Sunday 4th February, 2018

17:00 – 19:00
PRE-REGISTRATIONS from 5:00pm
@ Hyde Park Room, Level 2, Sheraton on the Park

Beat the crowds and enjoy a sleep-in on Monday morning by registering for the conference early. Pick up your satchel and name badge, then feel free to brood about with the other early birds.

Drinks and Canapes will commence at 6:00pm.

19:00 – 19:45
THE GRATE DEBATE – Sponsored by EW Nutrition
Welcome by Jurek Grapetin
@ Hyde Park Room, Level 2, Sheraton on the Park

The Grate debate is back this year, with the Whippersnappers taking on the Dinosaurs on the topic:

"In the context of Poultry Nutrition, the energy of youth is better than the experience of the aged?"

Adjudicator: Peter Chrystal

Whippersnappers:
- Sonia Liu
- Fabian Barcelo
- Santiago Ramirez

Dinosaurs:
- Peter Selle
- John McLeish
- Bob Hughes

19:45 – 20:30
Pre-Registration + Drinks and canapes will resume for 1 hr following the debate.
Monday 5th February, 2018
7:00 – REGISTRATIONS
8:55 @ Hyde Park Room, Level 2, Sheraton on the Park
9:00 – OPENING OF THE SYMPOSIUM
9:15 @ Grand Ballroom 1, Level 2, Sheraton on the Park
• Judith O’Keeffe - President, Poultry Research Foundation
• Peter Groves –Director, Poultry Research Foundation

LOW PROTEIN BROILER RATIONS
Session 1 Chair: Kylie Hewson – AgriFutures: Chicken Meat

9:15 – THE CHALLENGES CONFRONTING CHICKEN MEAT PRODUCERS IN GREAT BRITAIN IN RELATION TO LOW PROTEIN DIETS
Patrick Garland - Premier Nutrition, UK

10:00 – WHY DO WE NEED LOW PROTEIN MEAT CHICKEN DIETS?
Matthew Hilliar - University of New England, Australia

10:15 – DIETARY STARCH INFLUENCES PERFORMANCE OF BROILER CHICKENS OFFERED LOW-PROTEIN DIETS
Peter Selle - University of Sydney, Australia

10:30 – RAPIDLY DIGESTIBLE PROTEIN INFLUENCES STARCH AND PROTEIN DIGESTIVE DYNAMICS, DIGESTIBILITY AND CONCENTRATIONS OF AMINO ACIDS IN PORTAL CIRCULATION IN BROILER CHICKENS
Ha Hong Truong - CSIRO, Bribie Island Research Centre, Australia

10:45 – MORNING TEA
11:15

Session 2 Chair: Georgina Townsend – AgriFutures: Chicken Meat

11:15 – AMINO ACID NUTRITION UPDATE TO ENSURE SUCCESSFUL LOW PROTEIN DIETS IN BROILER CHICKENS
William Lambert - Ajinomoto Eurolysine, France

12:00 – LOW PROTEIN DIETS AND SYNTHETIC GLUCOCORTICOIDS ALTER INTESTINAL BARRIER FUNCTION AND PERFORMANCE OF BROILER CHICKENS
Reza Barekatain - SARDI, Australia

12:12 – INVESTIGATING THE EFFECTS OF GLYCINE AND GLYCINE EQUIVALENTS ON MEAT CHICKEN PERFORMANCE UNDER LOW PROTEIN DIETS
Matthew Hilliar - University of New England, Australia

12:24 – THE SELECTION ELEMENT IN WHOLE GRAIN FEEDING REGIMES
Amy Moss - University of Sydney, Australia

12:24 – EFFECTS OF DIETARY INSOLUBLE AND SOLUBLE NON-STARCH POLYSACCHARIDES ON PERFORMANCE AND ILEAL AND EXCRETA MOISTURE CONTENTS IN BROILERS
Natalie Morgan - University of New England, Australia

12:48 – INFLUENCE OF CARBOHYDRASE SUPPLEMENTATION ON METABOLISABLE ENERGY AND ILEAL NUTRIENT DIGESTIBILITY OF TWO CULTIVARS OF BARLEY FOR BROILERS
Nipuna Perera - Massey University, New Zealand
13:00 – LUNCH
@ Feast Restaurant, Level 1, Sheraton on the Park

ADULT HEN FEEDING AND BREEDING
Session 3 Chair: David Cadogan - Feedworks

14:00 – PRECISION FEEDING OF BROILER BREEDERS
Martin Zuidhof - University of Alberta, Canada

