



Embracing disruption
as an opportunity for animal science

**Joint AAAP and AAAS
Animal Production Congress**



Program

Tuesday 9 th July 2024				
0730	Registration			
0845 – 1030	Opening Plenary Session Chair: Di Mayberry, Michael Friend Session Sponsor: Zinpro			Plenary 3
0845– 0915	Opening, Awards & Welcome to Country			
0915 – 0945	Keynote 1: Michael Watkins, University of South Australia , The of role Bush Foods in future industry and ethical considerations for research			
0945– 1015	Keynote 2: Underwood Lecture: Chris Ashworth, Zinpro - Mineral Nutrition across livestock species and the role of zinc in treatment and prevention of RNA viral diseases in animals			
1015-1030	Panel Discussion and Question Time			
1030 – 1100	Morning Tea Sponsored by: SunPork Group			
1100 – 1230	Concurrent Session 1			
90min	Stream1: Nutrition: Minerals and novel supplements Chairs: Leesa Dunstan, Pragna Prathap Plenary 3 Sponsor: CJ Bio	Stream2: Environmental Sustainability: Alternatives to reduce methane emissions Chairs: Sarah Meale, Md Elias Uddin Room 220	Stream3: Reproduction Chairs: Shawn McGrath, Imogen Boughey Room 219	Stream4: Wildlife/ human disruption Chairs: Evan Bittner, Fiona Ryan Room 218
1100	EXTENDED PRESENTATION Phytogetic Feed Additives (PFA) and Organic Trace Minerals (OTM) offer solutions to improve the sustainability of Livestock production. Waraporn Kraitavin	Emission responses to 3- NOP in northern Australian beef grazing systems. Stuart Denman	EXTENDED PRESENTATION Paired comparison of Merino sheep reproductive performance in the NSW rangelands. Pregnancy status and ewe retention or sell decisions in extensive Merino flocks. Sue Hatcher	EXTENDED PRESENTATION: One Health in Action: A wildlife veterinarian's perspective on the illegal wildlife trade and zoonotic disease prevention in Laos. Mengxiong Vangnengxiong
1112		Determining the dose response for red seaweed to achieve methane mitigation in Merino sheep fed high-fibre diets. Charlotte Adam		

** Please note that this program is subject to change 04/07/2024**

1124	The performance of Phosphorus deficient mature cows in the Victoria River District (NT) improved rapidly when they were supplemented. Tim Schatz	Feeding conserved forages impact on dairy production methane emissions. Long (Paul) Cheng	The effect of ewe breeding values for fleece weight on lamb weaning weights, with a nutritional overlay. Andrew Reid	EXTENDED PRESENTATION Human dimensions: adding to the complexity of effective feral pig management. Heather Channon
1136	Zinc sources provide different effects on performance, bone mineralization and on bacteria count in broilers. David Cadogan	Considerations of pelleting and storing an energy supplement containing 3-Nitrooxylpropanol for grazing cattle. Mariano Parra	Maternal supplementation with rumen-protected arginine to improve twin-lamb survival in the Merino. Alyce Swinbourne	
1148	ELEVATOR PITCHES	The relationship between dry matter intake, methane production, methane yield, methane intensity, milk-yield, and rumination time in Australian Holstein dairy cows. Fazel Almasi	Dorper lambs have poorer survival at the same birthweights in the same environments as Merinos using an annual artificial breeding program. Beth Paganoni	Emergency animal disease preparedness and response in a zoo setting. Paul Eden
	Innovative approaches to sow feeding. Shu Ping Su			
	Effects of dietary mixture of coated copper sulfate and zinc oxide on growth performance, frequency of diarrhea, nutrient digestibility, and immune responses of weaned pigs. Jinuk Nam			
	Monitoring fecal bacterial flora change involved in disease onset in riding horse. Kazuki Shigemitsu			
1200	Effect of Transition Feeding of Asparagopsis-oil (Asp-oil) on Sheep Performance. Apeh Omede	Rumen methanogenesis inhibitor discovery using in silico docking and molecular dynamics. Namal Ranaweera	The percentage of normal sperm declines in consecutively collected ejaculates of ram semen. Katherine Seymour	Preparedness for and response to wildlife during disasters. Fiona Ryan
1212	Short-term effects of dietary selenium on lactating sows to improve litter performance, milk composition and tissue selenium retention in piglets. Minsoo Park	Emission responses to 3- NOP fodder cubes in growing cattle. Gonzalo Martinez-Fernandez	Fertility Analysis of Imported Dairy Cows in Large Scale Dairy Farm in Up Country. Sagarika Sumanasekara	Panel Discussion
1224	Q&A Message from our Sponsor: CJ Bio	ELEVATOR PITCH	ELEVATOR PITCH	
		Methanogenesis inhibition shifts microbial fermentation and stimulates acetogenesis in ruminants. Chris Greening	Effects of reduced glutathione supplementation to semen freezing extender on glutathione and thiol content in frozen-thawed bull spermatozoa. Kazuko Ogata	
	Effect of weaning age on post-weaning methane emissions from grazing heifers. Arjan Jonker			
1230 – 1330	Lunch			Sponsored by: APL

