

## Biosecurity - Highly pathogenic avian influenza

PROCEDURE NUMBER:	VERSION:	2
AUTHORISED BY: Group Director, Animal Biosecurity	AUTHORISED DATE:	09/08/2020
ISSUED BY: Biosecurity & Food Safety	EFFECTIVE DATE:	21/08/2020
CATEGORY: Operations and Industry	REVIEW DATE:	30/06/2023

### Management of the biosecurity risk

Wild birds (particularly waterfowl) can be carriers of low pathogenic avian influenza (LPAI) viruses. The birds pose a biosecurity threat through direct or indirect contact with domestic poultry. The entry of LPAI virus on poultry enterprises with the subsequent mutation to highly pathogenic avian influenza (HPAI) virus is a well-recognised risk for a HPAI outbreak.

The purpose of this procedure is to outline risk mitigation measures to prevent entry of LPAI virus on poultry enterprises; surveillance activities to enable rapid detection of HPAI virus in domestic birds; effective response activities consistent with national plans; and clinical signs indicative of HPAI.

The aim is to protect export market access and minimise the impact of a HPAI outbreak on the NSW poultry industry and other stakeholders to enable a return to normal business as soon as possible. Effective management of the risk of HPAI in birds minimises the risk of spread to humans and other species.

### Scope

The *Biosecurity Act 2015* (the Act) promotes biosecurity as a shared responsibility between government, industry and the community. This procedure is a State Priority for NSW and should be read in conjunction with the policy 'Prohibited Matter Pests and Diseases of Animals'.

This procedure applies to NSW Department of Primary Industries (NSW DPI), an office within the Department of Regional NSW, and Local Land Services (LLS) in their role as authorised officers under the Act.

### Biosecurity legislation summary

Avian influenza (AI) is notifiable under Schedule 1 of the Biosecurity Regulation 2017 (the Regulation). This means that a person who owns or is in charge of birds, or a person such as a veterinarian in their professional capacity, has a duty to notify an authorised officer within one working day if they suspect, or are aware, that the birds have AI.

HPAI is listed as prohibited matter under Schedule 2 of the Act. This means that a person who owns or is in charge of birds, or a person such as a veterinarian in their professional capacity, has a duty to immediately notify an authorised officer if they suspect, or are aware, that the birds have HPAI.

Under section 28 of the Act it is an offence for people to deal with prohibited matter. In the context of HPAI, this means that it is an offence for people to do anything that is in section 12 of the Act as 'dealing with', which includes moving, selling or treating birds infected with HPAI, unless the person could not have reasonably known that they were dealing with HPAI.

Note that the Secretary (or delegate) can issue a prohibited matter permit that authorises specific dealings with prohibited matter, such as birds infected with HPAI, subject to specific conditions.

The [Prohibited matter \(diagnostics\) exemption order 2019](#) allows veterinarians and those assisting them to deal with prohibited matter such as HPAI for the purposes of collecting diagnostic samples and submitting those samples to the laboratory, and for government laboratories and other National Association of Testing Authorities (NATA) accredited laboratories to test for prohibited matter.

In the case of an outbreak of HPAI, the Secretary (or delegate) may issue an emergency order under section 44 of the Act. This would declare a biosecurity emergency and establish measures to respond to that biosecurity emergency.

The collection, use and disclosure of information in accordance with this procedure, including any internal or external discussion or distribution of information, must be in compliance with the *Privacy and Personal Information Protection Act 1998* or be exempted by the operation of section 387 of the Act.

Section 387 (2) of the Act provides authority for the disclosure of information about a person, without the consent of the person: to a public sector agency, or to any other person, but only if the disclosure is reasonably necessary for the purpose of exercising a biosecurity risk function.

### **Work health and safety**

The *Work Health and Safety Act 2011* places an obligation on the agency (NSW DPI and LLS) as a person conducting a business or undertaking and workers to provide a safe and healthy workplace. Safe work method statements that support activities included in this procedure must be used in identifying, assessing and controlling risks.

NSW DPI and LLS will work together to create a safe and supportive work environment when undertaking any activities for this procedure.

The agency and workers also have a responsibility to provide a safe and healthy workplace for non-government workers (e.g. poultry owners, poultry workers, private veterinarians, contractors) delegated to perform tasks during a response.

All AI viruses have the potential to infect people. Workers must be protected from infection with AI viruses wherever they have contact with infected poultry and contaminated poultry products, and when working on affected poultry enterprises. Protection includes vaccination with the currently available seasonal influenza vaccine and wearing appropriate personal protective equipment (PPE), in accordance with the national Work Health and Safety (WHS) guidelines for AI available at <http://www.health.gov.au/internet/main/publishing.nsf/Content/cdna-song-avian-influenza.htm>.

The agency is responsible for providing instructions in the use of appropriate PPE to non-government personnel tasked with sampling birds as per this procedure. Non-government personnel will be responsible for supplying their own PPE.

