian influenza, and
  ▪ All samples submitted for testing are virus detection test-negative.

B. Positive Virus Detection: When the flock is initially quarantined based on a positive virus detection test (PCR or Virus Isolation), one of the protocols presented below must be followed:

❖ For all subtypes:

OPTION # 1:

• A minimum of 14 days after the date of collection of the positive sample, collect tracheal/oropharyngeal swabs for virus detection testing from thirty (30) birds representative of the flock*. Take swab samples from any dead or sick birds first, and then swab other birds to collect 30 swabs**.
• Refer to the guidelines for collection and submission of samples included in this document.
• If any of these samples tests positive, submit 30 swabs a minimum of 14 days after the positive sample was collected. Continue this process until all the samples submitted are virus detection test-negative.
• After all samples submitted are virus detection test-negative, place (sixty) 60 laboratory-verified sero-negative sentinel birds of the appropriate species in the house(s).
• Submit blood samples collected from all of the sentinel birds for antibody testing a minimum of 21 days after the birds were placed in the house(s).
• The flock is released from quarantine when all of the criteria listed below have been met:
  ▪ There is no indication of clinical disease suggestive of avian influenza, and
  ▪ Sentinel birds do not sero-convert when tested following twenty-one (21) days in the poultry house(s).

OR

OPTION # 2:
• A minimum of 14 days after the date of collection of the positive sample, collect tracheal/oropharyngeal swabs for virus detection testing from one hundred and fifty (150) birds representative of the flock*. Take swab samples from any dead or sick birds first, and then swab other birds to collect 150 swabs**.
• Refer to the guidelines for collection and submission of samples included in this document.
• If any of these samples tests positive, repeat collection and submission of 150 swabs a minimum of 14 days after the positive sample was collected. Continue this process until all the samples submitted are virus detection test-negative.
• The flock is released from quarantine when all of the criteria listed below have been met:
  ▪ There is no indication of clinical disease suggestive of avian influenza, and
  ▪ All samples submitted for testing are virus detection test-negative.

Guidelines for Collection and Submission of Samples

Please Note: Include the Premise ID number on all submission forms. Call the Pennsylvania Department of Agriculture for a number if you do not have one.

Collection of Samples

• Blood
  ▪ Collect at least 2.5 milliliters (cc) of blood in tubes available from the PADLS laboratories.
  ▪ Allow blood to stand for 4 to 12 hours at room temperature.
  ▪ Place blood in refrigerator until it can be transported to the laboratory.
  ▪ Complete the submission form and send it with the samples.
  ▪ Write the farm name and Premise ID on the side of the box of samples (not on the lid).
  ▪ Submit a completed submission form which includes Premise ID.
Swabs

**Tracheal/oropharyngeal swabs:**
- Collect tracheal/oropharyngeal swabs for virus detection testing from birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect the required number of swabs.
- Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
- Insert the swab and rub the mucosa vigorously.
- Use 1 swab for each bird.
- Place swabs into tubes containing enough VTM to moisten and cover the swabs.
- Place 5 swabs (from 5 different birds) into one tube.
- Submit tubes to a PADLS laboratory.
- Write the farm name and Premise ID on the side of the box of samples (not on the lid).
- Submit a completed submission form which includes Premise ID.

**Cloacal swabs:**
- Collect cloacal swabs for virus detection testing from birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect the required number of swabs.
- Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
- Insert the swab and rub the mucosa vigorously.
- Use 1 swab for each bird.
- Place swabs into tubes containing enough VTM to moisten and cover the swabs.
- Place 5 swabs (from 5 different birds) into one tube.
- Submit tubes to a PADLS laboratory.
- Write the farm name and Premise ID on the box of samples (not on the lid).
- Submit a completed submission form which includes Premise ID.

* All samples must be taken by government authorized personnel (PDA, USDA, universities, and laboratory personnel)

**Waterfowl: Cloacal swabs and virus isolation required**
Submission of Samples to PADLS Laboratories

- Samples can be tested at any PADLS laboratory.
- Call the laboratory in advance to let them know when the samples will arrive:
  - PVL, Harrisburg: 717-787-8808
  - New Bolton Center: 610-444-4282
  - Penn State University Animal Diagnostic Laboratory: 814-863-0837
- When leaving dead birds at the end of the farm lane for swabbing, place birds in a sturdy, leak-proof container. Authorized personnel will collect swab samples and leave the dead birds at that site for disposal.
- To ensure the integrity of swab samples:
  - VTM should be an orange color when fresh. Check that the VTM has not changed to a violet color and has not passed the date of expiration.
  - VTM should be refrigerated at all times.
  - Keep the swabs in VTM on fresh ice packs until transporting to a PADLS laboratory (you may need to change ice packs at least every 24 hours).
  - If samples are stored in a freezer for more than 72 hours, place a plastic bag around each box and seal to prevent drying of the VTM.
  - Place a completed copy of an AI Sample Submission Form in each box with the corresponding samples. Samples must be identified with Premise ID, farm name, phone number, date of sample collection, and dates on which dead bird carcasses were collected. If you need a Premise ID number, call the PA Department of Agriculture.

Reporting

- Report any signs suggestive of AI in the flock immediately to the Pennsylvania Department of Agriculture at: 717-772-2852.
- Signs suggestive of AI include the following:
  - Increased mortality;
  - Decreased egg production;
  - Swollen eyelids/sinuses/combs or wattles;
  - Purple or bluish discoloration of wattles and combs;
  - Respiratory snicking; and
  - Generally depressed birds.
  - Commonly, the producer will notice mortality increases and in the case of layers, decreased egg production, which usually trails the mortality by several days.
  - These are general guidelines only.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #16: REVOCATION OF ORDER OF SPECIAL QUARANTINE THROUGH TESTING OF POULTRY – SMALL FLOCKS (LESS THAN 3,000 BIRDS)

{FOR ALL SUBTYPES}

Please note that by law, if poultry houses are repopulated with birds before those houses are released from quarantine, birds placed during the quarantine are not eligible for indemnity.

The option of leaving dead birds at the end of the farm lane for swabbing by authorized personnel may be offered as an alternative to in-house collection and submission of swabs.

The Pennsylvania Department of Agriculture may order depopulation with indemnity if the subtype is unknown, or if the subtype is known to be H5, H7, or other subtype that poses a threat to the poultry industry and/or human health.

A. Positive Serology: When the flock is initially quarantined based on a positive serology test (AGID), one of the protocols presented below must be followed:

❖ If the subtype is unknown, or if the subtype is known to be H5, H7, or other subtype that poses a threat to the poultry industry and/or human health, choose one of the following options:

OPTION # 1

• A minimum of four weeks (30 days) after the date of collection of the positive sample, collect tracheal/oropharyngeal swabs for virus detection testing from sixty (60) birds representative of the operation*. Take swab samples from any dead or sick birds first, and then swab other birds to collect 60 swabs**.
  • If there are less than 60 birds in the operation, test all birds.
  • Refer to the guidelines for collection and submission of samples included in this document.
  • If any of these samples tests positive, submit 60 swabs a minimum of 30 days after the positive sample was collected. Continue this process until all samples submitted are virus detection test-negative.
  • The operation is released from quarantine when all of the criteria listed below have been met:
    ▪ There is no indication of clinical disease suggestive of avian influenza, and
    ▪ All samples submitted for testing are virus detection test-negative.

OPTION # 2

• Collect tracheal/oropharyngeal swabs for virus detection testing from (150) birds representative of the operation*. Take swab
samples from any dead or sick birds first, and then swab other birds to collect 150 swabs**.

- If there are less than 150 birds in the operation, test all birds.
- Refer to the guidelines for collection and submission of samples included in this document.
- If any of these samples tests positive, submit 150 swabs a minimum of 14 days after the positive sample was collected. Continue this process until all samples submitted are virus detection test-negative.
- The flock is released from quarantine when all of the criteria listed below have been met:
  - There is no indication of clinical disease suggestive of avian influenza, and
  - All samples submitted for testing are virus detection test-negative.

If the subtype is known to be a subtype other than H5, H7, or is not another subtype that poses a threat to the poultry industry and/or human health, choose one of the following options:

- Collect tracheal/oropharyngeal swabs for virus detection testing from thirty (30) birds representative of the operation*. Take swab samples from any dead or sick birds first, and then swab other birds to collect 30 swabs**.
- If there are less than 30 birds in the operation, test all birds.
- Refer to the guidelines for collection and submission of samples included in this document.
- If all samples are virus detection test-negative, and there is no indication of clinical disease suggestive of avian influenza, the flock is released from quarantine.
- If any of these samples tests positive, submit 150 swabs representative of the operation a minimum of 14 days after the positive sample was collected. Take swab samples from any dead or sick birds first, and then swab other birds to collect 150 samples.
- If there are less than 150 birds in the operation, test all birds.
- If any of these samples tests positive, repeat collection and submission of 150 swabs a minimum of 14 days after the positive sample was collected. Continue this process until all samples submitted are virus detection test-negative.
- The flock is released from quarantine when all of the criteria listed below have been met:
  - There is no indication of clinical disease suggestive of avian influenza, and
  - All samples submitted for testing are virus detection test-negative.
B. Positive Virus Detection: When the flock is initially quarantined based on a positive virus detection test (PCR or Virus Isolation), the protocol presented below must be followed:

❖ For all subtypes:

OPTION # 1
- A minimum of four weeks (30 days) after the date of collection of the positive sample, obtain tracheal/oropharyngeal swabs for virus detection testing from 60 birds representative of the operation*. Take swab samples from any dead or sick birds first, then swab other birds to collect 60 samples**.
- If there are less than 60 birds in a flock, test all birds.
- Refer to the guidelines for collection and submission of samples included in this document.
- If any of these samples tests positive, submit 60 swabs a minimum of 30 days after the positive sample was collected. Continue this process until all samples submitted are virus detection test-negative.
- The flock is released from quarantine when all of the criteria listed below have been met:
  ▪ There is no indication of clinical disease suggestive of avian influenza, and
  ▪ All samples submitted for testing are virus detection test-negative.

