

Checklist for Self-Assessment of Implementing Poultry Biosecurity

Updated December 2018

Target Audience

This Self-Assessment Checklist for Implementing Poultry Biosecurity and corresponding Information Manual is a guidance document highlighting best biosecurity practices that apply to poultry sites of varied sizes and management types that hatch and/or raise poultry, and are not currently known or suspected to be infected with avian influenza (AI). For the purposes of this manual, avian influenza is intended to include both low pathogenicity AI (LPAI) and high pathogenicity AI (HPAI). The items in these materials reflect the items included in Standard E- Biosecurity Principles within the 2017 National Poultry Improvement Program (NPIP) Official Program Standards. The Standard E Principles can be found at: <http://poultryimprovement.org/documents/StandardE-BiosecurityPrinciples.pdf>. This manual is targeted at flocks that participate in the NPIP, which include, but are not limited to, broilers, turkeys, egg layers, commercial waterfowl, and upland gamebirds, that meet specified flock size requirements. The biosecurity principles in this manual also apply to flocks of other sizes and management types. In some operations (such as free range and/or backyard poultry operations), it may be difficult to implement each principle, thus affecting the ability of that biosecurity item to mitigate disease risk. All individuals delivering to, servicing, or working on the poultry operation should follow this guidance. These biosecurity procedures were designed to minimize the chances for avian influenza virus to be introduced to a production site. They will also reduce the chances for other disease agents to enter the site. The biosecurity procedures described here are the minimum recommended procedures. Increased standards may be required by specific sites, or during an AI outbreak.

Introduction

The poultry industry is critical to the United States (U.S.) agricultural economy, and poultry health and well-being are essential to food security. An outbreak of high pathogenicity avian influenza can have devastating effects, as demonstrated by the 2014-2015 HPAI outbreak that affected over 200 poultry sites primarily located in the upper Midwest, requiring the destruction of nearly 50 million birds and with direct costs of nearly \$1.6 billion. An epidemiological study indicated that efforts to limit disease spread were largely ineffective; thus, the biosecurity of poultry facilities needed to be strengthened to reduce the risk of future infections. To assist poultry producers in implementing effective biosecurity plans, the Animal and Plant Health Inspection Service (APHIS) worked with State, academic, and industry experts to develop this information manual and corresponding self-assessment checklist.

To prevent an AI outbreak, it is the responsibility of everyone involved in raising a flock to keep poultry flocks from becoming infected by focusing on biosecurity they can control on their premises. Biosecurity approaches include both structural and operational components. Structural biosecurity refers to the physical construction, design, and maintenance of a facility to prevent entry of disease vectors and facilitate compliance with operational biosecurity practices. Operational biosecurity involves risk assessments and mitigation of risk through management practices, including implementation of and compliance with standard operating procedures (SOPs) designed to prevent the introduction of the AI virus onto a premises. The recommendations in this document focus on implementing operational biosecurity; however, poultry producers should consider both operational and structural biosecurity strategies to reduce their overall risk of AI and other diseases.

This document emphasizes the elements of biosecurity that are believed to be most critical. Based on expert opinion, epidemiological evidence, and experience in recent outbreaks, the highest risks for AI virus introduction are personnel who enter the poultry buildings, shared equipment and shared crews, procedures for disposal of dead birds, and manure management. These elements are the highest priorities for biosecurity. However, all of the biosecurity steps are important to prevent disease introduction.

APHIS urges producers to develop a site-specific plan to enhance operational biosecurity immediately. In addition, effective biosecurity requires compliance; producers need a system in place to verify that biosecurity practices are being followed. State Animal Health Officials or the manager of the destination site may also want to review the premises biosecurity plan to determine if acceptable biosecurity measures have been implemented.

Lastly, although certain types of AI may be transmissible between birds and humans, the focus of this information manual and the corresponding self-assessment checklist is on preventing AI in poultry. Protection of personnel from zoonotic infection is outside the scope of this manual; selected educational resources can be found in the Information Manual for Implementing Poultry Biosecurity.

Scope of Biosecurity Plan

Begin by defining the site, clearly describing its layout and features like private houses, ponds, forests or public roads. Describe the types of animals on the premises including all types of poultry and other species, and describe poultry houses or other areas where these animals are housed or raised. Structures involved in the operation of the site need to be included in the biosecurity plan (e.g., manure sheds, composting areas, egg rooms, etc.). It is best to consider each farm with poultry at non-adjacent locations or multiple locations that must be accessed via a public road as a separate site, with a separate Premises Identification Number (PIN), and therefore, a separate biosecurity plan. Sites under common ownership and/or management (e.g., production sites within a complex, or complexes managed by the same company) may follow a common biosecurity program, and thus these site-specific plans may have significant overlap. When a farm becomes infected, all locations with the same PIN number are likely to be considered to be infected at the discretion of the Official State Agency. A PIN includes a valid 911 address and a set of matching coordinates (latitude and longitude) reflecting the actual location of the animals on the site. Request a PIN from the office of your State Animal Health Official.

