# Program Summary

<table>
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<th>MONDAY SESSIONS JANUARY 29</th>
<th>ROOM NUMBER</th>
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<tr>
<td>Physiology I B-311</td>
<td>7:45 a.m. – 9:15 a.m. (Dr. Jorge Vizcarra)</td>
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<tr>
<td>Processing &amp; Products I B-311</td>
<td>9:30 a.m. – Noon (Dr. Amit Morey)</td>
<td>2</td>
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<tr>
<td>Metabolism &amp; Nutrition I Enzymes B-311</td>
<td>1:00 – 3:30pm (Dr. Kelley Wamsley)</td>
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<td>Pathology B-312</td>
<td>8:00 a.m. – 10:00 a.m. (Dr. Robert Beckstead)</td>
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<tr>
<td>SCAD I B-312</td>
<td>11:00 a.m. – Noon (Dr. Joseph Giambonne)</td>
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<td>SCAD II B-312</td>
<td>1:00 – 3:00 p.m. (Dr. John El-Attrache)</td>
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<tr>
<td>Metabolism &amp; Nutrition II Amino Acids B-313</td>
<td>7:30 – 9:45 a.m. (Dr. Samuel Rochell)</td>
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<td>Metabolism &amp; Nutrition III Amino Acids/Vitamins &amp; Minerals B-313</td>
<td>10:00 – Noon (Dr. James Kessler, DSM)</td>
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<td>Metabolism &amp; Nutrition IV Vitamins &amp; Minerals B-313</td>
<td>1:00 p.m. – 3:30 p.m. (Dr. Sergio Luiz Vieira)</td>
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<tr>
<td>Metabolism &amp; Nutrition V Feed Additives &amp; General Nutrition B-314</td>
<td>7:45 – 9:45 a.m. (Dr. Sunday Adedokun)</td>
<td>11</td>
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<td>Metabolism &amp; Nutrition VI Feed Additives &amp; General Nutrition B-314</td>
<td>10:00 – Noon (Dr. Wei Zhai)</td>
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<tr>
<td>Metabolism &amp; Nutrition VII Feed Additives &amp; General Nutrition B-314</td>
<td>1:00 – 3:30 p.m. (Dr. Woo Kyun Kim)</td>
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<tr>
<td>Environment Management I Behavior &amp; Incubation B-315</td>
<td>7:30 – 10:00 a.m. (Dr. Jessica Starkey)</td>
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<td>Environment Management II Stress Responses B-315</td>
<td>10:15 – Noon (Dr. Jeremiah Davis)</td>
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<td>Environment Management II, con’t Stress Responses B-315</td>
<td>1:00 – 1:30 pm (Dr. Jeremiah Davis)</td>
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<tr>
<td>Physiology II B-315</td>
<td>1:30 p.m. – 2:15 p.m. (Dr. Katie Elliott)</td>
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<td>Processing &amp; Products II B-315</td>
<td>2:30 p.m. – 3:30 p.m. (Dr. Michael Rothrock)</td>
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<tr>
<td>Student Luncheon B-310</td>
<td>Noon – 1:00 p.m.</td>
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<td>USPOULTRY Awards Presentation B-313</td>
<td>3:30 p.m. – 4:00 p.m. (Dr. John Glisson)</td>
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<td>Posters Displayed B-313 Foyer</td>
<td>1:00 p.m. – 6:00 p.m. (Dr. Katy Tarrant, Dr. Elijah Kiarie)</td>
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<tr>
<td>Poster Reception B-313 Foyer</td>
<td>4:00 p.m. – 6:00 p.m.</td>
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<td>Time</td>
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<tr>
<td>8:00 a.m. – Noon</td>
<td>B-313 Foyer</td>
<td>Posters Displayed</td>
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<td>8:00 a.m. – 9:15 a.m.</td>
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<td>Environment Management III</td>
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<td>9:30 a.m. – Noon</td>
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<td>Environment Management IV</td>
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<td>8:00 a.m. – 9:30 a.m.</td>
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<td>SCAD II</td>
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<td>9:45 a.m. – 11:00 a.m.</td>
<td>B-312</td>
<td>Metabolism &amp; Nutrition VIII Amino Acids</td>
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<td>7:30 a.m. – 9:15 a.m.</td>
<td>B-313</td>
<td>Metabolism &amp; Nutrition IX Enzymes</td>
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<td>9:30 a.m. – 11:00 a.m.</td>
<td>B-313</td>
<td>Metabolism &amp; Nutrition X Enzymes</td>
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<td>7:30 a.m. – 9:15 a.m.</td>
<td>B-314</td>
<td>Metabolism &amp; Nutrition XI Feed Additives</td>
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<td>9:30 a.m. – 11:00 a.m.</td>
<td>B-314</td>
<td>Metabolism &amp; Nutrition XII Feed Additives</td>
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<tr>
<td>7:45 a.m. – 9:15 a.m.</td>
<td>B-315</td>
<td>Metabolism &amp; Nutrition XIII Feed Additives</td>
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<td>9:30 a.m. – 11:00 a.m.</td>
<td>B-315</td>
<td>Metabolism &amp; Nutrition XIV Feed Additives</td>
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<tr>
<td>11:00 a.m. – Noon</td>
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<td>Milton L. Dendy Keynote Lecture</td>
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<td>Noon – 1:00 p.m.</td>
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<td>SCAD Business Meeting</td>
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<td>Noon – 1:00 p.m.</td>
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<td>SPSS Business Meeting</td>
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Officers of the SPSS 2017-2018

President: Dr. Edgar Oviedo-Rondon, North Carolina State University
First VP: Dr. April Levy, DSM
Second VP: Dr. Brian Fairchild, UGA
Past President: Dr. Omar Gutierrez, Huvepharma
Executive Secretary: Dr. Mary Beck
Poultry Science Department
Mississippi State University
Mail Stop 9665
Mississippi State, MS 39762

Phone: 662.325.3416
Email: m.beck@msstate.edu

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Department of Population Health
University of Georgia
953 College Station Road
Athens, Georgia 30602-4875

Phone: 706.542.5475
Email: mjackwoo@uga.edu
Physiology, Endocrinology & Reproduction
Moderator: Dr. Jorge Vizcarra, Alabama A&M
Room Number: B311
Monday, January 29, 2018

7:45 a.m. M1
Effect of in ovo LAB and Gram-negative bacterial inoculation on the microbiome and GIT development of chicks
Kim Wilson*GS, Whitney Briggs, Audrey Duff, Kaylin Chasser, Liwen Zhang, Xiaolun Sun, Lisa Bielke The Ohio State University-OARDC

8:00 a.m. M2
Blood physiology of broilers presented with breast myopathies and supplemented with dietary glutamine and arginine.
Matthew Livingston*GS, Peter Ferket, John Brake, Kimberly Livingston North Carolina State University

8:15 a.m. M3
The effect of feed restriction on ghrelin concentration in male broiler chickens
Nurudeen Taofeek*GS, Fernando Vizcarra, Martha Verghese, Jorge Vizcarra Alabama A & M University

8:30 a.m. M4
Effects of phytogenic feed additives on feed efficiency and hypothalamic neuropeptide gene expression in broilers
Joshua Flees*GS, Elizabeth Greene, Walter Bottje, Shivi Maini, Sami Dridi University of Arkansas

8:45 a.m. M5
Dietary supplementation with microalgae improves performance, serum composition, meat quality, antioxidant status and fatty acid profile of broilers
Shenfei Long*GS, Sheng Kang, Qianqian Wang, Yatong Xu, Long Pan, Jiangxu Hu, Xiangshu Piao China Agricultural University

9:00 a.m. M6
Live pigeon pox virus increases parthenogenesis of in vitro cultured Chinese painted quail eggs
Reshma Ramachandran*GS, Christopher McDaniel Mississippi State University

9:15 a.m. Break
Processing & Products
Moderator: Dr. Amit Morey, Auburn
Room Number: B311
Monday, January 29, 2018

9:30 a.m. M7
Instrumental texture analysis of chicken patties elaborated with broiler breast fillets exhibiting Woody Breast characteristics
Juan Caldas-Cueva*GS, Casey Owens University of Arkansas

9:45 a.m. M8
Meat quality attributes associated with Woody Breast and effect of location and freezing on fillet hardness
Barbara A. Mallmann*GS, Ashunti Jackson, Andy Maurooumostokos, Pramir Maharjan, Craig Coon, Casey Owens University of Arkansas

10:00 a.m. M9
The effect of multiple levels Arginine and/or vitamin C on performance, meat yield and incidence of white striping and woody breast when supplemented in combination with low digestible amino acid grower diets.
Brooke Badle*GS, Yves Mercièr, Rob Shirley, Jason Lee, Christine Alvarado Texas A&M University

10:15 a.m. M10
Application of advanced technologies to analyze modern meat quality issues, such as Woody Breast
Avery Smith*GS, Laura Bauermeister, Meredith Johnson, Ronald Beyers, Amit Morey Auburn University

10:30 a.m. M11
Investigating a Bioactive Ingredient with the Potential to Reduce Wooden Breast Toughness during Further Processing
Meredith Johnson*GS, Avery Smith, Jasmine Kataria, Ivey Wise, Amit Morey Auburn University

10:45 a.m. M12
Acoustic Signatures of Woody Breast: Converting Woody Breast Scans into Sound as a Simple Diagnostic Tool
Divya Srinivasan*UG, Amit Morey Johns Creek High School

11:00 a.m. M13
“Functional Ice”, a Novel Sustained Antimicrobial Release Mechanism, to Improve Salmonella food safety of raw poultry parts during storage
Jasmine Kataria*GS, Meredith Johnson, Avery Smith, Laura Bauermeister, Amit Morey Auburn University

11:15 a.m. M14
The antimicrobial effects of Defenstat™ against Salmonella Typhimurium on boneless skinless ground chicken breast
Clarissa Harris*GS, Sally Williams University of Florida

11:30 a.m. M15
Evaluation of the efficacy of electrochemically activated water against Salmonella Heidelberg isolates
Daiane Wilsman*GS, Daiane Carvalho, Abrahão Martins, Gabriela Zottis, Thales Furian, Vladimir Nasimento Federal University of Rio Grande do Sul

11:45 a.m. M16
Evaluation of poultry water treatments during feed and water withdrawal on water usage and Salmonella prevalence in broilers
Caitlin Harris*GS, Ming Teo, Larry Lu, Connie Mou, Kevin Gottilla, L Bartenfeld, Dianna Bourassa, Brian Fairchild, Brian Klepper, R Buhr University of Georgia

12:00 p.m. Lunch
Metabolism & Nutrition - Enzymes
Moderator: Dr. Kelley Wamsley, MSSTATE
Room Number: B311
Monday, January 29, 2018

1:00 p.m. M17
Effects of mineral level, nutrient density, and phytase level on broiler performance and breast meat yield
Austin Jasek*GS, Kyle Smith, Jon Broomhead, Jason Lee Texas A&M University

