ANIMAL HEALTH IN AUSTRALIA

Annual Report 2024

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About this publication

The *Animal Health in Australia Annual Report* covers animal health and related matters that have occurred during the year, including relevant new policies and projects, disease incidents and status, and research activities.

Chapter 1 outlines key achievements and important updates, while Chapter 2 highlights the current status of Australia's terrestrial animal health and animal surveillance. Chapter 3 provides an overview of the current status of Australia's aquatic animal health.

The report is produced by Animal Health Australia and receives input and review from staff at the Australian Government Department of Agriculture, Fisheries and Forestry, including through the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES). Input is also received from the state and territory governments, Australia's livestock industries and Wildlife Health Australia.

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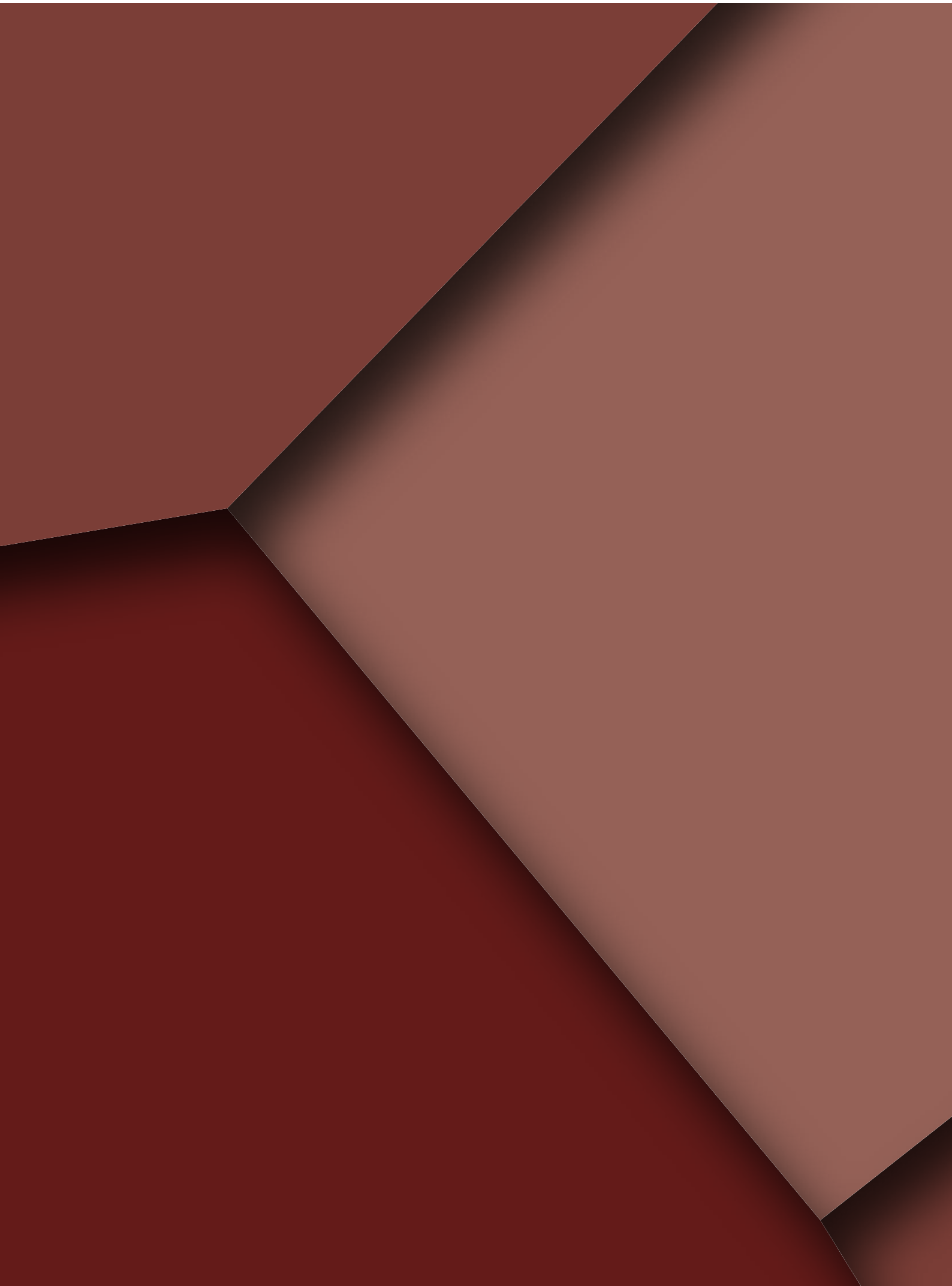

Australian Chief Veterinary Officer Dr Beth Cookson

Foreword

Welcome to the 2024 edition of the *Animal Health in Australia Annual Report*, which outlines key animal health initiatives and developments over the year. This report complements the *Animal Health in Australia System Report*, which provides further detail on our animal health systems, governance, surveillance, emergency management and animal welfare arrangements that underpin Australia's unique animal health status.

In 2024, Australia continued to face emerging biosecurity threats, with the global H5 high pathogenicity avian influenza (HPAI) situation being a major focus. Australia is now the only continent free from H5 HPAI after the virus was confirmed in a wild bird on Antarctica's mainland for the first time in early 2024. To mitigate the growing threat, the Australian Government invested over $100 million into enhancing national preparedness and response capabilities. Collaboration between agriculture, health, environment and emergency management agencies at all levels of government, poultry and other livestock industries, as well as various non-government organisations underscored the importance of a One Health approach, uniting expertise from animal, environmental, and human health sectors to tackle risks before they escalate into crises.

As part of this, a desktop exercise designed to test Australia's preparedness for an H5 HPAI outbreak in Australian wildlife, Exercise Volare, was undertaken. The exercise highlighted the strength of Australia's One Health framework, engaging multiple sectors and demonstrating our ability to respond effectively to emerging threats.

Australia also experienced several outbreaks of H7 HPAI across 16 infected premises in Victoria, New South Wales and the Australian Capital Territory. These outbreaks were successfully managed under Australia's national biosecurity emergency response arrangements, with a range of control and surveillance measures implemented in accordance with the Australian Veterinary Emergency Plan. Genetic analysis at the Australian Centre for Disease Preparedness confirmed that the H7 HPAI strains originated from low pathogenicity avian influenza viruses previously detected in wild Australian birds. This event reinforces the importance of continuous wildlife disease surveillance as part of Australia's biosecurity system.

Aquatic health events have also highlighted the importance of a robust biosecurity system. In 2024, abalone herpesvirus (AbHV) was detected in wild abalone in South Australia for the first time, extending the range of a strain that has affected wild populations in Victoria since 2006. The South Australian Government responded quickly with an emergency control plan, implementing measures to minimise human-mediated spread. Abalone herpesvirus had previously been eradicated from farmed abalone populations.

The animal biosecurity landscape remains dynamic, which means that a future-focused approach is critical. In 2024, Australia released its first *National Biosecurity Strategy Action Plan*, which outlines activities to be delivered between 2024 and 2026 to implement the *National Biosecurity Strategy*. The plan adopts a One Health approach, which, when implemented, will support the resilience of Australia's national biosecurity system in the face of evolving pest and disease threats. Read more about the *National Biosecurity Strategy Action Plan* on page 12. Working as part of the global community is likewise critical and supports favourable animal health outcomes for all. The signing of the Political Declaration on Antimicrobial Resistance during the United Nations General Assembly in 2024 highlights the global commitment to reducing antimicrobial use in agriculture and improving antimicrobial stewardship, a critical element of both human and animal health.

Significant progress has also been made in enhancing Australia's animal welfare system. In December 2024, the *National Statement on Animal Welfare* was published. The statement, which was endorsed by all of Australia's agricultural ministers, provides national direction for the Australian Government's commitment to renewing the Australian Animal Welfare Strategy. Consultation to inform the renewed strategy is well underway and will continue as the strategy is developed. The renewed strategy will provide a contemporary national animal welfare framework and highlight the importance of animal welfare in Australia.

As Australia's Chief Veterinary Officer, I am continually impressed by the collaboration and dedication of those working to protect our animal health system. From government to industry and research, the commitment to evidence-informed decision-making and One Health principles helps Australia to remain at the forefront of biosecurity and animal health management. I extend my sincere thanks to all who contribute to this important work, particularly those who tirelessly engage in surveillance and response activities to safeguard animal health in Australia.

Dr Beth Cookson
Australian Chief Veterinary Officer

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Key achievements and important updates

In 2024, significant progress was made across various sectors to strengthen Australia's animal health system. These achievements reflect the collaborative efforts of governments, industry and non-government organisations to help Australia stay prepared for potential threats, support the health and safety of our livestock and wildlife, maintain our high standards of animal welfare, and drive advancements in agricultural sustainability. This chapter provides an overview of the key accomplishments, significant updates and improvements, highlighting the steps that were taken in 2024 to strengthen our national capabilities and preparedness for future challenges.

Strengthening national preparedness

Exercise Volare

From August to September 2024, the Australian Government conducted Exercise Volare. This multisectoral desktop simulation exercise was designed to strengthen national preparedness and response capabilities for a potential outbreak of H5 high pathogenicity avian influenza (HPAI) in Australian wildlife. Led by the Australian Government HPAI Preparedness Taskforce, the exercise brought together representatives from agriculture, environment, health and emergency management sectors across the Australian, state and territory governments, as well as key industry groups and non-government stakeholders. The exercise highlighted the strengths of Australia's existing biosecurity response frameworks and identified key opportunities for improvement. For further details, please see the case study on Australian Government H5 HPAI preparedness activities (page 10).

Read about Exercise Volare:
agriculture.gov.au/biosecurity-trade/policy/emergency/exercises/volare

Credit: xiSerge from Pixabay

Exercise FlyWheel and Exercise Black Tiger

'Ready Set Go!' Preparing for Emergency Disease Outbreaks in Aquatic Animals is an emergency animal disease response exercise program[1] that addresses a national priority under Australia's fourth national strategic plan for aquatic animal health, *AQUAPLAN 2022–2027* (see page 14). To date, the program, funded by the Fisheries Research and Development Corporation, has delivered 2 sector-specific, discussion-based national emergency animal disease response exercises. The first was Exercise FlyWheel (2023) conducted in collaboration with the Australian farmed barramundi industry. The second was Exercise Black Tiger (2024) conducted in collaboration with the Australian farmed prawn industry.

The program aims to improve industry and government preparedness to respond to nationally significant exotic aquatic animal disease outbreaks and prevent or minimise the impacts of exotic diseases on profitability and productivity. The aim of Exercise FlyWheel and Exercise Black Tiger was to determine if technical response arrangements for such an outbreak are fit for purpose and include practical information to guide a response in the farmed prawn and barramundi sectors.

Under this aim, there were 4 objectives:

- Plan the initial response to the detection of an exotic disease using existing contingency planning arrangements.
- Identify and prioritise gaps in preparedness or constraints in responding to a suspected exotic disease outbreak.
- Increase shared understanding about practical considerations for responding to disease outbreaks.
- Create the opportunity to collaborate and build working relationships among industry and government sectors.

Both exercises included an online component where participants shared knowledge and information about biosecurity and emergency animal disease response arrangements. This was followed by a face-to-face component where participants developed a response objective and response plan to an unfolding disease emergency. Through these activities, participants increased their understanding of practical considerations for an emergency animal disease response and built working relationships. Participants considered strengths, weaknesses and gaps in current emergency response arrangements and identified priority areas to strengthen them.

Exercise FlyWheel used a hypothetical disease scenario of an infectious spleen and kidney necrosis virus (ISKNV) outbreak. Priority areas identified and agreed upon through this exercise included:

- strengthening on-farm biosecurity, including testing of site-specific biosecurity plans and staff training
- identifying appropriate chemicals for destruction of stock and decontamination of systems
- understanding and addressing risks associated with imports of fish for human consumption and ornamental fish
- developing a new AQUAVETPLAN manual for ISKNV and scale drop disease
- increasing research to address knowledge gaps important for eradication and control of ISKNV.

Exercise Black Tiger used a hypothetical disease scenario of a decapod iridescent virus 1 (DIV1) outbreak. Priority areas identified and agreed upon through this exercise included:

- increasing research to address knowledge gaps important for eradication and control of DIV1
- improving speed and access to valid and reliable diagnostic test results
- understanding and addressing risks associated with imports of prawns for human consumption
- considering practical bird control options during an emergency response.

1 agriculture.gov.au/agriculture-land/animal/aquatic/aquaplan/national-simulation-exercises

Both exercises highlighted the importance of industry–government discussions on emergency response arrangements, including the potential for a government and industry cost-sharing deed in respect of aquatic emergency animal disease responses (similar to the deed in place for the livestock industry).

Action plans with defined and achievable goals were developed for each priority area and the identified actions are being implemented.

For further information please contact **aquaplan@aff.gov.au**.

Industry hosts a National Avian Influenza Summit

The Australian Chicken Meat Federation hosted a National Avian Influenza Summit on the Gold Coast, Queensland, in August 2024, gathering over 200 participants both in-person and online, from the egg and poultry meat supply chain. The 2-day event brought together researchers, government officials, Animal Health Australia (AHA), integrated producers and growers to discuss H5 high pathogenicity avian influenza (HPAI) incidents overseas and Australia's preparedness for the disease.

Discussions highlighted the importance of pre-agreed biosecurity protocols covering destruction, disposal and decontamination, as well as contingency plans for widespread outbreaks. Participants agreed on the importance of diverse response options to address the risks posed by avian influenza.

A common theme was the need for transparent, rapid communication between government and industry to facilitate timely response and intelligence sharing.

The Australian, state and territory governments and industry are continuing to collaborate closely to enhance preparedness efforts. With considerations of food security, economic impact, conservation and One Health, the summit reinforced the importance of robust biosecurity and response capabilities.

Egg Farmers of Australia, the Australian Chicken Meat Federation and the Australian Duck Meat Association make up the Poultry Industry Biosecurity Committee. This committee continues to work with AHA as well as agricultural and environmental departments of the Australian, state and territory governments. The Poultry Industry Biosecurity Committee is focused on HPAI preparedness, potential impacts on the timeliness of response, and monitoring of available funding for stakeholders.

Read the communiqué from the avian influenza summit:
chicken.org.au/wp-content/uploads/2024/11/VP-Avian-Influenza-Summit-Communique-Actions-and-Outcomes-4.pdf

Progressing the National Lumpy Skin Disease Action Plan

The *National Lumpy Skin Disease Action Plan* sets out national priorities for actions to strengthen Australia's lumpy skin disease (LSD) preparedness and response capabilities and build regional capacity in partnership with countries in our near region. It includes 8 objectives and 27 activities that, once implemented, will enhance Australia's preparedness for a potential incursion of LSD.

Representatives from the Australian, state and territory governments, Animal Health Australia and peak industry bodies share responsibility for delivering the action plan and have been working together to progress the activities.

Significant progress was made throughout 2024, with 5 activities now complete and the remaining 22 underway and on track.

Pre-emptive trade negotiations have safeguarded approximately $700 million in exports previously at risk of disruption in the event of an LSD incursion. In June 2024, the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) led a workshop for industry stakeholders and participating jurisdictions about zoning for trade in the event of an emergency animal disease outbreak. The National Vector Management Advisory Group developed an LSD vector management options guide, which has been endorsed by the Animal Health Committee. DAFF continues to support projects that enhance our understanding of LSD and how it could spread in unique Australian environments. For example, the Australian Centre for Disease Preparedness is assessing the potential for buffalo fly to act as a vector for LSD in Australia.

Read the quarterly progress reports: **agriculture.gov.au/biosecurity-trade/pests-diseases-weeds/animal/lumpy-skin-disease/national-action-plan**

Delivering emergency animal disease training across Australia

Animal Health Australia (AHA) leads the management of 2 programs that aim to bolster Australia's national preparedness for emergency animal disease and biosecurity emergency incidents: Emergency Animal Disease Training and the National Biosecurity Response Team (NBRT). AHA engages government and livestock sector representatives from each jurisdiction in the planning and delivery of a range of training and education activities.

In 2024, the Emergency Animal Disease Training program delivered 5 interactive scenario-based workshops to 139 representatives from government (51 participants) and industry (88 participants) across Australia. This training sought to improve representatives' understanding of the purpose and function of national emergency animal disease arrangements and key national response roles they may be asked to perform. The workshops supported representatives to contribute to emergency animal disease response activities as members of national technical and key decision-making committees and in emergency operations centre roles. In October, AHA worked closely with Agriculture Victoria and peak livestock industry body representatives to deliver Exercise Audiatur. This discussion-based exercise was aimed at enhancing the Liaison-Livestock Industry function's support and performance during a cost-shared emergency animal disease response in Victoria.

Members of the NBRT develop skills in biosecurity emergency response and may be accessed by a jurisdiction's biosecurity agency when responding to a biosecurity incident. NBRT members were provided with opportunities to present at conferences and seminars. Two final professional development activities for the 2020–2024 NBRT membership period were delivered, and a new cohort of members for 2024–2028 were successfully recruited.

In 2024, there were 4 cadet workshops in national biosecurity emergency response provided across Australia to 113 government staff through the NBRT cadet program.

Read about AHA training for key national emergency animal disease response roles: **animalhealthaustralia.com.au/increasing-member-response-capability**

Read about Exercise Audiatur: **animalhealthaustralia.com.au/exercise-audiatur**

Read about the NBRT: **nbrt.animalhealthaustralia.com.au**

CASE STUDY

Australian Government H5 high pathogenicity avian influenza preparedness

Australia remains the only continent free from H5 high pathogenicity avian influenza (HPAI). The Australian Government is taking a collaborative national approach to enhancing preparedness and response capability for HPAI. While preparedness for this emergency animal disease has been a national focus for many years, the dynamic global situation requires ongoing monitoring and vigilance.

Long-standing initiatives, such as the National Avian Influenza Wild Bird Surveillance Program[2] and Northern Australia Quarantine Strategy,[3] support rapid detection through reporting and investigation of sick and dead birds, and monitoring of circulating avian influenza viruses. These programs are conducted in collaboration with a wide range of stakeholders, including Wildlife Health Australia (WHA), Indigenous rangers, the states and territories, and other Australian Government agencies and researchers.

A dedicated Australian Government HPAI Preparedness Taskforce was established in July 2024 to lead and coordinate national activity. It is jointly led by the Australian Government Department of Agriculture, Fisheries and Forestry; Department of Climate Change, Energy, the Environment and Water; Department of Health and Aged Care; and the National Emergency Management Agency. A whole-of-government and One Health approach is being taken in response to this cross-sectoral disease threat.

A significant achievement for the taskforce has been the successful delivery of Exercise Volare. This series of national simulation exercises was designed to strengthen the preparedness of the agriculture, environment and health sectors to manage a potential H5 HPAI outbreak. Exercise Volare engaged key partners, including state and territory governments, WHA, Animal Health Australia (AHA), industry representatives and non-government stakeholders. It considered the management of H5 HPAI across wildlife, livestock industries and human health. The exercise highlighted the strengths of Australia's national response arrangements and capabilities as well as opportunities to further enhance our preparedness and response.

A webinar[4] held on 4 October 2024 attracted over 1,000 participants, emphasising the strong national focus and engagement on this critical issue. Featuring speakers from across government and non-government sectors, including WHA, the webinar shared key insights and outcomes from Exercise Volare with a wide range of stakeholders. The insights and opportunities identified during the exercise directly informed the Australian

2 wildlifehealthaustralia.com.au/Our-Work/Surveillance/Wild-Bird-Surveillance

3 agriculture.gov.au/biosecurity-trade/policy/australia/naqs

4 agriculture.gov.au/biosecurity-trade/policy/emergency/exercises/volare#exercise-volare--webinar

Credit: Joshua J. Cotten from Unsplash

Government's October 2024 announcement of contributing $95 million over 2 years to boost national preparedness.

This investment, which is in addition to $6.9 million announced in July 2024, will strengthen surveillance, preparedness and response capability in alignment with a One Health approach. The package of measures will aim to mitigate the impact of H5 HPAI on Australian agriculture, environment and human health. Of the $95 million, the Australian Government is committing:

- $37 million over 2 years to protect Australian agriculture by enhancing national coordination of response arrangements and communications, strengthening surveillance and boosting biosecurity capacity and capability across the production sector and environmental biosecurity
- $35.9 million over 2 years to boost and accelerate H5 HPAI preparedness planning and protective action by using the best data available to target actions for our most at-risk species and important natural places
- $22.1 million over 2 years to manufacture and store pandemic influenza vaccines that will better prepare the Australian Government to respond quickly to a potential influenza pandemic.

The Australian Government is working closely with state and territory governments, industry and non-government organisations such as AHA and WHA to enhance national preparedness for an H5 HPAI outbreak. The taskforce is actioning key priorities as agreed by agriculture ministers in November 2024, including negotiating a national agreement to manage governance and cost-sharing for wildlife responses under a One Health approach that recognises the cross-sectoral nature of this disease threat. The agreement is on track for finalisation in March 2025. Additionally, a national response framework is being developed that incorporates guidance for developing a response plan and principles for managing mass mortality events in wildlife. Coordinated communications are also a key focus, supporting preparedness and response efforts nationwide.

Biosecurity is a shared responsibility, and the Australian Government continues to collaborate with key stakeholders to enhance preparedness and strengthen response capability for H5 HPAI.

For further information, see:
agriculture.gov.au/biosecurity-trade/pests-diseases-weeds/animal/avian-influenza

Advancing national animal health initiatives

Launching the National Biosecurity Strategy Action Plan

Biosecurity risks are growing and increasing in complexity, driven by factors such as climate change, unpredictable trade and travel patterns, and changes in land use. The *National Biosecurity Strategy* was released in 2022 and provides a 10-year roadmap to guide the evolution of Australia's biosecurity system to ensure the system remains strong.

In 2024, Australia's first *National Biosecurity Strategy Action Plan* was released following endorsement by agriculture ministers. The action plan outlines the activities that will be delivered between 2024 and 2026 to implement the national strategy. Working together, the Australian, state and territory governments will deliver these activities over the next 2 years.

This action plan reflects the collaboration of stakeholders from across Australia's biosecurity system by:

- building on the significant investments already made by government, industry and stakeholders across biosecurity
- strengthening governance, transparency and accountability to support improved biosecurity decision-making, particularly for future investments and surveillance
- unifying the approach to priority setting
- supporting the *National Biosecurity Strategy* vision for a connected, resilient and shared national biosecurity system for all Australians.