OPTION # 2
- A minimum of 14 days after the date of collection of the positive sample, collect tracheal/oropharyngeal swabs for virus detection testing from one hundred and fifty (150) birds representative of the operation*. Take swab samples from any dead or sick birds first, then swab other birds to collect 150 samples**.
- If there are less than 150 birds in a flock, test all birds.
- Refer to the guidelines for collection and submission of samples included in this document.
- If any of these samples tests positive, repeat collection and submission of 150 swabs a minimum of 14 days after the positive sample was collected. Continue this process until all samples submitted are virus detection test-negative.
- The flock is released from quarantine when all of the criteria listed below have been met:
  ▪ There is no indication of clinical disease suggestive of avian influenza, and
  ▪ All samples submitted for testing are virus detection test-negative.
Guidelines for Collection and Submission of Samples

Please Note: Include the Premise ID number on all submission forms. Call the Pennsylvania Department of Agriculture for a number if you do not have one.

Collection of Samples

Swabs

Tracheal/oropharyngeal swabs:
• Collect tracheal/oropharyngeal swabs for virus detection testing from birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect the required number of swabs.
• Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
• Insert the swab and rub the mucosa vigorously.
• Use 1 swab for each bird.
• Place swabs into tubes containing enough VTM to moisten and cover the swabs.
• Place 5 swabs (from 5 different birds) into one tube.
• Submit tubes to a PADLS laboratory.
• Write the farm name and Premise ID on the side of the box of samples (not on the lid).
• Submit a completed submission form which includes Premise ID.

Cloacal swabs:**
• Collect cloacal swabs for virus detection testing from birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect the required number of swabs.
• Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
• Insert the swab and rub the mucosa vigorously.
• Use 1 swab for each bird.
• Place swabs into tubes containing enough VTM to moisten and cover the swabs.
• Place 5 swabs (from 5 different birds) into one tube.
• Submit tubes to a PADLS laboratory.
• Write the farm name and Premise ID on the bottom of the box of samples (not on the lid).
• Submit a completed submission form which includes Premise ID.

*All samples must be taken by government authorized personnel (PDA, USDA, universities, and laboratory personnel)
**Waterfowl: Cloacal swabs and virus isolation required

Submission of Samples to PADLS Laboratories

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• Samples can be tested at any PADLS laboratory.
• Call the laboratory in advance to let them know when the samples will arrive:
  • PVL, Harrisburg: 717-787-8808
  • New Bolton Center: 610-444-4282
  • Penn State University Animal Diagnostic Laboratory: 814-863-0837
• When leaving dead birds at the end of the farm lane for swabbing, place birds in a sturdy, leak-proof container. Authorized personnel will collect swab samples and leave the dead birds at that site for disposal.
• To ensure the integrity of swab samples:
  • VTM should be an orange color when fresh. Check that the VTM has not changed to a violet color and has not passed the date of expiration.
  • VTM should be refrigerated at all times.
  • Keep the swabs in VTM on fresh ice packs until transporting to a PADLS laboratory (you may need to change ice packs at least every 24 hours).
  • If samples are stored in a freezer for more than 72 hours, place a plastic bag around each box and seal to prevent drying of the VTM.
  • Place a completed copy of an AI Sample Submission Form in each box with the corresponding samples. Samples must be identified with Premise ID, farm name, phone number, date of sample collection, and dates on which dead bird carcasses were collected. If you need a Premise ID number, call the PA Department of Agriculture.

**Reporting**

• Report any signs suggestive of AI in the flock immediately to the Pennsylvania Department of Agriculture at: 717-772-2852.
• Signs suggestive of AI include the following:
  • Increased mortality;
  • Decreased egg production;
  • Swollen eyelids/sinuses/combs or wattles;
  • Purple or bluish discoloration of wattles and combs;
  • Respiratory snicking; and
  • Generally depressed birds.
• Commonly, the producer will notice mortality increases and in the case of layers, decreased egg production, which usually trails the mortality by several days.
• These are general guidelines only.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #17: TESTING OF “DANGEROUS CONTACT FLOCKS” TO DETERMINE THE STATUS OF THESE FLOCKS

(FOR ALL SUBTYPES)

Following the detection of Avian Influenza, flocks that may have been exposed may be discovered during the epidemiological investigation. These flocks are labeled as “Dangerous Contact Flocks” and are required to undergo testing to determine their AI status.

The option of leaving dead birds at the end of the farm lane for swabbing by authorized personnel may be offered as an alternative to in-house collection and submission of swabs.

❖ Testing Requirements:

- **Blood samples from live birds***:
  - Collect blood samples from sixty (60) birds representative of the flock (from all areas of the house or cage banks). If there are less than 60 birds in the flock, collect samples from all birds,

  **and**

- **Swab samples from dead or sick birds, and/or live birds***:
  - Collect tracheal/oropharyngeal swabs from sixty (60) birds representative of the flock (from all areas of the house or cage banks). If there are less than 60 birds in the flock, collect swabs from all birds**.

  ▪ Take swab samples from any dead or sick birds first, and then swab other birds to collect 60 swabs. Any swabs from live birds may be taken from the same birds from which blood samples were taken.

  - Refer to the guidelines for collection and submission of samples included in this document.

* All samples must be taken by government authorized personnel (PDA, USDA, universities, and laboratory personnel)

**Waterfowl: Cloacal swabs and virus isolation required
Guidelines for Collection and Submission of Samples

Please Note: Include the Premise ID number on all submission forms. Call the Pennsylvania Department of Agriculture for a number if you do not have one.

Collection of Samples

- **Blood**
  - Collect at least 2.5 milliliters (cc) of blood in tubes available from the PADLS laboratories.
  - Allow blood to stand for 4 to 12 hours at room temperature.
  - Place blood in refrigerator until it can be transported to the laboratory.
  - Complete the submission form and send it with the samples.
  - Write the farm name and Premise ID on the side of the box of samples (not on the lid).
  - Submit a completed submission form which includes Premise ID.

- **Swabs**
  - **Tracheal/oropharyngeal swabs:**
    - Collect tracheal/oropharyngeal swabs for virus detection testing from birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect the required number of swabs.
    - Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
    - Insert the swab and rub the mucosa vigorously.
    - Use 1 swab for each bird.
    - Place swabs into tubes containing enough VTM to moisten and cover the swabs.
    - Place 5 swabs (from 5 different birds) into one tube.
    - Submit tubes to a PADLS laboratory.
    - Write the farm name and Premise ID on the side of the box of samples (not on the lid).
    - Submit a completed submission form which includes Premise ID.

  - **Cloacal swabs:**
    - Collect cloacal swabs for virus detection testing from birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect the required number of swabs.
    - Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
    - Insert the swab and rub the mucosa vigorously.
    - Use 1 swab for each bird.
    - Place swabs into tubes containing enough VTM to moisten and cover the swabs.
    - Place 5 swabs (from 5 different birds) into one tube.
• Submit tubes to a PADLS laboratory.
• Write the farm name and Premise ID on the bottom of the box of samples (not on the lid).
• Submit a completed submission form which includes Premise ID.

Submission of Samples to PADLS Laboratories

• Samples can be tested at any PADLS laboratory.
• Call the laboratory in advance to let them know when the samples will arrive:
  • PVL, Harrisburg: 717-787-8808
  • New Bolton Center: 610-444-4282
  • Penn State University Animal Diagnostic Laboratory: 814-863-0837
• When leaving dead birds at the end of the farm lane for swabbing, place birds in a sturdy, leak-proof container. Authorized personnel will collect swab samples and leave the dead birds at that site for disposal.
• To ensure the integrity of swab samples:
  • VTM should be an orange color when fresh. Check that the VTM has not changed to a violet color and has not passed the date of expiration.
  • VTM should be refrigerated at all times.
  • Keep the swabs in VTM on fresh ice packs until transporting to a PADLS laboratory (you may need to change ice packs at least every 24 hours).
  • If samples are stored in a freezer for more than 72 hours, place a plastic bag around each box and seal to prevent drying of the VTM.
  • Place a completed copy of an AI Sample Submission Form in each box with the corresponding samples. Samples must be identified with Premise ID, farm name, phone number, date of sample collection, and dates on which dead bird carcasses were collected. If you need a Premise ID number, call the PA Department of Agriculture.

