



Programme

RECENT ADVANCES IN ANIMAL NUTRITION - AUSTRALIA

25th Biennial Conference

Theme: The Future Protein Decade

UNE Belshaw Lecture Theatre

Wed, October 23, 2019

12.00 Registration

14.00 Welcome and opening – Prof Bob Swick

14.05 Opening address – Prof Todd Walker, Provost and Deputy Vice Chancellor, UNE

Session 1. Sustainable protein supply, Chair: Prof Bob Swick, UNE

14.15 The future protein decade: Perspectives on global pressure to agriculture, Dr Julian McGill, LMC International, United Kingdom

McClymont Rural Science Review

14.45 **Overcoming nature's paradox in skeletal muscle to optimise animal production, Prof Gordon Lynch, University of Melbourne**

15.15 Panel discussion

15.45 Tea

Session 2. Protein metabolism and utilisation, Chair: Prof Wayne Bryden

Annison and Leng Oration

16:15 **Integration of energy and protein transactions in the body to build new tools for predicting performance and body composition of ruminants, Prof Hutton Oddy, NSW Department of Primary Industries**

16.45 Dietary protein reduction improves the energetic and amino acid efficiency in lactating sows, Prof Nathalie Trottier, Michigan State University

17.15 Do more mechanistic models increase accuracy of prediction of metabolisable protein supply in ruminants? Prof Mike Allen, Michigan State University

17.45 Panel discussion

18.45 Drinks

19.00 Meet and greet BBQ at the Stro

Thursday, October 24, 2019

Session 3. Contributed papers, Chair Ian Sawyer

- 08.30 Antioxidant supplementation improves production performance in Holstein Friesian dairy cattle during summer, R. Osei-Amponsah, University of Melbourne
- 08.45 Efficacy of feed additives on immunity and gut integrity in broiler chickens challenged with *Eimeria*, A. Kumar, University of New England
- 09.00 Effect of organic acids and chromium supplementation on amelioration of heat stress in growing pigs, L. H. Hieu, University of Melbourne
- 09.15 Tibial mineralization in broilers as influenced by two levels of dietary calcium and phytase during subclinical necrotic enteritis, H. K. Zanu, University of New England
- 09.30 Effect of pasture levels in a mixed dairy diet on enteric methane production from an in vitro digestibility system, N. D. Meads, Alltech Inc
- 09.45 *Bacillus subtilis* 29784 reinforces the gut barrier and prevents pro-inflammatory response, D. P. Prévéraud, Adisseo, France
- 10.00 Age-related changes in apparent digestibility of non-starch polysaccharides in broiler chickens fed maize- or wheat-based diet, E. Kim, University of New England
- 10.15 Range usage or body weight has minor effect on the gastrointestinal passage rate of commercial free-range laying hens, M. Kolakshyapati, University of New England
- 10.30 – 11.00 Tea

Session 4. Gastrointestinal Metabolism and Novel Feed Additives, Chair Prof Frank Dunshea

- 11.00 The potential of silage lactic acid bacteria derived Nano-selenium as a dietary supplement in sheep, Prof Michael Lee, University of Bristol, United Kingdom
- 11.30 Feeding whole grain and phytase to meat chickens: recent Australian experience, Amy Moss, UNE, Dr Amy Moss, University of New England

Cumming-Farrell Oration

- 12.00 **Associations between gastrointestinal tract function and the stress response after weaning in pigs, Prof John Pluske, Murdoch University**
- 12.30 Panel Discussion
- 13.00 Lunch

Session 5. Feed Processing and Insect Protein, Chair Prof Roger Hegarty

- 14.00 Maximising the benefits of pelleting diets for modern broilers, Dr Reza Abdollahi, Massey University, New Zealand
- 14.30 Protein recycling using insects in animal nutrition, Dr Isabelle Ruhnke, University of New England
- 15.00 Insect meal: a novel animal feed protein source for the Australian market, Dr Kristy DiGiacomo, University of Melbourne
- 15.30 Free range laying hens: revealing the dynamics and impact of hen movement, Derek Schneider, University of New England
- 16.00 Panel Discussion

16.30 Poster session and commercial displays with drinks and nibbles

Contributed papers will also have posters

Additional posters:

Maximising and effective measurement of energy from poultry feeds, S. Musigwa, University of New England

Ileal morphology and jejunal gene expression of broilers fed meat and bone meal, phytase and antibiotics during necrotic enteritis challenge, H. K. Zanu, University of New England

Effect of ethyl-cellulose rumen-protected methionine on dairy cow performance during transition phase, M. Ali, Evonik, Singapore

Biofortification of animal products with L-selenomethionine for better human & animal health in Australia, B. Bruneel, Offa Additives, The Netherlands

Hydroxy Methionine: beyond its methionine value for piglets' growth performance and health status, D.I. Batonon-Alavo, Adisseo, Singapore

Hydroxy-methionine supplementation improves meat quality, L.W.O. Souza, Adisseo, France

Dynamics of bacterial colonisation of low-quality tropical fodder in bovine rumen fluid, Mahsa Abbasabadi, Queensland University of Technology and University of Queensland

Fungal protein production using low-quality tropical fodder as a substrate, Zeynab Amini, Queensland University of Technology

18.30 Drinks at Austin College

19.00 Conference Dinner at Austin College

20.00 After dinner "Nutritional idiosyncrasies of the dinosaur"— Dr Peter Selle, Sydney Uni

Friday, October 25, 2019

Session 6. Contributed Papers, Chair Prof Bob Swick

08.30 Defining mineral requirements in an expanding Australian industry for black tiger prawns, *Penaeus monodon*, H.H. Truong, CSIRO

08.45 Black soldier fly larvae does not compromise broiler meat quality, J. de Souza Vilela, University of New England

09:00 Biopolymer composites for slow release of toxins to manage *Pimelea* poisoning in cattle, E. Gauthier

09:15 Body weight is associated with welfare, health and egg production status in commercial free-range laying hens, Terrence Sibanda, University of New England

09.30 Dietary protein source and level affect litter quality in meat chickens, Dr Nishchal Sharma, University of New England

09.45 Tea

Session 7. Protein and Amino Acid Nutrition Chair: Dr Nerida Richards

10:15 Dietary nitrogen utilization and prediction of amino acid requirements in equids, Prof Nathalie Trottier, Michigan State University

10.45 Nutritional implications of feeding reduced protein diets to meat chickens, Matt Hilliar, University of New England

- 11.15 Recent advances to improve nitrogen efficiency of grain-finishing cattle in North American and Australian feedlots, Dr Fran Cowley, University of New England
- 11.45 Nitrogen recycling and feed efficiency of cattle fed protein restricted diets, Dr Luis Prada e Silva, QAFFI
- 12.15 Panel discussion
- 12:45 Closing and Student Awards, Prof Bob Swick
- 1300 Closing followed by lunch