Understanding the risks to Australia's livestock industries from H5 avian influenza (bird flu)

Overview

In December 2024 the Australian Government's HPAI Preparedness Taskforce partnered with Dairy Australia to commission an independent risk assessment of H5 avian influenza (referred to as H5 bird flu) in Australian dairy cattle. The report, completed in September 2025, includes rapid risk appraisals for other livestock sectors, and guidance on preparation and response measures for industry and governments.

The report estimated the risk to the Australian dairy industry to be low.

The risk is estimated to be negligible for beef cattle and small ruminants (sheep and goats), and low for pigs.

There is uncertainty in these estimates due to a limited knowledge of possible virus behaviour in an Australian context.

The Australian Government is actively working with animal industries and state and territory governments to prepare for an outbreak of H5 bird flu in Australia. The report helps us to understand the level of risk that H5 bird flu poses to livestock and prepare accordingly.

How was the risk assessment undertaken?

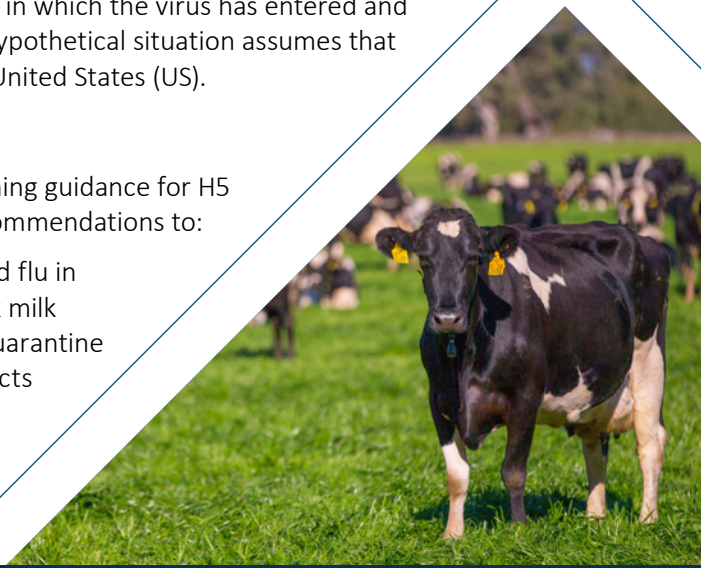
The risk assessment was conducted by Ausvet, a veterinary animal health and epidemiology firm, using a structured, qualitative framework aligned with World Organisation for Animal Health (WOAH) guidelines. A comprehensive formal assessment was conducted for dairy cattle, where key pathways for virus entry and spread were identified and evaluated. This was informed by a review of the scientific literature, 25 biosecurity assessments on Australian dairy farms, and farm-level modelling. Risk assessments in the other livestock species provide rapid and preliminary appraisal of the risks.

The assessments were based on a hypothetical scenario in which the virus has entered and become established in wild birds across Australia. The hypothetical situation assumes that virus behaviour is similar to the strain circulating in the United States (US).

What did the report recommend?

The report provides biosecurity preparedness and planning guidance for H5 bird flu in dairy cattle and other livestock, including recommendations to:

- Develop nationally agreed response plans for H5 bird flu in dairy cattle, including diagnostic testing in milk, bulk milk surveillance for early detection, and protocols for quarantine and the safe movement of livestock and their products during a response.



- Establish cross-sectoral coordination and planning, including HPAI-specific training and simulation exercises for industry and governments.
- Prepare communication materials for the public and key stakeholder groups.
- Consider research into virus behaviour, dairy cattle movement networks and farm structures in Australia, and milk disposal and treatment options.

What will happen if there is a H5 bird flu outbreak?

Australia has well-established national response arrangements in place to respond to emergency animal diseases, including avian influenza.

If Australia experiences an outbreak of H5 bird flu, there will be a rapid and coordinated national response led by the Australian Government, with state and territory governments leading response activities within their borders.

We will keep working closely with other Australian Government departments, state and territory governments, sector partners, communities and businesses to manage an outbreak and provide support to affected industries. Early detection and working together is important.

What actions are being taken by the Australian Government to prepare?

In 2024, the Australian Government invested more than $100 million to strengthen surveillance, preparedness and response capability for H5 bird flu. A dedicated Australian Government HPAI Preparedness Taskforce was established, jointly led by the agriculture, environment, health and emergency management portfolios. Key government achievements include:

- A new National Management Agreement to manage the impacts of H5 bird flu in wildlife
- A national H5 bird flu communication response strategy for clear and consistent messaging in the event of an incursion
- Resources to promote early reporting of suspect disease in livestock and wildlife, and to promote good farm biosecurity practices: Resources for bird flu - DAFF
- Providing $12 million to states and territories for essential response equipment
- Providing $7 million for enhanced disease surveillance in wild birds
- Conducting Exercise Volare and Exercise Convergence, a series of national simulation exercises to strengthen national response arrangements for H5 bird flu.