Reporting

• Report any signs suggestive of AI in the flock immediately to the Pennsylvania Department of Agriculture at: 717-772-2852.
• Signs suggestive of AI include the following:
  • Increased mortality;
  • Decreased egg production;
  • Swollen eyelids/sinuses/combs or wattles;
  • Purple or bluish discoloration of wattles and combs;
  • Respiratory snicking; and
  • Generally depressed birds.
  • Commonly, the producer will notice mortality increases and in the case of layers, decreased egg production, which usually trails the mortality by several days.
  • These are general guidelines only.
The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #18: PROTOCOL FOR SAMPLING OF COMMERCIAL POULTRY HOUSES FOR AVIAN INFLUENZA

{For All Subtypes}

❖ Items required:
  ▪ Clothing and other biosecurity protection
  ▪ Viral transport kit containing box of 20 (10 ml tubes) of VTM and accompanying swabs
  ▪ Latex or vinyl gloves
  ▪ Permanent marking pen
  ▪ Cooler and ice packs, etc.

❖ Sample Collection: A total of 10 tubes are collected per poultry house:
  Each tube contains 5 swabs taken per specified site (for a total of 50 swabs in 10 tubes).

❖ Areas to sample:
  1. Floors or Slats: Take 20 swabs from enough sites to get representative samples from the entire house (20 swabs, 4 tubes). In cage layer houses, both pit floors and/or cage walkways may be sampled.
  2. Fan Houses: Take 10 swabs of representative fan areas and fan housings (10 swabs, 2 tubes). Include fan box area and blades/louvers (make sure fan is not operating at time of sampling).
  3. Walls: Take 10 swabs (10 swabs, 2 tubes) from representative areas of walls. Sample in enough areas to have walked a minimum of 25% of the house.
  4. Entrance Areas: Take 10 swabs (10 swabs, 2 tubes) from representative areas.
  5. Egg Rooms/Utility Rooms: Take 10 swabs (10 swabs, 2 tubes) from representative areas.
  6. Coolers or Feed Troughs/Feeders: Take 10 swabs (10 swabs, 2 tubes) from representative areas.
  7. Compost: If poultry are composted within the house, take 40 swabs (40 swabs, 8 tubes) from representative areas of the compost piles.
  8. Nest Boxes: If the house contains nest boxes, take 10 swabs (10 swabs, 2 tubes) from representative areas of the nest boxes/nesting areas.

❖ Submission of Samples to PADLS Laboratories
  ▪ Samples can be tested at any PADLS laboratory.
  ▪ Call the laboratory in advance to let them know when the samples will arrive:
    • PVL, Harrisburg: 717-787-8808
    • New Bolton Center: 610-444-4282
    • Penn State University Animal Diagnostic Laboratory: 814-863-0837
  ▪ To ensure the integrity of swab samples:
• VTM should be an orange color when fresh. Check that the VTM has not changed to a violet color and has not passed the date of expiration.
• VTM should be refrigerated at all times.
• Saturate swabs with VTM prior to sampling and immediately following sampling.
• Place 5 swabs in each tube after sampling.
• Mark each tube and indicate which samples represent particular areas as detailed.
• Use a separate submission form for each area.
• Disinfect the exterior of tubes and box (including inside of lid) prior to transporting to laboratory.
• Write the farm name and Premise ID on the bottom of the box of samples (not on the lid).
• Keep the swabs in VTM on fresh ice packs until transporting to a PADLS laboratory (you may need to change ice packs at least every 24 hours).
• If samples are stored in a freezer for more than 72 hours, place a plastic bag around each box and seal to prevent drying of the VTM.
• Place a completed copy of an AI Sample Submission Form in each box with the corresponding samples. Samples must be identified with Premise ID, farm name, phone number, and date of sample collection. If you need a Premise ID number, call the PA Department of Agriculture.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #19: PROTOCOL FOR SAMPLING OF POULTRY HOUSES FOR AVIAN INFLUENZA FOR SMALL FLOCKS
(Flocks with less than 3,000 birds)

{For All Subtypes}

❖ Items required:
  ▪ Clothing and other biosecurity protection,
  ▪ Viral transport kit containing box of 20 (10 ml tubes) of VTM and accompanying swabs
  ▪ Latex or vinyl gloves
  ▪ Permanent marking pen
  ▪ Cooler and ice packs, etc.

❖ Sample Collection: A total of 10 tubes are collected per poultry house:
  ▪ Each tube contains 5 swabs taken per specified site (for a total of 50 swabs in 10 tubes).
  ▪ Twenty additional swabs per house (5 swabs in each of 4 tubes) are taken if poultry are composted within the poultry house.
  ▪ Every building must be sampled.

❖ Areas to sample: Bias sampling to areas which may be likely sources for isolation of influenza virus.

Interior of Buildings:
  1. Floors: Within buildings take 10 swabs (10 swabs, 2 tubes) representative of floors - concentrate on any areas with organic debris.
  2. Walls: Within buildings take 10 swabs (10 swabs, 2 tubes) representative of walls and pen structures (wooden gates, feeders, equipment).

Exterior of Buildings:
  From the exterior of buildings take 20 swabs (20 swabs, 4 tubes) representative of:
  1. Poultry congregating areas,
  2. Feeders, and
  3. Any particular shallow pooled water, wet or muddy areas.

Additional Samples: Select 10 additional discretionary swabs (10 swabs, 2 tubes). Suggestions include:
  1. Additional indoor areas if complete indoor poultry rearing operation.
  2. Equipment - including coops and transport vehicles that are immediately present on the premise and used directly for poultry transport.
  3. Bias sampling to any areas with significant accumulation of manure.
  4. If poultry are composted within the house, take 20 swabs (20 swabs, 4 tubes) from representative areas of the compost piles.
  5. If the house contains nest boxes, take 10 swabs (10 swabs, 2 tubes) from representative areas of the nest boxes/nesting areas.
Sample Collection and Submission:

- Samples can be tested at any PADLS laboratory.
- Call the laboratory in advance to let them know when the samples will arrive:
  - PVL, Harrisburg: 717-787-8808
  - New Bolton Center: 610-444-4282
  - Penn State University Animal Diagnostic Laboratory: 814-863-0837
- To ensure the integrity of swab samples:
  - VTM should be an orange color when fresh. Check that the VTM has not changed to a violet color and has not passed the date of expiration.
  - VTM should be refrigerated at all times.
  - Saturate swabs with VTM prior to sampling and immediately following sampling.
  - Place 5 swabs in each tube after sampling.
  - Mark each tube and indicate which samples represent particular areas as detailed.
  - Use a separate submission form for each area.
  - Disinfect the exterior of tubes and box (including inside of lid) prior to transporting to laboratory.
  - Write the farm name and Premise ID on the bottom of the box of samples (not on the lid).
  - Keep the swabs in VTM on fresh ice packs until transporting to a PADLS laboratory (you may need to change ice packs at least every 24 hours).
  - If samples are stored in a freezer for more than 72 hours, place a plastic bag around each box and seal to prevent drying of the VTM.
  - Place a completed copy of an AI Sample Submission Form in each box with the corresponding samples. Samples must be identified with Premise ID, farm name, phone number, and date of sample collection. If you need a Premise ID number, call the PA Department of Agriculture.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #20: TESTING PROTOCOLS WITHIN AVIAN INFLUENZA QUARANTINE ZONES FOR BIRDS NOT DESTINED FOR SLAUGHTER FOR AT LEAST 6 WEEKS
(INCLUDES PULLETS, BREEDERS, AND LAYERS)

The option of leaving dead birds at the end of the farm lane for swabbing by authorized personnel may be offered as an alternative to in-house collection and submission of swabs.

Surveillance Testing Requirements for Birds 3 weeks of Age or Older within AI Quarantine Zones:

❖ Within the 2-mile Zone:
  - Initial virus detection testing of tracheal/oropharyngeal swabs within the 2-mile zone will be followed by testing of blood samples.
    - Initial swab samples from birds within the 2-mile zone must be submitted within 48 hours after the quarantine is placed.
    - Collect tracheal/oropharyngeal swabs for virus detection testing from fifteen (15) fresh dead birds*. If you do not have 15 dead birds, take swab samples from any dead or sick birds first, and then swab other birds to collect 15 swabs.**
    - If there are less than 15 birds in the flock, collect samples from all birds.
    - Refer to the guidelines for collection and submission of samples included in this document.
    - Within 10 days after the initial swab sample collection and submission, begin collection of blood samples and discontinue collection of swabs or dead birds, to meet the following requirements:
      - Collect blood samples from 30 birds representative of the flock (from all areas of the house or cage banks).
      - Continue submission of 30 blood samples every 14 days.
      - Samples will be collected until the Department of Agriculture announces that the risk period has passed.