Read the *National Biosecurity Strategy Action Plan* and find out more about the *National Biosecurity Strategy*:
biosecurity.gov.au/about/national-biosecurity-committee/nbs

Implementing Animalplan 2022 to 2027

Animalplan 2022 to 2027 is Australia's first national action plan for production animal health. It consolidates themes from over 30 existing strategies, action plans and frameworks, including the *National Biosecurity Strategy*. *Animalplan* has 7 objectives that cover disease preparedness and response, diagnostics and surveillance, industry biosecurity, antimicrobial resistance (AMR), sustainability, integrity systems and aspects of animal welfare. *Animalplan* also outlines a range of activities that collectively align to help achieve these 7 objectives.

Government, industry and non-government organisations are working together to develop and implement projects that align with *Animalplan* activities. Over 60 individual projects have been identified. Projects completed in 2024 included:

- investigating the effectiveness of natural carcass decomposition processes on inactivation of pathogens of biosecurity concern under Australian conditions (aligns with activity 1.4)
- strengthening Australia's surveillance capabilities through the development of the Australian Biosecurity Genomic Database, a reference database of viral genome sequences based on the Australian national list of notifiable animal diseases (aligns with activity 2.1)
- building on emergency animal disease preparedness in domestic abattoirs (aligns with activity 3.3)
- providing livestock producers with a framework to make informed changes to reduce the risk of AMR and improve biosecurity (aligns with activity 4.1)
- investigating traceability options for deer (aligns with activity 7.1).

Check progress against *Animalplan*: **agriculture.gov.au/animal-plan**

Implementing AQUAPLAN 2022–2027

AQUAPLAN 2022–2027 is Australia's fourth national strategic plan for aquatic animal health. It provides a shared vision for governments and aquatic animal industry bodies to prioritise investment for strengthening Australia's aquatic animal health management system. By strengthening this system, *AQUAPLAN* will contribute to industry productivity and profitability, and the ongoing management of aquatic animal health and environments. *AQUAPLAN* has 7 objectives based on different components of the biosecurity system, including border biosecurity and trade, enterprise biosecurity, surveillance, diagnostic capability, emergency preparedness, veterinary medicines, research and innovation. The plan identifies specific activities that will contribute to achieving each of the 7 objectives. Implementation of *AQUAPLAN* is well underway, with more than half the plan's 28 activities in progress.

Completed activities include:

- a national priority disease list for aquatic animal diseases (activity 5.1)
- practical disease investigation guidelines for new and emerging diseases (activity 5.5)
- a nationally coordinated approach to facilitate applications for aquatic animal minor use permits to the Australian Pesticides and Veterinary Medicines Authority and to maintain existing permits and registrations (activity 6.2)
- a collaboratively developed and efficient research priority setting, engagement and communication process (activity 7.1).

Progress against the plan is reported biannually on the *AQUAPLAN* website.

Read about *AQUAPLAN*:
agriculture.gov.au/agriculture-land/animal/aquatic/aquaplan

Credit: APFA

Releasing the first 5-year National Agricultural Traceability Strategy Implementation Plan

Australia's first *National Agricultural Traceability Strategy: Implementation Plan 2023 to 2028* was released in November 2024 following an extensive co-design process. The plan stems from the 10-year *National Agricultural Traceability Strategy 2023 to 2033*, which highlights the crucial role traceability plays in maintaining Australia's international reputation as a source of high-quality produce.

The plan outlines key activities and timeframes for addressing priority areas for action, based on the guidance of organisations and sectors involved in agricultural supply chains. The plan helps these organisations and sectors to align their plans and investments with national traceability activities.

Traceability systems support industry and governments to verify the provenance of products by tracking and tracing movements through agricultural supply chains, from paddock to plate, across Australia and around the world. This has become increasingly important to regulators and consumers and our valued international trading partners.

Read more about national traceability:
agriculture.gov.au/biosecurity-trade/market-access-trade/national-traceability

Continuous improvement of Australia's national response strategies and arrangements

Maintaining the AUSVETPLAN response strategies and other manuals

In 2024, Animal Health Australia (AHA) continued to work closely with government and industry members and stakeholders to manage the maintenance and review of the suite of Australian Veterinary Emergency Plan (AUSVETPLAN) manuals and resources.

The AUSVETPLAN *Response Strategy: Avian influenza* underwent a full review in 2024, with the writing group concluding work in December 2024. The review was initiated due to the global spread of H5 high pathogenicity avian influenza (HPAI) and was further influenced by the 2024 outbreaks of H7 HPAI in Victoria, New South Wales and the Australian Capital Territory.

The AUSVETPLAN *Response Strategy: Foot-and-mouth disease* was updated in 2023 and published in early 2024. The review focused on the management of livestock in transit when a national livestock standstill is declared.

The AUSVETPLAN *Response Strategy: African swine fever* was reviewed to incorporate learnings from Exercise Razorback, which consisted of a series of workshops in 2019–20 to practise Australia's emergency animal disease response arrangements in a simulated outbreak of African swine fever.

Three new writing groups were convened in mid-2024 to undertake the review of response strategies for classical swine fever, sheep and goat pox and peste des petits ruminants. Following consultation with AUSVETPLAN stakeholders, initial work to review the AUSVETPLAN *Response Strategy: Surra* was paused in favour of progressing the AUSVETPLAN *Response Strategy: Peste des petits ruminants* due to its increased risk profile to Australia.

Two enterprise manuals were updated and published in 2024: AUSVETPLAN *Enterprise Manual: Wool industry* and AUSVETPLAN *Enterprise Manual: Beef cattle feedlots*. A new manual, AUSVETPLAN *Enterprise Manual: Northern Australia beef cattle industry*, was progressed to the approvals process in late 2024.

The AUSVETPLAN *Management Manual: Laboratory preparedness* was also published in 2024 following a review in 2022–2023.

Writing groups for 3 operational manuals also concluded their reviews in 2024. The updated AUSVETPLAN *Operational Manual: Decontamination* was published in April. The AUSVETPLAN *Operational Manual: Disposal* and AUSVETPLAN *Operational Manual: Destruction of animals* progressed to the approvals stage in late 2024. The writing group for AUSVETPLAN *Operational Manual: Livestock welfare and management* will continue work into early 2025.

Two new AUSVETPLAN resource documents were published in 2024: *African swine fever response operational guidelines for pig abattoirs* and *Tracing and product recall from export-certified abattoirs affected by African swine fever*.

AHA members met in late 2024 to determine the strategic approach to AUSVETPLAN for 2025–2030. Participants reaffirmed their support for AUSVETPLAN, noting the breadth of its intended government and industry audiences and its reputation both nationally and internationally as a respected source of emergency animal disease response guidance.

Read AUSVETPLAN response strategies and other documents:
animalhealthaustralia.com.au/ausvetplan

Review of the Emergency Animal Disease Response Agreement

The Emergency Animal Disease Response Agreement (EADRA), also referred to as the *Government and livestock industry cost sharing deed in respect of emergency animal disease responses*, is a key element in Australia's contingency planning to prepare for and respond to an emergency animal disease incident. It commits signatories to actions that mitigate the risks of an emergency animal disease and provides a pre-agreed framework for sharing the costs associated with an approved emergency animal disease response.

Clause 3.2 of the EADRA stipulates that its terms will be reviewed every 5 years by the parties, in light of its operation. Since the EADRA started in 2002, reviews have been conducted in 2007, 2012 and 2017. The report of the fourth 5-year review was endorsed by representatives of all government and industry signatories to the EADRA at the March 2024 EADRA workshop. The report made 59 recommendations and Animal Health Australia, in partnership with government and industry signatories, is implementing a 3-year work plan to action the recommendations from the review. Along with annual variations to the EADRA completed in April 2024, this work will continue to ensure that the EADRA is kept current and fit for purpose.

Read the EADRA:
animalhealthaustralia.com.au/wp-content/uploads/2024/04/EADRA.pdf

Industry-led advancements in biosecurity and preparedness

Implementing electronic identification system for goats to improve traceability

The Goat Industry Council of Australia is the peak body for the goat industry. This council has been working towards the implementation of an individual electronic identification (eID) system for goats under the National Livestock Identification System, commencing on 1 January 2025 and supported by 2 new national vendor declarations (NVDs). These legal documents communicate the food safety and treatment status of animals moving through the supply chain and include a new harvested rangeland goat system that has been developed to improve traceability for this sector of the industry.

In 2024, the National Goat Health Declaration, which is used by producers to provide information to buyers about the animal health status of their herds, was reviewed for the first time in 8 years. The updated version is now available on the Farm Biosecurity website.

The Australian Market Assurance Program for Goats (GoatMAP) helps producers identify and promote their low risk of Johne's disease and caprine arthritis encephalitis infection. Following a recent review of the program, a series of updates were made to the GoatMAP throughout 2024.

Read more about animal health declarations: **farmbiosecurity.com.au/toolkit/declarations-and-statements**

Read more about GoatMAP: **animalhealthaustralia.com.au/goatmap**

Enhancing Australian cattle feedlots preparedness for exotic diseases

The Australian Lot Feeders' Association (ALFA) is the national body representing the cattle feedlot industry in Australia. ALFA's mission is to lead the industry with excellence and integrity, improve the business environment and maintain community standing.

The ALFA Biosecurity Exotic Animal Disease Project, funded by industry levies and Australian Government contributions via Meat & Livestock Australia, seeks to enhance the feedlot industry's preparedness through the creation of key resources that allow a feedlot to prevent and respond to an exotic animal disease incursion in Australia.

The project has 5 key objectives:

- reviewing the Australian Veterinary Emergency Plan (AUSVETPLAN) *Enterprise Manual: Beef cattle feedlots* (completed and published in September 2024)

- developing model feedlot operational procedures for preventing and responding to a lumpy skin disease (LSD) or foot and mouth disease (FMD) incursion that align with AUSVETPLAN and meet National Feedlot Accreditation Scheme requirements
- building feedlot enterprise capability to prevent and respond to an LSD or FMD incursion at the feedlot enterprise level
- increasing feedlot industry service providers' knowledge and understanding of the feedlot industry's operational procedures for preventing and responding to an LSD or FMD incursion
- building ALFA's capacity for exotic animal disease response.

Read more about the ALFA Biosecurity Exotic Animal Disease Project:
mla.com.au/news-and-events/industry-news/alfa-leads-the-way-with-biosecurity-initiatives

Updating the Horse Venue Biosecurity Workbook

A working group of horse industry members, including the Australian Horse Industry Council, Racing Australia, Equestrian Australia and Scone Equine Group, has recently updated the *Horse Venue Biosecurity Workbook*, which was originally developed in 2010. The purpose of the workbook is to enable venue managers and owners to establish venue-specific biosecurity measures that protect horses from diseases and pests.

The workbook includes an introduction to basic biosecurity principles, new information on important diseases for horses and biosecurity measures for event holders to consider before, during and after an event.

The workbook covers various topics such as horses, livestock, vehicles, equipment, feed and bedding. There are sections for housing facilities, as well as record keeping and biosecurity training for workers and volunteers.

Importantly, there is a biosecurity action plan template for people to fill in and use. There are also templates for visitor registers, risk assessments and movement registers. Finally, there is information on what happens in the event of a suspected emergency animal disease, including an emergency animal disease action plan.

Download the workbook:
farmbiosecurity.com.au/industry/horses

Pig industry investment in biosecurity and preparedness

Australian Pork Limited is the peak industry body and research and development corporation for the pig industry, and it continues to invest in biosecurity and emergency animal disease preparedness for the pig industry. Notable projects in 2024 included:

- developing a livestock transport module app for biosecurity risk management
- creating transport and driver biosecurity resources
- implementing the *Voluntary Enhanced Biosecurity Standards for African swine fever* in the Australian Pork Industry Quality Assurance Program.

Find out more about these initiatives:

- **australianpork.com.au/livestock-transport-module-app-biosecurity-risk-management**
- **australianpork.com.au/transport-and-abattoir-biosecurity**
- **australianpork.com.au/apiq**

Strengthening Australia's laboratory capability and advancing biosecurity research

Implementing the National Animal Health Diagnostics Business Plan 2021–2026

The *National Animal Health Diagnostics Business Plan 2021–2026* sets out national priorities for collaborative actions to maintain and improve diagnostic capability and capacity in Australia's animal health laboratory system. The plan includes 5 priority objectives to ensure national diagnostic capacity for terrestrial animals continues to meet, and exceed, the needs of Australians and overseas trading partners. The plan works within the overarching framework of *Animalplan 2022 to 2027*.

In 2024, there were 16 projects funded by the Department of Agriculture, Fisheries and Forestry to implement the plan, with 8 new projects commencing and 2 projects completed. The enhancement of serological diagnostic capability for equine piroplasmosis at the Australian Centre for Disease Preparedness (ACDP) was successfully achieved. This provides further confidence in Australia's ability to manage this exotic disease and the biosecurity risks, especially associated with the anticipated increase in cross-border horse movements leading up to the Brisbane 2032 Olympics. To address the global challenge of reliably diagnosing Johne's disease, ACDP has successfully identified promising host-response microRNA biomarkers in infected cattle and developed a

specific polymerase chain reaction assay to detect the infection. In consultation with stakeholders and industries, ACDP is preparing for further validation of the assay and scoping a longitudinal field trial to investigate its potential use in heifers. This diagnostic approach and platform technology can potentially be adapted for other suitable animal diseases.

Significant progress has been made on achieving some priority activities. For lumpy skin disease, a project led by ACDP to roll out relevant screening capabilities and related proficiency testing programs to the Laboratories for Emergency Animal Disease Diagnosis and Response network is now in its final stages. This is strengthening Australia's frontline diagnostic testing capacity for rapid screening of this disease.

Recent emergency animal disease preparedness exercises in 2023, including the Victorian Exercise Cerberus and national Exercise Waterhole, highlighted the importance of interoperability between field and laboratory in our existing sample identification systems. Manual labelling and data entry continues to be a significant bottleneck during major disease outbreak responses. Building an efficient and sustainable national sample identification system is therefore a key priority to mitigate delays. A pilot national sample identification system is being trialled in Victoria using pre-barcoded sample tubes.

Read the *National Animal Health Diagnostics Business Plan* progress reports:
agriculture.gov.au/agriculture-land/animal/health/laboratories/national-animal-health-diagnostics-business-plan

Developing the Australian Biosecurity Research Database

Research and innovation are critical activities that underpin the Australian biosecurity system to manage the increasing and changing biosecurity threats we face. To maximise the contribution of research, development and extension (RD&E) activities, there is a need to focus on areas of greatest impact, supported by rigorous scientific evidence.

Two overarching policy frameworks for setting biosecurity RD&E priorities are the *Intergovernmental Agreement on Biosecurity* (IGAB) and the *National Biosecurity Strategy*. Aligned with the IGAB are 8 cross-sectoral strategies, including the *National Animal Biosecurity RD&E Strategy*. These policy frameworks and strategies highlight the importance of improved coordination of RD&E to avoid duplication and gaps in research activities. The strategies also highlight the importance of emerging technologies and improved adoption of research outcomes.

A key first step in addressing these policy and strategy priorities is to establish a database of past and current biosecurity RD&E activities. The Australian Biosecurity Research Database is being developed by the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) to address these policy priorities. The Australian Biosecurity Research Database is action item IA6.8 under priority area 6 of the new *National Biosecurity Strategy Action Plan* and is due for implementation in March 2025. The action plan was widely consulted through the National Biosecurity Committee and the National Biosecurity Strategy Implementation Committee. It addresses multiple policy priorities and strategy recommendations by:

- helping to avoid duplication of past RD&E and identify key research gaps
- identifying which RD&E projects are aligned with policy priorities
- identifying which RD&E projects are focused on priority pests and diseases by linking Australian Biosecurity Research Database projects to pest and disease priority lists
- assisting in estimating innovation adoption rates for particular classes of RD&E activities by classifying them into user-selected categories and providing contact details for end users with knowledge of adoption outcomes
- helping to identify emerging innovations by collecting this information from overseas and Australian sources
- helping to understand where RD&E funds are best allocated by simulating their likely impacts using models developed for DAFF.

Advancing animal welfare in Australia

Renewing the Australian Animal Welfare Strategy

The Australian Government has committed $5 million over 4 years (2023–2027) to the renewal of the *Australian Animal Welfare Strategy*. The renewed strategy will provide a contemporary national animal welfare framework and will signal to our trading partners and the Australian community that animal welfare remains a priority for our nation. The strategy will also confirm Australia's commitment to a modern, sustainable, scientific and evidence-based approach to animal welfare.

Australian, state and territory agriculture ministers have committed to jointly leading the renewal of the strategy, informed by broad stakeholder engagement and a principles-based framework. This commitment includes the development of a *National Statement on Animal Welfare*.

Consultation to inform the renewed strategy is well underway and will continue as the strategy is developed. The strategy will include chapters on the following animal groups: livestock and production animals, aquatic animals, animals in the wild, companion animals, animals used for sport, work and recreation, and animals used in research and teaching. The final strategy is expected to be released in 2027.

Read more about the project and subscribe to the newsletter:
agriculture.gov.au/agriculture-land/animal/welfare/aaws

Improving the process for developing the Australian Animal Welfare Standards and Guidelines

In response to a joint request from Australian, state and territory agriculture ministers, the Animal Welfare Task Group continues to work on practical steps to improve the process for developing national animal welfare standards and guidelines. The aim is to improve clarity, transparency, harmonisation, effective stakeholder engagement and timeliness for the development of future standards and guidelines. Once developed, state and territory governments can implement the standards as deemed appropriate for their jurisdiction.

The Animal Welfare Task Group consists of representatives from state and territory governments and the Department of Agriculture, Fisheries and Forestry. The New Zealand Ministry for Primary Industries participates as an observer. Following targeted stakeholder consultation in early 2024, the Animal Welfare Task Group is currently finalising a standards development framework and process map.

Read more about the project:
agriculture.gov.au/agriculture-land/animal/welfare/standards-guidelines

Advancing virtual fencing harmonisation

The Animal Welfare Task Group's virtual fencing subgroup is continuing its work examining the use of this emerging technology, with a focus on animal welfare outcomes. Virtual fencing is a system of GPS-enabled neckband or collar devices that produce electric pulses to deter livestock from approaching or crossing a virtual fence boundary. In 2024, the subgroup established a stakeholder reference group, comprising agricultural and animal welfare scientists, as well as representatives from agricultural industry groups, animal welfare organisations and the veterinary profession, to inform the project. The group is providing technical expertise to inform the development of the *Australian Animal Welfare Guide for Virtual Fencing*.

Read more about the project:
agriculture.gov.au/agriculture-land/animal/welfare/awtg/virtual-fencing

Developing new Australian Animal Welfare Standards and Guidelines for Livestock at Processing Establishments

New *Australian Animal Welfare Standards and Guidelines for Livestock at Processing Establishments* are being developed to replace the 2001 *Model Code of Practice for the Welfare of Animals: Livestock at Slaughtering Establishments*. The project is being led by the Queensland Department of Primary Industries on behalf of the Animal Welfare Task Group. Drafting of the standards continued throughout 2024 and feedback was collected from members of a stakeholder advisory group and other targeted stakeholders. A revised draft is being finalised for wider public consultation, which is planned for 2025. A regulatory impact analysis will also commence in 2025. The standards and guidelines will consider contemporary scientific knowledge, practice and community expectations, and help maintain Australia's strong reputation for animal welfare.

Read more about the project:
agriculture.gov.au/agriculture-land/animal/welfare/awtg/current-projects

Improving horse welfare during land transport

Agriculture ministers are working towards endorsing amendments to the 2012 *Australian Animal Welfare Standards and Guidelines for Land Transport of Livestock* to improve the welfare of horses. The Queensland Department of Primary Industries led this project on behalf of the Animal Welfare Task Group. The amendments reflect recent advances in scientific understanding of horse welfare and physiology, and incorporate the practical expertise of those who work with horses daily. In 2024, the Queensland Department of Primary Industries and the Victorian Department of Energy, Environment and Climate Action carried out targeted consultation and worked with the National Horse Traceability Implementation Taskforce to better align record keeping requirements between the *National Horse Traceability Standards* and the *Australian Animal Welfare Standards and Guidelines for Land Transport of Livestock*.

Read more about the *Australian Animal Welfare Standards and Guidelines for Land Transport of Livestock*:
animalwelfarestandards.net.au/welfare-standards-and-guidelines/land-transport

Read more about the National Horse Traceability Implementation Taskforce:
agriculture.vic.gov.au/livestock-and-animals/horses/horse-traceability

Advancing One Health to strengthen public health and disease control

Progressing Australia's Animal Sector Antimicrobial Resistance Action Plan 2023 to 2028

The global health threat from antimicrobial resistance (AMR) continues to accelerate, and requires a One Health approach across the human, animal and environment sectors. Our antimicrobial stewardship activities also support a range of national and international initiatives that contribute to mitigating the threat of AMR.

Progress has been made on *Australia's Animal Sector Antimicrobial Resistance Action Plan 2023 to 2028*. Collaborative efforts between government, industry and academia have initiated several projects that align with the objectives in the action plan:

- **Objective 1 – Clear governance for AMR initiatives**
  - undertaking a review (supported by the CSIRO Consortium on AMR) on the current status, challenges and recommendations for enhanced surveillance to inform development of a national reporting and surveillance system for AMR that will commence in 2025
  - contributing to a monitoring and evaluation framework for the One Health AMR Master Action Plan, led by the interim Australian Centre for Disease Control
  - establishing an AMR Task Group under the Animal Health Committee to lead coordination and implementation of government-prioritised activities
  - scoping development of a single organisation to manage antimicrobial stewardship functions currently spread across three separate bodies
- **Objective 2 – Prevention and control of infections and the spread of resistance**
  - establishing a working group under the Catalysing Australia's Biosecurity initiative, which is developing a strategic roadmap for veterinary vaccine pathways to biosecurity and animal protection.