More information on the activities that have been funded can be found on birdflu.gov.au.

What are the next steps to prepare livestock industries?

The Australian Government HPAI Preparedness Taskforce is actively considering the findings from the report alongside preparedness and response activities already underway. The overseas H5 situation continues to be monitored closely.

A response policy for H5 bird flu in livestock is being developed by a national working group under the Animal Health Committee, Australia's national leadership body for animal health. The dairy risk assessment report will help to inform this work, which will complement the AUSVETPLAN Avian Influenza Response Strategy, and will consider surveillance, testing, treatment, movement restrictions, and other control measures in livestock.

A joint webinar with Dairy Australia will be held on December 4, 2025, to discuss the findings of the report with industry participants.

Frequently asked questions

What is happening overseas with H5 bird flu?

A highly contagious and serious strain of high pathogenicity avian influenza, clade 2.3.4.4b, (referred to as H5 bird flu) has rapidly spread across the world through wild birds. Overseas outbreaks have demonstrated that H5 bird flu could have significant impacts on our wildlife, agricultural industry and communities if it reaches Australia. Australia is currently free from H5 bird flu.

What's happening with dairy cattle in the United States?

In the United States (US), an unprecedented and unique situation has seen the virus spread to dairy cattle, infecting over 1,000 herds across multiple states. Clinical signs reported in dairy cows in the US range from mild to severe, and include lethargy, reduced feed and water intake, drops in milk production and clinical mastitis. Mortality in dairy cattle has been very low, with animals typically recovering and returning to milk production in 1-3 weeks.

The US Department of Agriculture is responding through a suite of measures that include national surveillance testing in bulk milk and dairy herds, mandatory testing in milking cows prior to inter-state movements, and support for enhanced biosecurity in dairy herds.

Has H5 bird flu spread to dairy cattle elsewhere in the world?

To date, dairy cattle have not been affected anywhere else in the world except the US, despite widespread circulation of the virus globally.

Has H5 bird flu been reported in other mammalian livestock?

H5 bird flu has affected over 100 mammal species. It has been reported sporadically in alpacas, pigs, and goats in the United States, and a single case was confirmed in a sheep in the United Kingdom in early 2025.

What caused H5 bird flu in dairy cattle in the US?

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, with **ongoing spread** between dairy herds occurring through exposure to infected milk, such as through the movement of cattle or milking equipment.

Are there any differences between the US and Australian dairy industries that may influence spread?

The US dairy industry is characterised by intensive and large-scale operations that may have facilitated spread between dairy herds. In contrast, Australia's dairy industry is predominately pasture-based, with reduced connection between farms, and lower farm densities that act as natural barriers to disease transmission.

What are the risks of H5 bird flu to the Australian dairy industry?

Australia remains free of H5 bird flu. The risk of H5 bird flu establishing in Australian dairy cattle is estimated to be **low**.

The assessment used information available at the time. There remain significant knowledge gaps in the understanding of the virus, creating a high level of scientific uncertainty in this estimate.

Are there any risks to humans from dairy cattle infected with H5 bird flu?

The interim Australian Centre for Disease Control has assessed the risk of H5 bird flu to the Australian public as **low**.

H5 bird flu is primarily a disease in birds, with sporadic cases in humans reported to date. In the US, H5 bird flu has spread from dairy cattle to several other species, including domestic cats, wild birds, wild mammals, poultry and humans.

Most human infections detected in the US have been mild, typically involving conjunctivitis or upper respiratory symptoms. 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. Food standard pasteurisation effectively inactivates the virus in milk and other dairy products.

Public health guidance to protect against H5 bird flu can be found at the Australian Centre for Disease Control bird flu (avian influenza).

Guidelines for employers to protect workers from H5 bird flu are available here: national guidelines for avian influenza – protecting people who work with birds and wildlife.

A toolkit of resources for people who work with birds can be found here: bird flu toolkit for people who work with birds.

Are biosecurity measures in place for imported dairy products?

All dairy products imported into Australia from the US are subject to a range of risk management measures, including milk being treated using an approved method of pasteurisation. Appropriate pasteurisation measures are effective at inactivating avian influenza viruses in milk.

What can the dairy industry and producers do to prepare?

Australian livestock producers are encouraged to implement sound biosecurity practices and ensure that farm biosecurity plans are current. The Farm Biosecurity website includes information to help producers understand and mitigate disease risks (farmbiosecurity.com.au). Further information on biosecurity practices can be found on birdflu.gov.au.

Producers are encouraged to report unusual signs of disease in cattle, other livestock or wildlife to a private veterinarian or the Emergency Animal Disease Hotline on **1800 675 888**.

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