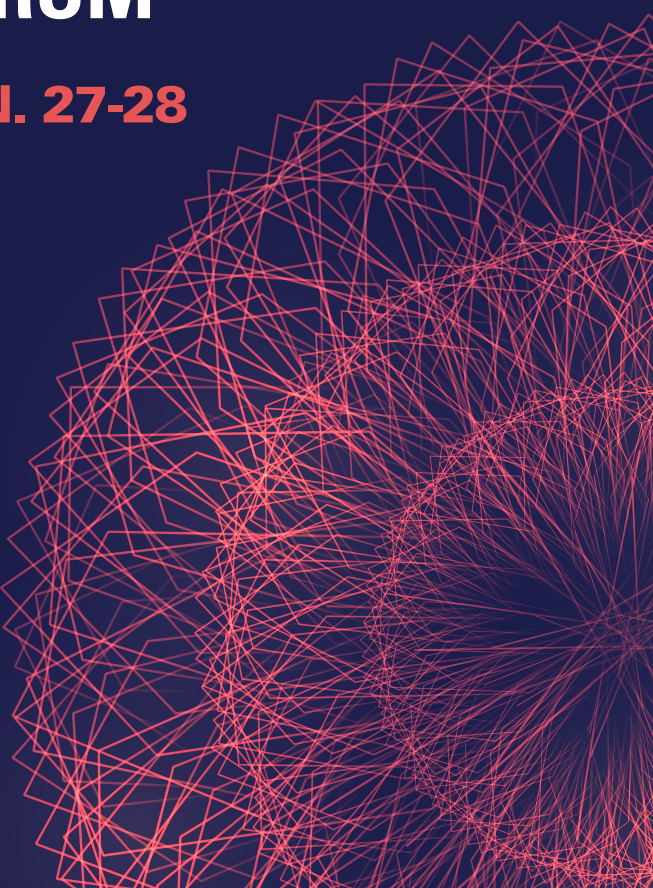




2025

**INTERNATIONAL
POULTRY
SCIENTIFIC
FORUM**

JAN. 27-28



2025 INTERNATIONAL POULTRY SCIENTIFIC FORUM

Concurrent Meeting of

The Southern Poultry Science Society 46th Annual Meeting

The Southern Conference on Avian Diseases 66th Annual Meeting

January 27-28, 2025

Program Summary

MONDAY SESSIONS

JANUARY 27	ROOM NUMBER	TIME	PAGE NUMBER
Physiology I	B404	7:00-10:00 Dr. Sami Dridi, UARK	6
Physiology II	B404	10:15-Noon Dr. Ramon Malheiros, NCSU	8
Environment & Management I	B404	1:00-4:00 Dr. Ken Anderson, NCSU	9
Metabolism & Nutrition I Enzymes	B405	7:00-8:00 Dr. Abiodun Bello, Danisco-IFF	11
Pathology	B405	8:00-10:15 Dr. Julia Blakey, USDA-ARS	12
SCAD I	B405	10:45-Noon Dr. Luis Munoz, MSSTATE	14
SCAD II	B405	1:00-4:00 Dr. Silvia Carnaccini, Iowa State	15
Welfare & Behavior I	B406	7:30-9:45 Dr. Rosemary Walzem, TAMU	17
Welfare & Behavior II	B406	10:00-12:00 Dr. Leonie Jacobs, VT	19
Food Safety I	B406	1:00-4:00 Dr. Tomi Obe, UARK	21
Processing & Products	B407	7:30-9:15 Dr. Yan Campbell, NCSU	23
Metabolism & Nutrition II General Nutrition	B407	9:15-10:00 Dr. John Boney, Penn State	24
Metabolism & Nutrition III General Nutrition	B407	10:15-12:00 Dr. John Boney, Penn State	25
Metabolism & Nutrition IV General Nutrition	B407	1:00-2:00 Dr. Kelley Wamsley, MSSTATE	26
Metabolism & Nutrition V Vitamins & Minerals	B407	2:00-4:00 Dr. Kelley Wamsley, MSSTATE	27
Metabolism & Nutrition VI Amino Acids, Feed Additives	B408	7:15-10:15 Dr. Mike Persia, VT	29
Metabolism & Nutrition VII Vitamins & Minerals	B408	10:30-Noon Dr. Frances Yan, Novus International	31
Metabolism & Nutrition VIII Amino Acids, Enzymes	B408	1:00-4:00 Dr. Pratima Adhikari, MSSTATE	32

Posters Displayed	Noon-6:00	Dr. Chrysta Beck, UARK; Dr. Chongxiao Chen, UGA
Student Competition	B402	4:00-6:00
Non-student Posters	Foyer	4:00-6:00
Wine & Cheese Reception	Foyer	4:00-6:00

TUESDAY SESSIONS

JANUARY 28	ROOM NUMBER	TIME	PAGE NUMBER
Posters Displayed	Foyer & B402	8:00-12:00	
Metabolism & Nutrition IX Feed Additives	B404	7:00-11:00 Dr. Theresia Lavergne, Natural Biologics Dr. Cody Flores, Devenish Nutrition	34
SCAD III	B405	7:45-10:45 Dr. Jossie M. Santamaria, UARK	37
Metabolism & Nutrition X Feed Additives	B406	7:00-11:00 Dr. Midian Nascimento dos Santos, Trouw Dr. Bayo Sokale, BASF	39
Welfare & Behavior III	B407	7:00-8:15 Dr. T. Bas Rodenburg, Utrecht	42
Metabolism & Nutrition XI General Nutrition	B407	8:15-9:45 Dr. Diego Martinez, UARK	43
Metabolism & Nutrition XII General Nutrition	B407	9:45-11:00 Dr. Diego Martinez, UARK	44
Environment & Management II	B408	7:00-8:30 Dr. Jessica Drewry, MSSTATE	45
Food Safety II	B408	8:30-11:00 Dr. Jinquan Wang, Auburn	46
Milton L. Dendy Keynote Lecture	B405	11:00-12:00	
SCAD Business Meeting	B405	12:00-1:00	
SPSS Business Meeting	B407	12:00-1:00	

Officers of SPSS 2024-2025

President:	Dr. Roshan Adhikari, CJ America
First VP:	Dr. Dianna Bourassa, Auburn
Second VP:	Dr. Jarred Oxford, Cargill
Past President:	Dr. Jesse Grimes, NCSU
Executive Secretary:	Dr. Mary Beck, Emerita, MSSTATE
Phone:	402.540.9016
Email:	mbeck@poultry.msstate.edu

Officers of SCAD 2024-2025

President: Dr. Silvia Carnaccini, Iowa State

Directors: Dr. Alejandro Banda, MS State U
Dr. Rocio Crespo, NCSU
Dr. Kiril Dimitrov, TVMDL
Dr. John Donahoe
Dr. Olivia Faulkner, CEVA
Dr. Morgan Farnell, TAMU
Dr. Joe Giambrone, Auburn
Dr. Maricarmen Garcia, UGA
Dr. Danielle Graham, UARK
Dr. Rudiger Hauck, Auburn
Dr. Mark Jackwood, UGA
Dr. Brian Jordan, Zoetis
Dr. Ken Macklin, MS State U
Dr. Tomi Obe, UARK
Dr. Holly Sellers, UGA
Dr. Christine Vuong, UARK
Dr. Susan Williams, UGA

Secretary/Treasurer: Dr. Susan M. Williams, UGA
Department of Population Health/PDRC
University of Georgia
953 College Station Road
Athens, Georgia 30602-4875

Phone: 706.583.0523

Email: smwillia@uga.edu

Physiology I

Moderator: Sami Dridi, University of Arkansas

Room Number: B404

Monday, January 27, 2025

7:00 AM M1

Physiological response of broiler ducks fed Cocoa (*theobroma cacao*) pod husk

Muslim K. Ewuola*, Kazeem O. Jolayemi, Abubakar Musa, Florence A. Salako, Rasheed A. Hamzat

Animal Science, University of Abuja, Abuja, FCT/Abuja, Nigeria

7:15 AM M2

Cloacal feather trimming improves reproductive performance of layer breeder roosters

Eder O. Barbosa², Regina C. Porto², Felipe L. Kroetz Neto³, Ricardo J. Pereira^{*1}

¹*Animal Reproduction, College of Veterinary Medicine and Animal Sciences - São Paulo University, Pirassununga, São Paulo, Brazil*, ²*Mercoaves Comercio de Aves Ltda, Piracicaba, São Paulo, Brazil*, ³*Aviagen America Latina Ltda, Campinas, São Paulo, Brazil*

7:30 AM M3

Preclinical gene expression alterations in the uterovaginal junction of turkey hens infected with low pathogenic avian influenza

Sunantha Kosonsiriluk^{*1}, Pitchaya Santativongchai¹, Kent Reed², Milena Saqui-Salces¹, Marissa Studniski³, Ben Wileman³, Kahina Boukherroub¹

¹*Animal Science, University of Minnesota, Saint Paul, Minnesota, United States*, ²*Veterinary and Biomedical Sciences, University of Minnesota, Saint Paul, Minnesota, United States*, ³*Select Genetics, Willmar, Minnesota, United States*

7:45 AM M4

Hepatic corticosterone binding globulin mRNA expression in chickens of different ages, strains, and genders

Coleman J. Hatmaker^{*GS}, Adam J. Davis, Martha E. Freeman

Department of Poultry Science, University of Georgia, Athens, Georgia, United States

8:00 AM M5

Impact of heat stress on hepatic lipogenesis in broilers: a comparison of low- and high-water efficient lines

Maria Fernandez Cuadrado^{*GS}, Elizabeth S. Greene, Sami Dridi

Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States

8:15 AM M6

Effect of thermal variation during early-stage incubation on broiler chicken muscle satellite cell populations at transfer and hatch

J. Wesley Rogers^{*1GS}, Brittany L. Hutson¹, Martha S. Rueda^{1,2}, Jeremiah D. Davis², Katie E. Elliott³, Charlene Hanlon¹, Charles W. Starkey⁴, Jessica D. Starkey¹

¹*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*, ²*National Poultry Technology Center, Auburn University, Auburn, Alabama, United States*, ³*Poultry Research Unit, USDA-ARS, Mississippi State, Mississippi, United States*, ⁴*Scientific and Regulatory Affairs, North American Renderers Association, Alexandria, Virginia, United States*

8:30 AM M7

Effect of thermal variation during late-stage incubation on broiler chicken body weight gain and *Pectoralis major* muscle growth characteristics

Juan J. Barberena^{*1GS}, J. Wesley Rogers¹, Brittany L. Hutson¹, J. Enrique Banegas¹, Martha S. Rueda^{1,2}, Jeremiah D. Davis², Katie E. Elliott³, Charlene Hanlon¹, Charles W. Starkey⁴, Jessica D. Starkey¹

¹*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*, ²*National Poultry Technology Center, Auburn University, Auburn, Alabama, United States*, ³*Poultry Research Unit, USDA-ARS, Mississippi State, Mississippi, United States*, ⁴*Scientific and Regulatory Affairs, North American Renderers Association, Alexandria, Virginia, United States*

8:45 AM M8

Influence of euthanasia methods on broiler blood metabolites
Madalyn Jennings*^{GS}, Abigail McConnell, Matthew Hughes, Dianna Bourassa
Auburn University, Auburn, Alabama, United States

9:00 AM M9

Validation of a Photoelectric Sensor System to Detect Oviposition Timing in Individually Caged Broiler Breeders

Lauren R. Sroda*^{1GS}, Jeremiah D. Davis¹, Kristin Diehl³, Carson M. Edge¹, Madison Berger², Katie E. Elliott³, Brenda Flack⁴, Charlene Hanlon²

¹*National Poultry Technology Center, Auburn University, Auburn, Alabama, United States*, ²*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*, ³*USDA ARS, Beltsville, Maryland, United States*, ⁴*Cobb-Vantress, Fayetteville, Arkansas, United States*

9:15 AM M10

Impact of Oviposition Timing on Egg Quality: Translucency, Speckling, and Shell Characteristics

Leticia A. Orellana Galindo*^{1GS}, Cassidy A. Morris², Luis Muñoz¹, Laura Jimenez³, Tania Roman³, Tatiana Salazar³, Josselyn Herrera³, Arley Fernandez³, Jason Cordero³, Luis Castro³, Juan Diego Gonzalez³, Dulman Serrano³, Kenneth Macklin¹

¹*Poultry Science, Mississippi State University, Starkville, Mississippi, United States*, ²*Poultry Science, Mississippi State University, Moulton, Alabama, United States*, ³*Cargill Protein Latin America, Puntarenas, Costa Rica*

9:30 AM M11

Impact of 28-day storage on translucency score and eggshell quality parameters of W-36 laying hens

Cassidy A. Morris*^{GS}, Charis A. Waters, Pratima Adhikari, Kenneth Macklin
Poultry Science, Mississippi State University, Moulton, Alabama, United States

9:45 AM M12

Effects of eggshell metrics on hatchability and chick development of two genetic lines

Paola Andrea Amaya*^{1GS}, Edgar Leonardo Molina Villarraga¹, Caleb M. Marshall¹, Cesar Guato Guaman¹, Duarte Neves², Edgar O. Oviedo-Rondón¹

¹*Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States*, ²*Zinpro Corporation, Eden Prairie, Minnesota, United States*

10:00 AM Break – Room B409

Physiology II

Moderator: Ramon Malheiros, North Carolina State University

Room Number: B404

Monday, January 27, 2025

10:15 AM M13

Receptor expression in the shell gland of commercial laying hens indicates it may be a novel target for FGF23

R. Alejandra Garcia-Mejia*^{1GS}, Micaela Sinclair-Black¹, Jordan Castle¹, Folanike Olatunji¹, Roselina Angel², Xabier Arbe³, David Caverio³, Laura E. Ellestad¹

¹*Poultry Science, University of Georgia, Athens, Georgia, United States*, ²*Animal and Avian Sciences, University of Maryland, College Park, Maryland, United States*, ³*H&N International, Cuxhaven, Germany*

10:30 AM M14

Making a splash: Environmental enrichment has no effect on brain dopamine and serotonin levels or activity in Pekin ducks.

Nina Wilson*^{1UG}, Jenna M. Schober¹, Gregory S. Fraley²

¹*Purdue University, Knox, Indiana, United States*, ²*Purdue University, West Lafayette, Indiana, United States*

10:45 AM M15

Orange Corn-based diet improves total antioxidant capacity in layer pullets compared to traditional yellow corn diets

Serena Wesley*^{1UG}, Tyler Lawson², Evan Rocheford², Torbert Rocheford³, Sara Cloft¹, Darrin Karcher¹, Gregory S. Fraley¹

¹*Animal Science, Purdue University, West Lafayette, Indiana, United States*, ²*Nutramaize, West Lafayette, Indiana, United States*, ³*Agronomy, Purdue University, West Lafayette, Indiana, United States*

11:00 AM M16

The effect of *Eurycoma longifolia* (Longjack) on semen characteristics on aging broiler breeder roosters

Jacob C. Wesson*^{1UG}, Emmillie Boot¹, Beverly McLendon², Skye Freeland², Tatyany S. Mani², Rebecca Wysocky², Ramon Malheiros²

¹*Poultry Science, North Carolina State University, Raleigh, North Carolina, United States*, ²*Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States*

11:15 AM M17

Impact of feeding regimens during rearing on sperm quality and fertilization capacity of broiler breeder hens and roosters through sexual maturity

Madison Berger*^{1GS}, Kristin Diehl², Brenda Flack³, Patricia Quino¹, Olivia McGuire¹, Kristian Almendares¹, Charlene Hanlon¹

¹*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*, ²*Beltsville Agricultural Research Center, USDA-ARS, Beltsville, Maryland, United States*, ³*Cobb-Vantress, Siloam Springs, Arkansas, United States*

11:30 AM M18

Reference point methodology with chicken tibiae

Dylan W. Seats*^{UG}, Sara Cloft, Brittney Emmert, Darrin Karcher

Department of Animal Sciences, Purdue University, West Lafayette, Indiana, United States

11:45 AM M19

Comparative analysis of body composition and bone microarchitecture in wild-type and restricted ovulator hens

Deependra Paneru*^{GS}, Fatemeh S. Mahdavi, Venkata Prathap Reddy Keshavareddy, Sai Kumar Reddy Ragyari, Woo Kyun Kim

Department of Poultry Science, University of Georgia, Athens, Georgia, United States

12:00 PM Lunch

Environment and Management I

Moderator: Kenneth Anderson, North Carolina State University

Room Number: B404

Monday, January 27, 2025

1:00 PM M20

Effects of synchronizing body weight and photostimulation on cage-free pullets to maximize reproductive capacity

Olivia McGuire^{*1GS}, Regina Halm², Ana Rentsch^{2,3}, Sam Maaskant², Grégoy Bédécarrats², Bethany Baker-Cook¹, Charlene Hanlon¹

¹*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*, ²*Department of Animal Biosciences, University of Guelph, Guelph, Ontario, Canada*, ³*Campbell Centre for the Study of Animal Welfare, University of Guelph, Guelph, Ontario, Canada*

1:15 PM M21

Effects of the shift from caged to aviary housing systems on commercial laying hen egg grade and quality

Taylor O'Lear Reid^{*GS}, Rebecca Wysocky, Ishab Poudel, Kenneth Anderson
North Carolina State University, Raleigh, North Carolina, United States

1:30 PM M22

Enhancing Mortality Detection in Broiler Production: Evaluating a Rail-Mounted Robotic System's Accuracy and Limitations

Tanner Thornton^{*1GS}, Shawn Hawkins², Yang Zhao¹, Tom Tabler¹, Robert Burns²

¹*Animal Science, University of Tennessee-Knoxville, Knoxville, Tennessee, United States*, ²*Biosystems Engineering and Soil Sciences, University of Tennessee-Knoxville, Knoxville, Tennessee, United States*

1:45 PM M23

The effect of silvopasture environment and genetic strain on broiler performance

Athena D. He-DeMontaron^{*GS}, Jesse L. Grimes, Yan L. Campbell, Lin L. Walker, Allison N. Pullin

Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States

2:00 PM M24

Effect of litter condition on the duodenal proteome of young broiler chickens
Gerardo A. Abascal-Ponciano^{*1GS}, Melissa D. Boersma², A. Jake Keel¹, Charles W. Starkey³, Jessica D. Starkey¹

¹*Poultry Science Department, Auburn University, Auburn, Alabama, United States*, ²*Department of Chemistry and Biochemistry, Auburn University, Auburn, Alabama, United States*, ³*Scientific and Regulatory Affairs, North American Renderers Association, Alexandria, Virginia, United States*

2:15 PM M25

Ambient and conditioning temperature interactions alter steam dynamics during the pelleting process

Alexis Renner^{*1GS}, Emily B. Estanich¹, Elizabeth A. Lynch¹, Kristina M. Bowen¹, Lucas E. Knarr², Staci Cantley³, Joseph S. Moritz¹

¹*School of Agriculture of Food Systems, West Virginia University, Morgantown, West Virginia, United States*, ²*School of Agriculture and Food Systems, West Virginia University, Morgantown, West Virginia, United States*, ³*Nutritional Product Information, Huvepharma, Peachtree City, Georgia, United States*

2:30 PM M26

Antimicrobial resistance in the different stages of commercial poultry production environment.

Pankaj P. Gaonkar^{*1GS}, Alinne Santana-Pereira¹, Alyssa Lambert¹, Reed Golden¹, Courtney Higgins¹, Yagya Adhikari², Matthew Bailey², Kenneth Macklin³, Laura Huber¹

¹*Pathobiology, College of Veterinary Medicine, Auburn University, Auburn, Alabama, United States*, ²*Poultry Science, Auburn University, Auburn, Alabama, United States*, ³*Poultry Science, Mississippi State University, Starkville, Mississippi, United States*

2:45 PM M27

Transportation elicits a decrease in serotonergic activity, but not dopaminergic activity, in 5-day-old grow-out Pekin ducklings.

Erica R. Roge*^{1GS}, Isabella von Seggern², Jenna M. Schober³, Gregory S. Fraley⁴

¹*Purdue University, Lafayette, Indiana, United States*, ²*Animal Sciences, Purdue University, Columbia City, Indiana, United States*, ³*Animal Science, Purdue University, Lafayette, Indiana, United States*, ⁴*Purdue University, West Lafayette, Indiana, United States*

3:00 PM M28

Play that funky music Pekin duck: How auditory enrichment affects Pekin duck body condition, production, and fear response

Jenna M. Schober*^{GS}, Jordan Curry, Grace Ayres, Gabriella Chambers, Brynn Peterson, Emma Stuart, Gregory S. Fraley

Animal Science, Purdue University, Lafayette, Indiana, United States

3:15 PM M29

Exploring the use of computer vision and machine learning for bodyweight estimation in turkey hens

Mireia Molins*^{GS}, Luis Giron, John Boney, Enrico Casella

Animal Science, Pennsylvania State University, State College, Pennsylvania, United States

3:30 PM M30

Integrating Computer Vision and Data Science in Egg Science towards Advancing Poultry Education and Extension Program

Alin Khaliduzzaman*

Department of Agricultural and Biological Engineering, University of Illinois, Urbana, Illinois, United States

4:00-6:00 PM Poster Reception

Metabolism and Nutrition I: Enzymes

Moderator: Abiodun Bello, Danisco Animal Nutrition - IFF

Room Number: B405

Monday, January 27, 2025

7:00 AM M31

Effects of novel protease from *Bacillus subtilis* K-5 on low protein and low energy guar (*Cyamopsis tetragonoloba*) meal based diets on performance and nutrients digestibility in broiler chickens

Aqeel Ahmed Shad*¹, Tanveer Ahmad¹, Muhammad Farooq Iqbal¹, Muhammad Javaid Asad^{2,3}

¹Livestock Production and Management, Pir Mehr Ali Shah - Arid Agriculture University, Rawalpindi, Rawalpindi, Punjab, Pakistan, ²University Institute of Biochemistry and Biotechnology (UIBB), Pir Mehr Ali Shah - Arid Agriculture University, Rawalpindi, Rawalpindi, Punjab, Pakistan, ³National Center of Industrial Biotechnology (NCIB), Pir Mehr Ali Shah - Arid Agriculture University, Rawalpindi, Rawalpindi, Punjab, Pakistan

7:15 AM M32

A high-dose of protease in the starter diet improves growth performance and intestinal morphometrics of broiler chickens challenged with *Escherichia coli*

Olufemi O. Babatunde*, Glenmer Tactacan, Ludovic Lahaye, Miguel Barrios, Derek Detzler, Mariana L. de Moraes
Jefo Nutrition Inc, Saint-Hyacinthe, Quebec, Canada

7:30 AM M33

Optimal phytase use enables complete removal of inorganic phosphate in young broiler chickens

Xaviere Rousseau*¹, Gilson Gomes¹, Sudipto Halder², Amrita K. Dhara²
¹AB Vista, Marlborough, United Kingdom, ²Agrivet Research and Advisory, Kolkata, India

7:45 AM M34

Comparison of two commercial proteases on *in vitro* peptide cleavage profiles and apparent ileal digestibility of amino acids using protein-rich ingredients and a complete diet

Abiodun Bello*¹, Jacob Lum², M Baxter², Susan Arent³, Karsten M. Kragh³, Kirsty Gibbs¹, Ceinwen Evans¹

¹Danisco Animal Nutrition & Health - IFF, Oegstgeest, South Holland, Netherlands, ²Ozark Avian Research, Gravette, Arkansas, United States, ³Danisco Animal Nutrition & Health, IFF, Brabrand, Denmark

Pathology

Moderator: Julia Blakey, USDA, ARS

Room Number: B405

Monday, January 27, 2025

8:00 AM M35

The effects of incremental inclusions of a novel blend of yeast cell wall, proteinate, and flavor on growth performance and oocyst count of coccidiosis vaccinated broiler chickens

Lauren Nolan², Brett Lumpkins¹, Greg F. Mathis¹, Jose A. Soto^{*2}, Dulmelis Sandu², Roy Brister², Curtis Novak²

¹*Southern Poultry Feed & Research, Inc., Athens, Georgia, United States*, ²*Alltech Inc, Nicholasville, Kentucky, United States*

8:15 AM M36

Combating Necrotic Enteritis: A Breakthrough with *L. reuteri* Vectored Nanobodies

Simmi Manuja*, Dharanesh Gangaiah, Desmond Adeniyi, Jacob Shields, Ali Camara, Amy McMillan, Alecia Godoy, Eric Nungester, Michael Hicks, Emily Helmes, Arvind Kumar, Nathan Augspurger

BiomEdit, LLC, Fishers, Indiana, United States

8:30 AM M37

Leveraging autofluorescence for accurate enumeration of *Eimeria tenella* oocyst viability

Philip Yeboah^{*1GS}, Demilade Ibiwoye², Muhammad Wajeih², Thaciane Amaral², Renata Gomes², Lisa Bielke²

¹*Prestage Poultry Science Department, North Carolina State University, Raleigh, North Carolina, United States*, ²*Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States*

8:45 AM M38

Effective oral vaccination with *Zea mays*-expressed antigens against *Eimeria maxima*

Jeffery Escobar*, Richard Sibbel, Tracy Raines

Mazen Animal Health, Ames, Iowa, United States

9:00 AM M39

Designing and testing PCR primers for *Cochlosoma anatis* detection in commercial turkey poult

Justin Lowery^{*1GS}, Christina S. Sigmon¹, Katherine Rysdon¹, Krista Chang¹, Caiti Heil², Lin L. Walker¹

¹*Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States*, ²*Department of Biological Sciences, North Carolina State University, Raleigh, North Carolina, United States*

9:15 AM M40

Castanea sativa tannin reduces coccidiosis intestinal lesions in broilers

Eveline Berwanger¹, Fabrizio Oristanio^{*2}, Neyre N. Shiroma¹, André N. Mayer¹, Clarisse Techer²

