Dairy Australia

Understanding the H5 Bird Flu Risk for Australian dairy cattle – FAQs

2025-26

Delivering for Dairy

A new strain of bird flu, H5 highly pathogenic avian influenza (H5 bird flu), is causing widespread mortalities among birds and mammals across the globe. This strain is spreading rapidly between continents through wild birds and has been reported in non-avian species, including dairy cattle.

Australia remains the only continent free from H5 bird flu.

To address this emerging threat, the Australian dairy industry and the Australian Government Department of Agriculture, Fisheries and Forestry hosted a joint webinar on 4 December 2025 to provide insights into the global situation and risks to Australia and discuss how governments and the dairy industry are preparing for a potential outbreak. The following is a list of Frequently Asked Questions from the webinar.

1. If my animals show symptoms, what should I do?

- Avian influenza is a notifiable animal disease, meaning anyone who suspects it must report it.
- If you notice any unusual signs of disease in your herd or on your farm, including mortalities in wildlife, you need to contact the Emergency Animal Disease (EAD) Hotline on 1800 675 888 immediately. This will put you in touch with your state or territory's biosecurity authority.
- Dairy farmers are encouraged to respond to any signs of illness or drops in milk production promptly as normal practice to ensure a healthy herd.
- Report unusual signs of disease in cattle to a private veterinarian or the EAD Hotline (1800 675 888).

2. Is there a test for H5 bird flu in dairy cattle?

- Australia has a high standard of diagnostic testing capability for avian influenza through the Australian Centre for Disease Preparedness (ACDP), the national animal health laboratory, and other nationally accredited animal health laboratories around the country.
- There are frontline tests that are nationally validated for avian influenza, including H5 bird flu. These include tests that can identify the virus such as PCR tests, other tests that can characterise the virus such as genetic sequencing, and blood tests that can identify antibodies to the virus. These can be performed on a range of samples from dairy cattle such as milk or blood samples.

3. How long does testing take?

- In the event of an incursion of H5 bird flu in Australia, detection and identification of the virus would occur rapidly through the national reference laboratory, ACDP.
- Detection of the virus can occur within 24 hours of receipt of suitable samples.

4. Would my herd be quarantined if H5 bird flu was detected?

- There are well-established, nationally agreed arrangements in place to respond to emergency animal diseases like H5 bird flu.
- If Australia experiences an outbreak, there will be a rapid national response coordinated by the Australian Government, with state and territory governments leading response activities within their borders.
- If H5 bird flu reaches Australian shores, the most likely impacted animals will be poultry and wild birds.
- A national working group is developing a response strategy for avian influenza in livestock now. The strategy will complement Australia's well-established response arrangements for avian influenza and draw on learnings from the US.
- Strategies to control infection may include quarantine of affected premises and movement controls of animals, equipment and/or untreated milk from infected herds.
- The specific response will depend on the characteristics of the outbreak and assessed level of risk.

5. Would my herd be culled?

- The national response strategy for avian influenza in livestock is currently underway. It will consider the overseas experience and control measures that have been successful – in the US affected herds have not been destroyed and have recovered from illness.
- Strategies to control the spread of disease in cattle herds such as quarantine of affected herds, enhanced on-farm biosecurity measures, movement controls, and tracing and surveillance are likely to remain the mainstays of a response.

6. Would there be a livestock standstill?

- The national response strategy for avian influenza in livestock is underway and may include movement controls for livestock.
- Based on the US response and our current understanding of H5 bird flu, a livestock standstill has not formed part of the US response.

7. Who pays for the response and compensation?

- Australia has a long-standing agreement between government and livestock industries on how to manage the cost of emergency animal disease responses like H5 bird flu when eradication is sought.
- The agreement, called the Emergency Animal Disease Response Agreement (EADRA), provides a mechanism for agreed Emergency Animal Disease Response Plans (EADRP) to be rapidly funded.
- The dairy industry is a signatory to EADRA. Other livestock industries are also signatories through their peak industry bodies (for example pigs, sheep and beef cattle).
- H5 bird flu is a category 2 disease under the EADRA. The split of response costs under an agreed EADRP is 80% governments and 20% industry.
- In the event of an emergency animal disease outbreak, compensation is determined by the state or territories legislation and processes. Compensation costs may be eligible for cost sharing under EADRA if they are part of an approved EADRP.
- Production losses, such as milk drop, are considered consequential losses and not eligible for cost-sharing under the Deed.

