



Exhibition Poultry Association of NSW Inc.

Information Summary from the Presentation by Dr Brendan Sharpe

Deputy Chief Vet, NSW DPIRD — 30 August 2026

This document summarises the key information presented by Dr Brendan Sharpe on H5N1 avian influenza, including the risk environment, implications for exhibition poultry, poultry shows and flock biosecurity. It is intended as an information resource for EPANSW members, affiliated clubs and exhibitors.

The EPANSW and affiliated member clubs have an important role in working together, developing consistent show biosecurity practices and engaging constructively with authorities as the situation evolves.

***Important:** This summary reflects the presentation and discussion held on 30 August 2026. Biosecurity conditions, declared zones, movement restrictions and government directions can change quickly. Members should always follow the most current advice issued by NSW authorities.*

Background and Why H5N1 Is Different

H5N1 avian influenza is not a new virus internationally. Dr Brendan Sharpe explained that the virus originated in geese in China around 2006 and has since evolved, causing repeated waves of mortality in both wildlife and poultry across the northern hemisphere.

Around 2020, the virus changed in a way that made it more transmissible and more pathogenic—that is, more capable of causing serious disease—in wildlife. From that time, it spread rapidly through the northern hemisphere and, after reaching mainland South America, moved quickly south through the continent. It was detected in the sub-Antarctic islands in October 2025, providing the pathway by which infected seabirds could subsequently reach Australian waters and coastlines.

In the northern hemisphere, H5N1 activity has commonly occurred in seasonal waves that follow the migration patterns of waterfowl. However, Australia's bird movements, species and ecology differ significantly from those in Europe, Asia and North America. For that reason, there is currently no reliable overseas model that can accurately predict how H5N1 may behave, spread or persist within Australian wildlife populations.

It is therefore possible that H5N1 will become an ongoing wildlife disease issue in Australia, rather than a short-lived event. The future pattern of infection, seasonal risk and spread through Australian wild-bird populations is not yet known.

Comparison with Previous Outbreaks

Avian influenza itself is not new to Australia. Australia has experienced outbreaks involving other avian-influenza strains, including H7 outbreaks in Victoria, New South Wales and the ACT in recent years. However, the characteristics of those outbreaks are importantly different from H5N1.

Historically, Australian H7 outbreaks have generally begun when a low-pathogenicity virus carried by wild birds entered a commercial poultry flock. In its low-pathogenicity form, the virus does not generally cause disease in wildlife and may cause little or no disease in domestic poultry. Once inside a large and densely populated commercial flock, however, the virus can circulate rapidly and mutate into a highly pathogenic form.

This has meant that previous H7 outbreaks were usually centred on a particular commercial poultry premises or a relatively small geographical area. Removing infected birds, cleaning and disinfecting the premises, disposing of contaminated material, carrying out surveillance and then restocking once the site was cleared could effectively eliminate the immediate source of infection.

H5N1 is different because it is already circulating in a highly pathogenic form in wildlife. Consequently, a spillover event from wildlife to poultry may occur whenever infected wildlife, their faeces, contaminated water, contaminated feed or other contaminated material comes into contact with a poultry flock.

This creates the potential for multiple, separate incursions into poultry flocks in different locations. While the usual “stamping out” approach such as depopulation, disposal, cleaning, decontamination and surveillance and will remain an important initial response for infected commercial premises, it cannot remove the virus from wildlife. This means there may be an ongoing risk of repeat infection in poultry.

National Response Arrangements

Avian influenza is classified as an emergency animal disease in Australia. It is addressed through the national Emergency Animal Disease Response Agreement, under which governments and participating livestock industries work together to respond to significant animal-disease outbreaks.

The response is guided by nationally agreed arrangements developed across governments and key industry bodies. The Australian Eggs organisation, Australian Chicken Meat Federation and Australian Duck Meat Association are among the relevant industry participants in the national response framework.

Where an outbreak occurs, the response is generally cost-shared between governments and participating industry parties. The objective is to control and, where possible, eradicate the disease in accordance with nationally agreed response arrangements and Australia's international animal-health obligations.