¹*Technical, Salus Com de Prod. de Saúde e Nutrição Animal S.A., Santo Antônio de Posse, São Paulo, Brazil*, ²*miXscience, Bruz, France*

9:30 AM M41

Environmental Monitoring of the IBV-G1-23 Variant in Uruguayan Poultry Flocks Using the CAPTUS Air Sampling Tool

Martin Masner^{*1}, Luis-Miguel Gomez-Osorio¹, Andres Pio¹, Pia Fernandez¹, Facundo Rocha Calvette¹, Ignacio González^{2,3}, Franco Bazzi⁴, William Serna¹, Laura Maccio¹

¹*metaBIX Biotech, Montevideo, Montevideo, Uruguay*, ²*Avicola El Campo, Tala, Uruguay*, ³*Veterinary Faculty, UDELAR, Montevideo, Uruguay*, ⁴*3 Arroyos, Canelones, Uruguay*

9:45 AM M42

Direct RNA sequencing with the Minion platform enables sequencing of nearly full-length viral RNA reads from *Orthoavulavirus javaense*
Megan Mears*², Quentin Read³, Abhijeet A. Bakre¹

¹Exotic and Emerging Avian Viral Disease Research Unit, USNPRC, Athens, Georgia, United States, ²Exotic and Emerging Avian Viral Disease Research Unit, USNPRC, Athens, Georgia, United States, ³USDA, USDA-ARS Southeast Area, Raleigh, North Carolina, United States

10:00 AM M43

Development of an assay to detect cytolysin and a presumptive *Enterococcus faecalis* pathogenicity island associated with chicken embryo mortality

Jessica Foote*, Enid T. McKinley, Claire Podvin, Zachary Zawada, Jen Key, Jodi Delago, Alexandra H. Smith
Arm & Hammer Animal Nutrition, Church & Dwight, Waukesha, Wisconsin, United States

10:15 AM Break – Room B409

SCAD I

Moderator: Luis Muñoz, Mississippi State University

Room Number: B405

Monday, January 27, 2025

10:45 AM M44

The efficacy of inactivated vaccine against H5 clade 2.3.4.4b highly pathogenic influenza virus in turkeys

Jiho Lee*, Scott Lee, Erica Spackman, Chang-Won Lee

SERPL, USDA, Athens, Georgia, United States

11:00 AM M45

Immunomodulatory effects of essential oils on the in vivo acute inflammatory responses initiated by intradermal injection of *Salmonella* lipopolysaccharide in broiler chickens under heat stress conditions

Santiago Uribe-Diaz*^{1GS}, Jossie M. Santamaria¹, Chrysta N. Beck¹, Andressa S. Stein¹, Raul Marcon¹, Alvaro Uribe-Serrano², Jaime A. Angel-Isaza², Guillermo Tellez-Isaias¹, Billy Hargis¹, Gisela F. Erf¹

¹*Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States*, ²*Unidad de Innovacion Y Desarrollo Bioteecnologico, Promitec Santander SAS, Bucaramanga, Colombia*

11:15 AM M46

Protection efficacy of Infectious laryngotracheitis virus (ILTV) DNA plasmid vaccine formulation expressing viral glycoproteins B, D, and I delivered via eye drop

Roshan Paudel*^{1GS}, Ana C. Zamora¹, April L. Skipper¹, David J. Hurley², Lorraine H. Keller³, Maricarmen García¹

¹*Department of Population Health, University of Georgia, Athens, Georgia, United States*, ²*Department of Infectious Diseases, University of Georgia, Athens, Georgia, United States*, ³*MBF Therapeutics Inc., Ambler, Pennsylvania, United States*

11:30 AM M47

Using animal challenge models to elucidate the pathogenicity of novel APEC serogroups

Klao Runcharoon*^{GS}, Julia Ienes-Lima, Catherine M. Logue, Yu Yang Tsai

Population Health, University of Georgia, Athens, Georgia, United States

11:45 AM M48

Effects of dietary high-flavonoid corn (PennHFD1) on performance and pathogen responses in broilers subjected to a necrotic enteritis model
Vinicius Buiatte*^{1, 5GS}, Mahmoud A. Mahmoud¹, Katarzyna Miska², Monika Proszkowiec-Weglarz², Ana Fonseca^{1, 5}, Darby R. Boontarue¹, Tyler Lesko³, Bryan Panek³, Surinder Chopra³, Mark Jenkins⁴, Alberto Gino Lorenzoni¹
¹*Department of Animal Science, Pennsylvania State University, University Park, Pennsylvania, United States*, ²*Animal Biosciences & Biotechnology Laboratory, Beltsville Agricultural Research Center, USDA, Beltsville, Maryland, United States*, ³*Department of Plant Science, Pennsylvania State University, University Park, Pennsylvania, United States*, ⁴*Animal Parasitic Diseases Laboratory, Beltsville Agricultural Research Service, USDA, Beltsville, Maryland, United States*, ⁵*One Health Microbiome Center, Huck Institutes of the Life Sciences, Pennsylvania State University, University Park, Pennsylvania, United States*

12:00 PM Lunch

SCAD II

Moderator: Silvia Carnaccini, Iowa State University

Room Number: B405

Monday, January 27, 2025

1:00 PM M49

Comparison of Vaccine Takes for Combinations of Mass and GA08 Type IBV Vaccines Applied in a Commercial Hatchery

Brian Jordan*, Po-Hsin Yu, Kalen Cookson, Daniel Bautista
Zoetis, Madison, Georgia, United States

1:15 PM M50

Fecal calprotectin for assessing coccidiosis severity in broiler chickens: correlation with oocyst shedding and performance metrics

Mahmoud A. Mahmoud*^{1GS}, Vinicius Buiatte¹, Craig R. Baumrucker¹, Dervan Bryan¹, Mark Jenkins², Alberto Gino Lorenzoni¹

¹*Animal Science, Pennsylvania State University, University Park, Pennsylvania, United States*, ²*Beltsville Agricultural Research Service, Animal Parasitic Diseases Laboratory, Beltsville, Maryland, United States*

1:30 PM M51

Assessment of pagP gene function in avian pathogenic *Escherichia coli* pathogenicity using a broiler chick challenge model

Hailey Fugate*^{1GS}, Linan Jia¹, Xin Ye¹, Manhong Wang¹, Christopher Magee², Xue Zhang³, Pratima Adhikari¹, Kelsy Robinson², Li Zhang¹

¹*Poultry Science, Mississippi State University, Starkville, Mississippi, United States*, ²*Poultry Research Unit, USDA-ARS, Mississippi State, Mississippi, United States*, ³*Animal and Dairy Sciences, Mississippi State University, Mississippi State, Mississippi, United States*

1:45 PM M52

Enterococcus genus affecting broiler chickens: evolution of an emerging threat

Autumn Gregg*^{GS}, Jay Kay Thornton, Isabella Hannay, Martha Pulido-Landinez

Poultry Research and Diagnostic Laboratory, College of Veterinary Medicine, Mississippi State University, Pearl, Mississippi, United States

2:00 PM M53

Comparison of B lymphocyte responses in broiler chickens vaccinated with electron beam or formalin inactivated *Staphylococcus aureus*

Ruvindu Perera*^{1GS}, Jossie M. Santamaria¹, Chrysta N. Beck¹, Gisela F. Erf¹, Adnan Alrubaye¹, Palmy Jesudhasan²

¹*Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States*, ²*USDA-ARS, University of Arkansas, Fayetteville, Arkansas, United States*

2:15 PM M54

Effect of silane quaternary ammonium and hypochlorous acid treatments on microbial contamination in the hatch cabinet environment, enteric colonization at hatch, and 7-day performance in broiler chickens

James Higueta*^{1GS}, Aaron Forga¹, Diego Cortes¹, Kasey Matusik¹, Alexandra Mendoza-Reilley², Ivan Alvarado², Justin Welsh², Faizan Aly³, Danielle Graham¹

¹*University of Arkansas, Fayetteville, Arkansas, United States*, ²*Merck Animal Health, Madison, New Jersey, United States*, ³*Aguair, Marietta, Georgia, United States*

2:30 PM M55

Chicken alloantigen systems MHC-B, D, E, and I haplotypes are associated with resistance to coccidiosis

Abhisek Niraula*^{1GS}, Anna Wolc^{2,3}, Robert L. Taylor⁴, Janet E. Fulton², Rami A. Dalloul¹

¹*Department of Poultry Science, University of Georgia, Athens, Georgia, United States*, ²*Hy-Line International, Dallas Center, Iowa, United States*, ³*Department of Animal Science, Iowa State University, Ames, Iowa, United States*, ⁴*School of Agriculture and Food Systems, West Virginia University, Morgantown, West Virginia, United States*

2:45 PM M56

Genomic insights into Type VI Secretion System in Avian

Pathogenic *Escherichia coli*

Julia Ines-Lima*^{1GS}, Klao M. Runcharoon¹, Cierra Dunham¹, Catherine M. Logue²

¹Population Health, University of Georgia, Athens, Georgia, United States, ²Population Health, University of Georgia, Athens, Georgia, United States

3:00 PM M57

Phylogenetic Analysis of Variant ARV in the US Using Bayesian Markov

Chain Monte Carlo (MCMC) and a Relaxed Molecular Clock Model

Olatunde Oluwayinka*^{1GS}, Sonsiray Alvarez-Narvaez², Steven Conrad², Holly Sellers¹

¹Poultry Diagnostic and Research Center, Department of Population Health, University of Georgia, Athens, Georgia, United States, ²United States Department of Agriculture, Agricultural Research Service, US National Poultry Research Center, Athens, Georgia, United States

3:15 PM M58

Effect of *Ligilactobacillus salivarius* UMNPBX2 cell-free extracts on replication of low pathogenic H4N6 influenza virus

Amritha Ajayan*^{1GS}, Dhananjai Muringattu Prabhakaran², Hamza Javid¹, Maxim Cheeran³, Venkatramana D. Krishna³, Anup K. Johny¹

¹Animal Science, University of Minnesota, Saint Paul, Minnesota, United States, ²Animal Science, University of Minnesota, Saint Paul, Minnesota, United States, ³Department of Veterinary Population Medicine, University of Minnesota, Saint Paul, Minnesota, United States

3:30 PM M59

Avian Metapneumovirus (aMPV) Serosurveillance of broiler breeder flocks to evaluate exposure and risk in the state of Mississippi

Marcela Arango*^{1,2GS}, Scott Baughman^{2,1}, Cindy King³, James Watson³, Natalie Manginsay^{2,1}

¹Mississippi State University, Pearl, Mississippi, United States, ²Poultry Research and Diagnostic Laboratory, Pearl, Mississippi, United States, ³Mississippi Board of Animal Health, Jackson, Mississippi, United States

3:45 PM M60

Case study: Evaluating the use of chlorine as a treatment during an outbreak in two flocks infected with *Campylobacter hepaticus*, the causative agent of spotty liver disease in layer hens

Roel Becerra*^{1GS}, Catherine M. Logue²

¹PDRC, University of Georgia, Athens, Georgia, United States, ²Population Health, University of Georgia, Athens, Georgia, United States

4:00-6:00 PM Poster Reception

Welfare and Behavior I

Moderator: Rosemary Walzem, Texas A&M University

Room Number: B406

Monday, January 27, 2025

7:30 AM M61

Effects of carotenoid supplementation on performance, egg quality, and antioxidant response in early-laying hens

Maria Alvarenga*^{1GS}, Alexis Clark, Mireille Arguelles-Ramos, Ahmed Ali
Animal & Veterinary Science Department, Clemson University, Clemson, South Carolina, United States

7:45 AM M62

Early-life psychological stress changes cecal microbiota composition and behavior of laying hens

Hari Marasini*^{1GS}, Lexie Luna¹, Young M. Kwon², Prafulla Regmi¹

¹*Department of Poultry Science, University of Georgia, Athens, Georgia, United States*, ²*Department of Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States*

8:00 AM M63

Isolation in the light, but not dark, reduces brain serotonin activity suggestive of a negative affective state in layer hens

Isabella von Seggern*^{GS}, Gregory S. Fraley

Animal Sciences, Purdue University, Columbia City, Indiana, United States

8:15 AM M64

Visual-assisted Autonomous Path Planning and Navigation for a Legged Robot Roaming in Cage-free hen houses

Aravind Mandiga*^{1, 2GS}, Guoming Li^{1, 3}, Tianming Liu², Venkat U. Bodempudi^{1, 3}, Ramviyas Nattanmai Parasuraman^{2, 3}, Ramana M Pidaparti⁴

¹*Department of Poultry Science, University of Georgia, Athens, Georgia, United States*, ²*School of Computing, University of Georgia, Athens, Georgia, United States*, ³*Institute of Artificial Intelligence, University of Georgia, Athens, Georgia, United States*, ⁴*College of Engineering, University of Georgia, Athens, Georgia, United States*

8:30 AM M65

Validating RFID technology to identify broiler breeder pullets with high and low water use

Allison D. Weaver*^{1GS}, Suzanne M. Leonard², Sara Orlowski³, Lisa Bielke¹, Ramon D. Malheiros¹, Allison N. Pullin¹

¹*Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States*, ²*Department of Animal Science, North Carolina State University, Raleigh, North Carolina, United States*, ³*Department of Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States*

8:45 AM M66

The impact of feeder removal on the post-feeding behaviors of feed restricted broiler breeder pullets at 10 and 15 weeks of age

Mazette Croom*^{1GS}, Courtney Daigle², Rosemary Walzem¹

¹*Poultry Science, Texas A&M University, Bryan, Texas, United States*, ²*Animal Science, Texas A&M University, College Station, Texas, United States*

9:00 AM M67

Influence of light wavelength on the activity and tibia morphology of broilers

Angela Perretti*^{1GS}, Chantel Pennicott², Victor Oyeniran¹, Jaelen Cherry¹, Zachary Grider³, Alexander Nelson³, Shawna Weimer¹

¹*Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States*, ²*Poultry Science, University of Arkansas, Farmington, Arkansas, United States*, ³*Electrical Engineering and Computer Science, University of Arkansas, Fayetteville, Arkansas, United States*

9:15 AM M68

Enhanced Deep Learning Approaches for Reliable Tracking of Multiple Individual Broilers in Dense Group Settings

Sai Akshitha Reddy Kota, Guoming Li*, Tongshuai liu, Chongxiao Chen
University of Georgia, Athens, Georgia, United States

9:30 AM M69

A user-friendly deep learning-based platform for monitoring animal activity index

Mahtab Saeidifar*^{2,3GS}, Guoming Li^{2,3,4}, Lakshmish M. Ramaswamy¹, Chongxiao Chen^{2,4}, Tongshuai Liu^{2,5}, Ehsan Asali^{2,1}, Venkat U. Bodempudi^{2,3}¹*Computer Science, University of Georgia, Athens, Georgia, United States*, ²*Department of Poultry Science, University of Georgia, Athens, Georgia, United States*, ³*Institute for Artificial Intelligence, University of Georgia, Athens, Georgia, United States*, ⁴*Institute for Integrative Precision Agriculture, University of Georgia, Athens, Georgia, United States*, ⁵*College of Animal Science & Technology, Henan University of Animal Husbandry and Economy, Zhengzhou, Henan, China*

9:45 AM Break – Room B409

Welfare and Behavior II

Moderator: Dr. Leonie Jacobs, VT

Room Number: B406

Monday, January 27, 2025

10:00 AM M70

Predicting gait scores of individual broilers in later phases of production based on spatial and temporal kinematic features in early stages

Hosna Mohammadilalabadi*^{GS}, Guoming Li, Tongshuai Liu, Venkat U.

Bodempudi, Oluwadamilola M. Oso, Mahtab Saeidifar, Ehsan Asali, Aravind Mandiga, Sai Akshitha Reddy Kota

University of Georgia, Athens, Georgia, United States

10:15 AM M71

A novel three-dimensional deep learning approach for auditing gait scores of individual broiler chickens

Ehsan Asali*^{1GS}, Guoming Li², Tongshuai Liu³, Chongxiao Chen^{2,6}, Mahtab Saeidifar^{4,2,5}, Venkat U. Bodempudi^{4,2}, Sai Akshitha Reddy Kota^{2,5}, Oluwadamilola M. Oso², Aravind Mandiga^{2,5}

¹*Computer Science, University of Georgia, Athens, Georgia, United States*, ²*Poultry Science, University of Georgia, Athens, Georgia, United States*, ³*College of Animal Science & Technology, Henan University of Animal Husbandry and Economy, Zhengzhou, China*, ⁴*Institute for Artificial Intelligence, University of Georgia, Athens, Georgia, United States*, ⁵*School of Computing, University of Georgia, Athens, Georgia, United States*, ⁶*Institute for Integrative Precision Agriculture, University of Georgia, Athens, Georgia, United States*

10:30 AM M72

Multifactorial Analysis of Broiler Welfare Indicators Correlated with Individual Body Weight, Litter Moisture Content, Diet, and Litter Type

Oluwadamilola M. Oso*^{1GS}, Guoming Li^{2,3,6}, Chongxiao Chen², Tongshuai Liu², Venkat Umesh Chandra Bodempudi^{3,2}, Nicolas Mejia-Abaunza², Mahtab Saeidifar^{3,2}, Sai Kota^{3,2}, Muhammad Ali⁴, Catherine Fudge⁵, Ehsan Asali^{6,2}, Aravind Mandiga^{6,2}, Woo Kyun Kim², Prafulla Regmi², Jeanna Wilson², Lilong Chai²

¹*Poultry Science, University of Georgia, Athens, Georgia, United States*, ²*Department of Poultry Science, University of Georgia, Athens, Georgia, United States*, ³*Institute for Artificial Intelligence, University of Georgia, Athens, Georgia, United States*, ⁴*Poultry Science, University of Georgia, Athens, Georgia, United States*, ⁵*Poultry Science, University of Georgia, Athens, Georgia, United States*, ⁶*Computer Science, University of Georgia, Athens, Georgia, United States*

10:45 AM M73

Evaluating Broiler Activity index, Stretching and Preening behaviors as Affected by Stocking Density

Shengyu Zhou*^{1GS}, Nasiri Amin¹, Tanner Thornton³, Xiao Yang², Hao Gan¹, Tom Tabler¹, Yang Zhao¹

¹*University of Tennessee, Knoxville, Knoxville, Tennessee, United States*, ²*China Agricultural University, Beijing, China*, ³*Animal Science, University of Tennessee-Knoxville, Knoxville, Tennessee, United States*

11:00 AM M74

Deep Learning Methods for Tracking Activities of Male Birds in Cage-Free Flock

Bidur Paneru*^{GS}, Ramesh B. Bist, Xiao Yang, Anjan Dhungana, Samin Dahal, Lilong Chai

Poultry Science, University of Georgia, Athens, Georgia, United States

11:15 AM M75

Weight prediction of Broiler chickens using a deep learning framework
Venkat Umesh Chandra Bodempudi*^{1,2GS}, Guoming Li^{2,1,3}, Tongshuai Liu²,
Ehsan Asali^{4,2}, Aravind Mandiga^{4,2}, Mahtab Saeidifar^{1,2}, Sai Akshitha Reddy
Kota^{4,2}, Oluwadamilola M. Oso², Sravan Sai Rahul Nalla⁵

¹*Institute for Artificial Intelligence, University of Georgia, Athens, Georgia, United States*, ²*Department of Poultry Science, University of Georgia, Athens, Georgia, United States*, ³*Institute for Integrative Precision Agriculture, University of Georgia, Athens, Georgia, United States*, ⁴*Computer Science, University of Georgia, Athens, Georgia, United States*, ⁵*University of Houston, Houston, Texas, United States*

11:30 AM M76

Comparison of Drinking Behavior in Water Conversion Birds
Natalie K. Johnson*^{GS}, Kirsten Shafer, Maricela Maqueda, Rosemary Whittle, Chantel Pennicott, Shawna Weimer, Sara Orlowski
Center of Excellence for Poultry Science, University of Arkansas, Springdale, Arkansas, United States

11:45 AM M77

Exploratory analysis of broiler welfare indicators at two U.S. processing plants
Samantha Vitek*^{GS}, Leonie Jacobs
School of Animal Sciences, Virginia Tech, Blacksburg, Virginia, United States

12:00 PM Lunch

Food Safety I

Moderator: Tomi Obe, University of Arkansas

Room Number: B406

Monday, January 27, 2025

1:00 PM M78

Antibiotic alternatives result in a differential abundance of lactic acid bacterial populations and fermentation pathways in *Salmonella* Heidelberg-challenged turkeys, as revealed by shotgun metagenomic sequencing
Dhananjai Muringattu Prabhakaran*^{1GS}, Divek V.T. Nair¹, Tim Johnson², Anup K. Johnny¹

¹Animal Science, University of Minnesota, Saint Paul, Minnesota, United States, ²Department of Veterinary and Biomedical Sciences, University of Minnesota, Saint Paul, Minnesota, United States

1:15 PM M79

A farm-to-fork approach for controlling *Salmonella* Enteritidis in shell eggs using probiotics and postbiotics

Ragini Reddyvari*^{GS}, Praveen Kosuri, Yuying Ren, Eswari Kanike, Sulthana Humayoon, Mary Anne Amalaradjou

University of Connecticut, Mansfield Center, Connecticut, United States

1:30 PM M80

Prevalence of *Salmonella* and *Campylobacter* from retail poultry in Alabama
Maria V. Baca*^{1UG}, Abigail McConnell¹, Karla V. Casco¹, Richard Buhr², Dianna Bourassa¹

¹Auburn University, Auburn, Alabama, United States, ²US National Poultry Research Center, USDA-ARS, Athens, Georgia, United States

1:45 PM M81

Microbial assessment and antibiotic susceptibility of isolated pathogens on retail chicken

Eniola Betiku*^{1GS}, Philip G. Crandall², Tomi Obe^{1,2}

¹Department of Poultry science, University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, United States, ²Department of Food Science, Center for Food Safety, University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, United States

2:00 PM M82

Use of pre-harvest *Salmonella* status to effectively drive a directed processing approach that reduces *Salmonella* in broilers carcasses

Marco Reina*^{GS}, David Ayala-Velasteguí, Nikki Shariat

Population Health, University of Georgia, Athens, Georgia, United States

2:15 PM M83

Use of fluorescent spectral imaging system to detect *Listeria monocytogenes* biofilm formation on food processing surfaces

Micah T. Black*^{4GS}, JD Grey⁴, Vianca Tashiguano⁴, Cameron Smith⁴, Madison Sirmon⁴, Chinelo Onah-kachiside⁴, Katherine Sierra⁴, Laura Garner¹, Nicholas McKinnon², Stanislav Sokolov², Fartash Vasefi², Jianwei Qin³, Diane Chan³, Insuck Baek³, Kevin Chao³, Moon Kim³, Amit Morey⁴

¹Auburn University, Auburn, Alabama, United States, ²SafetySpect, Inc., Sherman Oaks, California, United States, ³USDA-ARS, Beltsville, Maryland, United States, ⁴Poultry Science, Auburn University, Auburn, Alabama, United States

2:30 PM M84

Ferric Uptake Regulator (Fur) plays a significant role in the survival of *Salmonella* Typhimurium on meat.