8. Could the virus enter Australia through imported dairy products?

- All dairy products imported into Australia must follow strict biosecurity conditions that effectively manage the risks, including treatment of milk through an approved method of pasteurisation.
- Appropriate pasteurisation measures are effective at inactivating avian influenza viruses in milk.
- Standard conditions for composite, highly processed, and cooked products which include dairy ingredients (such as chocolate and cakes) will manage the risks of avian influenza in goods for human consumption.
- The most likely entry pathway into Australia is through wild birds. This study indicated that good farm biosecurity is important to protect your herds.

9. Would an outbreak affect trade or dairy exports?

- Monitoring of the international situation has not identified any significant trade impacts arising from the situation in the US.

10. Is there a vaccine for H5 bird flu?

- Commercial avian influenza vaccines exist for poultry, but there are no commercially available avian influenza vaccines for cattle or other mammals.
- Vaccination trials in cattle in the United States are currently underway, and the Australian Government is following the results of these trials with interest.
- The Australian Government is actively reviewing the regulatory and policy arrangements relating to the use of avian influenza vaccines for Australia. In particular, the potential to vaccinate rare, protected and valuable birds is being considered nationally with both agriculture and environment departments.

11. What is the risk of H5 bird flu entering Australia?

- H5 bird flu has spread rapidly between continents so it is important we are prepared for the possibility that it could arrive in Australia.
- An expert assessment of the risk from H5 bird flu to Australia associated with wild birds has been undertaken.
- The threat of H5 Bird Flu arriving in Australia is year-round. Whilst spring presents a higher risk, it is not the only risk period.

12. What is the dairy industry doing to prepare?

- While the risk of a spillover event occurring in Australian dairy herds is low, the recent independent risk assessment has identified focus areas for the industry to prioritise investment and resources.
- These include research into the disinfection and disposal of milk from infected herds, developing a strategy for using bulk milk as a surveillance tool and the development of best-practice treatment guidelines for clinical cows and practical on-farm biosecurity measures.

13. How does the virus spread between cows?

- Milk from clinically affected cows contains very high levels of virus, and the virus is also shed in urine and respiratory secretions of sick cows.
- H5 bird flu is thought to spread between cows by several means: breathing in aerosol-contaminated air, eating/drinking feed or water (contaminated by milk, urine, or aerosols), or by intramammary infection via contaminated milk on teat cup liners, hands/gloves, or intramammary treatments.

14. How does it spread between farms?

- The spread across the USA is thought to largely be due to the movement of milking cows between herds, and possibly shared staff and equipment.
- To date, studies indicate that wild birds are not spreading H5 bird flu between cattle herds.

15. What are the signs of H5 bird flu in dairy cattle?

- Clinically affected cows present with a significant drop in milk production (20-100% according to some US studies), a drop in both water and dry matter intake, mastitis, lethargy, dehydration, and fever. Other signs include abnormal milk or faeces, nasal discharge, and increased respiratory rate.
- Less common symptoms may also include pneumonia or abortion. Calves and heifers that have been infected experimentally via the mouth or nose have shown either no signs, or mild respiratory signs (cough, nasal discharge).

16. What is the incubation period?

- The incubation period for individual cows is 3-10 days but will depend on the infectious dose: for cows experimentally infected with a high dose of the virus, clinical signs and viral shedding were detected within 1-2 days of infection.
- At a herd level, the disease outbreak is recognised 12 to 21 days after arrival of infected animals on farm.

17. What other animals on my farm could become infected?

- Based on what has been seen overseas, a range of animals could be infected such as domestic and wild birds, pigs, alpacas, goats, dogs and cats.
- The route of infection for these animals will differ, such as eating dead/infected birds or drinking contaminated milk.

