Australian Government

Department of Agriculture, Fisheries and Forestry

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

A November 2026 progress report



© Commonwealth of Australia 2026

**Ownership of intellectual property rights**
Unless otherwise noted, copyright (and any other intellectual property rights) in this publication is owned by the Commonwealth of Australia (referred to as the Commonwealth).

**Creative Commons licence**
All material in this publication is licensed under a Creative Commons Attribution 4.0 International Licence except content supplied by third parties, logos and the Commonwealth Coat of Arms.



**Cataloguing data**
This publication (and any material sourced from it) should be attributed as: DAFF 2026, *Australia's Animal Sector Antimicrobial Resistance Action Plan 2023 to 2028: A November 2026 progress report*, Department of Agriculture, Fisheries and Forestry, Canberra. CC BY 4.0.

Department of Agriculture, Fisheries and Forestry
GPO Box 858 Canberra ACT 2601
Telephone 1800 900 090
Web agriculture.gov.au

**Disclaimer**
The Australian Government acting through the Department of Agriculture, Fisheries and Forestry has exercised due care and skill in preparing and compiling the information and data in this publication. Notwithstanding, the Department of Agriculture, Fisheries and Forestry, its employees and advisers disclaim all liability, including liability for negligence and for any loss, damage, injury, expense or cost incurred by any person as a result of accessing, using or relying on any of the information or data in this publication to the maximum extent permitted by law.

**Acknowledgement of Country**
We acknowledge the continuous connection of First Nations Traditional Owners and Custodians to the lands, seas and waters of Australia. We recognise their care for and cultivation of Country. We pay respect to Elders past and present, and recognise their knowledge and contribution to the productivity, innovation and sustainability of Australia's agriculture, fisheries and forestry industries.

# Contents

**Purpose** ..... **4**

**Summary** ..... **5**

**Introduction** ..... **6**

**Progress** ..... **7**

Next steps ..... 7

Objective 1: Clear governance for antimicrobial resistance initiatives ..... 8

Objective 2: Prevention and control of infections and the spread of resistance ..... 11

Objective 3: Greater engagement in the combat against resistance ..... 14

Objective 4: Appropriate usage and stewardship practices ..... 15

Objective 5: Integrated surveillance and response to resistance and usage ..... 17

Objective 6: A strong collaborative research agenda across all sectors ..... 21

Objective 7: Strengthen global collaboration and partnerships ..... 25

## Tables

Table 1 Activities supporting Objective 1: Clear governance for antimicrobial resistance initiatives .... 8

Table 2 Activities supporting Objective 2: Prevention and control of infections and the spread of resistance ..... 11

Table 3 Activities supporting Objective 3: Greater engagement in the combat against resistance ..... 14

Table 4 Activities supporting Objective 4: Appropriate usage and stewardship practices ..... 15

Table 5 Activities supporting Objective 5: Integrated surveillance and response to resistance and usage ..... 17

Table 6 Activities supporting Objective 6: A strong collaborative research agenda across all sectors 21

Table 7 Activities supporting Objective 7: Strengthen global collaboration and partnerships ..... 25

# Purpose

*Australia's Animal Sector Antimicrobial Resistance Action Plan 2023 to 2028* is a comprehensive action plan published by the Department of Agriculture, Fisheries and Forestry (the department) in September 2023. It sets out key activities to encourage appropriate antimicrobial use (AMU) and safeguard animal health in the terrestrial and aquatic animal sectors.

This progress report covers action plan activities from September 2023 until September 2026. It summarises implementation progress and efforts and sets a baseline of collected information, which will help to monitor and track progress for the rest of the term. It allows achievements to be recognised and future actions to be prioritised.

# Summary

This progress report describes the way that activities under the 7 objectives of the *Australia's Animal Sector Antimicrobial Resistance Action Plan 2023 to 2028* have been implemented between September 2023 and September 2026.

Progress has been made against most activities. There have been particularly strong advances in internal and external stakeholder engagements, antimicrobial stewardship (AMS) education, prescribing guidelines and guidance, antimicrobial resistance (AMR) surveillance projects, and international collaboration. There are opportunities to build on this progress by strengthening governance, securing sustainable funding and addressing gaps to support more consistent implementation.

In April 2025 and September 2026, animal sector stakeholders were asked to contribute information about their current work that aligns with the action plan's objectives and activities. In 2025, the information was used to identify gaps in coverage and potential new project areas. Responses from April 2025 and September 2026 have been integrated into this report.

Of the 27 activities in the action plan, 3 had been completed, 18 were in progress and 6 had not started at the end of the reporting period. Most activities and initiatives are inherently long term and are ongoing.

# Introduction

*Australia's Animal Sector Antimicrobial Resistance Action Plan 2023 to 2028* is a comprehensive action plan that sets out key animal sector activities to:

- minimise the development and spread of AMR
- preserve the effectiveness and availability of antimicrobials needed to protect human, animal and plant health.

The department published the action plan in September 2023.

The action plan activities align with the 7 objectives of *Australia's National Antimicrobial Resistance Strategy – 2020 and Beyond* (the 2020 strategy). The activities also align with the *One Health Master Action Plan for Australia's National Antimicrobial Resistance Strategy – 2020 and Beyond* (OHMAP).