1:15 p.m. M18
Effects of energy density and enzyme inclusion strategy on 0-60 d Ross x Ross 708 male broiler performance, foot pad dermatitis, woody breast severity, and breast yield.
Andrew Brown*GS, Omar Gutierrez, Mark Lemons, Staci Loop, Kelley Wamsley Mississippi State University

1:30 p.m. M19
Evaluation of multiple calcium and phosphorus levels, nutrient density, and phytase concentration on male broiler performance and breast meat yield
Kyle Smith*GS, Austin Jasek, Jon Broomhead, Jason Lee Texas A&M University

1:45 p.m. M20
Effects of carbohydrase supplementation on growth performance in male broilers fed reduced energy diets
Mallori Williams*GS, Hunter Walters, Roshan Adhikari, Alfredo Manon, Jason Lee Texas A&M AgriLife Research

2:00 p.m. Break

2:15 p.m. M21
Meta-analysis of the effect of phytases on intestinal histomorphology of broilers.
Diego Martinez*GS, Carlos Vilchez La Molina National Agrarian University

2:30 p.m. M22
The effects of phytase super-dosing in combination with xylanase on the ileal microbial profile of market turkey hens
Marissa Herchler*GS, Samantha Black, Matthew Warren, Ramon Malheiros, Peter Ferket North Carolina State University

2:45 p.m. M23
Assessment of a superdosage of phytase (Natuphos E) on broiler performance fed a reduced calcium, available phosphorus and metabolizable energy diet
Jinquan Wang*GS, Mike Coelho, Arnulf Troescher, Peter Ader, Woo Kim University of Georgia

3:00 p.m. M24
Evaluating the effect of feeding starter crumbles on the overall performance of broilers raised for forty-two (42) days
Frank Idan*GS, Chad Paulk, Charles Stark Kansas State University

3:15 p.m. M25
The effects of dietary lysine level with and without added protease on growth performance of broiler chickens.
Haley Wecker*UG, Caitlin Evans, Beyer, Charles Stark, Miguel Barrios, Chad Paulk Kansas State University

3:30 p.m.
USPOULTRY Awards Presentation - Room Number B-313
4:00 p.m. - 6:00 p.m.
Poster Reception - Room Number B-313 Foyer
Pathology
Moderator: Dr. Robert Beckstead, NCSU
Room Number: B312
Monday, January 29, 2018
8:00 a.m. M26
Effects of a water applied biopromotor and feed applied MOS on the prevalence of Colibacillosis and egg production in commercial heavy breeders
Carlos Oliveira*, Justino Hernandez, Rodrigo Morales, Eduardo Camacho, Sherryll Layton BV Science/Vetanco Mexico
8:15 a.m. M27
Efficiency of a carvacrol formulation at liberation delayed on Campylobacter jejuni: in vitro in vivo and electronic microscopy approaches
Marion Allaoua1, Elsa Bonnafé2, Virginie Noiroit1, Pierre Etienne3, Jean Francois Gabarrou*4, Michel Treilhac5 1Laboratoires Phodé; 2University Champollion
8:30 a.m. M28
The role of enteric inflammation and loose stool on the rate of Histomonas meleagridis transmission
Katherine Cupa*5, Jason Payne, Robert Beckstead North Carolina State University
8:45 a.m. M29
Rescue and establishment of chicken models for spontaneously occurring Hashimoto’s thyroiditis and systemic sclerosis/scleroderma
Joseph Hiltz*5, Gisela Erf, Sara Orlowski, Nick Anthony Department of Poultry Science, Division of Agriculture, University of Arkansas
9:00 a.m. M30
Evaluation of a water applied biopromotor to improve production status and control Salmonella spp in commercial broiler chickens
Igor Praxedes-Campagnoni*6, Fabrizio Matte, Fabio Gazoni, Felipe Chairelli, Sherryll Layton University of Santa Catarina State, Department of Animal Sciences
9:15 a.m. M31
Effect of Acetic Acid Supplementation in Broiler Chickens Experimentally Infected With Salmonella Enterica Serotype Gallinarum Biotype Gallinarum
Gulbeena Saleem*, Umar Farooq, Asim Aslam, Muhammad Javed, Zafar Hayat, Iram Liaqat University of Veterinary and Animal Sciences, Lahore Pakistan
9:30 a.m. M32
Protection conferred by a subunit Salmonella vaccine against Salmonella Infantis in broiler chickens
P Joaquim, Sherryll Layton, Bruno Vecchi, Ariel Sugezky, Pablo Chacana* Instituto de Patobiologia, CIICYA, Instituto Nacional de Tecnología Agropecuaria
9:45 a.m. M33
H9N2 in the Middle East/NA countries and efficacy of vaccines
Husam Al-Bakri*, Entisar Al-Hallaq1 Vaxxinova; 2Private researcher
10:00 a.m. Break
11:00 a.m. M34
Salmonella Infantis biomapping in broiler chicken farms and processing plant: Identification and persistence of an emerging serotype in a broiler vertical integration
Martha Pulido-Landinez* Mississippi State University

11:15 a.m. M35
Live ST vaccination trial comparing salmonella prevalence, load and serotype distribution of broiler rinsates at rehang
Kalen Cookson*, Manuel Da Costa, Jon Schaeffer Zoetis

11:30 a.m. M36
The effect of Saccharomyces cerevisiae yeast products In reducing direct colonization and horizontal transmission of Salmonella heidelberg in broilers

11:45 a.m. M37
The role of genes encoding for tetrathionate respiration, SPI-1, and SPI-2 on the cecal colonization and systemic spread of Salmonella Typhimurium in chickens, with or without coccidia coinfection
Claire-Sophie Rimet*GS, John Maurer, Roy Berghaus, Brian Jordan, Luciana Antoniassi da Silva, Lisa Stabler, Kasey Johnson, Laura Tenza, Karen Segovia, Monique Franca The University of Georgia

12:00 p.m. LUNCH
SCAD
Moderator: Dr. John El - Attrache, CEVA
Room Number: B312
Monday, January 29, 2018

1:00 p.m. M38
Interactions of environmental temperature and dietary protein levels with coccidia vaccination
Jarred Oxford*, Hector Cervantes, Ivan Alvarado, Andres Montoya, Ricardo Nunes, Jomara Bronch, Gene Pesti
1:15 p.m. M39
Evaluation of different coccidia vaccines, with or without a bioshuttle, for control of a pathogenic E. tenella
Laura Tensa*, Grace Albanese, Brian Jordan University of Georgia
1:30 p.m. M40
Impact of necrotic enteritis disease models on the growth curve of broilers
Kaylin Chasser*, Kim Wilson, Whitney Briggs, Audrey Duff, Ramesh Selvaraj, Lisa Bielke The Ohio State University, OARDC
1:45 p.m. M41
Characterization and Quantification of Toxin Genes in Necrotic Enteritis (NE) Producing and Non-NE Producing Clostridium perfringens isolated from Chickens
Wenyuan Yang*, Chung-Hsi Chou, Chinling Wang Mississippi State University
2:00 p.m. Break
2:15 p.m. M43
The effectiveness of lauric acid and Akkermansia muciniphila against necrotic enteritis in chickens
Chinling Wang*, Hsin-Yi Lu, Wei-Yun Yang, Yue-Jia Lee, Scott Branton Mississippi State University
2:30 p.m. M44
Effect of zinc sources and doses on the presence of Necrotic Enteritis in broilers caused by C. perfringens
Greg Mathis*, Brett Lumpkins, Agathe Romeo, Stephane Durosoy Southern Poultry Research, Inc.
2:45 p.m. M45
Characteristics of Gallibacterium anatis isolated from poultry samples
Jessica Hockaday*, Alejandro Banda, Jay Kay Thornton, Lifong Yan, Martha Pulido-Landinez Mississippi State University CVM Poultry Research and Diagnostic Laboratory
3:00 p.m. Break
3:30 p.m.
USPOULTRY Awards Presentation - Room Number B-313
4:00 p.m. - 6:00 p.m.
Poster Reception - Room Number B-313 Foyer
Metabolism & Nutrition - Amino Acids
Moderator: Dr. Samuel Rochell, University of Arkansas
Room Number: B313
Monday, January 29, 2018

7:30 a.m. M46
Metabolisable energy of wheat for broilers
Muhammad Azhar*GS1, Stephen Rose1, Alexander Mackenzie1, Michael Bedford2, Vasil Pirgozliev1 1Harper Adams University; 2AB Vista

7:45 a.m. M47
The effect of amino acid density on growth performance, processing yield, and the incidence of white striping and woody breast
Kyle Brown*GS, Brooke Bodle, Rocky Latham, Roy Brister, Rob Shirley, Christine Alvarado, Jason Lee Texas A&M University

8:00 a.m. M48
Effects of reduced crude protein diets formulated with or without added glycine fed to broilers from 15 to 34 days of age
Ruben Kriseldi*GS, Paul Tillman, Zhirong Jiang, William Dozier, III Auburn University

8:15 a.m. M49
Protein turnover and performance parameters on modern broiler strains fed varying levels of dietary amino acids and metabolizable energy.
Garrett Mullenix*GS, Craig Coon, Victor Naranjo, Antonio Kalinowski, Justina Caldas, Michael Schlumbohm, Katie Hilton, Judith England University of Arkansas

8:30 a.m. M50
Performance of broiler chickens fed diet with or without exogenous methionine and raised in conventional or organic production environment
James Foutz*GS, Marie Milfort, Alberta Fuller, Woo Kim, Romdhane Rekaya, Samuel Aggrey University of Georgia

8:45 a.m. M51
Digestible leucine requirements of female turkeys from ten to 21 days post hatch
Joao Ferreira*GS, Jeffre Firman, David Ledoux University of Missouri

9:00 a.m. M52
Effects of dietary amino acid density and feed allocation during the starter period on 41 d growth performance and processing characteristics of broiler chickens given coccidiosis vaccination at hatch
Sara Cloft*GS, Samuel Rochell, Ken Macklin, William Dozier, III Auburn University

9:15 a.m. M53
Growth performance and carcass characteristics of MV × Cobb 700 broilers fed diets varying in amino acid density from 1 to 46 days of age
Stephanie Philpot*GS, Justina Caldas, William Dozier Department of Poultry Science, Auburn University

9:30 a.m. M54
Effects of dietary amino acid regimens on live performance and processing characteristics of Cobb MV × 700 male and female broilers
Craig Maynard*GS, Rocky Latham, Roy Brister, Casey Owens, Samuel Rochell University of Arkansas

9:45 a.m. BREAK
Metabolism & Nutrition - Amino Acids
Moderator: Dr. James Kessler, DSM
Room Number: B313
Monday, January 29, 2018

10:00 a.m. M55
Determination of additivity of apparent and standardized ileal digestibility of amino acids in wheat, canola meal, and sorghum distillers dried grains in mixed diets fed to broiler chickens
Saheed Osho*GS, Olufemi Babatunde, Olayiwola Adeola Purdue University