18. How long does the virus survive in the environment?

- Studies have shown that the H5 bird flu virus can survive for weeks in refrigerated raw milk and can survive for a week or more in water and on milk-contaminated surfaces depending on ambient temperatures. The presence of organic matter such as faeces or soil and cooler temperatures will assist virus survival.
- Cleaning and disinfection are very effective at removing virus from surfaces, including in the milking parlour, sheds, and on equipment.

19. Does H5 bird flu have long-term health impacts on dairy cattle?

- The key impact on clinically affected animals is a significant drop in milk production, and according to some US studies this may be 3-20% of the milking herd.
- While animals typically recover from disease within 1-3 weeks, the return to milk production may take longer than 2 months.
- The impacts of infection on herd reproduction are currently unknown.

20. What is the risk to dairy staff?

- H5 bird flu is primarily a disease in birds, with sporadic cases in humans reported to date.
- The interim Australian Centre for Disease Control has assessed the risk of H5 bird flu to the Australian public as low.
- In the US, infections in dairy workers have been linked to cleaning the milking parlour as a regular task or through close contact with clinically affected animals.
- Most human cases have had mild symptoms such as mild respiratory signs or conjunctivitis.

21. How can farm staff protect themselves?

- There are useful resources and public health guidance to protect against H5 bird flu available on the Department of Health and Aged Care's website:
    - Bird flu (avian influenza) | Australian Centre for Disease Control.
    - National guidelines for avian influenza: protecting people who work with birds and wildlife.
    - Bird flu toolkit for people who work with birds | Australian Centre for Disease Control

22. I have lots of birds on my farm – how can I reduce risk?

- The best way to control wild bird populations in and around the farm is to make the area less attractive to visit. This includes restricting access to feed or water sites and netting or removing access to water sources close to milking sheds and areas where cattle reside.
- The destruction or culling of wild birds to prevent or control disease spread is not permitted as it is ineffective, impractical and may be counterproductive in stopping the spread of disease. Such action may also cause detrimental impacts to wild populations, where threatened species are already at risk.

23. What can I do now to reduce the risk of H5 bird flu entering my farm?

- Good biosecurity remains the most important way of protecting your herds.
- These include:
    - quarantining new stock into the herd,
    - reducing access of wild birds on farms,
    - minimising on-farm visitors,
    - disinfecting trucks and equipment entering the farm.
- The Farm Biosecurity website (farmbiosecurity.com.au) and birdflu.gov.au includes information to help producers understand and manage disease risks.

24. Can I feed infected milk to calves?

- Feeding calves infected milk has been shown to cause infection, although the clinical disease in calves is thought to be less serious, with experimentally infected calves showing mild to moderate signs.
- As pasteurisation is effective at treating H5 bird flu in milk, the US dairy farms who routinely pasteurise waste milk prior to feeding calves are set up to continue to feed milk in a H5 bird flu outbreak.
- On-farm pasteurisation is less common in Australia. If H5 bird flu was present and circumstances suggested a higher risk setting, a safe option would be to feed calves milk replacer.

25. How should infected milk be treated or disposed of?

- There are high levels of virus in the milk from clinically sick cows.
- Approved methods of pasteurisation are effective at treating H5 bird flu in milk.
- Some disinfectants and low-pH (acidic) treatments can inactivate the virus on surfaces, but further research is needed to determine the exact concentrations and contact times required to reduce H5 avian influenza viral loads in contaminated milk to below detectable levels before disposal. This work is currently underway.
- There is also information on the disinfection and treatment of milk and associated equipment within the AUSVETPLAN Operation Manual for Decontamination.

26. Will pasteurisation kill H5 in the bulk vat?

- Approved methods of commercial pasteurisation are effective at treating H5 bird flu in milk in the bulk vat.

27. What caused the US spillover event?

- The cause of the spillover event (where a virus spreads from one species to another) in US dairy cattle is unknown.
- In early 2024, H5 bird flu (genotype B3.13) was identified as a novel syndrome in dairy cattle. This was followed by two more spillovers into dairy cattle (genotype D1.1) in early 2025, identified through bulk milk testing.
- Potential sources of infection may have come from wild birds or infected poultry farms.