❖ Within the Heightened Surveillance Zone (as defined by the General Quarantine Order):
  - Initial virus detection testing of tracheal/oropharyngeal swabs from birds within the heightened surveillance zone will be followed by testing of blood samples.
    - Initial swab samples from birds within the heightened surveillance zone must be submitted within 72 hours after the quarantine is placed.
    - Collect tracheal/oropharyngeal swabs for virus detection testing from fifteen (15) fresh dead birds*. If you do not have 15 dead birds, take swab samples from any dead or sick birds first, and then swab other birds to collect 15 swabs.**
    - If there are less than 15 birds in the flock, collect samples from all birds.
• Refer to the guidelines for collection and submission of samples included in this document.
• Within 10 days after the initial swab sample collection and submission, begin collection of blood samples and discontinue collection of swabs or dead birds, to meet the following requirements:
  o Collect blood samples from 30 birds representative of the flock (from all areas of the house or cage banks).
  o Continue submission of 30 blood samples every 14 days.
  o Samples will be collected until the Department of Agriculture announces that the risk period has passed.

Guidelines for Collection and Submission of Samples

*Please Note:* Include the Premise ID number on all submission forms. Call the Pennsylvania Department of Agriculture for a number if you do not have one.

Collection of Samples

**Blood**

- Collect at least 2.5 milliliters (cc) of blood in tubes available from the PADLS laboratories.
- Allow blood to stand for 4 to 12 hours at room temperature.
- Place blood in refrigerator until it can be transported to the laboratory.
- Complete the submission form and send it with the samples.
- Write the farm name and Premise ID on the side of the box of samples (not on the lid).
- Submit a completed submission form which includes Premise ID.

**Swabs**

*Tracheal swabs:*

- Collect tracheal/oropharyngeal swabs for virus detection testing from fifteen birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect 15 swabs.
- If there are less than 15 birds in the flock, collect samples from all birds.
- Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
- Insert the swab and rub the mucosa vigorously.
- Use 1 swab for each bird.
- Place swabs into tubes containing enough VTM to moisten and cover the swabs.
- Place 5 swabs (from 5 different birds) into one tube.
- Submit tubes to a PADLS laboratory.
• Write the farm name and Premise ID on the side of the box of samples (not on the lid).
• Submit a completed submission form which includes Premise ID.

**Cloacal swabs**: 
• Collect cloacal swabs for virus detection testing from fifteen birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect 15 swabs.
• If there are less than 15 birds in the flock, collect samples from all birds.
• Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
• Insert the swab and rub the mucosa vigorously.
• Use 1 swab for each bird.
• Place swabs into tubes containing enough VTM to moisten and cover the swabs.
• Place 5 swabs (from 5 different birds) into one tube.
• Submit tubes to a PADLS laboratory.
• Write the farm name and Premise ID on the bottom of the box of samples (not on the lid).
• Submit a completed submission form which includes Premise ID.

* All samples must be taken by government authorized personnel (PDA, USDA, universities, and laboratory personnel)
**Waterfowl: Cloacal swabs and virus isolation required

**Submission of Samples to PADLS Laboratories**

• Samples can be tested at any PADLS laboratory.
• Call the laboratory in advance to let them know when the samples will arrive:
  • PVL, Harrisburg: 717-787-8808
  • New Bolton Center: 610-444-4282
  • Penn State University Animal Diagnostic Laboratory: 814-863-0837
• When leaving dead birds at the end of the farm lane for swabbing, place birds in a sturdy, leak-proof container. Authorized personnel will collect swab samples and leave the dead birds at that site for disposal.
• To ensure the integrity of swab samples:
  • VTM should be an orange color when fresh. Check that the VTM has not changed to a violet color and has not passed the date of expiration.
  • VTM should be refrigerated at all times.
  • Keep the swabs in VTM on fresh ice packs until transporting to a PADLS laboratory (you may need to change ice packs at least every 24 hours).
  • If samples are stored in a freezer for more than 72 hours, place a plastic bag around each box and seal to prevent drying of the VTM.
  • Place a completed copy of an AI Sample Submission Form in each box with the corresponding samples. Samples must be identified with Premise ID, farm name, phone number, date of sample
collection, and dates on which dead bird carcasses were collected. If you need a Premise ID number, call the PA Department of Agriculture.

**Reporting**

- Report any signs suggestive of AI in the flock immediately to the Pennsylvania Department of Agriculture at: 717-772-2852.
- Signs suggestive of AI include the following:
  - Increased mortality;
  - Decreased egg production;
  - Swollen eyelids/sinuses/combs or wattles;
  - Purple or bluish discoloration of wattles and combs;
  - Respiratory snicking; and
  - Generally depressed birds.
  - Commonly, the producer will notice mortality increases and in the case of layers, decreased egg production, which usually trails the mortality by several days.
- These are general guidelines only.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL #21: TESTING PROTOCOLS WITHIN AVIAN INFLUENZA QUARANTINE ZONES FOR BIRDS DESTINED FOR SLAUGHTER OR LIVE BIRD MARKETS WITHIN 6 WEEKS (BROILERS, SPENT HENS, ETC.)

The option of leaving dead birds at the end of the farm lane for swabbing by authorized personnel may be offered as an alternative to in-house collection and submission of swabs.

Surveillance Testing Requirements for Birds 3 weeks of Age or Older within Al Quarantine Zones:

❖ Within the 2-mile Zone:
  • Initial virus detection testing of tracheal/oropharyngeal swabs within the 2-mile zone will be continued:
    • Initial swab samples from birds within the 2-mile zone must be submitted within 48 hours after the quarantine is placed.
    • Collect tracheal/oropharyngeal swabs from 15 fresh dead birds and submit the swabs to a PADLS laboratory*. If you do not have 15 dead birds, take swab samples from any dead or sick birds first, and then swab other birds to collect 15 swabs.**
    • If there are less than 15 birds in the flock, collect samples from all birds.
    • Refer to the guidelines for collection and submission of samples included in this document.
    • Continue collection and submission of tracheal/oropharyngeal swabs every 7 days.
    • Samples will be collected until the Department of Agriculture announces that the risk period has passed.

❖ Within the Heightened Surveillance Zone (as defined by the General Quarantine Order):
  • Initial virus detection testing of tracheal/oropharyngeal swabs within the heightened surveillance zone will be continued:
    • Initial swab samples from birds within the heightened surveillance zone must be submitted within 72 hours after the quarantine is placed.
    • Collect tracheal/oropharyngeal swabs for virus detection testing from fifteen (15) fresh dead birds*. If you do not have 15 dead birds, take swab samples from any dead or sick birds first, and then swab other birds to collect 15 swabs.**
    • If there are less than 15 birds in the flock, collect samples from all birds.
    • Refer to the guidelines for collection and submission of samples included in this document.
    • Continue collection and submission of tracheal/oropharyngeal swabs every 7 days.
    • Samples will be collected until the Department of Agriculture announces that the risk period has passed.
Guidelines for Collection and Submission of Samples

Please Note: Include the Premise ID number on all submission forms. Call the Pennsylvania Department of Agriculture for a number if you do not have one.

Collection of Samples

Swabs from Birds

Tracheal swabs:
• Collect tracheal/oropharyngeal swabs for virus detection testing from fifteen birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect 15 swabs.
• If there are less than 15 birds in the flock, collect samples from all birds.
• Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
• Insert the swab and rub the mucosa vigorously.
• Use 1 swab for each bird.
• Place swabs into tubes containing enough VTM to moisten and cover the swabs.
• Place 5 swabs (from 5 different birds) into one tube.
• Submit tubes to a PADLS laboratory.
• Write the farm name and Premise ID on the side of the box of samples (not on the lid).
• Submit a completed submission form which includes Premise ID.

Cloacal swabs**:
• Collect cloacal swabs for virus detection testing from fifteen birds representative of the flock. Take swab samples from any dead or sick birds first, and then swab other birds to collect 15 swabs.
• If there are less than 15 birds in the flock, collect samples from all birds.
• Use dry swabs for dead bird sample collection; use swabs moistened with VTM for live bird sample collection.
• Insert the swab and rub the mucosa vigorously.
• Use 1 swab for each bird.
• Place swabs into tubes containing enough VTM to moisten and cover the swabs.
• Place 5 swabs (from 5 different birds) into one tube.
• Submit tubes to a PADLS laboratory.
• Write the farm name and Premise ID on the bottom of the box of samples (not on the lid).
• Submit a completed submission form which includes Premise ID.

* All samples must be taken by government authorized personnel (PDA, USDA, universities, and laboratory personnel) if taken on-farm
Submission of Samples to PADLS Laboratories

- Samples can be tested at any PADLS laboratory.
- Call the laboratory in advance to let them know when the samples will arrive:
  - PVL, Harrisburg: 717-787-8808
  - New Bolton Center: 610-444-4282
  - Penn State University Animal Diagnostic Laboratory: 814-863-0837
- When leaving dead birds at the end of the farm lane for swabbing, place birds in a sturdy, leak-proof container. Authorized personnel will collect swab samples and leave the dead birds at that site for disposal.
- To ensure the integrity of swab samples:
  - VTM should be an orange color when fresh. Check that the VTM has not changed to a violet color and has not passed the date of expiration.
  - VTM should be refrigerated at all times.
  - Keep the swabs in VTM on fresh ice packs until transporting to a PADLS laboratory (you may need to change ice packs at least every 24 hours).
  - If samples are stored in a freezer for more than 72 hours, place a plastic bag around each box and seal to prevent drying of the VTM.
  - Place a completed copy of an AI Sample Submission Form in each box with the corresponding samples. Samples must be identified with Premise ID, farm name, phone number, date of sample collection, and dates on which dead bird carcasses were collected. If you need a Premise ID number, call the PA Department of Agriculture.