The principal elements of an emergency response are:

- **Rapid detection and reporting:** Early reporting enables authorities to assess disease risk and act before infection spreads further.
- **Containment:** Authorities may establish quarantine, restricted and control zones around infected premises to limit movements and reduce the risk of further spread.
- **Tracing and surveillance:** Investigators identify potentially exposed premises, birds, people, vehicles and materials, and conduct surveillance to determine whether disease has spread beyond the initial location.
- **Management of infected commercial premises:** This may include depopulation of infected birds, safe disposal, cleaning, decontamination and a period of surveillance before restocking can occur.

These arrangements have been effective in responding to previous Australian avian-influenza outbreaks. However, because H5N1 may persist in wildlife, it may be more difficult to establish and maintain long-term freedom from the disease. This reinforces the need for a higher and more consistent level of biosecurity by government, industry, poultry clubs, exhibitors and individual poultry keepers.

Small Flocks and Depopulation

Dr Sharpe addressed concerns that all poultry on a property would automatically be destroyed if H5N1 were detected.

There is **no blanket requirement** for government authorities to depopulate every non-commercial or backyard flock following an avian-influenza detection. Decisions concerning non-commercial flocks would be based on risk and the particular circumstances of the case.

The level of risk may be influenced by matters such as:

- Whether the flock is located within a declared restricted or control zone.
- Whether the birds are infected, exposed or suspected to be infected.
- The proximity of the flock to commercial poultry farms.
- The likelihood that the flock could contribute to ongoing disease spread.

Infected commercial poultry flocks are expected to be dealt with through the established response process, which may include depopulation, disposal and decontamination. Small-scale, backyard and exhibition-poultry flocks would be assessed on a case-by-case risk basis rather than automatically being subject to the same outcome.

If a flock were required to be depopulated as part of an official response, compensation may potentially be available. However, valuations would likely be based on commercial values and may not reflect the true breeding, genetic, exhibition or sentimental value of purebred exhibition poultry.

Implications for Poultry Clubs and Shows

The primary aim of an emergency animal-disease response is containment. If avian influenza is confirmed at a poultry premises, the relevant State authority may declare restricted and control zones around that location.

Within a declared area, movements of birds and bird gatherings—including poultry shows—would generally be prohibited unless expressly authorised under a permit. A poultry show would be unlikely to proceed within either a restricted emergency zone or a control emergency zone.

As an example, discussed in the presentation, recent NSW avian-influenza responses used a restricted zone of approximately 2.5 Kms around an infected premises, with a wider control zone extending approximately 8 to 10 kms. The size and conditions of any future declared area would depend on the circumstances of the outbreak and the directions made by the responsible authority.

A poultry detection in NSW would **not necessarily result in the automatic cancellation of all poultry shows throughout the State**. Shows held outside declared areas would ordinarily be able to proceed, provided they comply with current government directions and suitable biosecurity measures are in place.

However, circumstances may change where the level of risk is considered unacceptable—for example, if H5N1 were spreading widely in wildlife or if multiple poultry outbreaks occurred across different locations. In those circumstances, authorities could impose broader restrictions on poultry movements and bird gatherings, potentially including temporary statewide restrictions.

Clubs, show committees and exhibitors should therefore:

- Maintain accurate exhibitor and bird-origin records.
- Use health declarations and refuse entry to unwell birds.
- Treat biosecurity as a core part of show planning, not simply an administrative requirement.

How H5N1 Spreads

The virus may be shed in faeces and respiratory secretions, including eye, nasal and oral secretions. Poultry may be exposed through:

- Direct contact with infected wild birds or infected poultry.
- Contact with bird droppings or contaminated soil, surfaces and equipment.
- Contaminated feed or water.
- Untreated surface water, including tank water or dam water contaminated by wild-bird droppings.
- Contaminated footwear, clothing, vehicles, cages, crates and other equipment.
- People or visitors who have recently been around other birds or contaminated environments.
- In some circumstances, short-distance airborne spread where large numbers of infected birds are present.

Wild birds remain the principal source of concern. Good biosecurity is therefore about preventing wild birds, their droppings and contaminated material from coming into contact with domestic poultry, poultry feed, drinking water and equipment.

Signs of Disease

Clinical signs of H5N1 can vary and may overlap with many other poultry diseases. A sick bird does not necessarily have avian influenza; however, unexplained disease, a rapid rise in mortality or unusual signs should always be treated seriously.