- **Objective 3 – Greater engagement in the combat against resistance**
  - developing new AMR training modules through the AMR Vet Collective – a not-for-profit organisation translating the science around AMR and stewardship into practical information that veterinarians can use to make informed, evidence-based decisions in practice (read more about the AMR Vet Collective at **amrvetcollective.com**)
- **Objective 4 – Appropriate usage and stewardship practices**
  - commencing development of antimicrobial prescribing guidelines for the extensive beef industry
  - concluding a project aimed at providing livestock producers with a framework to manage transmission of AMR risks through biosecurity practices
  - progressing the Australian Strategic and Technical Advisory Group on AMR review of the importance ratings and summary of antibacterial uses in human and animal health in Australia (see page 26 for further information)
  - development of a user co-designed antimicrobial stewardship framework and peer-learning opportunities to support on-the-ground improvements in antimicrobial stewardship (AMS) across animal health settings
  - use of the antimicrobial stewardship framework as the basis for development of an AMS Action Plan for the wildlife and zoos sector
- **Objective 5 – Integrated surveillance and response to resistance and usage**
  - contributing to a report on potential design of a One Health Surveillance System for AMR data in Australia, led by the interim Australian Centre for Disease Control
  - continuing a review of the 'Antimicrobial Susceptibility Testing' Australian and New Zealand standard diagnostic procedures for terrestrial animals
  - planning a survey of AMR and antimicrobial usage in the dairy industry co-funded with Dairy Australia that will commence in 2025
  - developing options for antimicrobial use monitoring in the beef industry, which other livestock industries may participate in, led by Meat & Livestock Australia (read more about this project at **mla.com.au/research-and-development/reports/2025/v.mfs.0002---antimicrobial-usage--development-of-data-collection-and-metrics-for-beef**)
- **Objective 6 – A strong collaborative research agenda across all sectors**
  - contributing to development of a research and development agenda, led by the interim Australian Centre for Disease Control
  - convening the 2024 SAAFE AMR Solutions Summit, led by Australia's Cooperative Research Centre for Solving AMR in Agribusiness, Food and Environments (or SAAFE CRC). The summit brought together more than 200 attendees from 11 sectors to exchange experiences through presentations and workshops
  - continuation of the SAAFE CRC's research programme. Together with SAAFE's six university and more than 40 industry partners, more than $27 million of cash and in-kind contributions has been committed to cross-sectoral AMR research (read more about this research at **crcsaafe.com.au/assets/volumes/downloads/2024-SAAFE-Annual-Report.pdf**)
- **Objective 7 – Strengthening global collaboration and partnerships**
  - supporting the negotiation of the Political Declaration of the second high-level meeting on AMR that was signed during the United Nations General Assembly in New York in September 2024 (see page 26 for further information).

Read more about the action plan:
agriculture.gov.au/agriculture-land/animal/health/amr/animal-sector-plan

Strengthening antimicrobial stewardship

In 2024, the Australian Strategic and Technical Advisory Group on AMR progressed its review of the *Importance ratings and summary of antibacterial uses in human and animal health in Australia*, which will be published in 2025. The importance ratings aim to inform decision-making about the registration and use of antibacterial medicines in humans, animals and agriculture in Australia.

The Australian Government also supported the negotiation of the Political Declaration of the second high-level meeting on antimicrobial resistance (AMR) that was signed during the United Nations General Assembly in New York in September 2024. The declaration encourages global reduction in antimicrobial use in the agrifood sector through investing in and promoting alternatives to antimicrobials, and increasing implementation of stewardship guidance. It also includes a commitment from signatory countries to ensure that usage is appropriate and in line with global standards.

The declaration affirms the need to address AMR globally, without leading to inadvertent animal health and welfare issues. While the statement is not legally binding, it is likely to set the scene for international discussions on AMR, including management of AMR in animals.

Australian livestock industries have a strong history of antimicrobial stewardship. Historic and ongoing stewardship initiatives are described in the *Antimicrobial Stewardship in Australian Livestock Industries* report.

Read the *Antimicrobial Stewardship in Australian Livestock Industries* report here:
animalhealthaustralia.com.au/antimicrobial-stewardship-in-australian-livestock-industries

Establishing the Australian Centre for Disease Control

The Australian Government is investing $251.7 million to improve Australia's ability to prepare for and respond to public health challenges, including pandemics, through the creation of an independent Australian Centre for Disease Control (CDC).

Subject to the passage of legislation, the Australian CDC will be established from 1 January 2026 as a technical advisory agency. Importantly, a One Health approach has already been embedded within the interim Australian CDC, focused on the intersection between human, animal and environmental or ecological health. The interim Australian CDC is working closely with the Australian Government's agricultural and environmental agencies to progress its work, under a One Health approach.

Strengthening and modernising Australia's surveillance and data analytics tools can provide a frontline defence against diseases and are among the early priorities of the Australian CDC. The government investment includes funding to commence the rollout of a national wastewater surveillance program and enhanced One Health surveillance to detect emerging diseases such as avian influenza.

Operating throughout 2024, the interim Australian CDC has established a One Health Unit to improve policy coordination and collaboration at the national level. A One Health approach means potential and emerging zoonoses can be identified sooner and their impacts to human health and the national economy significantly lessened. The One Health Unit is already being mobilised through the current multisectoral efforts on avian influenza – from planning and simulation to surveillance and industry advice.

The One Health Unit will bring expertise in human, animal and environmental health areas to the table and identify steps to improve Australia's One Health capabilities and activities. This includes enhanced surveillance, greater availability and sharing of data, supporting horizon scanning for new and emerging human health threats, and engaging with stakeholders.

Read more about the Australian CDC:
cdc.gov.au

Supporting international relations and trade

Conducting animal import risk analyses to enable safe trade

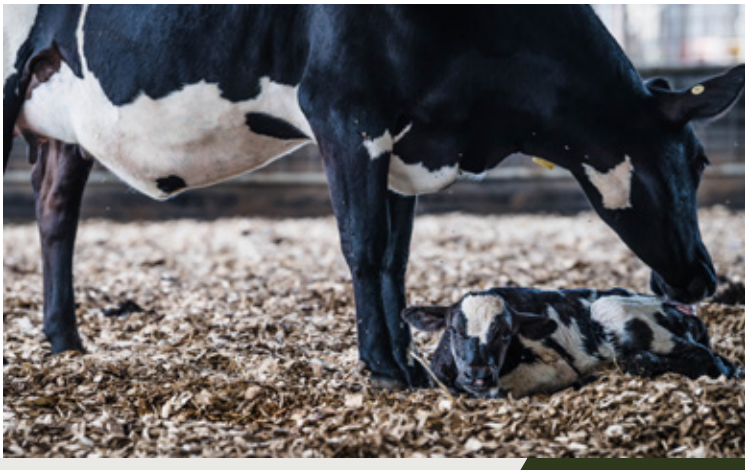
The Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) develops policies that allow for the safe importation of animals, their genetic material and other animal products. These policies are based on risk analyses completed by the department. Risk analyses may take the form of a Biosecurity Import Risk Analysis or a non-regulated risk analysis (such as a scientific risk review of existing policy and import conditions or scientific advice). These risk analyses ensure that Australia's import conditions remain safe, modern and reasonable by considering the appropriate level of protection for Australia, international standards, new and relevant peer-reviewed scientific information, current industry practices and the operational environment.

In 2024, DAFF progressed several risk analyses and published the findings on its website. Two risk reviews were finalised for: the importation of dehydrated and pre-sterilised microbiological media, and zoo hippopotamuses and their semen from approved countries. A number of risk reviews will continue in 2025 for: the importation of dairy products for human consumption, fresh beef and beef products from Canada and the United States, live garden snails, live marine ornamental fish, psittacine birds from all countries, and veterinary immunobiologicals and natural (sausage) casings.

These reviews benefit Australia by helping expand the genetic pool of zoo animals in Australia; simplifying access to important research tools, veterinary medicines and vaccines; and facilitating imports of animals and animal products to benefit industry and consumers, all while ensuring the biosecurity risk achieves Australia's Appropriate Level of Protection (ALOP), which means reducing risk to a very low level, but not to zero.

The first animal import risk analysis conducted as a Biosecurity Import Risk Analysis, under the *Biosecurity Act 2015* and the Biosecurity Regulation 2016, was finalised by DAFF. The *Import of live sturgeon for aquaculture: Final biosecurity import risk analysis* was published on 20 May 2024. Several implementation activities are being progressed to meet the import conditions set out in the report.

Read more about these publications: **agriculture.gov.au/biosecurity-trade/policy/risk-analysis/animal**



Negotiating free trade agreements

Free trade agreements are an effective mechanism for opening new trade and investment opportunities for Australian agricultural export industries while maintaining our science-based biosecurity approach and acknowledging the importance of sustainable agrifood systems and improved animal welfare standards.

The Australia-United Arab Emirates Comprehensive Economic Partnership Agreement (A-UAE CEPA) was signed on 6 November 2024, becoming Australia's first free trade agreement with the Middle East. Removing and reducing United Arab Emirates import tariffs will help farmers and food producers gain a competitive edge through preferential access to the United Arab Emirates' growing market for high-value premium food and agriculture products. The A-UAE CEPA also includes Australia's first standalone chapter on sustainable agriculture and food systems in a trade agreement.

The Australian Government is currently negotiating the India-Australia Comprehensive Economic Cooperation Agreement. This agreement aims to build upon outcomes of the Australia-India Economic Cooperation and Trade Agreement, which came into force on 29 December 2022.

Read more about free trade agreements: **agriculture.gov.au/biosecurity-trade/market-access-trade/fta**

Advancing agricultural sustainability in Australia

Developing the Australian Agricultural Sustainability Framework

The Australian Government is partnering with the Australian agriculture industry to develop consistent sustainability credentials so the sector can access and grow export markets and capture rewards for sustainable agricultural practice. A cornerstone of this partnership is the Australian Agricultural Sustainability Framework. Coordinated by the National Farmers' Federation and developed by partners including the Australian Farm Institute, the framework aims to create alignment across the multiple agricultural industry sustainability frameworks to communicate the sustainability status and goals of Australian agriculture to domestic and global markets. The authoritative framework provides certainty for industry and allows investment in systems, technology and practices that enable the agricultural sector to demonstrate social, environmental and economic sustainability, and to report on Australia's international commitments.

The Australian Agricultural Sustainability Framework covers the best-practice management of animal health and biosecurity and serves as a platform to unite the collective sustainability efforts of various commodities. By working collaboratively, the framework strengthens and enhances the work of individual Australian agriculture industries, showcasing comprehensive endeavours towards sustainability. These efforts are pivotal in addressing climate change concerns and contributing to global food security.

Read more about the sustainability framework: **farminstitute.org.au/the-australian-agricultural-sustainability-framework**

Launching the Australian Chicken Meat Industry Sustainability Framework

The Australian Chicken Meat Federation and AgriFutures Australia launched the sector's first Australian Chicken Meat Industry Sustainability Framework in August 2024. This framework provides clear, measurable sustainability metrics and targets for the industry, enabling it to showcase improvements over time.

The framework outlines the sector's contribution to Australia's low-carbon transition and is underpinned by 4 pillars:

- chickens
- planet
- people
- food security and economic resilience.

The framework is designed to evolve to reflect the changing priorities and expectations of the chicken meat industry and its customers.

Read more about the framework:
chicken.org.au/our-sustainability

Reporting on the Australian Dairy Sustainability Framework

The Australian Dairy Sustainability Framework reports against the promise to provide nutritious food for a healthier world, with 4 commitments:

- enhancing livelihoods
- improving wellbeing
- providing best care for animals (i.e. the framework's animal care commitment)
- reducing environmental impact.

The whole-of-industry framework is aligned with the United Nations Sustainable Development Goals, the global blueprint to achieve a better and more sustainable future for all. The Australian dairy industry has more than a decade of data, brought together under the framework, to both substantiate and further develop its sustainability credentials.

The Australian Dairy Sustainability Framework animal care commitment incorporates goals and targets to address animal welfare, recommended industry practices, consumer trust and antimicrobial stewardship. The commitment is currently under review, with updated goals and targets to be included in the *Australian Dairy Sustainability Framework 2024 Sustainability Report*, which will be released in 2025.

Read more about the Framework:
dairy.com.au/sustainability/australian-dairy-sustainability-framework

Updating the Australian Beef Sustainability Framework

The Australian Beef Sustainability Framework is an industry-led initiative which outlines the key indicators of performance in sustainability for the beef industry. It enables success to be recognised through evidence-based metrics and empowers the industry to continually improve and demonstrate its values to customers, investors and stakeholders. It demonstrates the industry's intent to remain

accountable and accurately tell the story of the Australian beef industry, further underpinning long-term market access. The Australian beef industry is guided by the 5 domains of animal welfare and aims to provide all cattle with an environment in which they can thrive in accordance with these domains.

In 2024, the Australian Beef Sustainability Framework Steering Group commenced updating its materiality assessment to help determine where the beef industry has the biggest impact (positive or negative) on people, animals, the environment and economy, as well as risks and opportunities for the industry. The assessment also helps the Australian beef industry keep pace with new regulations, continue to access finance and increase the competitiveness of Australian beef products both domestically and internationally. The assessment outcomes will be an important part of potential strategy updates and future reporting on the industry's key priorities.

Read the 2024 annual update:
sustainableaustralianbeef.com.au

Implementing the Sheep Sustainability Framework

The Sheep Sustainability Framework is an industry-owned initiative to monitor, measure and report on the Australian sheep industries' performance against sustainability priorities.

The framework is owned, designed and developed by the Australian sheepmeat and wool industries through Sheep Producers Australia and Wool Producers Australia, the peak national policy and advocacy bodies. The sheep industries' research and development corporations, Australian Wool Innovation and Meat & Livestock Australia, also provide resources in support of the framework.

The framework includes 21 priorities relevant to sustainable sheep production in Australia across 4 themes:

- caring for our sheep
- enhancing the environment and climate
- looking after our people, our customers and the community
- ensuring a financially resilient industry.

The performance of the sheep industries in these areas, tracked over time, will provide evidence of their commitment to continuous improvement. It will demonstrate that Australia has a clear path towards sustainably produced sheepmeat and wool.

The *Sheep Sustainability Framework Annual Report 2024* included the broadest range of data to date on the sustainability performance of the Australian sheepmeat and wool industries. It also introduced 4 new metrics, including data on biodiversity.

Read the annual report:
sheepsustainabilityframework.com.au

Allocating funds to the Climate-Smart Agriculture Program

The Australian Government has allocated $302.1 million to the Climate-Smart Agriculture Program under the Natural Heritage Trust. The program is driving agricultural sustainability, productivity and competitiveness by supporting farmers to adopt climate-smart practices that manage emissions, build resilience to climate change, improve soil health and protect natural capital. Investments under the program fund activities such as:

- the development of new and innovative sustainable agriculture tools
- initiatives to increase awareness and development of skills for best-practice climate-smart and sustainable agriculture practices
- on-ground sustainable agriculture projects that are delivered through collaborative partnerships.

Read more about the Climate-Smart Agriculture Program:
agriculture.gov.au/agriculture-land/farm-food-drought/natural-resources/landcare/climate-smart

2

Terrestrial animal health status

This chapter provides information about Australia's status for all nationally significant terrestrial animal diseases.

Australia's robust biosecurity system continues to play a crucial role in minimising risk and ensuring our country stays among the few in the world free from many significant animal diseases.

Australia's favourable animal health status is due to several key factors, including:

- our geographical isolation, providing a natural barrier against the introduction of diseases
- stringent biosecurity policies, helping reduce the risk of exotic animal diseases entering the country
- comprehensive disease surveillance and response systems, enabling early detection and containment of animal diseases
- a history of effective disease eradication campaigns, demonstrating strong national animal health system capabilities
- strong government–industry collaboration, fostering joint efforts in maintaining Australia's animal health status.

The spread of some endemic animal diseases in Australia may also be limited by host, pathogen and environmental factors, as well as the type of animal production activities in an area. For example, tick fever is confined to parts of northern Australia, where the climate provides favourable conditions for the survival of tick vectors. State and territory governments are responsible for managing the control and eradication of endemic and notifiable animal diseases within their respective borders, often with the support of industry through industry-led accreditation programs and other initiatives.

This chapter provides information about the status of all national notifiable terrestrial animal diseases in Australia.

2.1 Status of terrestrial animal health in Australia

Australia reports to the World Organisation for Animal Health (WOAH)[5] on WOAH-listed diseases[6] every 6 months. Table 2.1 shows Australia's status for WOAH-listed diseases in 2024.

Table 2.1 Australia's status for WOAH-listed diseases of terrestrial animals, 2024

Infection/Disease	Status	Date of last occurrence and notes
Multiple species		
Anthrax	Present	Limited distribution (see section 2.3)
Aujeszky's disease virus	Free	Never occurred
Bluetongue virus	Present	Restricted to a specific zone of Australia (see sections 2.3 and 2.4); sentinel herd and vector-monitoring programs are in place
Brucella abortus	Free	Australia declared freedom from disease in all terrestrial animal species in 1989
Brucella melitensis	Free	Never occurred in animals
Brucella suis	Present	Present in feral pigs in parts of New South Wales, Northern Territory, Queensland and South Australia; rare occurrence in domestic pigs; sporadic detections in dogs in contact with feral pigs or their products (not WOAH-notifiable occurrences)
***Coxiella burnetii* (Q fever)**	Present	–

Continued

5 woah.org/en/home

6 woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access

Infection/Disease	Status	Date of last occurrence and notes
Crimean Congo haemorrhagic fever	Free	Never occurred
Echinococcus granulosus	Present	–
Echinococcus multilocularis	Free	Never occurred
Epizootic haemorrhagic disease virus	Present	Disease has not been reported
Equine encephalomyelitis (Eastern)	Free	Never occurred
Foot and mouth disease virus	Free	Last occurred in 1872; Australia is officially recognised by WOAH as free without vaccination
Heartwater	Free	Never occurred
Japanese encephalitis	Present	Infection has previously been reported in Queensland, New South Wales, Victoria and South Australia
***Mycobacterium tuberculosis* complex**	Free	Australia declared freedom from bovine tuberculosis in 1997; the last case in any animal species was reported in 2002
New World screw-worm fly (*Cochliomyia hominivorax*)	Free	Never occurred
Old World screw-worm fly (*Chrysomya bezziana*)	Free	Never occurred
Paratuberculosis	Present	National management programs are in place
Rabies virus	Free	Last occurred in 1867
Rift Valley fever virus	Free	Never occurred
Rinderpest virus	Free	Last occurred in 1923; with the global eradication of rinderpest in 2011, all countries are free
***Trichinella* spp.**	Limited species present	*Trichinella spiralis* is not present; *Trichinella pseudospiralis* is present in wildlife
***Trypanosoma evansi* (surra)**	Free	Last occurred in 1907
Trypanosoma brucei*, *Trypanosoma congolense*, *Trypanosoma simiae* and *Trypanosoma vivax	Free	Never occurred
Tularaemia	Present	–
West Nile fever	Australian variants present	No cases were reported in 2024
Cattle		
Bovine anaplasmosis	Present	Transmission mainly in areas of northern Australia
Bovine babesiosis	Present	Transmission mainly in areas of northern Australia
Bovine genital campylobacteriosis	Present	–

Continued

Infection/Disease	Status	Date of last occurrence and notes
Bovine spongiform encephalopathy (BSE)	Free – negligible risk	Never occurred; the Transmissible Spongiform Encephalopathy Freedom Assurance Program includes surveillance (see section 2.4); Australia has official WOAH 'negligible risk' status for BSE
Bovine viral diarrhoea	Present	Bovine viral diarrhoea virus 1 (BVDV-1) is present; BVDV-2 has never occurred
Enzootic bovine leukosis	Free (dairy cattle herd) Very low prevalence (beef cattle)	Australian dairy herd achieved freedom in 2012
Haemorrhagic septicaemia (*Pasteurella multocida* serotypes 6:b and 6:e)	Free	Never occurred; strains of *Pasteurella multocida* are present, but not the 6:b or 6:e strains that cause haemorrhagic septicaemia
Infectious bovine rhinotracheitis/ infectious pustular vulvovaginitis	Present	Bovine herpesvirus (BHV)-1.2b is present; BHV-1.1 and BHV-1.2a have never occurred
Lumpy skin disease virus	Free	Never occurred
***Mycoplasma mycoides* subsp. *mycoides* (contagious bovine pleuropneumonia)**	Free	Last occurred in 1967; Australia declared freedom in 1973 and is officially recognised by WOAH as free
Theileria annulata*, *Theileria orientalis* and *Theileria parva	Free (*Theileria parva* and *Theileria annulata*) Present (*Theileria orientalis*)	–
Trichomonosis	Present	–
Sheep and goat		
Caprine arthritis/encephalitis	Present	Voluntary accreditation programs exist
***Chlamydophila abortus* (enzootic abortion of ewes, ovine chlamydiosis)**	Free	Never occurred
Contagious agalactia	Free	*Mycoplasma agalactiae* has been isolated, but Australian strains do not produce contagious agalactia in sheep
Contagious caprine pleuropneumonia	Free	Never occurred
Maedi–visna	Free	Never occurred
Nairobi sheep disease	Free	Never occurred
Ovine epididymitis (*Brucella ovis*)	Present	Voluntary accreditation programs exist in all states
Peste des petits ruminants virus	Free	Never occurred; Australia is officially recognised by WOAH as free
Salmonellosis (*Salmonella* Abortusovis)	Free	Never occurred

Continued

Infection/Disease	Status	Date of last occurrence and notes
Scrapie	Free	Last occurred in 1952; the Transmissible Spongiform Encephalopathy Freedom Assurance Program includes surveillance (see section 2.4); atypical scrapie has been detected several times
Sheep pox and goat pox	Free	Never occurred
Equine		
African horse sickness virus	Free	Never occurred; Australia is officially recognised by WOAH as free
***Burkholderia mallei* (glanders)**	Free	Last occurred in 1891
Dourine	Free	Never occurred
Equid herpesvirus-1 (equine rhinopneumonitis)	Present	–
Equine arteritis virus	Serological evidence	–
Equine encephalomyelitis (Western)	Free	Never occurred
Equine infectious anaemia	Present	Limited distribution and sporadic occurrence
Equine influenza virus	Free	Single outbreak occurred in 2007 to 2008; Australia achieved freedom in accordance with WOAH standards in 2008
***Taylorella equigenitalis* (contagious equine metritis)**	Free	Last occurred in 1980
***Theileria equi* and *Babesia caballi* (equine piroplasmosis)**	Free	Last occurred in 1976
Venezuelan equine encephalomyelitis	Free	Never occurred
Swine		
African swine fever virus	Free	Never occurred
Classical swine fever virus	Free	Last occurred in 1962; Australia is officially recognised by WOAH as free
Nipah virus encephalitis	Free	Never occurred
Porcine reproductive and respiratory syndrome virus	Free	Never occurred
***Taenia solium* (porcine cysticercosis)**	Free	Never occurred
Transmissible gastroenteritis	Free	Never occurred
Avian		
Avian chlamydiosis	Present	–
Avian infectious bronchitis	Present	–
Avian infectious laryngotracheitis	Present	–