Reporting

- Report any signs suggestive of AI in the flock immediately to the Pennsylvania Department of Agriculture at: 717-772-2852.
- Signs suggestive of AI include the following:
  - Increased mortality;
  - Decreased egg production;
  - Swollen eyelids/sinuses/combs or wattles;
  - Purple or bluish discoloration of wattles and combs;
  - Respiratory snicking; and
  - Generally depressed birds.
  - Commonly, the producer will notice mortality increases and in the case of layers, decreased egg production, which usually trails the mortality by several days.
  - These are general guidelines only.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes
to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
AVIAN INFLUENZA

PROTOCOL # 22: TRIGGERS FOR PLACEMENT OF GENERAL QUARANTINE AND SURVEILLANCE TESTING OF POULTRY FLOCKS

{FOR ALL SUBTYPES}

Following the detection of Avian Influenza, flocks that are located on properties near a positive flock may have been exposed to the virus. A general quarantine may be placed and surveillance testing of flocks within the quarantine zone may be used to gain information concerning the extent of an infection.

- Triggers for placement of general quarantine and required surveillance (circle) testing:
  - H5/H7:
    - Serology or virus detection test positive for H5/H7 in a flock of any size:
      • Please note that if a flock is serology test positive but virus detection test negative for H5/H7, a general quarantine will be placed and surveillance testing initiated.
  - NON-H5/H7:
    - Virus detection test positive for NON-H5/H7 in a commercial flock (flock with 3,000 or more birds):
      • Waterfowl excluded.
      • Please note that if a commercial flock or any other flock is serology test positive but virus detection test negative for NON-H5/H7, surveillance testing will not be initiated unless special circumstances arise, at the discretion of PDA.

- Samples:
  Blood samples from live birds*:
  - Collect blood samples from 30 birds representative of the flock (from all areas of the house or cage banks). If there are less than 30 birds in the flock, collect samples from all birds.
  - A second collection may be requested several weeks after the initial collection at the discretion of PDA.
  - Refer to the guidelines for collection and submission of samples included in this document.

* All samples must be taken by government authorized personnel (PDA, USDA, universities, and laboratory personnel), certified poultry technicians, or accredited veterinarians.

*Only birds 3 weeks of age and older will be tested*
Guidelines for Collection and Submission of Samples

**Please Note:** Include the Premise ID number on all submission forms. Call the Pennsylvania Department of Agriculture for a number if you do not have one.

Collection of Samples and Submission of Samples to PADLS Laboratories

**Blood**
- Collect at least 2.5 milliliters (cc) of blood in tubes available from the PADLS laboratories.
- Allow blood to stand for 4 to 12 hours at room temperature.
- Place blood in refrigerator until it can be transported to the laboratory.
- Complete the submission form and send it with the samples.
- Write the farm name and Premise ID on the side of the box of samples (not on the lid).
- Submit a completed submission form which includes Premise ID.

**Submission**
- Samples can be tested at any PADLS laboratory.
- Call the laboratory in advance to let them know when the samples will arrive:
  - PVL, Harrisburg: 717-787-8808
  - New Bolton Center: 610-444-4282
  - Penn State University Animal Diagnostic Laboratory: 814-863-0837

**Reporting**
- Report any signs suggestive of AI in the flock immediately to the Pennsylvania Department of Agriculture at: 717-772-2852.
- Signs suggestive of AI include the following:
  - Increased mortality;
  - Decreased egg production;
  - Swollen eyelids/sinuses/combs or wattles;
  - Purple or bluish discoloration of wattles and combs;
  - Respiratory snicking; and
  - Generally depressed birds.
  - Commonly, the producer will notice mortality increases and in the case of layers, decreased egg production, which usually trails the mortality by several days.
  - These are general guidelines only.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information...
including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
AVIAN INFLUENZA

PROTOCOL # 23: NOTIFICATION OF CONTIGUOUS FLOCKS IN THE ABSENCE OF A GENERAL QUARANTINE WHEN AN AI POSITIVE FLOCK IS FOUND

{FOR ALL SUBTYPES}

If AI is detected on a premises, that premises will be quarantined pending further testing and investigation. Properties with susceptible species that are bordering the premises with a positive flock may need increased biosecurity, and flock managers on these properties will be notified as soon as possible after a premises is quarantined.

Notification will occur under the following guidelines:

- **WHO** will be notified: Managers of flocks on properties bordering the property on which the AI positive was discovered will be notified as soon as possible after a quarantine is posted on a property in response to a positive test result for Avian Influenza (AGID and/or virus detection). Properties will be identified using available resources, including GPS, when possible. Additionally, key industry representatives will be notified as soon as possible, and may make the notifications of the flock managers as PDA designees. All contacts will be notified again when the quarantine has been revoked.

- **WHO** will make the notifications: PDA representatives or their designees will make the notifications.

- **HOW** will notification occur: Notification will occur in person, or by phone, fax, or email.

- **WHEN** will the notification occur: As soon as possible after a quarantine has been placed and again when it has been revoked.

- **WHAT** will the notification contain:
  - The flock managers and industry representatives will be given the name and location of the property on which the positive flock is located. A posted quarantine is public information.
  - Recommendations will be made to managers to review biosecurity practices and heighten biosecurity if necessary.
  - Flock managers will be encouraged to conduct voluntary surveillance testing at PDA’s expense.
Although efforts will be made to identify and contact all bordering properties, it is possible that not all properties will be identified and/or that flock managers will not be available for notification.

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AVIAN INFLUENZA

PROTOCOL #24: SURVEILLANCE TESTING OF TRACE-BACK/TRACE-FORWARD POULTRY FLOCKS TO DETERMINE THE STATUS OF THESE FLOCKS

{FOR ALL SUBTYPES}

Following the detection of Avian Influenza, flocks that may have been exposed may be discovered during the epidemiological investigation. These flocks are labeled as “trace-back” or “trace-forward” flocks and are required to undergo testing to determine their AI status.

*For birds 3 weeks of age and older*

❖ Samples:

• Blood samples from live birds*:
  ▪ Collect blood samples from thirty (30) birds representative of the flock (from all areas of the house or cage banks). If there are less than 30 birds in the flock, collect samples from all birds.
  ▪ Refer to the guidelines for collection and submission of samples included in this document.

* All samples must be taken by government authorized personnel (PDA, USDA, universities, and laboratory personnel), certified poultry technicians, or accredited veterinarians.

Guidelines for Collection and Submission of Samples

* Please Note: Include the Premise ID number on all submission forms. Call the Pennsylvania Department of Agriculture for a number if you do not have one.

Collection of Samples

❖ Blood
  ▪ Collect at least 2.5 milliliters (cc) of blood in tubes available from the PADLS laboratories.
  ▪ Allow blood to stand for 4 to 12 hours at room temperature.
  ▪ Place blood in refrigerator until it can be transported to the laboratory.
  ▪ Complete the submission form and send it with the samples.
  ▪ Write the farm name and Premise ID on the side of the box of samples (not on the lid).
  ▪ Submit a completed submission form which includes Premise ID.
Submission of Samples to PADLS Laboratories

- Samples can be tested at any PADLS laboratory.
- Call the laboratory in advance to let them know when the samples will arrive:
  - PVL, Harrisburg: 717-787-8808
  - New Bolton Center: 610-444-4282
  - Penn State University Animal Diagnostic Laboratory: 814-863-0837

Reporting

- Report any signs suggestive of AI in the flock immediately to the Pennsylvania Department of Agriculture at: 717-772-2852.
- Signs suggestive of AI include the following:
  - Increased mortality;
  - Decreased egg production;
  - Swollen eyelids/sinuses/combs or wattles;
  - Purple or bluish discoloration of wattles and combs;
  - Respiratory snickering; and
  - Generally depressed birds.
- Commonly, the producer will notice mortality increases and in the case of layers, decreased egg production, which usually trails the mortality by several days.
- These are general guidelines only.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
TEST DESCRIPTIONS FOR AVIAN INFLUENZA

AGID – The Agar gel immunodiffusion test uses positive control antigen obtained from National Veterinary Services Laboratory (NVSL), Ames, Iowa, which when placed in an agar well along with serum samples from birds, can detect the presence of antibodies to avian influenza in birds, indicating that they have been exposed to the virus. A precipitation line is formed between the well containing the serum (if antibody is present) and the antigen. The test does not differentiate between the types of influenza viruses or whether it is a recent or past exposure.

The Directigen Flu A test® is an enzyme immunoassay test for the rapid detection of influenza A viral antigen from specimens. Usually cloacal and tracheal swabs are selected as bird samples, although lung tissue and oviduct contents can be used. The test does yield some false positives when other proteins interfere. A positive test usually indicates the presence of influenza virus in those tissues or samples and is hence followed up with viral isolation as a confirmation. The Directigen® is a human test adopted in some situations for avian work.

