



## 2019 Sydney Institute of Agriculture Research Showcase

*Animal agriculture in the future environment*



Animal agriculture contributes to about half of the total value of the Australian agriculture. The opportunities ahead for the animal industries are immense. Yet, the challenges are equally large. Increasing public and consumer concerns about provenance; animal welfare; environmental footprint and decreasing value of commodities, are some of the big challenges. The way food and fibres are produced is changing dramatically, driven by a data-rich technological era that appears to advance at a speed too high for producers to keep up with.

### Event overview

The Sydney Institute of Agriculture Research Showcase will bring industry and science together to discuss these challenges and opportunities, while showcasing the variety of interdisciplinary and collaborative research already taking place.

Researchers from the Sydney Institute of Agriculture will also highlight case studies which apply novel approaches to agriculture and give hope for a sustainable future.

### Keynote speakers

- Carolina Diaz, Program Manager, Australian Wool Innovation
- Dr Paul Greenwood, Senior Principal Research Scientist in the Extensive Livestock Industries, NSW DPI
- Richard Heath, Executive Director, Australian Farm Institute
- Deanna Lush, Managing Director, AgCommunicators
- Dr Jim Rothwell, Director, Elizabeth Macarthur Agricultural Institute, NSW DPI

### Event details

**Date:** Wednesday 3 July 2019  
**Time:** 8.15am – 6.10pm  
**Venue:** Veterinary Science Conference Centre, Webster Lecture Theatre  
**Costs:** Free  
**Registration:** [sydney.edu.au/agriculture/outreach-engagement/annual-research-symposium.html](https://sydney.edu.au/agriculture/outreach-engagement/annual-research-symposium.html)



Time	Activity
8.15am	<b>Registration</b> Tea and coffee will be served on arrival
8.30am	<b>Welcome</b> <ul style="list-style-type: none"> <li>- Professor Alex McBratney – Director, Sydney Institute of Agriculture</li> </ul>
	<b>Official Opening</b> <ul style="list-style-type: none"> <li>- Mr Michael Johnsen, MP – New South Wales Parliamentary Secretary for Agriculture</li> </ul>
	<b>Official Opening</b> <ul style="list-style-type: none"> <li>- Professor Yani Garcia– Theme Leader, Animal Agriculture, Sydney Institute of Agriculture</li> </ul>
8.40am	<b>Keynote</b> <b>Grand challenges in food production: the role of animal agriculture</b> <i>Dr Paul Greenwood – Senior Principal Research Scientist in the Extensive Livestock Industries, NSW Department of Primary Industries</i>
9.20am	<b>Session 1: Animal agriculture in a complex social framework</b> Facilitated by April Browne – Lead, Learning and Development Partners, Dairy NSW  <b>Keynote</b> <i>Deanna Lush – Managing Director, AgCommunicators</i>  <b>Behavioural monitoring for welfare benchmarking in the Australian beef industry</b> <i>Dr Sabrina Lomax, School of Life and Environmental Sciences</i>  <b>Securing future supplies of chicken-meat protein via sustainable nutritional strategies</b> <i>Dr Sonia Liu, School of Life and Environmental Sciences</i>  <b>A vertically integrated approach to improve product quality and assess consumer perception</b> <i>Dr Melanie Smith, Sydney School of Veterinary Science</i>
10.45am	Morning Tea
11.10am	<b>Session 2: Animal agriculture for the future</b> Facilitated by Professor David Emery  <b>Keynote</b> <i>Dr Jim Rothwell – Director, Elizabeth Macarthur Agricultural Institute, NSW Department of Primary Industries</i>  <b>Inherited diseases in livestock – past challenges and future opportunities</b> <i>Associate Professor Imke Tammen, Sydney School of Veterinary Science</i>  <b>Immune fitness as a measure of animal health and indicator of productivity</b> <i>Dr Auriol Purdie, Sydney School of Veterinary Science</i>  <b>The role of aquaculture and fisheries in global food and nutrition security</b> <i>Associate Professor Joy Becker, School of Life and Environmental Sciences</i>  <b>Defining animal resilience in livestock: opportunities and pitfalls</b> <i>Dr Karren Plain, Sydney School of Veterinary Science</i>  <b>The livestock phenotype revolution</b> <i>Associate Professor Cameron Clark, School of Life and Environmental Sciences</i>



Time	Activity
1.05pm	<b>Lunch</b> - Poster board viewing and voting
1.50pm	<p><b>Session 3: Animal agriculture in a data/tech-rich environment</b> Facilitated by Professor Yani Garcia</p> <p><b>Keynote</b> <i>Carolina Diaz – Program Manager, Australian Wool Innovation Ltd</i></p> <p><b>Applications of artificial intelligence and phenomics systems for genomics and precision animal agriculture</b> <i>Dr Mehar Khatkar, Sydney School of Veterinary Science</i></p> <p><b>Real-time automated detection of lameness in dairy cows</b> <i>John Gardenier, Australian Centre for Field Robotics</i></p> <p><b>Automated milking systems: are they profitable?</b> <i>Juan Gargiulo, School of Life and Environmental Sciences</i></p> <p><b>Advancing animal industries through data, technology and innovations</b> <i>Associate Professor Luciano Gonzalez, School of Life and Environmental Sciences</i></p>
3.30pm	<p><b>Where to from here in animal agriculture</b> <i>Richard Heath – Executive Director, Australian Farm Institute</i></p>
3.45pm	<b>Afternoon Tea</b> - Poster board viewing and voting
4.05pm	<p><b>180-second spiel Thesis Challenge</b></p> <ul style="list-style-type: none"> <li>- <b>Breeding bigger prawns</b> <i>MD Mehedi Hasan</i></li> <li>- <b>Control of lower virulent forms of footrot in sheep in NSW</b> <i>Karen Smith</i></li> <li>- <b>Could metabolomics be the key to diagnosing Bovine Respiratory Disease in feedlots?</b> <i>Claudia Blakebrough-Hall</i></li> <li>- <b>Implementing strategies to improve and minimise the costs associated with Johne's disease testing</b> <i>Anna Ly</i></li> <li>- <b>Know your enemy</b> <i>Michelle Demers</i></li> <li>- <b>Mining wheat ancestors to enhance global wheat production</b> <i>Deepak Baranwal</i></li> <li>- <b>Monitoring soil water use by plants using Electronic Magnetic Induction surveys</b> <i>Mohammad Omar Faruk Murad</i></li> <li>- <b>Multi-energy X-ray to detect damage and abnormalities in tissues and organs as indicators of animal health</b> <i>Cassius Coombs</i></li> <li>- <b>The discrete double-dippers or how hover flies are about to become farmers best allies</b> <i>Manuel Lequerica</i></li> </ul>
4.50pm	<b>Voting for poster boards and announcement of winner</b>
5.00pm	<p><b>Wrap-up summary</b> <i>Professor Alex McBratney, Director, Sydney Institute of Agriculture</i></p>
5.10pm	<b>Cocktail reception</b>