1330 – 1500		Concurrent Session 2		
90min	Stream1: Nutrition: Alternative Feed Resources Chairs: Matt Bekker, Apeh Omede Plenary 3 Sponsor: Lallemand	Stream2: Environmental Sustainability: Methane emissions and nitrogen utilisation Chairs: Paul Cheng, Mariano Parra Room 220	Stream3: Reproduction: Cattle & horses Chairs: Sue Hatcher, Don Nguyen Room 219	Stream 4: Animal Health & Disease Chairs: Mauida Foad Hasoon Alkhalawi, Fernanda Zumuner Room 218 Sponsor: Zoetis
1330	EXTENDED PRESENTATION Efficiency of pasture utilisation and performance of a rangeland cow calf operation when a live rumen specific yeast probiotic is added to a mineral supplement. Kip Karges	Effect of concentrate level on methane emissions from grazing dairy cows – A meta-analysis. Arjan Jonker	Weight pre-join and at joining are important for conception in commercial Angus beef heifers. Wayne Pitchford	The impact of heterogeneous residual variance across years on estimated breeding values for fly strike in sheep. Elena Dehnavi
1342		In vitro rumen fermentation and protein protection of canola and soybean meals using tannin extract from Bauhinia hookeri. Bereket Zeleke Tunkala	EXTENDED PRESENTATION Insights into pregnancy loss in the Australian Thoroughbred Industry: the spatiotemporal distribution of losses and management practices. Cara Wilson	The preventive effects of <i>Lentilactobacillus hilgardii</i> H-50 strain that binds to lipopolysaccharide on dextran sulphate sodium-induced acute colitis in mice. Rina Kanazawa
1354	Observations of average daily gains in young beef cattle grazing native pastures augmented with legumes versus native pastures only. Mary Williams	Prediction of enteric methane in dairy cows using readily available on-farm data. Md Elias Uddin		Enhancement of IgA production from mouse Peyer's patch cells by acetic acid bacteria. Sokleap Heng
1406	ELEVATOR PITCHES The artificial gastro-intestinal tract model: a reliable application platform for validating nutritional and functional effects of feed additives in monogastric animals. Kyuyeol Son	ELEVATOR PITCHES In vitro evaluation of an anti-methanogenic additive for pasture-based supplementation. Mariano Parra	Beef on dairy: current and potential usage of beef genetics in the Australian dairy herd. Jo Newton	Single-cell transcriptomic landscape in BALF with varying PRRSV virulence levels. Bridgette Logan
	Rumen N-to-Energy Synchronization of Intercropped Whole Plant Oat with Faba Bean as Hay in Dairy Cows: Effect of Maturity Stage at Harvesting. Peiqiang Yu	Comparing residual methane traits of lactating dairy cows measured using respiration chambers and GreenFeeds at pasture. Arjan Jonker		
	Screening of potential biomarker peptides for quality evaluation of processed soybean products based on an untargeted peptidomic approach. Anguo Liu	The Application of Propionate Producing Bacterial Consortium Can Further Reduce Ruminant Methanogenesis under The Condition of Directly Inhibiting Methanogenesis without any Offsetting Effects In vitro. Jongsik Jeong		
1418	Mineral composition in black soldier fly larvae a promising alternative to	ELEVATOR PITCHES Methane emissions from grazing dairy cows measured by a	Relative expression of sperm protamine 1 (Prm1) mRNA as a	Single-cell transcriptomic landscape in BALF with varying PRRSV virulence levels. Byeonghwi Lim

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	fishmeal and soybean meal in livestock feed. Ishaya Gadzama	micrometeorological technique. Pragna Prathap The Synergistic Approach of Adding Nitrate, Fumarate, and Propionate Producing Bacteria and Its Impact on Fermentation Characteristics, Methanogenesis and Ruminant Microbiota In vitro. Jongsik Jeong Investigating Dual Effects: Screening Amide Compounds in vitro for Methane Reduction and Enhanced Nitrogen Utilization Efficiency in Ruminants. Chaemin Yu	prospective marker of bull fertility may be breed-dependent. Bambang Purwantara	
1430	Effects of dietary supplementation of Lactobacilli Bamboo Powder on growth performance, blood biochemistry and intestinal properties of broiler chickens. Rong-Dian Su	$\delta^{15}N$ and physiologic changes in Angus steers before, during and after a heat stress event. Brandon Fraser	Impact of phyto-oestrogens resulting from grazing legume pastures on the 35 d conception rate in pluriparous cattle. Jessica Wyse	Phyto-chemical analysis and antimicrobial properties of North-eastern Himalaya plants against bovine mastitis causing bacteria. Neelesh Sharma
1442	Effects of gac fruit feeding on chemical composition and carotenoid accumulation of black soldier fly larvae and their faeces. Yoshiaki Hayashi	ELEVATOR PITCHES The relationship between $\delta^{15}N$ in tail hair, reproductive performance and total annual live-weight production of heifers over one calving season. Karen Eyre Genetic correlations between urinary nitrogen traits and calving interval in dairy cattle. Irene Van Den Berg Effects of biochar addition on temperature and greenhouse gas emission during cow manure composting. Dai Hanajima	Paddock Power: Assessing the impact of paddock characteristics on reproductive wastage in cattle using a commercial dataset. Paddock Power: Assessment of Paddock Area and Distance-to-Water effects on likelihood of P4M in beef cows? Kieren McCosker	Managing triplet-bearing ewes separately from twin-bearing ewes during late pregnancy and lambing improves triplet lamb survival. Emmanuelle Haslin
1454	Q&A	Q&A	Q&A	Q&A
1500- 1530	Afternoon Tea			Sponsored by Elanco Australasia
1530-1700	Concurrent Session 3			
90min	Stream1: Advancements in Animal Genetics and Breeding Chairs: Irene van den Berg, Elena Dehnavi Plenary 3	Stream2: Mitigation of Environmental Stress Chairs: Surinder Chauhan, Pippa Pryor Room 220	Stream3: Animal Health & Disease Chairs: Danila Marina, Yasodhara Gunasekara Room 219	Stream4: Precision Agriculture Chairs: Michael Rose, Fazel Almasi Room 218