10:15 a.m. M56
The impact of feeding varying starter digestible lysine levels to Cobb MV × Cobb 500 male broilers on growth performance and processing yields
Rosana Hirai*GS, Leonel Mejia, Cesar Coto, Justina Caldas, Christopher McDaniel, Kelley Wamsley Mississippi State University

10:30 a.m. M57
The effect of supplementing herbal Methionine through feed and water on growth performance and liver metabolism in broilers
Fernanda Castro*GS, Brian Fairchild, Woo Kim University of Georgia

10:45 a.m. M58
Comparison of two net energy calculations of two broiler strains fed varying levels of amino acids and metabolizable energy in two different temperatures
Metabolism & Nutrition - Vitamins & Minerals
Moderator: Dr. James Kessler, DSM
Room Number: B313
Monday, January 29, 2018
11:00 a.m. M59
Total betaine content in organic feed ingredients and betaine digestibility of organic feed ingredients in broiler chicks
Darlene Bloxham*GS1, Ali Boone1, Jomara Broch2, Gene Pesti1 1University of Georgia; 2Universidade Estadual do Oeste do Parana
11:15 a.m. M60
Effects of supplementation of 1-alpha-hydroxy vitamin-D3 and calcium levels on broiler live performance of Ross 708 male chicks up to 14 d
11:30 a.m. M61
Effects of 1 alpha-hydroxy-vitamin-D3 on bone development, and mineral retention in diets containing different Ca levels for Ross-708
11:45 a.m. M62
Role of long-term supplementation with 25-hydroxyvitamin D3 on layer bone 3D structural development, and laying performance
Chongxiao Chen*GS, Bradley Turner, Todd Applegate, Woo Kyun Kim The University of Georgia
12:00 p.m. LUNCH
Metabolism & Nutrition - Vitamins & Minerals
Moderator: Dr. Sergio Luiz Vieira
Room Number: B313
Monday, January 29, 2018

1:00 p.m. M63
Protective effects of vitamin E on laying hens under challenged with Salmonella Enteritidis
Yaojun Liu*GS, Qiugang Ma, Lihong Zhao, Jianyun Zhang, Cheng Ji China Agricultural University

1:15 p.m. M64
Effects of Mn and Se sources on growth performance, carcass yield and occurrence of breast myopathies in broiler chickens
Cristina Simões*GS, Sergio Vieira, Alba Fireman, Liris Kindlein, Catarina Stefanello, Gabriela Santiago, Bernardo Xavier Federal University of Rio Grande do Sul

1:30 p.m. M65
The effect of four feeding programs in rearing to sexual maturity on heat production and body composition in broiler breeder parent stock
Jordan Weil*GS, Katie Hilton, Antonio Beitia, Justina Caldas, Garrett Mullenix, Michael SchUMbheh, Pramir Maharjan, Maria Mayorga, Judy England, Craig Coon University of Arkansas

1:45 p.m. M66
Effect of high concentrations of dietary Vitamin D3 on skeleton health and eggshell quality when fed to W-36 laying hens from day of hatch until 68 week of age
Jinlei Wen*GS, Kimberly Livingston, Michael Persia Virginia Tech

2:00 p.m. BREAK

2:15 p.m. M67
Broiler breeder hens zinc requirement
André Mayer*GS, Sergio Vieira, Eveline Berwanger, Liris Kindlein, Cristina Simões Federal University of Rio Grande do Sul - UFRGS

2:30 p.m. M68
Effects of different supplementation levels of choline and total sulfur amino acid on growth performance of broiler chickens
Gabriela Santiago*GS, Sergio Vieira, Liris Kindlein, Cristina Simões, Thiago Luiz Noetzoud, Marco Antônio Ebbing, Nathália Isabelle Cordeiro Federal University of Rio Grande do Sul

2:45 p.m. M69
The effects of a titration of trace mineral proteinates in broiler breeder diets on progeny performance
Coltin Caraway*GS, Yanming Han, John Brake NC State University

3:00 p.m. M70
Effects of dietary inorganic trace minerals replaced by organically bound trace minerals on the performance and antioxidiant status of broiler breeders
Lujie Liu*GS, Geng Wang, Bojing Liu, Minqi Wang, Gang Lin, Yan Xue, Tuoying Ao College of Animal Science, Zhejiang University

3:15 p.m. M71
Microbiota, growth performance, and processing characteristics of broilers fed a standard vs low vitamin and trace mineral diet
Elle Chadwick*GS, Ramon Malheiros, Peter Ferket, Robert Beckstead North Carolina State University

3:30 p.m.
USPOULTRY Awards Presentation - Room Number B-313
4:00 p.m. - 6:00 p.m.
Poster Reception - Room Number B-313 Foyer
Evaluating the effect of a wheat-SBM-based diet and adaptation length on corn and wheat middlings digestible energy in broiler chickens
Andrew Dunaway*GS, Sunday Adedokun University of Kentucky

Evaluating the effect of rye versus corn as a source of energy on the microbiome in broiler chickens in a nutritional rehabilitation model
Mikayla Baxter*GS, Juan David Latorre, Si Hong Park, Steve Ricke, Sun Ae Kim, Billy Hargis, Guillermo Tellez-Isaias University of Arkansas

Effects of multiple direct fed microbial feed additives on broiler performance
Corey Johnson*GS, Kyle Smith1, Nathan Augspurger2, Jason Lee1 Poultry Science, Texas A&M University; 1JBS United

Dynamics of expression of tight junction protein encoding genes in the jejunum of broiler chickens induced to necrotic enteritis and supplemented with sodium butyrate and essential oils
Cristiano Bortoluzzi*GS1, Bruno Vieira1, Juan Mallo2, Monica Puyalto2, Maria Villamides2, Charles Hofacre1, Todd Applegate1 University of Georgia; 2Norel; 3Universidad Politecnica de Madrid; 4SPR Group

The effect of refined functional carbohydrates (RFC) and coarse corn in broiler diets on the prevalence of Salmonella in broiler ceca.
Grayson Walker*GS, Coltin Caraway, Sangita Jalukar, John Brake North Carolina State University

Performance, nutrient utilization and relative immune organ weights in broiler chickens fed corn-soybean meal diets without or with yeast nucleotides upon challenge with Eimeria
Haley Leung*GS, Rob Patterson, John Barta, Elijah Kiarie University of Guelph

The effect of 2-Nitropropanol on growth performance and intestinal lesion scores in Eimeria-challenged broilers
Po-Yun Teng*GS, Lorraine Fuller, Woo Kim University of Georgia

Effect of different inclusion levels of whole corn on productive and processing performance of broilers
Andrea Rubio*GS1, Juan Aranibar2, Henry Fuentes3, Wilmer Poche31 Auburn University; 2Panamerican Agriculture University Zamorano

Effect of 2-Nitropropanol on growth performance and intestinal lesion scores in Eimeria-challenged broilers
Po-Yun Teng*GS, Lorraine Fuller, Woo Kim University of Georgia

Effect of different inclusion levels of whole corn on productive and processing performance of broilers
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Effect of different inclusion levels of whole corn on productive and processing performance of broilers
Andrea Rubio*GS1, Juan Aranibar2, Henry Fuentes3, Wilmer Poche31 Auburn University; 2Panamerican Agriculture University Zamorano
Parameters monitored during pelleting and their relationship to xylanase recovery

10:15 a.m. M81
Evaluation of spray-dried plasma in broiler diets with or without bacitracin methylene disalicylate
Hunter Walters*GS, Thomas Lester, Joy Campbell, Jason Lee Texas A&M University

10:30 a.m. M82
Structural resilience and alterations of the gut microbiota in hens under dietary fat perturbations
Cong Liu*GS, Meiling Li, Lihong Zhao, Cheng Ji, Jianyun Zhang, Qiugang Ma China Agricultural University

10:45 a.m. M83
In feed supplementation of Bacillus subtilis C-3102 spores on broiler breeder performance
Eveline Berwanger*GS, Sergio Vieira, André Mayer, Liis Kindlein, Masaya Kato, Danny Hooge, Yosuke Kuwamura Federal University of Rio Grande do Sul

11:00 a.m. M84
Effects of antibiotics and probiotic additives on the intestinal morphology of d 28 male broilers
Bo Zhang*GS, Kacey O’Donnell, Xi Wang, Wei Zhai Mississippi State University

11:15 a.m. M85
Assessment of a phyogenic feed additive (Biomin P.E.P. 125) effect on broiler performance fed a standard or low protein diet
Jinquan Wang*GS, Chasity Pender, Basharat Syed, Raj Murugesan, Woo Kim University of Georgia

11:30 a.m. M86
Evaluation of chromium propionate and a butyric acid-zinc complex on male growth performance, corticosterone level, and meat yield
Thomas Lester*GS, Kyle Brown, Karen Vignale, Christine Alvarado, Jason Lee Department of Poultry Science, Texas A&I Life Research

11:45 a.m. M87
Effects of Eimeria challenges and dietary additives on mortality and growth performance of broilers
Kacey O’Donnell*GS, Wei Zhai Mississippi State University

