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**Veterinary
Services**

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Prevention and Control of Low Pathogenicity (LPAI) H5 and H7 Avian Influenza in the Live Bird Marketing System

Uniform Standards for a State- Federal-Industry Cooperative Program

Effective August 2024

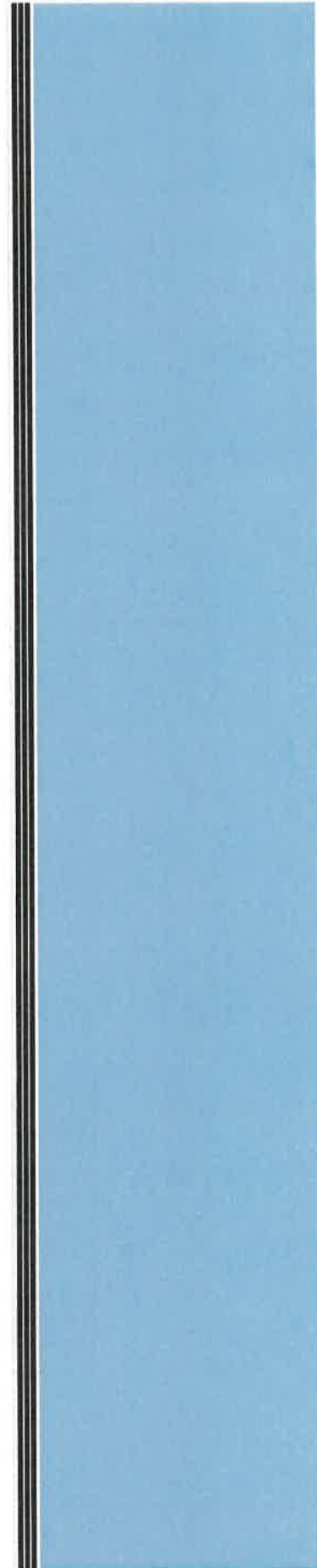


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Part I—Definitions

Antigen capture immunoassay (ACIA) test

A USDA-licensed antigen capture immunoassay test to detect influenza type A nucleoprotein and for use as an official test to screen for AI. The ACIA must be conducted using test kits approved by USDA and the State. The ACIA is an NPIP-LBMS approved test used to detect influenza A nucleoprotein in swab specimens from chickens and turkeys exhibiting clinical signs of disease (sick birds) or dead birds. It is less sensitive than molecular tests; therefore, those collecting samples should collect additional swab samples and forward both the non-negative sample and additional samples to an approved laboratory for molecular testing to determine the virus status of the flock following any non-negative ACIA result. See [Use of the Antigen Capture Immunoassay](#).

Agar gel immunodiffusion (AGID) test

An NPIP-LBMS approved test for serological detection of AI antibodies for use in gallinaceous poultry in which precipitates are formed by a combination of specific AI antigens and antibodies that diffuses through a gel. A positive reaction indicates exposure to AI virus but does not indicate a specific subtype or pathotype. Antibodies detected by AGID must be further tested and subtyped using the hemagglutination inhibition (HI) test and the neuraminidase-inhibition (NI) test. A final decision on the status of a seropositive flock should be based on further sampling and testing for the presence of virus through real-time, reverse-transcriptase-polymerase chain reaction (rRT-PCR) or virus isolation and full characterization by NVSL.

Avian Influenza (AI)

Avian influenza (AI), caused by an influenza A virus. AI is a viral infection of birds including chickens, turkeys, guinea fowl, and other avian species. Certain subtypes of AI can cause zoonotic disease, with most human cases occurring after direct contact with infected poultry. Wild waterfowl and shore birds are considered the natural reservoir for AI viruses. The severity of disease may range from inapparent infection to reproductive disturbance (loss of egg production), respiratory disease, or an acute and fatal systemic disease. Morbidity and mortality rates generally depend on the pathogenicity type of the virus involved.

For the purposes of the World Organization for Animal Health (WOAH, founded as OIE) Terrestrial Animal Health Code, reportable AI is defined as an infection with high pathogenicity avian influenza viruses; infection of birds other than poultry, including wild birds, with influenza A viruses of high pathogenicity (HPAI); and by infection of domestic and captive wild birds with low pathogenicity avian influenza (LPAI) viruses having proven natural transmission to humans associated with severe consequences.

For international trade, a country should not impose trade bans in response to a notification of infection with either HPAI or LPAI in birds other than poultry.