Possible signs may include:

- Sudden or unexplained deaths, including multiple deaths over a short period.
- A sharp fall in egg production.
- Respiratory signs, such as coughing, sneezing, nasal discharge or breathing difficulty.
- Swelling of the head, face, comb or wattles.
- Purple or dark discolouration of the comb, wattles, face or legs.
- Neurological signs, including unsteadiness, tremors, loss of coordination or abnormal behaviour. These signs may not be seen in poultry where death occurs swiftly.

Other diseases, including infectious coryza, mycoplasma, infectious laryngotracheitis, fowl cholera, fungal disease and parasitic disease, may cause similar signs. Some diseases affecting birds can also pose a risk to people. For this reason, sensible precautions should be taken when handling sick or suspect birds, including hand hygiene, gloves and, where appropriate, a face mask.

If there is concern about unusual illness or sudden deaths in poultry, bird keepers should contact the **Emergency Animal Disease Hotline on 1800 675 888**, available 24 hours a day, seven days a week. A private veterinarian, Local Land Services veterinarian or other appropriate animal-health professional may also provide assistance.

Recommended Show Measures

Dr Sharpe identified a number of practical measures that clubs should consider when planning and conducting poultry shows.

Pre-entry and Traceability

- Require exhibitors to complete a health and biosecurity declaration before entry or on arrival.
(EPANSW to provide)
- Record the exhibitor's full name, contact details, property or locality of origin, bird species and number of birds entered.
- Maintain accurate, legible and accessible entry records for every show.
- Avoid relying solely on informal entry arrangements, such as unrecorded text messages or verbal entries.
- Ensure records can be made available promptly if disease tracing is required.

Traceability is essential. If a disease concern is connected with a show, authorities need to be able to identify exhibitors, the birds present, where birds came from and where they returned after the event.

Sick-bird arrangements

- Do not allow birds showing signs of illness to enter the show.
- Have a clear procedure for refusing entry, isolating a suspect bird or arranging its immediate removal.
- Instruct exhibitors not to bring birds from a flock experiencing illness, unexplained deaths or abnormal production losses.
- Ensure officials know who to contact if a disease concern arises during or following the show.

Pens, equipment and litter

- Clean and disinfect show pens, drinkers, feeders and equipment before and after use.
- Consider using show-supplied feeders and drinkers rather than allowing exhibitors to bring these items into the pavilion.
- Minimise the movement of potentially contaminated equipment into the show area.
- Keep transport boxes and crates **outside** the main pavilion.
- Remove and appropriately dispose of spent litter after the event at landfill rather than allowing it to be taken to properties where other poultry are kept.
- If a bird is placed in the wrong pen, remove and replace the litter, clean the pen and disinfect it with an appropriate product in accordance with the manufacturer's instructions (Such as F10, takes effect in about 2 minutes).

Dr Sharpe noted that avian influenza viruses are generally relatively susceptible to appropriate disinfectants when surfaces are properly cleaned first and the required product concentration and contact time are observed. During the discussion, it was noted that F10 is commonly used and should be used in accordance with the manufacturer's directions, including the stated concentration and contact time.

Hygiene and Layout

- Provide hand-washing facilities or hand sanitiser for exhibitors, officials and visitors.
- **Where practical**, separate species such as waterfowl, landfowl and turkeys.
- If only one pavilion is available, equipment should not be shared between the waterfowl exhibits and other poultry. Ensure some separation between waterfowl, domestic fowl and other poultry in exhibition areas.
- Display biosecurity information and hygiene signage prominently at the venue.
- Ensure show personnel understand their biosecurity responsibilities.

Species separation is useful because different poultry species can vary in their susceptibility to disease and in the way they show clinical signs. Waterfowl may at times appear less affected than other poultry species, while turkeys and landfowl can be highly susceptible.

Protecting Home Flocks

The most effective protection for a home flock is to reduce the opportunity for contact with wild birds, wild-bird droppings and contaminated materials.