12:00 p.m. LUNCH
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Presenters</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:00 p.m.</td>
<td>M88</td>
<td>Effects of supplemental Azomite on the performance of chicks from 0 to 21 days of age</td>
<td>Matthew Jones*GS, Hung-Yu Hsiao, Adam Davis</td>
<td>University of Georgia</td>
</tr>
<tr>
<td>1:15 p.m.</td>
<td>M89</td>
<td>Intestinal microflora stabilization with combining prebiotic effect and antimicrobial properties of herbal plant extracts</td>
<td>Zsofia Bata*GS, Laszlo Poppe</td>
<td>Budapest University of Technology and Economics, Department of Organic Chemistry and Technology</td>
</tr>
<tr>
<td>1:30 p.m.</td>
<td>M90</td>
<td>Comparison of three different oil sources added to broiler breeder diets and evaluated on egg size, hatchability and progeny performance</td>
<td>Antonio Beitia*GS, Justina Caldas, Michael Schlumbohm, Garrett Mullenix, Jordan Weil, Pramir Maharjan, Maria Mayorga, Judith England, Craig Coon</td>
<td>University of Arkansas</td>
</tr>
<tr>
<td>1:45 p.m.</td>
<td>M91</td>
<td>Use of 2-Nitro-1-propanol as an intervention strategy in laying hens</td>
<td>O. Yasir Kayun*GS, Douglas E. Cosby, Nelson A. Cox, Woo K. Kim</td>
<td>University Of Georgia</td>
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<tr>
<td>2:00 p.m.</td>
<td>BREAK</td>
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<tr>
<td>2:15 p.m.</td>
<td>M92</td>
<td>Evaluation of encapsulated sodium butyrate with varying releasing times on growth performance and necrotic enteritis mitigation in broilers</td>
<td>Jundi Liu*GS, Brett Lumpkins, Greg Mathis, Justin Fowler</td>
<td>University of Georgia</td>
</tr>
<tr>
<td>2:30 p.m.</td>
<td>M93</td>
<td>Production of heirloom turkeys with native, natural feedstuffs</td>
<td>Arianna Ferguson*UG, Lisa Kitto, Erica Rogers, Stephanie Bieber, Heather Scibba, Christine Ruffin, Paul Patterson</td>
<td>The Pennsylvania State University</td>
</tr>
<tr>
<td>2:45 p.m.</td>
<td>M94</td>
<td>Nitrogen corrected apparent metabolizable energy and lipid digestibility of various oil sources fed to broilers from 10 to 20 days of age</td>
<td>Trevor Lee*UG, Kristjan Bregendahl, Klinton McCafferty, Ruben Kriseldi, William Dozier, Ill</td>
<td>Auburn University</td>
</tr>
<tr>
<td>3:00 p.m.</td>
<td>M95</td>
<td>Influence of basal diet type on metabolizable energy values of an expeller-extracted soybean meal determined in broiler chicks using the regression method</td>
<td>Skyler West*UG, Samuel Rochell</td>
<td>University of Arkansas</td>
</tr>
<tr>
<td>3:15 p.m.</td>
<td>M96</td>
<td>Longitudinal characterization of coccidiosis control methods on nutrient utilization, oocyst excretion, and plasma carotenoid concentrations in male broilers</td>
<td>Alyson Gautier*UG, Juan Latorre, Phil Matsler, Samuel Rochell</td>
<td>University of Arkansas</td>
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<td>3:30 p.m.</td>
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<td>4:00 p.m.</td>
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<td>USPOULTRY Awards Presentation - Room Number B-313</td>
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<tr>
<td>6:00 p.m.</td>
<td></td>
<td>Poster Reception - Room Number B-313 Foyer</td>
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</tbody>
</table>
Evaluation of conventional and precision feeding systems on egg production in broiler breeder hens
Sheila Hadinia*GS, Paulo Carneiro, Martin Zuidhof University of Alberta

Evaluation of the effect of placing paper under drinkers on chick water usage and performance in commercial broiler houses in the first seven days
Connie Mou*GS, Michael Czarick, Brian Fairchild University of Georgia

Temperatures experienced by commercial broiler chickens during transportation to processing
Douglas Aldridge*GS, Yi Liang, Colin Scanes, Kaushik Luthra, Karen Christensen University of Arkansas

Effect of a high energy-low protein diet on broiler breeder reproductive performance, mating behavior, and feather cover
Carla Aranibar*GS, Jeanna Wilson, Ashley Owen University of Georgia

Effect of early incubation temperature variation on broiler chicken growth performance and carcass yield
Oscar Tejeda*GS, Kathryn Meloche, Jessica Starkey Auburn University

Effect of embryonic thermal manipulation on heat shock protein 70 (HSP70) expression and immune system development in pekin duck embryos post-lipopolysaccharide injection
Revathi Shanmugasundaram*GS, Micheal Lilburn OARDC, The Ohio state university

Effects of egg storage temperature on pheasant and quail production
Joshua Deines*GS, Doug Yoho, R Bramwell, Samuel Rochell University of Arkansas

Egg production performance of laying hens provided lighting during incubation
Nilakshi Abyesinghe*GS, Janice Macsaac, Karen Schwean-Lardner, Bruce Rathgeber Dalhousie University

Comparison of surface and subsurface eggshell microbial counts in washed and sanitized commercial duck and turkey eggs.
Karely Cantú*GS, Gregory Archer, Craig Coufal Texas A&M University

Analysis of commercial growth data from Cobb 500 and Ross 308 broiler breeder flocks and its effects on egg production
Francisco Tovar-Martinez*GS1, Edgar Oviedo-Rondon2 1University of Tolima; 2North Carolina State University
Development of a rainwater harvesting model for broiler farms to estimate on-farm storage needs
Carson Edge*GS, Jeremiah Davis, William Batchelor, Eugene Simpson, Joseph Purswell Auburn University

The impact of poultry management and stress factors on lameness, mucosal permeability, and bacterial translocation in broilers
Audrey Duff*GS, Denise Rodrigues, Johel Bielke, Whitney Briggs, Billy Hargis, Kaylin Chasser, Kim Wilson, Lisa Bielke The Ohio State University, OARDC

Characterizing the effects of heat Stress and Coccidial Infection on histological changes in immune tissues in broiler chickens
Bryan Aguanta*GS, Alberta Fuller, Susan Williams, Marie Milfort, Romdhane Rekaya, Samuel Aggrey University of Georgia

Evaluating the effects of water quality on broiler breeder production
Ashley Ailara*GS, David McCreery, Joey Bray Stephen F. Austin State University

Effect of stress induced by dexamethasone and two sodium sources on biological functions in broilers
Opeyemi Olojede*GS, Tuoying AO, Anthony Pescatore, Sunday Adedokun University of Kentucky

Consequences of heat stress on broilers experimentally infected with Eimeria oocysts and treated with Nicarbazin or Monensin
Eduardo Ortega*GS, Alberta Fuller, Marie Milfort, Susan Williams, Romdhane Rekaya, Samuel Aggrey University of Georgia

The effect of stocking density on deep body temperature in broiler chickens
Ming Lin Teo*GS, Michael Czarick, Brian Fairchild University of Georgia

Thermal performance of perforated pen panels for on-farm nutritional test trials
Kelly Goneke*UG, Jeremiah Davis, Joseph Purswell, Gary Chesser, Carson Edge Auburn University

Effect of air velocity on broiler live performance, meat yield and breast meat quality up to 61 d
Physiology Orals Professionals
Moderator: Dr. Katie Elliott, MSSTATE
Room Number: B315
Monday, January 29, 2018

1:30 p.m. M117
Production Factors Affecting Broiler Mortality: Implications for Animal Welfare & Food Policy
Matthew Salois*, Justin Replogle, Kristi Baker Elanco Animal Health

1:45 p.m. M118
Production and humoral immune effects of dietary Original XPC in layer pullets challenged with
Mycoplasma gallisepticum
Katie Elliott*, Scott Branton, Jeffrey Evans, Spencer Leigh, Elizabeth Kim, Hammed
Olanrewaju, Gregory Pharr, Sharon Heins-Miller, Donald McIntyre, Hillary Pavlidis, Edgar
Peebles Department of Poultry Science, Mississippi State University

2:00 p.m. M119
The effect of an early infection of Histomonas meleagridis on layer performance.
Christina Sigmon*, Robert Beckstead, Kenneth Anderson North Carolina State University

2:15 p.m. BREAK
Effect of marigold flower meal supplementation on production performance, egg quality, egg geometry and lutein concentration in egg yolks of laying hens
Zafar Hayat*, Rehman Akram, Muhammad Nasir University of Veterinary & Animal Sciences

Assessing Commercial and Alternative Poultry Processing Methods using Microbiome Analyses
Michael Rothrock Jr.* USDA-ARS-U.S. National Poultry Research Center

Efficacy of neutralizing buffered peptone water on broiler whole carcass rinse Salmonella, Campylobacter, and Enterobacteriaceae following commercial treatment with peroxyacetic acid
Dianna Bourassa*, Ivey Wise, Joshua Lapidus, Meredith Johnson, Amit Morey Auburn University

The presence of enterotoxigenic Clostridium perfringens on broiler chicken carcasses along critical steps of the slaughter process: an equivalent risk for all abattoirs?
Marie-Lou Gaucher*1, Alexandre Thibodeau1, Philippe Fravalo1, Julie Arsenault1, Marie Archambault1, Sylvain Quessy1, Ann Letellier1, Sylvain Fournaise2 1Université de Montréal; 2Olymel S.E.C./L.P.

USPOULTRY Awards Presentation - Room Number B-313
4:00 p.m. - 6:00 p.m.
Poster Reception - Room Number B-313 Foyer
Environment, Management & Animal Well-Being - Stress Responses
Moderator: Dr. Leonie Jacobs, Virginia Tech
Room Number: B311
Tuesday, January 30, 2018

8:00 a.m. T124
Efficacy of sodium bisulfate or salt for reducing broiler house floor microbial populations. Susan Watkins, Samantha Beitia, Geetha Kumar-Phillips, Josh Payne* University of Arkansas

8:15 a.m. T125
Evaluation of biochar as a beneficial litter amendment for broiler production. John Linhoos*, Joseph Purswell, Jason Street Mississippi State University Agricultural & Biological Engineering Department

8:30 a.m. T126
A pre-slaughter welfare monitoring protocol for broiler chickens. Leonie Jacobs*, Evelyne Delezie2, Klara Goethals3, Bart Ampe2, Luc Duchateau2, Frank Tuyttens2 1Virginia Tech; 2Flanders Research Institute for Agriculture, Fisheries and Food (ILVO); 3Ghent University

8:45 a.m. T127

9:00 a.m. T128
USAID Feed the Future Innovation Lab for Genomics to Improve Poultry: Increasing food security in Africa by enhancing resistance to Newcastle Disease and heat stress in chickens. Huaijun Zhou*, David Bunn, Rodrigo Gallardo, Susan Lamont, Jack Dekkers, Amandus Muhairwa, Peter Mosffe, Bonifac Kayang, Augustine Naazie, George Aning, Terra Kelly University of California, Davis

9:15 a.m. BREAK
Environment, Management & Animal Well-Being - Behavior & Incubation
Moderator: Dr. Rachel Dennis, University of Maryland
Room Number: B311
Tuesday, January 30, 2018

9:30 a.m. T129
Correlation of litter moisture results between traditional drying method and a commercial moisture meter
Tsung-lin Lu*, Brian Fairchild, Michael Czarick University of Georgia

9:45 a.m. T130
Ectoparasites (Ornithonyssus sylviarum) and sleep disruption in White Leghorn laying hens
Leonie Jacobs*, Giuseppe Vezzoli, Bonnie Beerda, Joy Mench Virginia Tech; College of the Desert; Wageningen University; UC Davis

10:00 a.m. T131
Effect of flock age, frequency of turning and SPIDES during storage on embryonic development, and hatchability of long stored eggs
Serdar Özlü, Ahmet Uçar, Tolga Erkuş, Kazım Bircan, Serap Yasun, Dinah Nicholson, Okan Elibol* Department of Animal Science, Faculty of Agriculture, University of Ankara

10:15 a.m. T132
In ovo green light photostimulation during different embryonic stages affect Somatotropic axis activity
Liron Dishon*, Natalie Avital-Cohen, Joanna Bartman, Sagi Zaguri, Israel Rozenboim The Robert H Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem

10:30 a.m. T133
Effects of UV light provision on broiler chickens’ feeding behavior, fear response and lighting preferences
Antonia Patt, Rachel Dennis* University of Maryland

10:45 a.m. T134
Effect of Ration Plus with antibiotic-free diets on live performance and gut health of broiler chickens in heat stress environment
Sean Yang*, Mick Roberts, James McNaughton, Michael Canady, Kasey Schuster, Adam Blaszczak, Elizabeth Wozniak Cytozyme Laboratories, Inc.

