

Recent Advances in Animal Nutrition – Australia 2019

Welcome to Recent Advances in Animal Nutrition – Australia (RAAN-A), 2019. This year the focus is on availability of protein in the next decade. Meeting the protein requirements of various livestock species will gain in importance, as demands for meat increase with a growing and more affluent society. In the 2 years since the last conference, local Australian industry has been hit with a severe drought, requiring transshipments of feed grains within Australia and a heightened reliance on imports of foreign sourced protein meals. In addition, the global feed industry has experienced geopolitical events in the form of tariffs and trade restrictions between the USA and China, with direct ramifications on access to soybeans, a major globally traded protein commodity. This has sparked renewed interest in nutrition and metabolism of crystalline amino acids. The recent outbreak of African swine fever has reduced pig production in China, Vietnam and other countries in Asia and Europe, with demand for pork imports and replacement meat on the rise in affected countries.

The RAAN-A Organising Committee (Bob Swick, Wayne Bryden, Mangan Choct, Fran Cowley, Frank Dunshea, Roger Hegarty, Amy Moss, Ian Sawyer and Rob van Barneveld) have selected speakers to address these issues in the spirit of sharing and debating developments in animal nutrition with fellow researchers and those engaged in the animal industries. Invited papers in this volume explore different aspects of both ruminant and non-ruminant nutrition. There are three named lectures to commemorate the achievements of nutritional research at UNE.

The *McClymont Rural Science Review* is presented by an eminent scientist on a topic of their choosing. The lecture is named after Professor G. L. (Bill) McClymont, the inaugural Dean of the UNE Faculty of Rural Science and an eminent nutritional scientist.

Lectures:

- 2015 A. W. Bell
- 2017 J. B. Furness
- 2019 G. S. Lynch

The *Annison-Leng Oration* celebrates the contribution of former UNE academics, Professor Frank Annison and Professor Ron Leng to ruminant nutrition. Frank Annison, who came from the UK, was an international leader in the nutritional biochemistry of ruminants and pioneered isotope dilution techniques to quantify intermediary metabolism in sheep and mammary metabolism. Frank's first PhD student at UNE was a Yorkshireman, Ron Leng. Throughout his distinguished career, Ron has made major contributions to improving the nutrition of ruminants in the tropics and sub-tropics in both Australia and the developing world.

Lectures:

- 2017 R. A. Leng
- 2019 H. V. Oddy

The *Cumming-Farrell Oration* celebrates the contribution of Professor Rob Cumming and Professor David Farrell to non-ruminant nutrition and to their roles in the establishment of RAAN-A. Rob Cumming and David Farrell, respectively from South Africa and Ireland, established UNE as a leading site of poultry nutrition research in Australia. Rob was also a noted avian virologist and David also worked with pigs, especially amino acid digestion. Both Rob and David made numerous contributions to improving the nutrition and health of poultry and pigs in developing countries.

Lecture:

2019 J. R. Pluske

The invited manuscripts have been peer reviewed for publication in this special edition of the CSIRO journal *Animal Production Science* (APS). Publication in a journal provides greater exposure for RAAN-A and ensures the authors wide recognition for their outstanding scientific contributions. The contributed papers have also been reviewed and will be disseminated at the event. The RAAN-A Committee thanks all authors for their contributions. The Committee also acknowledges our stalwart industry partners for their valuable contributions, including sponsorship and ideas, and all loyal participants for their interactions, knowledge and feedback. The Committee acknowledges the diligent work of Dayle Dunshea, who organised the review of papers, and the support of Alice Hall, Megan Cheong and Helen Pavlatos from CSIRO Publishing during this publication process. The Committee emphatically thanks Helene Dawson for her expertise in organising the many operational details of the conference. The contribution of Professor Frank Dunshea, who acted as guest editor for this special issue of APS, is gratefully acknowledged.

From its humble beginnings, some 50 years ago, the RAAN-A Conference has always been a valuable source of knowledge to aid industry and provided excellent networking opportunities, especially for our younger scientists. It appears that the first meeting occurred in 1969 but there were no written proceedings (J. V. Nolan, pers. comm.). Subsequent meetings became 'biennial' around 1975 and RAAN in Australia changed to RAAN-Australia in 2009 to highlight its global reach outside of Australia.

The RAAN-A conference provides a unique opportunity to discover new ideas and innovations, while also taking advantage of the extensive industry network that attends the RAAN-A. Thanks to all for your valued contributions that have made RAAN-A such an excellent animal nutrition meeting, and it is the Committee's hope that you will continue your support of this biennial Conference.

Professor Bob Swick
Chair, RAAN-A Organising Committee

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