Continued

Infection/Disease	Status	Date of last occurrence and notes
Duck virus hepatitis	Free	Never occurred
Fowl typhoid	Free	Last occurred in 1952
High pathogenicity avian influenza (HPAI) viruses in poultry (WOAH definition)	Present	Outbreaks of H7N3 and H7N9 occurred in Victoria, and H7N8 in New South Wales and the Australian Capital Territory. These outbreaks were resolved by January 2025.
Infectious bursal disease (Gumboro disease)	Present	Infectious bursal disease occurs in a mild form and was last reported in 2004; very virulent strains are not present
Influenza A viruses of high pathogenicity in birds other than poultry (WOAH definition), including wild birds	Free as of October 2024	High pathogenicity avian influenza viruses have not been detected in Australian wild birds, other than a single detection of HPAI H7 virus in 1 feral Eurasian starling trapped inside an affected poultry shed during the 1985 HPAI H7 virus outbreak. Limited outbreaks of H7N8 in non-poultry birds occurred in New South Wales and the Australian Capital Territory in association with the outbreaks in poultry (WOAH definition). These were resolved by October 2024.
***Mycoplasma gallisepticum* (avian mycoplasmosis)**	Present	–
***Mycoplasma synoviae* (avian mycoplasmosis)**	Present	–
Newcastle disease virus	Lentogenic viruses present	Virulent Newcastle disease last occurred in poultry in 2002
Pullorum disease	Not reported	Last reported in 1992; *Salmonella* Pullorum has been eradicated from commercial chicken flocks
Turkey rhinotracheitis	Free	Never occurred
Lagomorph		
Myxomatosis	Present	Used as a biological control agent for wild rabbits
Pathogenic rabbit lagoviruses (rabbit haemorrhagic disease)	Present	Used as a biological control agent for wild rabbits; a new strain was detected in 2015 and another released in 2017
Bee		
Infection of honey bees with *Melissococcus plutonius* (European foulbrood)	Present	–
Infection of honey bees with *Paenibacillus larvae* (American foulbrood)	Present	–
Infestation of honey bees with *Acarapis woodi*	Free	Never occurred

Continued

Infection/Disease	Status	Date of last occurrence and notes
Infestation of honey bees with *Tropilaelaps* spp.	Free	Never occurred
Infestation of honey bees with *Varroa* spp.	Present	An incursion of *Varroa destructor* was identified in June 2022 in New South Wales; in September 2023, eradication was determined to no longer be achievable; the eradication response has transitioned to management; varroa mite has limited distribution in New South Wales and Victoria
Infestation with *Aethina tumida* (small hive beetle)	Present	Restricted distribution
Other species		
Camel pox	Free	Never occurred
Infection of dromedary camels with Middle East respiratory syndrome coronavirus	Free	Never occurred
***Leishmania* spp. (leishmaniasis)**	Australian variant, *Leishmania macropodum*, present	Occurred only in species outside of WOAH's case definition. Australian variant *Leishmania macropodum* was first isolated in 2000 from macropods and occurs infrequently in a small region near Darwin, and in 2024 in 2 quokkas in Queensland; occasional imported case of *Leishmania infantum* with no known local transmission.

2.2 National list of notifiable animal diseases of terrestrial animals

The national list of notifiable diseases of terrestrial animals[7] includes diseases that are a major threat to Australia's livestock industries and export markets. These diseases must be reported to agricultural authorities, as mandated by state and territory legislation. The list is ratified by the Animal Health Committee[8] and includes the list of diseases notifiable to the World Organisation for Animal Health (WOAH). The list also includes some significant endemic diseases for surveillance purposes, and helps monitor unusual incidences of animal mortality or illness, and diseases that could affect public health. The Animal Health Committee regularly reviews the list, with the most recent version published in April 2024.

Table 2.2 shows Australia's status for diseases on the national list of notifiable diseases of terrestrial animals that were not reportable to WOAH in 2024.

Table 2.2 Australia's status for the national list of notifiable diseases of terrestrial animals that were not reportable to WOAH, 2024

Disease/Infection/Infestation	Status	Date of last occurrence and notes
Multiple species		
Alcelaphine herpesvirus-1 (malignant catarrhal fever, wildebeest-associated)	Free	Never reported
Australian bat lyssavirus	Present	–
Borna disease virus	Free	Never reported
Getah virus	Free	Never reported
Louping ill	Free	Never reported
Tick-borne encephalitis virus	Free	Never reported
Transmissible spongiform encephalopathies (chronic wasting disease of deer; feline spongiform encephalopathy)	Free	Two cases of feline spongiform encephalopathy were diagnosed in imported animals in Australian zoos in 1992 (cheetah) and 2002 (Asiatic golden cat), where disease is thought to have been caused by exposure to feeds derived from bovine spongiform encephalopathy-affected cattle before the animals were imported to Australia
***Trypanosoma cruzi* (Chagas disease)**	Free	Never reported
Vesicular stomatitis virus	Free	Never reported
Warble fly infestation (warble fly myiasis)	Free	Never reported
Cattle		
Jembrana disease virus	Free	Never reported
Sheep and goat		
Jaagsiekte sheep retrovirus	Free	Never reported

Continued

7 agriculture.gov.au/biosecurity-trade/pests-diseases-weeds/animal/notifiable

8 agriculture.gov.au/agriculture-land/animal/health/committees/ahc

Disease/Infection/Infestation	Status	Date of last occurrence and notes
***Psoroptes ovis* (sheep scab)**	Free	Last occurred in 1896
Wesselsbron virus	Free	Never reported
Equine		
Equine encephalosis virus	Free	Never reported
Hendra virus	Present	Sporadic occurrence
***Histoplasma farciminosum* (epizootic lymphangitis)**	Free	Never reported
***Neorickettsia risticii* (Potomac horse fever)**	Free	Never reported
***Salmonella* abortus-equi**	Free	Never reported
Swine		
Bungowannah virus (porcine myocarditis)	Present	Last occurred in 2003
Influenza A viruses in swine	Present	–
Menangle virus	Present	Last occurred in 1997
Porcine epidemic diarrhoea virus	Free	Never reported; national survey conducted in 2016 with negative results
Post-weaning multi-systemic wasting syndrome	Free	Never reported
Seneca Valley virus (Senecavirus A)	Free	Never reported
Swine vesicular disease virus	Free	Never reported
***Taenia saginata* (*Cysticercus bovis*)**	Present	–
Teschovirus encephalomyelitis	Present	–
Vesicular exanthema of swine virus	Free	Never reported
Avian		
Anatid herpesvirus-1	Free	Never reported
***Mycobacterium avium* (avian tuberculosis)**	Present	–
Mycoplasma iowae	Free	Never reported
***Salmonella* Enteritidis in poultry**	Present	National *Salmonella* Enteritidis Monitoring and Accreditation Program available for commercial egg producers. Detected in routine environmental samples collected from a single free-range layer flock in New South Wales in 2024.
Other species		
Brucella canis	Free	Never reported
Devil facial tumour disease	Present	Restricted distribution to Tasmanian devils in Tasmania
***Pseudogymnoascus destructans* in bats (white nose syndrome)**	Free	Never reported

2.3 Significant disease incidents and status changes of nationally notifiable terrestrial animal diseases in 2024

This section provides information about the detection and investigation of significant terrestrial animal disease incidents that occurred in 2024. It also outlines Australia's response to these incidents, which minimised the spread of animal diseases that could compromise the nation's favourable animal health status and international trade opportunities. More detailed information on specific disease incidents can be accessed in the *Animal Health Surveillance Quarterly* reports.[9]

High pathogenicity avian influenza viruses in poultry in Victoria, New South Wales and the Australian Capital Territory

In 2024, Australia responded to the detection of multiple strains of high pathogenicity avian influenza (HPAI) across 16 infected premises in Victoria, New South Wales and the Australian Capital Territory.

High pathogenicity avian influenza H7N3 was first detected on 22 May 2024 near Meredith in Victoria with 6 additional surrounding infected premises detected by 24 June 2024. High pathogenicity avian influenza H7N9 was then detected on 23 May 2024 near Terang, also in Victoria, in a single commercial flock. On 19 June 2024, HPAI H7N8 was detected in the Hawkesbury area of New South Wales, with 5 additional infected premises. The final case in New South Wales was confirmed on 12 July 2024. On 27 June 2024, HPAI H7N8 was confirmed in the Australian Capital Territory at a property linked to one of the infected premises in New South Wales. A second detection in the Australian Capital Territory was confirmed on 3 July 2024.

Following these detections, declared areas, movement controls and poultry housing requirements were imposed to limit the spread of disease. Victoria, New South Wales and the Australian Capital Territory conducted depopulation, disposal and decontamination activities in accordance with the Australian Veterinary Emergency Plan (AUSVETPLAN) *Response Strategy: Avian influenza*.[10] The response also included enhanced poultry surveillance in surrounding areas and continued monitoring of wild bird populations.

Sequencing demonstrated that the 3 strains detected were related to low pathogenicity strains previously detected in Australian wild birds, and each virus strain emerged separately from separate spillover events. There were no HPAI detections in wild birds during these outbreaks.

The response activities were successful, and the outbreaks were officially declared eradicated effective from 23 January 2025.

9 sciquest.org.nz/browse/publications/view/114

10 animalhealthaustralia.com.au/ausvetplan

Varroa destructor (varroa mite) in New South Wales

In June 2022, *Varroa destructor* was detected in sentinel hives at the Port of Newcastle, New South Wales. An eradication response was initiated under the Emergency Plant Pest Response Deed.[11]

In September 2023, it was determined that eradication of varroa mite from Australia was no longer achievable due to several technical, operational, legal, economic, environmental and social factors.

In February 2024, a transition to management plan was endorsed by the National Management Group – the peak decision-making body for the national varroa mite emergency response – with a focus on increasing resilience and minimising ongoing impacts of varroa mite naturalisation across Australia's honey bee and pollination-dependent industries. The scope of the transition to management phase is to:

- ensure an orderly stand-down of emergency response operational activities
- slow the spread of *Varroa destructor*
- build industry resilience to the pest
- provide management options including integrated pest management recommendations and chemical control options
- support pollination security.

The National Varroa Mite Management Program website[12] was recently launched. This independent platform enables the sharing of educational material and information on upcoming events and training sessions. Users can also report detection of varroa mite through the website. Varroa mite remains a notifiable pest and under official control by other states and territories. Movement restrictions and surveillance plans are in place to control movement and slow the spread of the pest.

Anthrax in Victoria

Anthrax is an infectious zoonotic bacterial disease of animals caused by the spore-forming bacterium *Bacillus anthracis*. Grazing herbivores (e.g. cattle and sheep) are infected through ingesting spores present in contaminated soils.

Anthrax is known to occur sporadically in northern Victoria, typically in areas that have had previous occurrence of the disease and usually in the warmer months. In February 2024, anthrax was detected on 2 adjoining cattle properties in the Goulburn Valley in northern Victoria.

Anthrax was initially detected in 2 cattle after 4 animals died suddenly on a property that now includes part of a land title where anthrax infection had been recorded in the 1980s. A neighbouring cattle property had a single case of anthrax in an animal that died 6 days after the confirmation of disease on the index property.

Affected properties were quarantined and all cattle on those farms were promptly vaccinated. The carcasses of affected cattle were burned and death sites disinfected. The index property continued to experience anthrax-related deaths for 9 days, with a further 8 dead cattle confirmed as infected.

As a precaution, vaccination of cattle, sheep and goats was also undertaken on 37 surrounding properties. No further cases of anthrax have been detected.

Bluetongue virus in New South Wales

There were 37 detections of clinical bluetongue virus (BTV) in New South Wales sheep flocks between February and May 2024. All cases were within the Bluetongue Virus Transmission Zone. Clinical cases were caused by the endemic serotypes BTV-1 and BTV-16, with both serotypes detected in some cases. Despite the higher number of cases reported in 2024, clinical bluetongue disease is considered an uncommon occurrence in Australian sheep and has never been reported in any other susceptible animal species in Australia.

The prevalence of clinical disease on the 37 premises ranged from 0.15% to 100%, with an average of 4.94%. The most common clinical signs were nasal discharge, facial oedema, lethargy, scabs and encrustation of skin, and respiratory distress. Lameness with a stiff gait, cough, photosensitisation and pyrexia were seen in a third of affected flocks. Swelling and cyanosis of

11 planthealthaustralia.com.au/response-arrangements/emergency-plant-pest-response-deed-epprd

12 varroa.org.au

the tongue were only seen in 4 flocks (10%) of cases. Mortalities ranged from 0% to 75% in affected flocks. Affected sheep were usually observable at distance due to the overall change in demeanour.

Analysis of risk factors found that higher morbidity and mortality were associated with meat breed enterprises, particularly the shedding sheep breeds such as Australian White, Dorper, Wiltipoll and Wiltshire. Merino sheep had a protective factor for both morbidity and mortality, even when accounting for flock size. All these findings were statistically significant.

Infected premises had experienced either consistent light-to-moderate rainfall or significant rainfall events in the 2 weeks leading up to clinical signs and/or were near waterbodies.

In New South Wales, bluetongue virus transmission occurs regularly on the northern coastal plain to the Hunter Valley and less regularly in the Northern Tablelands, North West Slopes, Sydney Basin and South Coast regions.

Bluetongue disease is caused by an arbovirus, which is transmitted by *Culicoides* midges. Climatic factors (rainfall, temperature, and prevailing wind speed and direction) and other factors such as host preference and availability of breeding sites determine the distribution of potential vectors. The virus is transmitted only if vectors are present in sufficient numbers. The National Arbovirus Monitoring Program (NAMP) monitors the distribution of economically important arboviruses of ruminant livestock and associated insect vectors in Australia. See page 44 for more information about NAMP.

For further information about bluetongue virus in New South Wales:
dpi.nsw.gov.au/biosecurity/animal/info-vets/bluetongue-virus

Bovine babesiosis in New South Wales

Eight cases of tick fever, also known as bovine babesiosis or bovine anaplasmosis (infection with *Babesia bovis*, *Babesia bigemina* or *Babesia divergens*) were confirmed in New South Wales, all in the North Coast region near the cattle tick–infested zone in Queensland. These cases were from a total of 28 tick-fever investigations. The New South Wales Department of Primary Industries and Regional Development jointly managed these cases with veterinarians (including Local Land Services and private practitioners) and affected farmers.

Salmonella Enteritidis in poultry in New South Wales

Salmonella Enteritidis in poultry was detected in routine environmental samples collected from a single free-range layer flock in New South Wales in 2024. Testing of environmental swabs yielded positive results for *Salmonella* Enteritidis using polymerase chain reaction and the organism was subsequently cultured. The isolate was consistent with the strain that has been intermittently detected in New South Wales poultry flocks since 2018. The infected flock was depopulated and enhanced surveillance conducted, with no additional positive detections during 2024.

Fowl cholera (not nationally notifiable) in South Australia

In January 2024, a disease investigation was undertaken in response to a mass mortality of waterbirds in Coorong, South Australia, following a heavy rainfall event. Mortalities due to fowl cholera (avian pasteurellosis) were confined to a small geographical region. In total, more than 1,000 birds, mostly grey teal, were reported dead over a 2-month period.

The investigation was a collaborative effort between the public, wildlife organisations (EcoProTem, BirdLife Australia and Zoos South Australia), government personnel, veterinarians and veterinary pathologists.

Botulism, HPAI, virulent Newcastle disease and other potential bacterial causes were excluded by laboratory testing. A final diagnosis of *Pasteurella multocida* (fowl cholera) was confirmed on tissue culture and histology. Regular monitoring of the location continued after the initial investigation and ultimately ceased in response to no further bird mass mortality reports in the region.

This investigation excluded the relevant nationally notifiable terrestrial animal diseases and demonstrated the effectiveness of Australia's system for detecting and investigating suspect disease incidents.

2.4 National surveillance programs and initiatives

The Australian animal health system is underpinned by key partnerships and networks between government, livestock, wildlife and human health sectors, which work together across a range of programs to investigate significant disease incidents and undertake surveillance and monitoring activities. These programs support Australia's animal health status and determine the distribution of important diseases, agents and vectors. The *Animal Health in Australia System Report*[13] provides an overview of these programs, and an update on program activities from 2024 is presented below.

National Arbovirus Monitoring Program

The National Arbovirus Monitoring Program (NAMP) monitors the distribution across Australia of economically important arboviruses of livestock (cattle, sheep, goats and camelids) and their associated vectors. Arboviruses are transmitted by arthropods such as mosquitoes, ticks, sandflies and midges. The arboviruses of importance to the NAMP are bluetongue virus (BTV), Akabane virus and bovine ephemeral fever virus. NAMP data are gathered throughout Australia by serological and virological monitoring of cattle in sentinel herds, intermittent serosurveys of other cattle herds and trapping of *Culicoides* species (biting midges).

Transmission of BTV is endemic in northern and northeastern Australia (New South Wales, Northern Territory, Queensland and Western Australia), and remains undetected in South Australia, Tasmania and Victoria. Clinical bluetongue disease is an uncommon occurrence in Australian sheep and has never been reported in any other susceptible animal species in Australia.

No new serotypes were detected in Australia from samples collected during the 2023 to 2024 season. Serotypes detected during the period were BTV-1, BTV-4, BTV-12, BTV-15, BTV-16, BTV-20 and BTV-21.

Many regions in Australia do not support the specific *Culicoides* vectors that can transmit BTV. The limits of BTV transmission in Australia are shown on the interactive Bluetongue Virus Zone Map,[14] which defines the areas in which no viral transmission has been detected for the past 2 years. This interactive online map is publicly available and used by livestock producers and other key stakeholders. The map is updated as required in response to confirmed changes to BTV distribution.

Summer rainfall for 2023 to 2024 was above average across many areas of northern Australia including the north and east Kimberley region of Western Australia, the Northern Territory, Queensland, and from the northwest corner to the South Coast regions of New South Wales.

There were 3 expansions of the BTV Transmission Zone in the 2023 to 2024 season: southwards in the Northern Territory, and westwards and southwards in New South Wales.

More detailed information about NAMP, including the results of monitoring activities, can be found in the *NAMP Annual Report 2023–2024*.[15]

National Significant Disease Investigation Program

Non-government veterinary practitioners play a key role in general surveillance in Australia and provide expertise in evaluating, clinically investigating and reporting outbreaks of significant animal diseases. The National Significant Disease Investigation Program (NSDIP) engages with non-government veterinarians and supports the delivery of tailored disease investigation training programs. This increases the likelihood that significant disease events are investigated and improves Australia's ability to detect emerging diseases by supporting the knowledge, skills, resources and government relationships of non-government veterinary practitioners.

During 2023 to 2024, 278 clinical investigations were financially supported by NSDIP (Figure 2.1). The syndromes most frequently investigated were

13 animalhealthaustralia.com.au/ahia

14 namp.animalhealthaustralia.com.au/public.php

15 animalhealthaustralia.com.au/namp-annual-report

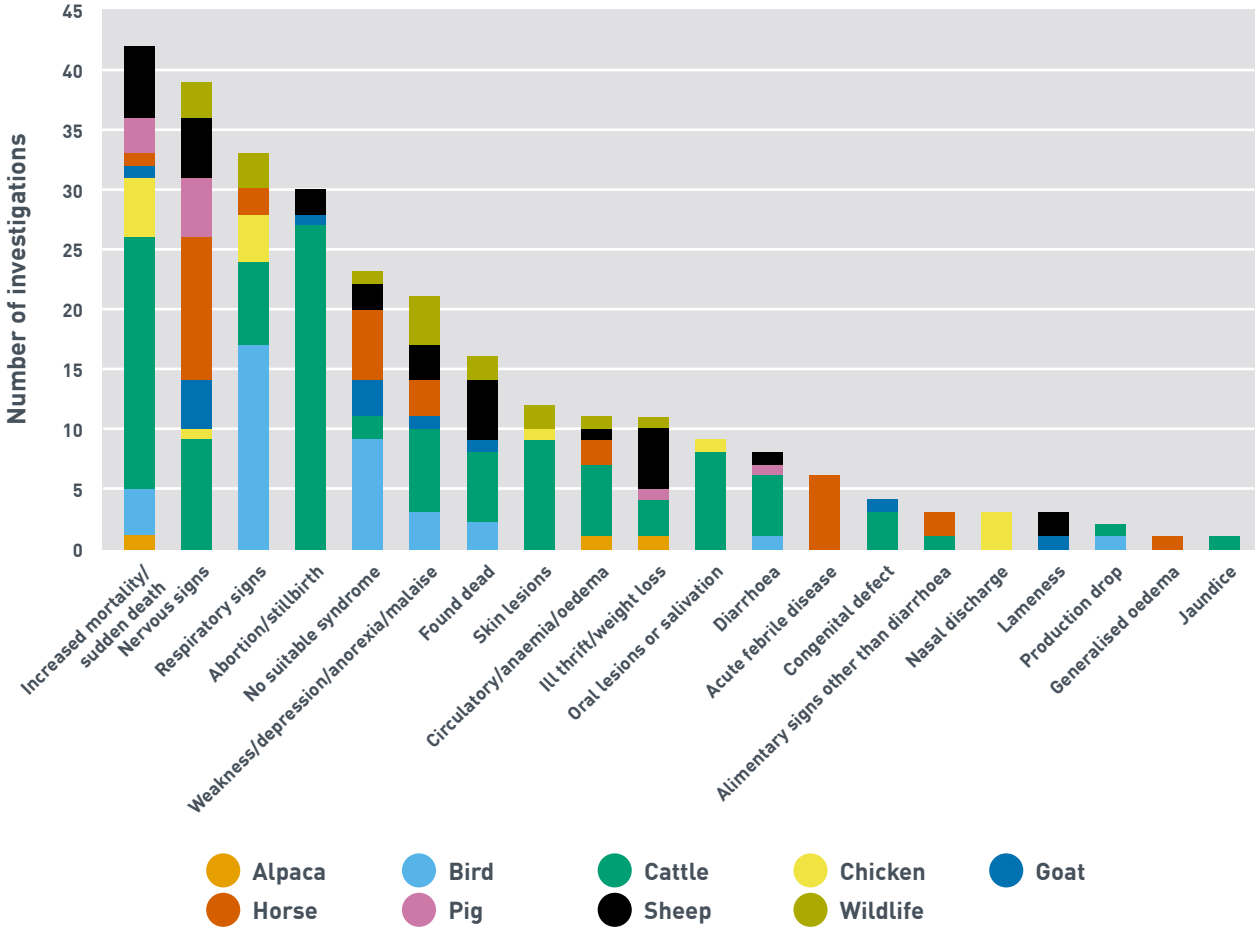


Figure 2.1 Number of investigations supported by the National Significant Disease Investigation Program, by syndrome and animal group July 2023–June 2024

increased mortality and sudden death, neurological signs and respiratory signs. The program also supported training for veterinarians in equine-specific and emergency animal diseases, and the creation of video footage of sampling and necropsy techniques in poultry.