The action plan's 7 objectives are:

1. Clear governance for antimicrobial resistance initiatives

2. Prevention and control of infections and the spread of resistance

3. Greater engagement in the combat against resistance

4. Appropriate usage and stewardship practices

5. Integrated surveillance and response to resistance and usage

6. A strong collaborative research agenda across all sectors

7. Strengthen global collaboration and partnerships.

The action plan addresses Objective 1.2 of the OHMAP, 'Develop, implement and/or maintain sector-specific action plans'.

The action plan includes AMR priority activities from related national animal sector plans:

- Animalplan 2022 to 2027: Australia's National Action Plan Australia's National Action Plan for Production Animal Health (Animalplan)
- AQUAPLAN 2022–2027: Australia's National Strategic Plan for Aquatic Animal Health (AQUAPLAN)
- Australia's National Action Plan for Health Security 2019–2023 (NAPHS)
- National Animal Health Surveillance Business Plan 2022–2027 (NAHSBP)
- National Animal Health Diagnostics Business Plan 2021–2026 (NAHDBP).

# Progress

This progress report describes the extent to which the activities under the action plan have been implemented. It is based on stakeholder updates, publicly available information and related project information, and focuses on a core of industry, government and research sector partners. It includes:

- implementation progress and efforts
- activity statuses indicated in tables (status ratings should be interpreted as a reporting assessment):
  - completed (that is, completed for reporting purposes)
  - in progress
  - not started
- short descriptions of projects.

Several projects contribute to more than one objective or link to other national plans. Cross-references and links are included where activities overlap.

The action plan is delivered by a broad network of government, research and industry stakeholders. As a result, the department may not have complete information about the degree of implementation and current status of all 27 activities.

Industry and other stakeholders fund and deliver many broader projects that contribute to the action plan. Some of those may not be fully captured in this report.

## Next steps

This progress report summarises implementation efforts at a point in time. Future work will be required to fill gaps in implementation, ensure the timely monitoring and reporting of progress and strengthen governance.

Government will have a strong focus on design of future AMR surveillance and continued strengthening of AMS practices. There will also be ongoing work on One Health governance nationally which will help to support future activities to address AMR. The department will engage with stakeholders to understand the priority of activities that have not yet commenced and to identify leads for priority activities.

Project updates and progress will be monitored annually until 2028 to maintain accountability, identify emerging gaps and inform any changes needed to keep implementation on track.

# Objective 1: Clear governance for antimicrobial resistance initiatives

Objective 1 supports sustained, coordinated and effective animal sector actions that contribute to national, regional and international One Health goals. Progress has been made on most of the activities under Objective 1, including a business plan and surveillance projects.

There are some overlaps between activities across objectives – for example, activity 1.2, which relates to surveillance, is addressed in detail under Objective 5. Table 1 gives a description of activities under Objective 1, with progress indicated by the status column.

**Table 1 Activities supporting Objective 1: Clear governance for antimicrobial resistance initiatives**

| Activity | Linkages | Status |
|---|---|---|
| 1.1 Develop a business case for sustainable funding to undertake national AMR priority actions and initiatives in animal health. | 1.1 OHMAP | Completed |
| 1.2 Develop a national reporting and surveillance system that meets stakeholder and reporting requirements for the collection and reporting of antimicrobial usage (AMU) and AMR data in the animal sectors. | 1.1.2 OHMAP<br>Objective 1 and 2 NAHSBP | In progress |
| 1.3 Contribute to the development of a national monitoring and evaluation framework for the 2020 Strategy and OHMAP. | 1.2.2 OHMAP | Completed |
| 1.4 Review national and international governance arrangements on AMR and AMU across the One Health sectors. | 1.3.1 OHMAP | Not started |
| 1.5 Develop nationally consistent regulations for veterinary prescribing and compounding rights. | 1.4.1 OHMAP | In progress |

# Activity 1.1

**Develop a business case for sustainable funding to undertake national AMR priority actions and initiatives in animal health.**

The department has funded the development of a business case for sustainable funding to combat AMR in the animal health sector. The business case was completed in June 2026. There was extensive consultation across government partners, industry and stakeholders to understand their needs and priorities for AMR in animals.

The final business case highlighted the importance of effective action to livestock productivity and trade and set out low-, medium- and high-investment options.

A business case was also developed as part of discussions between the AMR Vet Collective, the former Animal Industries Antimicrobial Stewardship (AIAS) RD&E Strategy Steering Committee and the former Australian Veterinary Antimicrobial Stewardship organisation. These discussions explored opportunities to integrate functions and establish sustainable funding for long-term national AMS activities. No viable funding pathway was identified, but the process helped to inform future planning.

## Next steps

A summary of the business case for sustainable funding to combat AMR in the animal health sector will be shared with stakeholders in 2027. Opportunities to use the business case to secure sustainable funding will be pursued as they arise.

# Activity 1.2

**Develop a national reporting and surveillance system that meets stakeholder and reporting requirements for the collection and reporting of antimicrobial usage (AMU) and AMR data in the animal sectors.**

In September 2024, the Animal Health Committee (AHC) established an AMR Task Group to identify and address priority areas for government leadership. The group has developed AMR surveillance policy guidance and is considering the design of a national AMR surveillance system. By August 2026, the group had developed a preliminary scope and indicative cost.