The non-H5/H7 viruses often do not cause disease in poultry although swine lineage viruses (H1 and H3) may cause reduced fertility and performance in turkeys.

Clean and sanitary (for inspection purposes)

Free of visible accumulation of manure, feathers, or other organic materials, as determined by an animal health official.

Compensation

In the case of AI infection, compensation specifically refers to reimbursement for the activities associated with the depopulation of infected or exposed poultry, the disposal of contaminated carcasses and materials, and the cleaning and disinfection of premises, conveyances, and materials that encountered infected or exposed poultry. In the case of materials, if the cost of cleaning and disinfection would exceed the value of the materials, or cleaning and disinfection would be impracticable for any reason, VS bases compensation on the fair market value of those materials. Compensation does NOT include payment for depopulated birds or eggs destroyed (see definition of Indemnity).

Dealers

Individuals or businesses concerned with the commerce of poultry in the LBMS. A dealer may acquire poultry from multiple flocks and geographic areas for resale. This also may include individuals or businesses engaged solely in transporting poultry (hauler) or businesses with a permanent facility (wholesaler). If any of the defining characteristics of a hauler or wholesaler meet the general definition of a dealer, then the individual or business will be classified as a dealer. "Dealing" indicates the movement of live poultry between the production system and live bird markets.

Distribution system

Businesses (such as wholesalers, dealers, distributors, haulers, auction markets, and live bird sales (non-slaughter)) engaged consistently or intermittently in transporting or selling poultry to live bird markets. These are the links between production flocks and live bird markets.

Distributor

Any of the businesses or individuals working within the distribution system serving the live bird markets. Also see dealer.

District Director (DD)

The VS veterinary official assigned by the APHIS Administrator to supervise and perform APHIS official animal health programs in the District concerned.

Enzyme-linked immunoassay (ELISA)

A species-specific NPIP-approved test for serological detection of AI antibodies.

Established flock (for LBMS)

A group of poultry living on a premises until moved directly to a live bird market; or poultry of the same species held together on one premises for at least 14 consecutive days; or, at the discretion of the animal health official, any group of poultry on one premises that has been segregated from other poultry for at least 14 consecutive days. To qualify as an established flock, the group must have been together without any

Live bird market

Any facility (including botanica, poultry store, or poultry slaughter exempt) that procures live poultry to hold or display for more than 24 hours and sells such poultry for onsite slaughter or offsite ritual use.

Live bird marketing system (LBMS)

The LBMS includes live bird markets and their production and distribution systems.

Live bird sales (non-slaughter)

A place to purchase, sell, or barter live poultry or their eggs including but not limited to farmers' markets, flea markets, swap meets, feed stores, and small poultry sales.

Low pathogenicity avian influenza H5 and H7 program

The State-Federal-industry cooperative program for the prevention and control of H5 and H7 LPAI. This is a voluntary program for States, but participating States are encouraged to enact regulations to enforce program standards and requirements.

The official designation of a flock with a notifiable infection (H5 or H7 regardless of pathotype) will be made by the State veterinarian in consultation with the District Director or Area Veterinarian in Charge following confirmation by the NVSL.

National Animal Health Laboratory Network (NAHLN)

Go to: <https://www.nahln.org/>

National Poultry Improvement Plan (NPIP)

Go to: www.poultryimprovement.org

National Veterinary Services Laboratories (NVSL)

The National Veterinary Services Laboratories is the national reference laboratory for AI.

Go to: <https://www.aphis.usda.gov/labs/about-nvsl>

Non-negative flock, distribution system, or market

A flock, distribution system, or market from which specimens yielded non-negative results for AI by an official and appropriate test performed at an approved NAHLN laboratory. Any specimen non-negative for AI must be immediately forwarded to NVSL for confirmatory testing. Confirmation of a non-negative flock or market will be based on results of diagnostic testing as well as the collection of epidemiological data; collection of additional samples for testing may be needed.

Positive flock, distribution system, or market

Domestic poultry or environmental specimens from which an H5 or H7 subtype has been confirmed by NVSL with determination of pathogenicity (HPAI or LPAI) as described in the WOAHP Manual of Diagnostic Tests and Vaccines for Terrestrial Animals. The official designation of a flock, distribution system, or market as infected with H5 or H7 will be

Real-time reverse-transcriptase polymerase chain reaction (rRT-PCR)

VS-approved highly sensitive molecular tests to detect AI viral RNA from appropriate swabs or tissues from any avian species.