11:00 a.m. Milton L. Dendy Keynote Address - B313
The Evolution of Broiler Production Programs since 1985 and Challenges in How Broilers Will Be Grown in Coming Years
Dr. Michael Donohue, Agri Stats

12:00 p.m. SCAD Business Meeting - B312
12:00 p.m. SPSS Business Meeting - B313
Case report: Lymphoproliferative Disease Virus in a wild turkey from Louisiana
Leslie Johnson*, Jessica Hockaday, Natalie Armour, Rusty Berry, Brittany Baughman Poultry Research and Diagnostic Laboratory, College of Veterinary Medicine, Mississippi State University

Evaluation of immunity in SPF birds vaccinated with reovirus S1133 live, S1133 inactivated and Genotype 5 autogenous reovirus vaccines
William Dawe*, Erich Linnemann, Holly Sellers University of Georgia

Protection efficacy of a Herpesvirus of Turkeys (HVT) recombinant vaccine against Infectious laryngotracheitis virus (ILTV) in broilers administered in ovo at three standardized doses
Daniel Maekawa Maeda*, Gabriela Beltran Garza, Sylva Riblet, Maricarmen Garcia University of Georgia

Effect of ammonia on the immune response to infectious bronchitis virus vaccination and protection from homologous challenge in broiler chickens
Emily Aston*, Mark Jackwood, Robert Gogal, Jr., Maricarmen Garcia, Brian Fairchild, Deborah Hilt, Sunny Cheng, Brian Jordan University of Georgia

Attenuation characteristics of ArkGA, a new Ark-type IBV vaccine candidate
Grace Albanese*, Dong-Hun Lee, Deborah Hilt, Mark Jackwood, Brian Jordan University of Georgia

A severe outbreak of Avibacterium paragallinarum serovars A-2 and B-1 in coinfection with Gallibacterium anatis biovar haemolytica and the non-hemolytic biovar anatis in commercial layers.
Nancy Christy*, Sergio Carrasco, Edgardo Soriano, Vladimir Morales Boehringer Ingelheim

9:30 a.m. BREAK
Metabolism & Nutrition - Amino Acids
Moderator: Dr. Jacob Lum, Perstorp Feed and Food
Room Number: B312
Tuesday, January 30, 2018

9:45 a.m. T141
Effect of dietary supplementation of arginine on feed efficiency and breast meat yield in fast-growing broiler chickens.
Marco Zampiga*, Massimiliano Petracci, Giulia Baldi, Filiberto Ceccaroni, Adele Meluzzi, Sami Dridi, Federico Sirri Department of Agricultural and Food Sciences — Alma Mater Studiorum - University of Bologna

10:00 a.m. T142
The impact of particle size and pelleting temperature of ileal digestibility of soybean meal for broiler chickens.
Antoniol Franco*, Alex Maiorka2, Rex Newkirk1, Henry Classen1 1University of Saskatchewan; 2Universidade Federal do Parana

10:15 a.m. T143
The effect of a mono-component exogenous microbial protease on standardized ileal amino acid digestibility of soybean meal and full-fat soy for broilers
Aaron Cowieson1, Jose Otavio Sorbara*, Levy Teixeira2, Sandra Bonaspetti2, Anelcir Scher2, Maurilio Xavier3, Luiz Albino3, Horacio Rostagno3 1DSM Nutritional Products; 2Seara Foods; 3Universidade Federal de Vicsa/UFV, Departamento de Zootecnia

10:30 a.m. T144
Broiler responses to varying balanced protein intake: economic optimization based on stochastic approach
Matheus Reis*, Nilva Sakomura, Gabriel Viana, Fernando Antayhua, Rony Lizana UNESP

10:45 a.m. T145
Muscle fiber growth, collagen deposition, and in vivo collagen synthesis in Pectoralis major at d 35 and d 57 broilers
Pramir Maharjan*, Michael Schlumbohm, Garrett Mullenix, Katie Hilton, Antonio Guerra, Barbara Mallmann, Juan Cueva, Maria Cortes, Judith England, Casey Hanning, Craig Coon University of Arkansas

11:00 a.m. Milton L. Dendy Keynote Address - B313
The Evolution of Broiler Production Programs since 1985 and Challenges in How Broilers Will Be Grown in Coming Years
Dr. Michael Donohue, Agri Stats

12:00 p.m. SCAD Business Meeting - B312
12:00 p.m. SPSS Business Meeting - B313
Metabolism & Nutrition - Enzymes
Moderator: Dr. Frances Yan, Novus
Room Number: B313
Tuesday, January 30, 2018

7:30 a.m. T146
The Effect of Different Levels of Nano Selenium on Growth Performance, Meat Quality and Quantity Traits of Broiler Chickens Duration Starter Period
Farhad Ahmadi*, Nooshin Azadpour Department of Animal Science, Agricultural College

7:45 a.m. T147
Corn particle size separation and hammer mill performance
Lisa Kitto, Greg Roth, R. Hulet, Paul Patterson* Pennsylvania State University

8:00 a.m. T148
In vitro assessment of peptide size fractionation with endogenous proteases or endogenous proteases supplemented with Axtra PRO

8:15 a.m. T149
Inclusion of an exogenous neutral protease enzyme in low amino acids diets formulated with different protein sources in broiler chickens
Sergio Gomez-Rosales, Maria de Lourdes Angeles, Alejandro Diaz-Alonso* CENID-Fisiologia. INIFAP.

8:30 a.m. T150
Inclusion of exogenous protease enzymes in low amino acid diets formulated with different protein sources in broiler chickens
Alejandro Diaz-Alonso, Maria de Lourdes Angeles, Sergio Gomez-Rosales* VIMIFOS

8:45 a.m. T151
Impact of dietary phosphorus and calcium level on phytase efficacy in improving phosphorus and calcium digestibility and growth performance of broilers
Roger Davin, Frances Yan*, Colwayne Morris, David Ledoux, Mercedes Vazquez Anon Novus International, Inc.

9:00 a.m. T152
Comparison of two different phytase levels in combination with a xylanase to a multi-enzyme blend on male broiler performance and production costs from 1 to 42 days.
Tara York*, Craig Wyatt, John Brake, Adam Fahrenholz, Gilson Gomez AB Vista

9:15 a.m. BREAK
Metabolism & Nutrition - Enzymes
Moderator: Dr. Mike Coelho, BASF Corporation
Room Number: B313
Tuesday, January 30, 2018

9:30 a.m. T153
Phytases differ: In vitro phytate degradation ends up in different inositol phosphate isomers
Stefanie Gabler*, Imke Kühn, Mike Bedford AB Vista

9:45 a.m. T154
High phytase doses on real-time gizzard pH of broiler chickens and laying hens
Sophie Lee*, Jenny Dunne2, Toby Mottram3, Mike Bedford1 1AB Vista; 2Drayton Animal Health; 3eCow Devon Ltd

10:00 a.m. T155
Effects of a commercial xylanase-probiotic blend on live performance, gut health, and environmental pathogens of broilers fed corn-soy-based diets

10:15 a.m. T156
Fibre solubilisation and broiler gut health effects of xylanase combined with α-L-arabinofuranosidase debranching enzyme in a corn-based diet
Ninfa Pedersen1, Jonas Ravn*1, Vibe Glitsø1, Dan Pettersson1, Richard Ducatelle2, Filip Van Immerseel2, Nelson Ward3 1Novozymes A/S; 2Ghent University; 3DSM

10:30 a.m. T157
Field observations: Neither KOH protein solubility nor urease activity are adequate quality predictors of commercial full-fat soybeans for poultry.
Nelson Ruiz*, Fabiola de Belakazar, Jorge Castillo Nelson Ruiz Nutrition, LLC

10:45 a.m. T158
Efficacy of a NSPase enzyme, Natugrain TS®, dose titration on jejunal viscosity, IDE and Necrotic Enteritis lesion score on birds challenged with coccidiosis vaccine and Clostridium perfringens and 28-day bird performance on corn/soy diets
Mike Coelho* BASF Corporation

11:00 a.m. Milton L. Dendy Keynote Address - B313
The Evolution of Broiler Production Programs since 1985 and Challenges in How Broilers Will Be Grown in Coming Years
Dr. Michael Donohue, Agri Stats

12:00 p.m. SCAD Business Meeting - B312
12:00 p.m. SPSS Business Meeting - B313
Metabolism & Nutrition - Feed Additives
Moderator: Dr. Ramon Malheiro, NCSU
Room Number: B314
Tuesday, January 30, 2018

7:30 a.m. T159
Meat antioxidants, chemical composition and performance of commercial broilers is affected by Moringa oleifera leaves supplemented as feed additive
Shakeel Ahmad¹, Anjum Khalique*¹, Talat Pasha¹, Shahid Mehmood¹, Khalid Hussain², Sohail Ahmad³
¹University of Veterinary and Animal Sciences; ²University of Punjab

7:45 a.m. T160
Egg antioxidants, chemical composition and performance of commercial layers is affected by Moringa oleifera leaves supplemented as feed additive
Shakeel Ahmad*¹, Anjum Khalique¹, Talat Pasha¹, Shahid Mehmood¹, Khalid Hussain², Sohail Ahmad³
¹University of Veterinary and Animal Sciences; ²University of Punjab

8:00 a.m. T161
Effect of AZOMITE supplementation in post-molt hens
Ramon Malheiro*, Vera Moraes, Kenneth Anderson
Prestage Poultry Science Department, NC State University

8:15 a.m. T162
Butyric acid during very late lay (86-100 wks of age) in Laying Hen Rations Effects on Shell Strength
Sheila Purdum*¹, Josephine Foley¹, Richard Sygall²
¹University of Nebraska; ²Perstorp Feed and Food Corporation

8:30 a.m. T163
Effects of various concentrations of butyric acid on the performance, intestinal lesion scores, and body composition of broilers raised on used litter
Nathaniel Barrett*, James Lewis, Michael Persia
Virginia Tech

8:45 a.m. T164
Yeast cell wall and hydrolyzed yeast as a source of nucleotides effects on immunity, gut integrity and performance of broilers
Jose Rivera, Lúcio Araújo, Elizabeth Santin, Carolina Oliva, Liliana Borges, Melina Bonato*
Departamento de Zootecnia, Faculdade de Zootecnia e Engenharia de Alimentos, Universidade de Sao Paulo

9:00 a.m. T165
The effects of a dietary nucleotides-containing product YT500 on IBV antibody production and intestinal mucosal barrier functions in SPF chickens.
Che Wu*, Zhenwei Yang, Chao Liang, Yue Zhang, Qingmei Xie
South China Agriculture University