Workers involved in response activities will require training and supervision to ensure that all activities are managed appropriately in relation to WHS. Workers showing symptoms consistent with influenza must not contact potentially infected birds.

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# Highly pathogenic avian influenza procedure

## 1. Roles and responsibilities

### 1.1 NSW Department of Primary Industries

- Act as lead agency in response activities with the support of LLS
- Liaise with other groups (including Wildlife Australia and industry bodies) when, for example, technical poultry health expertise or industry knowledge is required
- Notify and provide support (including any relevant information) to NSW Health
- Provide training and exercises for NSW DPI and LLS staff to maintain response team capabilities and capacity to effectively respond to a HPAI outbreak
- Provide sufficient resources, including human resources, to maintain core business capabilities during a response

### 1.2 Local Land Services

- Act as supporting agency to the lead agency (NSW DPI) in response activities
- Carry out emergency animal disease exclusion testing activities when indicated by the clinical signs and available epidemiological information

### 1.3 NSW Department of Primary Industries/Local Land Services shared responsibilities

- Consider bird welfare during all investigation and response activities
- Work with key stakeholders to develop and implement industry-led biosecurity plans and standard operating procedures to minimise the likelihood of introduction and spread of AI viruses using national resources where available
- Support the poultry industry to educate their members about the recognition of exotic diseases of birds, including HPAI, and encourage them to implement risk mitigation measures to prevent direct or indirect contact between wild birds and commercial poultry
- Liaise with private veterinarians (including company poultry veterinarians and avian specialist veterinarians) during investigations, surveillance and response activities
- Assist in the rapid investigation of suspect HPAI as per the procedure 'Prohibited matter animal pests and diseases – investigation and alert phase'
- Encourage and assist poultry producers to develop response plans for their enterprises
- Participate in training and exercises as documented in the DPI and LLS annual Animal Biosecurity and Welfare Business Plan
- Educate poultry producers and private veterinarians regarding relevant NSW legislation, including general biosecurity duty responsibilities
- Develop small farmer networks

### 1.4 General biosecurity duty to mitigate avian influenza risks

The general biosecurity duty requires that poultry producers must take reasonably practical steps to prevent, eliminate or minimise the risks of the entry and spread of AI into or from their flock/s.

Options for the owner/person-in-charge of a poultry enterprise to discharge his/her general biosecurity duty to minimise the risks of poultry workers introducing infectious diseases to the poultry in their care could include management standards that:

- Require poultry workers to be vaccinated against influenza
- Do not allow poultry workers to work with poultry while they (the workers) have clinical signs indicative of influenza infection
- Do not allow poultry workers to also work in an abattoir processing pigs or poultry
- Do not allow poultry workers to keep poultry or pigs at home

Options for the owner/person-in-charge of a poultry enterprise to discharge his/her general biosecurity duty to minimise the risks of visitors introducing infectious diseases to the poultry on the poultry enterprise could include management standards such as:

- Biosecurity signage on the front gate
- The number of people (visitors) accessing the poultry production area kept to a minimum
- A visitor sign-in book with contact details (including a mobile number) and details of last known contact with poultry
- Provision of boots/overalls for visitors
- Footbaths
- Hand sanitation facilities

Note: industry standards and codes of practice should be consulted when considering how to discharge your general biosecurity duty.

## **2. Additional biosecurity measures for high avian influenza risk poultry enterprises**

Some poultry enterprises have a greater risk of entry and spread of AI unless strict biosecurity is implemented. A high AI risk poultry enterprise can be defined as:

*'A free range (or mixed production) layer enterprise with greater than 10 000 birds (kept in the same farm location or with epidemiological contact) OR any mixed species enterprise with greater than 1 000 birds (combined species) involving ducks or geese (kept in the same farm location or with epidemiological contact) with HPAI susceptible poultry species such as chickens and turkeys.'*

Additional biosecurity measures the owner/person-in-charge of a high AI risk poultry enterprise could take to meet his/her general biosecurity duty include the following:

- Limit direct or indirect contact of commercial poultry with wild birds
- Use secure and/or chlorinated water supplies (e.g. town water) and comply with the national water biosecurity guidelines, available at [http://www.agriculture.gov.au/pests-diseases-weeds/protect-animal-plant/bird-owners/poultry\\_biosecurity\\_manual](http://www.agriculture.gov.au/pests-diseases-weeds/protect-animal-plant/bird-owners/poultry_biosecurity_manual)
- Secure feeding (e.g. inside sheds)
- Ensure feed supplies are not placed anywhere they may attract wild birds or where wild birds may encounter the feed
- Locate sheds and ranges away from dams, wetlands and any other waterbody that may be inhabited by wild birds
- Implement and maintain good general biosecurity:
  - poultry enterprise hygiene
  - isolation and movement controls
  - transport arrangements (e.g. identifiable or replaceable egg filler trays, vehicle wash downs)
  - worker arrangements (e.g. showering in/out if feasible)