Registration

See Licensing.

State, participating

This definition applies to any of the 50 States (plus the District of Columbia and U.S. Territories) participating in the AI program. This term applies each time the word “State” is used in this document.

Test certificate

A report that contains, at a minimum, negative AI test results obtained from official tests conducted at an approved laboratory and identifying information about the tested poultry and the source premises.

USDA

United States Department of Agriculture.

Veterinary Services (VS)

Veterinary Services is the APHIS division charged with monitoring animal health activities and the movement of animals within the United States.

Virus isolation

Procedure to isolate AI virus in embryonated chicken eggs.

WOAH poultry

All birds reared or kept in captivity for the production of any commercial animal products, or for breeding for this purpose; fighting cocks used for any purpose; and all birds used for restocking supplies of game or for breeding for this purpose, until they are released from captivity. [Glossary \(woah.org\)](http://woah.org)

WOAH non-poultry

Birds kept in a single household, the products of which are used within the same household exclusively, are not considered poultry if they have no direct or indirect contact with poultry or poultry facilities.

Birds kept in captivity for other reasons including those kept for shows, racing, exhibitions, zoological collections, and competitions, and for breeding or selling for these purposes, as well as pet birds, are not considered poultry if they have no direct or indirect contact with poultry or poultry facilities.

Part II—Administration of the Program

A. State Participation

The LBMS LPAI prevention and control program recognizes three basic components of the LBMS: Production units, distribution units, and live bird markets. A State can participate in the program when all or some components of the LBMS operating within the State are required to be registered or licensed, and program participation is required for State registration or licensure.

LBMS participants that do not comply with these Program Standards are subject to administrative actions as determined by the State's regulatory authority. States are responsible for enforcing the Program Standards.

B. Federal Participation

The VS Strategy & Policy (S&P) Poultry Health Staff coordinates the LBMS LPAI prevention and control program. Under the terms and conditions of the program, VS may provide personnel and resources to help States implement the program and comply with program requirements. VS will support monitoring, surveillance, and educational activities as defined in the State's work plan.

The program may provide Federal indemnification for States and facilities at all LBMS levels. Indemnification will require a consultation with and prior approval by VS S&P Poultry Health Staff. The amount of indemnification depends on Federal regulations and Federal resources. For established flocks and distribution systems, indemnity for destroyed birds will be based on the birds' appraised value. Indemnity may be paid for birds remaining in the live bird market after a designated period provided to sell down, if appropriate, at the discretion of USDA after a request from the State.

- c. All records must be maintained for a minimum of 12 months from the birds' date of entry into the market.
- d. Any indication noted by a live bird market that paperwork has been altered or that it misrepresents the sources or test status of birds coming into the market must be reported to an animal health official.

3. Market Sanitation and Biosecurity

- a. A biosecurity protocol must be developed by the live bird market and approved by an animal health official.
- b. Live bird market environments and crates must be always kept clean and sanitary, as defined by the biosecurity protocol.
- c. Employees must follow biosecurity protocols.
- d. Once delivered to a market, birds must be killed and processed before leaving the facility, unless otherwise provided for in the biosecurity protocol.
- e. All birds entering a live bird market should be slaughtered within 10 days of entering the market. Keep records to document this.
- f. Live bird markets must undergo regular, periodic closures with depopulation and complete sanitation, cleaning and disinfection, and downtime. Emphasize removing items that are not easy to clean and disinfect from LBMs such as cloth sofas, electronics, miscellaneous items, etc. Manage animal inventory (including livestock species, in addition to poultry) to be sold out during routine Quarterly Closures (QCs) and following positive detections to facilitate cleaning. If selling out of mammals is not possible during QCs, remove the animals for cleaning and disinfection of the area until the area is properly dried. The closures should occur at least quarterly with a minimum of 24 hours of downtime. An animal health official must inspect and approve the market before it can reopen.
- g. Contain poultry waste in a manner approved by an animal health official to prevent disease transmission while it is awaiting disposal by a method acceptable to the market's location jurisdiction.

4. Market Surveillance

- a. Live bird markets may be tested for AI virus by the State at any time, but they should be tested at least quarterly.
- b. Specimens tested may include appropriate samples collected from birds in the market or upon arrival, swabs or tissues from sick or dead birds, or environmental surface samples such as those from floors, conveyances, or crates.

A minimum of one 5-swab (bird) pools should be collected per bird type prioritizing sick and dead birds. Collect samples as described in [NVSL-WI-0023](#).