More information about NSDIP can be found on the Animal Health Australia (AHA) website.[16]

National Sheep Health Monitoring Project

The National Sheep Health Monitoring Project (NSHMP)[17] is funded by the sheep and wool industries and managed by AHA. The NSHMP, which has been running since 2007, monitors lines of sheep in abattoirs for important animal health conditions and generates a comprehensive dataset that provides a snapshot of the animal health status of the Australian flock. Sheep carcasses and offal are monitored for a range of diseases and conditions which impact productivity, meat processing wastage and farm profitability. The data are available to those producers who submit sheep to participating abattoirs via Meat & Livestock Australia's myFeedback portal, to allow them to make on-farm management changes when disease is found.

During 2024, a total of 11,505,089 sheep from 50,586 lines and 11,117 property identification codes were inspected in 10 domestic and export abattoirs. Overall, there were low levels of diseases and conditions detected in inspected sheep. Bladder worm and pleurisy were the most common findings. More information is available in the NSHMP annual reports.[18]

16 animalhealthaustralia.com.au/collaborative-disease-investigations

17 animalhealthaustralia.com.au/national-sheep-health-monitoring-project

18 animalhealthaustralia.com.au/nshmp-annual-reports

National Transmissible Spongiform Encephalopathy Surveillance Project

The National Transmissible Spongiform Encephalopathy (TSE) Surveillance Project is part of the TSE Freedom Assurance Program, which is managed by AHA with funding from the Australian, state and territory governments and industry stakeholders. The purpose of the TSE Freedom Assurance Program is to increase market confidence that Australian animals and animal products are free from TSE.[19] The National TSE Surveillance Project aims to provide early detection of bovine spongiform encephalopathy (BSE) and classical scrapie, should they occur. It also helps demonstrate Australia's ability to meet the requirements for the World Organisation for Animal Health (WOAH) negligible risk status for BSE and free status for classical scrapie. The program involves testing samples from cattle, sheep and goats with clinical signs consistent with BSE or classical scrapie. Opportunistic sampling of fallen and casualty slaughter cattle, sheep and goats is also undertaken in abattoirs.

Australia's targeted surveillance program is consistent with WOAH requirements, including changes made in May 2023 to the surveillance requirements in the WOAH Terrestrial Code chapter for BSE. Data are submitted to WOAH each year to reconfirm Australia's negligible risk status for BSE. During the period July 2023 to June 2024, 280 cattle, 199 sheep and 9 goats were examined as part of the program. All samples tested negative for BSE and classical scrapie.

Screw-Worm Fly Surveillance and Preparedness Program

Screw-worm fly, an insect pest of warm-blooded animals, is not present in Australia but infects livestock, wildlife and humans in many parts of the world. Old World screw-worm fly (*Chrysomya bezziana*) is present throughout much of Africa, the Middle East, the Indian subcontinent and South-East Asia, including Indonesia, Timor-Leste, the Philippines and Papua New Guinea. New World screw-worm fly (*Cochliomyia hominivorax*) is endemic in parts of Central and South America.

The Screw-Worm Fly Surveillance and Preparedness Program conducts targeted national surveillance for screw-worm fly through fly trapping and livestock myiasis monitoring activities and supports Australia's screw-worm fly entomology capacity and capability. It also promotes awareness about screw-worm fly and provides a national forum to monitor and address Australia's screw-worm fly risk profile.

During 2024, contents of insect traps were inspected on 244 occasions across 21 sites within 8 locations. There were 115 targeted myiasis monitoring events at 10 sites within 8 locations (Figure 2.2). No screw-worm fly was detected. Targeted communication

19 animalhealthaustralia.com.au/maintaining-australias-freedom-from-tses

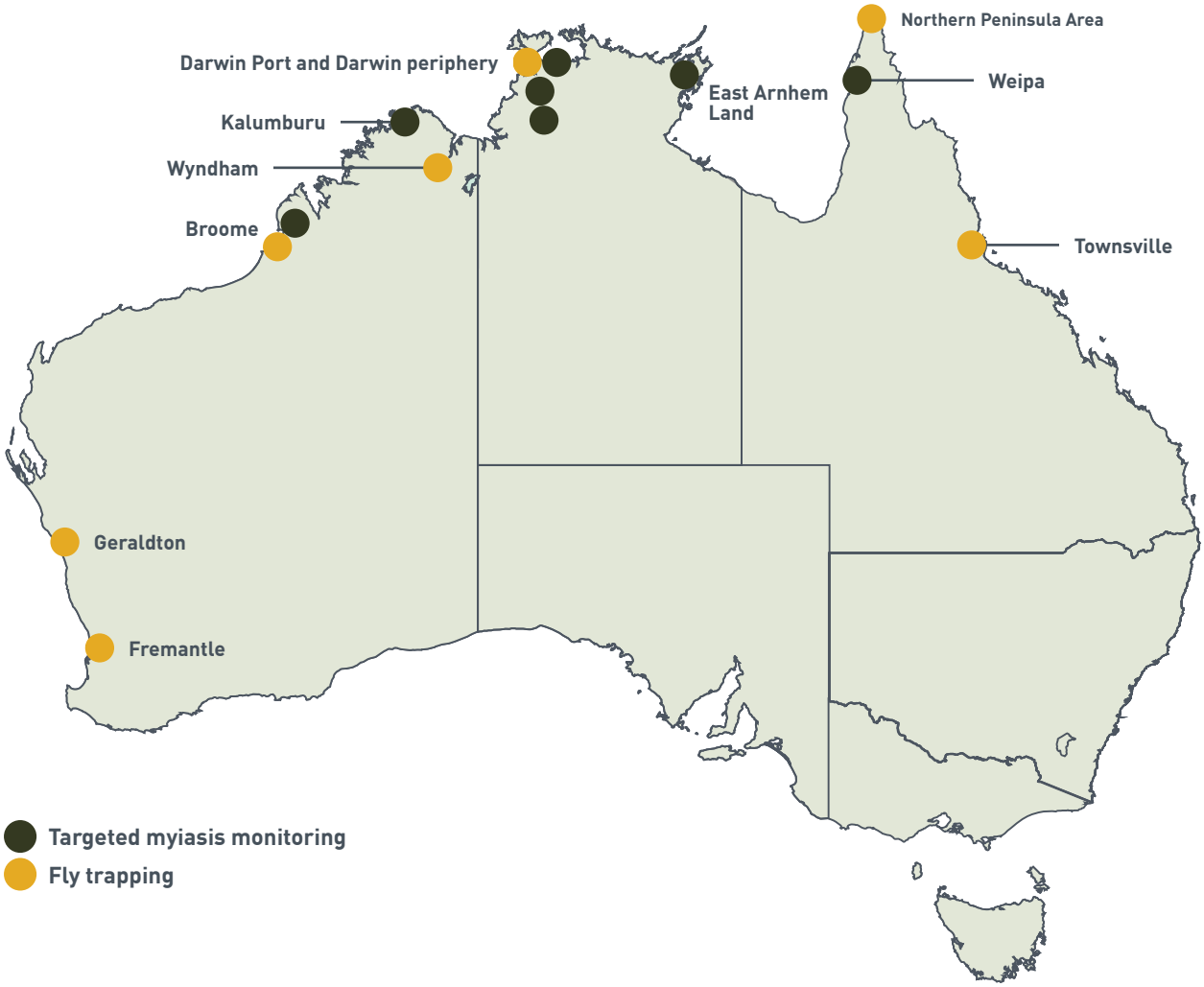


Figure 2.2 Locations of targeted myiasis monitoring and fly trapping in the Screw-Worm Fly Surveillance and Preparedness Program, 2024

materials were developed and distributed to veterinarians and other key animal health stakeholders in northern Australia.

Further information and resources associated with the Screw-Worm Fly Surveillance and Preparedness Program are available on the AHA website.[20]

Evidence of Absence Surveillance Project for exotic pig diseases

The Evidence of Absence Surveillance Project is an industry-led initiative to strengthen Australia's evidence of absence of key exotic diseases of pigs (Aujeszky's disease, African swine fever, classical swine fever, porcine epidemic diarrhoea virus, porcine reproductive and respiratory syndrome, teschovirus encephalomyelitis and transmissible gastroenteritis).

Funded by Australia Pork Limited, Animal Health Australia (AHA) led the delivery of the second phase of the project from 1 July 2020 to 30 June 2024. The primary aim of the project was to increase surveillance and laboratory testing of pigs showing clinical signs consistent with any of the specified diseases, and therefore support evidence of absence. The evidence generated by the project added valuable information to further strengthen Australia's animal health data for the pig industry and supported the substantiation of Australia's pig health status.

20 animalhealthaustralia.com.au/monitoring-for-swf

The program maintained a guideline booklet for participating veterinarians describing the clinical syndromes associated with each of these diseases and the samples that should be submitted for laboratory testing.[21] Summary records of testing were collated through Australia's National Animal Health Information Program. Over the project span, there was a strong increase in the number of laboratory submissions for the exclusion of high-priority pig diseases, with all submissions returning negative results for the specified diseases.

NABSnet Skin Survey

The Northern Australia Biosecurity Surveillance Network (NABSnet), overseen by the Northern Australia Quarantine Strategy (NAQS), is a program for connecting and building capacity of private veterinarians who service northern Australia. NABSnet is made up of over 50 veterinarians and was designed to ensure there is effective veterinary response and investigation of significant disease events in northern Australia.

NABSnet commenced a Skin Survey in 2023 to assist with describing the typical range of cattle skin conditions in northern Australia to support the evidence base for Australia's lumpy skin disease (LSD)–free status (see page 35).

In 2024, the NABSnet Skin Survey saw 117 cattle with skin lesions sampled and tested for LSD across Northern Australia in the Northern Territory, northern Queensland and northern Western Australia. No LSD was detected. Histological analysis has indicated that the most common cause for skin lesions in these northern cattle is dermatitis caused by insect bite hypersensitivity. Following this, other conditions such as dermatophytosis, demodex or healing injuries were also found to cause skin lesions within northern Australian cattle.

Northern Australia Quarantine Strategy

The Northern Australia Quarantine Strategy (NAQS) continued to deliver its targeted and general surveillance program for early detection of exotic pests and diseases and to support Australia's proof of freedom.

In 2024, NAQS increased avian influenza surveillance activities in response to the rising H5 high pathogenicity avian influenza (HPAI) outbreaks around the world. NAQS broadened its regular surveillance sites in wild birds, including additional sampling sites and 'increased frequency of sampling, opportunistic sampling, while collaborating with a variety of northern stakeholders including Australian Government departments and Indigenous ranger groups.

Over the year, NAQS collected 3,464 environmental samples of wild bird faeces across northern Australia for avian influenza testing, all of which were negative for HPAI. Low pathogenicity avian influenza strains detected included H9N2, H11N9 and H1N3, which are endemic to Australia and not related to the global H5N1 HPAI strain. Complementing the targeted environmental sampling activities is a general surveillance strategy that involves reports and referrals from northern Australia stakeholders of bird morbidity and mortality events. In 2024, a total of 18 investigations were conducted by NAQS, and no detections of HPAI in wild birds were made.

NAQS continued to assist the northern jurisdictions with demarcating virus distribution by conducting targeted surveillance for Japanese encephalitis virus (JEV) within its feral animal surveillance activities. In 2024, 3 feral pigs tested serologically positive for JEV out of 226 feral pigs tested. There was also a single polymerase chain reaction (PCR) detection of JEV in the tonsils of a clinically healthy feral pig in the Northern Territory out of 495 feral pigs sampled across northern Australia in 2024. Overall, JEV surveillance indicates that the virus is still present in the north but at a far lower prevalence compared to the number of detections made in 2022.[22]

Lumpy skin disease (LSD) surveillance continued in 2024. All feral cattle and buffalo sampled during feral animal surveys were serologically tested for

21 animalhealthaustralia.com.au/enhanced-surveillance-for-significant-exotic-diseases-of-pigs

22 animalhealthaustralia.com.au/wp-content/uploads/dlm_uploads/2023/05/AHiA-2022-Annual-Report.pdf

LSD, and any bovids with skin lesions were also sampled and tested using PCR. Throughout the year, 84 feral cattle were serologically tested for LSD, with 46 of those cattle presenting with skin lesions that were collected and tested; LSD was excluded in all cases. For further details on Australia's freedom from LSD, see pages 35 and 81.

NAQS oversees sentinel herds at cattle stations in remote locations across northern Australia. Station managers conduct regular visual inspections and check for evidence of skin lesions on these cattle. Over the past year, no skin lesions have been reported from these herds.

Feral animal surveillance is another significant NAQS program. Throughout 2024, 9 surveys of feral animals were conducted across northern Australia. Feral pigs were the most frequently sampled species, accounting for 86% of feral animals sampled in 2024. Feral pigs are relatively abundant compared to other feral animal species found in northern Australia, and have the potential to host a wide range of exotic animal pests and diseases. Any abnormal clinical signs or pathology detected during these surveys underwent further diagnostic workup and exotic disease exclusion testing (Table 2.3). Complementing the feral animal surveillance work are post-mortem workshops that NAQS delivers to key northern stakeholders to improve awareness of exotic diseases. In 2024, 11 post-mortem workshops were delivered by NAQS animal health officers with 32 feral pigs and 7 feral buffalo sampled.

Over the year, NAQS conducted 17 disease investigations in feral animals exhibiting clinical signs consistent with exotic animal diseases including Nipah virus (n = 1 feral pig), porcine reproductive and respiratory syndrome (n = 1 pig) and LSD (n = 51 feral bovids). No exotic pests or diseases were detected through these investigations.

In addition to targeted health surveillance of feral animals, NAQS conducts targeted surveys of domestic animals in the Torres Strait and Northern Peninsula Area of Queensland. This includes routine sample collection and testing for exotic diseases. NAQS also carries out ad hoc disease investigations in response to biosecurity or animal health concerns reported by third parties.

Table 2.3 Number of northern Australian feral animals tested for serological exposure to exotic diseases in 2024

Pathogen tested	Count of animals	Positive test results
African swine fever	498	0
Aujeszky's disease (pseudorabies virus)	498	0
Classical swine fever	498	0
Lumpy skin disease	82	0
Surra	586	0
Peste de petits ruminants	4	0
Influenza in mammals	292[a]	1[b]

a Feral pigs

b Seropositive, not PCR positive

In addition to its own activities, NAQS collaborates with a wide range of stakeholders to conduct surveillance. This includes Indigenous ranger groups, who carry out surveillance activities on a fee-for-service basis through the NAQS Indigenous Ranger Biosecurity Program.

Wildlife health surveillance

Wildlife Health Australia (WHA) administers Australia's general wildlife health surveillance system in partnership with government agencies and non-government organisations. In 2024, 1,556 wildlife disease investigations were reported to the national database (Table 2.4). Approximately 51% of these events involved birds: bat events accounted for 27% of investigations reported; and 10% were related to marsupials.

A total of 796 investigations of wild bird disease events were reported to WHA in 2024 from around Australia. No wild bird mortality events were attributed to avian influenza virus or West Nile virus.

Pigeon paramyxovirus was attributed as the cause of mortality events involving feral pigeons and doves, including a mortality in South Australia of over 20 Barbary doves (*Streptopelia roseogrisea*), an invasive species with an established population in Adelaide.[23] Avian paramyxovirus Class I (avirulent strain) continues to be detected incidentally in wild birds, including the Coorong waterbird mortality event described below. Avian influenza virus and avian paramyxovirus 1 were excluded by PCR testing in 688 and 345 events respectively. Avian influenza virus and avian paramyxovirus 1 exclusion testing was not warranted in the remaining events on the basis of clinical signs, history, prevailing environmental conditions or other diagnoses.

Between January and March 2024, there was a waterbird mortality event in the Coorong region of South Australia due to avian pasteurellosis (*Pasteurella multocida*), also known as fowl cholera.[24] See page 43 for further information on this incident.

Table 2.4 Wildlife disease investigations reported in Australia in 2024

Animals	Number of investigations[a]
Birds	796
Bats	422
Marsupials	157
Feral mammals[b]	99
Marine mammals	39
Snakes and lizards	31
Fish	7
Marine turtles	4
Monotremes	4
Amphibians	2
Freshwater turtles	2

a Nine investigations involved multiple taxonomic groups, so the total number of events does not equal 1,556.

b Includes feral pigs (*Sus scrofa*), European rabbits (*Oryctolagus cuniculus*), European hare (*Lepus europaeus*) and fallow dear (*Dama dama*).

23 *Animal Health Surveillance Quarterly*; vol 29(3): 11–12. animalhealthaustralia.com.au/ahsq

24 *Animal Health Surveillance Quarterly*; vol 29(1): 16–18. animalhealthaustralia.com.au/ahsq

Findings in wild bird events in 2024 also included: adenovirus, aspergillosis, avian pox, botulism, *Chlamydia psittaci* infection, coccidiosis, *Macrorhabdus ornithogaster* infection, *Mycobacterium avium* infection, parasitism, pigeon paramyxovirus and pigeon rotavirus in feral pigeons, psittacine beak and feather disease, *Salmonella* infection, toxicity (including anti-coagulant rodenticide, carbamate, heavy metals, pesticide), toxoplasmosis, trauma and trichomoniasis.

Most bat investigations involved individual bats submitted for testing for Australian bat lyssavirus (ABLV), typically following potentially infectious contact with a human or pet. A total of 425 bats were tested for ABLV, of which 8 were found positive for ABLV infection. This includes 3 positive detections in Queensland, 3 in South Australia and 2 in New South Wales. There were no detections of ABLV in species other than bats. The WHA Bat Health Focus Group regularly reports on the status of ABLV including the twice-yearly ABLV Bat Stats.[25]

Significant wildlife health incidents in Australia are reported on the WHA website[26] and in *Animal Health Surveillance Quarterly*.[27]

National Avian Influenza Wild Bird Surveillance Program

Through the National Avian Influenza Wild Bird Surveillance Program,[28] targeted surveillance was conducted by sampling apparently healthy, live and hunter-shot wild birds at sites across Australia and external territories (Figure 2.3). Additional samples from migratory shorebirds and seabirds were collected during the migration period. A total of over 9,500 faecal environmental, oropharyngeal and cloacal swabs collected from waterbirds were tested for avian influenza viruses in 2024.

Molecular analysis of avian influenza viruses detected through targeted surveillance activities contributes to tracking Australian avian influenza virus evolution and dynamics, maintaining currency

Risk-based surveillance for avian influenza viruses has tested over 143,500 wild birds since July 2005.

Mortality due to avian influenza viruses has not been reported in feral or native free-ranging birds in Australia.

High pathogenicity avian influenza viruses have not been detected via targeted wild bird surveillance in Australia, including HPAI H5 clade 2.3.4.4b.

Credit: Shana Ahmed

25 wildlifehealthaustralia.com.au/Resource-Centre/Bat-Health#Australian%20Bat%20Lyssavirus%20Reports

26 wildlifehealthaustralia.com.au/Incidents/Incident-Information

27 animalhealthaustralia.com.au/ahsq

28 wildlifehealthaustralia.com.au/Our-Work/Surveillance/Wild-Bird-Surveillance

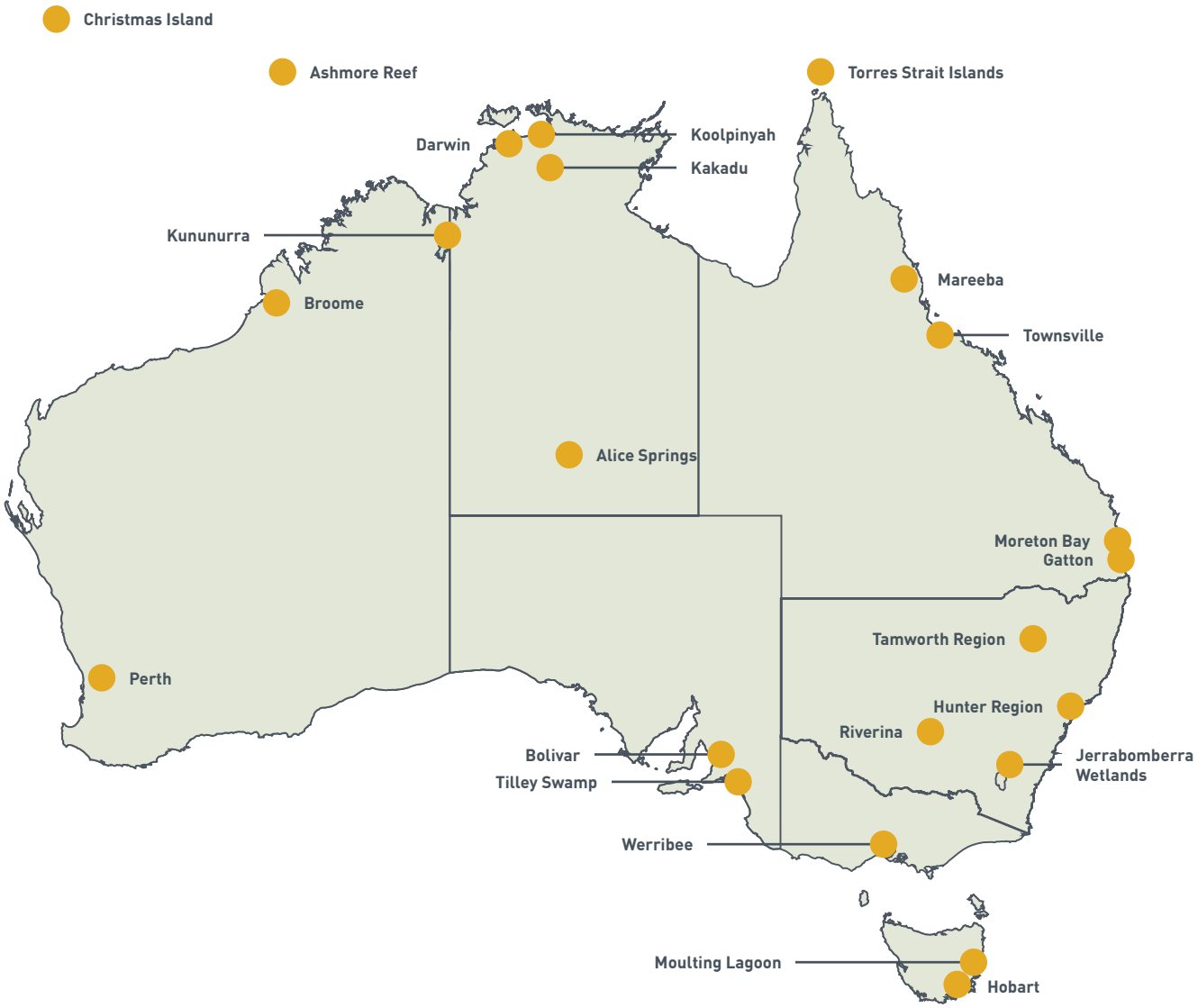


Figure 2.3 Avian influenza virus targeted surveillance key sampling locations*

*This map shows the locations where the majority of wild bird samples are collected on a regular basis. Locations sampled irregularly or where small numbers of samples are collected are not represented on the map.

of diagnostic tests and a virus sequence library that allows comparison of Australian and overseas strains. This information helps inform the risk to industry and the response to detections in poultry.