Recommended measures include:

- Keep feed and drinking water under cover and inaccessible to wild birds.
- Use mains water or appropriately treated water for poultry drinking water.
- Avoid untreated tank water, dam water or other surface water where contamination by wild-bird droppings is possible.
- Restrict free-ranging during periods of elevated risk.
- Cover outdoor runs where practical to reduce direct wild-bird access.
- Remember that netting may prevent direct bird contact but may not fully prevent droppings entering a run, particularly where trees or other structures overhang the enclosure.
- Monitor poultry closely for illness, unusual deaths or changes in egg production.
- Control entry to poultry areas by visitors, vehicles, equipment and introduced birds.
- Use dedicated footwear for poultry areas, particularly for visitors.
- Avoid relying on footbaths unless boots are first cleaned of dirt and organic matter and the disinfectant is maintained at the correct concentration.
- Quarantine introduced birds for a minimum of 14 days.
- Keep ducks, turkeys and chickens separated where possible, rather than mixing species in the same pen or run.

The priority is to prevent the virus reaching a flock through wild birds, water, feed, people, equipment or newly introduced birds.

Water Treatment

Mains or town water is generally chlorinated and regarded as a lower-risk option for poultry.

Where tank water or dam water is used, Dr Sharpe advised that it may be treated with an appropriate chlorine product. As an example, provided during the presentation, approximately **25 mL of 12.5% sodium hypochlorite bleach per 1,000 litres of water** may be used as a starting point to achieve a target chlorine concentration of approximately **2–5 parts per million**, with around 3 ppm identified as a practical target.

However, treatment should not be based on calculation alone. Chlorine test strips should be used to check the actual chlorine concentration, as dirty water or water with a high organic load may require additional treatment. Water should be allowed a minimum contact time of two hours, preferably overnight, before use.

Members should ensure any product is suitable for the intended use, follow the manufacturer's directions and obtain professional advice if unsure.

Vaccination

Vaccination against H5N1 remains a complex issue. It is not currently an immediate solution for small-scale or exhibition poultry keepers.

Vaccination may reduce clinical signs, deaths and virus shedding, but it does not necessarily prevent infection, eliminate all shedding or guarantee that birds cannot transmit the virus. Avian influenza viruses also evolve, meaning vaccines may need to be updated over time.

There are additional challenges relating to trade, disease surveillance and the practical delivery of vaccines. Commercial poultry vaccination policy would need to be addressed nationally before vaccination would be likely to become available to smaller poultry keepers.

While new vaccine technologies may become available in the future, the immediate priority remains practical biosecurity, early detection, reporting and compliance with government directions.

Key Messages

- H5N1 is different from past Australian poultry avian-influenza outbreaks because it is already highly pathogenic in wildlife.
- The risk of transmission from wild birds to poultry may be ongoing.
- Shows are not automatically cancelled following a detection, but bird gatherings are likely to be prohibited within declared control or restricted zones.
- Clubs should maintain good traceability, require health declarations, refuse sick birds, manage equipment carefully and maintain high hygiene standards.
- Poultry keepers should protect feed and water, limit wild-bird contact, use dedicated footwear, quarantine new birds and monitor flock health closely.
- Report suspect disease or unusual deaths promptly through the Emergency Animal Disease Hotline: **1800 675 888**.

Why H5 bird flu is different to Australia's previous H7 bird flu outbreaks

Previous Australian H7 outbreaks (H7 virus)	H5N1 virus
Usually started as a low-pathogenicity virus from wild birds	Already circulating as a highly pathogenic virus in wildlife
Became highly pathogenic after entering poultry	Can pass directly from infected wildlife to poultry
Outbreaks generally centred on poultry premises	Wildlife can provide repeated opportunities for introduction
Elimination of infected poultry removes the source	Wildlife infection likely to continue even if poultry outbreaks are eradicated
Usually geographically contained	Potential for continuing movement through wildlife populations
Stamping out successfully eradicated all previous outbreaks	Stamping out remains the policy in poultry, but does not eradicate virus from wildlife

How does HPAI spread?