14:45 – EFFECTS OF DIETARY PROTEIN LEVELS DURING REARING OF BROILER BREEDERS ON EGG PRODUCTION AND FERTILITY DURING PRODUCTION, AND OFFSPRING GROWTH PERFORMANCE
Elham Assadi Soumeh - University of Queensland, Australia

Andrea Talbot - Agriculture Scientific Organics Pty Ltd, Australia

15:05 – THE EFFECT OF CHOICE FEEDING OF DIETS VARYING IN DIETARY CA AND AVAILABLE-P CONCENTRATIONS AND RATIOS ON INTAKE AND EGG QUALITY OF LAYERS
Ha Hong Truong - CSIRO, Bribie Island Research Centre, Australia

15:25# PERFORMANCE AND EGG QUALITY OF LAYERS FED DIETS WITH LOW AND HIGH NET ENERGY : METABOLISABLE ENERGY RATIO
Shahram Barzegar - University of New England, Australia

15:25 – COMPARATIVE EVALUATION OF PRODUCTION TRAITS IN COMMERCIAL LAYERS UNDER FREE RANGE, SEMI-INTENSIVE AND INTENSIVE HOUSING SYSTEMS
Athar Mahmud - University of Veterinary & Animal Sciences, Pakistan

15:35 – DETECTION OF UNDER AND OVER-PROCESSING OF SOY PRODUCTS BY NIR TECHNOLOGY
Pradeep Rajalekshmy Krishnan - Evonik (SEA) Pte. Ltd, Singapore

15:45 – POSTER INTRODUCTIONS & SLIDESHOW OF POSTERS
Session 4 Chair: Rick Carter - Kemin Industries, Australia

16:00 – POSTER SESSION – Sponsored by Kemin Industries
@ Hyde Park Room, Level 2, Sheraton on the Park

Afternoon tea and drinks will be served while observing this year’s posters.
POSTERS: (presented by)

**BROILER HEALTH & WELFARE**

1  **DOES MATERNAL FLOCK AGE AND PRE-STARTER DIET COMPOSITION ALTER LEG STRENGTH IN COBB 500 CHICKS?**
   Wendy Muir - University of Sydney, Australia

2  **INTERMITTENT LIGHTING IMPROVES RESILIENCE OF BROILERS DURING THE PEAK PHASE OF SUB-CLINICAL NECROTIC ENTERITIS INFECTION**
   Ines Rodrigues - University of New England, Australia

3  **β-GLUCAN ENRICHED YEAST CELL WALL ADJUVANTS STIMULATED HUMORAL IMMUNE RESPONSE AND PROTECTED BROILERS AGAINST VIRAL CHALLENGE**
   Laurine Faivre - Phileo-Lesaffre Animal Care, France

4  **EFFECT OF VITAMIN E SUPPLEMENTATION ON PRODUCTION AND HEAT SHOCK PROTEIN 70 IN BROILER CHICKENS DURING HOT-HUMID SUMMER**
   Jaydip Rokade - Central Avian Research Institute, India

5  **A BACILLUS SUBTILIS PROBIOTIC IMPROVES BROILER PERFORMANCE AND FOOTPAD CONDITION**
   Alex Wu - Adisseo Asia Pacific, Singapore

6  **EFFECTS OF MEAT AND BONE MEAL, PHYTASE AND ANTIBIOTICS ON GROWTH PERFORMANCE IN BROILER CHICKENS DURING NECROTIC ENTERITIS CHALLENGE**
   Holy Kwabla Zanu - University of New England, Australia

7  **ADSORPTION ASSAYS ON CLOSTRIDIUM PERFRINGENS ALPHA-TOXINS: IN VITRO AND IN VIVO APPROACHES**
   Marisabel Caballero - EW Nutrition, Germany

8  **A REVIEW OF THE APPLICATION OF POLYPHENOLS IN POULTRY**
   Emma Bradbury - Ridley AgriProducts, Australia

**BROILER NUTRITION**

9  **APPARENT METABOLIZABLE ENERGY, ILEAL DIGESTIBILITY AND BONE QUALITY OF BROILER CHICKENS FED WHEAT-BASED DIETS SUPPLEMENTED WITH CARBOHYDRASES**
   Mohammed Al-Qahtani - University of New England, Australia

10 **IMPACT OF FEEDING CONSTANT LEVELS OF COTTONSEED MEAL WITH ENZYMES ON BROILER MEAT YIELD, VISCERAL ORGAN DEVELOPMENT, ENDOGENOUS ENZYME ACTIVITY AND NUTRIENT DIGESTIBILITY**
   Medani E.B Abdallh - University of New England, Australia

