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Antimicrobial surveillance promotes Australia's 'clean, green' image

The time is right to invest in antimicrobial surveillance.

Antimicrobial medicines are a precious resource in both human and animal health. They are essential to treat and control bacterial infections. Australia is fortunate to have a robust, rigorous regulatory framework that assures high quality veterinary medicines that work as expected. However, bacterial resistance to antibiotic products threatens the effectiveness of these medicines and has been identified as a global health priority. Careful, considered and targeted action is required by all stakeholders to effectively respond to this challenge.

Too often, and without credibility or evidence, animal industries are denounced for irresponsible practices when using antimicrobials. The evidence to hand would indicate that the precise opposite is true.

Australia's First *National Antimicrobial Resistance Strategy 2015-2019* outlines planned actions by government and industry to respond to the threat of antimicrobial resistance (AMR). Most of these activities have focused on human health.

Australia's animal health sector has been proactive in addressing this major threat to animal health and welfare. These actions include:

- Developing tailored, evidence-based guidelines for best practice antibiotic prescribing in animals. Once complete, these will complement existing best practice guidelines currently available for companion animals; and
- Agreeing to the global Animal Health Commitment to help protect veterinary antibiotics – maintaining their value as a therapeutic tool into the future; and
- Developing communication materials and resources that assist animal owners to use antibiotics responsibly and judiciously.

These initiatives complement significant activities within livestock industries to enhance their stewardship of antibiotics to protect livestock from illness and disease. Initiatives such as the Beef Sustainability Framework, the Dairy Sustainability Framework and the pork industry's AMS plan demonstrate commitment to using antimicrobials responsibly and sustainably. They demonstrate that livestock industries are doing their part to address the challenge to both human and animal health posed by antimicrobial resistance. These industries are implementing practices to use antimicrobial treatments in the most appropriate way to protect animal health and welfare, while also reducing selection pressure for resistant organisms so that these medicines remain effective for use in the future.

In addition to stewardship initiatives, industries also need to assess patterns of use to ensure that antimicrobials are only used in accordance with best practice prescribing guidelines, and to monitor the emergence and distribution of resistant organisms. The collection and collation of antimicrobial use and resistance data is essential to:

- Demonstrate responsible and judicious use;

- Objectively evaluate the effectiveness of current AMS approaches and strategies; and
- Provide evidence to inform refinements to stewardship schemes.

Australia has good reason to believe that our animal production systems are among the world's best, consistently providing high quality, safe and sustainable animal products. The use of antibiotics in Australian agriculture is among the lowest in the world, suggesting that our production systems are well regulated and managed, that antibiotics are used sparingly, and only when necessary to protect the health and welfare of our livestock. This should not, however, be cause for complacency. The evidence that antimicrobial monitoring and surveillance can provide will give us credible, independent scientific evidence to confirm that contention. Such assurances will be increasingly important as consumers in domestic and export markets demand more information about food production systems.

The Australian government has committed to a national One Health framework for AMR, and many of the foundations for this are in place on the human health side. It is now critical that comprehensive animal sector antimicrobial surveillance is developed and integrated to assist in monitoring the effectiveness of current policy responses and provide an evidence base to inform future refinements. This election gives all parties the opportunity to complete Australia's AMR framework through effective surveillance in the animal sector.

AMR is a complex issue that poses grave threats to both human and animal health, and it cannot be effectively addressed by each sector in isolation. The Australian National Strategy recognises this fundamental connection through its One Health framework. The surveillance of antimicrobial use and resistance in human health must be complemented by equivalent surveillance in animal health. A holistic Australian surveillance system that recognises the fundamental connections between our health and the health of animals under our care is essential in order to properly understand and effectively address emerging AMR risks, wherever they arise.

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