In 2024, Wildlife Health Australia (WHA) supported the jurisdictional responses to the H7 high pathogenicity avian influenza (HPAI) outbreaks in poultry and provided incident information in relation to wild birds.[29,30] Enhanced general surveillance was undertaken as part of the response to these outbreaks in poultry.[31] Activities included raising awareness and requesting reports of sick and dead wild birds from locations surrounding the affected properties and across the affected jurisdictions.

Since October 2021, H5 HPAI has caused ongoing outbreaks of disease in wild birds throughout the Americas, Europe, Asia, Africa and Antarctica. Considering the unprecedented number of global HPAI outbreaks in wild birds and poultry and the

29 wildlifehealthaustralia.com.au/Incidents/Incident-Information/high-pathogenicity-avian-influenza-h7-outbreaks-in-poultry-victoria-nsw-and-act-may-june-2024

30 wildlifehealthaustralia.com.au/News-Room/News-Media-Releases/wildlife-health-australia-update-on-avian-influenza-and-wild-birds-1

31 *Animal Health Surveillance Quarterly*; vol 29(2): 4–6. animalhealthaustralia.com.au/ahsq

dramatic increase in geographic coverage, WHA has continued to support Australia's national preparedness and response activities.

For more information and resources: **wildlifehealthaustralia.com.au/Incidents/Incident-Information/high-pathogenicity-avian-influenza-information**.

See also the case study on page 10.

As part of general surveillance, avian influenza virus and avian paramyxovirus 1 were also excluded in wild bird morbidity and mortality events (see page 50).

Further information on the National Avian Influenza Wild Bird Surveillance Program is available on WHA's website, in the *Avian Influenza in Wild Birds* fact sheet[32] and Wild Bird Newsletter.[33]

Antimicrobial resistance surveillance

Although there are fewer impacts of antimicrobial resistance (AMR) on animal health in Australia than in some other countries, AMR surveillance is important for understanding the risk of AMR to animal health and for making informed decisions about antimicrobial use.

Since 2015, the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) has worked with relevant industry organisations to conduct national surveys to monitor AMR levels in pork, chicken meat, chicken eggs, salmon and barramundi. Resistance was low or negligible to antimicrobials that are medically important for human health.

For the results from the national chicken AMR surveys:

chicken.org.au/wp-content/uploads/2023/07/Chicken-Meat-AMR-survey-Final-Report_2022_Final-1.pdf

australianeggs.org.au/assets/research/documents/Egg-industry-AMR-survey-Final-Report2_May-2021.pdf

chicken.org.au/wp-content/uploads/2023/07/Chicken-Meat-AMR-survey-Final-report-1.pdf

For more information on AMR initiatives, see pages 24 and 26.

32 wildlifehealthaustralia.com.au/Portals/0/ResourceCentre/FactSheets/Avian/Avian_influenza_in_wild_birds_in_Australia.pdf

33 wildlifehealthaustralia.com.au/Resource-Centre/Surveillance-Reports

3

Aquatic animal health status

This chapter provides details on the status of aquatic animal health in Australia including disease events in 2024.

3.1 Status of aquatic animal health in Australia

The World Organisation for Animal Health (WOAH) currently includes 11 finfish diseases, 7 mollusc diseases, 10 crustacean diseases and 3 amphibian diseases on its notifiable diseases of aquatic animals list.[34] Australia is free from most of these diseases. Australia's status for each WOAH-listed aquatic animal disease agent in 2024 is shown in Table 3.1. For WOAH-listed diseases that are present, the maps in Figure 3.1 indicate the states and territories where the diseases have been reported.

Table 3.1 Australia's status for WOAH-listed disease agents of aquatic animals in 2024[a]

Agent	Status
Finfish	
***Aphanomyces invadans* (epizootic ulcerative syndrome)**	Last reported 2022
Cyprinid herpesvirus 3 (koi herpesvirus)	Never reported
Epizootic haematopoietic necrosis virus	Reported 2024
Gyrodactylus salaris	Never reported
HPR-deleted or HPR0 infectious salmon anaemia virus	Never reported
Infectious haematopoietic necrosis virus	Never reported
Infectious spleen and kidney necrosis virus (*Megalocytivirus pagrus 1* genotype)	Exotic
Red sea bream iridovirus (*Megalocytivirus pagrus 1* genotype)	Never reported
Salmonid alphavirus	Never reported
Spring viraemia of carp virus	Never reported
Tilapia lake virus	Never reported
Turbot reddish body iridovirus (*Megalocytivirus pagrus 1* genotype)	Never reported
Viral haemorrhagic septicaemia virus	Never reported
Molluscs	
Bonamia exitiosa	Last reported 2019
Bonamia ostreae	Never reported
Haliotid herpesvirus 1 (abalone herpesvirus)	Reported 2024
Marteilia refringens	Never reported
Perkinsus marinus	Never reported
Perkinsus olseni	Last reported 2022
Xenohaliotis californiensis	Never reported

Continued

34 woah.org/en/what-we-do/standards/codes-and-manuals/aquatic-code-online-access

Agent	Status
Crustaceans	
***Aphanomyces astaci* (crayfish plague)**	Never reported
Decapod iridescent virus 1	Never reported
***Hepatobacter penaei* (necrotising hepatopancreatitis)**	Never reported
Infectious hypodermal and haematopoietic necrosis virus	Reported 2024
Infectious myonecrosis virus	Never reported
***Macrobrachium rosenbergii* nodavirus (white tail disease)**	Last reported 2008
Taura syndrome virus	Never reported
***Vibrio parahaemolyticus* (acute hepatopancreatic necrosis disease)**	Never reported
White spot syndrome virus	Reported 2024
Yellow head virus genotype 1	Never reported
Amphibians	
Batrachochytrium dendrobatidis	Reported 2024
Batrachochytrium salamandrivorans	Never reported
***Ranavirus* species**	Last reported 2008

a Aquatic animal diseases that were reportable to the WOAH in 2024 are those listed in the WOAH Aquatic Animal Health Code (2024).

3.2 National list of reportable diseases of aquatic animals

Australia's national list of reportable diseases of aquatic animals[35] includes all aquatic animal diseases currently listed by the World Organisation for Animal Health (WOAH) and other aquatic animal diseases of national significance. Consistent and accurate reporting, including negative reporting, is important to demonstrate Australia's claims of freedom from diseases of international significance, which further supports trade of seafood products and our biosecurity measures. Our disease reporting demonstrates transparency to trading partners and a commitment to disease management and biosecurity. Australia reviews its list annually, considering any changes to the WOAH list, new scientific information on listed diseases, and new and emerging diseases.

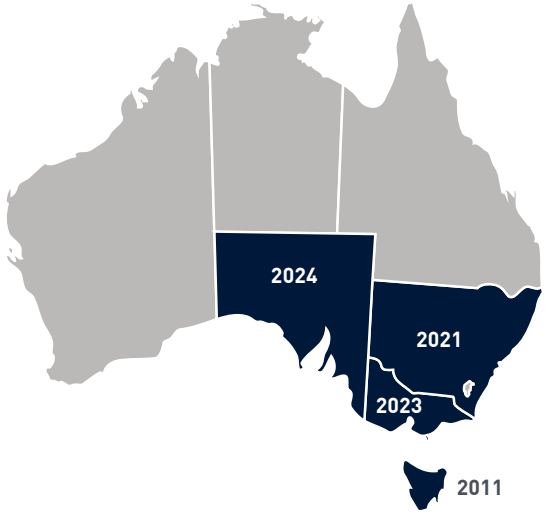
Table 3.2 shows Australia's status for other aquatic animal disease agents of national significance that are not listed on the WOAH Aquatic Animal Health Code for 2024.

35 agriculture.gov.au/agriculture-land/animal/aquatic/reporting/reportable-diseases

Table 3.2 Australia's status for other significant disease agents of aquatic animals in 2024

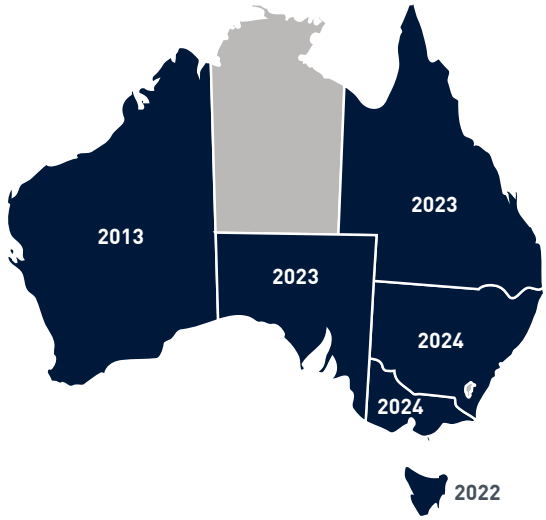
Agent	Status
Finfish	
Aeromonas salmonicida – atypical strains	Last reported 2021
Aeromonas salmonicida subsp. *Salmonicida* (furunculosis)	Never reported
Betanodavirus (viral encephalopathy and retinopathy)	Reported 2024
Edwardsiella ictaluri (enteric septicaemia of catfish)	Last reported 2014
Infectious pancreatic necrosis virus	Never reported
Myxobolus cerebralis (whirling disease)	Never reported
Piscirickettsia salmonis (piscirickettsiosis)	Reported 2024
Renibacterium salmoninarum (bacterial kidney disease)	Never reported
Scale drop disease virus	Never reported
Singapore grouper iridovirus (ranavirus)	Never reported
Yersinia ruckeri – Hagerman strain (enteric redmouth disease)	Never reported
Molluscs	
Marteilia sydneyi	Reported 2024
Marteilioides chungmuensis	Never reported
Mikrocytos mackini	Never reported
Ostreid herpesvirus 1	Last reported 2022
Crustaceans	
Enterocytozoon hepatopenaei	Never reported
Gill-associated virus	Reported 2024
Monodon slow growth syndrome	Never reported

Haliotid herpesvirus 1 (abalone herpesvirus)

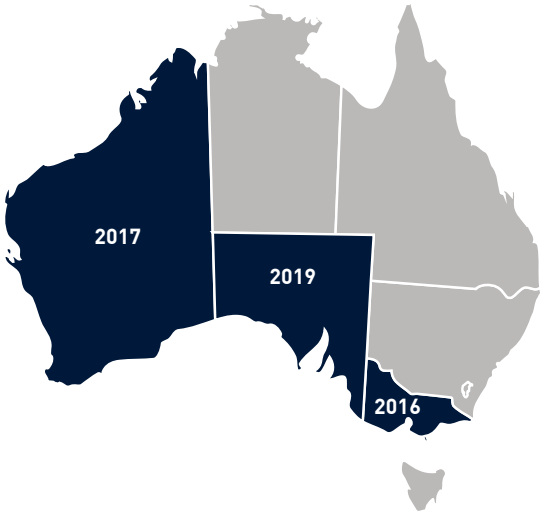


***Aphanomyces invadans* (epizootic ulcerative syndrome)**

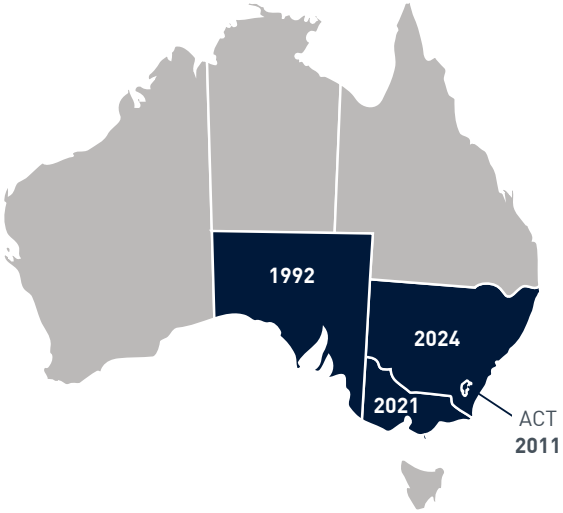
Batrachochytrium dendrobatidis



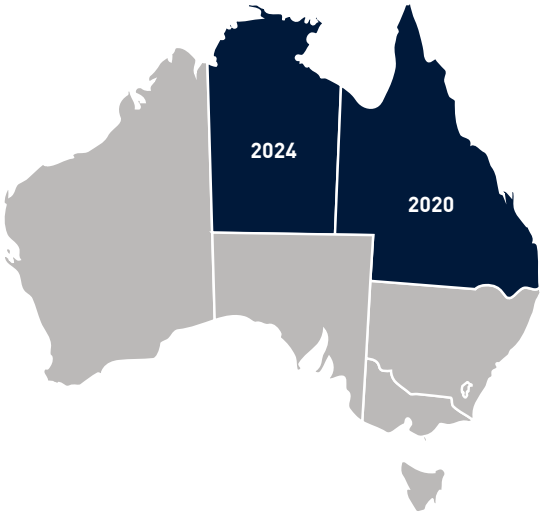
Bonamia exitiosa



Epizootic haematopoietic necrosis virus



Infectious hypodermal and haematopoietic necrosis virus



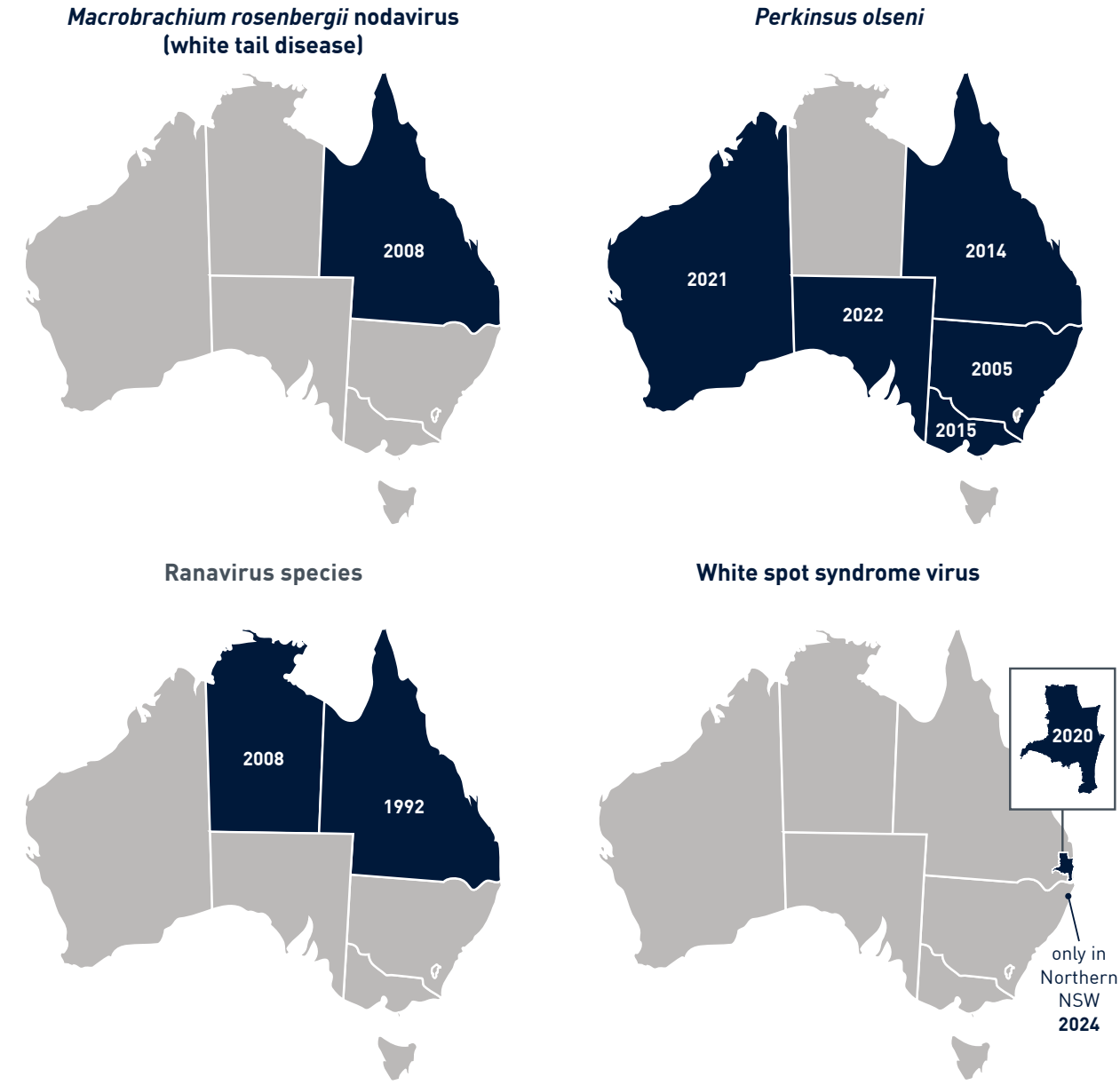


Figure 3.1 Distribution of WOAH-listed aquatic animal diseases in Australia

3.3 National exotic disease exclusion testing of aquatic animals in 2024

During 2024, national exotic disease exclusion testing of aquatic animals was conducted at the Australian Centre for Disease Preparedness, the national reference laboratory for diseases of aquatic animals. The purpose of the testing was to detect or exclude nationally reportable diseases (Table 3.3).

Table 3.3 National reportable disease investigations of aquatic animals in 2024 – total number of submissions and samples per species

Species	Total number of submissions	Total number of samples
Amphibians	2	2
Crustaceans	3	51
Finfish	51	477
Molluscs	15	288

3.4 Aquatic animal disease events in 2024

Abalone herpesvirus in South Australia

Abalone herpesvirus (AbHV), also known as haliotid herpesvirus 1, is a reportable disease that causes increased mortality in abalone, with several species known to be susceptible to infection with AbHV. Abalone herpesvirus is the causative agent of abalone viral ganglioneuritis (AVG).

In February 2024, AbHV was detected in wild abalone in South Australia for the first time. The detection followed observation of dead and dying abalone in an area near Port MacDonnell. Abalone herpesvirus had been detected previously in wild abalone populations in Victoria close to the Victoria–South Australia border. The detection represented an extension of the range of the same strain of AbHV which has been detected in wild abalone populations in Victoria since 2006.

An emergency animal disease response plan and control zone were implemented around the affected area by the South Australian Government. The plan included control measures to mitigate the risk of human-mediated spread of AbHV from the control zone (e.g. via fishing activities) and surveillance to determine the extent of the disease in wild abalone populations in South Australia.

Abalone herpesvirus was first detected in Victoria in farmed abalone in 2005 and in wild abalone in 2006. It was eradicated from farmed populations but is considered endemic in some wild populations in Victoria. In Tasmania, AVG has not been observed in wild populations but has been observed in abalone in holding and aquaculture facilities. Abalone herpesvirus has not been detected in New South Wales, the Northern Territory, Queensland or Western Australia. Some jurisdictions such as New South Wales, Victoria and Western Australia

have movement restrictions and management arrangements in place to prevent introduction of the disease.

White spot syndrome virus in New South Wales

Infection with white spot syndrome virus (WSSV), also called white spot disease (WSD), is a reportable disease that causes increased mortalities in farmed crustaceans, including prawns, crabs, yabbies and lobsters.[36,37,38] White spot syndrome virus was first detected in Australia in 2016, and biosecurity measures are in place to limit the risk of spread of WSSV from the few affected zones in South East Queensland and northern New South Wales to the WSSV-free zones of Australia.[39,40]

In May 2024, WSSV was detected in wild-caught school prawns (*Metapenaeus macleayi*) collected from the inshore ocean areas outside the mouth of the Evans and Richmond rivers, New South Wales. This sampling was part of an ongoing WSSV surveillance program conducted in areas outside of the existing South East Queensland control zone and separate to the surveillance for the Clarence River control zone in northern New South Wales. The strain of WSSV detected in this area was similar to that previously detected in New South Wales in 2022 and 2023, and different to that detected in South East Queensland in 2016. A new control zone was established with control measures in place to mitigate the potential human-mediated spread of WSSV beyond the affected zone. Ongoing surveillance is being conducted in and around the Evans and Richmond rivers control zone to monitor the status of WSSV in this zone.

See the case study on page 62 for further information about WSD in Australia.