11 **ASSESSING APPARENT, TRUE AND STANDARDIZED ILEAL AMINO ACID DIGESTIBILITY OF COTTONSEED MEAL-CONTAINING DIETS WITH OR WITHOUT A MICROBIAL ENZYME BLEND**
   Medani E.B Abdallh - University of New England, Australia
12 # YEAST CELL WALLS SUPPORT HIGHER GROWTH THAN WHOLE YEAST WHEN FED IN BROILER CHICKEN DIETS
Emmanuel Ahiwe - University of New England, Australia

13 # UPREGULATED PROVENTRICULAR PEPSINOGENS AND IMPROVED FEED EFFICIENCY IN BROILERS BY THE COMBINATION OF SUPPLEMENTED SUGARCANE BAGASSE AND COARSELY GROUND CORN IN PELLETED DIETS
Sarbast Kheravii - University of New England, Australia

14 # IMPROVING SOYBEAN DIGESTIBILITY WITH MONO-COMPONENT PROTEASE
Jose Otavio Sorbara - DSM Nutritional Products, Switzerland

15 # PERFORMANCE PARAMETERS AND TISSUE ZINC DEPOSITION IN BROILER CHICKENS IN RESPONSE TO DIFFERENT LEVELS OF HYDROXY SOURCE OF ZINC
Thi Thanh Hoai Nguyen - University of New England

16 # POTENTIAL EFFECTS OF A PHYTOGENIC FEED ADDITIVE ON CARCASS AND MEAT TRAITS IN BROILERS COMPARED TO AN ANTIBIOTIC GROWTH PROMOTER
Neil Gannon - Biomin Singapore Pte Ltd, Singapore

17 # RELATIONSHIP OF CALCIUM, PHOSPHORUS AND PHYTASE TO BROILER GROWTH PERFORMANCE FROM DAY 1 TO 21
Kevin Cheng - University of Queensland, Australia

18 # RESPONSE OF FINISHER BROILERS TO REDUCED DIETARY CALCIUM AND PHOSPHORUS CONCENTRATIONS WITH PHYTASE ADDITION
Carry Zhang - University of Queensland, Australia

19 # DIETARY CONCENTRATIONS OF PHOSPHORUS AND CALCIUM AND BROILER PERFORMANCE THROUGHOUT THE GROWING CYCLE
David Zou - University of Queensland, Australia

20 # PERFORMANCE AND CAECAL METABOLITE COMPOSITION OF BROILERS FED LOW AND HIGH PROTEIN DIETS SUPPLEMENTED WITH FEED ADDITIVES
Nishchal Sharma - ACE Livestock Consulting Pty Ltd, Australia
**Layer Health & Wellbeing**

21# Immune response following *Ascaridia galli* infection in free range laying hens  
*Nisha Sharma - University of New England, Australia*

22# A review of the regulatory framework relating to backyard poultry in Sydney and surrounding suburbs  
*Stephanie Alfred - University of Sydney, Australia*

23 Birds found outside sheds show less feather damage than birds found in sheds  
*Soressa Kitessa - South Australia Research and Development Institute, Australia*

24# Preferences for preen oil constituents may help explain feather-eating behaviour in hens  
*Sungbo Cho - University of Queensland, Australia*

25# Infra-red beak trimming influences, pecking stone consumption, feed intake, feed and nutrient selection in free range laying hens  
*Zafar Iqbal - University of New England, Australia*

**Eggs & Egg Quality**

26 Using hydroxy selenomethionine to enrich selenium in eggs  
*Alex Wu - Adisseo Asia Pacific, Singapore*

27# The effect of hen age, storage period and temperature on egg quality in layer hens  
*Ferdausi Begum - University of Sydney, Australia*

28# Analysis of anti-*Ascaridia galli* antibody levels in egg yolk to detect parasite infection in commercial laying hens  
*Thi Hiep Dao - University of New England, Australia*

29 The impact of early-life intervention on microbiota composition in free-range laying hens  
*Isabella Ruhnke - University of New England, Australia*

30# Investigation into the relationship between production traits in individually caged early-lay ISA Brown hens  
*Doreen Anene - University of Nottingham, UK*
Tuesday 6th February, 2018

**EGG INDUSTRY STANDARDS & GUIDELINES**

*Session 5 Chair: Gemma Wyburn – Australian Eggs*

9:00 – Animal Welfare Standards and Guidelines – The Role of Science and Ethics
9:30  In Public Debates