1530	EXTENDED PRESENTATION: Using objective technologies to inform Australian sheep breeding values for carcass traits. Sam Walkom	The effects of isoquinoline alkaloids on Australian feedlot cattle during periods of heat stress. Leesa Dunstan	Carvacrol protects IPEC-J2 cells from oxidative stress via modulation of mitophagy and anti-oxidative effect. Ming-Chun Hsu	The relationship between body condition score and liveweight for different sheep breeds. Amy Bates
1542		Treating rams with melatonin prior to joining increased pregnancy rate by 26.9%. Alice Weaver	Calcium and magnesium status of lambs grazing mixed species annual fodder crops. Edward Clayton	Detecting beef cattle behaviours that may impact supplement intake variation through agricultural technologies. Karen Eyre
1554	Updating the trait definition and genetic prediction model for cow survival. Majid Khansefid	Using the Iberia Heat Tolerance test to identify heat tolerance in Droughtmaster cows. Pippa Pryor	Novel approaches in sampling, detection, isolation, and identification of Mycoplasma ovipneumoniae in sheep with respiratory tract infection. Mauida Alkhallawi	Prediction of Hot Carcass Weight of Feedlot Angus Cattle. Ning Han
1606	Preliminary estimates of direct genetic and maternal genetic parameters for birth and weaning weight of Philippine native pigs. Ester Battad Flores	Temperature responses of Bos taurus dairy cattle carrying the "SLICK" gene during a controlled thermal challenge. Gemma Worth	A Comparison of skin lesion occurrence in Brahman and Composite beef cattle in the early wet season following the application of treated fly tags. Caity Kelly	Machine Learning applications in animal health: A case study of lameness in dairy cows. Adwait Ghanawat
1618	Determining host control of rumen microbial profiles in deer. Jordan Clarke	An efficient way to cool lactating cows under heat stress in an era of climate change. Chin Lee	The production impact of ineffective gastrointestinal nematode control in Fijian small ruminant systems. Tiago A.C.C da Silva	Development of machine learning models utilising acceleration data for peripartum behaviour monitoring in Purebred Spanish mares. Manuel Garcia-Garcia
1630	EXTENDED PRESENTATION What are the potential impacts of the genetic selection of livestock for faster growth? Thomas Keogh	Amelioration of the effects of heat stress on gastrointestinal tract and gut microbiota of Ross 308 broilers with chicory and lucerne. Jeremy Cottrell	In-vitro selection and characterization of antimicrobial resistance profile in mastitis-causing bacteria. Hsin-I Chiang	The impact of automated feedlot bunk management on Brahman cross steers; performance, health, and carcass outcomes. Samuel Platts
1642		Assessing the Goodness of Fit of Different Temperature-humidity Index Models on Milk Yield and Milking Frequency in Auto-milking Systems in Hot and Humid Environment. Chia-Jung Lee	Vaccine cross protection against Salmonella Enteritidis in layers. Christine Clark	ELEVATOR PITCHES An automatic detection for morphological based boar sperm of multi-magnification microscopic images with deep learning-based approach. Taehyun Lee Grazing behaviour of lambs on mixed annual fodder crops. Linda Café Automatic calculation of boar semen concentration using deep learning based object detection. Jisoon An
1654	Sessions conclude and transition to Plenary 3 for Awards			