Greeshma Bharathan*^{1GS}, Karoll Elizabeth Rodriguez Chinchilla³, Hunter Sheffield¹, Michelle Hayden¹, Aisha Madi¹, Richard Buhr², Shabarinath Srikumar¹

¹Department of Poultry Science, Auburn University, Auburn, Alabama, United States, ²USDA, Athens, Georgia, United States, ³Zamorano, Francisco Morazan, Honduras

2:45 PM M85

Synergistic Effects of Polyphenols and Antibiotics Against Multi-Drug Resistant *Salmonella* Typhimurium DT104

Hunter Sheffield*^{1GS}, Greeshma Bharathan¹, Michelle Hayden¹, Aisha Madi¹, Shabarinath Srikumar¹, Karoll Elizabeth Rodriguez Chinchilla³, Richard Buhr²

¹Department of Poultry Science, Auburn University, Auburn, Alabama, United States, ²US National Poultry Center, Athens, Georgia, United States, ³Zamorano University, Tegucigalpa, Honduras

3:00 PM M86

Protective effects of a killed *Salmonella* ser. Typhimurium vaccine delivered through *In ovo*, Gel or Spray routes in broiler birds

Divyashree Ramalingam*^{2GS}, Ramesh Selvaraj³, Mohan Naidu Korada³, Parimal Sheth¹, Praveen Reddy Kasu³, Waqas Ishaq³

¹Endovac Animal Health Inc, Columbia, Missouri, United States, ²Animal Science, University of Georgia, Athens, Georgia, United States, ³Poultry Science, University of Georgia, Athens, Georgia, United States

3:15 PM M87

Effect of peanut skin as an antimicrobial feed additive against *Salmonella* in broilers

Yabaiz Tahir*^{1GS}, Thien Vu², Justin Lowery¹, Mary Mendoza¹, Krista Chang¹, Katherine Rysdon¹, Demilade Ibiwoye¹, Christina S. Sigmon¹, Ondulla T. Toomer², Lin L. Walker¹

¹Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States, ²Food Science and Market Quality & Handling Research Unit, Agricultural Research Service/USDA, Raleigh, North Carolina, United States

3:30 PM M88

Effect of organic acid supplementation on *Salmonella* prevalence and growth performance during a challenge model using male broilers

Eva G. Guzman*^{1GS}, Jose I. Vargas², Joseph P. Gulizia³, Jose R. Hernandez⁴, Jibely Martinez⁶, Maria J. Brizuela⁶, Matthew Bailey¹, Ruediger Hauck^{1,7}, Dianna Bourassa⁵, Kenneth Macklin⁸, Wilmer J. Pacheco²

¹Poultry Science, Auburn University, Auburn, Alabama, United States, ²Poultry Science, Auburn University, Auburn, Alabama, United States, ³Poultry Science, Auburn University, Auburn, Alabama, United States, ⁴Poultry Science Department, Auburn University, Auburn, Alabama, United States, ⁵Auburn University, Auburn, Alabama, United States, ⁶Agricultural and Production Science, Zamorano University, Valle de Yeguaré, Francisco Morazan, Honduras, ⁷Department of Pathobiology, Auburn University, Auburn, Alabama, United States, ⁸Poultry Science, Mississippi State University, Mississippi State, Mississippi, United States

3:45 PM M89

Evaluating the effect of feed sanitizer products on feed mill equipment and its impact on feed microbial reduction

Emily Magee*^{1GS}, Jason Sands², Timothy Boltz¹

¹Poultry Science, Mississippi State University, Starkville, Mississippi, United States, ²Anitox Corporation, Lawrenceville, Georgia, United States

4:00-6:00 PM Poster Reception

Processing and Products

Moderator: Yan L. Campbell, North Carolina State University

Room Number: B407

Monday, January 27, 2025

7:30 AM M90

Advantages of using automated feather sexing system to allow for separate sex rearing on performance on the farm and improved saving at the processing plant

Ali Matloub*², Liz Turpin¹

¹*BioProcess, Targan, Raleigh, North Carolina, United States*, ²*Sales & Marketing, Targan, Montreal, Quebec, Canada*

7:45 AM M91

Dietary supplementation of zinc on growth performance, tissue mineral content, skin and carcass quality of broiler chicken

A.B.M. Khaleduzzaman*¹, H.M Salim¹, Shariful Haque¹, Zobaidul Kabir², BD Lee³

¹*Department of Livestock Services, Director Production, Dhaka, Dhaka, Bangladesh*, ²*Livestock Unit, Ministry of Fisheries and Livestock, Dhaka, Bangladesh*, ³*Animal Science, Department of Animal Science and Biotechnology, Chungnam, Korea (the Republic of)*

8:00 AM M92

Effects of duck breeds on egg functionality through fourteen days of egg storage

Matthew Hughes*^{1UG}, Brigid McCrea², Karla V. Casco¹, Javier Garcia³, Dianna Bourassa¹

¹*Auburn University, Auburn, Alabama, United States*, ²*Alabama Cooperative Extension System, Auburn, Alabama, United States*, ³*Egg and Poultry Production Safety Research Unit, USDA-ARS, Athens, Georgia, United States*

8:15 AM M93

Evaluating nozzle types and its effects on water consumption in a poultry processing plant

Cameron Smith*^{UG}, Micah T. Black, Amit Morey

Poultry Science, Auburn University, Auburn, Alabama, United States

8:30 AM M94

Effects of broiler genetic strain and diet on growth performance and Wooden Breast incidence

Jorge L. Sandoval*^{1GS}, J. Wesley Rogers¹, Gerardo A. Abascal-Ponciano¹, Charles W. Starkey², Jessica D. Starkey¹

¹*Poultry Science Department, Auburn University, Auburn, Alabama, United States*, ²*Scientific and Regulatory Affairs, North American Renderers Association, Alexandria, Virginia, United States*

8:45 AM M95

Advanced oxidation processes effectively attenuated *Campylobacter* species individually and in combination with *Salmonella* Typhimurium in contaminated wastewater

Seth O. Adesope*^{1GS}, Mark Calson², Nikolay Barashkov², Casey M. Owens¹, Tomi Obe¹

¹*Department of Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States*, ²*Micro-Tracers, Inc, San Francisco, California, United States*

9:00 AM M96

The effect of silvopasture (vs indoor) environment and broiler breed on meat quality

Jean C. Caceres*^{1GS}, Camila Hammel Sobreira¹, Afsana Rahaman Munmun², Christina S. Sigmon¹, Allison N. Pullin¹, Jesse L. Grimes¹, Lin L. Walker¹, Yan L. Campbell¹¹

¹*Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States*, ²*Food, Bioprocessing & Nutrition Sciences Department, North Carolina State University, Raleigh, North Carolina, United States*

Metabolism and Nutrition II: General Nutrition

Moderator: John Boney, Penn State University

Room Number: B407

Monday, January 27, 2025

9:15 AM M97

Impact of feed form and supplementary feeding systems on crop fill and early growth performance of broilers

Shamar T. Simon*^{1UG}, Neketa Hughes², Randy Domer², Doreon Wilson¹, Colwayne Morris³

¹*Faculty of Agriculture and Forestry, University of Guyana, Georgetown, Guyana*, ²*Poultry Science Department, University of Auburn, Auburn, Alabama, United States*, ³*North America Poultry Department, Zinpro Corporation, Eden Prairie, Minnesota, United States*

9:30 AM M98

Ileal amino acid digestibility and relative gene expression of ileal nutrient transporter, and pectoralis protein synthesis and degradation in broiler chickens fed reduced-crude protein diets containing soybean meal, canola meal, or corn dried distiller's grains with solubles under coccidiosis vaccination

June Hyeok Yoon*^{1GS}, Adeleye M. Ajao¹, Revathi Shamugasundaram², Adelumola Oladeinde², Oluyinka Olukosi¹

¹*University of Georgia, Athens, Georgia, United States*, ²*USDA-ARS, Athens, Georgia, United States*

9:45 AM M99

The effect of low-protein soybean meals with graded inclusion levels of soyhull on nutrient utilization, cecal short-chain fatty acid profile, and jejunal gene expression in broiler chickens challenged with mixed *Eimeria* spp.

Bhargavi Kasireddy*^{1GS}, Iyabo W. Oluseyifunmi¹, Revathi Shamugasundaram², Adelumola Oladeinde², Oluyinka Olukosi¹

¹*Department of Poultry Science, University of Georgia, Athens, Georgia, United States*, ²*USDA-ARS, Athens, Georgia, United States*

10:00 AM Break – Room B409

Metabolism and Nutrition III: General Nutrition

Moderator: John Boney, Penn State University

Room Number: B407

Monday, January 27, 2025

10:15 AM M100

Age-related energy values of canola meal for broiler chickens determined using the regression method

Olatunde I. Awonyemi*^{GS}, Olayiwola Adeola

Animal Sciences, Purdue University, West Lafayette, Indiana, United States

10:30 AM M101

Effect of feed form, energy level, and conditioning temperature on broiler performance, feed wastage, and nutrient digestibility from 1 to 21 days of age

Jose R. Hernandez*^{GS}, Joseph P. Gulizia, Jose I. Vargas, Eva G. Guzman, Samuel J. Rochell, Ruediger Hauck, Wilmer J. Pacheco

Department of Poultry Science, Auburn University, Auburn, Alabama, United States

10:45 AM M102

The effect of varying pellet diameters and fines inclusion of growth performance of broilers throughout all phases of growth

Carter D. Minson*^{1GS}, Mason Engnell¹, Walter Friesen¹, Diego Lopez¹, Allison Blomme¹, Victoria Wilson¹, Charles Stark¹, Chad Paulk¹, Scott Beyer²

¹Grain Science and Industry, Kansas State University, Manhattan, Kansas, United States, ²Animal Science and Industry, Kansas State University, Manhattan, Kansas, United States

11:00 AM M103

Effect of cumulative nutrient intake on body weight, feed conversion ratio, and mortality of broilers raised to 35 d under commercial tropical conditions

Gustavo Quintana*^{1GS}, Edgar O. Oviedo-Rondón¹, Juan R. Ruiz-Ramirez², Luis C. Bernal-Arango², Gustavo Martinez-Bernal²

¹Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States, ²Grupo BIOS Inc, Envigado, Colombia

11:15 AM M104

Effects of feed form (mash vs. pellets) on turkey hens performance

Luis Giron*^{GS}, Darby R. Boontarue, Mireia Molins, Sophia Bianchi, John Boney

Animal Science, Pennsylvania State University, University Park, Pennsylvania, United States

11:30 AM M105

Impact of dietary fiber types and concentrations on jejunal and cecal gene expression in broilers with a subclinical enteric challenge

Rana Waqar Tabish*^{1GS}, Yang Lin¹, Samuel J. Rochell¹, Wilmer J. Pacheco¹, Matthew Bailey¹, William A. Dozier¹, Klinton W. McCafferty², Ruediger Hauck^{1,3}

¹Department of Poultry Science, Auburn University, Auburn, Alabama, United States, ²USDA-ARS-Poultry Research Unit, Mississippi State, Mississippi, United States, ³Department of Pathobiology, Auburn University, Auburn, Alabama, United States

11:45 AM M106

Exploration of the antinutrient variability of corn, wheat, and soybean meal

Caleb M. Marshall*^{1GS}, Virginie Blanvillain², Edgar O. Oviedo-Rondón¹
¹Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States, ²AB Vista, Plantation, Florida, United States

12:00 PM Lunch

Metabolism and Nutrition IV: General Nutrition

Moderator: Kelley Wamsley, Mississippi State University

Room Number: B407

Monday, January 27, 2025

1:00 PM M107

Differentiating energy and amino acids nutritional value from soybean meal from various origins fed to broilers

Ashir F. Atoo*^{1GS}, Crystal Levesque², Jorge Y. Perez-Palencia¹

¹*Animal Science, South Dakota State University, Brookings, South Dakota, United States*, ²*Animal Science, South Dakota State University, Brookings, South Dakota, United States*

1:15 PM M108

Soybean Genotype Amino Acid Selection: Impacts on diet linear programming and broiler performance

Savannah Wells-Crafton*^{GS}, Kenneth B. Nelson, Virginia G. Slick, Elizabeth S. Greene, Michael T. Kidd

Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States

1:30 PM M109

Impact of sodium bisulfate feed inclusions on broiler performance and processing metrics

Samantha S. Plocher*^{1GS}, Craig Coufal², Julianna Jespersen², Hudson Thames¹, Xue Zhang³, Kelley Wamsley¹

¹*Department of Poultry Science, Mississippi State University, Mississippi State, Mississippi, United States*, ²*Jones-Hamilton Co., Rock Island, Illinois, United States*, ³*Animal and Dairy Science Department, Mississippi State University, Mississippi State, Mississippi, United States*

1:45 PM M110

Maximizing 17 to 28 d growth performance of broilers with and without a subclinical necrotic enteritis challenge through corn particle size and feed quality

Jorge Urrutia*^{1GS}, Hudson Thames¹, Klinton W. McCafferty³, Christopher Magee³, Wilmer J. Pacheco², Timothy Boltz¹, Kenneth Macklin¹, Kelley Wamsley¹

¹*Poultry Science, Mississippi State University, Mississippi State, Mississippi, United States*, ²*Poultry Science, Auburn University, Auburn, Alabama, United States*, ³*USDA-ARS-Poultry Research Unit, Mississippi State, Mississippi, United States*

Metabolism and Nutrition V: Vitamins and Minerals

Moderator: Kelley Wamsley, Mississippi State University

Room Number: B407

Monday, January 27, 2025

2:00 PM M111

Phytase supplementation response in broilers fed different levels of non-phytate phosphorus in the pre-experimental starter period

Vitor Santos Haetinger*^{GS}, Olayiwola Adeola

Department of Animal Science, Purdue University, West Lafayette, Indiana, United States

2:15 PM M112

Additivity of phytate-P utilization in broiler diets containing corn, soybean meal, canola meal, or rice bran in the absence or presence of supplemental phytase

Opeadura T. Osunbami*^{1GS}, Carrie L. Walk², Olayiwola Adeola¹

¹*Animal sciences, Purdue University, West Lafayette, Indiana, United States*, ²*AB Vista, Marlborough, Wiltshire, SN8 4AN, United Kingdom*

2:30 PM M113

Evaluation of vitamin D and carotenoid-based nutritional solutions on performance and egg quality in Breeder hens

Patrick Tamatey*^{1GS}, Shelby Corray², Brooke C. Bodle³, John Boney¹, Dervan Bryan¹

¹*Animal Science, Penn State, State College, Pennsylvania, United States*, ²*DSM-Firmenich Nutritional Products, Plainsboro, New Jersey, United States*, ³*DSM-Firmenich Nutritional Products, Plainsboro, New Jersey, United States*

2:45 PM M114

Niacin and nicotinamide riboside supplementation effects on broiler growth performance and apparent metabolizable energy

Victoria Wilson*^{1GS}, John Gonzalez², Scott Beyer³, Haley Otott¹, Chad Paulk¹, Carter D. Minson¹, Mason Engnell¹, Walter Friesen¹, Diego Lopez¹, Allison Blomme¹

¹*Grain Science and Industry, Kansas State University, Manhattan, Kansas, United States*, ²*Animal and Dairy Science, University of Georgia, Athens, Georgia, United States*, ³*Animal Science and Industries, Kansas State University, Manhattan, Kansas, United States*

3:00 PM M115

Digestible calcium and digestible phosphorus requirements of broilers from hatch to eight days of age

Kean G. Jacobs*^{1,2GS}, Roselina Angel³, Christine Jansen Van Rensburg², Kirsty Gibbs⁴, Jamie Fourie², Peter W. Plumstead¹, Kyle M. Venter^{1,2}, Nickki Tillman⁵

¹*Neuro Livestock Research, Brits, South Africa*, ²*Department of Animal Science, University of Pretoria, Pretoria, Gauteng, South Africa*, ³*Department of Animal and Avian Sciences, University of Maryland, College Park, Maryland, United States*, ⁴*Danisco Animal Nutrition & Health, IFF, Oegstgeest, Netherlands*, ⁵*Nutritional Statistics LLC, Buford, Georgia, United States*

3:15 PM M116

Dietary 25-hydroxyvitamin D3 supplementation improves vitamin D status and protects bone and gut health in broilers challenged with *Eimeria spp*

Nicolas Mejia-Abauza*^{1GS}, Catherine Fudge¹, Muhammad Ali¹, Huihui Ma¹, Venkata Sessa Reddy Choppa¹, Woo Kyun Kim¹, Cristiano Bortoluzzi², Estefania Perez-Calvo², Chongxiao Chen¹

¹*Department of Poultry Science, University of Georgia, Athens, Georgia, United States*, ²*dsm-firmenich, College station, Texas, United States*

3:30 PM M117

Nutrient digestibility response of male broilers subjected to an enteric challenge and fed diets containing varying limestone particle sizes and calcium concentrations

Joseph P. Gulizia*^{1GS}, Rana Waqar Tabish¹, Jose I. Vargas¹, Jose R. Hernandez¹, Cristina T. Simões¹, Eva G. Guzman¹, Samuel J. Rochell¹, Ruediger Hauck^{1,3}, Matthew Bailey¹, William A. Dozier¹, Kinton W. McCafferty², Wilmer J. Pacheco¹

¹*Department of Poultry Science, Auburn University, Auburn, Alabama, United States,* ²*USDA-ARS-Poultry Research Unit, Mississippi State, Mississippi, United States,* ³*Department of Pathobiology, Auburn University, Auburn, Alabama, United States*

3:45 PM M118

The effects of dietary copper and litter condition on broiler growth performance

Allison Jun Taguchi Kawaoku*^{1GS}, Nicolas Mejia-Abaunza¹, Catherine Fudge¹, Muhammad Ali¹, Huihui Ma², Venkat U. Bodempudi¹, Tongshuai Liu³, Guoming Li¹, Jinquan Wang⁴, Chongxiao Chen¹

¹*Department of Poultry Science, University of Georgia, Athens, Georgia, United States,* ²*Institute of Animal Husbandry, Henan Academy of Agricultural Sciences, Zhengzhou, China,* ³*College of Animal Science & Technology, Henan University of Animal Husbandry and Economy, Zhengzhou, China,* ⁴*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*

4:00-6:00 PM Poster Reception

Metabolism and Nutrition VI: Amino Acids and Feed Additives

Moderator: Michael E. Persia, Virginia Tech

Room Number: B408

Monday, January 27, 2025

7:15 AM M119

Determining the importance of non-essential amino acids, histidine, and phenylalanine + tyrosine in broilers provided reduced protein diets

Ruben Kriseldi*¹, Marcelo Silva¹, Alex Corzo¹, Jason Lee², Roshan Adhikari²

¹Aviagen, Huntsville, Alabama, United States, ²CJ Bio America, Downers Grove, Illinois, United States

7:30 AM M120

Performance and yield response of male and female Cobb 500 broilers with varying levels of amino acid density

Jason T. Lee*¹, Rocky Latham², Roshan Adhikari¹, Dan Moore³

¹CJ Bio America, Downers Grove, Illinois, United States, ²Tyson Foods, Springdale, Arkansas, United States, ³Colorado Quality Research, Wellington, Colorado, United States

7:45 AM M121

Evaluation of direct fed microbials on the performance and eggshell quality of post-peak laying hens

Alyssa M. Lyons*^{1GS}, Hector Leyva-Jimenez², BRIAN DIRKS², Mike E. Persia¹

¹School of Animal Sciences, Virginia Tech, Blacksburg, Virginia, United States, ²United Animal Health, Audubon, Pennsylvania, United States

8:00 AM M122

Effect of dietary supplementation of spray-dried plasma on performance and semen quality in aging broiler breeders

Mário Henrique S. Lopes*^{1GS}, Carlos A. Granghelli¹, Giovana M. Longhini¹, Isabela E. Silva¹, Melany Y. Lovon¹, Raimundo G. Netto¹, Luís Rangel², Joy Campbell², Joe Crenshaw², Cristiane S. Araujo¹, Lucio F. Araujo¹

¹Department of Animal Science, University of São Paulo, Pirassununga, São Paulo, Brazil, ²APC, Ankeny, Iowa, United States

8:15 AM M123

Throughput agents alleviate concerns of manufacturing feed with larger pellet die thicknesses

Lucas E. Knarr*^{1GS}, Kristina M. Bowen¹, Elizabeth A. Lynch¹, Emily B. Estanich¹, Alexis Renner¹, Jon Ferrel², Joseph S. Moritz¹

¹School of Agriculture and Food Systems, West Virginia University, Morgantown, West Virginia, United States, ²Azomite Mineral Products, Nephi, Utah, United States

8:30 AM M124

Evaluation of botanical feed additives rich in saponins and polyphenols in broilers experiencing immunological and environmental stressors

Laney Froebel*^{1GS}, Mike J. Rincker², Ryan Dilger¹

¹University of Illinois, Urbana, Illinois, United States, ²DPI Global, Porterville, California, United States

8:45 AM M125

Evaluation of a direct-fed microbial on growth performance in birds subjected to ingredient-based dietary stress

Addison Elstner*¹, Rosana Hirai¹, Austin O. Silva², Daniel De Leon², Hector Leyva-Jimenez³, BRIAN DIRKS⁴, Yemi Burden³, Katherine McCormick³, Christopher Bailey¹, Audrey McElroy²

¹Poultry Science, Texas A&M University, College station, Texas, United States, ²Poultry Science, Texas A&M University, Bryan, Texas, United States, ³United Animal Health, Sheridan, Indiana, United States, ⁴United Animal Health, Audubon, Pennsylvania, United States

9:00 AM M126

Effects of dietary energy and emulsifier on the performance and energy storage of pullets and young laying hens

Jennifer Blair*^{GS}, Mike E. Persia

Virginia Tech, Blacksburg, Virginia, United States

9:15 AM M127

Isolation of probiotic candidates from broiler chicken ceca using culturomics approach

Manhong Wang*^{1GS}, Xin Ye¹, Hailey Fugate¹, Chuan-Yu Hsu², Xue Zhang³, Peixin Fan³, Katie E. Elliott⁴, Pratima Adhikari¹, Kenneth Macklin¹, Li Zhang¹
¹Department of Poultry Science, Mississippi State University, Mississippi State, Mississippi, United States, ²Institute for Genomic, Biocomputing, and Biotechnology, Mississippi State University, Mississippi State, Mississippi, United States, ³Department of Animal and Dairy Science, Mississippi State University, Mississippi State, Mississippi, United States, ⁴Agriculture Research Service, Poultry Research Unit, USDA, Mississippi State, Mississippi, United States

9:30 AM M128

Assessing the role of natural feed additives in shaping the broiler environmental microbiome

Ana Fonseca*^{1, 5GS}, Sophia Kenney¹, Stephanie Bierly², Jennine Lection³, Samantha Seibel⁴, Joshua Wolff⁶, John Boney¹, Erika Ganda^{1, 4}
¹Animal Science, Pennsylvania State University, University Park, Pennsylvania, United States, ²Novagene, Centre Hall, Pennsylvania, United States, ³College of Veterinary Medicine, North Carolina State University, Raleigh, North Carolina, United States, ⁴Huck Life Sciences, Pennsylvania State University, University Park, Pennsylvania, United States, ⁵Microbiome Sciences, Huck Life Sciences, University Park, Pennsylvania, United States, ⁶Drexel University, Philadelphia, Pennsylvania, United States

9:45 AM M129

Effect of protected organic acids supplementation on growth performance, gut Integrity, and immune response in broilers challenged with necrotic enteritis

Hanseon Ko*^{1GS}, Jihwan Lee¹, Hemanth Reddy Katha¹, Ishwari Gyawali¹, Kwang Young Lee², Woo Kyun Kim¹
¹Poultry Science, University of Georgia, Athens, Georgia, United States, ²Morningbio, Cheonan, Chungnam, Korea (the Republic of)

10:00 AM M130

Evaluation of different Cu sources and dietary inclusion levels on growth performance and Cu absorption in broilers challenged with coccidiosis

Austin O. Silva*^{1GS}, Rosana Hirai¹, Addison Elstner¹, Kasey E. Young¹, Abigail Flores¹, Audrey McElroy¹, Bob Buresh², Melanie Roux²
¹Poultry Science, Texas A&M University, College Station, Texas, United States, ²Novus International, Inc, Chesterfield, Missouri, United States

10:15 AM Break – Room B409

Metabolism and Nutrition VII: Vitamins and Minerals

Moderator: Frances Yan, Novus International Inc.

Room Number: B408

Monday, January 27, 2025

10:30 AM M131

Comparing traditional forms of supplemental copper to a monovalent copper on bacteria control

Alessandra Rigo Monteiro^{*1}, Wilfried Vahjen², Yron Manaig¹, Ian Cockshott¹

¹*Animine Precision Minerals, Annecy, France*, ²*Freie Universität Berlin, Berlin, Germany*

10:45 AM M132

Evaluating the bioavailability of Zinc Glycinate and Zinc Amino Acid hydrate organic trace minerals relative to zinc sulfate based on weight gain and Zinc content in tibia ash of 22-day-old broilers fed semi-purified diets

Mohamad Mortada^{*1}, Andrea Hanson¹, Jose Charal¹, Daniel Jones¹, Matthew Deeker¹, Kelsey Frank¹, Sierra Kolan¹, Rachel Proctor¹, Taylor Thoele¹, Safat Shoeb¹, Dawn Buscheck¹, Jason Hickman¹, Catherine Ionescu²

¹*ADM Animal Nutrition, Decatur, Illinois, United States*, ²*ADM International Sarl, Rolle, Vaud, Switzerland*

11:00 AM M133

Effect of feeding calcium pidolate (Calpid®) on productive performance, economic evaluations and litter quality in broilers fed reduced calcium and phosphorus diets

AbdelRahman Y. Abdelhady^{*1,2}, Abdelhacib Kihal¹, Salah A. El-Safty², Ahmed Radwan¹, Sergio Merinero³, M. Puyalto¹, J J. Mallo¹

¹*Norel S.A., Madrid, Spain*, ²*Poultry Production Department, Faculty of Agriculture, Ain Shams University, Cairo, Egypt*, ³*Nuvet Agriservices S.L.U., Madrid, Spain*

11:15 AM M134

Evaluation of copper source and dose on phytase efficacy in young broilers
Kyle M. Venter^{*1}, Peter W. Plumstead¹, Alessandra R. Monteiro², Jamie Fourie¹

¹*Neuro Livestock Research, Brits, South Africa*, ²*Animine Precision Minerals, Annecy, France*

11:30 AM M135

A meta-analysis of copper source and level effects on growth performance of broiler chickens

Abidemi Adekoya, Eric Myers, Gabriela Cardoso, Frances Yan^{*}
Novus International Inc., Chesterfield, Missouri, United States

11:45 AM M136

Effects of varying digestible amino acid densities on the growth performance of Cobb 500 x MX and Ross 708 x YP broiler chickens

Tanner Wise^{*1}, Logan Erb¹, Corey A. Johnson¹, Anthony D. Quant¹, Elizabeth J. Miller¹, Nickki Tillman²

¹*Nutrition, Kalmbach Nutritional Services, Upper Sandusky, Ohio, United States*, ²*Nutritional Statistics LLC, Buford, Georgia, United States*

12:00 PM Lunch

Metabolism and Nutrition VIII: Amino Acids and Enzymes

Moderator: Pratima Adhikari, Mississippi State University

Room Number: B408

Monday, January 27, 2025

1:00 PM M137

The determination of gross energy and total essential amino acid content in soybean meal and soy protein concentrates and isolates by near-infrared reflectance spectroscopy

Dylan Moss^{*1GS}, Thomas Jones², Adam J. Davis¹

¹*Poultry Science, University of Georgia, Athens, Georgia, United States*, ²*Poultry Science, University of Georgia, Athens, Georgia, United States*

1:15 PM M138

Evaluation of interaction effects of various levels of energy and amino acid density in the finisher phase (29-42d) on Ross-708 broiler performance and carcass yield

Muhammad Ali^{*1GS}, Catherine Fudge¹, Nicolas Mejia-Abaunza¹, Alex Corzo², Ruben Kriseldi², Roshan Adhikari³, Chongxiao Chen¹

¹*Poultry Science, University of Georgia, Athens, Georgia, United States*, ²*Aviagen, Huntsville, Alabama, United States*, ³*CJ Bio America, Downers Grove, Illinois, United States*

1:30 PM M139

Conditioning above 70°C and Pelleting Corn and Soybean Meal-based Diets Containing Under Processed Soybean Meal can Alleviate the Effects of Antinutritional Factors