*John Dunn - Egg Farmers Australia*

9:30 – Range Enrichment on Commercial Free Range Layer Farms
9:45  Caroline de Koning - SARDI, Australia

9:45 – A review of Environmental Enrichment for Laying Hens during Rearing in Relation to Their Behavioural and Physiological Development
10:00  Dana Campbell - CSIRO Armidale, Australia

10:00 – Estimation of Optimal Methionine, Glycine, and Tryptophan Levels to Improve Plumage Condition in ISA Brown Laying Hens
10:15  Kevin Prescilla - University of Sydney, Australia

10:15 – MORNING TEA
10:45

**LAYER HEN WELLBEING**

*Session 6 Chair: Jojo Jackson – Australian Eggs*

10:45 – Insights into Assessment of the Welfare of Laying Hens in Australia
11:15  Alan Tilbrook - University of Queensland, Australia

11:15 – Naturally-inspired Intermittent Lighting Schedules to Improve Behavioural Synchronisation in Layer Chicks
11:30  Joanne Edgar - University of Bristol, UK

11:30 – The Effects of Light Level from 1 to 7 Weeks of Age, and Stress at 16 Weeks, on Plumage Damage and Injurious Pecking in ISA Brown Pullets Reared for Free-Range Egg Production
11:45  Greg Cronin - University of Sydney, Australia

11:45 – The Impact of Range Use on Flock Uniformity in Commercial Free-Range Laying Hens
12:00  Terence Sibanda - University of New England, Australia

12:00 – LUNCH
13:15 @ Feast Restaurant, Level 1, Sheraton on the Park

12:15 – WPSA AGM
13:15 @ Hyde Park Room, Level 2, Sheraton on the Park

*Session 7 Chair: Raymond Chia – Australian Eggs*

13:15 – Control and Monitoring of *Salmonella* in Egg-Laying Chickens
14:00  Richard Gast - USDA, USA

14:00 – Effect of Feed Acidification and Conditioning Temperature on Feed Hygiene and *Salmonella* Recovery from Mash and Pelleted Broiler Feed
14:12  Joshua Jendza - BASF Corporation, USA
14:12 – **COMPATIBILITY OF A NEW MULTISTRAIN PROBIOTIC WITH A LIVE-ATTENUATED SALMONELLA VACCINE IN CHICKENS**
*Dorthe Sandvang - Chr. Hansen A/S, Denmark*

14:24 – **EFFICACY OF COMMERCIAL DISINFECTANTS AGAINST BIOFILMS FORMED BY SALMONELLA TYPHIMURIUM**
*Kapil Chousalkar - University of Adelaide, Australia*

14:36 – **THE IMPACT OF RANGE USE ON CAECAL MICROBIOTA COMPOSITION IN FREE-RANGE LAYING HENS**
*Isabella Ruhnke - University of New England, Australia*

14:48 – **CALCIUM PIDOLATE IMPROVES EGG QUALITY WHEN IT IS FED TO COMMERCIAL LAYERS FROM 50 WEEKS OF AGE**
*Benjamin Pollet – Dietaxion S.A.S, France*

15:00 – **AFTERNOON TEA**

15:30 – **SPOTTY LIVER DISEASE**
*Robert Moore - RMIT University, Australia*

16:00 – **PREVALENCE OF PLUMAGE DAMAGE AND INVESTIGATION OF ASSOCIATED NUTRITIONAL FACTORS FOR FREE RANGE LAYING HENS IN AUSTRALIA**
*Mini Singh - University of Sydney, Australia*

16:15 – **PERCEPTIONS, PERFORMANCE AND PERSONALITY TRAITS OF AUSTRALIAN COMMERCIAL CHICKEN FARMERS WITH REGARDS TO BIOSECURITY PRACTICES**
*Angela Bullanday Scott - University of Sydney, Australia*

16:30 – **CONSUMER INSIGHTS INTO SUSTAINABILITY AND ANIMAL WELFARE**
*Nick Hover - Woolworths, Australia*

18:30 – **SYMPOSIUM DINNER HARBOUR CRUISE – STARSHIP SYDNEY**
*Departing from Circular Quay Wharf @ 6:30pm SHARP*

Trains leave St. James Station in Hyde Park every 3-5 mins, or it is a 15 min walk from the Sheraton on the Park. Your dinner ticket does include rail transfers.
Wednesday 7th February, 2018