The department and CSIRO collaborated on a risk assessment to inform surveillance priorities for AMR in the animal sector. They completed the assessment in May 2026. Risks to animal health, human health and the environment were all in scope. The risk assessment will help in designing future risk-based surveillance so that resources can be used in the surveillance of the hosts and microbes where it is most important to detect emerging resistance.

Meat & Livestock Australia (MLA) funded an AMU data collection and metrics project for the red meat industry. Through the project, MLA developed a way to attribute national sales data by industry sector. This is currently being piloted.

Some progress has also been made on national data and reporting needs. The department has developed internal systems to better manage and visualise antimicrobial sales data from the Australian Pesticides and Veterinary Medicines Authority (APVMA). The department and CSIRO also partnered to develop a prototype national AMR and AMU data platform. The platform integrates

AMR, AMU and residue testing datasets, with the potential to include both public and protected data. It has a web application at the front end and a database at the back end.

### Next steps

The risk assessment will be validated with industry and expert partners in 2027, and a peer-reviewed publication will be prepared. This will include consideration of data systems and dashboards for collating and reporting data.

## Activity 1.3

**Contribute to the development of a national monitoring and evaluation framework for the 2020 Strategy and OHMAP.**

Animal health sector stakeholders, including the department, contributed to the development of a monitoring and evaluation (M&E) framework for the 2020 strategy, funded by the then Department of Health. The framework includes contributions from the human, animal, agricultural, environmental and food safety sectors and was completed in 2023. The Department of Health's framework was used to develop an M&E framework for the action plan.

### Next steps

The M&E framework for the action plan will be implemented from 2027.

## Activity 1.4

**Review national and international governance arrangements on AMR and AMU across the One Health sectors.**

A structured review of governance arrangements has not yet been progressed.

### Next steps

This activity will be considered and prioritised to align with broader conversations about One Health governance.

## Activity 1.5

**Develop nationally consistent regulations for veterinary prescribing and compounding rights.**

In 2026, the Veterinary Compounding and Prescribing Rights Working Group was established under the Agvet Chemicals Subcommittee to explore ways to harmonise veterinary medicines regulation. The group will build on work undertaken by the former Harmonised Agvet Chemical Control of Use Task Group – for example, it will continue to develop a list of medicines prohibited for use in animals.

The AHC AMR Task Group has consolidated a list of antimicrobials prohibited for use in animals.

### Next steps

The Veterinary Compounding and Prescribing Rights Working Group will continue to work towards harmonised veterinary medicines regulation.

# Objective 2: Prevention and control of infections and the spread of resistance

Objective 2 considers the need to reduce disease burden to reduce AMU. Activities under Objective 2 focus on strengthening infection prevention and control (IPC), improving biosecurity measures and providing alternatives to antimicrobials, such as vaccines.

Progress is most advanced in IPC and biosecurity, for which there are advanced government and industry programs that are not specific to AMR. Vaccine and AgTech (short for agricultural technology) activities remain in progress.

**Table 2 Activities supporting Objective 2: Prevention and control of infections and the spread of resistance**

| Activity | Linkages | Status |
|---|---|---|
| 2.1 Promote best practice IPC and biosecurity measures. | 2.2.1 OHMAP<br>Recommendation 10 NAPHS<br>Objective 1 Animalplan<br>Objective 3 Animalplan | In progress |
| 2.2.1 Investigate barriers to and incentives for onshore development and adoption of animal vaccines by manufacturers and animal health workers, respectively. | 2.3.2 OHMAP<br>Objective 6 AQUAPLAN<br>AIAS Strategy | In progress |
| 2.2.2 Identify and leverage funding initiatives for the manufacture of new vaccines and AgTech based on the needs of the animal sector. | 2.3.2 OHMAP<br>Objective 6 AQUAPLAN<br>AIAS Strategy | In progress |

## Activity 2.1

**Promote best practice IPC and biosecurity measures.**

Industry and government have implemented longstanding programs for biosecurity and IPC. Activity 2.1 summarises new or expanded initiatives during the period September 2023 to September 2026.

By preventing and controlling infections, these initiatives reduce the need for AMU and help minimise the development and spread of AMR.

The Australian Pork Industry Quality Assurance Program (APIQ) has a focus on biosecurity improvements for working veterinarians. For example, it has worked on:

- updates to the APIQ Biosecurity Standards between 2024 and 2026
- Voluntary Enhanced Biosecurity Standards for African swine fever, which give producers a clear framework to verify strict on-farm containment and biosecurity controls
- ensuring that industry veterinarians are included in the governance structure of the APIQ Panel.

The Australian lot feeding industry has developed biosecurity protocols, training programs and practical workshops for lot feeders with a focus on emergency animal disease planning. In partnership with MLA, the Australian Lot Feeders' Association (ALFA) enforces strict national standards and offers targeted education (through the ALFA Biosecurity Hub). Since January 2026, all National Feedlot Accreditation Scheme accredited feedlots have to meet expanded mandatory biosecurity management requirements.

Cattle Australia continues to use the Australian Beef Sustainability Framework to publicly track and report on AMS metrics, ensuring international markets are aware of Australia's low-risk status.

MLA published the Refining the ability of livestock industries to mitigate antimicrobial resistance risks through improved biosecurity report in 2023. It bridges the gap between everyday farming and strict international Codex Alimentarius guidelines.