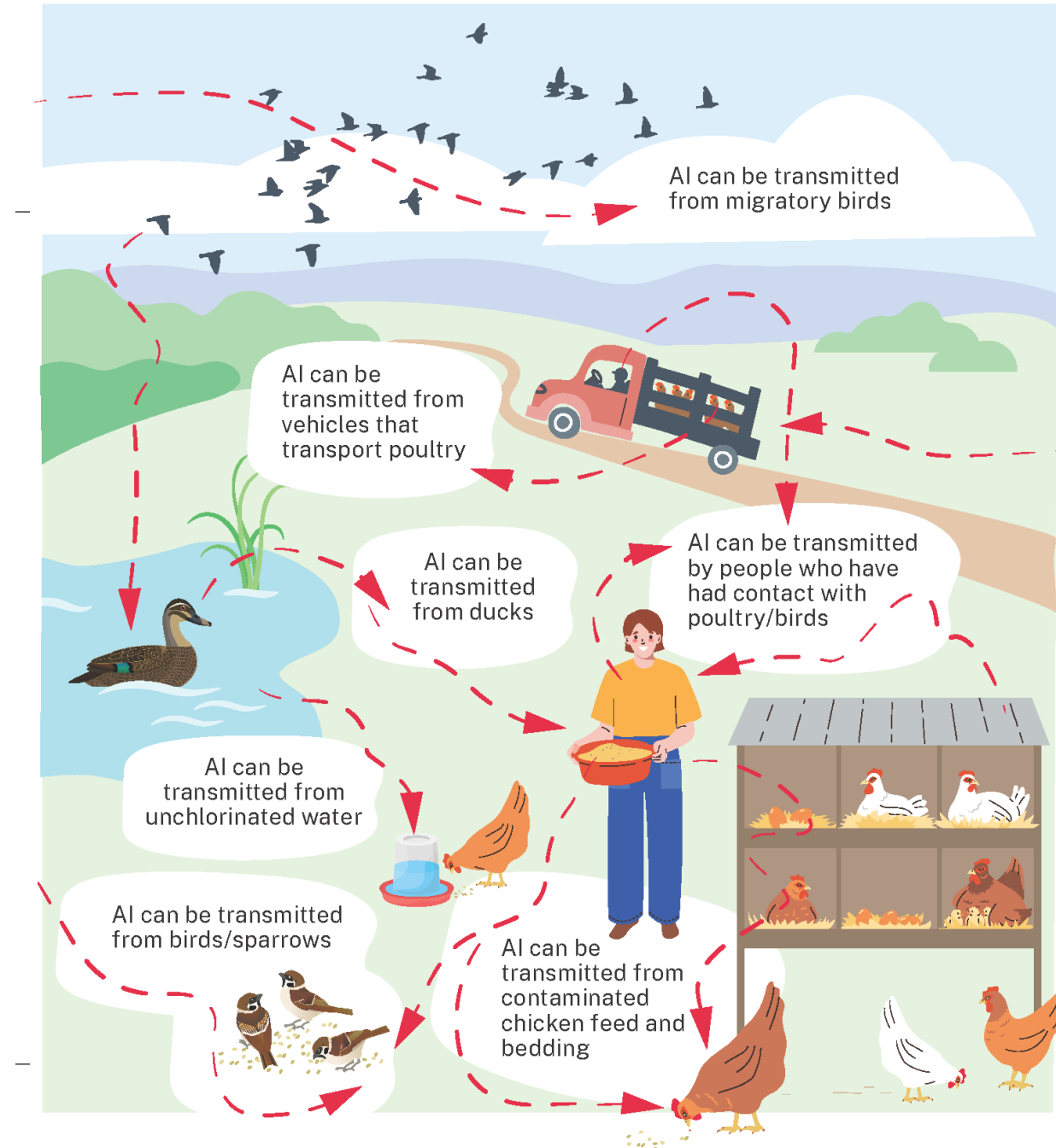
HPAI viruses are shed in:

- faeces and
- respiratory secretions (e.g., saliva).

The virus can be spread through:

- direct contact with infected animals, or their faeces
- contaminated feed and water
- contaminated equipment and clothing

It can also travel short distances by air if there are large congregations of infected animals.



Clinical signs of H5N1 in poultry

Signs of H5N1 (High Pathogenicity Avian Influenza) in poultry often escalate from normal to severe illness or death within 24 to 48 hours. Primary indicators include :

- A rapid drop in egg production
- Increase in sudden deaths
- Severe respiratory distress
- Swollen heads
- Purple discolouration of the wattle's combs and legs
- Neurological signs
- Ruffled feathers



Numerous pathogens cause respiratory disease

Bacteria	Viruses	Fungi	Parasites
<i>Mycoplasma</i> (CRD)	Avian Influenza*	<i>Aspergillus</i> (Brooder pneumonia)	Gapeworm
<i>Pasteurella</i> (Fowl Cholera)	Herpesvirus (ILT)		Tracheal worm spp.
<i>Avibacterium</i> (Infectious Coryza)	Paramyxovirus (Newcastle Disease)		Nasal mite spp.
<i>Chlamydia psittaci</i> (Psittacosis*)	Coronavirus (Infectious Bronchitis)		Tracheal mite spp.