28. Why is this strain of concern?

- The first concern is that this new strain is very infectious and can spread to many different bird species and kill them.
- This strain can also infect and spread between mammals such as seals, mink, and dairy cattle.
- The wider host range means it has the chance to cause lots of damage – for example, the virus has had a great impact on elephant seal populations and on US dairy production.
- Some people have also been infected with this strain overseas, although it hasn't spread from person to person. Human health authorities are monitoring this potential risk closely.

29. Australia had an outbreak in wild or domestic birds, could it spread to dairy cattle?

- This risk was assessed as low because the likelihood of dairy cattle being exposed to enough virus to cause infection was estimated as minimal.
- Virus levels in most wild bird faeces are low (except for ducks), and the assessed risk of spread from poultry to cattle is also estimated as low.

30. Has any country besides the US had outbreaks in dairy cattle?

- No other countries are known to have had outbreaks in dairy cattle, apart from the USA, despite the widespread circulation of this virus globally.
- Countries such as Canada have active surveillance for H5 bird flu in dairy cattle and have not had any outbreaks in dairy cattle.

31. What are the risks to other livestock industries?

- Rapid risk appraisals were conducted in Australia's other livestock sectors including small ruminants (sheep/goats), beef cattle and pigs.
- The risks to these industries were assessed as negligible (beef cattle and sheep/goats) to low (pigs).

32. Have Australian avian influenza strains infected mammals?

- No mammals in Australia have been affected by any of the strains of avian influenza seen in America.
- In Australia, low pathogenicity avian influenza (LPAI) viruses are naturally carried by wild birds, usually waterfowl such as ducks, without causing signs of disease. These strains can occasionally spill over into poultry and mutate to a high pathogenicity avian influenza (HPAI) strain and cause disease in poultry.
- In each of these situations, disease has remained in bird populations.

33. Why has the US dairy herd been affected compared with Canada? Is this due to genetics, differences in dairy systems, or something else?

- The cause of the spillover events in US dairy cattle and reasons this situation is unique to the US are still unknown.
- There are differences in the structure and size of the Canadian dairy industry compared to the US dairy industry that may have influenced spread between dairy herds. The Canadian dairy industry is much smaller with fewer movements of dairy cattle compared to the large-scale intensive operations that characterize the US dairy industry.

34. Under the US response, have any dairy farms been fully cleared of HPAI, and how was that determined?

- Yes, a dairy farm infected with H5 bird flu can be officially cleared of the virus and have its quarantine lifted. The farm must meet specific testing protocols established by US state and federal animal health authorities.
- As a part of the US Department of Agriculture's National Milk Testing Strategy, a voluntary HPAI Dairy Herd Status Program was introduced to manage and confirm H5 bird flu status of dairy herds through standardised bulk milk testing and biosecurity protocols.
- In some states, such as California, a farm's quarantine is lifted after three negative whole-herd tests via weekly bulk tank milk samples at an accredited laboratory.
- A farm may be placed back under quarantine if new detections of the virus are found after the initial clearance.

35. Have calves born from infected cows been tested for antibodies to H5 bird flu, and if so, what has been found?

- There are currently no published studies on vertical (in utero) transmission and antibody production in calves born to cows infected with H5 bird flu.
- Cows have been shown to mount an immune response to H5 bird flu that protects them from subsequent infections.
- In one US study calves fed infected raw milk from cows with antibodies to the H5 bird flu virus and this provided partial protection against disease, and the calves did not show clinical signs.

36. Would Australia's open grazing systems increase cattle exposure to wild animals and waterways, and therefore increase the risk of H5 bird flu?

- The precise spillover events in the US are still unknown, and so it is hard to say whether the different farming environments change the risk of disease.
- The risk assessment estimated a low likelihood that dairy cattle would be exposed to enough virus from wildlife or poultry to cause infection.