VI- Virus isolation uses 9 to 11 day-old embryonated chicken eggs to which centrifuged or filtered samples of cloacal or tracheal swabs or similar samples from respiratory or intestinal tissues are inoculated. Death in the embryos after 48 hours often indicates the presence of live virus. The allantoic fluid harvested from the embryo (which would then contain the virus) is reacted with chicken red blood cells as an additional confirmation, and a panel of antisera is prepared to identify the various subtypes of influenza virus.

rRT-PCR- Real-Time, Reverse Transcriptase-Polymerase Chain Reaction, is a rapid molecular test, that can be used for diagnosis of group A influenza viruses. The test detects presence of viral ribo-nucleic acid utilizing matrix (MA) gene specific primers and a flurogenic probe. The assay also helps in sub-typing positive Group A influenza viruses into H5/H7/non-H5/H7 subtypes with use of specific haemagglutinin (HA) gene primers and probes.

The test has higher sensitivity for detecting AI in tracheal swab samples than cloacal or fecal swab samples. Overall sensitivity and specificity of the test compared to virus isolation, as determined by National Veterinary Services Laboratory, was found to be 88.2% and 99.5%, respectively. However, this test sensitivity was found to be much higher (95.1%) when using the test on a positive premise.
Secretary of Agriculture Dennis C Wolff

Bureau of Animal Health and Diagnostic Services Director
Dr. Paul E. Knepley

Signature Page
PROTOCOL # 25: LIVE BIRD MARKETS

REVOCATION OF ORDER OF SPECIAL QUARANTINE THROUGH DEPOPULATION OF BIRDS AND SWINE AT A LIVE BIRD MARKET (LBM)

{For All Subtypes}

Live Bird Markets pose a special biosecurity risk, because it can be difficult to prevent human traffic onto and off of the premises even with a quarantine. Therefore, all birds and swine in a LBM which has had a positive AI test will be depopulated.

When samples taken from birds or from the environment in a LBM are found positive for Avian Influenza by serology (bird samples) or virus detection testing (birds/environmental samples), the following protocol will be followed:

➢ QUARANTINE:
  o The LBM will immediately be quarantined by the Department. The regional veterinarian or a designee will post the quarantine.
  o Quarantine prohibits the movement of birds, swine, animal products, litter, and offal into or out of the LBM premises.

➢ INSPECTION OF LBM RECORDS:
  Department officials will inspect LBM records to verify that birds have been tested in accordance with Department requirements.

➢ CONDEMNATION OF BIRDS AND SWINE:
  The Department will present a Condemnation Order to the LBM owner for signature before animals are depopulated.

➢ APPRAISAL FOR INDEMNITY:
  o Department personnel will inventory and appraise all birds and swine on the premises, using fair wholesale market value.
  o All birds and swine shall be listed on the inventory by species and approximate weight.
  o The Department may provide indemnity for condemned animals up to 2/3 of the appraised value, plus the entire cost of cleaning and disinfection of the premises after depopulation and disposal has been completed. The LBM owner must submit an itemized summary of costs for cleaning and disinfection to the Department.
  o Indemnity funds will not be provided or will be returned to the Department if it is proven that animals were illegally moved into the LBM or the Commonwealth.

➢ DEPOPULATION OF BIRDS AND SWINE:
Depopulation of birds and swine shall be done within 24 hours of the laboratory notification whenever possible.

Under the direction of PDA and/or USDA, all birds and swine on the premises will be humanely depopulated according to AVMA guidelines.

AVMA guidelines are available at http://www.avma.org/issues/animal_welfare/euthanasia.pdf

**DISPOSAL OF ANIMAL CARCASSES, LITTER, AND OFFAL:**
- Disposal method will be determined by AI subtype:
  - For H5/H7:
    - Preferred options include:
      - Incineration at an approved facility; or
      - Burial at a landfill approved by the Department.
      - Animal carcasses and other materials shall be loaded and transported for incineration or landfill disposal under the supervision of the Department and/or USDA.
  - For Non-H5/H7:
    - Preferred options include:
      - Incineration at an approved facility; or
      - Burial at a landfill approved by the Department.
      - Animal carcasses and other materials shall be loaded and transported for incineration or landfill disposal under the supervision of the Department and/or USDA.

- Disposal of animal carcasses and other materials shall be done within 24 hours of the diagnosis whenever possible.
- If animal carcasses and materials are transported to the laboratory for incineration, all animal carcasses and materials must be placed in red bags and tagged “for incineration” before being placed in the cooler at the laboratory.
- Armstrong Environmental Services and/or other approved disposal companies may be utilized for loading, transport, and disposal.

**CLEANING AND DISINFECTION:**
- Following depopulation and disposal, the LBM premises must be cleaned and disinfected. Department and/or USDA officials will supervise the cleaning and disinfection and will inspect the premises after it has been completed.
- At the Department’s discretion, the Department may require that cleaning and disinfection be repeated.
- Cleaning and disinfection costs may be included in indemnity from the Department and/or USDA.
RELEASE FROM QUARANTINE:
- After the Department has approved the cleaning and disinfection of the premises;
  - The LBM must be closed for at least 3 days and must be allowed to dry.
  - When the Department or USDA has determined that the LBM is dry, officials will collect environmental swab samples from the premises.
  - 8 to 10 tubes should be collected from the LBM and each tube should contain 5 swabs, for a total of 40 to 50 swabs. Swab samples should be collected from walls, drains, floors, sinks, slaughter equipment, cages, crates, and any other areas of the LBM which may be considered high risk.
  - The environmental samples will be submitted to a PADLS laboratory for virus isolation testing. This testing takes approximately 7 days.
  - If the laboratory reports that all tests are negative, the LBM may be released from quarantine.
  - Total down time may be approximately 10 days in most cases.
  - If any environmental samples test positive, cleaning and disinfection must be repeated, and environmental samples will again be collected and tested.
  - If environmental samples are positive after 3 cycles of cleaning and disinfection/testing, the Department may require an extended down time.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigations.
PROTOCOL # 26: POULTRY DEALERS

REVOCATION OF ORDER OF SPECIAL QUARANTINE OF POULTRY DEALERS

{For All Subtypes}

Poultry dealer premises may pose a special biosecurity risk, because birds from many different sources may be congregated before being shipped to live bird markets and other auctions or markets. Poultry dealers travel to high risk areas including live bird markets, farms and auctions. Additionally, private sales of poultry may be conducted from the dealer premises, which creates traffic on and off of the premises.

The following protocols will be followed when:

a. A poultry dealer premises is implicated in an epidemiological investigation; and/or
b. Samples taken from birds or from the environment in a poultry dealer’s premises are found positive for Avian Influenza by serology (bird samples) or virus detection testing (birds/environmental samples).

A. PROTOCOL FOR DEALERS TRANSPORTING POULTRY FROM TESTED SOURCES ONLY (PICK UP POULTRY FOR TRANSPORT TO MARKET ONLY AFTER FLOCK ON FARM IS TEST NEGATIVE):

➢ QUARANTINE:
   o The premises will immediately be quarantined by the Department. The regional veterinarian or a designee will post the quarantine.
   o Quarantine prohibits the movement of birds, swine, animal products, litter, and offal into or out of the premises. No poultry may be shipped to any LBM, auction, or farm, and no private sales may be conducted on site.

➢ INSPECTION OF DEALER RECORDS:
   Department officials will inspect dealer records to verify that birds have been tested in accordance with Department requirements; that source flocks are comingled in accordance with LBM and Department requirements; and that purchase records are being maintained to allow tracing of birds.

➢ RELEASE FROM QUARANTINE:
   o CLEANING AND DISINFECTION:
Transportation and holding equipment (trucks, crates, etc), and the environment where poultry are sorted for load outs, must be cleaned and disinfected. Department and/or USDA officials will verify the cleaning and disinfection by inspecting the premises after it has been completed.

**ENVIRONMENTAL SAMPLING:**
- A minimum of 8 to 10 tubes will be collected from the premises and each tube should contain 5 swabs, for a total of 40 to 50 swabs. Swab samples will be collected from clean transportation vehicles and crates, loading dock area / holding pens, and any other areas of the premises which may be considered high risk. The following sampling guidelines should be applied:
  - Transportation vehicles: 5 tubes (25 swabs) including samples of tires, truck bed, inside cab – pedals, floor board, etc.).
  - Crates: 1 to 5 tubes (5 to 25 swabs) depending on the number of crates.
  - Loading dock area / holding pens: 2 to 3 tubes (10 to 15 swabs) representative of the area.
- The environmental samples will be submitted to a PADLS laboratory for virus isolation testing. This testing takes approximately 7 days.
- If the laboratory reports that all tests are negative, the premises may be released from quarantine.
- If any environmental samples test positive, cleaning and disinfection must be repeated, and environmental samples will again be collected and tested.
- If environmental samples are positive after 3 cycles of cleaning and disinfection/testing, the Department may require an extended down time.

**SAMPLING OF POULTRY:**
- If poultry are present on the premises, swabs will be collected from 30 birds representative of the premises for virus detection testing. If poultry on the premises are going to be moved to a LBM, swabs must be collected from 150 birds.
- The protocol for Revocation of Order of Special Quarantine Through Testing of Poultry – Small Flocks (#16) will be utilized for testing of poultry.