9:15 a.m. BREAK
Metabolism & Nutrition - Feed Additives
Moderator: Dr. Mojtaba Yegani
Room Number: B314
Tuesday, January 30, 2018
9:30 a.m. T166
Effects of in ovo injection of L-ascorbic acid on early growth performance and systemic antioxidant capacity in broiler chickens
Saman Fatemi*, Haijun Zhang, Katie Collins Elliott, Oluwaseun Durojaye, E. David Peebles Mississippi State University
9:45 a.m. T167
Effects of dietary inclusion level of a phytogenic premix on broiler growth performance, nutrient digestibility, total antioxidant capacity and gene expression of antioxidant enzymes
Konstantinos Mountzouris*, Vasileios Paraskeuas, Eirini Griea, Andreas Kern, Konstantinos Fegeros Agricultural University of Athens
10:00 a.m. T168
Discovery and in vitro characterization of a novel muramidase for use in animal feed
Marianne Cohn, Kirk Schnorr, Lars Skov, Esben Schmidt, Peter Olsen, Steen Buskov, Raffaella Aureli, Estefania Pérez Calvo, Rual Lopez-Ulibarri, Mikkel Clausen* Novozymes A/S
10:15 a.m. T169
Effects of a novel muramidase supplementation on gastrointestinal functionality and growth performance in broiler chickens
Mounira Sais, Susana Martin-Orue, Ana Barroeta, Rual Lopez-Ulibarri, Estefania Perez Calvo* Servei de Nutrició i Benestar Animal. Universitat Autònoma de Barcelona
10:30 a.m. T170
Evaluation of the efficacy of a novel muramidase on performance of broiler chickens
Mojtaba Yegani*, Bradley Turner, Thomas Frost, Greg Mathis, Brett Lumpkins DSM Nutritional Products
10:45 a.m. T171
A novel muramidase improves broilers performance via higher nutrient utilization.
Leticia Bittencourt*, Rafael Hermes, Vitor Fascina, Dino Garcez, Estefania Calvo DSM Nutritional Products
11:00 a.m. Milton L. Dendy Keynote Address - B313
The Evolution of Broiler Production Programs since 1985 and Challenges in How Broilers Will Be Grown in Coming Years
Dr. Michael Donohue, Agri Stats
12:00 p.m. SCAD Business Meeting - B312
12:00 p.m. SPSS Business Meeting - B313
Metabolism & Nutrition - Feed Additives
Moderator: Dr. Stefan Pelzer, Evonik
Room Number: B315
Tuesday, January 30, 2018

7:45 a.m. T172
Lowering the incidence of Wooden Breast with a new, innovative additive
Manu De Laet*, Rob Goedegebuure, Renato Costa Nuscience

8:00 a.m. T173
The effects of Magni-Phi® in floor pen- and commercially-raised turkeys
Kenneth Bafundo*, Mark Blakley, Greg Mathis Phibro Animal Health Corporation

8:15 a.m. T174
Poultry-specific synbiotic supports enhanced growth efficiency of turkeys raised in antibiotic-free conditions in experimental and field settings
Chasity Pender*, Michaela Mohnl, G. Raj Murugesan Biomin America Inc.

8:30 a.m. T175
In depth mode of action studies of the unique probiotic strain Bacillus subtilis DSM 32315
Jessica Kleinboelting, Stella Mold, Lorena Stannek-Goebel, Kiran Doranalli, Rose Whelan, Adriana Barri, Claudia Borgmeier, Guido Meurer, Stefan Pelzer* Evonik Nutrition & Care GmbH

8:45 a.m. T176
Bacillus subtilis 29784 improves performance and footpad conditions of broilers.
J Teyssier, V Jaquier, L Rhayat, E Devillard, J Barton* Adisseo France SAS, Centre of Expertise and Research in Nutrition

9:00 a.m. T177
Formulation of Bacillus probiotics is key to product performance
Karoline Brinch*, Geraldine Lafitte, Adam Nelson, Robert Plowman Novozymes Animal Health & Nutrition

9:15 a.m. BREAK
Metabolism & Nutrition - Feed Additives
Moderator: Dr. Alfred Blanch, Chr-Hansen
Room Number: B315
Tuesday, January 30, 2018
9:30 a.m. T178
Zootchnological efficacy of diets supplemented with GalliPro® Fit, a new multi-strain direct feed microbial (Bacillus subtilis DSM 32324, DSM 32325 and Bacillus amyloliquefaciens DSM 25840), in broiler chickens
Alfred Blanch, Florence Rudeaux, Dorthe Sandvang, Zahid Nasir* Chr Hansen AS

9:45 a.m. T179
Effect of GalliPro® Fit, a new multi-strain direct feed microbial (Bacillus subtilis DSM 32324, DSM 32325 and Bacillus amyloliquefaciens DSM 25840), on growth performance and digestibility in broilers
Dorthe Sandvang, Alfred Blanch*, Florence Rudeaux, Joren Verbeke Chr Hansen AS

10:00 a.m. T180
A one year field comparison between the effects of a blend of Quebracho and Chestnut tannins and a commercial antibiotic program on broiler live performance
Enzo Redondo, Leandro Redondo, Juan Diaz C arrasco, Octavio Bruzzone, Claudio Cabral, Victorino Garaces, Maximo Liñeiro, Michele Battaglia, Mariano Fernandez Miyakawa* CONICET

10:15 a.m. T181
Dose depending performance improvement of 42 d broilers fed diets containing a mixture of carvacrol, cineol, cinnamaldehyde and capsicum oleroresin compared to antibiotic growth promotants
Rafael Cabrera*, Jess Walls1, Mark Richards2, Henning Gerstenkorn2 1EW Nutrition, USA; 2EW Nutrition, Germany

10:30 a.m. T182
Oregano essential oil lessens the impact of enteritis in broiler chickens
Saksit Srinongkote1, Wendy Wakeman2, David Harrington*2 1Animal Research Consultant; 2Anpario Plc

10:45 a.m. T183
Performance of Broilers Fed Diets Supplemented with Bastion® and Challenged with Clostridium perfringens.
Nicholas Evans*, Theodore Karnezos, Ronald Dvorak, Curtis Novak, Mahmoud Masadeh, Michael Sims PMI Nutritional Additives

11:00 a.m. Milton L. Dendy Keynote Address - B313
The Evolution of Broiler Production Programs since 1985 and Challenges in How Broilers Will Be Grown in Coming Years
Dr. Michael Donohue, Agri Stats

12:00 p.m. SCAD Business Meeting - B312
12:00 p.m. SPSS Business Meeting - B313
Poster Session
Moderators: Dr. Elijah Kiarie, University of Guelph and Dr. Katy Tarrant, CSU Fresno

Physiology, Endocrinology and Reproduction

P184
Discovering the optimal concentration of Gallipro Hatch® that enhances broiler hatchability and live performance
Claudia Castaneda*GS, Dana Dittoe, Kelley Wamsley, Christopher McDaniel, Alfred Blanch, Dorthe Sandvang, Aaron Kiess Mississippi State University

P185
Changes to the gastrointestinal tract and yolk sac of broilers previously in ovo injected with different concentrations of Gallipro Hatch®
Dana Dittoe*GS, Claudia Castaneda, Kelley Wamsley, Chris McDaniel, Alfred Blanch, Dorthe Sandvang, Aaron Kiess Mississippi State University, Department of Poultry Science

P186
Broiler hatchability following in ovo injection of Lactobacillus animalis or Bacillus licheniformis
Tianna Allen*UG, Aaron Kiess, Christopher McDaniel Mississippi State University

P187
21 day broiler performance after in ovo injection of individual or multiple probiotic bacteria
Chrysta Beck*UG, Kelley Wamsley, Christopher McDaniel, Aaron Kiess Mississippi State University

P188
Identification of absorptive and stem cells in chicken small intestine and yolk sac
Haifan Zhang*GS, Eric Wong Virginia Tech

P189
Effect of whole corn inclusion in the diets of broiler chickens on ileal and cecal microbiota
Cristiano Bortoluzzi*, Andrea Rubio, Juan Aranibar, Todd Applegate, Wilmer Paducho University of Georgia

P190
Antioxidant status of broiler chickens fed acerola byproducts meal
Thaina Landim de Barros*, Rodrigo Pereira Cassiano, Ariana Aparecida Ferreira Pereira, Anelise Bosco, Paulo Ciarello, Manoel Garcia-Neto, Elisa Helena Giglio Ponsano São Paulo State University (UNESP)

P191
Expression of neuropeptide Y in chicken muscle and its effects on mitochondria dynamics.
Marco Zampiga*, Elizabeth Greene, Federico Sirri, Joshua Flees, Sami Dridi Department of Agricultural and Food Sciences — Alma Mater Studiorum - University of Bologna

P192
Infrared thermography (IRT) as a non-invasive indicator of leg health in broiler chickens
Shawna Weimer*, Robert Wideman, Andy Maumoumstakos, Colin Sannes, Karen Christensen, Yvonne Vizzier-Thaxton Purdue University

P193
A comparative study of skeletal integrity between a 1995 and 2015 genetic line of broilers
Rodrigo Lopez*UG1, Sara Orlofski2, Nicholas Anthony2, Katy Tarrant1 1California State University, Fresno; 2University of Arkansas

P194
Percoll density gradient centrifugation technique isolates rooster sperm with low, medium and high mobility or fertility potential
Kathryn Harison*UG, Muslah Ahammad, Zachary Jarrell, Andrew Benson University of Georgia

P195
Relationship of eggshell mammillary core numbers to eggshell pore numbers on the large end and equators of hen eggs.
Will Hamilton*UG, Wallace Berry Auburn University
P196 Effect of dietary supplementation with Enterococcus faecium on performance, egg quality, histomorphology and salmonella colonization in laying hens infected with S. enteritidis
Shimeng Huang*, Cong Liu, Li Hong Zhao, Cheng Ji, Jianyun Zhang, Qiguang Ma China Agricultural University

P197 Transcriptome analyses of differential gene expression in atrophic ovary of broody chicken
Lingbin Liu*, Elizabeth R. Gilbert, Qing Zhu Sichuan Agricultural University

P198 The bone development pattern and the correlation with growth parameters in modern laying hens
Chongxiao Chen*, Woo Kyun Kim The University of Georgia

P199 Blood variables of commercial egg-laying pullets following a field-strain Mycoplasma gallisepticum challenge
E. Peebles*, Hammed Olanrewaju2, Scott Branton2, Jeffrey Evans2, Spencer Leigh2, Elizabeth Kim2, Gregory Pharr1, Katie Elliott1 1Mississippi State University; 2ARS-USDA

P200 The effect of pullet weight at 17 weeks of age on the productive performance and egg quality during the laying period
Madalena Loidelo*, Carolina Duarte1, Margarida Barbosa2, David Henriques2 1Instituto Superior de Agronomia, Universidade de Lisboa; 2Zézero - Produção Avícola do Zêzere, S.A.