HOT TOPICS – CONSUMER VIEWS & BIG DATA

**Session 9 Chair:** Professor Julie Roberts – WPSA President, Australian Branch

9:00 – **HAPPIER CHICKENS LAY TASTIER EGGS: MOTIVATIONS FOR BUYING FREE-RANGE EGGS IN AUSTRALIA**
Heather Bray - University of Adelaide, Australia

9:30 – **ENHANCING RESEARCH COMMUNICATION THROUGH INFORMATION DESIGN AND VISUAL STORYTELLING: REFLECTIONS ON 10 YEARS OF APSS PROCEEDINGS FIGURES**
Martin Krzywinski - Genome Sciences Centre, Canada

10:15 – **EFFECTS OF FEED ACIDIFICATION AND CONDITIONING TEMPERATURE ON NUTRIENT DIGESTIBILITY AND PERFORMANCE OF BROILER STARTERS FED WHEAT-BASED PELLETED DIETS**
Muhammad Reza Abdollahi - Massey University, New Zealand

10:39 – **CAN Xylanase inhibitors affect the efficacy of xylanases in poultry diets?**
Hadden Graham - AB Vista, UK

10:40 – **MORNING TEA**

**Session 10 Chair:** Christine Clark – AusPac Ingredients Pty Ltd

11:00 – **BIG DATA FOR POULTRY – WHAT IS POSSIBLE?**
Stuart Wilkinson - Feedworks, Australia

11:30 – **THE EFFECTS OF A MULTI-ENZYME AND BACILLUS PROBIOTIC COMBINATIONS ON CALCIUM AND PHOSPHORUS DIGESTIBILITY AND BROILER PERFORMANCE**
Amir Ghane - DuPont Ltd, Thailand

11:50 – **EFFECTS OF DIETARY CALCIUM LEVELS ON THE PERFORMANCE AND BONE QUALITY OF YOUNG BROILERS**
Cibele Araujo Torres - Trouw Nutrition, Spain

12:00 – **A NOVEL CARBOHYDRASE RESTORED NUTRIENT AVAILABILITY IN A 3% SILICA-DILUTED BROILER DIET**
Alex Wu - Adisseo Asia Pacific, Singapore

12:00 – **LUNCH**
@ Feast Restaurant, Level 1, Sheraton on the Park

**Session 11 Chair:** David Sherwood – EW-Nutrition

13:00 – **COMPARISON OF DIFFERENT METHODS TO DETERMINE THE GASTROINTESTINAL PASSAGE RATE IN POULTRY**
Manisha Kolakshyapati - University of New England, Australia

13:10 # **INFLUENCE OF HATCH TIME ON MEAT CHICKEN LEG STRENGTH**
Ryan Hopcroft - University of Sydney, Australia

13:20 # **IMPACT OF GRAIN TYPE ON PERFORMANCE AND GUT MICROBIOTA COMPOSITION IN BROILERS UNDER NECROTIC ENTERITIS CHALLENGE**
Kosar Gharib Naseri - University of New England, Australia
13:30 – **CONSISTENCY OF EFFICACY OF *BACILLUS* BASED PROBIOTICS ON VARIOUS DIET COMPOSITIONS**  
**Alex Wu - Adisseo Asia Pacific, Singapore**

13:40 – **EFFECT ON PERFORMANCE PARAMETERS OF DIFFERENT DOSES OF A NOVEL *BACILLUS* CHCC15076 PROBIOTIC FEED STRAIN FOR THE CONTROL OF NECROTIC ENTERITIS IN BROILERS**  
**Dorthe Sandvang - Chr. Hansen A/S, Denmark**

13:50 – **PERFORMANCE AND INTESTINAL HEALTH OF BROILER CHICKENS SUPPLEMENTED WITH A PROTEASE AND FED A STANDARD DIET OR A LOW-DENSITY DIET**  
**Jean-Christophe Bodin - Jefo Nutrition Inc., Canada**

14:00 – **STUDENT AWARDS**

**14:15**  
Associate Professor Tamsyn Crowley – Director, PoultryHub Australia will present the *Mingan Choct* Award for the most outstanding Postgraduate presentation along with their first funding announcement.

Associate Professor Peter Groves – Director, Poultry Research Foundation will present the award for best Postgraduate Poster presentation sponsored by Burleigh Dodds Science Publishing.

14:15 – **CLOSE OF APSS 2018**

14:30 – • Peter Groves - Director, Poultry Research Foundation
• Juliet Roberts - WPSA Australia Branch

14:30 – **AFTERNOON TEA**

15:00

# Student Presentations