**B. PROTOCOL FOR DEALERS TRANSPORTING POULTRY FROM UNTESTED SOURCES:**
➢ QUARANTINE:
  o The premises will immediately be quarantined by the Department. The regional veterinarian or a designee will post the quarantine.
  o Quarantine prohibits the movement of birds, swine, animal products, litter, and offal into or out of the premises. No poultry may be shipped to any LBM, auction or farm, and no private sales may be conducted on site.

➢ INSPECTION OF DEALER RECORDS:
  Department officials will inspect dealer records to verify that birds have been tested in accordance with Department requirements; that source flocks are comingled in accordance with LBM and Department requirements; and that purchase records are being maintained to allow tracing of birds.

➢ RELEASE FROM QUARANTINE:
  o CLEANING AND DISINFECTION:
    ▪ Transportation and holding equipment (trucks, crates, etc), and the environment where poultry are sorted for load outs, must be cleaned and disinfected. Department and/or USDA officials will verify the cleaning and disinfection by inspecting the premises after it has been completed.
  o ENVIRONMENTAL SAMPLING:
    ▪ A minimum of 8 to 10 tubes will be collected from the premises and each tube should contain 5 swabs, for a total of 40 to 50 swabs. Swab samples will be collected from clean transportation vehicles and crates, loading dock area/holding pens, poultry areas, and any other areas of the premises which may be considered high risk. For example, the following sampling guidelines should be applied:
      • Transportation vehicles: 5 tubes (25 swabs) including samples of tires, truck bed, inside cab – pedals, floor board, etc.).
      • Crates: 1 to 5 tubes (5 to 25 swabs) depending on the number of crates.
      • Loading dock area / holding pens: 2 to 3 tubes (10 to 15 swabs) representative of the area.
      • Poultry areas: 2 to 3 tubes (10 to 15 swabs) representative of each area including floors, walls, feeders/waterers, roosting boxes, etc.
      • Areas outside of poultry areas may be included if poultry are allowed to roam free on the premises.
- The environmental samples will be submitted to a PADLS laboratory for virus isolation testing. This testing takes approximately 7 days.
- If the laboratory reports that all tests are negative, the premises may be released from quarantine.
- If any environmental samples test positive, cleaning and disinfection must be repeated, and environmental samples will again be collected and tested.
- If environmental samples are positive after 3 cycles of cleaning and disinfection/testing, the Department may require an extended down time.

  **SAMPLING OF POULTRY:**
  - If poultry are present on the premises, swabs will be collected from 150 birds.
  - The protocol for Revocation of Order of Special Quarantine Through Testing of Poultry – Small Flocks (#16) will be utilized for testing of poultry.

The Pennsylvania Department of Agriculture reserves the right to amend the above mentioned requirements for Avian Influenza with the goal of any changes still being to prevent, contain and eliminate the disease. Changes to the general guidelines of the protocol may result from information including, but not limited to, virus strain, pathogenicity, morbidity and mortality, movement of birds and products, and additional epidemiological information obtained as a result of avian influenza investigation.
Poultry Worker Protection Plan:  
An Interim Guidance for the Implementation of 
CDC and OSHA Avian Influenza Public Health 
Recommendations

Pennsylvania Poultry Industry and Pennsylvania Department of Health Joint 
Working Group on the Response to Highly Pathogenic Avian Influenza 
November 1, 2005

Questions and comments may be directed to:

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We wish to acknowledge and gratefully thank the Delmarva Poultry Industries – Health Departments Joint Task Force for this document and for their guidance.

Pennsylvania Poultry Industry and Pennsylvania Department of Health Joint 
Working Group on the Response to Highly Pathogenic Avian Influenza - 
Participants

• Pennsylvania Poultry Industry

• Pennsylvania Department of Health

• Pennsylvania Department of Agriculture

• Pennsylvania State University

• University of Pennsylvania

• United States Department of Agriculture
Summary:

- In response to the identification of Avian Influenza (AI) in poultry on the Eastern Shore of Maryland and Delaware, in addition to reports of human illness in other countries related to Highly Pathogenic Avian Influenza (HPAI) outbreaks, an ad hoc working group was convened in Pennsylvania to develop procedures based on U.S. Centers for Disease Control and Prevention (CDC) and federal Occupation Safety and Health Administration (OSHA) recommendations.
- This document provides practical guidance on the training of workers and emergency response personnel, basic infection control, use of personal protective equipment (PPE), decontamination measures, vaccine and antiviral usage, surveillance for illness, and appropriate evaluation of persons who become ill.
- For the maximum protection of workers, procedures follow the guidelines recommended by the CDC.
- Poultry companies will work in conjunction with state and local public health authorities.
- The medical departments of the poultry companies will closely monitor workers after their involvement with depopulation efforts for one week after last exposure as recommended by the CDC.
- Workers not employed, or contracted by a particular poultry company, will be monitored by the health agency of the jurisdiction for their place of residence.

Background:

Avian Influenza (AI) viruses are responsible for outbreaks that mainly affect birds (epornitics). The principle hosts of AI viruses are waterfowl. AI viruses can be classified into low pathogenic (LPAI) and highly pathogenic (HPAI) forms based on their virulence and the severity of the illness they cause. Most AI virus strains are of low pathogenicity, and typically cause little or no clinical signs in infected birds (1). However, some LPAI virus strains can mutate, under field conditions, into HPAI viruses (H5 and H7 hemagglutinin subtypes), which are extremely infectious and fatal, and once established, can spread rapidly from flock to flock (1). Rare cases of human illness caused by AI have been documented throughout the world, including in the United States. In most cases, human illnesses have been associated with laboratory confirmed HPAI viruses, suggesting a zoonotic potential of the virulent strain.

The documented human illnesses resulting from infection with AI viruses have been with HPAI viruses. The clinical signs have ranged from severe, sometimes fatal, respiratory infections, such as those caused by the avian influenza A subtype H5N1 virus in Asia during 2004-2005, to mild illnesses such as conjunctivitis (an inflammation of the lining of the eye).
To date, most human HPAI infections have been acquired from direct contact with infected birds; person-to-person transmission may have occurred in several cases, but appears to be extremely uncommon. Although person-to-person transmission of HPAI appears to be rare, one major concern is that a person infected with HPAI could also become co-infected with a normal human influenza virus. Genetic material could be exchanged between the HPAI virus and the human influenza virus, which could result in an influenza virus that is transmitted easily from person-to-person. If this were to happen, a severe worldwide epidemic of influenza (pandemic) may ensue (2,3). Vaccines and antiviral drugs are important in reducing the morbidity and mortality associated with a pandemic, but the emergence and exposure of an immunologically naïve population to a new virus may expose the inadequacy of the manufacturing capacity and distribution of effective vaccines and antiviral agents.

To protect persons exposed to HPAI from becoming infected and ill, and to prevent an AI-associated pandemic, guidelines have been developed by several organizations, including the CDC (4) in February 2004, and more recently by OSHA (5). On July 25, 2005, representatives from the Pennsylvania Poultry Industry, Pennsylvania Department of Health, Pennsylvania Department of Agriculture, Pennsylvania State University and the University of Pennsylvania convened in response to recent outbreaks of LPAI in the nearby states of Delaware and Maryland (2004; H7N2), Virginia (2002; H7N2), and a prior HPAI outbreak in Pennsylvania (1983; H5N2) that killed over 11 million chickens. A plan of action was formulated using CDC and OSHA recommendations, and the Delmarva Poultry Industries – Health Departments Joint Task Force (6) guidance as a basis. This interim document represents the product of the Pennsylvania working group, and provides operational guidance for a Pennsylvania HPAI response plan based. This guidance will be updated as new and significant information becomes available.

**Target Human Populations:**

I. Poultry company workers tasked with depopulation (e.g. service personnel, company veterinarians).

II. Equipment operators contracted by poultry companies.

III. Composters (e.g. equipment operators).

IV. Farm caretakers and their families.

V. Employees of state, federal, private agencies or organizations not associated with poultry companies (i.e., Pennsylvania Department of Agriculture, university, and United States Department of Agriculture field personnel, laboratory workers, State and Federal Investigators, etc.).

Not considered at an increased risk are litter truck drivers, who dump the litter outside the poultry houses. Group I, II, and III will be identified in advance.
Procedures:

Select personnel from each poultry company will form “Primary Response Teams.” A “Team Leader” will head each Primary Response Team. These groups will be trained, educated, vaccinated, and prepared to mobilize and receive antiviral therapy when the occasion arises. The poultry companies will maintain a central listing of the workers along with their contact information.

A Safety Officer and a Public Health Representative will be identified to assure on-site compliance with procedures. A Safety Officer is an individual designated by the poultry company with the knowledge base regarding operations, with the task of ensuring that safety procedures are followed. A Public Health Representative is an individual designated by the Pennsylvania Department of Health with the task of ensuring that preventive health measures are followed.