36 woah.org/en/what-we-do/standards/codes-and-manuals

37 agriculture.gov.au/agriculture-land/animal/aquatic/reporting/reportable-diseases

38 agriculture.gov.au/agriculture-land/animal/aquatic/aquatic_animal_diseases_significant_to_australia_identification_field_guide

39 outbreak.gov.au/current-outbreaks/white-spot-syndrome-virus

40 agriculture.gov.au/agriculture-land/animal/aquatic/reporting#national-surveillance-program-for-white-spot-syndrome-virus

CASE STUDY

Management of white spot syndrome virus in Australia

Infection with white spot syndrome virus (WSSV), also called white spot disease (WSD), is a notifiable disease listed by the World Organisation for Animal Health (WOAH)[41] and is listed nationally in Australia.[42] All decapod crustaceans are considered susceptible to WSD.[43] White spot disease outbreaks in farmed prawns are characterised by high and rapid mortalities of up to 100%. White spot syndrome virus poses a significant ongoing threat to the Australian prawn industry, which was projected to reach an estimated nominal production value of $484 million in 2023–2024.[44]

Prior to 2016, Australia was considered free of WSSV.[45] Since then, Australia has had a small number of WSD outbreaks in South East Queensland and northern New South Wales prawn farms, and WSSV has been detected in wild crustaceans during active surveillance. The strain of WSSV detected in Queensland is genetically distinct from that detected in New South Wales.

Industry and governments responded aggressively to eradicate WSD from the affected farms and implement ongoing control measures, including movement restrictions and surveillance to mitigate spread of the virus to the rest of Australia. As a result of the outbreaks, there are 3 control zones within Australia: one in South East Queensland and two in northern New South Wales.

41 woah.org/en/what-we-do/standards/codes-and-manuals/aquatic-code-online-access

42 agriculture.gov.au/agriculture-land/animal/aquatic/reporting/reportable-diseases

43 agriculture.gov.au/agriculture-land/animal/aquatic/aquatic_animal_diseases_significant_to_australia_identification_field_guide

44 agriculture.gov.au/abares/research-topics/fisheries/fisheries-economics/fisheries-forecasts

45 outbreak.gov.au/current-outbreaks/white-spot-syndrome-virus

Protecting Australia's aquatic animal industries from the threat of disease requires biosecurity measures to be applied offshore, at the border and onshore. Surveillance and monitoring of the highest risk areas is critical, along with border control activities focused on managing potential biosecurity threats.

Following the WSD outbreak in 2016, the Australian Government Department of Agriculture, Fisheries and Forestry undertook a review of the import conditions for prawns and prawn products. Completed in 2023, the review assessed the biosecurity risks of importing non-viable, farm-sourced, frozen, uncooked whole prawns intended for human consumption from all countries.[46] Australia currently permits the importation of

46 agriculture.gov.au/biosecurity-trade/policy/risk-analysis/animal/prawns/background-prawn-products-review

prawns providing that they meet specific import requirements to achieve Australia's appropriate level of protection. The import conditions for prawns and prawn products for human consumption are published on BICON (the Australian Biosecurity Import Conditions website).[47]

Measures to ensure Australia's import conditions are being met include pre-border and border disease testing, retail testing and working with exporting countries to assist them in meeting Australia's import conditions. Post-border verification testing of retail-packaged prawns for WSSV began in 2018. Monitoring and enforcement of Australia's stringent import conditions to manage the biosecurity risk associated with imported prawns is ongoing.

Australia's nationally coordinated aquatic animal disease response activities, disease surveillance systems, import conditions and ongoing biosecurity management measures continue to protect Australia's valuable aquaculture and fishery industries across our vast continent, and maintain freedom for the majority of Australia and its prawn production areas.

Read more about WSD in Australia: **outbreak.gov.au/current-outbreaks/white-spot-syndrome-virus**

Read more about the review of the import conditions for prawns and prawn products: **agriculture.gov.au/biosecurity-trade/policy/risk-analysis/animal/prawns**

47 bicon.agriculture.gov.au/BiconWeb4.0

4

Appendices

Appendix A – Livestock and aquatic industries in Australia

The data presented in this appendix have been sourced from the Australian Bureau of Agricultural and Resource Economics (ABARES) Agricultural Commodities Report[48] (March 2025) and the Australian Bureau of Statistics (ABS) Agricultural Commodities Report for 2021–22[49] (as at 17 January 2023).

ABARES is the research arm of the Australian Government Department of Agriculture, Fisheries and Forestry. Amongst other functions, ABARES publishes official statistics on agriculture, fish and forestry sectors using data accessed through relationships with national and state organisations and industry bodies, and by conducting surveys. Interactive visual tools such as the Farm Data Portal and the Australian Agricultural Census 2020–21 visualisations are also available on the ABARES website which showcase agricultural livestock data in a simple and intuitive way, in the form of maps and charts.

See the interactive visual tools and other agricultural data resources: **agriculture.gov.au/abares/data**.

Table A1 Sheep and cattle numbers by state, 2021–22

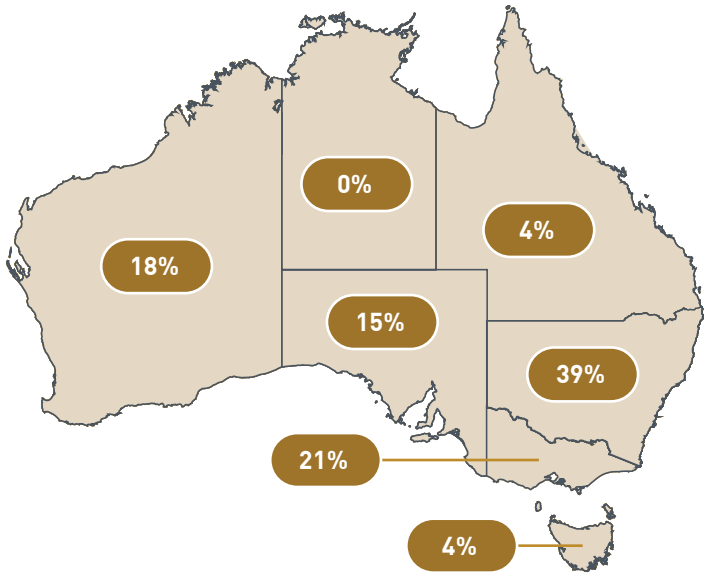
	Unit	ACT	NSW	NT	Qld	SA	Tas	Vic	WA	National
Sheep	'000 head	71	27,149	0	2,814	10,594	2,567	14,623	12,417	70,235
Beef cattle	'000 head	-*	5,876	1,906	13,222	1,146	556	2,853	2,256	27,816
Dairy cattle	'000 head	-	268	-	78	96	303	1,228	89	2,062

Source: ABS.
Sheep numbers as at June 2022.[50] Beef and dairy cattle numbers for 2023–24.
ACT = Australian Capital Territory; NSW = New South Wales; NT = Northern Territory; Qld = Queensland; SA = South Australia; Tas = Tasmania; Vic = Victoria; WA = Western Australia.
*ACT beef cattle herd data included under NSW.

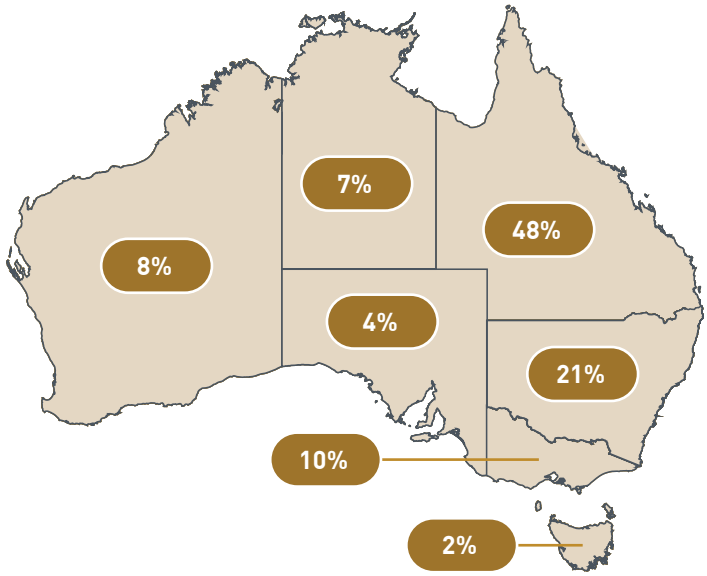
48 agriculture.gov.au/abares/research-topics/agricultural-outlook/march-2025

49 The 2021–22 data in Table A1 and Figure A1 have not changed since the Animal Health in Australia Annual Report 2022.

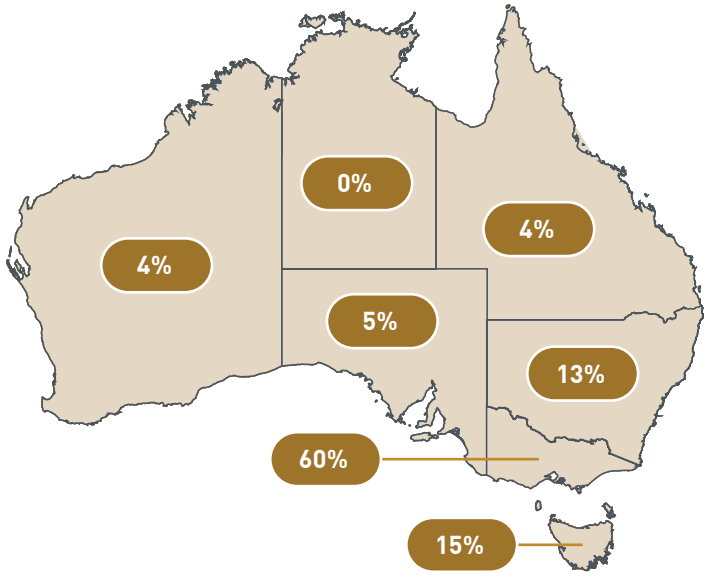
50 abs.gov.au/statistics/industry/agriculture/agricultural-commodities-australia/2021-22



Sheep flock by state
2021–22



Beef cattle herd by state
2021–22



Dairy cattle herd by state
2021–22

Figure A1 Sheep and cattle numbers by state, 2021–22

Table A2 Australian livestock statistics

	Unit	2021–22	2022–23	2023–24[k]
Livestock numbers				
Sheep	million	72,552	70,500	68,470
Total Cattle	million	29,878	29,701	28,987
Beef cattle	million	26,341	26,587	27,816
Dairy cattle	million	2,383	2,148	2,062
Pigs	million	2,604	2,643	2,713
Livestock slaughterings				
Sheep	'000 head	6,232	8,668	10,399
Lamb	'000 head	20,866	22,733	27,146
Cattle and calves	'000 head	6,148	6,598	8,080
Pigs	'000 head	5,490	5,644	5,799
Chickens	million	698	711	734
Goats	'000 head	1,536	2,019	3,031
Meat produced[a]				
Mutton	kt (cw)	164	221	263
Lamb	kt (cw)	513	557	653
Beef and veal	kt (cw)	1,878	2,015	2,397
Pork	kt (cw)	439	453	468
Poultry	kt (cw)	1,405	1,420	1,495
Goat meat	kt (cw)	24	34	44
Livestock products				
Wool[b]	kt (gr. eq.)	391	406	411
Milk[c]	ML	8,554	8,127	8,376
Eggs	million dozen	336	357	338
Meat exports				
Mutton	kt (sw)	158	192	237
Lamb	kt (sw)	288	308	392
Beef and veal	kt (sw)	940	1,011	1,288
Pig meat	kt (sw)	29	34	43
Chicken meat	kt (sw)	51	49	50
Goat meat	kt (sw)	21	25	42
Kangaroo meat	kt (sw)	2	2	2
Camel meat	kt (sw)	1	1	1

Continued

	Unit	2021–22	2022–23	2023–24[k]
Live animal exports				
Live sheep[d]	'000 head	489	676	507
Live feeder/slaughter cattle[e]	'000 head	520	485	611
Live breeder cattle[f]	'000 head	97	105	55
Live goats	'000 head	3	11	15
Live camels	head	661	445	844
Live buffalo	head	2,207	4,355	2,018
Gross value of livestock production				
Sheep[g]	$m	848	781	438
Lamb[g]	$m	3,997	3,699	3,887
Cattle and calves[g,h]	$m	14,133	13,904	12,841
Pigs[g]	$m	1,565	1,673	1,834
Poultry	$m	3,178	3,670	4,057
Goats	$m	213	164	92
Cattle exported live[i]	$m	1,188	1,155	870
Sheep exported live[d]	$m	85	85	46
Goats exported live	$m	2	7	8
Wool[b]	$m	3,230	3,133	2,815
Milk[j]	$m	4,872	6,082	6,234
Eggs	$m	967	1,144	1,174

a Includes carcass equivalent of canned meats.
b Includes shorn wool (includes crutching), dead and fellmongered wool, and wool exported on skins.
c Includes the whole milk equivalent of farm cream intake.
d Includes breeding stock.
e Includes buffalo.
f Includes dairy cattle and buffalo.
g Excludes skin and hide values.
h Includes dairy cattle slaughtered.
i Includes all bovine for feeder/slaughter, breeding and dairy purposes.
j Milk intake by factories and valued at the farm gate.
k ABARES estimate.
Sources: ABARES; ABS.

Table A3 Australian fisheries production

	Unit	2021–22	2022–23
Volume of fisheries production			
Tuna	kt	12	12
Salmonids[a]	kt	79	75
Other fish	kt	138	150
Prawns	kt	25	29
Rock lobster	kt	10	11
Other crustaceans	kt	5	5
Abalone	kt	3	3
Scallop	kt	4	5
Oyster	kt	12	12
Other molluscs	kt	9	11
Other not included elsewhere	kt	-	-
Total	**kt**	**295**	**314**
Value of fisheries production			
Tuna	$m	142	160
Salmonids[a]	$m	1,150	1,110
Other fish	$m	677	700
Prawns	$m	450	509
Rock lobster	$m	383	438
Other crustaceans	$m	93	95
Abalone	$m	130	129
Scallop	$m	11	19
Oyster	$m	150	180
Other molluscs	$m	149	153
Other not included elsewhere	$m	105	102
Total	**$m**	**3,438**	**3,595**
Exports of fisheries production			
Seafood products – volume	kt	60	56
Seafood products – value	$m	1,267	1,399
Other marine products – value	$m	40	73

a Includes salmon and trout production.

Sources: ABARES; ABS; Australian Fisheries Management Authority; Department of Fisheries, Western Australia; Department of Primary Industries, New South Wales; Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Environment and Primary Industries; Northern Territory Department of Primary Industry and Fisheries; Primary Industries and Regions, South Australia; South Australian Research and Development Institute.

Table A4 Australian aquaculture production[a]

	Unit	2021–22	2022–23
Volume			
Fish			
Salmonids[b]	kt	79	75
Tuna	kt	8	8
Other[c]	kt	11	14
Total	**kt**	**98**	**98**
Crustaceans			
Prawns	t	9,450	10,038
Total	**t**	**9,554**	**10,123**
Molluscs			
Edible oyster	kt	12	12
Pearl oyster	kt	0	0
Abalone	kt	1	1
Total	**kt**	**17**	**18**
Production not included elsewhere[d]	kt	2	1
Total (all categories)	**kt**	**129**	**127**
Value			
Fish			
Salmonids[b]	$m	1,150	1,110
Tuna	$m	110	120
Other[c]	$m	144	203
Total	**$m**	**1,404**	**1,434**
Crustaceans			
Prawns	$m	181	217
Total	**$m**	**185**	**221**
Molluscs			
Edible oyster	$m	150	180
Pearl oyster	$m	65	75
Abalone	$m	26	21
Total	$m	**276**	**315**

Continued

	Unit	2021–22	2022–23
Production not included elsewhere[d]	$m	80	19
Total (all categories)	**$m**	**1,945**	**1,988**

a Excludes hatchery production, crocodiles, microalgae and aquarium worms.

b Includes salmon and trout production.

c Includes eel, other native fish and aquarium fish.

d Includes aquaculture production not elsewhere specified because of confidentiality restrictions. In Victoria, this includes warmwater finfish, ornamental fish, other shellfish, shrimps and aquatic worms.

Sources: ABARES; Australian Fisheries Management Authority; Department of Fisheries, Western Australia; Department of Primary Industries, New South Wales; Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Environment and Primary Industries; Northern Territory Department of Primary Industry and Fisheries; Primary Industries and Regions, South Australia; South Australian Research and Development Institute.

Appendix B – Disease investigations of notifiable animal diseases of terrestrial animals

In 2024, testing in animal health laboratories supported a total of 6,460 disease investigations (Table B1) to detect or exclude one or more national notifiable diseases of terrestrial animals[51] (excluding testing of wildlife and feral animals). Note that more than one disease may be investigated for a single disease event. In addition, a single investigation may involve more than one animal.

In 2024, surveillance initiatives continued to include a strong focus on testing for lumpy skin disease in cattle and high pathogenicity avian influenza (HPAI) in birds in response to the changed distribution of these diseases in overseas countries, and in response to the H7 HPAI outbreaks that occurred during 2024 in Australia (see page 41, section 2.3 of this report for further information).

Table B1 Investigations of national notifiable terrestrial animal diseases, 2024

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Anatid herpesvirus-1	**Birds***	**National Total**	**4**	**0**	**4**
		NSW	3	0	3
		Qld	1	0	1
African horse sickness virus	**Donkeys**	**National Total**	**1**	**0**	**1**
		Qld	1	0	1
	Horses	**National Total**	**23**	**0**	**23**
		NSW	3	0	3
		NT	3	0	3
		Qld	14	0	14
		WA	3	0	3
African swine fever virus	**Pigs**	**National total**	**44**	**0**	**44**
		NSW	3	0	3
		NT	1	0	1
		Qld	17	0	17
		SA	3	0	3
		Vic	1	0	1
		WA	19	0	19

Continued

*Birds = domestic birds (poultry, aviary and caged birds)

51 agriculture.gov.au/biosecurity-trade/pests-diseases-weeds/animal/notifiable

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Alcelaphine herpesvirus-1 (malignant catarrhal fever, wildebeest-associated)	**Cattle**	**National total**	**5**	**0**	**5**
		Tas	2	0	2
		WA	3	0	3
Anthrax	**Camelids**	**National total**	**3**	**0**	**3**
		NSW	2	0	2
		Qld	1	0	1
	Cattle	**National total**	**130**	**2[a]**	**128**
		NSW	78	0	78
		Qld	4	0	4
		Tas	2	0	2
		Vic	40	2	38
		WA	6	0	6
	Deer	**National total**	**1**	**0**	**1**
		Vic	1	0	1
	Dogs	**National total**	**1**	**0**	**1**
		Qld	1	0	1
	Goats	**National total**	**3**	**0**	**3**
		NSW	2	0	2
		Vic	1	0	1
	Horse	**National total**	**3**	**0**	**3**
		NSW	2	0	2
		Vic	1	0	1
	Sheep	**National total**	**59**	**0**	**59**
		NSW	40	0	40
		SA	1	0	1
		Vic	15	0	15
		WA	3	0	3
Aujeszky's disease virus	**Dogs**	**National total**	**1**	**0**	**1**
		NT	1	0	1
	Pigs	**National total**	**7**	**0**	**7**
		NT	1	0	1
		Qld	4	0	4
		WA	2	0	2
	Sheep	**National total**	**1**	**0**	**1**
		SA	1	0	1

Continued

a For more information refer to the article 'Anthrax in Victoria' on page 42, section 2.3 of this report.

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Australian bat lyssavirus	**Cats**	**National total**	**2**	**0**	**2**
		NSW	2	0	2
	Dogs	**National total**	**3**	**0**	**3**
		NSW	1	0	1
		NT	1	0	1
		Qld	1	0	1
	Donkeys	**National total**	**1**	**0**	**1**
		Qld	1	0	1
	Horses	**National total**	**25**	**0**	**25**
		NSW	1	0	1
		Qld	24	0	24
	Sheep	**National total**	**1**	**0**	**1**
		SA	1	0	1
Bluetongue (clinical disease)	**Camelids**	**National total**	**1**	**0**	**1**
		NSW	1	0	1
	Cattle	**National total**	**28**	**0**	**28**
		NSW	6	0	6
		Qld	1	0	1
		Vic	1	0	1
		WA	20	0	20
	Goats	**National total**	**4**	**0**	**4**
		NSW	3	0	3
		Qld	1	0	1
	Sheep	**National total**	**93**	**37[b]**	**56**
		NSW	77	37	40
		Qld	2	0	2
		Tas	1	0	1
		WA	13	0	13
Bovine anaplasmosis (in tick-free areas)	**Cattle**	**National total**	**41**	**0**	**41**
		NSW	35	0	35
		WA	6	0	6
Bovine babesiosis (in tick-free areas)	**Cattle**	**National total**	**45**	**9**	**36**
		NSW	35	8[c]	27
		Qld	1	1	0
		WA	9	0	9

Continued

b The cases occurred within the bluetongue virus transmission zone and were associated with a known serotype. For further information on clinical bluetongue in Australia see page 42, section 2.3 of this report.

c For more information refer to the article 'Bovine babesiosis in New South Wales' on page 43, section 2.3 of this report.

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Bovine viral diarrhoea (type 2)	**Camelids**	**National total**	**1**	**0**	**1**
		Qld	1	0	1
	Cattle	**National total**	**231**	**0**	**231**
		NT	1	0	1
		Qld	193	0	193
		Vic	3	0	3
		WA	34	0	34
	Goats	**National total**	**5**	**0**	**5**
		Qld	5	0	5
Brucella abortus	**Camelids**	**National total**	**1**	**0**	**1**
		NSW	1	0	1
	Cattle	**National total**	**101**	**0**	**101**
		NSW	6	0	6
		Qld	16	0	16
		SA	3	0	3
		Tas	2	0	2
		Vic	40	0	40
		WA	34	0	34
	Goats	**National total**	**1**	**0**	**1**
		Qld	1	0	1
	Horses	**National total**	**1**	**0**	**1**
		NSW	1	0	1
Brucella canis	**Dogs**	**National total**	**53**	**0**	**53**
		NSW	1	0	1
		NT	3	0	3
		Qld	38	0	38
		SA	4	0	4
		Vic	4	0	4
		WA	3	0	3
Brucella melitensis	**Camelids**	**National total**	**1**	**0**	**1**
		NSW	1	0	1
	Sheep	**National total**	**6**	**0**	**6**
		Qld	1	0	1
		WA	5	0	5

Continued

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Brucella suis	Dogs	**National total**	**689**	**127**	**562**
		NSW	498	104[d]	394
		NT	9	0	9
		Qld	175	23	152
		SA	3	0	3
		Vic	4	0	4
	Pigs	**National total**	**10**	**0**	**10**
		NSW	5	0	5
		NT	1	0	1
		Qld	2	0	2
		SA	1	0	1
		Vic	1	0	1
Bungowannah virus (porcine myocarditis)	**Pigs**	**National total**	**1**	**0**	**1**
		Vic	1	0	1
Camelpox virus	**Camelids**	**National total**	**1**	**0**	**1**
		WA	1	0	1
***Chlamydophila abortus* (enzootic abortion of ewes, ovine chlamydiosis)**	**Goats**	**National total**	**5**	**0**	**5**
		Qld	5	0	5
	Sheep	**National total**	**13**	**0**	**13**
		NSW	7	0	7
		Qld	1	0	1
		WA	5	0	5
Classical swine fever virus	**Pigs**	**National total**	**46**	**0**	**46**
		NSW	3	0	3
		NT	1	0	1
		Qld	17	0	17
		SA	3	0	3
		Vic	1	0	1
		WA	21	0	21
Contagious agalactia (clinical disease)	**Goats**	**National total**	**1**	**0**	**1**
		WA	1	0	1
	Sheep	**National total**	**3**	**0**	**3**
		NSW	3	0	3
Contagious caprine pleuropneumonia	**Goats**	**National total**	**1**	**0**	**1**
		NSW	1	0	1
	Sheep	**National total**	**6**	**0**	**6**
		WA	6	0	6

Continued

d See the NSW DPIRD website on brucellosis (*Brucella suis*) in dogs for more information: dpi.nsw.gov.au/biosecurity/animal/humans/brucellosis-in-dogs.