## **3. Clinical signs of avian influenza**

- Sudden increase in bird deaths
- Sudden decline in feed and/or water consumption
- Unusually quiet birds
- Unusually depressed birds
- Decreased vocalisation
- Any decline in egg production from normal to cessation
- Sudden appearance of pale shell eggs or eggs without shells
- Any birds with swollen heads/combs/wattles
- Any birds with dark combs and wattles
- Any birds with nervous signs e.g. head shaking, head and neck tremors, unsteady gait

- Abnormal position of head and neck in a reasonable % of birds
- Respiratory disease e.g. breathing difficulties, coughing, sneezing
- Purplish patches on the legs and unfeathered skin
- Watery diarrhoea

Note: the above clinical signs are not specific to AI and can be seen in other poultry diseases.

Post-mortem findings could include any of the following:

- Haemorrhage and necrosis of combs
- Peri-orbital oedema
- Swelling of shanks and feet
- Petechial haemorrhages on viscera
- Catarrhal tracheitis
- Tracheal oedema
- Petechial tracheal haemorrhages
- Caseous tracheal exudate

#### 4. Surveillance activities

- Active surveillance must be initiated as soon as HPAI is suspected in line with the [HPAI surveillance guidelines](#), which is based on the AUSVETPLAN Disease Strategy Avian Influenza available at <https://www.animalhealthaustralia.com.au/our-publications/ausvetplan-manuals-and-documents/>
- Effective surveillance and reporting systems must be implemented as per the policy 'Surveillance for animal pests and diseases' and the procedures 'Reporting notifiable pests and diseases of animals and biosecurity events' and 'Prohibited matter of animal pests and diseases – investigation and alert phase of an emergency response'

#### 5. Response activities

- Response activities must be initiated as soon as HPAI is suspected in line with the AUSVETPLAN Disease Strategy Avian Influenza
- Effective response activities must be implemented as per the policies 'Management of animal biosecurity in NSW' and 'Prohibited matter pests and diseases of animals'
- NSW DPI and LLS response planning staff should consider the impacts to community well-being, and aim to minimise negative impacts and facilitate return to normal conditions as soon as possible
- NSW DPI and LLS response planning and operational staff should consider the environmental impacts of chemicals used in response activities, and aim to minimise negative impacts as much as possible

#### 6. Targeted publicity

##### 6.1 NSW Department of Primary Industries

- Maintain advisory material on the NSW DPI external website regarding general biosecurity duty responsibilities, reporting requirements for avian prohibited matter animal pests and diseases and notifiable avian diseases, and how to recognise these in birds
- Manage communications during a response
- Work with the NSW DPI communications team to develop and implement an industry and community engagement plan during a response
- Produce media releases to address food safety concerns during a response

##### 6.2 Local Land Services

- Provide advisory material to poultry producers and private veterinarians regarding AI biosecurity risks, such as at local Australian Veterinary Association meetings

- Provide NSW DPI-approved communications during a response
- Provide advisory material (such as newsletters, at field days) to increase community awareness regarding shared responsibilities in the management of AI biosecurity risks
- Provide advisory material to local groups e.g. at small farmer network forums regarding AI biosecurity risks

## 7. Definitions and acronyms

AI	Avian influenza
HPAI	Highly pathogenic avian influenza
LLS	Local Land Services
LPAI	Low pathogenic avian influenza
NSW DPI	New South Wales Department of Primary Industries
PPE	Personal protective equipment
Poultry producer	A person who raises domesticated chickens, turkeys, ducks or geese for the purpose of farming and selling meat or eggs for food

## 8. Documentation

[Policy - Management of Animal Biosecurity and Welfare in NSW](#)

[Policy - Prohibited Matter Pests and Diseases of Animals](#)

[Policy - Surveillance for Pests and Diseases of Animals](#)

Policy - Biosecurity collection, use and disclosure of information

Policy - Records Management (IND-I-177)

Policy - Information Security (IND-I-197)

Policy - Classified Information (IND-I-196)

Policy -Government Information (Public Access) (IND-I-178)

Procedure - Biosecurity collection, use and disclosure of information

[Procedure - Reporting Notifiable Pests and Diseases of Animals](#)

[Procedure - Prohibited Matter Pests and Diseases of Animals – Investigation and Alert Phase of an Emergency Response](#)

## 9. Records

Records created as a result of this procedure are stored in the Livestock Health Management System.

Records relating to properties placed under biosecurity restrictions must be maintained for at least 10 years.

## 10. Revision history

Version	Date issued	Notes	By
1	01/07/2017	New procedure developed in response to the <i>Biosecurity Act 2015</i>	Animal Biosecurity and Welfare
2	21/08/2020	Review and minor updates to reflect updated legislation	Animal Biosecurity

## 11. Contact

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