Dairy Australia has made investments in IPC through programs such as Countdown, Healthy Hooves, and Rearing Healthy Calves. Its focus has been on mastitis, lameness and calf disease.

Australian Eggs and the Australian Chicken Meat Federation continue to drive initiatives to promote best-practice IPC and biosecurity measures, such as national standards and compliance manuals to standardise farm biosecurity practices for chicken meat facilities and egg production frameworks. Australian Eggs has invested in developing an extensive library of resources to enhance the capabilities of egg farmers, including Biosecurity Plan Templates and Guidelines and a Virtual Biosecurity Training Tool. A *Salmonella* risk assessment toolkit, developed by Australian Eggs, is still used in 2026 to ensure egg farmers proactively identify and reduce the risk of *Salmonella* in the supply chain.

CSIRO is promoting improvements to AMS practices by offering a self-assessment and benchmarking tool for industries. This project is discussed further under Objective 4.

The AHC AMR Task Group has developed a communications plan to improve consistency of messaging and improve knowledge of biosecurity measures and IPC.

### Next steps

Industries and government will continue to work together to ensure strong and ongoing biosecurity and IPC.

## Activity 2.2.1

**Investigate barriers to and incentives for onshore development and adoption of animal vaccines by manufacturers and animal health workers, respectively.**

CSIRO, through the former AMR Mission, began identifying the portfolio of projects needed to create an Australian Veterinary Vaccine Innovation Agenda as early as 2023. The Accelerating Veterinary Vaccine Adoption project commenced in May 2026 and is ongoing. The project will identify investment needs to support development of accessible veterinary vaccines for Australia's animal industries. It will review registered and overseas vaccines, assess supply chain capacity, and map research and regulatory pathways to improve access, commercial supply and system capability.

### Next steps

The Accelerating Veterinary Vaccine Adoption project is due for completion in December 2027. The Australian Veterinary Vaccine Innovation Agenda will be launched at an in-person Australian Vet Vaccines event, planned for November 2027.

## Activity 2.2.2

**Identify and leverage funding initiatives for the manufacture of new vaccines and AgTech based on the needs of the animal sector.**

Jurisdictions, industry and Animal Medicines Australia (AMA) are exploring several initiatives to identify and leverage funding initiatives for the manufacture of new vaccines and AgTech.

For example, Australian Pork Limited (APL) and MLA are working to develop new vaccines for Japanese encephalitis virus and bovine keratoconjunctivitis, respectively. There is also research through MLA to develop a scour worm (Trichostrongylus) vaccine for ruminants; and mRNA vaccine development has expanded to include border disease virus of sheep and bovine ephemeral fever virus. New innovations in phage therapy for bovine respiratory disease and autogenous vaccines are also being evaluated for feedlot cattle.

Australian Eggs has invested in research for vaccine development investigating suitable vaccine candidates for spotty liver disease and avian pathogenic *Escherichia coli* (APEC) and *Ornithobacterium rhinotracheale* (ORT).

### Next steps

The Accelerating Veterinary Vaccine Adoption project will be used to prioritise funding to develop new vaccines for the animal sector.

# Objective 3: Greater engagement in the combat against resistance

Objective 3 uses ongoing stakeholder engagement to encourage behavioural change to reduce inappropriate AMU. The activities under Objective 3 are intended to improve awareness and understanding of AMR and how to mitigate it. There has been progress in AMS education tools, stewardship and communication planning. Ongoing work includes implementing the communications plan, evaluating behaviour change and securing long-term funding for training platforms.

**Table 3 Activities supporting Objective 3: Greater engagement in the combat against resistance**

| Activity | Linkages | Status |
|---|---|---|
| 3.1 Work with stakeholders to develop and implement an AMU and AMR communications plan. | 3.1.1 and 3.1.2 OHMAP<br>Objective 5 NAHSBP<br>Objective 3.3 Animalplan<br>AIAS Strategy | In progress |
| 3.2 Continue to develop and implement AMR education and training resources and tools, targeted at students, practising veterinarians and paraprofessionals and other animal health stakeholders. | 3.2.1 OHMAP<br>3.3.1 OHMAP<br>3.4.2 OHMAP<br>3.4.3 OHMAP | In progress |

## Activity 3.1

**Work with stakeholders to develop and implement an AMU and AMR communications plan.**

The AHC AMR Task Group has developed a communications plan to support nationally consistent messaging on AMR and AMU, including agreed talking points for use by government.

### Next steps

The task group is working towards implementation of the communications plan.

## Activity 3.2

**Continue to develop and implement AMR education and training resources and tools, targeted at students, practising veterinarians and paraprofessionals and other animal health stakeholders.**

The AMR Vet Collective has included an online AMS training program since 2021. The course includes 9 scenario-centred interactive modules, which are available on the VetAMS website for veterinarians. The course equips participants to become leaders in AMS. An equine-specific module funded by AgriFutures was released in August 2026.

In 2024, the AMR Vet Collective released 2 case studies covering AMS in sheep and feedlot beef funded by Animal Health Australia.

### Next steps

A pig-specific module funded by APL was released in October 2026. Available AMS training resources will continue to be promoted.