- c. Part IV of this document covers preferred specimens and the types of tests to be run for each.

- (3) Hours of operation.
 - (4) Global Positioning System location of premises.
 - (5) Other bird and animal premises involved with production, sales facilities, dealerships, or hauler operations under the same ownership.
 - (6) A list of all avian and non-avian species distributed.
- b. To register to transport birds within the LBMS, distributors must agree to allow animal health officials to review records on request and to permit official inspections and testing of premises and equipment as required.
 - c. A distributor should not be licensed or registered until their facility, record system, and biosecurity protocol has been inspected and approved by an animal health official.
 - d. Upon hire, all personnel who work for the company must be trained in biosecurity by animal health officials or by a trained company representative and annually thereafter. The premises must keep a record of employee training on file for at least 12 months. The business must maintain the record as long as necessary to demonstrate the training of all current employees and must present it on request to any animal health official inspectors.

2. Bird Testing and Recordkeeping

- a. Distributors must provide documentation of negative test results from the established flock with each delivery of birds as required by recipient State regulations.
- b. Distributors must maintain records for bird pickups and delivery for 12 months that include: Copies of test certificates (if required by recipient State regulations); dates and locations of pickup and delivery; and the number, species, and types of poultry in the delivery. In addition, distributors must keep records of premises and conveyance cleaning and disinfection and disinfectant use.
- c. Any indication noted by a distributor that paperwork has been altered or that it misrepresents the sources or test status of birds coming into the live bird market must be reported to an animal health official.

3. Distributor Sanitation and Biosecurity

- a. Distributor vehicles, bird-holding devices, and any premises where birds may be held must be maintained according to State guidelines or requirements.
- b. Documented biosecurity guidelines, including cleaning and disinfection protocols, must be developed by the distributor and approved by the State.
- c. Distributors must use State-approved all-season crate and conveyance washing equipment and present cleaning and disinfection documentation when obtaining birds from producers and from other distributors.
- d. Once emptied of poultry, all conveyances, coops, cages, vehicles, and other equipment must undergo cleaning and disinfection before visiting a poultry premises.

animal health official inspectors. Information required for the production unit records includes:

- (1) Business name, premises address, telephone number, and email address.
 - (2) Owner's name, mailing address, telephone number, and email address.
 - (3) Global Positioning System location.
 - (4) Other bird and animal premises involved with production, sales facilities, dealerships, or hauler operations under the same ownership.
 - (5) A list of all avian and non-avian species produced.
- b. To participate in the program, production units must allow animal health officials to review all records and protocols and inspect equipment when requested by the program authority. Testing may be conducted as indicated by animal health officials.
 - c. Flock and farm managers are encouraged to attend biosecurity training.

2. Bird Testing and Recordkeeping

- a. All birds provided to a distributor or directly to the live bird market must originate from a flock that has tested negative for AI before movement and must be traceable to a premises of origin. AI testing must be performed using an official and appropriate test (as specified in Part IV of this document) at approved laboratories. The categories of production units and the testing requirements for each category are as follows:
 - (1) AI Monitored Flock: To be certified as an AI Monitored Flock, a flock must meet the following requirements:
 - a) Qualify as an established flock.
 - b) Swab and/or blood samples from 30 birds, 3 weeks of age and older from all pens and houses on the premises, shall be collected between 21 and 30 days after the previous collection. Collect appropriate swab samples from sick or dead birds for molecular testing to determine the virus status of the flock following AI antibody detection.
 - c) Select 30 birds for testing that represent the flock (birds of testing age tested from all pens and houses on the premises). Collect appropriate swab samples from sick or dead birds for molecular testing to determine the virus status of the flock following AI antibody detection.
 - d) Conduct the first test within 21 to 30 days of placement by blood samples for serology or swab samples for rRT-PCR. Subsequent sample collections will be every 21-30 days as long as poultry are onsite.
 - i. Substitute eggs from gallinaceous poultry for blood samples for testing by agar gel immunodiffusion (AGID) only at the discretion of the receiving State. Collect appropriate swab samples from sick or

the test certificate or other paperwork if a test certificate is not required for movement to the distributor.

- e) Flocks with non-negative AI serological test results must be quarantined until confirmation testing is complete.