Reuben Adejumo^{*1GS}, Kristina M. Bowen², Lucas E. Knarr¹, Elizabeth A. Lynch¹, Emily B. Estanich¹, Alexis Renner¹, Taylor Waugerman¹, Hari B. Krishnan³, Joseph S. Moritz¹

¹*Division of Animal and Nutritional Sciences, West Virginia University, Morgantown, West Virginia, United States*, ²*Egg innovations, Warsaw, Indiana, United States*, ³*Plant Genetics Research Unit, USDA-ARS, University of Missouri, Columbia, Missouri, United States*

1:45 PM M140

Utilization of near-infrared reflectance spectroscopy to predict the digestible essential amino acid content of mechanically and solvent-extracted soybean meal

Thomas Jones^{*GS}, Coleman Hatmaker, Chongxiao Chen, Adam J. Davis
Poultry Science, University of Georgia, Athens, Georgia, United States

2:00 PM M141

Varying branched-chain amino acid and tryptophan ratios in corn and soybean meal-based diets influences 0-28d turkey poult performance, blood plasma serotonin concentration, relative immune organ weight, and tibia mineralization

Emily B. Estanich^{*1GS}, Kristina M. Bowen¹, Lucas E. Knarr¹, Elizabeth A. Lynch¹, Sally Noll³, Arturo Garcia-Morales², Joseph S. Moritz¹

¹*School of Agriculture and Food Systems, West Virginia University, Morgantown, West Virginia, United States*, ²*Butterball, LLC, Goldsboro, North Carolina, United States*, ³*Department of Animal Science, University of Minnesota, St. Paul, Minnesota, United States*

2:15 PM M142

Effects of high and moderate amino acid density diets in Cobb 500 male broilers

Virginia G. Slick^{*GS}, Savannah Wells-Crafton, David Reynolds, Michael T. Kidd

Poultry Science, University of Arkansas, Paragould, Arkansas, United States

2:30 PM M143

Understanding the branched-chain amino acid interactions on bone morphology of pullets (6-12 weeks of age)

Charis A. Waters*^{1GS}, Roshan Adhikari², Jason T. Lee², Deependra Paneru³, Woo Kyun Kim³, Ruben Kriseldi⁴, Michael Elliot⁵, Li Zhang¹, Kelley Wamsley¹, Pratima Adhikari¹

¹Department of Poultry Science, Mississippi State University, Mississippi State, Mississippi, United States, ²CJ Bio America, Downers Grove, Illinois, United States, ³Department of Poultry Science, University of Georgia, Athens, Georgia, United States, ⁴Aviagen, Huntsville, Alabama, United States, ⁵A&E Nutrition Services, LLC, Lititz, Pennsylvania, United States

2:45 PM M144

Dietary arginine responses of Ross 708 broilers subjected to enteric challenge with *Eimeria* spp. and *Clostridium perfringens*

Annalise G. Anderson*^{1GS}, Jason T. Lee², Roshan Adhikari², Ruediger Hauck^{1,3}, Samuel J. Rochell¹

¹Department of Poultry Science, Auburn University, Auburn, Alabama, United States, ²CJ America, Inc., Downers Grove, Illinois, United States, ³Department of Pathobiology, Auburn University, Auburn, Alabama, United States

3:00 PM M145

Commercial phytase products varied in efficacy in 0.22% non-phytate phosphorus corn and soybean meal starter diets but were ineffective in 0.13% non-phytate phosphorous diets

Elizabeth A. Lynch*^{1GS}, Kristina M. Bowen¹, Lucas E. Knarr¹, Emily B. Estanich², Joseph S. Moritz¹

¹School of Agriculture and Food Systems, West Virginia University, Morgantown, West Virginia, United States, ²Division of Animal and Nutritional Sciences, West Virginia University, Morgantown, West Virginia, United States

3:15 PM M146

Reduction of ribonucleotide reductase subunit RRM2 potentially impairs gut function in broilers exhibiting the woody breast condition

Majid Shakeri*, Elizabeth Ziabtchenko, Janghan Choi, Caitlin Harris, Richard Buhr, Trevor Mitchell, Byungwhi Kong, Hong Zhuang, Brian Bowker
USDA-ARS, U.S. National Poultry Research Center, Athens, Georgia, United States

3:30 PM M147

Growth performance and immune response of young tom turkeys to diets containing different doses of an endo-1,4- β -D-mannanase.

Adebayo Sokale*¹, M Baxter², Sami Dridi³, A. Fickler⁴

¹BASF Corporation, Florham Park, New Jersey, United States, ²Ozark Avian Research, Fayetteville, Arkansas, United States, ³Department of Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States, ⁴BASF SE, Ludwigshafen, Germany

3:45 PM M148

The effects of mannanase inclusion in corn-soybean meal-based diets on the performance of laying hens

Rosana Maia*¹, Michele Bernardino², Edney P. da Silva², Rita P. Brito Vieira², Rodrigo K. Messias¹, A. Fickler¹

¹BASF, Campinas, SP, Brazil, ²UNESP, Jaboticabal, Brazil

4:00-6:00 PM Poster Reception

Metabolism and Nutrition IX: Feed Additives

Moderator: Theresia Lavergne, Natural Biologics Inc. and Cody Flores, Devenish Nutrition LLC

Room Number: B404

Tuesday, January 28, 2025

7:00 AM T149

Effect of organic acids in drinking water on gastrointestinal pH and mesophilic aerobic counts in broiler chickens

Mariana Ornaghi*¹, Caio Tellini¹, Carla Caliar², Carlos Benito², Jhessica Lang¹, Jovanir Fernandes²

¹Research and Development, Safeeds, Cascavel, Paraná, Brazil, ²Universidade Federal do Paraná, Palotina, Brazil

7:15 AM T150

Efficacy of double-buffered sodium butyrate supplementation on broiler performance, foot pad dermatitis and intestinal histomorphology

Bernardo F. Iglesias^{3,4}, Maria Viviana Charriere³, Virginia Fain Binda³, Silvina Pinto⁵, Clemence Marecaille², Julian E. Melo*^{1,2}

¹Tecnología, Universidad Nacional de Luján, Escobar, Buenos Aires, Argentina, ²Dietaxion SAS, Le Loroux-Bottereau, France, ³Sección Avicultura, EEA Pergamino, Instituto Nacional de Tecnología Agropecuaria (INTA), Pergamino, Buenos Aires, Argentina, ⁴Producción Animal, UNNOBA, Pergamino, Buenos Aires, Argentina, ⁵UBA, Buenos Aires, Argentina

7:30 AM T151

Use of fructooligosaccharides as functional carbohydrates in the modulation of microbiota and intestinal health of broiler chickens

Jaime A. Angel-Isaza*^{1,2}, Alvaro Uribe-Serrano¹, Blanca C. Martinez¹, Loufrantz Parra-Mendez¹, Jaime E. Parra-Suescun²

¹Unidad De Innovacion Y Desarrollo Biotecnologico, Promitec Santander SAS, Bucaramanga, Colombia, ²Universidad Nacional de Colombia Sede Medellín, Medellín, Colombia

7:45 AM T152

The effect of natural compounds on growth performance and necrotic enteritis challenge mitigation in 1-to-28-day old broiler chicks

Theresia Lavergne*, Carl Jones, Charlie Elrod

Natural Biologics, Inc., Newfield, New York, United States

8:00 AM T153

Mixtures of short- and medium-chain fatty acid-based products improve the performance of Enterococcus-challenged broilers via distinct mechanisms

Nicholas P. Evans*¹, Ariel Bergeron¹, Olga Lemâle³, Tim Goossens², Rob Shirley¹

¹Adisseo, Alpharetta, Georgia, United States, ²Adisseo, Sint-Niklaas, Belgium, ³Adisseo, Raamsdonksveer, Netherlands

8:15 AM T154

Effect of a triple-strain Bacillus-based probiotic on performance of commercial broilers challenged with *Enterococcus cecorum*

Antoine Meuter*¹, Steve Lerner², Meghan Schwartz², Nima Emami²

¹Nononesis, Lyngby, Denmark, ²Novonesis, Milwaukee, Wisconsin, United States

8:30 AM T155

The effects of Microsa[®] on the growth performance of Ross 308 x Hubbard M99 straight-run broilers in a 43-day production period

Maria T. Terra-Long*¹, Alain Riggi¹, Joe Loughmiller¹, Logan Erb²

¹Phileo by Lesaffre, Opelika, Alabama, United States, ²Kalmbach Nutritional Services, Upper Sandusky, Ohio, United States

8:45 AM T156

Deoxynivalenol affects gut morphology and liver oxidative stress in broilers: the effect of an algae-clay detoxifier

Marie Gallissot*¹, Maria Angeles Rodriguez¹, Regiane Santos²

¹OLMIX S.A., Brehan, France, ²Schothorst Feed Research, Lelystad, Netherlands

9:00 AM T157

Use of Diatom Nat for preventing intestinal challenges in broiler chickens

David Díez*¹, Anna Tesouro¹, Connie Gallardo², Roger Palacin¹

¹Biovet S.A., Constanti, Tarragona, Spain, ²Universidad Científica del Sur, Lima, Peru

9:15 AM T158

Effects of a proprietary mycotoxin binder, on body weight, feed conversion, and mortality of Ross 708 and Cobb 500 broilers in the absence of increased prevalence of mycotoxins

Cody Flores*, Shameer Rasheed, Mark LaVorgna, Mahmoud Masadeh, Mike Blair, Gary Reznik, Kristy Dorton

Devenish Nutrition, Fairmont, Minnesota, United States

9:30 AM T159

Effect of Fytera Perform on Performance and Health of Commercial Broilers with and without an Ionophore Program

Karlinton Flores*¹, Dan Moore², Marcos Rostagno¹

¹Selko, Raleigh, North Carolina, United States, ²Colorado Quality Research, Wellington, Colorado, United States

9:45 AM T160

Preliminary evaluations of a combination of postbiotics and phytochemicals to support mitigating the impact of histomoniasis in turkeys

Megan Koppen*¹, Manuel Da Costa¹, Maci Oelschlager¹, Danielle Graham², Aaron Forga², Benjamin W. Parsons², Lisa Bielke³, Philip Yeboah³, Thaciane Amaral³, Demilade Ibiwoye³

¹Cargill Animal Nutrition, Rockingham, Virginia, United States, ²Division of Agriculture, University of Arkansas, Fayetteville, Arkansas, United States, ³Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States

10:00 AM T161

Effect of combining phytochemical feed solutions with free and mono-, di- and triglycerides of short and medium-chain fatty acids on production performance in broilers

Manu De Laet*, Manuel Da Costa, Caroline Donaldson, Yann Fournis, Roberto Montanhini Neto

Cargill Animal Nutrition, Cargill, Mechelen, Belgium

10:15 AM T162

Anti-inflammatory and pro-growth immunometabolic response to phytochemical feed additive in the small intestine of the broiler chicken

Ryan Arsenault*¹, Famatta Perry², Casey Johnson¹, Meghan Schwartz³, Ellen Davis³, Stacie Crowder³

¹Food and Feed Safety Research Unit, USDA ARS, College Station, Texas, United States, ²Animal and Food Sciences, University of Delaware, Newark, Delaware, United States, ³Fortiva, Arden Hills, Minnesota, United States

10:30 AM T163

Effect of a blend of phytochemical compounds on productivity and environmental impact of chicken meat in the US: meta-analysis and life cycle assessment

Clémentine Oguey*¹, Janjoris Van Diepen²

¹ADM International Sarl, Rolle, Switzerland, ²Mérieux NutriSciences | Blonk, Washington, District of Columbia, United States

10:45 AM T164

Combination of a postbiotic and phytochemical supports broiler performance across all feeding phases

Vivek Kuttappan*, Yann Fournis, S. Ali Naqvi, Courtney Clemons

Cargill, Inc., Wayzata, Minnesota, United States

11:00 AM Milton L. Dendy Keynote Lecture

Moderator: Silvia Carnaccini, Iowa State University

Room Number: B405

The History of Our Scientific Societies and the US Broiler Industry

Joseph Giambrone*

Poultry Science, Auburn University, Auburn, Alabama, United States

12:00 PM SCAD Business Meeting

President: Silvia Carnaccini

Room Number: B405

12:00 PM SPSS Business Meeting

President: Roshan Adhikari

Room Number: B407

SCAD III

Moderator: Jossie M. Santamaria, University of Arkansas

Room Number: B405

Tuesday, January 28, 2025

7:45 AM T165

Development and characterization of *in vitro* chicken lung organoids and modeling of H5 avian influenza virus infection

Hannah Nicholson*¹, Christopher Zdyrski¹, Michael Catucci¹, Bryan J. Melvin¹, Lisa J. Stabler², Mohamed Elbadway¹, Megan P. Corbett¹, Eugene Douglass³, Rebecca L. Poulson², Jonathan P. Mochel¹, Karin Allenspach¹, Silvia Carnaccini⁴

¹CVM, Precision One Health, Athens, Georgia, United States, ²CVM, Population Health, Athens, Georgia, United States, ³Institute of Bioinformatics, Pharmaceutical and Biomedical Sciences, Athens, Georgia, United States, ⁴Population Health, University of Georgia, Athens, Georgia, United States

8:00 AM T166

The growing feather pulp as a dermal test site in turkeys: Insights from the early acute inflammatory response to lipopolysaccharide

Delaney F. Roberts*^{UG}, Jossie M. Santamaria, Aaron Forga, Chrysta N. Beck, Danielle Graham, Gisela F. Erf

Center of Excellence for Poultry Science, University of Arkansas System Division of Agriculture, University of Arkansas, Fayetteville, Arkansas, United States

8:15 AM T167

Vaccine-based approach to control *Campylobacter hepaticus* in a challenge study

Catherine M. Logue*, Roel Becerra, Julia Ienes-Lima, Klao M. Runcharoon, Yu Yang Tsai

Population Health, University of Georgia, Athens, Georgia, United States

8:30 AM T168

Enterococcus cecorum Litter Challenge Model with or without a Litter Acidifier

Matthew K. Jones*¹, Charles Hofacre¹, Virginia Baxter¹, M M. Suyemoto², Roy Berghaus³, Juan Suarez⁴, Craig Coufal⁴

¹Southern Poultry Research Group, Inc., Watkinsville, Georgia, United States, ²Population Health and Pathobiology, College of Veterinary Medicine, North Carolina State University, Raleigh, North Carolina, United States, ³Department of Population Health, College of Veterinary Medicine, University of Georgia, Athens, Georgia, United States, ⁴Jones-Hamilton Co., Walbridge, Ohio, United States

8:45 AM T169

Did Raised Without Antibiotics programs change field levels of Ionophore anticoccidial resistance?

Greg Mathis*, Brett Lumpkins

Southern Poultry Feed & Research, Inc., Athens, Georgia, United States

9:00 AM T170

Prevention of Necrotic Enteritis using Bacteriophage Administered in Pelleted Broiler Feed

Charles Hofacre*¹, Matthew K. Jones¹, Joseph Brown², Joseph Edwards², Ellen Denness²

¹Southern Poultry Research Group, Inc., Watkinsville, Georgia, United States, ²Aparon Ltd., Lincoln, United Kingdom

9:15 AM T171

Study investigating impact of AL2 challenge at different ages on the antibody response to a killed SE vaccination and the sparing effect of rHVT-IBD vaccine on antibody titer suppression

Kalen Cookson*, John Dickson, Jon Schaeffer

Zoetis, Lawrenceville, Georgia, United States

9:30 AM T172

Comparative Genomics to Identify *Mycoplasma synoviae* pathotypes
Eniope B. Oluwayinka*, Naola Ferguson-Noel
Population Health, University of Georgia, Athens, Georgia, United States

9:45 AM T173

Individual, targeted vaccination at the hatchery to improve vaccine take and decrease reliance on spread on the farm

Liz Turpin*

BioProcess, TARGAN, Raleigh, North Carolina, United States

10:00 AM T174

Secondary immune response profiles to electron beam- or formalin-inactivated *Salmonella* vaccines in egg-type pullets: immunogenic differences

Jossie M. Santamaria*¹, Chrysta N. Beck¹, Ruvindu Perera¹, Palmy Jesudhasan², Gisela F. Erf¹

¹*Center of Excellence for Poultry Science, University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, United States*, ²*Poultry Production and Product Safety Research Unit, USDA, Fayetteville, Arkansas, United States*

10:15 AM T175

Effect of a Postbiotic Containing Saponin on the Severity of Avian Pathogenic *Escherichia coli* (APEC) Serotype O78 Infection in a 10 Week Layer Pullet Challenge Model

Charles Hofacre*¹, Evan Chaney², Manuel Da Costa², Jean Oliveria⁴, Vivek Kuttappan³, Maci Oelschlager⁵, Matthew K. Jones⁶

¹*Southern Poultry Research Group, Inc., Watkinsville, Georgia, United States*, ²*Cargill Micronutrition & Health Solutions, Wayzata, Minnesota, United States*, ³*Cargill, Inc., Wayzata, Minnesota, United States*, ⁴*Cargill R&D Centre Europe, Vilvoorde, Belgium*, ⁵*Cargill Animal Nutrition, Savoy, Illinois, United States*, ⁶*University of Georgia, Nicholson, Georgia, United States*

10:30 AM T176

Bacterial phenotypic plasticity could explain adaptation of *Enterococcus cecorum* to broiler chickens and the rising of a severe systemic disease

Martha Pulido-Landinez*

PRDL, Mississippi State University, Pearl, Mississippi, United States

11:00 AM Milton L. Dendy Keynote Lecture

Moderator: Silvia Carnaccini, Iowa State University

Room Number: B405

The History of Our Scientific Societies and the US Broiler Industry

Joseph Giambrone*

Poultry Science, Auburn University, Auburn, Alabama, United States

12:00 PM SCAD Business Meeting

President: Silvia Carnaccini

Room Number: B405

12:00 PM SPSS Business Meeting

President: Roshan Adhikari

Room Number: B407

Metabolism and Nutrition X: Feed Additives

Moderator: Midian Nascimento dos Santos, Trouw Nutrition and Adebayo Sokale, BASF

Room Number: B406

Tuesday, January 28, 2025

7:00 AM T177

Black soldier fly as an alternative protein source in broiler chicken diet for mitigating feed cost

Md Sazedul Karim Sarker*^{1,2}, US Ety^{1,2}, MT Hossain^{1,2}, NN Lisa^{1,2}, MA Rashid^{1,2}, A Islam^{1,2}, MF Sharmin³, SS Zihan², S Faruque¹

¹Poultry Research Center, Bangladesh Livestock Research Institute, Savar, Dhaka, Bangladesh, ²Strengthening of Poultry Research and Development Project, BLRI, Savar, Dhaka, Bangladesh, ³Bangladesh Jute Research Institute, Manik Mia Avenue, Dhaka, Bangladesh

7:15 AM T178

Evaluation of fenugreek seed extract fed to 0 to 21 d old broiler chickens on performance and oocyst shedding

Samantha Huffer*¹, Alyssa M. Lyons², Nathan Sudom³, Mike E. Persia¹

¹School of Animal Sciences, Virginia Tech, Christiansburg, Virginia, United States, ²School of Animal Sciences, Virginia Tech, Blacksburg, Virginia, United States, ³Emerald Seed Products, Avonlea, Saskatchewan, Canada

7:30 AM T179

Effects of supplementing broiler diets with mango peel and seed kernel extracts on growth performance, carcass characteristics, and gut health

Zafar Hayat*^{2,1}, Tuba Riaz¹, Sana Ullah¹

¹IDRC Project Lab., University of Veterinary and Animal Sciences, Lahore, Pakistan, ²Department of Animal Science, College of Agriculture, University of Sargodha, Sargodha, Pakistan

7:45 AM T180

Yolk coloring efficacy of natural xanthophyll based products in relation to commercial standard C30-ester product

Yauheni Shastak¹, Wolf Pelletier¹, Alvaro Gordillo², Kevin Matter*³, Christian Scharch⁴

¹BASF SE, Ludwigshafen am Rhein, Germany, ²BASF Espanola S.L., Barcelona, Spain, ³BASF Corp., Florham Park, New Jersey, United States, ⁴Feedtest, Wettin-Löbejün, Germany

8:00 AM T181

Dietary chlorella vulgaris and cinnamon oil enhance growth performance and intestinal health in broiler chickens

Ahmed Kewan*^{1,2}, AbdElrazeq M. Shehata¹, Mahmoud Madkour³, Abdelkawy A. El-Ghoul¹, R. A. Abo-Salem¹, Waleed Abdelmoez¹, Ahmed Ramzy¹

¹Department of Animal Production, Faculty of Agriculture, Al-Azhar University, Nasr City, Cairo, Egypt, ²Department of Poultry Science, University of Georgia, Athens, Georgia, United States, ³Animal Production Department, National Research Center, Dokki, Giza, Egypt

8:15 AM T182

Production performance of laying hens supplemented with essential oils of cinnamon, clove and oregano

Midian Nascimento dos Santos*, Stephanie Torrey

Trouw Nutrition, Puslinch, Ontario, Canada

8:30 AM T183

Evaluating the effect of dietary supplementation of NeutraPath® and tribasic copper chloride on the growth performance of Ross 308 broilers exposed to a necrotic enteritis challenge

Anthony D. Quant*¹, Corey A. Johnson¹, Logan Erb¹, Elizabeth J. Miller¹, Jay Hughes², Aldo Rossi²

¹Kalmbach Nutritional Services, Upper Sandusky, Ohio, United States, ²Amlan Internaional, LLC, Chicago, Illinois, United States

8:45 AM T184

A microencapsulated blend of botanicals can enhance growth performance and support gut health of broilers in commercial conditions under a conventional anticoccidial program

Benedetta Tugnoli*¹, Antonino Messina¹, Giulia Giovagnoni¹, Andrea Piva¹, Ester Grilli^{2,3}

¹Vetagro, Reggio Emilia, Italy, ²University of Bologna, Bologna, Italy, ³Vetagro Inc, Chicago, Illinois, United States

9:00 AM T185

Gut-released bioactive compounds to improve animal performance

Caio Tellini*, Mariana Ornaghi, Ricardo Castilho, Rafaela Berto, Cátia Miquilino

Research and Development, Safeeds, Cascavel, Paraná, Brazil

9:15 AM T186

A blend of *Castanea sativa* polyphenols and coated short-chain fatty acids improves the performance and gut health of broilers

David Harrington*¹, Yann Lever², Jean Francois Le Roux², Nemanja Todorovic¹

¹nuance Biotechnology, Lausanne, Switzerland, ²Global Nutrition International, Fougères, Veuillez, France

9:30 AM T187

Quantifying the effect of an encapsulated blend of essential oils and organic acid on performance, environmental impacts and feeding costs of broilers: a meta-analytical approach

William Lambert, Clément Guele, Romain Moreau, Clarisse Techer*

miXscience, Bruz, France

9:45 AM T188

A synergistic blend of organic acids administered in water improves the productive traits of broilers

Lane Pineda², Giseli Heim*¹

¹Selko, Amersfoort, Netherlands, ²R&D, Trouw Nutrition, Amersfoort, Netherlands

10:00 AM T189

The power of data in DFM assessment - waterline application

Sasha van der Klein*, Niels Christensen, Kirsty Gibbs

Danisco Animal Nutrition & Health, Oegstgeest, Netherlands

10:15 AM T190

Effect of dietary inclusion of *Saccharomyces cerevisiae* fermentation product (Original XPC™) and stocking density on production performance and egg quality in brown egg strain laying hens

Kelly E. Brannan*¹, Becca Wysocky², Kenneth Anderson²

¹NCDACS PRS, Midrand, South Africa, ²North Carolina State University, Raleigh, North Carolina, United States

10:30 AM T191

Yeast Fermentate Supplementation May Enhance Early Cecal Microbiota Maturation in Chicks

Elena G. Olson*¹, Ashley A. Tarcin², Lindsey A. Wythe⁴, Abe Scheaffer³, Steve Ricke¹

¹University of Wisconsin-Madison, Madison, Wisconsin, United States, ²Animal and Dairy Sciences, University of Wisconsin-Madison, Madison, Wisconsin, United States, ³Harvest Fuel Inc, Walhalla, North Dakota, United States, ⁴Texas A&M University, College Station, Texas, United States

10:45 AM T192

Effects of a *Saccharomyces* yeast postbiotic and reduced protein and amino acid diet on broiler performance

Mathew A. Vaughn*¹, John Gonzalez², Edgar Miller¹, James McNaughton³

¹Research and Development, Puretein Bioscience, Maxwell, Iowa, United States, ²University of Georgia, Athens, Georgia, United States, ³AHPPharma, Hebron, Maryland, United States

11:00 AM Milton L. Dendy Keynote Lecture

Moderator: Silvia Carnaccini, Iowa State University

Room Number: B405

The History of Our Scientific Societies and the US Broiler Industry

Joseph Giambrone*

Poultry Science, Auburn University, Auburn, Alabama, United States

12:00 PM SCAD Business Meeting

President: Silvia Carnaccini

Room Number: B405

12:00 PM SPSS Business Meeting

President: Roshan Adhikari

Room Number: B407

Welfare and Behavior III

Moderator: T. Bas Rodenburg, Utrecht University

Room Number: B407

Tuesday, January 28, 2025

7:00 AM T193

Current and future tools to monitor laying hen welfare in the transition to cage-free systems

T. Bas Rodenburg*

Utrecht University, Utrecht, Netherlands

7:15 AM T194

Golda: a genetic model to eliminate male chick culling in the egg industry
Enbal Ben-Tal Cohen^{*1}, Olga Genin², Michael Pfann^{1,3}, Michal Maimon¹, Izel Cohen^{1,3}, Tatyana Kushnir¹, Amit Haron¹, Shanthy Dharanivasan¹, Eva Lamed², Dmitry Dima Shinder², Shelly Druyan¹, Yuval Cinnamon^{1,2}