1700	AB/CAPI Awards	Room: Plenary 3
1715-1915	Poster Session 1 and Welcome Reception	Sponsored by

Wednesday 10th July 2024

0845-1000	Plenary 2 Session Chairs: Darryl D'Souza, Amy Bates			Room: Plenary 3
0845-0915	Keynote 3: Kirsty Richards, SunPork - Autism and Agriculture			
0915-0945	Keynote 4: McClymont lecture Prof Lindiwe Majele Sibanda, CGIAR and University of Pretoria - Reimagining resilient livestock food systems from farm to fork			
0945 -1000	Panel Discussion and Question Time			
1000-1030	Morning Tea			Sponsored by Rumin8
1030 1230	Concurrent Session 4			
120min	Stream1: Nutrition: Digestibility and energy calculations Chairs: Matt Bekker, Amy Bates Plenary 3 Sponsor: Norel	Stream2: Pig Science Chairs: Jessica Craig, Jessica Wyse Room 220 Sponsor: Boehringer Ingelheim	Stream3: Beef & Buffalo Science Chairs: Luis Prada e Silva, Anthony Carr Room 219	Stream4: Small Ruminants Chairs: Kristy DiGiacomo, Kathryn Dawson Room 218 Sponsor: AARN
1030	Application of in vitro three-step digestion and fermentation evaluation on probiotic supplementation effect of pig diet. Chiao-Ting Chang	EXTENDED PRESENTATION Achieving a greater net contribution to the human protein supply chain. Robert van Barneveld	Crops for Cattle: Increasing the efficiency of north Australian cattle production systems through using local crops to improve dry season weight gain. Tim Schatz	Effect of dietary inclusion of agro-waste based antioxidant enriched maize substitute on Gaddi goat performance and selected meat quality attributes. Gauri Jairath
1042	Relationship between feed fermentation kinetics and dietary fiber structure: based on pig in vitro digestion and fermentation models. Dongsheng Che		Commercial beef production from twinner cattle. Leo Cummins	Nutrient utilization of ozone-treated paddy straw-based complete feed pellets on growth performance in goat kids. Manoj Kumar Gendley
1054	Rumen fermentation dynamics, microbial community, and metabolite profiles reveal insights into residual feed intake variability in Hanwoo steers. Cheolju Park		A lower crude protein, higher standardized ileal digestibility Lysine: Crude Protein ratio for improved growth and reduced scouring in newly weaned pigs. James Langley	Effects of biochar supplementation on greenhouse gas emissions from grazing cattle. Gamaliel Simanungkalit
1106	Screening of temperate pasture species for in vitro methane production in a dairy production system. Dilini Weerathunga	Predicting the heat production of growing pigs based on heart rate monitoring using machine learning. Shuai Zhang	ELEVATOR PITCHES Effects of pineapple peel silage on growth performance and carcass parameters in Hostein steers. Ya-Shiou Chang	Failing to wean a lamb as a ewe lamb impacted ewe lifetime efficiency. Emmanuelle Haslin

			The incidence of unsafe levels of cadmium in southern Australian beef. Eric Ponnampalam	
			Utilisation profiles of front-foot weighing system by breeding cows in extensive grazing environments. Thomas Williams	
1118	Ecological characteristics and possible function of uncultured <i>Succinivibrionaceae</i> in the rumen of Holstein cows. Miho Fujimori	Impacts of feeding different levels of soluble and insoluble non-starch polysaccharides on faecal <i>Escherichia coli</i> excretion and performance after weaning. John Pluske	Impact of fatty acids on the eating quality of beef. Nipa Rani Sarker	Assessment of anthelmintic efficacy in meat goats. Kathryn Dawson
1130	Estimation of metabolizable energy value of okara meal in broiler chicken using approximate nutritive value, in vivo and in vitro digestibility technique. Bagus Himawan Wicaksono	Starch-driven feed intake in pigs is partially explained by sweet and sour taste sensitivities. Eugeni Roura	Increasing the inclusion rate of 3-nitrooxypropanol and dietary grain content reduces methane yield in feedlot cattle fed steam-flaked wheat and barley-based diet. Mohammed Rashed Chowdhury	Grazing forage oats during the lambing period may increase perinatal lamb survival. Susan Robertson
1142	ELEVATOR PITCHES	Monoglycerides of butyric, caprylic and capric acid support weaner pig performance. Robert Hewitt	Dressing percentages of purebred Angus, Brahman and Charolais steers over increasing days on feed. Jillian Burgess	Production characteristics of feedlot lambs fed a novel probiotic. Georgina Mutton
	Integrated metabolic profiling and transcriptional analysis reveals the difference of liver lipid metabolism between Duroc pigs and Taoyuan black pigs. Fengna Li			
	Maternal nutrition differs Intramuscular adipogenesis potential of Wagyu (Japanese Black) fetus muscle. Taketo Haginouchi			
	Preliminary evaluation of using deer fecal as a source of microbial inoculum for the in vitro digestibility. Ya-Chun Liu			
1154	Comparing calibration statistics from a benchtop and handheld NIR instrument using pig faecal and ileal DE content datasets. Charlie Rikard-Bell	Energy concentration in feed ingredients depends on chemical composition and growth stage of pigs. Noa Park	ELEVATOR PITCHES	In vitro dietary analysis of browses and pasture consumed by goats. Morteza Moradi
			Methane emissions from Angus and Brahman heifers fed forage-based diets. Gamaliel Simanungkalit	
			Feedlot finisher diet composition affects inhibition of methane by 3-nitrooxypropanol. Fran Cowley	
1206				ELEVATOR PITCHES