P201 Egg quality evaluations of commercially available table eggs
Cirenio Hisasaga*, Katy Tarrant California State University, Fresno

P202 Live pigeon pox virus vaccination increases parthenogen size in virgin Chinese painted quail (Coturnix chinensis)
Reshma Ramachandran*, Midian Nascimento dos Santos, Christopher McDaniel Mississippi State University

P203 Influence of environmental conditions upon the occurrence of locomotor problems in heavy male turkeys
Vinicius Nickel*, Thais Pereira, Tamara Ferreira, Isabella dos Santos, Carla Leite, Lisir Kindlein UFRGS

P204 Evaluation of body weight, leg and ultrasonographic measures in heavy male turkeys with different degrees of gait score and arthritis
Vinicius Nickel*, Thais Pereira, Isabella dos Santos, Carla Leite, Lisir Kindlein UFRGS

Processing and Products

P205 The influence of genetics, housing system and storage time on changes to breast meat color
Anthony Pescatore*, Jacqueline Jacob, Gregg Rentfrow, Michael Ford, Tatijana Fisher, Sunday Adedokun, Tuoying Ao University of Kentucky

P206 Meat color of breast meat from broilers and alternative breeds finished on the floor or on pasture
Jacqueline Jacob*, Anthony Pescatore, Gregg Rentfrow, Michael Ford, Tatijana Fisher, Sunday Adedokun, Tuoying Ao University of Kentucky

P207 Broiler carcass aging, an effective method to improve tenderness of breast fillets from fast-growing big broilers
Meredith Johnson*, Avery Smith, Laura Bauermane, Allan Pinto, Ada Madrid, Jasmine Kataria, Amit Morey Auburn University
P208
Synergistic effect of dietary inclusion of organic trace minerals and synthetic antioxidants in reducing wooden breast in 41d old broilers fed diets containing oxidized fat
Vivek Kuttappan*, Megharaja Manangi, Juxing Chen, Mercedes Vazquez-Anon, Kim Walter, Alex Corzo, Bryan Fancher Novus International Inc.

P209
Image analysis as a potential tool for objective identification of Woody Breast characteristics in 8 week old commercial broiler carcasses
Juan Calsa-Cueva*, Barbara Mallmann, Casey Owens University of Arkansas

P210
Effect of Acid-Pak 4-Way® Liquid Hard Water Formula as a water acidifier for use in Canada
Nicole Weidner, Kayla Price* University of Guelph

P211
A protein and microbiological survey comparing organic and traditional eggs
Linda Purvis*, M Miller, Swapna Bhat University of North Georgia

P212
Nutritional and physical characteristics of eggs from indigenous chicken breeds
Madalena Lordelo*, Joana Ciã§, Rui Bessa, Inês Carolino Instituto Superior de Agronomia, Universidade de Lisboa; Instituto Nacional de Investigação Agrária e Veterinária

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Application of Functional Ice to Prevent Spoilage of Raw Poultry during Storage and Transportation
Jasmine Kataria*, Ada Sandoval, Meredith Johnson, Avery Smith, Laura Bauermeister, Amit Morey Auburn University

P214
Investigation of novel Yersinia enterocolitica-specific bacteriophage isolated from poultry farm as a biocontrol agent
Kyoung Gwak*, Om Choi, Hae-Yeong Lee, Mi-Kyung Park School of Food Science and Technology Kyungpook National University

P215
Formulation of a selective medium for aerobic growth of Campylobacter

P216
Evaluation of a high pressure wash cabinet to reduce bacterial load on broiler carcasses pre-scaled, post-scaled and post pick

P217
Pulsed UV light as a Salmonella reduction intervention for boneless/skinless chicken thigh meat
Joshua Cassar*GS, Ali Demirci, Edward Mills The Pennsylvania State University

P218
Campylobacter prevalence in retail chicken liver
Tori Thompson*, Mark Berrang, Nelson Cox, Richard Meinersmann USDA-ARS-US National Poultry Research Center

P219
Rapid determination of multiple quality parameters in rendered poultry fat using Fourier transform near infrared spectroscopy
Jason Erickson* Bruker Optics
Pathology

P220
Incidence and degree of Salmonella Heidelberg colonization of day old broiler chicks using several methods of inoculation
Ade Oladeinde*, Kim Cook, Nelson Cox, Casey Ritz, Douglas Cosby, Jodie Plumblee Lawrence, Sandra House, Gregory Zock, Jeromey Jackson
U.S. National Poultry Research Center
University of Georgia

P221
Outbreaks of gangrenous dermatitis in poultry chickens in Argentina
Enzo Redondo, Leandro Redondo, Fernando Delgado, Mariano Fernandez Miyakawa

P222
Erysipelothrix rhusiopathiae vegetative endocarditis in a backyard rooster: case report and discussion
Fernando Ruiz Jiménez, Luicy Martinez Chavarria, Rigoberto Hernandez Castro, Felix Sanchez Godoy
Department of Poultry Science, College of Veterinary Medicine, National Autonomous University of Mexico

P223
Evaluation of long term immunity and protection against Salmonella spp by orally administrated inactivated vaccine
Emanuel Gumina, Gonzalo Almaraz, Ariel Sugezky, Sherryl Layton
University of Buenos Aires, Department of Veterinary Sciences

P224
Erythroplastids and reticulocyte atypia of duck blood — indications of dyscrasia
Paul Cotter, Debbie Jeffrey
Cotter Laboratory, Maple Leaf Farms

P225
Hematology variation of the commercial turkey - indicators of inflammation and immunosuppression
Paul Cotter
Cotter Laboratory

P226
Establishment of a Pathogenicity Index for mice to Pasteurella multocida Strains Isolated from Poultry and Swine
Brunna Emery, Hamilton Moraes, Vladimir Nascimento, Thales Furian, Gabriela Chitolina, Carlos Salle
Universidade Federal do Rio Grande do Sul

P227
Evaluation of the biofilm formation capacity of Pasteurella multocida strains isolated from cases of fowl cholera and swine lungs and its relationship with pathogenicity
Brunna Emery, Thales Furian, Vladimir Nascimento, Gabriela Chitolina, Karen Borges
Universidade Federal do Rio Grande do Sul

P228
Resistance profile of Enterococcus spp. recovered from healthy poultry against antimicrobial growth promoters.
Enzo Redondo, Jessica Bucci, Johana Dominguez, Enzo Redondo, Mariano Fernandez-Miyakawa
INTA-CONICET

P229
Yeast cell wall mannan-rich fraction decreases the prevalence of antibiotic resistant bacteria in broiler chickens
Helen Smith, Kate Jacques, Richard Murphy
Alltech

P230
Effect of yeast cell wall mannan-rich fraction on antibiotic resistant Enterobacteriaceae
Helen Smith, Kate Jacques, Richard Murphy
Alltech

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Anabele Santos, Juliana Bassani, Daiane Wilsmann, Mariana Paravisi, Daiane Carvalho, Carlos Tadeu Salle, Vladimir Do Nascimento
Federal University of Rio Grande do Sul
P232
Are chicken embryos sterile? An investigation through both culture-dependent and independent methods.

Bishnu Adhikari*GS, Guillermo Tellez-Isaias, Kyle Teague, Young Kwon University of Arkansas

SCAD

P233
Effects of a dry hydrogen peroxide (DHP) air sanitation system used in an egg cooler on hatchability and chick quality

Érica Melo*GS, Jeanna Wilson, Brian Jordan, Julia McElreath Universidade Federal de Minas Gerais

P234
Reducing microbial load on hatching eggs using a dry hydrogen peroxide gas system

Julia McElreath*GS, Eric Shepard, Russ Stephens, Brian Jordan University of Georgia

P235
The effect of Akkemansia muciniphila on gut microbiota for the control of necrotic enteritis in broilers

Yue-Jia Lee, Wen-Yuan Yang, Hsin-Yi Lu*, Chinling Wang Mississippi state university

P236
Correlation between necrotic enteritis and an imbalance of Clostridium perfringens in the gut of broilers.


P237
Protective effect for broiler chickens of Valerins and the antibiotic BMD in necrotic enteritis challenge model

Charles Hofacre*, G. Mathis, Richard Sygall Southern Poultry Research

P238
Descriptive analysis of affected Focal Duodenal Necrosis flocks based on a questionnaire survey.

Ana Villegas*GS, Roy Berghaus, Guillermo Zavala, Monique Franca University of Georgia

P239
In vitro anaerobic incubation of Salmonella enteritidis and poultry feed substrates with cecal samples from in ovo lactobacillus injected broiler chicks

Lizza Macalintal*, Phyllis Glenney, Anthony Pescatore, Tuoying Ao, Michael Ford, Karl Dawson Alltech-University of Kentucky Poultry Nutrition Research Alliance

P240
Protective effects of direct fed microbials in combination with the live vaccine MeganVac 1 against Salmonella Heidelberg in broilers

Virginia Baxter*, Charles Hofacre, Chris Tate, Roy Berghaus Southern Poultry Research Group

P241
Comparison of various live salmonella vaccination programs on protection against a Salmonella heidelberg challenge in SPF leghorns

Kalen Cookson*, Manuel Da Costa, John Dickson, Jon Schaeffer Zoetis

P242
Local innate immune responses after ocular or oral inoculation with virulent strain of infectious laryngotracheitis virus (ILTV).

Gabriela Beltrán*GS, Sylva Riblet, Leah Read, Shayan Sharif, Maricarmen García University of Georgia

P243
Evaluation of the effects of a Turkey Cellulitis/Dermatitis oil emulsion vaccine on immune response and mortality under commercial conditions

Brittany Graham*GS, Kabel Robbins, Lucas Graham, Kyle Teague, Amanda Wolfenden, Guillermo Tellez, Billy Hargis University of Arkansas
Environment, Management and Animal Well-Being, Behavior

P244
Environmental factors influence dust-bathing in commercially housed broiler chickens
Douglas Aldridge*, Chad Hayes1, Colin Scanes1, Karen Christensen21 University of Arkansas; 2 Tyson

P245
Effects of functional sensory molecules on the behavior of broiler chicks under different stocking density
Jean Francois GABARROU*, Soen RYU 1 Laboratoires PHODE; 2 Chon Buk National University

P246
Effects of layer strains and storage time on the dimension of eggshell translucence
Xueting Huo*, Qiugang Ma, Lihong Zhao, Jianyun Zhang, Cheng Ji China Agricultural University

P247
Resolving the broiler breeder paradox with N-acylethanolamines (NAEs), an unexplored family of neuroactive lipids with demonstrable benefits to gut health, behavior welfare, satiety and adiposity.
Kristin Moncada*, Sohini Bhatia, Paige Spencer, Andrew Feigley, Noura Dosoky, Sean Davies, Suresh Pillai, Rosemary Wolzem Department of Poultry Science, Texas A&M University

Environment, Management and Animal Well-Being, Incubation

P248
Seeder bird production following inoculation with Campylobacter and Salmonella through various body openings
Nelson Cox*, Douglas Cosby1, Mark Berrang1, Arthur Hinton, Jr.; 2 U.S. National Poultry Research Center; 3 University of Georgia