¹*Department of Poultry and Aquaculture, Institute of Animal Sciences, Agricultural Research Organization - The Volcani Institute, Rishon LeTsiyon, Israel*, ²*NextHen, Bnei Brak, Israel*, ³*The Hebrew University of Jerusalem, Rehovot, Israel*

7:30 AM T195

Effect of humidity during the hatching phase of incubation on broiler chick quality, tibia bone morphology, and behavior

Chantel Pennicott^{*1}, Angela Perretti², Victor Oyeniran¹, Sara Orlowski¹, Rosemary Whittle¹, Jaelen Cherry¹, Shawna Weimer¹

¹*Poultry Science, University of Arkansas, Farmington, Arkansas, United States*, ²*Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States*

7:45 AM T196

Evaluation of mechanical cervical dislocation methods for euthanasia in chicks

Aaliyah Gore^{*1}, Laya Silva¹, Nathan Nelson¹, Sara Reichelt⁴, Monique Pairis-Garcia¹, Rocio Crespo², Allison N. Pullin³

¹*Population Health and Pathobiology, North Carolina State University, Raleigh, North Carolina, United States*, ²*Population Health and Pathobiology, North Carolina State University, Raleigh, North Carolina, United States*, ³*Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States*, ⁴*Aviagen, Huntsville, Alabama, United States*

8:00 AM T197

A Semi-Supervised Auto-Labeling Approach to Enhance Artificial Intelligence in Poultry Farming

Ramesh B. Bist^{*1}, Hannah Atungulu², Lilong Chai³, Shawna Weimer⁴, Chantel Pennicott⁵, Xiao Yang⁶, Sachin Subedi³, Yang Tian¹, Dongyi Wang^{1,7}

¹*Biological and Agricultural Engineering, University of Arkansas, Fayetteville, Arkansas, United States*, ²*Haas Hall Academy, Springdale, Arkansas, United States*, ³*Department of Poultry Science, University of Georgia, Athens, Georgia, United States*, ⁴*Department of Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States*, ⁵*Poultry Science, University of Arkansas, Farmington, Arkansas, United States*, ⁶*University of Georgia, Athens, Georgia, United States*, ⁷*Department of Food Science, University of Arkansas, Fayetteville, Arkansas, United States*

Metabolism and Nutrition XI: General Nutrition

Moderator: Diego A. Martinez, University of Arkansas

Room Number: B407

Tuesday, January 28, 2025

8:15 AM T198

Impact of Dried Blood - Rumen Content Mixture as a Replacement for Sesame Seed Cake on Broiler Chick Performance

Michaele Y. Berhe*

Animal Science, Aksum University, Shire, Tigray, Ethiopia

8:30 AM T199

Bootstrapping Analysis to Uncover Treatment Mechanisms in Performance Trials: Effects of Heat Stress and Functional Oils on Feed Efficiency and Growth

Joan Torrent*¹, Leandro Kuritza²

¹Innovad USA, Durham, North Carolina, United States, ²Solene, Cascavel, Paraná, Brazil

8:45 AM T200

Development and validation of a transcriptomics-based index to assess the intestinal functions of chickens

Luis F. Romero*, Laura M. Payling, Krutik Patel, Maria C. Walsh

BIOFRACTAL, Loule, Portugal

9:00 AM T201

New approach on mycotoxin risk management in poultry

Ricardo H. Rauber*¹, Alexandro Marchioro², Arthur d. Massei²

¹Vetinova - Strategic Animal Health, Curitiba, PR, Brazil, ²Agromed Patent Co Brazil, Londrina, PR, Brazil

9:15 AM T202

Comparison of Protein Turnover and Lipid Turnover Effects on Body Composition and Broiler Breeder Performance When Dietary Energy is Altered

Cole Umberson*¹, Diego A. Martinez², Joshua Wilkes¹, Craig Coon¹

¹University of Arkansas, Fayetteville, Arkansas, United States, ²University of Arkansas, Fayetteville, Arkansas, United States

9:30 AM T203

Performance, Processing Yield, and Economics of Broilers Fed Diets Formulated with Productive Energy

Diego A. Martinez*, Cole Umberson, Ehsan Sheikhsamani, Sarah Johnson, Craig Coon

University of Arkansas, Fayetteville, Arkansas, United States

Metabolism and Nutrition XII: Feed Additives

Moderator: Diego A. Martinez, University of Arkansas

Room Number: B407

Tuesday, January 28, 2025

9:45 AM T204

Saponin-rich plants mixture (Norponin® XO2) supports coccidiosis vaccination program in slow-growing broiler chickens

Hoa BUI¹, Weishan Wang², Mohammed el Amine BENARBIA*¹

¹R&D, Nor-Feed, Angers, France, ²Nor-Feed, Beaucauzé, France

10:00 AM T205

Effects of multistrain *Bacillus* based probiotics on growth performance of broilers during a Coccidiosis challenge and the ability to minimize pathogens in-vitro

John Schleifer*¹, Shameer Rasheed¹, Charles Hofacre², Jennie Baxter², Mark LaVorgna¹, Mahmoud Masadeh¹, Gary Reznik¹, Kristy Dorton¹

¹Devenish Nutrition, Fairmont, Minnesota, United States, ²Southern Poultry Research Group, Inc., Watkinsville, Georgia, United States

10:15 AM T206

Effect of dietary probiotic superdose during starter phase on growth performance, fiber digestibility, and bone mineralization in broiler chickens
Keonjah P. Martin*

Agricultural Science- Animal Science, Florida A&M University, Tallahassee, Florida, United States

10:30 AM T207 The effect of protease and non-starch polysaccharide (NSP) degrading enzyme supplementation on growth performance, nutrient utilization, and gut morphology of broiler chickens fed corn-soybean meal-based diets

Waqas Ahmed*¹, Sara Mubeen¹, Akhtar Nawaz¹, Uzair Hassan¹, Zubair Ali², Mehran Asjad²

¹Institute of Animal and Dairy Sciences, University of Agriculture Faisalabad Punjab Pakistan, Rawalpindi, Pakistan, ²University of Agriculture Faisalabad, Sub-Campus Toba Tek Singh Punjab Pakistan, Toba Tek Singh, Pakistan

10:45 AM T208

Broiler chickens' response when fed diets formulated with low soybean meal or crystalline amino acids without or with supplementation with multi-component protease

Veronica Cheng*¹, Felix Muchiri¹, Anhao Wang², Rob Patterson², Elijah Kiarie¹

¹Animal Biosciences, University of Guelph, Guelph, Ontario, Canada, ²CBS Bio Platforms Inc., Alberta, Ontario, Canada

11:00 AM Milton L. Dendy Keynote Lecture

Moderator: Silvia Carnaccini, Iowa State University

Room Number: B405

The History of Our Scientific Societies and the US Broiler Industry

Joseph Giambrore*

Poultry Science, Auburn University, Auburn, Alabama, United States

12:00 PM SCAD Business Meeting

President: Silvia Carnaccini

Room Number: B405

12:00 PM SPSS Business Meeting

President: Roshan Adhikari

Room Number: B407

Environment and Management II

Moderator: Jessica Drewry, Mississippi State University

Room Number: B408

Tuesday, January 28, 2025

7:00 AM T209

The Effect of a two-way grading on some KPI, physical characteristics, and sertolli cell counts on broiler breeder males.

Jose J. Bruzual*

Aviagen, Dacula, Georgia, United States

7:15 AM T210

Bed bugs – Re-emerging threat to chickens and workers in the poultry industry

Rocio Crespo*¹, Jenny A. Nicholds², Wes Watson³, Ronald Baynes¹, Olivia Petritz⁴, Coby Schal³

¹*Population Health and Pathobiology, North Carolina State University, Raleigh, North Carolina, United States*, ²*PDRC, University of Georgia, Athens, Georgia, United States*, ³*Entomology and Plant Pathology, North Carolina State University, Raleigh, North Carolina, United States*, ⁴*Clinical Sciences, North Carolina State University, Raleigh, North Carolina, United States*

7:30 AM T211

Effect of cooling system on broiler housing spatial uniformity

Jessica Drewry*², Jonathan Moon³, Matthew Rowland¹, Joseph Purswell¹, Beau Ivy²

¹*Agricultural Research Service, United States Department of Agriculture, Mississippi State, Mississippi, United States*, ²*Agricultural and Biological Engineering, Mississippi State University, Mississippi State, Mississippi, United States*, ³*Poultry Science, Mississippi State University, Mississippi State, Mississippi, United States*

7:45 AM T212

Consumer Egg Survey for Carotenoid Accumulation and Yolk Fan Score by Production Scheme and Label Claims

Kaeden Smith², Sara Cloft*¹, Tyler Lawson^{2,3}, Torbert Rocheford^{2,3}, Darrin Karcher¹, Evan Rocheford³

¹*Department of Animal Sciences, Purdue University, West Lafayette, Indiana, United States*, ²*Department of Agronomy, Purdue University, West Lafayette, Indiana, United States*, ³*Nutramaize, West Lafayette, Indiana, United States*

8:00 AM T213

Quantification of *S. Enteritidis* and *S. Typhimurium* in broiler chickens inoculated with a cocktail of *Salmonella* serovars using novel duplex qPCR assays

Xiang Li*^{1,2}, Adelumola Oladeinde^{1,2}, Michael Rothrock^{1,2}, Sohyun Cho^{1,2}, Samuel Aggrey³, Jodie Lawrence^{1,2}

¹*USDA-ARS, Athens, Georgia, United States*, ²*EPSPRU, USNPRC, Athens, Georgia, United States*, ³*Poultry Science, University of Georgia, Athens, Georgia, United States*

8:15 AM T214

Investigating the spatiotemporal distribution of *Escherichia coli* and aerobic bacteria in commercial hatching eggs

Maryam Mohammadi-Aragh*¹, Jessica Drewry¹, Katie E. Elliott²

¹*Mississippi State University, Mississippi State, Mississippi, United States*, ²*United States Department of Agriculture, Mississippi State, Mississippi, United States*

Food Safety II

Moderator: Jinquan Wang, Auburn University

Room Number: B408

Tuesday, January 28, 2025

8:30 AM T215

Antimicrobial Resistance profiling of *Salmonella* recovered from environments of No-Antibiotics-Ever (NAE) and Conventional broiler complexes

Yagya Adhikari*¹, Dianna Bourassa¹, Sabin Poudel¹, Matthew Bailey¹, Richard Buhr³, Kenneth Macklin²

¹Department of Poultry Science, Auburn University, Auburn, Alabama, United States, ²Department of Poultry Science, Mississippi State University, Starkville, Mississippi, United States, ³USDA ARS Poultry Microbiological Safety and Processing Research Unit, Athens, Georgia, United States

8:45 AM T216

Effect of a monoglyceride-based feed ingredient (Biolution™) on *Salmonella* vaccinated broiler chickens

Kevin Watkins¹, Rigo Fernando Soler², Stacie Appleton*³, Eric Heskett⁴, Ramesh Selvaraj⁵, Marcos Sanchez-Plata²

¹FoodFirst LLC, Indianapolis, Indiana, United States, ²International Center for Food Industry Excellence, Texas Tech University, Lubbock, Texas, United States, ³Alura USA, Durham, North Carolina, United States, ⁴Case Farms, Troutman, North Carolina, United States, ⁵University of Georgia, Athens, Georgia, United States

9:00 AM T217

Impact of Organic acid supplementation on Cecal Microbiome of Broiler Chicks inoculated with *Salmonella*

Sabin Poudel*¹, Fanny Abigail Contreras Zelaya¹, Eva G. Guzman¹, Wilmer J. Pacheco¹, Ruediger Hauck¹, Dianna Bourassa¹, Kenneth Macklin²

¹Department of Poultry Science, Auburn University, Auburn, Alabama, United States, ²Department of Poultry Science, Mississippi State University, Starkville, Mississippi, United States

9:15 AM T218

Vaccination with the USDA BBS 866 *Salmonella* DIVA vaccine reduces intestinal colonization and systemic dissemination of DSC *Salmonella enterica* serovar Enteritidis in chickens

Shawn Bearson*¹, Bradley Bearson², Samuel Whelan¹, Maya Encinosa¹, Durga Neupane^{1,2}

¹USDA-ARS-NADC-Food Safety & Enteric Pathogens Research Unit, Ames, Iowa, United States, ²USDA-ARS-National Laboratory for Agriculture and the Environment, Ames, Iowa, United States

9:30 AM T219

Mitigation of necrotic enteritis in broiler chickens through the actions of black cumin seeds and bacteriophage

Vishal Manjunatha*², Justice-Alucho C.H.³, Brett Lumpkins^{1,4}, Yang Gang⁵, Annel K. Greene¹, Jingxue Wang⁵, Xiuping Jiang²

¹Department of Animal and Veterinary Sciences, Clemson University, Clemson, South Carolina, United States, ²Department of Food, Nutrition and Packaging Sciences, Clemson University, Central, South Carolina, United States, ³Department of Biological Sciences, Clemson University, Clemson, South Carolina, United States, ⁴Southern Poultry Feed & Research, Inc, Athens, Georgia, United States, ⁵Department of Food Science and Engineering, Ocean University of China, Qingdao, China

9:45 AM T220

Molecular characteristics of *Salmonella* spp. from retail broiler meat

Karla V. Casco*¹, Maria V. Baca¹, Sabin Poudel², Richard Buhr³, Dianna Bourassa¹

¹Auburn University, Auburn, Alabama, United States, ²Department of Poultry Science, Auburn University, Auburn, Alabama, United States, ³US National Poultry Research Center, USDA-ARS, Athens, Georgia, United States

10:00 AM T221

A systematic review and meta-analysis on the efficacy of organic acids to reduce *Salmonella* colonization in crop and ceca of broilers

Jinquan Wang*², Bharath Mallavarapu¹, Pranita Patil¹, Deepak Subedi¹, Harshavardhan Thippareddi¹, Amit K. Singh³, Dianna Bourassa^{4,2}, Sabin Poudel⁵

¹*Poultry Science Department, University of Georgia, Athens, Georgia, United States*, ²*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*, ³*Department of Agriculture and Natural Resources, Delaware State University, Dover, Delaware, United States*, ⁴*Auburn University, Auburn, Alabama, United States*, ⁵*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*

10:15 AM T222

Effect of dietary fat sources on colonization and dissemination of *Salmonella* in broiler chickens

Shijina Manjankattil*², Jinquan Wang¹, Sabin Poudel², Matthew Bailey², Yagya Adhikari³, Karla V. Casco², Samuel J. Rochell², Dianna Bourassa²

¹*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*, ²*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*, ³*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*

10:30 AM T223

Comparison of egg quality characteristics of different poultry species of Bangladesh

Nushrat N. Lisa*¹, Md Sazedul Karim Sarker¹, Shakila Faruque², Muhammad A. Rashid¹, Umme S. Ety¹, Aminul Islam¹, Sadman S. Zihan³, Farhana Sharmin⁴

¹*Poultry Research Center, Bangladesh Livestock Research Institute, Savar, Dhaka, Bangladesh*, ²*Bangladesh Livestock Research Institute, Dhaka, Savar, Bangladesh*, ³*Strengthening of Poultry Research and Development Project, Bangladesh Livestock Research Institute, Dhaka, Savar, Bangladesh*, ⁴*Bangladesh Jute Research Institute, Dhaka, Bangladesh*

10:45 AM T224

Effect of *Corchorus capsularis* as Functional Feed Additives on Performance, Meat Composition and Oxidative Stability in Turkey Meat
F Sharmin*², Md Sazedul Karim Sarker¹, NN Lisa¹, SS Zihan¹, AM Shohail³, US Ety¹, MS Rahman²

¹*Poultry Research Center, Bangladesh Livestock Research Institute, Savar, Dhaka, Bangladesh*, ²*Bangladesh Jute Research Institute (BLRI), Dhaka, Bangladesh*, ³*Jahangirnagar University, Dhaka, Bangladesh*

11:00 AM Milton L. Dendy Keynote Lecture

Moderator: Silvia Carnaccini, Iowa State University

Room Number: B405

The History of Our Scientific Societies and the US Broiler Industry

Joseph Giambrone*

Poultry Science, Auburn University, Auburn, Alabama, United States

12:00 PM SCAD Business Meeting

President: Silvia Carnaccini

Room Number: B405

12:00 PM SPSS Business Meeting

President: Roshan Adhikari

Room Number: B407

Poster Sessions – Student Competition

Moderators: Chrysta Beck, University of Arkansas; Chongxiao Chen, University of Georgia
Monday, January 27, 2025
Time: 4:00-6:00 PM
Room Number: B402

Environment and Management

P225

Evaluating the effects of ventilation shutdown plus heat (VSDH), carbon dioxide (VSDCO₂), and nitrogen gas (VSDN₂) on laying hen electroencephalograms (EEGs)

Kari Harding^{*1GS}, Emmillie Boot¹, Jackson Evans², Sanjay Shah², Ramon Malheiros¹, Kenneth Anderson¹

¹*Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States*, ²*Biological and Agricultural Engineering, North Carolina State University, Raleigh, North Carolina, United States*

P226

Impact of environmental enrichments on litter moisture

Chelsea S. Castillo Najera^{*UG}, Katy J. Tarrant

Animal Sciences and Agricultural Education, California State University, Fresno, Fresno, California, United States

P227

Effect of different levels of phenolic essential oils on broiler water intake and growth performance

Reagan Barnett^{*1,2UG}, Carson Scharlau², Timothy Broderick², Audrey McElroy¹

¹*Poultry Science, Texas A&M University, College Station, Texas, United States*, ²*Ralco Nutrition Inc., Marshall, Minnesota, United States*

P228

Spatial Analysis of Microbial Contamination Sources in Poultry Litter: Influence of Feed, Water, and Environmental Factors on Bacterial Counts
Maxim A. Peckenschneider^{*1GS}, Elena G. Olson¹, Steve Ricke¹, Megan McCutchen¹, Jake Byrnes², Casey McGinley²

¹*Animal Science, University of Wisconsin-Madison, Madison, Wisconsin, United States*, ²*BarnwellBio, San Diego, California, United States*

P229

Predictive performance of light modeling software in commercial broiler environments

Joshua A. Etherton^{*1GS}, John Linhoss¹, Jeremiah D. Davis², Joseph Purswell³, Anna Linhoss¹, Jessica D. Starkey⁴

¹*Biosystems Engineering, Auburn University, Auburn, Alabama, United States*, ²*National Poultry Technology Center, Auburn University, Auburn, Alabama, United States*, ³*Poultry Research Unit, USDA-ARS, Starkville, Alabama, United States*, ⁴*Poultry Science, Auburn University, Auburn, Alabama, United States*

P230

Feed raking behavior may not relate to excessive feed wastage of week old broiler chicks in commercial barns

Taylor Waugerman^{*GS}, McKenzie Setler, Joseph S. Moritz

School of Agriculture and Food Systems, West Virginia University, Harpers Ferry, West Virginia, United States

P231

Computational fluid dynamics model of a poultry incubator and its environmental spatiotemporal behaviors

Melvy Fernandes^{*1GS}, Shanti Bhushan¹, Greg W. Burgreen¹, Jessica Drewry¹, Joseph Purswell²

¹*Mississippi State University, Mississippi State, Mississippi, United States*, ²*USDA, Starkville, Mississippi, United States*

Food Safety

P232

Survival and translocation dynamics of *Salmonella* Typhimurium on eggshells and internal egg components incubated under hatching environmental conditions

Colin P. Wallrich*^{1UG}, Elena Olson¹, Emily Matiak¹, James Corban², Srivatsan Raman^{2,3}, Steve Ricke¹

¹*Animal and Dairy Science, University of Wisconsin- Madison, Madison, Wisconsin, United States*, ²*Biochemistry, University of Wisconsin-Madison, Madison, Wisconsin, United States*, ³*Bacteriology, University of Wisconsin-Madison, Madison, Wisconsin, United States*

P233

Impact of Iron Availability on the Growth Kinetics of *Campylobacter jejuni*
Emily Matiak*^{1GS}, Elena G. Olson¹, Joshua Jendza², Eric Neeno-Eckwall³, Jessica Hite³, Steve Ricke¹

¹*Animal and Dairy Science, University of Wisconsin-Madison, Madison, Wisconsin, United States*, ²*Qualitech Incorporated, Chaska, Minnesota, United States*, ³*Department of Pathobiological Sciences, School of Veterinary Medicine, Madison, Wisconsin, United States*

P234

Reduction of microbial spoilage on chicken breast fillets using air plasma-generating device

Katherine Sierra*^{GS}, Micah T. Black, Amit Morey

Poultry Science, Auburn University, Auburn, Alabama, United States

P235

Salmonella load and shedding in broiler live production varies temporally
Emily E. Cason*^{GS}, Nikki Shariat

Population Health, University of Georgia, Athens, Georgia, United States

P236

A multi-antigen subunit vaccine enhances maternal and offspring immunity against *Campylobacter jejuni* in chickens

Mostafa Ahmed*^{1GS}, Shreeya Sharma², Abigail Schneider¹, Ari Bragg¹, Khaled Abdelaziz¹

¹*Animal and Veterinary Science, Clemson University, Clemson, South Carolina, United States*, ²*Animal and Veterinary Sciences, Clemson University, Central, South Carolina, United States*

P237

Use of an all-natural, organic certified, yeast blend product to mitigate *Salmonella* Enteritidis in laying hens

Carlos A. Guardado*^{1GS}, Pratima Adhikari¹, Fozol Ovi³, Theresia Lavergne², Charlie Elrod²

¹*Poultry Science, Mississippi State, Starkville, Mississippi, United States*, ²*Natural Biologics, Inc., Stephenville, Texas, United States*, ³*Panthera Vax, Ames, Iowa, United States*

P238

Evaluating the presence of humoral immune response to *Campylobacter* colonization in broiler chickens

Tanmaie Kalapala*^{1GS}, Anna L. F. V. Assumpcao¹, Geetha Philips¹, Tomi Obe¹, Palmy Jesudhasan², Annie Donoghue², Komala Arsi²

¹*Department of Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States*, ²*USDA-ARS, Poultry Production and Product Safety Research, Fayetteville, Arkansas, United States*

P239

Changes in the microbiota of treated and untreated litter of broilers given organic acids in the drinking water

Jolie A. Stumpff*^{1UG}, Eva G. Guzman², Andrea Pietruska³, Rana Waqar Tabish², Wilmer J. Pacheco², Dianna Bourassa², Kenneth Macklin⁴, Ruediger Hauck^{2,3}

¹*Department of Animal Science, Auburn University, Auburn, Alabama, United States*, ²*Department of Poultry Science, Auburn University, Auburn, Alabama, United States*, ³*Department of Pathobiology, Auburn University, Auburn, Alabama, United States*, ⁴*Department of Poultry Science, Mississippi State University, Starkville, Mississippi, United States*

P240

Evaluating *Salmonella* sampling methods through broiler processing
Amber Richards*^{1GS}, Caitlin Harris², Elizabeth McMillan², Richard Buhr²,
Nikki Shariat¹

¹Population Health, University of Georgia, Athens, Georgia, United States, ²Poultry Microbiological Safety and Processing Research Unit, USDA-ARS, Athens, Georgia, United States

P241

Effect of novel *Salmonella* bacterin vaccines on immune response to a heterologous challenge in layers

Mohan Naidu Korada*¹, Ramesh Selvaraj¹, Parimal Sheth³, Praveen Reddy Kasu¹, Waqas Ishaq¹, Divyashree Ramalingam²

¹Poultry Science, University of Georgia, Athens, Georgia, United States, ²Animal Science, University of Georgia, Athens, Georgia, United States, ³Endovac Animal Health Inc, Columbia, Missouri, United States

P242

Effects of short-temperature abuse during less-than-truckload (LTL) transportation on spoilage of raw chicken breast during retail

Vianca Tashiguanu*^{GS}, Madison Sirmon, Payten Leeds, Jodie Jones, Jakob Doster, Cameron Smith, Laura Garner, Sungeun Cho, Amit Morey
Poultry Science, Auburn University, Auburn, Alabama, United States

P243

Impact of feed withdrawal and bacteriophage SP6 on *Salmonella* Typhimurium reduction and microbial dynamics in a poultry cecal model

Haley Tarcin*^{2UG}, Elena G. Olson², Emily Matiak², Colin P. Wallrich², Megan McCutchen², James Corban¹, Srivatsan Raman¹, Steve Ricke²

¹University of Wisconsin-Madison, Madison, Wisconsin, United States, ²Animal and Dairy Science, University of Wisconsin-Madison, Madison, Wisconsin, United States

P244

Evaluation of environmental stresses contributing to the persistence of *Salmonella* Infantis in processing environments

Prantho Malakar Dipta*^{GS}, Eniola Betiku, Tomi Obe

Department of Poultry Science, University of Arkansas-Fayetteville, Fayetteville, Arkansas, United States

P245

Challenges and efficacy of a nanoparticle-based *Salmonella* subunit vaccine in poultry administered through drinking water against *Salmonella* infection

Sara Dolatyabi*^{1GS}, Philip Yeboah², Demilade I. Ibiwoye², Kate McGovern¹, Jennifer Schrock¹, Ganesh Yadaigiri¹, Ekachai Dumkliang¹, Manisha Mehdi¹, Thaciane Amaral², Veeru Patil¹, Dina Bugybayeva¹, Toni Thea Sullivan², Lisa Bielke², Renukaradhya J. Gourapura¹

¹Department of Animal Science, Ohio State University, Wooster, Ohio, United States, ²Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States

P246

Elucidating the Role of Transcriptional factors in the Multiplication of *Salmonella* Typhimurium in Chicken Egg yolk

Aisha Madi*^{1GS}, Greeshma Bharathan¹, Hunter Sheffield¹, Richard Buhr², Shabarinath Srikumar¹

¹Poultry Science, Auburn University, Auburn, Alabama, United States, ²USDA-ARS, Athens, Georgia, United States

Processing and Products**P247**

Effect of strain and welfare enrichment on turkey meat quality

Camila Hammel Sobreira*^{UG}, Christina S. Sigmon, Jesse L. Grimes, Allison N. Pullin, Yan L. Campbell

Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States

P248

The effect of peanut skin supplemented corn/soy diet on broiler meat quality
Afsana Rahaman Munmun*^{1,2GS}, Jean C. Caceres³, Christina S. Sigmon²,
Yabaiz Tahir², Thien Vu⁵, Ondulla T. Toomer⁴, Lin L. Walker², Yan L.
Campbell²

¹Food, Bioprocessing & Nutrition Sciences Department, North Carolina State University, Raleigh, North Carolina, United States, ²Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States, ³Prestage Poultry Science Department, North Carolina State University, Raleigh, North Carolina, United States, ⁴Agricultural Research Service, United States Department of Agriculture, Raleigh, North Carolina, United States, ⁵United States Department of Agriculture, Raleigh, North Carolina, United States

Metabolism and Nutrition: Amino Acids and Enzymes**P249**

Effects of graded levels of methionine on immune organ characteristics
Kaitlyn Sommer*^{1GS}, Maci Oelschlager¹, Juliano de Paula Dorigam², Rose Whelan², Julianna Jespersen¹, Laney Froebel¹, Ryan Dilger¹

¹University of Illinois, Urbana, Illinois, United States, ²Evonik Industries, Essen, Germany

P250

Setting the foundation: Preliminary evaluation of digestible lysine requirements in male turkey poults during early development from 0-4 weeks

Darby R. Boontarue*^{GS}, Sophia Bianchi, Luis Giron, John Boney
Animal Science, Pennsylvania State University, State College, Pennsylvania, United States

P251

Effect of proline supplementation on gene expression in broiler chickens challenged with *Eimeria* spp.