	NIR Calibration Development for Neutral Detergent Fibre Digestibility in cattle based on a Range of Australian Forages. Richard Meyer	Effects of adding plant extracts to diet on growth performance of weaned piglets. Yu-jie Chang	The effect of strategic supplementation on calf survival, re-conception rates and overall productivity. Luis Prada e Silva	Molecular Adaptation of Rumen Epithelia to Ruminant Metabolites with High-concentrate Starter Introduction in a Lamb Model. Kai Zhang
				Reproduction and growth of sheep in Samoa islands. Faatoialemanu Areta
				Migration stress on production of Bakarwali sheep and goat herds in Himalayan ranges mitigated with highland pasture. Arvind Kumar
1218	ELEVATOR PITCHES	Evaluating the net energy requirements for maintenance based on indirect calorimetry and heart rate monitoring in gestating sows. Zhe Li	Heavier weaned steer calves have heavier carcasses and improved carcass characteristics. Jena Alexopoulos	Impact of different short-term heat stress duration and breeds on sheep meat quality. Minghao Zhang
	Nutrient digestibility of locally based diet on local chicken breed. Mardhati Mohammad			
	Hand-held NIR sensor accurately predicts bovine information through faecal scanning. Gamaliel Simanungkalit	Sponsor message: Boehringer Ingelheim		
	Q&A			
1230 – 1330	Lunch Sponsored by Boehringer Ingelheim Animal Health			
1330-1530	Concurrent Session 5			
120 min	Stream1: Nutrition: Dietary Manipulations and Probiotics Chairs: John Pluske, Thomas Keogh, Ishaya Gadzama Plenary 3 Sponsor: Iqsol Advance	Stream2: Meat Science Chairs: Robyn Warner, Emma Lynch Room 220 Sponsor: MPSC	Stream3: Global Farm Platform Chairs: Jordana Rivero-Viera, Cara Wilson Room 219	Stream4: Poultry Science Chairs: Henny Akit, Muhsin Al Anas Room 218
1330	A new probiotic, Bacillus pumilus AQP4275, to improve broiler efficiency: meta-analysis of 11 zootechnical trials. Alison Leary	Meat quality score of high-marbling beef evaluated by Australian and Middle Eastern consumers. Don Nguyen	EXTENDED PRESENTATION: Advancements in Sustainable Ruminant Livestock Systems: Insights from the North Wyke Farm Platform. Jordana Rivero-Viera	Effect of activated vitamin D on eggshell quality and performance in older brown laying hens. Christine Clark
1342	The blend of bacillus fermented soybean meal, functional amino acids and nucleotide improves small intestinal integrity, nutrient digestibility, growth, and reduces the prevalence of diarrhea in weaned piglets compared with animal proteins. Dinh-Hai Nguyen	Consumer eating quality and physicochemical traits of pork loin and topside differed between genetic lines. Xiyang Li		Sex-related differences in haematological parameters of Mae Hong Son chickens. Kulisara Marupanthorn

1354	Seaweed extract improves antioxidant property and intestinal health in dogs by modulating gut microbiota and its metabolite composition. Mingrui Zhang	Investigating local consumer attitudes, habits, and preferences for sheep meat in Samoa. Tusiata Lemuelu	EXTENDED PRESENTATION: Integrated Crop and Livestock Global Farm Platform Research: University of Wisconsin-Platteville. Andrew Cartmill	Investigation of the effects of <i>Bacillus subtilis</i> -fermented product extracts on the growth performance, intestinal morphology, and cecal microbiota in broilers. Fa-Shuang Yuan
1406	Early overnutrition affects epigenetics related to mitochondria beta-oxidation in grass-fed Wagyu longissimus muscle. Daichi Nishino	Muscle affects the intramuscular fat content and total heme content of pork silverside, loin and bolar blade. Yi Xu		Dietary <i>Bacillus velezensis</i> KNF-209 supplementation improves growth performance, enhances immunity, and promotes gut health in broilers. Ying Liu
1418	ELEVATOR PITCHES	Metabolic enzyme activity may explain the variation in meat quality between three pig muscles across two ageing times. Huiling Huang	EXTENDED PRESENTATION: Achieving data-driven net zero: challenges and solutions from Harper Adams University Future Farm. Joshua Onyango	Effects of Taiwanese green propolis ethanolic extracts on the intestinal inflammation-associated gene expression and fecal microbiota in laying hen chicks. Ying-Chu Chen
	Addition of β -mannanase in weaning pig's diet enhances the utilization of palm kernel meal, a representative alternative ingredient. Minhyuk Jang			
	Effect of various probiotics, synbiotics or enzyme cocktail on nursery feed. Seong-min Koo			
	Characterization of uncultured fiber-adherent rumen microorganisms in cattle by single-cell genomic analysis. Shuhei Takizawa			
1430	Increasing lipid content of common pastures and forages may improve livestock production. Lucy Watt	Effects of adding CaCl ₂ to vascular rinse on tenderness and muscle structure in lamb. Bob Campbell		Molecules participating in the sexually dimorphic feather pigmentation in <i>Chrysolophus pictus</i> . Chin Li
1442	The supplementation of carbohydrases to diets containing wheat distiller's dried grains with solubles in broiler chickens. Eunjo Kim	ELEVATOR PITCHES	Disaggregating biogenic and thermogenic carbon sources at farm level to support decarbonisation and carbon net zero transitions. Michael Lee	Hens ovarian microsomal triacylglycerol transfer protein responds to heat stress for VLDL secretion. Petnamnueng Dettipponpong
		Dietary Isoleucine supplementation improves fresh meat drip loss through improving redox homeostasis of finishing pigs. Linjuan He		
		Effects of dietary fermented shiitake residues on growth performance, meat quality and flavor substances of finishing pigs. Qiuping Guo		
		Prediction of chemical components of fresh pork by near-infrared spectroscopy (NIRS) and nuclear magnetic resonance (NMR). Xiying Li		