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Duck virus hepatitis	**Birds***	**National total**	**3**	**0**	**3**
		NSW	2	0	2
		Qld	1	0	1
Eastern, Western or Venezuelan equine encephalomyelitis viruses	**Horses**	**National total**	**38**	**0**	**38**
		Qld	25	0	25
		Tas	1	0	1
		WA	12	0	12
***Ehrlichia canis* (ehrlichiosis)[e]**	**Dogs**	**National total**	**126**	**34**	**92**
		NSW	2	1	1
		NT	28	7	21
		Qld	53	11	42
		Vic	6	2	4
		WA	37	13	24
Enzootic bovine leucosis	**Cattle**	**National total**	**25**	**0**	**25**
		NSW	6	0	6
		Qld	7	0	7
		SA	1	0	1
		Tas	1	0	1
		Vic	3	0	3
		WA	7	0	7
Epizootic haemorrhagic disease virus (clinical disease)	**Cattle**	**National total**	**3**	**0**	**3**
		NSW	3	0	3
Equid herpesvirus 1 (equine rhinopneumonitis)	**Horses**	**National total**	**170**	**8**	**162**
		NSW	76	7	69
		Qld	56	0	56
		SA	3	0	3
		Vic	15	1	14
		WA	20	0	20
Equine arteritis virus	**Horses**	**National total**	**8**	**0**	**8**
		NSW	5	0	5
		NT	1	0	1
		Qld	1	0	1
		Vic	1	0	1

Continued

*Birds = domestic birds (poultry, aviary and caged birds)

e The national list of notifiable diseases of terrestrial animals was revised in April 2024, with the removal of *Ehrlichia canis* (ehrlichiosis). Data reported against the previous list for January – June 2024 has been included. For the current list of notifiable diseases see: agriculture.gov.au/pests-diseases-weeds/animal/notifiable.

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Equine encephalosis virus	**Horses**	**National total**	**1**	**0**	**1**
		WA	1	0	1
Equine infectious anaemia	**Horses**	**National total**	**13**	**0**	**13**
		NSW	2	0	2
		NT	2	0	2
		Qld	7	0	7
		SA	1	0	1
		Vic	1	0	1
Equine influenza virus	**Horses**	**National total**	**7**	**0**	**7**
		NSW	1	0	1
		NT	1	0	1
		Qld	1	0	1
		WA	2	0	2
		Vic	2	0	2
Foot and mouth disease virus	**Camelids**	**National total**	**1**	**0**	**1**
		NSW	1	0	1
	Cattle	**National total**	**77**	**0**	**77**
		NSW	27	0	27
		NT	2	0	2
		Qld	10	0	10
		SA	1	0	1
		Tas	3	0	3
		Vic	9	0	9
		WA	25	0	25
	Goats	**National total**	**4**	**0**	**4**
		NSW	3	0	3
		WA	1	0	1
	Pigs	**National total**	**2**	**0**	**2**
		NT	1	0	1
		SA	1	0	1
	Sheep	**National total**	**40**	**0**	**40**
		NSW	15	0	15
		Qld	3	0	3
		SA	1	0	1
		Tas	2	0	2
		Vic	2	0	2
		WA	17	0	17

Continued

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Fowl typhoid	**Birds***	**National total**	**2**	**0**	**2**
		WA	2	0	2
	Chickens	**National total**	**11**	**0**	**11**
		WA	11	0	11
Haemorrhagic septicaemia (*Pasteurella multocida* serotypes 6:b and 6:e)	**Cattle**	**National total**	**4**	**0**	**4**
		WA	4	0	4
	Sheep	**National total**	**1**	**0**	**1**
		NSW	1	0	1
Hendra virus	**Dogs**	**National total**	**1**	**0**	**1**
		NT	1	0	1
	Donkeys	**National total**	**2**	**0**	**2**
		Qld	2	0	2
	Horses	**National total**	**644**	**0**	**644**
		NSW	167	0	167
		NT	7	0	7
		Qld	387	0	387
		SA	42	0	42
		Tas	6	0	6
		Vic	15	0	15
		WA	20	0	20
Infection of honey bees with *Melissococcus plutonius* (European foulbrood)	**Bees**	**National total**	**162**	**44**	**118**
		ACT	5	0	5
		NSW	117	39	78
		Qld	29	4	25
		SA	1	0	1
		Vic	10	1	9
Infection of honey bees with *Paenibacillus larvae* (American foulbrood)	**Bees**	**National total**	**541**	**142**	**399**
		ACT	5	4	1
		NSW	118	47	71
		Qld	49	22	27
		SA	209	34	175
		Vic	160	35	125

Continued

*Birds = domestic birds (poultry, aviary and caged birds)

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Infectious bursal disease virus (Gumboro disease; very virulent and exotic antigenic variant forms)	**Chickens**	**National total**	**2**	**0**	**2**
		WA	2	0	2
Infection with *Trichinella* spp.	**Pigs**	**National total**	**1**	**0**	**1**
		NSW	1	0	1
Influenza A virus in birds[f]	**Birds***	**National total**	**922**	**19[g]**	**903**
		ACT	43	2	41
		NSW	363	8	355
		NT	25	0	25
		Qld	125	0	125
		SA	59	0	59
		Tas	32	0	32
		Vic	205	8	197
		WA	70	1	69
Influenza A viruses in swine	**Pigs**	**National total**	**32**	**2[h]**	**30**
		NSW	1	0	1
		NT	1	0	1
		Qld	11	0	11
		WA	19	2	17
Jaagsiekte sheep retrovirus	**Sheep**	**National total**	**1**	**0**	**1**
		NSW	1	0	1

Continued

*Birds = domestic birds (poultry, aviary and caged birds)

f Excludes testing in wild birds. Refer to the article 'National Avian Influenza Wild Bird Surveillance Program' on page 51, section 2.4 of this report for details on wild bird surveillance.

g Confirmed strains of avian influenza during 2024 were: Victoria: high pathogenicity H7N3 and H7N9; New South Wales: low pathogenicity H6N6 and high pathogenicity H7N8; Australian Capital Territory: high pathogenicity H7N8; Western Australia: low pathogenicity H9N2. For more information regarding the avian influenza outbreak see page 41, section 2.3 of this report.

h These investigations confirmed the presence of H1N1 influenza by PCR and genome sequencing.

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Japanese encephalitis	**Camelids**	**National total**	**3**	**0**	**3**
		NSW	1	0	1
		NT	2	0	2
	Cattle	**National total**	**2**	**0**	**2**
		WA	2	0	2
	Dogs	**National total**	**3**	**0**	**3**
		NT	3	0	3
	Horses	**National total**	**151**	**0**	**151**
		ACT	1	0	1
		NSW	72	0	72
		NT	1	0	1
		Qld	8	0	8
		SA	24	0	24
		Tas	5	0	5
		Vic	25	0	25
		WA	15	0	15
	Pigs	**National total**	**34**	**0**	**34**
		NSW	6	0	6
		NT	1	0	1
		Qld	11	0	11
		SA	3	0	3
		Vic	6	0	6
		WA	7	0	7
	Sheep	**National total**	**1**	**0**	**1**
		SA	1	0	1
Leishmaniasis	**Dogs**	**National total**	**1**	**0**	**1**
		NT	1	0	1
Louping ill	**Sheep**	**National total**	**1**	**0**	**1**
		SA	1	0	1
Lumpy skin disease virus[i]	**Cattle**	**National total**	**143**	**0**	**143**
		NSW	26	0	26
		NT	30	0	30
		Qld	47	0	47
		Vic	2	0	2
		WA	38	0	38

Continued

i Disease investigations of animals exhibiting clinical signs potentially consistent with lumpy skin disease (LSD). For information on additional LSD surveillance activities refer to pages 48 and 49, section 2.4 of this report.

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Maedi-visna	**Sheep**	**National total**	**2**	**0**	**2**
		NSW	1	0	1
		SA	1	0	1
***Mycoplasma mycoides* subsp. *mycoides* (contagious bovine pleuropneumonia)**	**Cattle**	**National total**	**9**	**0**	**9**
		NSW	2	0	2
		SA	1	0	1
		WA	6	0	6
***Mycobacterium avium* (avian tuberculosis)**	**Birds***	**National total**	**2**	**1**	**1**
		NSW	1	0	1
		Vic	1	1	0
	Chickens	**National total**	**4**	**1**	**3**
		Qld	1	1	0
		WA	3	0	3
Mycobacterium bovis	**Cats**	**National total**	**1**	**0**	**1**
		Tas	1	0	1
	Cattle	**National total**	**2**	**0**	**2**
		NSW	1	0	1
		WA	1	0	1
	Dogs	**National total**	**1**	**0**	**1**
		WA	1	0	1
***Mycobacterium tuberculosis* complex**	**Cats**	**National total**	**2**	**0**	**2**
		WA	2	0	2
	Pigs	**National total**	**1**	**0**	**1**
		Qld	1	0	1
	Sheep	**National total**	**1**	**0**	**1**
		WA	1	0	1
New World screw-worm fly (*Cochliomyia hominivorax*)	**Cattle**	**National total**	**1**	**0**	**1**
		NT	1	0	1
	Chickens	**National total**	**1**	**0**	**1**
		NT	1	0	1
	Dogs	**National total**	**4**	**0**	**4**
		NT	3	0	3
		Qld	1	0	1

Continued

*Birds = domestic birds (poultry, aviary and caged birds)

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Newcastle disease virus	**Birds***	**National total**	**658**	**0**	**658**
		ACT	13	0	13
		NSW	287	0	287
		NT	23	0	23
		Qld	113	0	113
		SA	51	0	51
		Tas	28	0	28
		Vic	73	0	73
		WA	70	0	70
Nipah virus encephalitis	**Pigs**	**National total**	**1**	**0**	**1**
		NT	1	0	1
Old World screw-worm fly (*Chrysomya bezziana*)	**Cattle**	**National total**	**2**	**0**	**2**
		NT	1	0	1
		WA	1	0	1
	Chickens	**National total**	**1**	**0**	**1**
		NT	1	0	1
	Dogs	**National total**	**4**	**0**	**4**
		NT	3	0	3
		Qld	1	0	1
Paratuberculosis	**Camelids**	**National total**	**4**	**0**	**4**
		NSW	2	0	2
		Qld	2	0	2
	Cattle	**National total**	**119**	**21**	**98**
		NSW	16	7	9
		NT	2	0	2
		Qld	27	1	26
		Vic	28	11	17
		WA	46	2	44
	Goats	**National total**	**16**	**1**	**15**
		NSW	4	0	4
		Vic	11	1	10
		WA	1	0	1
	Sheep	**National total**	**69**	**30**	**39**
		NSW	10	3	7
		Qld	1	0	1
		SA	3	2	1
		Vic	20	10	10
		WA	35	15	20

Continued

*Birds = domestic birds (poultry, aviary and caged birds)

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Peste des petits ruminants virus	**Sheep**	**National total**	**2**	**0**	**2**
		Tas	2	0	2
Porcine epidemic diarrhoea virus	**Pigs**	**National total**	**9**	**0**	**9**
		NSW	1	0	1
		Qld	3	0	3
		WA	5	0	5
Porcine reproductive and respiratory syndrome virus	**Pigs**	**National total**	**15**	**0**	**15**
		NSW	1	0	1
		Qld	7	0	7
		WA	7	0	7
Post-weaning multi-systemic wasting syndrome	**Pigs**	**National total**	**1**	**0**	**1**
		WA	1	0	1
Pullorum disease	**Chickens**	**National total**	**2**	**0**	**2**
		WA	2	0	2
Rabies virus	**Sheep**	**National total**	**1**	**0**	**1**
		SA	1	0	1
	Dogs	**National total**	**1**	**0**	**1**
		NT	1	0	1
Rift Valley fever virus	**Cattle**	**National total**	**1**	**0**	**1**
		Qld	1	0	1
	Sheep	**National total**	**1**	**0**	**1**
		WA	1	0	1
***Salmonella* abortus-equi**	**Horses**	**National total**	**4**	**0**	**4**
		WA	4	0	4
***Salmonella* Enteritidis in poultry**	**Birds***	**National total**	**2**	**0**	**2**
		Qld	1	0	1
		WA	1	0	1
	Chickens	**National total**	**16**	**1[j]**	**15**
		NSW	2	1	1
		Qld	13	0	13
		WA	1	0	1
Salmonellosis (*Salmonella* Abortusovis)	**Sheep**	**National total**	**5**	**0**	**5**
		WA	5	0	5
Swine vesicular disease virus	**Pigs**	**National total**	**1**	**0**	**1**
		SA	1	0	1

Continued

*Birds = domestic birds (poultry, aviary and caged birds)

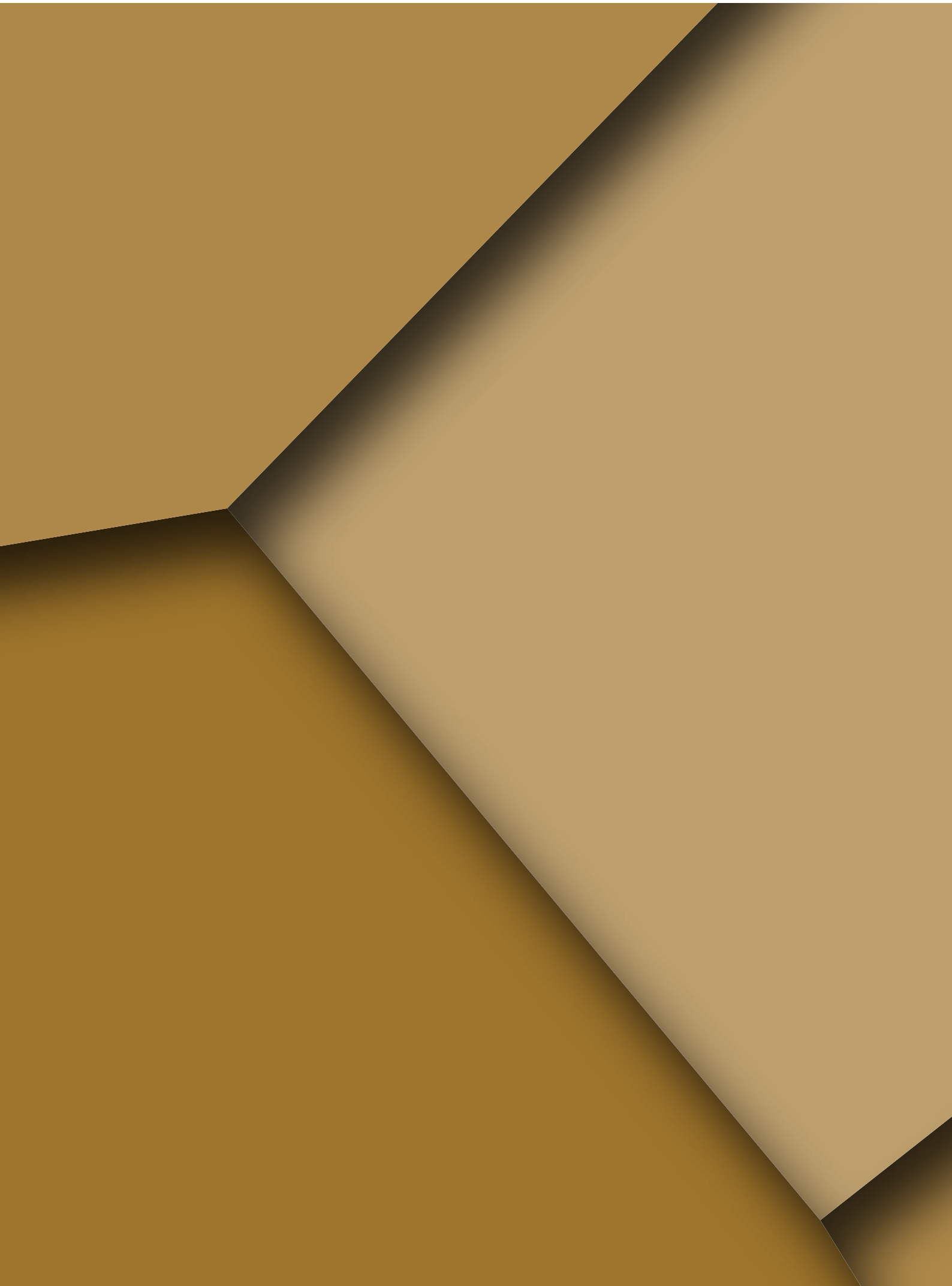
j For more information refer to the article '*Salmonella* Enteritidis in poultry in New South Wales' on page 43, section 2.3 of this report.

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Taylorella equigenitalis (contagious equine metritis)	Horses	**National total**	**1**	**0**	**1**
		WA	1	0	1
Teschovirus encephalomyelitis	Pigs	**National total**	**2**	**0**	**2**
		Qld	1	0	1
		WA	1	0	1
Theileria annulata and *Theileria parva*	Cattle	**National total**	**1**	**0**	**1**
		NT	1	0	1
Transmissible gastroenteritis	Pigs	**National total**	**9**	**0**	**9**
		NSW	1	0	1
		Qld	3	0	3
		WA	5	0	5
Transmissible spongiform encephalopathies (bovine spongiform encephalopathy, chronic wasting disease of deer, feline spongiform encephalopathy, scrapie)	Cattle	**National total**	**146**	**0**	**146**
		NSW	26	0	26
		NT	2	0	2
		Qld	37	0	37
		SA	15	0	15
		Tas	1	0	1
		Vic	55	0	55
		WA	10	0	10
	Goats	**National total**	**5**	**0**	**5**
		NSW	2	0	2
		NT	1	0	1
		Vic	2	0	2
	Sheep	**National total**	**143**	**0**	**143**
		NSW	41	0	41
		Qld	10	0	10
		SA	26	0	26
		Tas	6	0	6
		Vic	49	0	49
		WA	11	0	11

Continued

Disease	Species	Jurisdiction	Number of investigations	Positive results	Negative results
Vesicular stomatitis virus	**Camelids**	**National total**	**1**	**0**	**1**
		NSW	1	0	1
	Cattle	**National total**	**50**	**0**	**50**
		NSW	25	0	25
		Qld	6	0	6
		SA	1	0	1
		Tas	3	0	3
		Vic	8	0	8
		WA	7	0	7
	Goats	**National total**	**4**	**0**	**4**
		NSW	3	0	3
		WA	1	0	1
	Horses	**National total**	**2**	**0**	**2**
		Vic	2	0	2
	Pigs	**National total**	**1**	**0**	**1**
		SA	1	0	1
	Sheep	**National total**	**28**	**0**	**28**
		NSW	14	0	14
		Qld	3	0	3
		SA	1	0	1
		Tas	2	0	2
		Vic	1	0	1
		WA	7	0	7
Warble fly infestation (warble fly myiasis)	**Dogs**	**National total**	**1**	**0**	**1**
		Qld	1	0	1
West Nile virus (clinical disease)	**Camelids**	**National total**	**1**	**0**	**1**
		NSW	1	0	1
	Horses	**National total**	**206**	**0**	**206**
		ACT	1	0	1
		NSW	119	0	119
		Qld	9	0	9
		SA	34	0	34
		Tas	2	0	2
		Vic	24	0	24
		WA	17	0	17
Wesselsbron virus	**Sheep**	**National total**	**1**	**0**	**1**
		WA	1	0	1

ACT = Australian Capital Territory; NSW = New South Wales; NT = Northern Territory; Qld = Queensland; SA = South Australia; Tas = Tasmania; Vic = Victoria; WA = Western Australia



Acronyms and abbreviations

A-UAE CEPA	Australia-United Arab Emirates Comprehensive Economic Partnership Agreement
ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
AbHV	abalone herpesvirus
ABLV	Australian bat lyssavirus
ABS	Australian Bureau of Statistics
ACDP	Australian Centre for Disease Preparedness
AHA	Animal Health Australia
ALFA	Australian Lot Feeders' Association
AMR	antimicrobial resistance
AMS	antimicrobial stewardship
APL	Australian Pork Limited
AVG	abalone viral ganglioneuritis
BICON	Biosecurity Import Conditions system
BSE	bovine spongiform encephalopathy
BTV	bluetongue virus

CDC	Centre for Disease Control (Australian)
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
EADRA	Emergency Animal Disease Response Agreement
FMD	foot and mouth disease
HPAI	high pathogenicity avian influenza
IGAB	*Intergovernmental Agreement on Biosecurity*
ISKNV	infectious spleen and kidney necrosis virus
JEV	Japanese encephalitis virus
LSD	lumpy skin disease
NABSnet	Northern Australia Biosecurity Surveillance Network
NAMP	National Arbovirus Monitoring Program
NAQS	Northern Australia Quarantine Strategy
NBRT	National Biosecurity Response Team
NSDIP	National Significant Disease Investigation Program
NSHMP	National Sheep Health Monitoring Project
PCR	polymerase chain reaction
RD&E	research, development and extension
TSE	transmissible spongiform encephalopathy
WHA	Wildlife Health Australia
WOAH	World Organisation for Animal Health
WSD	white spot disease
WSSV	white spot syndrome virus

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