Tatyany S. Mani*^{1GS}, Lizia C. Carvalho², Ramon D. Malheiros¹

¹Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States, ²Grupo BTZ, Londrina, PR, Brazil

P252

Investigation of interactions between phytase and anti-nutritional factors in soybean meal

Rebekah L. Drysdale*^{GS}, Benjamin W. Parsons

Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States

P253

Impact of almond hulls and a xylanase-cellulase enzyme on cecal microbiota in Lohmann LSL-Lite pullets and laying hens

Nelly G. Cribillero Chuquihiuaccha*^{1GS}, Craig Wyatt², Kelley Wamsley¹, Timothy Boltz¹, Li Zhang¹, Klinton W. McCafferty³, Pratima Adhikari¹

¹Poultry Science, Mississippi State University, Starkville, Mississippi, United States, ²Feed Ingredients, AB Vista, Plantation, Florida, United States, ³USDA-ARS-Poultry Research Unit, Mississippi State, Mississippi, United States

Metabolism and Nutrition: Feed Additives**P254**

Dietary supplementation of microalgae and xylanase influences nutrient transporter and tight junction gene expression in broiler chickens

Pravin Mishra*^{GS}, Razib Das, Birendra Mishra, Rajesh Jha

Department of Human Nutrition, Food and Animal Sciences, College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa, Honolulu, Hawaii, United States

P255

A novel precision biotic reduces the negative impact of *Eimeria* challenge on growth performance and amino acid digestibility in broiler chickens fed wheat-based diets

Rama Devi Kolli^{*1GS}, Bhargavi Kasireddy¹, Cristiano Bortoluzzi², Oluyinka Olukosi¹

¹Department of Poultry Science, University of Georgia, Athens, Georgia, United States, ²dsm-firmenich, Kaiseraugst, Switzerland

P256

Probiotic lactobacilli modulate the gut microbiome and reduces *Campylobacter* colonization in chickens

Shreya Sharma^{*1GS}, Mostafa Naguib¹, Anna Seekatz², Hosni Hassan³, Khaled Abdelaziz¹

¹Animal and Veterinary Sciences, Clemson University, Clemson, South Carolina, United States, ²Department of Biological Sciences, Clemson University, Clemson, South Carolina, United States, ³Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States

P257

Evaluation of precision glycans on growth performance and appetite regulation in broiler chickens

Abiola S. Lawal^{*1GS}, Olayiwola Adeola¹, Aaron J. Cowieson², Kolapo M. Ajuwon¹

¹Animal Sciences, Purdue University, Lafayette, Indiana, United States, ²dsm-firmenich, Kaiseraugst, Switzerland

P258

Evaluation of two sources of 25-Hydroxyvitamin D3 on early growth performance and bone characteristics on broilers reared on a wire-flooring induction model from D1-56 of age

Anh Do^{*1, 2GS}, Khawla S. Alharbi^{1, 2}, Amanda Anthney^{1, 3}, Andi Asnayanti^{1, 3}, Muhammad Ali Muhammad¹, Abdulaziz Alqahtani^{1, 3}, Alexa Thomas¹, Bailey Herberger¹, Hannah McCarver¹, Abigail LeComte¹, Caren Ulcak¹, Kara Hoover¹, Kennedy Hicks¹, Olivia Chapell¹, Wesley Vaught¹, Christiane Matias⁴, Carlos Lozano-Poveda⁵, Estefania Perez-Calvo⁵, Stephanie Kulbacki⁶, Prafulla Regmi⁶, Michael T. Kidd^{1, 3}, Adnan Alrubaye^{1, 2}

¹University of Arkansas, Fayetteville, Arkansas, United States, ²POSC-CEMB, University of Arkansas, Fayetteville, Arkansas, United States, ³POSC, University of Arkansas, Fayetteville, Arkansas, United States, ⁴dsm-firmenich, São Paulo, Brazil, ⁵dsm-firmenich, Kaiseraugst, Switzerland, ⁶Poultry Science, University of Georgia, Athens, Georgia, United States

P259

The effect of feeding a new dual-strain probiotic on growth performance of Ross 708 male broilers

Kasey E. Young^{*1GS}, Rosana Hirai¹, Abigail Flores¹, Camryn Wilder¹, Austin O. Silva¹, Addison Elstner¹, Skylar White², Charles Greenwald², Audrey McElroy¹

¹Poultry Science, Texas A&M University, College Station, Texas, United States, ²NCH Life Sciences, Irving, Texas, United States

P260

Effect of synbiotic supplementation on cecal microbiota during exposure to subclinical doses of Fumonisin and Deoxynivalenol in broiler chickens

Joseph Rishitha Dasireddy^{*1GS}, Laharika Kappari¹, Chasity Pender², Doupovec Barabara², Raj Murugesan², Todd J Applegate¹, Revathi Shamugasundaram³

¹Poultry Science, University of Georgia, Athens, Georgia, United States, ²DSM Nutritional Products, Manassas, Virginia, United States, ³USDA, Athens, Georgia, United States

P261

Impact of inclusion of yeast fermentate postbiotic on week-old broiler fecal, cecal, and feed microbiome

Ashley A. Tarcin*^{1GS}, Elena G. Olson¹, Lindsey A. Wythe², Abe Scheaffer³, Steve Ricke¹

¹*Animal and Dairy Sciences, University of Wisconsin- Madison, Madison, Wisconsin, United States*, ²*Department of Poultry Science, Texas A&M University, College Station, Texas, United States*, ³*Harvest Fuel, Inc., Walhalla, North Dakota, United States*

P262

Unravelling the Broiler Breeder Paradox: Microbiota-mediated mode of action of probiotics NAPE-EcN

Mallory Zumwalt*^{UG}, Mazette Croom, Sarah Barnes, Rosemary Walzem, Samson Oladokun

Texas A&M University, Bryan, Texas, United States

P263

Evaluating the effect of administering an *Enterococcus faecium* probiotic spray to newly hatched broiler chicks on the occurrence of bacterial chondronecrosis with osteomyelitis lameness under a *Staphylococcus* challenge model

Abdulaziz Alqahtani*^{1GS}, Anh Do², Amanda Anthney¹, Khawla S. Alharbi², Andi Asnayanti¹, Ruvindu Perera², Manel Ben Larbi⁴, Antoine Meuter³, Adnan Alrubaye¹

¹*Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States*, ²*POSC-CEMB, University of Arkansas, Fayetteville, Arkansas, United States*, ³*Nononosis, Vertou, France*, ⁴*Tunisia University, Tunis, Tunisia*

P264

Effect of sodium bisulfate inclusion on pellet durability index of broiler diets

Jose I. Vargas*^{1GS}, Joseph P. Gulizia¹, Eva G. Guzman¹, Esteban Rosero¹, Fabio Valenzuela¹, Julianna Jespersen², Craig Coufal², Wilmer J. Pacheco¹

¹*Poultry Science, Auburn University, Auburn, Alabama, United States*, ²*Jones-Hamilton Co., Rock Island, Illinois, United States*

P265

Effect of a direct fed microbial and enzyme blend on the antioxidant status of broiler chickens during a *Salmonella* Typhimurium challenge

Davis A. Fenster*^{1GS}, Rasha Qudsieh², Jeng-Jie Wang², Ali Calik^{3,1}, Rami A. Dalloul¹

¹*Poultry Science, University of Georgia, Athens, Georgia, United States*, ²*Novus International, Inc., Chesterfield, Missouri, United States*, ³*Animal Nutrition and Nutritional Diseases, Ankara University Faculty of Veterinary Medicine, Ankara, Turkey*

Metabolism and Nutrition: Vitamins and Minerals**P266**

Assessing the role of dietary fat on basal endogenous amino acid flow and composition, intestinal morphology and cecal short-chain fatty acid profile in broiler chickens

Sujitha Veeraganti*^{GS}, Oluyinka Olukosi

Poultry Science, University of Georgia, Athens, Georgia, United States

P267

Practical assessment of model accuracy to predict broiler starter-phase production goals when fed varying feed forms

Anna Kathryn Riggs*^{1GS}, Nickki Tillman², Kelley Wamsley¹

¹*Mississippi State University, Mississippi State, Mississippi, United States*, ²*Nutritional Statistics LLC, Buford, Georgia, United States*

P268

Impact of the physical structure of feed on macroscopic anatomical changes in the oropharyngeal cavity of broiler chickens

Isabella D. Dias*^{1GS}, Suzete D. Melo Neta¹, Ana Carolina B. Doi¹, Maria Letícia B. Mariani¹, Brenda Carolina P. dos Santos¹, Guilherme F. Deda¹, Vivian I. Vieira¹, Everton L. Krabbe², Alex Maiorka¹

¹Animal Science, Federal University of Paraná, Curitiba, Paraná, Brazil, ²Embrapa Swine and Poultry, Concórdia, Brazil

P269

Ahiflower seed and presscake as potential sources of polyunsaturated fatty acids in eggs and nutrients for laying hens during the peak production phase

Roseline O. Ogory*^{GS}, Deborah Adewole

Animal and Poultry Science, University of Saskatchewan, Saskatchewan, Canada, Saskatoon, Saskatchewan, Canada

P270

Performance Evaluation of Ross 708 Broilers Fed Positive or Negative Controls

Emmillie Boot*^{GS}, Ramon D. Malheiros

Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States

P271

Phosphorus digestibility in broiler chickens fed autoclaved faba beans and phytase

Olumide S. Olowe*^{GS}, Olayiwola Adeola

Animal Sciences, Purdue University, West Lafayette, Indiana, United States

Physiology**P272**

A potential role of the yolk sac tissue as an endocrine organ during embryonic development

Grant G. Bennett*^{GS}, Jordan Castle, Kloie Varnadoe, Laura E. Ellestad

Department of Poultry Science, University of Georgia, Athens, Georgia, United States

P273

Early thermal programming and post-hatch baicalein supplementation enhanced immune response in broiler chickens

Sadid Al Amaz*^{GS}, Md Ahsanul Shahid, Rajesh Jha, Birendra Mishra

Human Nutrition Food and Animal Sciences, University of Hawaii at Manoa, Honolulu, Hawaii, United States

P274

Effects of chronic heat stress and antibiotic-growth promoter supplementation on ileal morphology and expression of nutrient transporters in modern and legacy broilers

Colin A. Barcelo*^{GS}, Iyanni Stevens, Audrey Knoper, Laura E. Ellestad

Poultry Science, University of Georgia, Pooler, Georgia, United States

P275

Embryonic thermal manipulation improved gut-brain axis coordination (appetite and taste) with or without heat stress in broiler chickens

Sadid Al Amaz^{2,1}, Suman Poudel¹, Rajesh Jha¹, Birendra Mishra¹

¹Human Nutrition Food and Animal Sciences, University of Hawaii at Manoa, Honolulu, Hawaii, United States, ²HNFA, University of Hawaii at Manoa, Honolulu, Hawaii, United States

P276

Continuous monitoring of light intensity in commercial broiler houses providing natural light

Justus Ilemobayo*^{1GS}, John Linhoss¹, Jeremiah D. Davis^{1,2}, Brendan Higgins¹

¹Biosystems Engineering, Auburn University, Auburn, Alabama, United States, ²National Poultry Technology Center, Auburn University, Auburn, Alabama, United States

P277

Transcriptional regulation of albumen biosynthesis in the magnum of broiler breeder hens

Prem Lal L. Mahato*^{1GS}, Vedbar Khadka³, Kenneth Macklin², Rajesh Jha¹, Birendra Mishra¹

¹Human Nutrition Food and Animal Sciences, University of Hawaii at Manoa, Honolulu, Hawaii, United States, ²Department of Poultry Science, Mississippi State University, Starkville, Mississippi, United States, ³Quantitative Health Sciences Tropical Medicine and Medical Microbiology, University of Hawaii at Manoa, Honolulu, Hawaii, United States

P278

Methodology of egg white preparation for analysis on benchtop blood analyzer

Catherine Fudge*^{1GS}, Romel Ortiz¹, Nicolas Mejia Abaunza², Chongxiao Chen¹

¹Poultry Science, University of Georgia, Athens, Georgia, United States, ²Poultry Science, University of Georgia, Lawrenceville, Georgia, United States

Welfare and Behavior**P279**

Comparative Microstructure of Clinically Lame and Normal Bones of Broilers

Venkata Sessa Reddy Choppa*^{GS}, Hamid Reza Rafieian Naeini, Hemanth Reddy Katha, Woo Kyun Kim

Department of Poultry Science, University of Georgia, Athens, Georgia, United States

P280

Deep Learning Model for Automated Key Point Estimation of Cage-Free Chickens

Anjan Dhungana*^{GS}, Xiao Yang, Bidur Paneru, Samin Dahal, Lilong Chai

Department of Poultry Science, University of Georgia, Athens, Georgia, United States

P281

Monitoring feather loss using thermoimaging technology in cage-free laying hens

Samin Dahal*^{1GS}, Xiao Yang¹, Bidur Paneru², Anjan Dhungana¹, Lilong Chai¹

¹Poultry Science, University of Georgia, Athens, Georgia, United States, ²Poultry Science, University of Georgia, Athens, Georgia, United States

P282

A short longitudinal evaluation of stress states in two broiler breeds in a pasture poultry system

Aliyah N. Bonner*^{UG}, Ayodeji Aderibigbe

College Agriculture and Food Sciences, Florida A&M University, Tallahassee, Florida, United States

P283

Effect of Dietary Tryptophan Supplementation on Tonic Immobility Behavior of Pasture-Raised Broilers Before and After Heat Stress

Jaelen Cherry*^{1GS}, Jennifer Timmons², Shawna Weimer¹

¹Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States, ²Department of Agriculture, Food, and Resource Sciences, University of Maryland - Eastern Shore, Princess Anne, Maryland, United States

P284

The relationship between body weight and skeletal traits in a strain of commercial turkey toms

Stephanie Kulbacki*^{1GS}, Nathan Griffith², Gokul Selvaraj¹, Marisa Erasmus², Luiz Brito², Prafulla Regmi¹

¹Poultry Science, University of Georgia, Athens, Georgia, United States, ²Animal Sciences, Purdue University, West Lafayette, Indiana, United States

P285

Validating a methodology for broiler bird activity

Brenda Hernandez Tapia*^{GS}, Katy J. Tarrant

Animal Science and Agriculture Education, California State University, Fresno, California, United States

Pathology**P286**

Coinfection effects of *Histomonas meleagridis* and *Salmonella typhimurium* on *Salmonella* colonization, liver apoptotic genes in Turkey Poults

Hamid Reza Rafieian-Naeini*^{GS}, Venkata Sesha Reddy Choppa, Hemanth Reddy Katha, Seshidhar Reddy Gudidoddi, Woo Kyun Kim

Department of Poultry Science, University of Georgia, Athens, Georgia, United States

P287

Effect of an herbal product (Vermi) on the embryonation and eggshell integrity of *Heterakis gallinarum*

Lillie Romines*^{1UG}, Catherine Fudge¹, Dan Gray², Thilo Borchardt², Chongxiao Chen¹

¹Poultry Science, University of Georgia, Athens, Georgia, United States, ²DOSTOFARM GmbH, Westerstede, Germany

P288

Effect of an herbal product (Vermi) against *Histomonas meleagridis* in vitro
Romel Ortiz*^{1UG}, Catherine Fudge¹, Dan Gray², Thilo Borchardt², Chongxiao Chen¹

¹Poultry Science, University of Georgia, Athens, Georgia, United States, ²DOSTOFARM GmbH, Westerstede, Germany

P289

Genotyping *Salmonella* spp. strains of avian origin through Oxford Nanopore Technologies

Tirado Agreda Daniel Wagner*^{GS}, Maria Belen Cevallos Almeida, Maria Ines Baquero Cardenas, Freddy Proaño Pérez, Carlos Gomez, Francis Xavier Acosta Villafuerte, Vallejo Xavier Gerardo Apolo, Natalia Naidelyn Muentes Buenaventura, Marco Cisneros Tamayo

Facultad de Medicina Veterinaria y Zootecnia, Universidad Central del Ecuador, Quito, Ecuador

P290

Novel sequencing-based method for *E. coli* O-Serogroup typing enhances poultry disease surveillance

Sunita Shrestha*^{1GS}, Linan Jia¹, Chuan-Yu Hsu³, Mark A Arick II³, Kelsy Robinson², Li Zhang¹

¹Department of Poultry Science, Mississippi State University, Starkville, Mississippi, United States, ²USDA, Agriculture Research Service, Poultry Research Unit, Starkville, Mississippi, United States, ³Institute for Genomics, Biocomputing and Biotechnology, Mississippi State University, Starkville, Mississippi, United States

P291

Phylogenetic characterization and genotyping of non-S1 Avian Reovirus Genomic Segments

Vicente A. Avila-Reyes*^{1GS}, Kelsey T. Young³, Holly Sellers², Morgan L. Cunningham¹, JoAnna Bowers¹, Crosby Casto¹, James Stanton¹

¹Pathology, University of Georgia, Athens, Georgia, United States, ²Population Health, University of Georgia, Athens, Georgia, United States, ³Biomedical Sciences and Pathobiology, Virginia-Maryland College of Veterinary Medicine, Blacksburg, Virginia, United States

P292

Detection of pathogenicity factors in field-isolated *Enterococcus cecorum* strains from chickens across different ages

Thaciane Amaral*^{3GS}, Renata Gomes¹, Latasha Gray², Philip Yeboah³, Demilade I. Ibiwoye³, James Higueta², Aaron Forga², Danielle Graham², Lisa Bielke³

¹Escola de Veterinária e Zootecnia, Universidade Federal de Goiás, Goiânia, GO, Brazil, ²Department of Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States, ³Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States

SCAD**P293**

Early postbiotic administration regulates the expression of intestinal genes in broilers during subclinical necrotic enteritis

Bingqi Dong*^{1GS}, Ali Calik², Candice E. Blue¹, Rami A. Dalloul¹

¹Poultry Science, University of Georgia, Athens, Georgia, United States, ²Animal Nutrition & Nutritional Diseases, Ankara University, Ankara, Ankara, Turkey

P294

Immune Gene Expression in Cecal Tonsils, Spleen, and Jejunum Tissue During Coccidiosis Infection in Poults

Demilade I. Ibiwoye*^{1GS}, Philip Yeboah¹, Carissa Gaghan², Thaciane Amaral¹, Shelly Nolin¹, Raveendra Kulkarni², Pradyut Paul³, Kimberly Livingston³, Lisa Bielke¹

¹Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States, ²Population Health and Pathobiology, North Carolina State University, Raleigh, North Carolina, United States, ³Optum Immunity, Waterloo, Wisconsin, United States

P295

Eimeria-induced predisposition of chickens to necrotic enteritis is characterized by increased expression of pro-inflammatory and immunoregulatory genes

Matthew Browning*^{1GS}, Pok Man Chan², Carissa Gaghan²

¹College of Veterinary Medicine, North Carolina State University, Raleigh, North Carolina, United States, ²Department of Population Health and Pathobiology, College of Veterinary Medicine, North Carolina State University, Raleigh, North Carolina, United States

P296

Selective pre-enrichment reduces time to confirmed *Salmonella*-positive isolate in poultry preharvest samples

Amy T. Siceloff*^{GS}, Nikki Shariat

Population Health, University of Georgia, Athens, Georgia, United States

P297

Nanopore amplicon sequencing as an alternative for characterizing *Salmonella* complex serovar populations

David Ayala-Velastegui*^{1GS}, Amy T. Siceloff², Nikki Shariat¹

¹Population Health, University of Georgia, Athens, Georgia, United States, ²Population Health, University of Georgia, Athens, Georgia, United States

P298

In-vitro screening of turkey host-specific *Lactobacillus* strains possessing immunomodulatory and anti-*Clostridium septicum* properties

Carissa Gaghan*^{1GS}, Sarah O'Flaherty², Ravi Kulkarni¹

¹Population Health and Pathobiology, North Carolina State University, Raleigh, North Carolina, United States, ²North Carolina State University, Raleigh, North Carolina, United States

P299

Evaluating the impact of a tannin-based feed additive on bird performance and commercial *Salmonella* vaccine recovery in four-day-old broiler chicks
William C. Grisham*^{1UG}, Emily Magee², Luis Muñoz¹, Timothy Cummings³, Kalen Cookson⁵, Phil Stayer⁴, Timothy Boltz¹ ¹*Poultry Science, Mississippi State University, Starkville, Mississippi, United States*, ²*Poultry Science, Mississippi State University, Starkville, Mississippi, United States*, ³*Zoetis, Parsippany, New Jersey, United States*, ⁴*Dr Phil Stayer Poultry Consulting, LLC, Hattiesburg, Mississippi, United States*, ⁵*Zoetis, Lawrenceville, Georgia, United States*

P300

Differences in cellular and humoral immune responses to a primary and secondary immunization with herpesvirus of turkey (HVT) vaccine in layer pullets
Allie K. Bowerman*^{UG}, Chrysta N. Beck, Jossie M. Santamaria, Gisela F. Erf
Center of Excellence for Poultry Science, University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, United States

Poster Sessions – Non-Competition

Moderators: Chrysta Beck, University of Arkansas; Chongxiao Chen, University of Georgia
Monday, January 27, 2025
Time: 4:00-6:00 PM
Room Number: Hall B Foyer

Environment and Management

P301

Orange corn diet decreased serum corticosterone and improved gait, egg production, egg quality and fertility of breeder Pekin ducks exposed to heat stress

Esther M. Oluwagbenga¹, Evan Rocheford², Torbert Rocheford¹, Darrin Karcher¹, Jenna M. Schober¹, Melanie Bergman¹, Serena Wesley¹, Gregory S. Fraley^{*1}

¹Purdue University, West Lafayette, Indiana, United States, ²Nutramaize, West Lafayette, Indiana, United States

P302

Investigation of poultry manure removal efficiency and volume estimation on grooved-floor panels

Siya Chen^{*2}, Yu Wang¹, Gregory Archer¹, Ziteng Xu¹

¹Poultry Science, Texas A&M University, Bryan, Texas, United States, ²Texas A&M University, College Station, Texas, United States

P303

Analysis of Nine Laying Hen Production in Cage and Cage-Free Environments: 41st North Carolina Layer Performance and Management Test

Ishab Poudel, Taylor O'Lear Reid, Becca Wysocky, Kenneth Anderson^{*}
Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States

P304

Assessing utilization of platform enrichments in broilers by introducing the platforms at different ages

Jose Millan^{*}, Katy J. Tarrant

California State University, Fresno, Fresno, California, United States

P305

Standardizing microbiome practices of poultry for practical application

Jean E. de Oliveira^{*10}, Diana Ayala¹, Sami Dridi², Daniel Grum¹, Tim Johnson³, Jannigje G. Kers⁴, Michael Kogut⁵, Joshua M. Lyte⁶, Joshua Rehberger⁷, Mitiku Seyoum², Alexandra H. Smith⁷, Guolong Zhang⁸, Monika Proszkowiec-Weglarz⁹

¹Purina Animal Nutrition Center, Land O'Lakes, Gray Summit, Missouri, United States, ²Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States, ³Veterinary and Biomedical Sciences, University of Minnesota, Saint Paul, Minnesota, United States, ⁴Faculty of Veterinary Medicine, Utrecht University, Utrecht, Netherlands, ⁵Southern Plains, Agricultural Research Center USDA-ARS, College Station, Texas, United States, ⁶Poultry Production and Product Safety Research, Agricultural Research Service, USDA, Fayetteville, Arkansas, United States, ⁷Animal Nutrition, Arm and Hammer, Waukesha, Wisconsin, United States, ⁸Department of Animal and Food Sciences, Oklahoma State University, Stillwater, Oklahoma, United States, ⁹Animal Biosciences Biotechnology Laboratory, USDA-ARS, Beltsville, Maryland, United States, ¹⁰Core R&D Nutrition, Cargill R&D Centre Europe, Vilvoorde, Belgium

P306

The impact of group size and spiking on fertility and hatchability in broiler breeder flocks

Patricia Quino^{*}, Marcela Quino, Madison Berger, Kristian Almendares, Olivia McGuire, Nicole Dundur, Emshe Alvarado, Bethany Baker-Cook, Charlene Hanlon

Department of Poultry Science, Auburn University, Auburn, Alabama, United States

P307

Impact of Restricted Feeding Regimens on the Fertility and Hatchability of Broiler Breeder Flocks

Kristian Almendares*¹, Kristin Diehl², Brenda Flack³, Madison Berger¹, Patricia Quino¹, Olivia McGuire¹, Charlene Hanlon¹

¹Department of Poultry Science, Auburn University, Auburn, Alabama, United States, ²Beltsville Agricultural Research Center, USDA-ARS, Beltsville, Maryland, United States, ³Cobb-Vantress, Siloam Springs, Arkansas, United States

P308

The effects of acidifying agents on the growth, antimicrobial resistance, and plasmid genome of *Salmonella* Infantis

Sohyun Cho*¹, Taejung Chung¹, Gregory Zock¹, Adelumola Oladeinde¹, Michael Rothrock¹, Xiang Li¹, Jodie Lawrence¹, Walid G. Al Hakeem^{1,2}

¹USDA-ARS, Athens, Georgia, United States, ²ORISE, Oak Ridge, Tennessee, United States

P309

Could a specific blend of essential oils and oleoresins of spices be part of a nutritional strategy to lower broiler feed environmental footprint?