1454	Effect of increasing ratios of branched-chain amino acids and arginine and glycine supplementation in broilers fed low crude protein, amino acid-supplemented diets from day 0 to 10. Roxanne de Gula-Barrion	Accreditation of in-abattoir dual energy X-ray absorptiometry predictions of lamb carcass composition. Stephen Connaughton	Decoding Theileria resistance: Identification of novel SNPs of OR51H1 gene in Vechur and crossbred cattle using pooled sample Sanger sequencing. Muhammed Elayadeth Meethal	Administration of probiotics in one-week-old chicks suppresses Campylobacter jejuni colonization. Aito Murakami
1506	The effect of low-dose bromoform supplementation during late gestation in beef cows. Mariana Caetano	The impact of the Advanced Livestock Measurement Technologies project on objective measurement in meat supply chains. Daniel Brown	Resilience of indigenous Indian goat breeds to thermal and nutritional. Suraj Pullolil Thankappan	Influence of sex hormones on social hierarchy in chicken strains bred for different production systems. Jou Ching Lin
1518	ELEVATOR PITCHES Exploring the Impact of Forage-to-Concentrate Ratios on the Ruminant Microbiome in vitro, with a Focus on Protozoa-associated Prokaryotes. Geonwoo Kim	AUS-MEAT accreditation of an ultrawide band microwave device to predict sheep meat hot carcass GR tissue depth. Kate Loudon	ELEVATOR PITCH Feeding sheep a blend of essential oils can improve production and reduce methane emission intensity. Suyog Subedi	Effect of various alternative protein feeds on growth performance of broilers. Henny Akit
	Influence of management system on lamb growth performance. Shawn McGrath	Sponsor message: MPSC Inc	Q&A	
	Sponsor message: Igsol Advance			
1530-1600	Afternoon Tea			Sponsored by Igsol Advance
1600-1715	Plenary 3 Session Chairs: Sarah Meale, Paula Gonzalez-Rivas			Room: Plenary 3
1600-1630	Keynote 5: Stobbs Lecture Fran Cowley, University of New England – Towards mitigation of greenhouse emissions from grazing and forage based ruminant production systems.			
1630-1700	Keynote 6: Tim McAllister, Agriculture and Agri-Food Canada – Emerging strategies to mitigate enteric methane emissions.			
1700-1715	Panel Discussion and Question Time			
1715-1815	Poster Session 2			
	Free evening			

Thursday 11th July 2024				
7.45 – 8.45	AAAS Federal Council (invite only)			Room 215
0845-1000	Plenary 4 Session Chairs: Jo Newton, Lauren Hemsworth			Room: Plenary 3
0845-0915	Keynote 7: Barnett Lecture Jean-Loup Rault, University of Veterinary Medicine, Vienna - Positive animal welfare – Why and how?			
0915-0945	Keynote 8: Matthew Shaffer, DataGene , Collaborative approach to the genetic progress in the dairy industry.			

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0945 -1000	Panel Discussion and Question Time			
1000 - 1030	Morning tea			Sponsored by DSM
1030-1200	Concurrent Session 6			
90min	Stream1: Animal Genetics: Methane Emission, Feed Additives and Genomic Insights Chairs: Irene van den Berg, Nipa Rani Sarker Plenary 3	Stream2: Animal Welfare Chairs: Lauren Hemsworth, Maxine Rice Room 220	Stream3: Dairy Science Chairs: Joe Jacobs, Nur Nazratul Fareha Mohd Yasid Room 219	Stream 4: Adoption, education and extension Chairs: Sue Hatcher, Charlotte Adam Room 218
1030	Methane phenotyping with different durations provides similar genetic parameters. Michael Aldridge	Animal welfare epidemiology: benefits and challenges of its application in commercial livestock production. Rutu Galea	Chicory reduces Nitrogen excretions but not methane emissions of dairy cows compared with irrigated pasture and forage rape. Juan Keim	Building Dookie VR to share the story of agriculture. Stuart Barber
1042	Generation of daughters from dairy cow sires with divergent methane breeding values. Olivia Spaans	Tail biting perpetrators show decreased amino acid plasma profiles compared to non-perpetrator pigs. Abedin Abdallah	Effect of age at first calving on milk yield in dairy cattle. Nur Nazratul Fareha Mohd Yasid	Teaching pasture assessment and forage budgeting to Animal Science students in the context of drought resilience. Shawn McGrath
1054	Breeding for reduced methane emissions in New Zealand dairy cattle: Greenfeed visitation and phenotypic variation by breed. Lorna McNaughton	On the trail of the tail: which behavioural changes are most predictive of tail biting in pigs? Megan Lucas	Effect of injectable trace mineral supplementation on dairy calf health and antioxidant status. Surinder Chauhan	Educating the next generation of beef producers about sustainable rangeland management through on-station courses. Stacey Holzapel
1106	Feed intake for sheep fed ad libitum pellets under feedlot conditions can be estimated precisely in three weeks for most breed types. Karen Moore	Maternal calls altered gene expression of a receptor associated with physiological stress in the hippocampus of female meat chickens. Peta Taylor	ELEVATOR PITCHES	ELEVATOR PITCHES
			Green synthesis and nano-encapsulation of Himalayan herb in functional ethnic dairy product for lifestyle disease prevention and Its animal model validation. Arvind Kumar	Enhancing livestock farmer education through extension programs. Hsiu Chu Lee
			Potential for the development of A2 milk in Japan. Mai Tokunaga	Effects of vegetation type on the distribution of predators for village chickens. Marizvikuru Mwale-Manjoro
			Dairy farmers' attitudes in A2 milk production. Takeyuki Ozawa	Lean management in the Taiwanese pig farming industry and its impact on employees'. Kuo-Cheng Yu
1118	Identification of causal mutations in dairy cows using gene expression and trait physiology. Mohammad Ghoreishifar	Exploring relationships between sleep-like posture patterns and learning abilities in Japanese black calves. Sita Liu	The Selection of Potential Psychobiotics and Their Postbiotics from kefir for Alleviating Neurodevelopmental Disorders Using Cell Models. Cheng-Yu Huang	Stakeholder attitudes towards and engagement with traceability among the cattle, sheep and goat industries. Marta Hernandez-Jover