I. Training.

Workers will be trained and required to complete the “Training Checklist” for exposure to HPAl (see Attachment 1)

II. Basic Infection Control

Team leaders will use this document to educate workers about the importance of strict adherence to and proper use of hand hygiene after contact with infected or exposed poultry, contact with contaminated surfaces, or after removing gloves. Hand hygiene should consist of washing hands with hot soap and water for 10-15 seconds (7), or the use of other standard hand-disinfection procedures as specified by the poultry company medical department. This will happen at all breaks (including, but not limited to smoking, snacking, lunch and bathroom), and prior to leaving the affected farm.

III. Personal Protective Equipment (PPE)

a. Cloth gloves over nitrile disposable gloves should be worn. Gloves must be changed if torn or otherwise damaged. Remove gloves promptly after use, before touching non-contaminated items and environmental surfaces.

b. “Throwaway clothes,” clothing that is inexpensive and that shall be discarded after the event. No special protective clothing need be worn. Clean clothes will be brought and changed into after showering out of the environment. Suitable and approved disposable overgarments that remain intact during service may be used in lieu of throwaway garments if approved by the on site Public Health Representative.
c. Disposable shoes, protective shoe covers, or rubber or polyurethane boots that can be cleaned and disinfected, should be worn.
d. Safety goggles shall be worn to protect the mucous membranes of the eyes.
e. Disposable particulate respirators will be worn (i.e., N-95, N-99, or N-100). Fit testing will be required initially, and annually.
f. Disposable PPE shall be properly discarded, and non-disposable PPE shall be cleaned and disinfected after use. Hand hygiene measures shall be performed after removal of PPE.

IV. Decontamination

a. All personnel who work in the interior of poultry houses will shower at the end of the work shift, either on site at a decontamination trailer, or through arrangements with local hotels (utilizing a dirty room for removal of clothing and showering and a clean room for dressing in clean clothing to be worn home). Separate sex showering facilities should be provided.
b. No clothing worn inside the poultry houses can be worn home; this includes shoes, underwear, etc. Shoes do not have to be discarded if they are worn inside boots that are disinfected or covered by disposable covers that remain intact.

V. Vaccine and Antiviral Drugs

a. All Response Team members will receive the seasonal human flu vaccine from their respective companies in order to reduce chance of co-infection with human influenza virus that might recombine with the AI virus.
b. Follow current CDC guidelines for prophylaxis, the recommended antiviral drug of choice is currently Oseltamivir (Tamiflu), 75 mg once a day on any day the person is involved on-site with depopulation efforts on laboratory confirmed HPAI-positive farms. The attending physician may require a minimum treatment of three days. Each company will arrange antiviral prophylaxis with their respective medical professionals (i.e., physicians). Individuals that are not associated with a poultry company will be provided a letter (Anticipated Exposure to HPAI) and will consult with their primary care provider for a prescription (see Attachment 2).

VI. Monitoring of Workers attached to a Poultry Company

a. Before going to a site, all workers will complete the HPAI Exposure Symptom Questionnaire (see Attachment 3); anyone answering “yes” to any question on the health assessment section Baseline (i.e., Day 0) of the matrix will be excluded from that depopulation episode.
b. The questionnaire will be administered again by the poultry company to which that individual is attached to, on or about day
seven, and again on the 14th day after depopulation. State or local health departments of residence will recommend evaluation and treatment of poultry workers and their families by their medical providers, accordingly.

VII. Monitoring of Individuals not attached to a specific poultry company

a. Monitoring of individuals not attached to a specific poultry company (e.g. Pennsylvania Department of Agriculture and USDA field personnel, laboratory workers, poultry growers, State and Federal Investigators, etc..) will be the responsibility of the state or local health department of residence.

b. The state or local health departments where the affected farm is located will collect baseline data. This will be sent to the health department of residence for follow-up surveillance.

c. Any person who is in the category as defined in (a.) above will be contacted by the state or local health department and asked to complete the HPAI questionnaire (attached); anyone answering “yes” to any question on the health assessment section of the matrix will be followed up by the state or local health department, including identification of additional contacts of these individuals, for further evaluation and specimen collection.

d. A letter of instruction for medical providers (Request for Post-Exposure Prophylaxis) will be given to the poultry growers and their family members (see Attachment 4).

e. State or local health departments of residence will recommend evaluation and treatment of poultry growers and their families by their medical providers, accordingly.

VIII. Evaluation of Ill persons

a. Reports of ill workers will be submitted to the state or local health department of their place of residence.

b. Medical follow up will be the responsibility of the poultry companies who employ or contract the individuals or agency employee health/worker’s compensation for state agency employees.

c. A letter of instruction for medical providers for evaluation of illness (Symptomatic) will be given to the poultry grower and their family members (see Attachment 5).

d. Specimen collection will be coordinated by the state or local health department and will include nasopharyngeal swab and acute serum (convalescent serum may be obtained 2-8 weeks later if appropriate).

e. Workers are instructed to be vigilant for the development of fever, respiratory symptoms, and/or conjunctivitis (i.e., eye infections) for one week after the last exposure to avian influenza-infected or exposed birds or to potentially avian influenza-contaminated environmental surfaces. Workers will be instructed who to contact regarding questions or symptoms of illness.
References:


3. CDC. “Key facts about Avian Influenza (Bird Flu) and Avian Influenza A (H5N1) Virus.” March 18, 2005. Downloaded from http://www.cdc.gov/flu/avian/gen-info/facts.htm


Please read and initial each item below. Sign form at bottom when completed.

1. I **understand** that these guidelines provided by my employer, are the recommendations of the Centers for Disease Control and Prevention (CDC) for maximum protection for workers exposed to Highly Pathogenic (HPAI) viruses, and that these precautions are being taken for my personal protection against the extremely low risk of human infection with the HPAI virus.

2. I **have** completed and passed the “Highly Pathogenic Avian Influenza Exposure Symptom Questionnaire” prior to being exposed to HPAI infected poultry or premises contaminated with HPAI virus.

3. I **have** received the seasonal human flu vaccine at least two weeks prior to today and I **understand** that this vaccination will not prevent human infection by HPAI viruses but is intended to minimize the likelihood of an HPAI virus from recombining with human influenza viruses.

4. I **have** been offered antiviral medications and **agree** to take them as directed by medical professionals.

5. I **agree** to wear the personal protective equipment (PPE) recommended by my employer at all times during possible exposure to HPAI virus. This PPE includes but is not limited to: cloth gloves over nitrile disposable gloves (replace gloves immediately if torn or otherwise damaged), discardable clothing and shoe wear or washable boots that can be cleaned and disinfected on site, safety goggles, disposable particulate N-95 type respirator (or better), and hair bonnet.

6. I **have** been instructed on how to properly remove contaminated PPE to prevent cross contamination.

7. I **have** been fit tested and approved to wear an N-95 (or better) respirator during the completion of physically strenuous activities.

8. I **have** been instructed about the importance of strict adherence to and proper use of hand hygiene after contact with HPAI infected poultry or HPAI virus contaminated surfaces. After removing protective gloves I **agree** to thoroughly wash my hands with soap and water for at least 20 seconds or to use other hand disinfection procedures as specified by the Public Health Representative.

9. I **agree** to shower at the end of the work shift in a decontamination unit on site or via arrangements with local hotels using a dirty room for clothing removal and showering and a clean room for dressing in clean clothing to be worn home. Under no circumstances will I wear clothing worn in an HPAI contaminated environment home: this includes shoes, underwear, etc.
10. I agree to complete the attached health questionnaire on or about day 7 and again on day 14 after possible exposure to HPAI virus. If I answered “yes” to any question I agree to be referred to the Public Health Representative and to follow their instructions for further examination and specimen collection as needed. I understand that my personal health information may be shared with appropriate county and state health departments and agree to follow additional directions from these agencies if requested to do so.

11. I understand that both the Safety Officer and the Public Health Representative will be on site to answer any questions that I may have concerning these guidelines.

Printed Name: ___________________________ Date: ________________

Signature: _________________________________________________

Pennsylvania Poultry Industry and Pennsylvania Department of Health Joint Working Group on the Response to Highly Pathogenic Avian Influenza (HPAI)
MEMO

To: (Medical Provider)  
From: PA State, County, and/or Municipal Health Department  
Date: (patient name)  
Re: _______________ (patient name)

The person identified above is referred to you for consideration of prophylaxis therapy for potential exposure to laboratory confirmed Highly Pathogenic Avian Influenza. The duties leading to this potential exposure will include: ____________________________. The duties stated will be performed on (date).

This patient ( ) has ( ) has not been vaccinated with the current season’s influenza vaccine.

CDC Interim Guidance for Protection of Persons Involved in US Avian Influenza Outbreak Disease Prevention and Control and Eradication Activities (www.cdc.gov/flu/avian/professional/protect-guid.htm) recommends the following: “Workers receive an influenza antiviral drug daily for the duration of time during which direct contact with infected poultry or contaminated surfaces occurs.” “A neuraminidase inhibitor (oseltamivir) is the first choice…”

Please consider this patient for prophylaxis with antiviral therapy.

If you would like a copy of the CDC guidelines, have questions or need additional information, please contact the PA State, County, and/or Municipal Health Department at (phone number).

Pennsylvania Poultry Industry and Pennsylvania Department of Health Joint Working Group on the Response to Highly Pathogenic Avian Influenza (HPAI)