Guillaume Desrousseaux¹, Ivan Girard², Alain Autret³, Jean François Gabarrou*¹

¹Animal Care, Phodé, Terssac, France, ²Probiotech, Quebec, Quebec, Canada, ³DuraConsult, Toulouse, France

P310

Effect of biochar litter treatment on cecal microbiome composition of broiler chickens

Kelsy Robinson*¹, Stephanie Whitham¹, Joseph Purswell¹, Jeffrey Evans¹, Maryam Mohammadi-Aragh²

¹Poultry Research, USDA-ARS, Starkville, Mississippi, United States, ²Mississippi State University, Mississippi State, Mississippi, United States

P311

Evolution of Brown breeder pullet hatchability from 2016 to 2023 and influencing factors

Caleb M. Marshall*¹, Daniel Valbuena², Edgar O. Oviedo-Rondón¹

¹Prestige Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States, ²Hy-Line International, Des Moines, Iowa, United States

Food Safety**P312**

Synergistic effects of peracetic acid combined with other oxidizing sanitizers approved for use in poultry meat processing on five serotypes of *Salmonella enterica* in pure culture

Elizabeth McMillan*¹, Jaci Hawkins², Eric S. Adams¹, Quentin Read³, Trevor Mitchell², Anthony Pokoo-Aikins², Caitlin Harris¹, Michael D. Hughes¹, Anthony Glenn², Richard Meinersmann¹, Jonathan Frye¹

¹Poultry Microbiological Safety and Processing Research Unit, USDA-ARS, Athens, Georgia, United States, ²Toxicology and Mycotoxin Research Unit, USDA-ARS, Athens, Georgia, United States, ³Southeast Area, USDA-ARS, Raleigh, North Carolina, United States

P313

A computer vision based automatic system for egg grading and defect detection in cage-free facilities

Xiao Yang, Ramesh Bist, Sachin Subedi*, Lilong Chai
University of Georgia, Athens, Georgia, United States

P314

In vitro Testing for Effectiveness Against *Salmonella* of Two Natural Products for Litter Application

Virginia Baxter*¹, Charles Hofacre¹, Matthew K. Jones¹, Lanny Weaver², Earnie Porta², Neil Teevan²

¹Southern Poultry Research Group, Watkinsville, Georgia, United States, ²Arkion Life Sciences, New Castle, Delaware, United States

P315

Local calibrations for the monitoring of nutritional quality of plant protein meals by using Near Infrared Reflectance Spectroscopy

A.B.M. Khaleduzzaman², Shariful Haque¹, Zobaidul Kabir¹, H.M. Salim²
¹Livestock Unit, Ministry of Fisheries and Livestock (MoFL), Dhaka, Dhaka, Bangladesh, ²Department of Livestock Services, Director, Production, Dhaka, Dhaka, Bangladesh

P316

Salmonella Reduction Efficacy and Nutritional Influence of In-Feed Antimicrobial Agents with or without Sodium Bisulfate

Matthew K. Jones^{*2}, Charles Hofacre², Virginia Baxter², Roy Berghaus¹, Adam J. Davis³, Juan Suarez⁴, Craig Coufal⁴, Julianna Jespersen⁴
¹Department of Population Health, College of Veterinary Medicine, University of Georgia, Athens, Georgia, United States, ²Southern Poultry Research Group, Inc., Watkinsville, Georgia, United States, ³Department of Poultry Science, University of Georgia, Athens, Georgia, United States, ⁴Jones-Hamilton Co., Walbridge, Ohio, United States

P317

Microbial Volatile Organic Compounds (mVOCs) as Early Indicators of Contamination in Incubating Poultry Eggs

Stephanie Richter^{*1}, Christopher Heist¹, Olga Kemenova¹, Daniel Sabo¹, Caitlin Harris²

¹Georgia Tech Research Institute, Atlanta, Georgia, United States, ²USDA-ARS, Athens, Georgia, United States

P318

Use of a yeast blend product to mitigate *Salmonella* Enteritidis in laying hens

Carlos A. Guardado^{*1}, Pratima Adhikari¹, Fozol Ovi², Theresia Lavergne³, Charlie Elrod³

¹Poultry Science, Mississippi State, Starkville, Mississippi, United States, ²PantheraVax, Ames, Iowa, United States, ³Natural Biologics, Inc., Newfield, New York, United States

P319

A study comparing vaccination strategies to protect long-lived birds against *Salmonella* Enteritidis and *S. Infantis* using commercially licensed products

Kalen Cookson^{*}, John Dickson, Jon Schaeffer
Zoetis, Lawrenceville, Georgia, United States

P320

Evaluation of sensory qualities, consumer acceptance, and microbiological aspects of cold-smoked eggs with oak and cherry wood chips

Ahmet Y. Pekel^{*1}, Alp E. Yildiz², Abdurrahman Kizil¹, Ali Aydin²

¹Department of Animal Nutrition and Nutritional Diseases, Istanbul University-Cerrahpasa, Faculty of Veterinary Medicine, Istanbul, Avcilar, Turkey, ²Department of Food Hygiene and Technology, Istanbul University-Cerrahpasa, Faculty of Veterinary Medicine, Istanbul, Avcilar, Turkey

P321

Effect of different supplementation methods of a triple strain *Bacillus*-based probiotic on *Salmonella* colonization and carcass contamination in broilers

Hanseon Ko^{*1}, Indira Neupane¹, Venkata Prathap Reddy Keshavareddy¹, Antoine Meuter², Meghan Schwartz², Woo Kyun Kim¹

¹Poultry Science, University of Georgia, Athens, Georgia, United States, ²Novonosis, Milwaukee, Wisconsin, United States

P322

Random Forest Modeling to Identify Key Farm to Fork Factors Influencing *Campylobacter* Level in Pastured Poultry Systems

Minho Kim^{*1}, Walid G. Al Hakeem², Michael Rothrock¹

¹USDA-ARS, Athens, Georgia, United States, ²ORISE-USDA, Athens, Georgia, United States

P323

Effect of chicken breed on *Campylobacter* and *Salmonella* load and prevalence in pasture-raised farms

Walid G. Al Hakeem*¹, Minh Kim², Sohyun Cho³, Xiang Li⁴, Adelumola Oladeinde², Michael Rothrock²

¹ORISE-USDA, Athens, Georgia, United States, ²USDA-ARS, Athens, Georgia, United States, ³Egg and Poultry Production Safety Research Unit, USDA, Athens, Georgia, United States, ⁴USDA-ARS, Athens, Georgia, United States

P324

Foodborne pathogens prevalence, load and ecology on pasture-raised broilers processed on-farm or at a small USDA-inspected facility

Walid G. Al Hakeem*¹, Taejung Chung², Minh Kim², Adelumola Oladeinde², Michael Rothrock²

¹ORISE-USDA, Athens, Georgia, United States, ²USDA-ARS, Athens, Georgia, United States

P325

E. coli diversity along the Farm-to-Fork continuum of pastured poultry flocks in the Southeastern United States

Walid G. Al Hakeem*¹, Minh Kim², Michael Rothrock²

¹ORISE-USDA, Athens, Georgia, United States, ²USDA-ARS, Athens, Georgia, United States

P326

Key Farm to Fork Factors Influencing *E. coli* Level in Pastured Poultry Production

Minh Kim*¹, Walid G. Al Hakeem², Michael Rothrock¹

¹USDA-ARS, Athens, Georgia, United States, ²ORISE-USDA, Athens, Georgia, United States

P327

Impact of sodium bisulfate and water activity on *Salmonella* survival in poultry litter

Yabaiz Tahir*¹, Justin Lowery¹, Mary Mendoza¹, Christina S. Sigmon¹, Jeyam Subbiah², Nanje Gowda³, Craig Coufal⁴, Lin L. Walker¹

¹Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States, ²Dale Bumpers College of Agricultural, Food and Life Sciences Food Science, University of Arkansas System Division of Agriculture, Fayetteville, Arkansas, United States, ³Department of Food Science, University of Arkansas Division of Agriculture, Fayetteville, Arkansas, United States, ⁴Jones-Hamilton Co., Walbridge, Ohio, United States

P328

16s amplicon sequence analysis finds comparable microbial community dynamics in *Salmonella* Heidelberg-challenged broilers with or without antibiotic alternatives

Dhananjai Muringattu Prabhakaran*, Shijina Manjankattil, Claire Peichel, Anup K. Johnny

Animal Science, University of Minnesota, Saint Paul, Minnesota, United States

P329

Propionibacterium freudenreichii and *S. Typhimurium* vaccine elicit comparable colonization resistance to multidrug-resistant *Salmonella* Infantis in broiler chickens

Dhananjai Muringattu Prabhakaran*¹, Amritha Ajayan¹, Hamza Javaid¹, Tim Johnson², Anup K. Johnny¹

¹Animal Science, University of Minnesota, Saint Paul, Minnesota, United States, ²Department of Veterinary and Biomedical Sciences, University of Minnesota, Saint Paul, Minnesota, United States

Processing and Products

P330

The effect of rearing systems and heat treatments on liquid egg white functionality

Leah Dexter-Boone*¹, Skye Freeland¹, Masahiko Taniguchi³, Haotian Zheng², Kenneth Anderson¹, Taylor O'Lear Reid¹, Aaron Kiess¹, Yan L. Campbell¹

¹Prestage Family Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States, ²Department of Food, Bioprocessing and Nutrition Sciences, North Carolina State University, Raleigh, North Carolina, United States, ³Department of Chemistry, North Carolina State University, Raleigh, North Carolina, United States

P331

Meat quality of hens fed an unblanched high-oleic peanut diet

Afsana Rahaman Munmun*^{1,2}, Jean C. Caceres³, Christina S. Sigmon², Ishab Poudel⁴, Thien Vu⁵, Becca Wysocky³, Ramon Malheiros², Kenneth Anderson², Ondulla T. Toomer⁵, Yan L. Campbell²

¹Food, Bioprocessing & Nutrition Sciences Department, North Carolina State University, Raleigh, North Carolina, United States, ²Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States, ³Prestage Poultry Science Department, North Carolina State University, Raleigh, North Carolina, United States, ⁴Poultry Science, Mississippi State University, Raleigh, North Carolina, United States, ⁵United States Department of Agriculture, Raleigh, North Carolina, United States

P332

Effect of alternative additives to formaldehyde on reducing *Salmonella* in animal feed

Adrieli Biava*¹, Silvana de Castro Caldas², Liris Kindlein¹

¹UFRGS, Encantado, RS, Brazil, ²UFRGS, Encantado, RS, Brazil

Metabolism and Nutrition: Amino Acids and Enzymes

P333

Productive energy (Arkansas net energy) as a key indicator: evaluating full-fat soybean meal for enhanced broiler protein gain and feed conversion

Abdullah Scott^{2,1}, Cole Umberson², Callie Selby², Jordan Weli², Nawin Suesuttajet², Ehsan Sheikhsamani², Diego A. Martinez*², Mian Riaz³, Craig Coon²

¹Animal Resources, Salahaddin University, Erbil, Erbil, Iraq, ²University of Arkansas, Fayetteville, Arkansas, United States, ³Texas A&M University, College Station, Texas, United States

P334

Understanding the branched-chain amino acid interactions on bone morphology of pullets at 18 weeks of age

Charis A. Waters*¹, Roshan Adhikari², Jason T. Lee², Deependra Paneru³, Woo Kyun Kim³, Ruben Kriseldi⁴, Michael Elliot⁵, Li Zhang¹, Kelley Wamsley¹, Pratima Adhikari¹

¹Department of Poultry Science, Mississippi State University, Mississippi State, Mississippi, United States, ²CJ Bio America, Downers Grove, Illinois, United States, ³Department of Poultry Science, University of Georgia, Athens, Georgia, United States, ⁴Aviagen, Huntsville, Alabama, United States, ⁵A&E Nutrition Services, LLC, Lititz, Pennsylvania, United States

P335

The effect of a sfericase protease on protein solubility of soybean meal and trypsin inhibitor degradation

Camila d. Cardoso*¹, Diogo Rosso², Tine V. Jensen², Jacqueline C. de Souza¹, Vitor B. Fascina³

¹Novonosis LA, Araucária, PR, Brazil, ²Novonosis A/S, Lyngby, Denmark, ³dsm-firmenich, São Paulo, Brazil

P336

Xylanase supplementation: Influence on growth performance and carcass characteristics of broiler chickens

Kamel Mahmoud*¹, Basheer Nusairat², Omar Al-Qudah¹

¹Animal Production, Jordan University of Science and Technology, Irbid, Jordan, ²Department of Animal Production, Jordan University of Science and Technology, Irbid, Jordan

P337

Blood biochemistry influenced by dietary available phosphorus and phytase supplementation

Xaviere Rousseau*¹, Gilson Gomes¹, Michelle Stewart¹, Mohammad Pilevar², Bhargavi Kasireddy², Oluyinka Olukosi²

¹AB Vista, Marlborough, United Kingdom, ²Poultry Science, University of Georgia, Athens, Georgia, United States

Metabolism and Nutrition: Feed Additives**P338**

Fructooligosaccharides dose optimization for improving growth performance and intestinal development in broiler chickens

Viviana Parada Roa, Alvaro Uribe-Serrano, Blanca C. Martinez, Loufrantz Parra-Mendez, Jaime A. Angel-Isaza*

Unidad de Innovación Y Desarrollo Biotecnológico, Promitec Santander SAS, Bucaramanga, Colombia

P339

Enhancing broiler chicken growth, immunological response, and intestinal morphology through organic copper supplementation combined with synbiotics

Mohsen Afsharmanesh*

Department of Animal Science, Shahid Bahonar University of Kerman, Kerman, Kerman, Iran (the Islamic Republic of)

P340

Evaluation of a sodium butyrate stabilized by calcium salts against a fat coated calcium butyrate on broiler performance and economic profitability

Octavi C. Balaña*, Housseem Kadardar, Ekaitz Maguregui

Technical, Igesund, Barcelona, Catalonia, Spain

P341

Efficacy of a liquid solution containing grape and olive extracts on broiler chickens challenged by aflatoxin B1, ochratoxin A and fumonisins: Effects on animal performance, biochemical and liver gene analysis

Insaf Riahi*¹, Antonella Della Badia¹, Catalina Nicholls¹, Raquel Codina¹, Eva León¹, Amrita K. Dhara², Anirvid Sarkar², Sayantani Arora², Sudipto Haldar²

¹Technical Department BIONTE Nutrition S.L., Reus, Tarragona, Spain, ²Agrivet Research and advisory P Ltd., Lake Town, South Dum Dum, West Bengal, India

P342

A combination of essential oils from oregano, cinnamon, and clove improves growth performance, gut morphology, and intestinal barrier function in broilers

In H. Kim*², Md Raihanul Hoque¹, Chae Bin Lim¹, Lane Pineda³, Marlien de Kock³, Ellen Hambrecht³

¹Animal Biotechnology, Dankook University, Cheonan, South Korea, Korea (the Republic of), ²Animal Biotechnology, Dankook University, Cheonan, Choongnam, Korea (the Republic of), ³Trouw Nutrition, Amsterdam, Netherlands

P343

Influence of *Bacillus*-based probiotic and yeast cell wall-derived prebiotic supplementation across various laying stages on performance, egg quality, and immune response

Ala E. Abudabos*

Agriculture, Alcorn State University, Lorman, Mississippi, United States

P344

Bacterial competitive exclusion product compatibility and synergy with 3 *Salmonella* live vaccines

Alison Johnson², Sally Gibson², Florence Barbe¹, Audrey Sacy¹, Anaïs Nozeran¹, Pierre Lebreton^{*1}, Eric Chevaux¹, Victor Pain³

¹Lallemand SAS, Blagnac Cedex, France, ²Lallemand SAS UK, Malvern, United Kingdom, ³SOCSA Elevage, L'Union, France

P345

Compatibility of a competitive exclusion solution with a *Salmonella* live vaccine administered at different ages

Victor Pain², Jonny Harrison¹, Anaïs Nozeran¹, Sophie Huppert¹, Pierre Lebreton^{*1}, Florence Barbe¹, Audrey Sacy¹

¹Lallemand SAS, Blagnac cedex, France, ²SOCSA Elevage, L'Union, France

P346

Effects of live yeast *Saccharomyces cerevisiae boulardii* on broilers growth performances and food safety

Dariusz Mikulski², Jan Jankowski², Pierre Lebreton^{*1}, Florence Barbe¹, Vanessa Demey¹

¹Lallemand SAS, Blagnac Cedex, France, ²Department of Poultry Science, Faculty of Animal Bioengineering, University of Warmia and Mazury in Olsztyn, Olsztyn, Poland

P347

Comparative Effects of Ionophore Anticoccidials with or without the addition of a QY phytogetic on Performance and Coccidia Lesion Scores in Broilers Challenged with Contemporary Coccidia Strains

Luis B. Gomez^{*1}, Chad Malinak¹, Blair Telg¹, Sandra Bonaspetti¹, Vasil Stanev¹, Ana Villegas¹, Ashley Halowell¹, Brett Lumpkins²

¹Technical Services, Phibro Animal Health, Watkinsville, Georgia, United States, ²Southern Poultry Research and Feed, Athens, Georgia, United States

P348

Impact of sodium bisulfate supplementation, alone or in combination with in-feed anticoccidials, on broiler performance during a coccidiosis challenge

Bradley Turner², Craig Coufal¹, Julianna Jespersen^{*1}

¹Jones-Hamilton Co., Rock Island, Illinois, United States, ²Poultry Research Partners, LLC, Hoschton, Georgia, United States

P349

Efficacy of gut microbiota modulators from yeasts on performance of broiler chickens under a necrotic enteritis challenge

Elise Nacer-Khodja^{*1}, Raquel Pereira¹, Amrita K. Dhara², Maria Angeles Rodriguez¹, Mariel Neves Tavares¹

¹Olmix SA, Brehan, France, ²Agrivet Research & Advisory, Kolkata, India

P350

Bioactive compounds from Passion fruit seed oil act as a natural antioxidant in laying hens

Lais Cordeiro, Elis O. Castillo, Gabrieli A. Lima, Paola A. Rodrigues, Joyce A. Silva, Júlia d. Lopes, Luane B. Andrade, William d. Xavier, Matheus G. Guimarães, José R. Sartori^{*}

Animal Breeding and Nutrition, UNESP, FMVZ, Botucatu, SP, Brazil

P351

Effects of Pearlzyme® (Protease) supplementation on growth performance, nitrogen-corrected apparent metabolizable energy, and amino acid digestibility in broiler chickens fed reduced crude protein and amino acid diets

Deependra Paneru^{*}, Oscar Tejeda, Woo Kyun Kim

Department of Poultry Science, University of Georgia, Athens, Georgia, United States

P352

Effects of Pearlzyme® (Protease) supplementation on growth performance, nutrient utilization, and immune response in broiler chickens

Deependra Paneru*, Venkata Sesha Reddy Choppa, Woo Kyun Kim
Department of Poultry Science, University of Georgia, Athens, Georgia, United States

P353

Replacement of choline chloride with natural choline in broiler chicken diets
Bernardo F. Iglesias*^{1,2}, Maria Viviana Charriere¹, Virginia Fain Binda¹,
Silvina Pinto³, Gonzalo Vicente⁴, Christian Vagedes⁴

¹Sección Avicultura, Instituto Nacional de Tecnología Agropecuaria - INTA, Pergamino, Buenos Aires, Argentina, ²Área de Producción Animal, UNNOBA, Pergamino, Buenos Aires, Argentina, ³Fac. de Cs. Veterinarias, Universidad de Buenos Aires, Buenos Aires, Argentina, ⁴Adinnova, Coronda, Santa Fe, Argentina

P354

Understanding the effectiveness of short and medium chain fatty acid glycerides in Cocci-Challenged broilers: a 57-day commercial field evaluation

Ariel Bergeron*, Rob Shirley, Nicholas P. Evans
Adisseo USA, Alpharetta, Georgia, United States

P355

Efficacy of a toxin binder in mitigating aflatoxin-induced damage in broiler chickens

Mariana Ornaghi*, Caio Tellini, Rodrigo Bressan, Bruna Troian, Jéssica Zandonai, Jociane Boeck
Research and Development, Safeeds, Cascavel, Paraná, Brazil

P356

Enhancing broiler health and performance: toxin binders as a solution against fumonisin-induced damage

Mariana Ornaghi¹, Maigel Dreyer¹, Andressa Flores¹, Mayara Gall¹, Osmair Stuani*^{2,1}, Ricardo Castilho¹

¹Research and Development, Safeeds, Cascavel, Paraná, Brazil, ²Safeeds, Cascavel, Paraná, Brazil

P357

Evaluating the impact of probiotic and multivalent vaccination strategies in mitigating BCO lameness using a hybrid challenge model

Khawla S. Alharbi*¹, Amanda Anthney¹, Ruvindu Perera¹, Reginald Onyema², Sara Reichelt², Antoine Meuter³, Palmy Jesudhasan⁴, Adnan Alrubaye¹

¹Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States, ²Aviagen, Salisaw, Oklahoma, United States, ³Novonesis, Lyngby, Denmark, ⁴USDA, Fayetteville, Arkansas, United States

P358

Effect of early-life electrolyte supplementation on broilers under commercial housing conditions

Caio Tellini*², Mariana Ornaghi², Francisco Bertoli¹, Juliano Sganzerla³, Carla Rodrigues³

¹Safeeds, Cascavel, Brazil, ²Research and Development, Safeeds, Cascavel, Paraná, Brazil, ³Departamento Agropecuária, Frangos Pioneiro Ind e Com Ltda, Távora, Paraná, Brazil

P359

Supplementation of a synbiotic improves the growth performance of broiler chickens submitted to coccidiosis vaccination

Cristiano Bortoluzzi*¹, Chasity Pender²

¹dsm-firmenich, College Station, Texas, United States, ²DSM Nutritional Products, Manassas, Virginia, United States

P360

The effect of NCH Direct-Fed Microbes incorporated into poultry feed with a coccidia vaccine program

Addison Elstner*¹, Rosana Hirai¹, Austin O. Silva², Skylar White³, Charles Greenwald³, Audrey McElroy¹

¹Poultry Science, Texas A&M University, College station, Texas, United States, ²Poultry Science, Texas A&M University, Bryan, Texas, United States, ³NCH Technology, College station, Texas, United States

P361

A proprietary blend of Phenylpropanoid and vanilloid oleoresins ameliorate growth performance of broilers raised with non-medically important antibiotics (NMIA)

Bertrand Medina*¹, Stijn Bruwier², Ivan Girard¹

¹Probiotech International Inc., St-Hyacinthe, Quebec, Canada, ²PONCO Poultry Research Station, Vlierden, Netherlands

P362

Potential of antioxidant defenses in broilers with a standardized dry grape extract supplementation

Paul Engler*^{1,2}, Damian Bien³, Sekhou Cissé^{1,2}, Sławomir Jaworski⁴, Agata Lange⁴, Patrycja Ciborowska⁵, Anna Zalewska⁵, Jakub Urban⁵, Monika Michalczuk⁵, Mohammed el Amine Benarbia^{1,2}, Arkadiusz Matuszewski³

¹Nor-Feed, Beaucaouzé, France, ²FeedInTech, Angers, France, ³Institute of Animal Sciences, Warsaw University of Life Sciences, Warsaw, Poland, ⁴Department of Animal Breeding, Instytut Nauk o Zwierzętach SGGW w Warszawie, Warsaw, Poland, ⁵Institute of Biology, Warsaw University of Life Sciences, Warsaw, Poland

P363

Effects of different dose of chestnut extract on performance and intestinal health in broilers exposed to *Clostridium perfringens* and coccidia challenge

Clarisse Techer*¹, William Lambert¹, André N. Mayer³, Eveline Berwanger³, Jovanir Fernandes²

¹miXscience, Bruz, France, ²UFPR Federal University of Parana, Parana, Brazil, ³Salus Animal Nutrition, São Paulo, Brazil

P364

Evaluation of a quillaja saponin-based product, Enviro QS™_{DF}, against a quillaja and yucca saponin-based product or a yucca saponin-based product in broilers

Maci Oelschlager*, Jason McCamy, Megan Koppen, Manuel Da Costa
Cargill Animal Nutrition, Wayzata, Minnesota, United States

P365

Effect of dietary supplementation of a postbiotic and phyto-genic blend on laying performance and colibacillosis in laying hens challenged with avian pathogenic *Escherichia coli* Serotype O78

Hanseon Ko*¹, Deependra Paneru¹, Manuel Da Costa², Vivek Kuttappan², Woo Kyun Kim¹

¹Poultry Science, University of Georgia, Athens, Georgia, United States, ²Cargill Animal Nutrition, Minneapolis, Minnesota, United States