# Objective 4: Appropriate usage and stewardship practices

Objective 4 focuses on developing best-practice Australian prescribing guidelines, accreditation standards and behaviour change to encourage the appropriate use of antimicrobials in animals. There has been progress against some activities but work on accreditation standards has not commenced.

**Table 4 Activities supporting Objective 4: Appropriate usage and stewardship practices**

| Activity | Linkages | Status |
|---|---|---|
| 4.1 Develop antimicrobial prescribing guidelines for species such as beef cattle, goats and camelids for which guidelines are not currently available. | 4.1.3 OHMAP<br>4.3.1 OHMAP | In progress |
| 4.2 Develop a set of AMS accreditation standards using existing practice and quality assurance frameworks where possible. | 4.2.1 OHMAP | Not started |
| 4.3 Identify patterns and address barriers to improve selection and targeted use of antimicrobials to improve stewardship practices. | 4.2.2 OHMAP<br>4.2.4 OHMAP | In progress |

## Activity 4.1

**Develop antimicrobial prescribing guidelines for species such as beef cattle, goats and camelids for which guidelines are not currently available.**

The Australian Veterinary Association (AVA), the AMR Vet Collective, Wildlife Health Australia, AMA and MLA have led the development of antimicrobial prescribing guidelines for small animals, pigs, poultry, sheep, horses, wildlife, dairy cattle and feedlot cattle.

The latest published guidelines are *Antibiotic prescribing in Australian wildlife* (2025), *Antimicrobial prescribing guidelines for horses in Australia* (2025) and *Antimicrobial prescribing guidelines for feedlot cattle* (2026).

### Next steps

The AVA has developed guidelines for grass-fed beef, and they are due to be published later in 2026. The University of Melbourne's Asia Pacific Centre for Animal Health (APCAH) and National Centre for Antimicrobial Stewardship (NCAS) are developing guidelines for goats, and they are due for publication in 2028.

## Activity 4.2

**Develop a set of AMS accreditation standards using existing practice and quality assurance frameworks where possible.**

Work to develop formal accreditation standards and quality assurance frameworks has not yet been commenced.

### Next steps

The priority of this activity will be considered in the remaining period of the action plan.

## Activity 4.3

**Identify patterns and address barriers to improve selection and targeted use of antimicrobials to improve stewardship practices.**

In August 2025, CSIRO completed the Animal Antimicrobial Stewardship Framework for industries. The project developed a self-assessment and benchmarking tool to compare AMS maturity, identify gaps and areas for improvement, assess practices used to mitigate AMR risks, and provide context for AMU data through quantitative and qualitative indicators. The framework provides industries with a practical, comparable and action-oriented way to assess AMS and identify where further support may be needed.

Representatives from the wildlife and zoo sectors also worked with CSIRO over 2024–2025 to assess whether this tool could be applied in their sectors.

An AMS-specific framework for the pork industry was published in April 2026.

The NCAS at the University of Melbourne contributes to development of Australian veterinary antimicrobial prescribing guidelines and national AMS reporting and AMS initiatives within livestock industries. The COMet AMS project (Constructing One Health Metrics for Evaluating Antimicrobial Stewardship) aimed to develop consensus on how appropriateness is defined across different sectors. It included input from animal health sector experts. The project concluded in 2026.

### Next steps

The Antimicrobial Stewardship Framework is being implemented in partnership with relevant sectors. As part of this, an adapted framework is being developed for the wildlife and zoo sectors and resourcing and communication needs for the pork industry are being discussed.

# Objective 5: Integrated surveillance and response to resistance and usage

Objective 5 strengthens surveillance systems to ensure emerging AMR and AMU issues are identified and addressed. There has been progress through One Health surveillance system work, international AMU reporting, species-specific AMR surveys and industry-led AMU data projects.

**Table 5 Activities supporting Objective 5: Integrated surveillance and response to resistance and usage**

| Activity | Linkages | Status |
|---|---|---|
| 5.1 Provide assistance and advice on behalf of the animal sector during the development stage of a One Health Surveillance System that integrates AMR and AMU data from human health, animal health, agriculture, food and environment sectors in Australia. | 5.1.2 OHMAP<br>Objective 2.1 and 2.5 Animalplan<br>Recommendation 12 and 13 NAPHS<br>Objective 4 and 6 NAHSBP<br>Objective 6 (Activity 6.1 and 6.3) AQUAPLAN<br>Objective 5 NAHDBP<br>AMR surveillance and monitoring programs in other One Health sectors | In progress |
| 5.2.1 Develop a robust national animal health AMU Monitoring program. | 5.1.2 OHMAP | In progress |
| 5.2.2 Describe the veterinary antimicrobial supply chain, and identify AMU data sources to better support interventions and complement available antimicrobial sales data along the supply chain. | 5.1.2 OHMAP | Not started |
| 5.2.3 Identify possible IT platforms for AMU data collections that will integrate with existing clinical veterinary practice or farm management software systems. | 5.1.2 OHMAP<br>5.4.2 OHMAP | Not started |
| 5.3.1 Assess the need for new and repeat species-specific surveys on AMR and how often these surveys should be conducted. | 5.1.2 OHMAP | In progress |
| 5.3.2 Review and promote a list of priority organisms for antimicrobial susceptibility testing and reporting in terrestrial and aquatic food- and fibre-producing animals, companion animals and wildlife to support improved AMR data collection. | 5.2.1 OHMAP<br>Objective 2.4 Animalplan<br>Objective 5 NAHDBP | In progress |
| 5.3.3 Review and update the 'Antimicrobial Susceptibility Testing' Australian and New Zealand standard diagnostic procedures for terrestrial animals (as described in Buller, Thomas & Barton 2014). | 5.3.1 OHMAP<br>Objective 2.4 Animalplan<br>Recommendation 11 NAPHS<br>Objective 5 NAHDBP | Not started |