3. Sanitation and Biosecurity

- a. Production unit facilities, conveyances, bird-holding devices, and other any premises where birds may be held must be always maintained according to State guidelines or requirements.
- b. Producers should have access to equipment to clean and disinfect premises, conveyances, and crates. They must maintain records of downtime and cleaning and disinfection, if applicable.
- c. To prevent the transmission of AI virus between species, premises should not commingle gallinaceous poultry (e.g. chickens, turkeys, guineas, quail, chukars, etc.) with waterfowl (ducks, geese, swans, etc.).
- d. Prevent all direct or indirect exposure to free-ranging migratory waterfowl and ponds.

4. Producer Surveillance

- a. Animal health officials may randomly inspect premises to ensure that premises, conveyances, and coops are clean and sanitary. Officials may randomly collect samples for AI testing from birds or the environment at the time of inspection.
- b. Officials will review records during site inspections.
- c. Premises with H5 or H7 LPAI virus detection, as confirmed by NVSL, will be quarantined. Premises may be depopulated and undergo cleaning and disinfection in accordance with the initial APHIS-approved State response and containment plan.

5. H5/H7 LPAI - Positive Production Premises

- a. Premises with H5 or H7 LPAI detection confirmed positive by NVSL must be quarantined and inventoried. VS will initiate an epidemiological investigation. The premises may be depopulated and cleaned and disinfected in accordance with the initial APHIS-approved State response and containment plan. VS and other officials will work with the premises to develop a USDA flock plan.
- b. The premises may be quarantined based on non-negative AI results until NVSL can complete confirmation testing.

- c. Non-negative ELISA results indicate that birds were exposed at least 1 week previously to AI of unknown subtype.
- d. Non-negative specimens by ELISA must be forwarded to NVSL for H- and N-subtyping. Collect appropriate swab samples for molecular testing to determine the virus status of the flock following AI antibody detection.

3. Real-Time Reverse-Transcriptase Polymerase Chain Reaction (rRT-PCR)

- a. VS-approved highly sensitive molecular tests for the detection of AI viral RNA from appropriate swabs or tissues from any avian species. Specimens are initially tested by an influenza A test followed by H5 and H7 specific tests if RNA is detected. The H5 and H7 tests are designed to detect both LPAI and HPAI viruses.
- b. Non-negative specimens by any official AI molecular test must be forwarded to NVSL for confirmation.
- c. Contact NVSL for conducting molecular testing of post-cleaning environmental samples (only non-negative samples and those with internal control failure would require onward virus isolation attempt). An NVSL-approved internal control to monitor for PCR inhibitors is required along with use of a specific virus isolation protocol ([Post C&D Environmental Sampling Guidance](#))

4. Virus Isolation (VI)

This test is intended to determine if viable AI virus is present in a specimen through exposure of embryonated eggs. Swabs, tissues, and environmental samples may be tested by virus isolation in approved laboratories or by NVSL. Virus isolates must be forwarded to NVSL for confirmation and characterization.

5. Antigen Capture Immunoassay Tests (ACIA)

https://www.aphis.usda.gov/sites/default/files/acia_testpolicy.pdf

- a. An NPIP-LBMS approved test to screen for AI using any USDA-licensed antigen capture immunoassay to detect influenza A nucleoprotein. Only swab samples from chickens and turkeys exhibiting clinical signs of disease (sick birds) or dead birds are appropriate for ACIA tests.
- b. The ACIA test must be conducted using test kits approved by USDA and the State and must be conducted in accordance with the regulations at title 9, *Code of Federal Regulations* (9 CFR) 145.14(d)(2)(ii) and manufacturer recommendations.
- c. The test is less sensitive than a molecular test and will not determine whether birds have been exposed specifically to H5 or H7 AI subtypes.
- d. Collect additional swab samples and forward both the non-negative sample and additional samples to an approved lab for molecular testing to determine the virus status of the flock following any non-negative ACIA result.

E. Decision to Depopulate

1. The decision to depopulate is made by the State in consultation with industry, stakeholders, and VS. VS must concur with the State approach to controlling H5/H7 AI in each incident before distributing indemnity funds.
2. Depopulation is not the only possible response to H5/H7 LPAI. Quarantine, controlled marketing, or quarantine with vaccination (for production flocks only) may also be appropriate. USDA must approve all H5/H7 LPAI response methods.

F. Indemnity and Compensation Funds (per 9 CFR part 56 (for LPAI))

Indemnity and compensation funds may be used for 100 percent of the appraised value of depopulated birds and costs of depopulation, disposal, and cleaning and disinfection.