

Foreword: Recent Advances in Animal Nutrition – Australia 2021



The **Recent Advances in Animal Nutrition – Australia (RAAN-A) Conference** in 2021 continued its tradition of fostering the sharing of the latest research in the field of animal nutrition across the most economically significant animal species, including poultry, pigs, sheep, cattle, companion animals and aquaculture. RAAN-A is one of the few conferences worldwide devoted to animal nutrition science across the species, and this unique meeting of intensive and extensive production systems, industry and research, makes it one of the most thought provoking and stimulating symposia in Australia.

Although traditionally the RAAN-A program presents a mixture of the most significant recent animal nutrition advances internationally and locally, in 2021, the conference put a particular focus on developments in the field of nutrition led from Australia and New Zealand. Further international involvement was curtailed by the COVID-19 pandemic and associated restrictions. The pandemic necessitated the conference being held in a hybrid mode. However, most delegates took the opportunity to participate in person at Surfers Paradise on the Gold Coast. This was a major break with tradition as it was the first time that the meeting was not held on the Armidale campus of UNE. With the move to the Gold Coast, a conference organiser was hired for the first time.

The 2021 invited papers cover a range of timely themes. Three named lectures were presented:

The McClymont Rural Science Review

Named in honour of Professor G. L. (Bill) McClymont (1920–2000), AO, BVSc(Syd), PhD(Cantab), Hon. DRurSc(UNE), FAIAS, FASAP, Foundation Dean (1955–1976) of Rural Science at the University of New England, and an eminent nutritional scientist. He pioneered the development and application of ecological principles to the teaching and practice of agriculture. Professor Mike Gidley presented the McClymont Rural Science Review at RAAN-A 2021, examining the lessons for animal nutrition and production science from the Australian Academy of Science Decadal Plan for the Science of Nutrition.

Lectures:

2015 A. W. Bell* and P. L. Greenwood
2017 J. B. Furness* and J. J. Cottrell
2019 G. S. Lynch* and R. Koopman
2021 M. J. Gidley

The Annison-Leng Oration

Named in honour of Professor E. F. (Frank) Annison, AM, BSc (Lond), PhD (Lond), DSc (Lond), FRSCChem, FNSA, FASAP and Professor R. A. (Ron) Leng, AO, BSc (Notts), PhD (UNE), DRurSc (UNE), FASAP.

Frank Annison, who originated from the UK was an international leader in the nutritional biochemistry of ruminants and pioneered isotope dilution techniques to quantify intermediary metabolism in sheep. He later extended this technique to lactation and mammary metabolism. Frank's initial contributions were made while working at UNE, latter at Unilever in the UK and finally at the University of Sydney. Frank's first PhD student at UNE was a Yorkshireman, Ron Leng, who remained at UNE throughout his career. Ron has made major contributions to improving the nutrition of ruminants in the tropics and subtropics in both Australia and the developing world. In 2021 this oration was presented by Professor John Nolan, reviewing the symposium's first 50 years.

Lectures:

2017 R. A. Leng
2019 H. V. Oddy*, H. C. Dougherty and J. W. Oltjen
2021 J. V. Nolan

The Cumming-Farrell Oration

Named in honour of Professor R. B. (Rob) Cumming, BVSc (Pret), PhD (UNE), MRCVS and Professor D. J. (David) Farrell, MRAC, MSA (Br.Col), PhD (UNE), DRurSc (UNE), FASAP

Rob Cumming and David Farrell, from South Africa and Ireland respectively, established UNE as a leading site of poultry nutrition research in Australia. Rob was also a noted avian virologist who remained at UNE throughout his career. David also worked with pigs, especially amino acid digestion and completed his career at the University of Queensland. Both Rob and David made numerous contributions to improving the nutrition and health of poultry and pigs in developing countries. Importantly, they were pivotal in the establishment of Recent Advances in Animal Nutrition in Australia and David championed the meeting for two decades. In 2021, Dr Shaniko Shini presented evidence for a relationship between gut homeostasis, nutrition and poultry productivity, and a role for probiotics in maintaining homeostasis and health.

Lectures:

2019 J. R. Pluske
2021 S. Shini* and W. L. Bryden

Other plenary themes from the invited papers of RAAN-A 2021 address the issues of increased sustainability in sourcing

feed ingredients, managing emissions from livestock, and the interactions of nutrition with gastrointestinal health and reproduction. This time the plenary themes of the conference have been enhanced by nearly 30 contributed papers, as oral and poster presentations. The wide range of topics presented show animal nutrition to be a discipline that is far from settled science. Rather, the 21st century challenges of feeding animals ethically and sustainably are challenging animal nutritionists to new and better practices and knowledge.

All invited and contributed papers have been peer reviewed. Since 2013, and again this year, the RAAN-A conference is proud to have partnered with *Animal Production Science* for a special edition of the journal. The committee (Fran Cowley, Wayne Bryden, Frank Dunshea, Roger Hegarty, Amy Moss, Ian Sawyer, Bob Swick and Rob van Barnevelt) thanks all invited and contributing authors for sharing their research at this

year's conference. The committee would like to thank all the sponsors, industry partners, speakers and participants for their contributions to the 2021 Recent Advances in Animal Nutrition – Australia Conference. The engagement between speakers and participants, industry and research are what makes this conference so dynamic and valuable in seeding ideas for the next suite of advances in animal nutrition.

Last, I am honoured to Chair the Organising Committee and privileged to be the first woman to hold that position. To the Committee, thank you for your support, to Professor Frank Dunshea for editing the Proceedings, and Kate Murphy and Jenny Lawler of YRD Event Management for the staging of a very successful 3 days. We look forward to the next Conference in 2023.

Associate Professor Fran Cowley
Chair, RAAN-A Organising Committee
University of New England

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