# Activity 5.1

**Provide assistance and advice on behalf of the animal sector during the development stage of a One Health Surveillance System that integrates AMR and AMU data from human health, animal health, agriculture, food and environment sectors in Australia.**

The animal health sector contributed to a scoping project that aimed to design a One Health Surveillance System for AMR and AMU across all relevant sectors. The scoping project was finalised in 2023. Subsequently, animal health sector stakeholders contributed to a project scoping a broader One Health Surveillance System that is not specific to AMR and AMU. The project concluded in June 2026.

## Next steps

Further work on development and implementation of One Health AMR surveillance systems will be carried out in partnership with the Australian Centre for Disease Control.

# Activity 5.2.1

**Develop a robust national animal health AMU Monitoring program.**

A robust national AMU monitoring system is in development. The department has validated previous analyses and improved its systems for managing and reporting on antimicrobial sales data collected through APVMA annual returns, increasing transparency.

Dairy Australia and Food Innovation Australia have worked together to develop an AMS benchmarking tool for on-farm use and to report AMU in the context of disease burden.

MLA completed an antimicrobial usage data collection and metrics project for the red meat industry, consulting all animal protein producing sectors during the project. The approach is currently being piloted to test, validate and refine the methodology developed in the previous project. A steering committee and an expert panel are providing oversight across industry and government.

Through its Data Science Initiative, the University of Melbourne's NCAS is working towards describing appropriate AMU at a population level for dogs and cats. It also uses its Antibiotic Use and Disease Dynamics in Dairy Farming project to evaluate on-farm usage behaviours, assessing how veterinarians and dairy farmers initiate treatment protocols for dairy cattle.

## Next steps

A report is being drafted to summarise available antimicrobial sales data (2016–2017 to 2024–2025). The report will be released in the first half of 2027. The MLA AMU pilot project will continue until late 2027.

# Activity 5.2.2

**Describe the veterinary antimicrobial supply chain, and identify AMU data sources to better support interventions and complement available antimicrobial sales data along the supply chain.**

Although this activity has not commenced, some preliminary work has been completed – for example, a Dairy Australia project has described the veterinary antimicrobial supply chain and identified AMU data sources to better support interventions.

CSIRO and the department have co-funded a report – Quantifying antimicrobial usage in Australian companion and production animals that was completed out of the reporting period.

### Next steps

The need for further work will be considered based on the outcomes of the MLA AMU pilot project.

## Activity 5.2.3

**Identify possible IT platforms for AMU data collections that will integrate with existing clinical veterinary practice or farm management software systems.**

No work has commenced on identifying IT platforms for AMU data collections.

### Next steps

The need and scope for this activity will be considered based on the outcomes of the MLA AMU pilot project.

## Activity 5.3.1

**Assess the need for new and repeat species-specific surveys on AMR and how often these surveys should be conducted.**

In September 2026, an epidemiology master's student based in the department began an evaluation of previous pig industry AMR surveys, including consultation on the usefulness of the 2015–2017 and 2021–2023 surveys. The evaluation is expected to be completed by the end of 2027.

An AMR survey of *Enterococcus* spp., *Escherichia coli* and *Salmonella* spp. in dairy cattle was completed in July 2026. Results showed very low levels of resistance in *E. coli*, *E. faecium* and *E. faecalis* from dairy cattle. This is the first survey specific to the dairy industry.

The Australian Egg Industry has begun an AMR survey for *E. coli* and *Enterococcus* spp. The survey is due to finish in February 2027.

### Next steps

The AMR risk assessment described under activity 1.2 and outcomes of the evaluation of the pig industry survey will help to inform the need for further species-specific surveys.

## Activity 5.3.2

**Review and promote a list of priority organisms for antimicrobial susceptibility testing and reporting in terrestrial and aquatic food- and fibre-producing animals, companion animals and wildlife to support improved AMR data collection.**

The AMR risk assessment described under activity 1.2 also contributes to development of a list of priority organisms for antimicrobial susceptibility testing (AST).

### Next steps

Consultation with stakeholders has begun. This will ultimately lead to development of a priority list.

# Activity 5.3.3

**Review and update the 'Antimicrobial Susceptibility Testing' Australian and New Zealand standard diagnostic procedures for terrestrial animals (as described in Buller, Thomas & Barton 2014).**

The 'Antimicrobial Susceptibility Testing' Australian and New Zealand standard diagnostic procedures for terrestrial animals have not been formally reviewed and updated yet.

The Antimicrobial Resistance Testing Technical Working Group (ARTTWG) – a working group of the Sub-Committee on Animal Health Laboratory Standards – continues to address the development and implementation of nationally consistent AST methods and reporting standards in Australian animal health laboratories in 2026. For example, it has established:

- a minimum panel of antimicrobials to be used by veterinary diagnostic laboratories for clinical use and surveillance purposes
- a communications network that includes all government and private AST laboratory stakeholders in Australia and, as appropriate, internationally.