Other businesses, animal or non-animal related, operated from the same site should also be accounted for in the biosecurity plan. Some animal- or animal product-related examples could include sale or distribution of compost or a petting zoo. Non-animal examples could include seed sales, daycare centers, or repair shops. Keep this in mind when completing the checklist and writing the biosecurity plan.

Acknowledgments

The original version of the Self-Assessment Checklist for Implementing Poultry Biosecurity was developed by the Center for Food Security and Public Health (CFSPH), Iowa State University (ISU), College of Veterinary Medicine with extensive input from federal, state, academic, and industry collaborators. This version has been updated by the CFSPH to reflect the items included in Standard E-Biosecurity Principles in the 2017 National Poultry Improvement Program (NPIP) Official Program Standards. The Standard E- Biosecurity Principles were developed and approved by the NPIP. Development of these poultry biosecurity resources was led by Iowa State University, and involved collaboration between the poultry industry, state and federal government officials, and academia. This material was made possible, in part, by a Cooperative Agreement from the [United States Department of Agriculture's Animal and Plant Health Inspection Service \(APHIS\)](#). It may not necessarily express APHIS' views.

Comments

Comments and feedback are welcomed and may be sent to the CFSPH at ISU at the following website:
<http://www.cfsph.iastate.edu/About/contact.php>

Additional Resources

Additional resources are available at: <http://www.poultrybiosecurity.org>

Checklist for Self-Assessment of Enhanced Poultry Biosecurity

Recommendations for Biosecurity

Each self-assessment checklist item has three possible responses, described below. Implementation of each component is essential to prevent virus entry and protect the health and well-being of the poultry on the premises.

- **In place:** All items are addressed in the biosecurity plan and are implemented on the premises as evidenced by visual inspection or by signed and/or dated documentation, as applicable.
- **In progress:** Some, but not all, of the items are addressed in the biosecurity plan and are, or are capable of being, implemented on the premises as evidenced by visual inspection or by signed and/or dated documentation, as applicable.
- **Not in place:** The items have not been addressed in the biosecurity plan or are not capable of being implemented on the premises.

1. Biosecurity Responsibility

The Biosecurity Coordinator is responsible for the development, implementation, maintenance and ongoing effectiveness of the biosecurity program. Depending on the type and size of poultry operation, the Biosecurity Coordinator's responsibility could be at the farm, production site, production complex, or company level. The Biosecurity Coordinator should be knowledgeable in the principles of biosecurity. The Biosecurity Coordinator, along with the personnel and caretakers on the farms and production sites are responsible for the implementation of the biosecurity program. The Biosecurity Coordinator should review the biosecurity program at least once during each calendar year and make revisions as necessary.

In place

In progress

Not In place

2. Training

The biosecurity program should include training materials that cover both farm site-specific procedures as well as premises-wide and/or company-wide procedures as appropriate. All poultry owners and caretakers that regularly enter the perimeter buffer area (PBA) must complete this training. The training must be done at least once per calendar year and documented. New poultry caretakers should be trained at hire. Training records should be retained as stated in Title 9-CFR §145.12(b) and 146.11(e).

In place

In progress

Not In place

3. Line of Separation (LOS)

The Line of Separation (LOS) is a functional line separating the poultry house(s) and the poultry inside from exposure to potential disease sources. Generally, it is defined by the walls of the poultry building with practical deviations to account for entry points, structural aspects, or outside access areas. The site-specific biosecurity plan should describe or illustrate the boundaries of the LOS and clearly outline the procedures to be followed when caretakers, visitors, or suppliers cross it. For poultry enclosed in outdoor pens, similar principles for the LOS can be applied for defining and controlling the LOS for each pen. In

this circumstance, the walls of the outdoor pens would provide template for defining the LOS to be used when entering or exiting the pens. For poultry with non-enclosed outdoor access, the LOS is recommended but not required. Further, in an emergency disease state where the transmissible disease risk is heightened, it is highly recommended to enclose all poultry and enforce a LOS.