1130	Novel SNP in the bovine OR51H1 gene and its association with resistance to Theileria infection in tropically adapted dwarf Vechur and crossbred cattle. Muhammed Elayadeth Meethal	Developing a welfare benchmarking system for grazing beef cattle in Australia. Linda Café	Prediction of total-tract starch digestibility of lactating dairy cows using faecal starch. Sandi Nayohan	Management practices and key knowledge gaps in the Australian alpaca industry. Imogen Boughey
1142	Carbon footprints of case study dairy farms in southeast Australia. Saranika Talukder	Challenges and opportunities in cage-free egg production systems for layer hens: perspectives from Asian egg producers. Kate Hartcher	Oro-ruminal sampling device and technique for rapid collection of rumen content and improved recovery of solid fractions for microbiome analysis. Rodrigo Albornoz	Disrupting the status quo: a new approach for identifying and assigning conference session chairs. Jo Newton
1154	ELEVATOR PITCHES Analysis of Selection signatures using Runs of homozygosity patterns in Yellow Korean Native Chicken. Jaewon Kim	ELEVATOR PITCHES Ammonia on Live Export Vessels practical management options. Anthony Carr	ELEVATOR PITCHES Effect of forage NDF concentration and a saturated fat supplement in the diet of Holstein-Friesian cows during hot weather. Leah Marett	ELEVATOR PITCH Breaking barriers and cultivating careers: Empowering new parents in agricultural research. Cara Wilson
	Q&A	Validation of detecting mastitis in lactating sows using udder temperature measured with infrared thermographic camera technology: A pilot study. Buddhika Liyanage	Feeding effect of TMR-based diet on domestically developed corn silage. Jong Geun Kim	
1200-1330	Lunch & Poster Session 3			Sponsored MPSC Inc
1330-1500	Concurrent Session 7			
90min	Stream1: Pig Science Chairs: Rebecca Athorn, Hasan Zaman Plenary 3 Sponsor: APRIL	Stream 2: Impact and Assessment of Environmental Stress Chairs: Surinder Chauhan, Pippa Pryor Room 220	Stream3: Meat Science: Consumers and meat products Chairs: Gauri Jairath, Edwina Toohey Room 219 Sponsor: AMPC	Stream4: Food Efficiency and Global Security Chair: Michael Friend, Renata Tognelli Room 218
1330	The incidence of osteochondrosis and related gene markers in boars subject to growth performance. Te-Lin Lee	Measuring HSP in tail hair as an alternative method to assess Heat Stress in Cattle. Kieren McCosker	Short duration lairage reduces total viable count of microbes on the hide of cattle. Emma Lynch	EXTENDED PRESENTATION: Developing sustainable beef production selection metrics. Meredith Harrison
1342	Effects of gestational aspirin supplementation on farrowing rate and piglet birth weight of sows mated during summer. Fan Liu	Effects of summer season exposure at different trimesters of gestation on survival and first-lactation milk production capacity of the offspring. Farhad Ahmadi	Tackling future sheep meat production from past lessons learnt: Utilising forages of low to moderate nutritive value by supplementary feeding. Eric Ponnampalam	

1354	The need for further enrichment strategies to deter tail biting in pigs; a systematic review and meta-analysis approach. Kate Plush	Study of heat adaptability dynamics of Kosali cattle breed of India. Ashutosh Tiwari	Estimation of pre-slaughter stress in local Pakistan's beef cattle during transportation and lairage stay using biochemical measurements. Jamal Nasir	Isolation and characterization of bacteriophages against Salmonella from Taiwan's poultry farm. Wun-Yuan Wu
1406	ELEVATOR PITCHES	Dairy cows with lower body temperature on thermoneutral days are likely to have lower body temperature on days with high temperature humidity index. Leah Marett	EXTENDED PRESENTATION Bushfire exposure associated with increased incidence of beef dark colour defects. Melindee Hastie	Alternative protein sources in human diet. Minh Ha
	An investigation of parturient ocular appearance in sows. Alexandra Walls			
	The influence of an encapsulated functional fatty acid blend on the distribution of colostrum quality among commercial sow herds. Christine Clark			
	Validating the use of respiration chambers to assess methane emission from pigs in Taiwan. Hsi Wen Hung			
1418	A microbial perspective on straw as a pre-farrow nesting material for sows. Tanya Nowland	Adaptation of Grower Pigs to Heat Stress: Impacts on Blood Volume, Respiratory Alkalosis and Organ Damage Using Evans Blue. Jeremy Cottrell		Hanwoo pemmican with canola oil replacing animal fat: Effects on quality and storage characteristics. Soyoung Jang
1430	Effects of high voltage electrostatic field treatment on the conformational structure of pork. Ti-Chun Chang	Investigating the Crossroads of Host-Microbiota Interaction in Growing Pigs during Chronic Heat Stress through Transcriptome, Metabolite, and Microbiome Integration. Chiwoong Lim	An Assessment of the Competitive Advantage of Modern Retail Meat Shops in Indonesia. Robi Agustiar	EXTENDED PRESENTATION Plant derived Polyphenols to mitigate the effects of climate change. Frank Dunshea
1442	Intramuscular supplementation of iron alleviates bacterial-induced diarrhea of weaned piglets by enhancing intestinal barrier function. Huahua Du	The influence weather station location on heat load prediction in Australian Feedlots. Angela Lees	Muscle fibre type and postmortem ageing influence the formation of flavour-active compounds in beef. Zhenzhao Li	
1454	ELEVATOR PITCH	ELEVATOR PITCH	Q&A	Q&A
	Rational utilization of non-conventional feed resources in feed formulation technology can help reduce food loss and explore sustainable production models of pigs. Qile Hu	Heat stress responses and GNAI3 gene polymorphism study in three indigenous goat breeds Swagat Mohapatra		
	Analysis of causes of piglet mortality in sows of different parities under local commercial operation. Jui-Ting Yeh			