## Next steps

ARTTWG will continue to implement nationally consistent AST methods.

# Objective 6: A strong collaborative research agenda across all sectors

Objective 6 supports the translation of research findings into new, practical policies and actions. The objective aims to combat AMR by developing a sustainably funded, collaborative and prioritised research agenda. Research gap analysis, information sharing and industry-led investment in diagnostics and antimicrobial alternatives have progressed. However, the activity to identify pathways to translate research findings into practical solutions has not commenced.

**Table 6 Activities supporting Objective 6: A strong collaborative research agenda across all sectors**

| Activity | Linkages | Status |
|---|---|---|
| 6.1 Contribute to a gap analysis of AMR research and development for the animal sector. | 6.1.1 OHMAP<br>AIAS Strategy | Completed |
| 6.2 Scope the feasibility of rapid, cost-effective field-based diagnostic tests for priority infectious diseases and their appropriate treatment. | 6.1.3 OHMAP<br>Objective 4 (Activity 4.1 and 4.4) AQUAPLAN<br>Objective 2.2 Animalplan<br>Objective 4 NAHDBP | In progress |
| 6.3 Identify pathways to translate research findings into practical solutions. | 6.1.3 and 6.4.1 OHMAP | Not started |
| 6.4 Ongoing information sharing of AMR research findings in the animal health space with stakeholders and associated networks. | 6.2.2 OHMAP<br>AIAS Strategy | In progress |
| 6.5 Identify and use antimicrobial alternatives, such as novel therapies, vaccines, nutrition, and genetics. | 6.3.3 OHMAP<br>6.4.1 OHMAP | In progress |

## Activity 6.1

**Contribute to a gap analysis of AMR research and development for the animal sector.**

The animal health sector contributed to development of a national One Health AMR R&D agenda. The final report was published in December 2024.

CSIRO commissioned a gap analysis of AMR research and development for the animal sector and related commercialisation strategy reviews, Commercialising AMR solutions. It was published in March 2026.

### Next steps

Priorities may be implemented through existing research collaborations such as Australia's Cooperative Research Centre for Solving Antimicrobial Resistance in Agribusiness, Food and Environments (SAAFE-CRC) or through targeted investments.

## Activity 6.2

**Scope the feasibility of rapid, cost-effective field-based diagnostic tests for priority infectious diseases and their appropriate treatment.**

Several projects that contribute to this activity are underway or have been completed:

- Dairy Australia has partnered with Food Agility CRC, Coles, Charles Sturt University, University of Technology Sydney and University of Sydney to validate commercially available point of care diagnostics for clinical mastitis.
- The University of Technology Sydney and the University of Queensland have also received funding from SAAFE-CRC for development of a point of care test for rapid diagnosis of bovine mastitis that can be used for selective dry cow therapy and targeted therapeutic use.
- A SAAFE-CRC project is currently developing a low-cost, portable test that can detect harmful Listeria bacteria in food-processing environments within 60 minutes. The test aims to support earlier action, improve food safety and reduce health risks from resistant Listeria bacteria.
- A SAAFE-CRC project will test a fast, portable tool to detect fungi that are resistant to triazole fungicides. If successful, the tool could help farmers and biosecurity agencies find resistance earlier and improve monitoring in soil, compost and irrigation water. This project is scheduled to finish in November 2026.
- In 2025, Food Agility CRC, Dairy Australia, the Coles Sustainable Dairy Development Group, Charles Sturt University, the University of Technology Sydney and the University of Sydney developed a clinical mastitis decision support tool mobile app. The app uses pathogen information and the animal's clinical history to support treatment recommendations.
- Charles Sturt University and the New South Wales Department of Primary Industries and Regional Development have made progress in the development of field-deployable Loop-Mediated Isothermal Amplification (LAMP) assays for the detection of some common bovine mastitis pathogens.

MLA has also undertaken earlier studies to develop field-based and rapid laboratory assays for livestock pathogens and associated AMR genes – for example, it published a study on improved management of bovine respiratory disease in feedlot cattle in October 2023.

The University of Melbourne's Asia Pacific Centre for Animal Health has developed molecular diagnostic assays including real-time polymerase chain reaction assays for identification of poultry pathogens.

### Next steps

Industry stakeholders will consider whether these new tools meet practical needs of producers.

## Activity 6.3

**Identify pathways to translate research findings into practical solutions.**

Although this activity has not formally commenced, through its industry-led model, the SAAFE-CRC provides a pathway that supports projects designed to address industry needs and considers opportunities to involve commercialisation partners.

### Next steps

Further work is needed to identify and strengthen pathways from research to practical uptake, particularly where producer investment decisions are mostly being made based on productivity and cost benefits and not harms from AMR.