37. Can infected cows be sold, and if so, for what end use (e.g. slaughter, rendering, other)?

- Disease control and management of H5 bird flu is the responsibility of the affected state or territory government and will depend on the specific circumstances of the outbreak and associated risks. This may include movement controls or quarantining affected herds to prevent the further spread of disease, including to saleyards or abattoirs.
- As part of healthy herd management, the movement of infected or sick animals is not recommended.

38. Is meat from infected cows affected or contaminated by H5N1, and how is food safety managed?

- Based on data on H5 bird flu from the US, the virus appears to affect respiratory and mammary tissue in dairy cows. Muscle meat tissue is not likely to be heavily exposed or infected.
- Normal cooking and ensuring food safe temperatures are reached should adequately pasteurise the meat and render it food safe.

39. If there is an outbreak in Australia, will bulk milk testing used by processors rely on tests developed and validated in Australia?

- Yes, if there is an outbreak in Australia, milk collected from individual animals or from pooled bulk milk in tanks would be tested using validated PCR tests routinely used by accredited laboratories around Australia.
- Milk infected with H5 bird flu has high levels of the virus, and bulk milk testing in the US has proved to be an effective method of detecting the virus. Confirmatory testing at Australia's national reference laboratory (ACDP) will determine if the virus is the H5 strain.
- The Australian Government has invested in further research through ACDP to update and validate enhanced diagnostic tools, improving capacity for rapid and accurate detection of H5 bird flu.

40. In robotic dairies, is the automated disinfection of milking cups sufficient to inactivate H5 bird flu, or are additional cleaning steps recommended?

- In automated milking systems, the most common disinfectant used to rinse clusters in between milking cows is peracetic acid. In the United States, peracetic acid is listed as a registered antimicrobial product that is effective against avian influenza.
- As with all disinfectants, their effectiveness on surfaces will depend on concentration, contact time, viral load and the presence of organic material such as faeces or milk. Australian research is currently underway looking at the effectiveness of disinfectants against H5 bird flu in whole milk.
- Further details on the disinfection of equipment can be found in the AUSVETPLAN Operation Manual for Decontamination.

41. Under the Emergency Animal Disease Response Agreement (EADRA), is eradication the primary aim, and how does that influence the response strategy for H5N1?

- The Emergency Animal Disease Response Agreement (EADRA) is an agreement between governments and industry to fund responses where eradication is sought.
- A national response strategy for avian influenza in livestock is currently under development that will include options to control and eradicate the disease such as testing and movement controls. It will consider control measures that have been successful in the USA, where the elimination of the virus from dairy herds is the goal.

42. What are the guidelines for human consumption of milk if a farm tests positive for H5 bird flu?

- Appropriate pasteurisation of milk inactivates the virus making it safe for human consumption.

43. Is processed/pasteurised milk from a positive or neighbouring farm still considered safe?

- Food standard pasteurisation effectively inactivates the virus in milk and other dairy products, making it safe to consume.

44. Do any rapid point-of-care tests currently exist – or are they being developed – that can detect H5N1 in milk or animals before clinical signs appear?

- The Australian Government is not aware of any fully validated point-of-care tests (POCT) for milk samples for H5 bird flu currently.
- There is active research globally to develop POCTs to detect influenza viruses in animals. In the US, there are commercially available Rapid Antigen Tests (RATs) advertised for the detection of avian influenza in milk and research is ongoing on their performance.
- In Australia, the use of rapid POCTs require a thorough assessment of their test performance for their intended use. For notifiable animal diseases such as avian influenza, the use of POCTs is currently regulated by each Australian state or territory.
- The Australia Government has invested in a project with the national animal health laboratory (ACDP) to validate RATs for avian influenza in animals to determine their suitability as in-field screening tools for suspected cases of H5 bird flu.

Additional Resources:

- Dairy Australia's Emergency Animal Diseases Page: Emergency Animal Diseases | Dairy Australia
- The Farm Biosecurity Program: Farm Biosecurity
- The Australian Government's H5 Bird Flu page: Bird flu (Avian influenza) - DAFF

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MC-821 | Dec 2025