This list is not exhaustive). Beware that some viruses are **notifiable**. And some are also potentially **contagious to people***

Environmental factors can exacerbate respiratory disease.

Notifiable respiratory disease



If suspect or have clinical signs obligation to report/investigate further

Engage and establish relationship with your local private veterinarian

EAD Hotline 1800 675 888

Local Land Services District Veterinarian

Beware when submitting birds to your private vet or LLS vet, notifiable disease testing is free. However, the submitter and/or the owner is responsible for further testing charges and vet fees.

Notifiable respiratory diseases

*Avian Influenza**

Herpesvirus (ILT)

Paramyxovirus (Newcastle Disease)

Chlamydia psittaci (Psittacosis)*

What is the nationally agreed policy for responding to high pathogenicity avian influenza in Australia?

- Agreed nationally across all governments and the commercial poultry industries peak bodies, formulated via AUSVETPLAN Avian Influenza response manual.
- Cost-sharing mechanism by way of the Emergency Animal Disease Response Agreement (EADRA)
- Key principles:
 - Rapid detection
 - Containment of infection by way of establishment of declared areas (or quarantine zones) and movement controls
 - Tracing and surveillance to understand the true extent of infection
 - Biosecure depopulation, disposal and decontamination of infected premises
 - Restocking and proof-of-freedom testing

High pathogenicity avian influenza and poultry exhibitions and gathering

- First principle of EAD response is containment,
- A H5 bird flu poultry infection in NSW would not necessarily mean every poultry show across the state would automatically be cancelled,
- Shows inside restricted or control emergency areas could not proceed while the declared areas are in place as per the nationally agreed policy in AUSVETPLAN,
- Movements into, out of or through declared areas could be prohibited or require permits,
- Shows outside declared areas could have restrictions or additional conditions if their risk were considered unacceptable (e.g. significant spread through wildlife and poultry across the state),
- Restrictions could change at short notice as tracing and surveillance information becomes available, and
- Interstate exhibitors could also be affected by another jurisdiction's movement requirements..

Show biosecurity planning



Pre-entry health declarations

Refusal and isolation arrangements for sick birds

Traceable exhibitor, property and bird-entry records

Show supplied drinkers and associated disinfection process for these and cages

Boxes and transport crates not stored within the pavilion

Provision of hand-cleaning facilities for personnel

Biosecure management of spent litter

An agreed process for contacting NSW DPIRD if illness is detected

Species separation where possible

Instructions for exhibitors on post-show precautions.

Strategies to minimise risk

Recognise and report early (report unusual findings to the **Emergency Animal Disease hotline on 1800 675 888**)

Use	Use feeders and waterers placed within pens
Provide	Provide mains or treated water to poultry
Restrict	Restrict free ranging at high-risk times or cover ranges to prevent bird entry
Monitor	Monitor flock health regularly
Control	Control what comes on to your premises (birds, people, equipment)
Quarantine	Quarantine introduced birds for a minimum of 14 days
Avoid	Avoid mixing of species e.g. ducks, turkeys and chooks

Simple water chlorination plan for surface water (non-mains water e.g. from dam or roof catchment)

Eg. use a 1,000 L holding tank, or similar

Using 12.5% sodium hypochlorite (bleach)

Approximately 25 mL will provide roughly 3 ppm chlorine in relatively clean water (target 2-5ppm) (higher doses may be required if organic contamination is present).

Because chlorine demand varies enormously, always verify with test strips rather than relying on the calculated dose.

Contact time minimum 2-hours.



Vaccination

1. Vaccination is not currently used in Australian poultry, current policy focus is on exclusion, surveillance and early detection, quarantine and movement controls, stamping out
2. Vaccination is not a silver bullet
3. Australia is already using vaccination in some birds
4. Poultry vaccination policy is actively being considered
5. International experience is evolving



Avian Influenza: How do you catch it?



You touch infected animals
without PPE



You touch something with the
virus on it and then touch
your eyes, nose or mouth



You breathe in dust or
droplets that contain the virus



Liquid with the virus in it
splashes into your eyes,
nose or mouth



Wearing appropriate PPE correctly can protect you