## Activity 6.4

**Ongoing information sharing of AMR research findings in the animal health space with stakeholders and associated networks.**

There are a number of forums that have provided the opportunity to share AMR research – for example:

- the 3rd Australian Veterinary Antimicrobial Stewardship (AVAMS) Conference in November 2023
- Solving Antimicrobial Resistance in Agribusiness, Food, and Environments (SAAFE) Solutions Summits in 2023 and 2024
- Veterinary Antimicrobial Stewardship Summit in the Asia-Pacific in 2025
- the ARC CEAStAR (Australian Research Council Training Centre for Environmental and Agricultural Solutions to Antimicrobial Resistance) conference in 2024
- the Environmental Dimensions of Antimicrobial Resistance Conference 2026, hosted by SAAFE CRC in Brisbane in August 2026.

SAAFE-CRC shares research and project updates through its newsletter and webinar series. The department's *AnimalScan* is another way to communicate relevant animal health research and developments. SAAFE-CRC also works with industry groups to develop research projects and higher degree research opportunities, supporting exchange between researchers and industry stakeholders.

### Next steps

Research organisations will continue to share information through appropriate channels.

## Activity 6.5

**Identify and use antimicrobial alternatives, such as novel therapies, vaccines, nutrition, and genetics.**

Progress against this activity involves a range of projects such as:

- CSIRO's trial of antimicrobial alternatives to reduce mortality and clinical signs associated with bacterial calf disease
- APL's continued investment in biosecurity, nutrition and genetics
- MLA's work on preventative health approaches for sheep, cattle and goats including novel forms of vaccines and immunobiological agents.

The University of Melbourne's APCAH has developed vaccines for several bacterial and viral animal diseases, including vaccines targeting *Mycoplasma* infections in pigs, poultry and cattle. APCAH also conducts research and regulatory-standard testing to support the development, evaluation and

registration of veterinary vaccines. This work contributes to identifying and translating disease-prevention alternatives that may reduce reliance on antimicrobials.

The HealthforAnimals organisation published an international report on the Roadmap to reducing the need for antibiotics. Australia is represented by Animal Medicines Australia. Its global members brought 109 vaccines and 52 diagnostic tools to market from 2020 to 2025. These results demonstrate continued development of preventative and diagnostic tools that may reduce antibiotic need.

## Next steps

Stakeholders will continue to monitor new developments and implement alternatives as appropriate.

# Objective 7: Strengthen global collaboration and partnerships

Objective 7 focuses on strengthening Australia's leadership on animal health AMR through national, regional and international forums and standard-setting bodies with a focus on Southeast Asia and the Pacific. Australia continues to participate in international AMR and One Health fora, but these activities are ongoing.

**Table 7 Activities supporting Objective 7: Strengthen global collaboration and partnerships**

| Activity | Linkages | Status |
|---|---|---|
| 7.1 Engage with The Quadripartite Alliance on One Health, relevant organisations within the alliance, including the Codex Alimentarius Commission, and other international fora to progress Australian and regional actions and initiatives. | 7.1.3 OHMAP | In progress |
| 7.2 Support the advancement of technical AMR capacity and capability in the animal sectors of Southeast Asia and the Pacific. | 7.2.5 OHMAP<br>7.3.1 OHMAP | In progress |

## Activity 7.1

**Engage with The Quadripartite Alliance on One Health, relevant organisations within the alliance, including the Codex Alimentarius Commission, and other international fora to progress Australian and regional actions and initiatives.**

The department engages with multilateral organisations to advance the interests of the Australian animal health sector – for example:

- the Quadripartite Alliance on One Health
- the Codex Alimentarius Commission
- the Food and Agriculture Organization of the United Nations (FAO)
- the World Organisation for Animal Health (WOAH).

The department also represents Australia on the Quadripartite AMR multistakeholder partnership platform.

Australia has engaged on global policy issues through negotiations on the Political Declaration of the United Nations General Assembly High Level Meeting in 2024, and the Jeddah Commitments of the 4th High-level Ministerial Conference on AMR.

The department also fulfils Australia's international reporting obligations, including reporting AMU in animals to WOAH through the ANIMUSE platform. Reports for 2021 to 2024 have been published. The report for 2025 is due to be released in 2027.

### Next steps

International engagement is ongoing. A review of relevant chapters of the WOAH Terrestrial Code is expected in the next 12 months and a High-level Ministerial Meeting on AMR is scheduled for December 2026 in Nigeria.

## Activity 7.2

**Support the advancement of technical AMR capacity and capability in the animal sectors of Southeast Asia and the Pacific.**

CSIRO has contributed to activity 7.2 through the Enhancing the Management of Antimicrobial Resistance project in Fiji and Samoa, collaborating with the Pacific Community, World Health Organization, WOAH and FAO to create awareness of AMR and to help to advance technical AMR capacity in the Pacific region. As part of the project, CSIRO has been involved in laboratory capacity building, farmer training, and targeted research, with a particular focus on Fiji and Samoa.

The University of Melbourne's APCAH provides AMS mentoring, training and technical support to animal health professionals in low- and middle-income countries across the Asia-Pacific region. It also contributes to the advancement of technical AMR capacity and capability in the animal sectors. It has been involved in:

- work to support partner countries to implement, cost and evaluate national action plans on AMR
- contributions to data generation, analysis and reporting on AMR and AMU surveillance in terrestrial and aquatic animals
- actively promoting and providing technical support for data submission to the International FAO Antimicrobial Resistance Monitoring System (InFARM).

### Next steps

A review of current efforts by Australian and international donors and capacity-building partners would assist in prioritising future efforts.