

CRC SAAFE: Solving Antimicrobial resistance in Agribusiness, Food & Environments



Overview

Antimicrobial resistance (AMR) is a significant challenge to global health in the 21st century. It is also one of the greatest threats to the continued viability and future growth of Australian food and agribusiness sectors, water security and sustainable waste management. Antimicrobials are crucial for effective disease management and prevention. To prosper, Australian agribusiness industries will need to navigate restricted access to effective antimicrobials, introduction of new regulations, and potential market impacts ranging from non-tariff trade barriers to loss of consumer confidence.

AMR is a complex issue driven not only by the widespread use of antimicrobials for human and animal health protection, but also by the use of other agricultural and industrial chemicals as well as household cleaning products. While Australia's water, agribusiness, food and waste systems are at risk from the impacts of AMR, they will also be a big part of the solution.

Managing AMR necessitates a coordinated 'One Health' multi-sector response that focusses on better use and stewardship of existing antimicrobials, adoption of alternative practices to decrease the need for

antimicrobials, and informed oversight of process inputs and waste streams to enable a safe, profitable, and sustainable circular economy.

The Cooperative Research Centre for Solving Antimicrobial Resistance in Agribusiness, Food, and Environments (CRC SAAFE) will lead Australian Industry through the AMR challenge via a One Health approach. Through focused collaboration between industry and researchers, CRC SAAFE will coordinate the AMR response for the Australian agribusiness, food, and environmental sectors, providing the tools and knowledge to

proactively monitor, manage and mitigate the spread of AMR. In so doing, CRC SAAFE will protect human and animal health, food security, and economic prosperity, and maintain our nation's reputation as a producer with low AMR risk. Through successful AMR management, CRC SAAFE presents a significant opportunity for Australia to consolidate its market access advantage for premium quality produce, and to secure the future growth of Australian agriculture.

What is AMR?

AMR is the ability of microorganisms to fight back against drugs such as antibiotics, antifungals, and antivirals. As microorganisms become more resistant, the diseases they cause become untreatable.

On our current trajectory, antimicrobial resistant infections are forecast to cause 10 million human deaths per year by 2050 and seriously impact agricultural productivity, and food trade security.

Agriculture

CRC SAAFE will support the agriculture sector to drive solutions that will reduce food and animal loss from disease, generating benefits of up to \$6.7 billion by 2036. Addressing enhanced product traceability and monitoring requirements will help Australian agribusiness to reduce product rejection rates and avoid losses of up to \$10.7 billion by 2036.

Biosecurity

AMR threats can rapidly spread across borders, and between humans, wildlife, and livestock. Despite Australia having one of the strongest biosecurity systems internationally, the threat from AMR through biosecurity breaches has the potential

to cause substantial negative impacts on future international trade and export markets for our agriculture products.

Through a collaborative multi-sector approach, CRC SAAFE will advance our AMR monitoring and decision-making capabilities to ensure the safety and security of future food imports and exports.

Regulation

International food standards are already changing in response to AMR in order to minimise and contain foodborne AMR risks. Future environmental standards for AMR are also anticipated to better manage priority waste streams and environmental systems. Australian industries will need to self-regulate or adapt to new regulations. CRC SAAFE

will provide solutions to enable Australian industry to navigate new regulatory landscapes, helping to limit compliance cost burdens while also capitalising on new commercial opportunities.

Circular economy

Transitioning to a circular economy promises long-term resilience and sustainability only when underpinned by effective risk management. The interconnection of water, waste, and by-products in food and agribusiness requires cross-sector collaboration to address AMR challenges and de-risk the circular economy.



Become part of the solution

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