1500-1530	Afternoon Tea				Sponsored by BASF			
1530 - 1630	Concurrent Session 8							
60 min	Stream1: Reproduction: Pig and Poultry Chairs: Kate Plush, Fan Liu Plenary 3 Sponsor: APL		Stream2: Environmental Sustainability: Livestock sustainability Chairs: Paul Cheng, Mariano Parra Room 220		Stream 3: Animal Health & Disease Chairs: Cara Wilson, Lucy Watt Room 219		Stream4: Precision Agriculture Chair: Michael Rose, Fazel Almasi Room 218	
1530	Dietary calcium nitrate in late gestation is a superior alternative to supplemental arginine for improving piglet birth weights and chance of survival to weaning. Jessica Craig		The hydrolytic efficiency and synergistic action of recombinant xylan-degrading enzymes on corn byproducts. Chunyue Li		Weaning age affected the development of the digestive tract in pasture-reared calves. Ajmal Khan		The influence of the eShepherd™ virtual fencing system on behaviour in grazing beef cattle. Jarrood Lees	
1542	Preliminary analysis of black pig seminal plasma extracellular vesicles on boar semen cryopreservation. Chia-En Wu		ELEVATOR PITCHES		Development and efficacy evaluation of a new phytogetic anti-coccidial solution for control of coccidiosis in poultry. Kyuyeol Son		Management of dairy cattle using virtual-herding and fencing with Halter technology. Megan Verdon	
			Super-oxygenation of water with probiotic supplementation for methane emission reduction. Tshering Gyeltshen					
			Evaluation of spent mushroom substrate silage applied on feeding Holstein-Friesian lactating cows. Ming-Han Tsai					
			Effects of irrigating Napiergrass with cattle wastewater on the environment, crop growth, and cattle health. Hsin-Jung Lee					
1554	Analysis and applications of Black Pig oviduct extracellular vesicles. Jung-Wen Huang		Practical approaches to mitigate greenhouse gas emissions in ruminant and monogastric livestock. Liang Chou Hsia		Growth comparison and intestinal health in broilers fed scent leaf meal (<i>Ocimum gratissimum</i>) and synthetic antibiotic. Akintunde Adedoyin		Multi-site calibration and validation of a UAV-borne multispectral camera for predicting dairy pasture biomass. Anna Thomson	
1606	Arresting calcium-regulated sperm metabolic dynamics enables prolonged fertility in liquid storage of chicken semen. Atsushi Asano		Bromoform degradation by pure cultures of <i>Methanobrevibacter gottschalkii</i> in vitro. Renata Tognelli		Common health issues in livestock grazing annual fodder crops. Dione Howard		Accuracy of an inexpensive handheld hyperspectral scanner in predicting dairy pasture nutrient composition for various pasture species. Monique Berkhout	
1618	ELEVATOR PITCHES		ELEVATOR PITCHES		Bacteriocin Microcin J25's antibacterial infection effects and novel non-microbial regulatory mechanisms: differential regulation of dopaminergic receptors. Lijun Shang		Developing a sensor-based behavioural indicator for heat stress in extensive beef cattle grazing systems. Anita Chang	
	Effects of different concentrations of unhulled <i>Chenopodium formosanum</i> (UCF) and <i>Chenopodium formosanum stem</i> (CFS) extracts additives on the quality of cryopreserved Taiwanese black boar sperm. Wen-Chi Hsu		Dosing dairy cows with Bacillus or adding Bacillus in vitro did not mitigate methane production. Sreemol Suthan Nair					

	The application of Black pigs follicular fluid exosomes on immature oocytes vitrification. Hsin Li	Methane mitigation assessment on-farm in dairy calves fed a sugarcane extract. Pragna Prathap		
	Q&A	Q&A		
1630	Congress Close			
1900-2300	Congress Dinner and awards			Sponsored by Murdoch University

Friday 12th July 2024				
0845 – 1600	Post Conference Tours			
	<i>Tour 2:</i> Mornington Peninsula with Lunch at T'Gallant Winery	<i>Tour 3:</i> Werribee Open Range Zoo with lunch at Shadow Fax Winery		