P249
Effects of in ovo injection of L-ascorbic acid on early growth performance and systemic antioxidant capacity in broiler chickens
Seyed Fatemi*, Haijun Zhang, Katie Elliott, Oluwaseun Durojayee, E. David Peebles Department of Poultry Science, Mississippi State University, Mississippi State

P250
Novel method for sanitization of hatching eggs during egg storage and incubation.
Wallace Berry*, Joe Hess, Ken Macklin Auburn University

P251
Identification, selection and weighting of food safety risk factors to be considered for their inclusion in the Canadian Food Inspection Agency’s Hatchery Risk Assessment model
Marie-Lou Goucher*, Alexandre Tremblay1, Alexandre Leroux1, Sylvain Quessy1, Sunny Ng2, Geneviève Comeau2, Pascal Moreau2, Teresa Cereno2, Manon Racicot2 1 Université de Montréal; 2 CFIA

Environment, Management and Animal Well-Being, Photoperiod and Lighting Programs

P252
Main effects of light sources, photoperiod, and strain on growth performance and carcass characteristics of broilers grown to heavy weights.
Hammed Olanrewaju*, Joseph Purswell, Stephanie Collier, Scott Branton USDA-ARS, Poultry Research Unit, Mississippi State

P253
Optimization of age in Japanese quail at photo stimulation for better egg quality and hatching results
Syed Ali Raza Haider*, Athar Mahmud, Jibran Hussain, Muhammad Usman, Muhammad Waqas, Sohail Ahmad University of Veterinary and Animal Sciences
The effect of stocking density on the stress response in turkeys
Katie Hackney*UG, Edgar Oviedo-Rondón, Kenneth Anderson, Jesse Grimes, Kimberly Livingston North Carolina State University

The effect of stocking density on the stress response in broilers
Xin Chuang*UG, Jesse Grimes, Kenneth Anderson, Edgar Oviedo-Rondón, Kimberly Livingston North Carolina State University

The effect of reduced nocturnal temperatures on performance of broiler chicks from 0 to 21 days of age.
David Clizer*GS, Jeffre Firman University of Missouri

Differential expression of water-channel and non-coding RNA biogenesis-related genes in three chicken lines under short-term water restriction
Sara Orlowski*UGS, Joshua Flees, Nicholas Anthony, Sami Dridi University of Arkansas

In-vitro and in-vivo comparison of the effect of several plant extracts against two protozoan genera, respectively Trypanosoma and Eimeria
Sylvain Kerros*, Sébastien Pome, Philippe Loiseau, Thibault Chabrillat, Isabelle Deuve-Riou 1 Phytosynthese; 2 Université Paris Sud

Evaluation of the effect of formaldehyde or heat stress on body weights and body weight gain in neonatal broiler chickens
Paula Johnson*UGS, Jacob Lum, Lucas Graham, Kyle Teague, Brittany Mahaffey-Graham, Mikayla Baxter, Juan David Latorre, Cheryl Lester, Guillermo Tellez-Iasais, Karen Christensen, Billy Hargis University of Arkansas

Effects of Heat Stress on Tight Junction Protein Integrity in Broiler Chickens given a Noni-supplement Diet
Guillermo Tellez*UGS, Elizabeth Greene, Joshua Flees, Anamika Gupta, Narayan Rath, Walter Bothje, Sami Dridi University of Arkansas

Dry and heat stress affects H2S production of Salmonella on selective plating media
Kurt Richardson*, Nelson Cox, Doug Cosby, Mark Berrang Anitox Corp

Effect of cold stress on corticosterone and femur development in SPF chicks.
Anderlise Borsoi*, Antônio Plantino-Ferreira, Coludete Astolfi-Ferreira, João Palermo-Neto Tuiuti University of Paraná

Effect of cold stress on corticosterone and Campylobacter jejuni isolation in SPF chicks.
Anderlise Borsoi*, Atilio Calef, Antônio Plantino-Ferreira, João Palermo-Neto Tuiuti University of Paraná

Efficacy of plant extracts (CLEANACTIV and AEN) on the performances of broiler chickens reared in experimental conditions compared to conventional ionophore program.
Thibaut Chabrillat*, Isabelle Deuve-Riou, Georgina Farré, Marc Verdú, Francesc Cots, Sylvain Kerros Phytosynthese

Identifying new antimicrobials that may improve broiler litter quality
Abdulmohsen Alqhtani*UGS, Tomi Obe, Christopher McDaniel, Aaron Kiess Mississippi State University
Turkey litter mass, nutrients, and nutrients per bird from different management styles in Pennsylvania
Erica Rogers, R. Michael Hulet, Douglas Beegle, Paul Patterson* The Pennsylvania State University

Relationships between deoxynivalenol and heavy metal concentrations of corn grains
Ahmet Pekel*, Ali Çalık, Mustafa Alatas, Eren Kuter, Özcan Cengiz, Gülten Omurtag Istanbul University

Evaluation of shell quality of hens receiving reduced calcium diets
Lauren Nolan*GS, Anthony Pescatore, Michael Ford University of Kentucky

Effect of body weight, sex, age and handling procedures on tonic immobility time and leucocyte profile in commercial broilers.
Diego Martinez*, Jorge Tay, Fabiola Caqui, Cristian Uculmana, Mayra Calagua LIAN Development & Service

Metabolism and Nutrition, Feed Additives

Applying meta-analysis to improve the value of commercial tests: a phytogenic feed additive case study.
Diego Martinez*, Carlos Vilchez La Molina National Agrarian University

Characterisation of a novel fungal muramidase
Mikkel Klausen, Zoltán Pragai, Rual Lopez-Ulibarri, Marianne Cohn* Novozymes A/S

Evaluation of the effects of supplementation of a novel muramidase in poultry feed
Mikkel Klausen1, Marianne Thorup Cohn1, Estefania Pérez Calvo2, Pietro Celi2, Rual Lopez-Ulibarri*2Novozymes A/S; 2DSM Nutritional Products

Effects of a malabsorptive rye diet on growth and adipose tissue in commercial broilers
Lemuel Reber, Mikayla Baxter, Billy Hargis, Guillermo Tellez*, Dawn Koltes University of Arkansas

Dietary microalgae and zinc proteinate improves hatch of broiler breeder offspring during post-peak lay
Marquisha Paul*GS, Lizza Macalintal, Lauren Nolan, Anthony Pescatore, Tuoying Ao, Michael Ford, Karl Dawson Alltech-University of Kentucky Nutrition Research Alliance

Dietary supplementation with fish oil or a combination of linseed oil and microalgae improves performance, serum composition, meat quality, antioxidant status and fatty acid profile of broilers
Shenfie Long*GS, Li Liu, Sheng Kang, Xiaokang Ma, Qiangian Wang, Gang Lin, Anne Koontz, Xiangshu Piao State Key Laboratory of Animal Nutrition, Ministry of Agriculture Feed Industry Centre, China Agricultural University

Effects of oregano extract oil as an alternative to antibiotics on growth performance, immunity, antioxidant activity and cecum microbiota in broilers
Liyuan Zhang*GS, Qiugang Ma, Lihong Zhao, Jianyun Zhang, Cheng Ji China agricultural university

Effects of dietary supplementation with an antimicrobial peptide-Pulete on growth performance and cecum morphology in broilers
Jinglin Ma*GS, Lihong Zhao, Qiugang Ma, Jianyun Zhang, Cheng Ji, Yongpeng Guo china agricultural university
P278
Evaluation of multiple levels of phosphatidic acid on growth performance and breast meat yield in broilers
Jason Lee*, Scott Hagerman, Gregory Archer Texas A&M University

P279
Supplementation of broiler diets with All-G-Rich™: Effects on productivity, blood parameters and meat DHA content
Colm Moran*, Jason Keegan, Doug Currie, Anne Knox Alltech SARL

P280
Tolerance of broilers to diets supplemented with All-G-Rich™
Colm Moran*, Jason Keegan, Doug Currie, Anne Knox 1Alltech SARL; 2Alltech Inc; 3Roslin Nutrition Ltd

P281
Effect of protected sodium butyrate in pullet performance
Oscar Vazquez*, Monica Puyalto, Cinta Sol, Juan Mallo, Paulina Vazquez NOREL MÉXICO S.A. DE C.V.

P282
Comparison of a feed or drinking water application of butyric acid in broilers challenged with necrotic enteritis
Hocai Bayir*, Jundi Liu, Greg Mathis, Brett Lumpkins, Justin Fowler University of Georgia

P283
Use of protected sodium butyrate in broilers under antibiotic free production system, a field trial
Oscar Vazquez*, David Arteaga, Monica Puyalto, Cinta Sol, Juan Mallo NOREL MÉXICO S.A. DE C.V.

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Cecal digesta microbial activity in broiler chickens fed corn-soybean meal diets without or with yeast nucleotides upon challenge with Eimeria
Haley Leung*, Alexander Yitbarek, Rob Patterson, John Barta, Elijah Kiarie University of Guelph

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Mohamed Neijat*, Rob Shirley, Elijah Kiarie Department of Animal Biosciences, University of Guelph

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Effects of Bacillus subtilis, Enterococcus faecium, citric acid, fructooligosaccharides and Madeeya cordata extract on laying performance and microbial safety in eggs and fees of laying hens
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Youn Kyoung Sung*, Jinyoung Lee, Su Hyun An, Changsu Kong Easy Bio, Inc.

Determining the digestible lysine requirement of Cobb MV × Cobb 500 male broilers during the first fourteen days of age
Rosana Hirai*, Leonel Mejia, Cesar Coto, Justina Caldas, Christopher McDaniel, Kelley Wamsley Mississippi State University

Standardized ileal digestible methionine, threonine, and tryptophan requirements of male broilers from 0 to 10 days
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Evaluation of DL-methionine, L-methionine and hydroxy-4-(methylthio) butanoic acid in male broilers through 17 days of age
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Growth performance and amino acid digestibility coefficients of broilers fed vegetarian versus conventional diets reared in a research and commercial setting during a 62 day grow-out
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Protein degradation of broiler breeders from the onset of lay through peak production
Garrett Mullenix*, Xuemei Ding, Jinrong Wang, Judith England, Katie Hilton, Michael
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Determination of nitrogen corrected true metabolizable energy by near infrared reflectance
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Matthew Jones*, Lauren Reid, Adam Davis University of Georgia
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B313
Monday, January 29
3:30 p.m.
Chair: Dr. John Glisson, USPoultry

Poster Reception
B313 Foyer
Monday, January 29
4:00 - 6:00 p.m.
Co-Chairs: Dr. Mary Beck, Mississippi State, and Dr. Mark Jackwood, UGA

Milton L. Dendy Keynote Address
B313
Tuesday, January 30
11:00 a.m.
Dr. Michael Donohue, Agri Stats
Chair: Dr. Mark Jackwood, University of Georgia, Athens, GA

SCAD Business Meeting
B312
Tuesday, January 30
Noon
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B313
Tuesday, January 30
Noon
Chair: Dr. Edgar Oviedo-Rondon, NCSU
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