In place

In progress

Not In place

4. Perimeter Buffer Area (PBA)

The perimeter buffer area is a functional zone surrounding the poultry houses or poultry raising area that separates them from areas unrelated to poultry production on that site and/or adjoining properties. It is comprised of the poultry houses and poultry raising areas as well as nearby structures and high traffic areas involved in the daily function of the poultry farm. This would usually include but not be limited to such things as feed bins, manure sheds, composting areas, egg rooms, generators, pump rooms, etc. The site-specific biosecurity plan should describe or illustrate the boundaries of the PBA and clearly outline the procedures that caretakers, visitors, or suppliers must follow when entering and leaving the PBA.

In place

In progress

Not In place

5. Personnel

The biosecurity program and/or the site-specific biosecurity plan should include provisions specifically addressing procedures and biosecurity PPE for site-dedicated personnel. The plan should likewise address the procedures and biosecurity PPE for non-farm personnel. The plan should also specify procedures which all personnel having had recent contact with other poultry or avian species should follow before re-entering the PBA.

In place

In progress

Not In place

6. Wild Birds, Rodents and Insects

Poultry operations should have control measures to prevent contact with and protect poultry from wild birds, their feces and their feathers as appropriate to the production system. These procedures should be reviewed further during periods of heightened risks of disease transmission. Control programs for rodents, insects, and other animals should be in place and documented.

In place

In progress

Not In place

7. Equipment and Vehicles

The biosecurity plan should include provisions for procedures for cleaning, disinfection, or restriction of sharing of equipment where applicable. Vehicle access and traffic patterns should be defined in the site-specific biosecurity plan.

In place

In progress

Not In place

8. Mortality Disposal

Mortality should be collected daily, stored and disposed in a manner that does not attract wild birds, rodents, insects, and other animals and minimizes the potential for cross-contamination from other facilities or between premises. It is recommended that dead bird disposal be on-site, if possible. Mortality disposal should be described in the site-specific biosecurity plan.

In place

In progress

Not In place

9. Manure and Litter Management

Manure and spent litter should be removed, stored and disposed of in a manner to prevent exposure of susceptible poultry to disease agents. Onsite litter and manure storage should limit attraction of wild birds, rodents, insects, and other animals.

In place

In progress

Not In place

10. Replacement Poultry

Replacement poultry should be sourced from health-monitored flocks which are in compliance with NPIP guidelines. They should be transported in equipment and vehicles that are regularly cleaned, disinfected and inspected. Biosecurity protocols should be in place for equipment and personnel involved in the transport of replacement poultry.

In place

In progress

Not In place

11. Water Supplies

It is recommended that drinking water or water used for evaporative cooling be sourced from a contained supply such as a well or municipal system. If drinking water comes from a surface water source, water treatment must be used to reduce the level of disease agents. If surfaces have been cleaned or flushed with surface water, subsequent disinfection should be employed to prevent disease transmission. If water treatment is not possible, a risk analysis should be performed to determine actions needed to mitigate risks.

In place

In progress

Not In place

12. Feed and Replacement Litter

Feed, feed ingredients, bedding, and litter should be delivered, stored and maintained in a manner that limits exposure to and contamination by wild birds, rodents, insects, and other animals. Feed spills within the PBA (outside of the LOS) should be cleaned up and disposed in a timely fashion.

In place

In progress

Not In place

13. Reporting of Elevated Morbidity and Mortality

Elevation in morbidity and/or mortality above expected levels, as defined by the biosecurity plan, should be reported as required in the site-specific biosecurity plan and appropriate actions should be taken to rule out reportable disease agents.

In place

In progress

Not In place

14. Auditing

Auditing of the biosecurity principles is based on flock size as outlined in 9 CFR 53.10. Audits shall be conducted at least once every two years or a sufficient number of times during that period by the Official State Agency to ensure the participant is in compliance. Each audit shall require the biosecurity plan's training materials, documentation of implementation of the NPIP Biosecurity Principles, corrective actions taken, and the Biosecurity Coordinator's annual review to be audited for completeness and compliance with the NPIP Biosecurity Principles. An audit summary report containing satisfactory and unsatisfactory audits will be provided to the NPIP National Office by the OSAs. Those participants who failed the initial document audit conducted by the NPIP OSA may elect to have a check audit performed by a team appointed by National NPIP Office including: an APHIS poultry subject matter expert, the OSA, and a licensed, accredited poultry veterinarian familiar with that type of operation. If these participants seek to be reinstated as being in compliance with the Biosecurity Principles by the NPIP OSA, they must demonstrate that corrective actions were taken following the audit by the team appointed by NPIP.

In place

In progress

Not In place