P366

The effects of an unblanched high-oleic peanut diet on layer performance, and the fatty acid profile and quality of the eggs produced

Ondulla T. Toomer*¹, Isha Poudel², Thien Vu¹, Ramon Malheiros², Rebecca Wysocky², Kenneth Anderson²

¹Food Science and Market Quality & Handling Research Unit, Agricultural Research Service/ USDA, Raleigh, North Carolina, United States, ²Prestage Dept. of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States

P367

Enhancing Heat Stress Tolerance in Laying Hens through dietary supplementation with Vitamin C, Choline, and Betaine
 Waqas Ahmed*¹, Sara Mubeen¹, Usma Sher¹, Iram Sadiq¹, Muhammad Shoaib¹, Zeshan Zulfiqar²

¹*Institute of Animal and Dairy Sciences, University of Agriculture Faisalabad, Punjab, Pakistan*, ²*Department of Animal Nutrition and Feed Science, Henan Agricultural University, Zhengzhou, China*

P368

Effects of *Bacillus* based probiotics on improving feed conversion and lowering mortality of broilers during a Coccidiosis challenge
 Sharon H. Miller*, Kristy Dorton, John Schleifer, Shameer Rasheed, Mark LaVorgna, Mahmoud Masadeh, Gary Reznik
Devenish Nutrition, Fairmont, Minnesota, United States

P369

Silymarin Improves Performance, Liver Health, and Diet Productive Energy Value in Commercial Broilers: A Mechanistic Model

Diego A. Martinez¹, Carol Ponce-de-Leon², Patricia Acuna*³

¹*University of Arkansas, Fayetteville, Arkansas, United States*, ²*Independent Researcher, Fayetteville, Arkansas, United States*, ³*CKM SAC, Lima, Peru*

P370

Effects of dietary inclusion of bentonite clay in reducing aflatoxin B1 toxicity on production performance, immune response, and intestinal health of broilers

Waqas Ahmed*, Sara Mubeen, Usma Sher, Iram Sadiq, Sajid Mehmood, Muhammad Shoaib

Institute of Animal and Dairy Sciences, University of Agriculture Faisalabad Punjab Pakistan, Rawalpindi, Pakistan

P371

A blend of probiotic and xylanase can ameliorate the impact of coccidiosis on broilers

Basheer Nusairat*¹, Rahaf Asaad¹, Mohammad Gharaibeh³, Jeng-Jie Wang²

¹*Department of Animal Production, Jordan University of Science and Technology, Irbid, Jordan*, ²*Novus International, Inc., Chesterfield, Missouri, United States*, ³*Basic Veterinary Medical Science, Jordan University of Science and Technology, Irbid, Jordan*

P372

Evaluation of the impact of feed additives on pathogens associated with necrotic enteritis in broilers raised on used litter seeded with cocci

Firmin Delago*¹, Elizabeth Galbraith¹, Mike E. Persia², Adrienne Woodward³, Michael King¹, Sona Son¹, BRIAN DIRKS³

¹*Microbial Discovery Group, Oak Creek, Wisconsin, United States*, ²*Virginia Tech, Blacksburg, Virginia, United States*, ³*United Animal Health, Audubon, Pennsylvania, United States*

P373

Polyphenols decrease oxidative stress and occurrence of breast myopathy
 Vivian A. Castilho Heiss*¹, Letícia C. Garcia¹, Maria Fernanda d. Burbarelli¹, Elizabeth Santin², João B. Lancini³, Rodrigo G. Garcia¹, Claudia M. Komiyama¹

¹*Universidade Federal da Grande Dourados, Dourados, Ms, Brazil*, ²*Kupono Assessoria e Consultoria, Curitiba, Brazil*, ³*Silvafeed, Porto Alegre, Brazil*

P374

The effects of feeding supplemental tryptophan or probiotic on stress, blood serotonin and brain neurotransmitter response in broilers and Pekin ducks

Emily Jiral¹, Melanie Bergman², Gregory S. Fraley², Gregory Archer*¹

¹*Texas A&M University, College station, Texas, United States*, ²*Purdue University, West Lafayette, Indiana, United States*

P375

Efficacy of a three-strain *Bacillus* DFM in a group-housed performance study in laying hens

Sasha van der Klein*¹, Elizabeth Kim¹, Pam Utterback², Jennifer Blair²,

Minoy Cristobal², Bekah Drysdale², Kirsty Gibbs¹, Carl M. Parsons², Janet

Remus¹

¹Danisco Animal Nutrition & Health, Oegstgeest, Netherlands, ²Department of Animal Sciences, University of Illinois, Urbana, Illinois, United States

P376

Protected calcium butyrate improves broiler performance under commercial conditions versus tributyrin for the equivalent supplementation of butyric acid

David Harrington*¹, Yann Lever², Nemanja Todorovic¹, Jean Francois Le Roux²¹nuance Biotechnology, Lausanne, Switzerland, ²Global Nutrition International, Fougères, Veuillez sélectionner une région, une état ou une province, France

P377

Efficacy of a blend of organic acids in water in reducing *Salmonella Heidelberg* contamination in broilers

Karolina V. Z. Augusto², Giseli Heim*¹, Antonio J. Piantino Ferreira³¹Selko, Amersfoort, Netherlands, ²R&D, Trouw Nutrition, Campinas, Brazil, ³Poultry Pathology, University of Sao Paulo, Sao Paulo, Brazil

Metabolism and Nutrition: Vitamins and Minerals

P378

Effect of different metabolizable energy on Ross 308 broiler growth performance, nutrient digestibility, organ weight, fecal score and lesion score

Kye J. Lee^{1,2}, Usman Kolawole^{1,2}, In H. Kim*^{1,2}

¹Animal Biotechnology, Dankook University, Cheonan, Choongnam, Korea (the Republic of), ²Smart Animal Bio Institute, Cheonan, Choongnam, Korea (the Republic of)

P379

The detection and co-occurrence of mycotoxins in poultry feed using HPLC-MS/MS analysis

Anthony Pokoo-Aikins*¹, Jaci Hawkins¹, Trevor Mitchell¹, Lincoln Adams¹, Revathi Shamugasundaram¹, Quentin Read², Scott P. Gold¹, Anthony Glenn¹

¹ARS, USDA, Athens, Georgia, United States, ²ARS, USDA, Southeast Area, Raleigh, North Carolina, United States

P380

The effect of *Lagenaria Siceraria* (bottle gourd) based seed meal on growth and carcass characteristics of Boschveld chickens.

Sipho Nkosi*, Margaret Taona Moyo

Agriculture, Lupane State University, Bulawayo, Zimbabwe

P381

Impact of bulk density in broiler diets on performance, digestive organs, and litter composition

Muhammad Naeem*¹, Dianna Bourassa¹, Samuel J. Rochell¹, Shijinaraj Manjankattil Rajan¹, Emily Burton², Ashraf Alkhtib²

¹Auburn University, Auburn, Alabama, United States, ²Nottingham Trent University, Nottingham, United Kingdom

P382

Apparent ileal amino acid digestibility and relative mRNA expression of tight junction proteins and cytokines in broiler chickens fed diets with inclusion of raw potato starch or high-amylose corn starch in a mixed *Eimeria*-challenge model

Iyabo W. Oluseyifunmi*, Oluyinka Olukosi

Poultry Science, University of Georgia, Athens, Georgia, United States

P383

Determination of the effects of quantitative feed restriction along with oats fodder on meat quality parameters of native geese in Bangladesh

Umme S. Ety*², Md. Sazedul Karim Sarker², Farhana Sharmin¹, Nushrat Nourin², Aminul Islam², Sadman S. Zihan²

¹Bangladesh Jute Research Institute, Savar, Dhaka,

Bangladesh, ²Bangladesh Livestock Research Institute, Savar, Dhaka, Bangladesh

P384

Evaluation of the amount of pre-starter feed on broiler growth uniformity and gastrointestinal tract development

Mirian Leticia Ramos Provin, Max W. Calasans, Silvana de Castro Caldas*, Liris Kindlein

UFRGS, Encantado, RS, Brazil

P385

Trends in mycotoxin contamination in 2024 United States corn

Chasity Pender*, Paige N. Gott, Lan Zheng, Shelby Corray

Animal Nutrition & Health, dsm-firmenich, Plainsboro, New Jersey, United States

P386

Impact of increased particle size of wheat on broiler performance, gastrointestinal development, nutrient utilization, and welfare

Muhammad Naeem*¹, Dianna Bourassa¹, Samuel J. Rochell¹, Shijinaraj Manjankattil Rajan¹, Emily Burton², Ashraf Alkhtib²

¹*Auburn University, Auburn, Alabama, United States*, ²*Nottingham Trent University, Nottingham, United Kingdom*

P387

Dietary Productive Energy Recommendations for Broilers up to 56 Days of Age

Diego A. Martinez*, Nawin Suesuttajit, Cole Umberson, Craig Coon

University of Arkansas, Fayetteville, Arkansas, United States

P388

The Productive Energy Value of Corn as Determined by its Content of Digestible Nutrients and Broiler Age

Diego A. Martinez*, Nawin Suesuttajit, Cole Umberson, Craig Coon

University of Arkansas, Fayetteville, Arkansas, United States

P389

Distinct Responses of Two Broiler Genetic Lines to Different Feed Restriction Programs at High Altitude up to 39 Days of Age

Rodolfo Riboty*¹, Diego A. Martinez², Carlos Vilchez¹

¹*Universidad Nacional Agraria La Molina, Pichincha, Ecuador*, ²*University of Arkansas, Fayetteville, Arkansas, United States*

P390

Compensatory Growth, Mortality and Carcass Yield of Broilers from 39 to 46 Days of Age at High Altitude

Rodolfo Riboty*¹, Diego A. Martinez², Carlos Vilchez¹

¹*Universidad Nacional Agraria La Molina, Lima, Peru*, ²*University of Arkansas, Fayetteville, Arkansas, United States*

P391

Evaluation of trypsin inhibitor activity in 2021-2024 United States soybean meal

Mike Schulz, Emily Jackson, Frances Yan*

Novus International Inc., Chesterfield, Missouri, United States

P392

Evaluation of microencapsulated vitamin and trace minerals on growth performance, blood biochemistry, and welfare indicators in broilers

Dimitri Malheiros*¹, Ludovic Lahaye¹, Miguel Barrios¹, Peter Feket³, Dan Moore², Monique Archibeque², Jean Fontaine¹, Derek Detzler¹

¹*Jefo, Saint-Hyacinthe, Quebec, Canada*, ²*Colorado Quality Research, Wellington, Colorado, United States*, ³*North Carolina State University, Raleigh, North Carolina, United States*

P393

Niacin and nicotinamide riboside supplementation effects on growth performance in turkey hens

Victoria Wilson*¹, John Gonzalez², Scott Beyer³, Chad Paulk¹, Haley Otott¹, Carter D. Minson¹, Mason Engnell¹, Diego Lopez¹, Allison Blomme¹, Walter Friesen¹

¹Grain Science and Industry, Kansas State University, Manhattan, Kansas, United States, ²Animal and Dairy Science, University of Georgia, Athens, Georgia, United States, ³Animal Science and Industries, Kansas State University, Manhattan, Kansas, United States

P394

Performance and eggshell quality of broiler breeders supplemented with enhanced levels of minerals and vitamins

Eveline Berwanger¹, Fabrizio Oristanio*², Neyre N. Shiroma¹, Jumara Coelho³, Dausia Souza³, Rosana Vaz³, Edson Formigheri³, Felipe Cerri³, Hamilton Caixeta³, Soner Moreira³, Wesley Santos³

¹Technical, Salus Com. de Prod. de Saúde e Nutrição Animal S.A., Santo Antônio de Posse, São Paulo, Brazil, ²Feed Additives, Salus Com. de Prod. de Saúde e Nutrição Animal S.A., Santo Antônio de Posse, São Paulo, Brazil, ³Technical, Grupo Alvorada, Itapetininga, São Paulo, Brazil

P395

Calcium Pidolate (Calpid®) Enhances Carcass Traits, Bone Quality, and Mineral Digestibility in Broilers Fed Reduced Calcium and Phosphorus Diets
AbdelRahman Y. Abdelhady*^{1,2}, Abdelhacib Kihal¹, Salah A. El-Safty², Ahmed Radwan¹, Sergio Merinero³, M. Puyalto¹, J J. Mallo¹

¹Norel S.A., Madrid, Spain, ²Poultry Production Department, Faculty of Agriculture, Ain Shams University, Cairo, Egypt, ³Nuvet Agriservices S.L.U., Madrid, Spain

Physiology, Welfare and Behavior**P396**

Differential responses of gut barrier function to heat stress in divergently selected broiler lines for water efficiency: insights from gene and protein expression profiles

Maria Fernandez Cuadrado*¹, Brooklee Roach², Elizabeth S. Greene¹, Sara Orłowski¹, Sami Dridi¹

¹Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States, ²Har-Ber High School, Springdale, Arkansas, United States

P397

Differential expression of genes in fatty acid metabolism and inflammation pathways in *Pectoralis major* of broilers with woody breast myopathy
Linan Jia*¹, Chuan-Yu Hsu², Xue Zhang³, M. W. Schilling⁴, Kelley Wamsley¹, Pratima Adhikari¹, Li Zhang¹

¹Poultry Science, Mississippi State University, Mississippi State, Mississippi, United States, ²Institute for Genomic, Biocomputing, and Biotechnology, Mississippi State University, Mississippi State, Mississippi, United States, ³Department of Animal and Dairy Sciences, Mississippi State University, Mississippi State, Mississippi, United States, ⁴Department of Food Science, Nutrition and Health Promotion, Mississippi State University, Mississippi State, Mississippi, United States

P398

Effect of different percentages of fertile eggs in setter trays on eggshell temperature and hatching parameters

Ricardo J. Pereira*¹, Felipe L. Kroetz Neto²

¹Animal Reproduction, College of Veterinary Medicine and Animal Sciences - São Paulo University, Pirassununga, São Paulo, Brazil, ²Aviagen America Latina Ltda, Campinas, São Paulo, Brazil

P399

Negative Impact of *Eimeria spp.* on the reproductive tract of Laying Hens with minimal influence of Mycotoxins from contaminated corn DDGS
Hamid Reza Rafieian-Naeini*¹, Deependra Paneru¹, Hemanth Reddy Katha¹, Silvia Carnaccini², Woo Kyun Kim¹

¹Department of Poultry Science, University of Georgia, Athens, Georgia, United States, ²Population Health, University of Georgia, Athens, Georgia, United States

P400

The influence of egg weight on eggshell temperature during incubation and on hatching parameters

Ricardo J. Pereira*¹, Felipe L. Kroetz Neto²

¹Animal Reproduction, College of Veterinary Medicine and Animal Sciences - São Paulo University, Pirassununga, São Paulo, Brazil, ²Aviagen America Latina Ltda, Campinas, São Paulo, Brazil

P401

Evaluation of skip-a-day feeding in Cobb 500 broiler breeder hens
Alyssa M. Lyons*¹, Cristiane S. Araujo², Mário Henrique S. Lopes³, Giovana M. Longhini³, Raimundo G. Netto³, Melany Y. Lovon³, Lucio F. Araujo³, Mike E. Persia¹

¹School of Animal Sciences, Virginia Tech, Blacksburg, Virginia, United States, ²FMVZ-USP, University of Sao Paulo, Pirassunuga, Brazil, ³Department of Animal Science, University of São Paulo, Pirassununga, São Paulo, Brazil

P402

Factors affecting Leghorn breeder pullet hatchability from 2016 to 2023

Caleb M. Marshall*¹, Daniel Valbuena², Edgar O. Oviedo-Rondón¹

¹Prestage Department of Poultry Science, North Carolina State University, Raleigh, North Carolina, United States, ²Hy-Line International, Des Moines, Iowa, United States

P403

Detection of Early Dead Embryos using Hyperspectral Imaging System

Alin Khaliduzzaman*¹, Jason Lee Emmert², Mohammed Kamruzzaman¹

¹Department of Agricultural and Biological Engineering, University of Illinois, Urbana, Illinois, United States, ²Department of Animal Sciences, University of Illinois, Urbana, Illinois, United States

P404

Effect of dietary tryptophan and photoperiod on the fear responses of broilers during the open field test

Rosemary Whittle*, Chantel Pennicott, Angela Perretti, Victor Oyeniran, Jaelen Cherry, Shawna Weimer

Poultry Science, University of Arkansas, Farmington, Arkansas, United States

P405

Predicting footpad condition and leg health in broiler chickens using Recurrent All Pairs Field Transforms for optical flow and advanced segmentation models

Mahtab Saeidifar*^{1,2}, Guoming Li^{1,2,3}, Chongxiao Chen^{1,3}, Tongshuai Liu^{1,4}, Ehsan Asali^{5,1}, Venkat U. Bodempudi^{1,2}

¹Department of Poultry Science, University of Georgia, Athens, Georgia, United States, ²Institute for Artificial Intelligence, University of Georgia, Athens, Georgia, United States, ³Institute for Integrative Precision Agriculture, University of Georgia, Athens, Georgia, United States, ⁴College of Animal Science & Technology, Henan University of Animal Husbandry and Economy, Zhengzhou, Henan, China, ⁵Computer Science, University of Georgia, Athens, Georgia, United States

Pathology

P406

Pathological and serological investigation of Newcastle Disease in poultry in certain areas of Jhenaidah District of Bangladesh

Md Mustafijur Rahaman*^{2, 1}

¹Atlantis University, Miami, Florida, United States, ²Pathology, Patuakhali Science and Technology University (PSTU), Patuakhali, Barisal, Bangladesh

P407

In vitro antimicrobial activity of essential oil solution (Sentinel Sol) against *Enterococcus* strains isolated from broilers

Claire Carlu*¹, Claire Girard¹, Karine Fayolle², Reda Zeghadi¹, Sylvain Kerros¹

¹Phytosynthese, Mozac, France, ²VetAgro Sup, Lempdes, France

P408

Determining the Optimal Strain and Pass for Histomonas Feed Additive Trial

Christina S. Sigmon*, Justin Lowery, Lin L. Walker

Poultry Science, North Carolina State University, Raleigh, North Carolina, United States

P409

Optimizing Poultry Health Management with AI: An Approach to Holistically Analyze Bird Health and Performance

Igor Soares*, Bruna L. Belote, Otto Figueiró, Fernanda F. Rodrigues, Elizabeth Santin

ISI Institute, Curitiba, Parana, Brazil

SCAD

P410

Antibody Response to Different 2-Way and 4-Way IBD, Reo, NDV, and IBV Killed Vaccines

Brian Jordan*, Dale Gambrill

Zoetis, Madison, Georgia, United States

P411

A Field Study of *Clostridium perfringens* Enumeration Methods in the Broiler House Environment

Andrea Zedek*¹, David Smith¹, Charles Hofacre², Virginia Baxter², Matthew K. Jones², Roy Berghaus³

¹Huvepharma, Inc., Peachtree City, Georgia, United States, ²Southern Poultry Research Group, Inc, Watkinsville, Georgia, United States, ³University of Georgia, Athens, Georgia, United States

P412

Immune cellular and transcriptional changes in the mucosal tissues of broiler chickens during experimental *Clostridium perfringens*-induced necrotic enteritis

Pok Man Chan*, Carissa Gaghan, Abigail Armwood, Raveendra Kulkarni

Department of Population Health and Pathobiology, College of Veterinary Medicine, North Carolina State University, Raleigh, North Carolina, United States

P413

A multi-phase *Salmonella* vaccination program alters IgA levels in the ceca, bile, and peripheral blood of specific pathogen-free White Leghorns

Chrysta N. Beck*, Jossie M. Santamaria, Ruvindu Perera, Gisela F. Erf

Poultry Science, University of Arkansas, Fayetteville, Arkansas, United States

P414

Growth characterization and genetic validation of a genetically manipulated *pagP*-deficient avian pathogenic *Escherichia coli* strain
Linan Jia*¹, Hailey Fugate¹, Chuan-Yu Hsu², Jeffrey Evans³, Kelsy Robinson³, Pratima Adhikari¹, Li Zhang¹

¹*Poultry Science, Mississippi State University, Starkville, Mississippi, United States*, ²*Institute for Genomic, Biocomputing, and Biotechnology, Mississippi State University, Mississippi State, Mississippi, United States*, ³*Poultry Research Unit, USDA-ARS, Mississippi State, Mississippi, United States*

P415

Development of a Taqman Multiplex Real-time qPCR Assay for Pro-inflammatory Gene Detection in Samples Infected with Avian Pathogenic *Escherichia coli* (APEC)

Xin Ye¹, Chuan-Yu Hsu³, Linan Jia*¹, Christopher Magee², Stephanie Whitham², Spencer Leigh², Jeffrey Evans², Li Zhang¹, Kelsy Robinson²
¹*Department of Poultry Science, Mississippi State University, Mississippi State, Mississippi, United States*, ²*Poultry Research Unit, ARS, United States Department of Agriculture, Mississippi State, Mississippi, United States*, ³*Institute for Genomic, Biocomputing, and Biotechnology, Mississippi State University, Mississippi State, Mississippi, United States*

P416

Phylogenetic analysis of over 1,000 IBDV sequences of VP2 from commercial chicken flocks since 2009 and a comparison of key mutations shared with reference strains

Po-Hsin Yu, Kalen Cookson*, Jon Schaeffer
Zoetis, Lawrenceville, Georgia, United States

P417

Generation of a Live Recombinant Thermostable Highly Attenuated Vaccine rK148/GVII-F and Protective Efficacy Evaluation using a Single Regimen Against Lethal NDV GVII.1.1.

Amal A. Mouhamed*

Population Health, University of Georgia, Athens, Georgia, United States
Minor Outlying Islands

P418

Impact of a Novel Granular Peracetic Acid Litter Treatment on Food Safety and Avian Pathogenic Bacteria *in situ*: Pilot Broiler Trials Suggest Utility as an Antibiotic-Free Litter Amendment

K. S. McKenzie*¹, Charles Hofacre²

¹*EnviroTech, College Station, Texas, United States*, ²*Southern Poultry Research Group, Inc., Watkinsville, Georgia, United States*

Poster Reception
Monday, January 27
4:00 – 6:00 p.m.

Milton L. Dendy Keynote Address
B405
Tuesday, January 28
11:00 a.m.
Dr. Joseph Giambrone, Auburn
Chair: Dr. Silvia Carnaccini, Iowa State

SCAD Business Meeting
B405
Tuesday, January 28
Noon
Chair: Dr. Silvia Carnaccini, Iowa State

SPSS Business Meeting
B407
Tuesday, January 28
Noon
Chair: Dr. Roshan Adhikari, CJ America

2024 SPSS Student Awards:

Metabolism & Nutrition

Emily Estanich, WVU (J. Moritz)
Laney Froebel, Illinois (R. Dilger)
Joseph Gulizia, Auburn (W. Pacheco)
Lucas Knarr, WVU (J. Moritz)
Dmitri Malheiros, NCSU (K. Anderson)
Environment Management
Luis Munoz, Auburn (D. Bourassa)
Melanie Bergman, Purdue (G. Fraley)
Teaching, Pedagogy, Extension
Peyton Taylor, MSSTATE (J. Wells)

Graduate Travel Awards

Clara Ziezold, Guelph
Grayson Walker, NCSU

Alltech Manuscript Award

Guanchen Liu, UGA (WK Kim)

Don R. Sloan Undergraduate Research Award Recipient

Oral: Delaney Groves, VT (M. Persia)
Poster: Reyna Mero, CSUFresno (K. Tarrant)

Processing and Products (Teaching)

Montana Riggs, Auburn (D. Bourassa)

Physiology

Clara Ziezold, Guelph (G. Bedecarrats)

Pathology

Grayson Walker, NCSU (Borst)

Posters

Fozol Ovi - MSSTATE (P. Adhikari)
Amber Richards - UGA (N. Shariat)
Milan Sharma - UGA (W. K. Kim)
Tanmaie Kalapala - UARK (P. Jesudhasan)

Undergraduate Research Competition Participants

Matthew Hughes, Auburn
Fang Peng, Hanau Ag. U.
Delaney Groves, VT
Thiago Yabuta, NCSU
Jacob Dees, Auburn
Parker Watson, TAMU
Shaunie Cruz, Clemson
Jordan Smith, S.ARK
Grace Rutherford, S.ARK
Reyna Mero, CSUFresno
Urias Castillo, Auburn
Neketa Hughes, UGyvana
Ari Bragg, Clemson
Anna Kathryn Riggs, MSSTATE

2024 SCAD Student Awards:

Roel Becerra UGA - Oral Presentation Award

Klao Runcharoon UGA – Oral Presentation Award

Emily Cason, UGA- Poster Presentation Award

Past Presidents of the Southern Conference on Avian Diseases

A.L. Kleckner J.W. Williams T.L. Landers	C. Wang T. Brown	J. El-Attrache S. Williams
T.B. Blount	A. Miles	H. Sellers
L.C. Grumbles T.H. Eleazer	M. Pantin-Jackwood	D. Wages
W.T. Springer T.H. Elazer	E. Mundt	P. Miller
F.R. Craig	H. Cervantes W.M. Colwell	O. Faulkner
R.L. Clifford E.E. Keshey J.D. Story	J.N. Beasley W.M.Reid T.B. Ryan	L. Bielke
W.B. Gross H.W. Yoder	R.J. Kilgore D.L. Magee J.M. Dixon	M. Franca
S.H. Kleven	J.J. Giambrone	J. El Attrache
R.B. Davis	M. Brugh J.E. Hanley P.W. Mitchell P.D.	K. Macklin
C.F. Hall	Lukert	J. Giambrone
T.H. Vardamann	T.G. Dickson	R Hauck
	L.H. Lauerman	R. Crespo
	J.R. Glisson	K. Dimitrov
	D. Wages	C. Vuong
	R.N. Norton	D. Graham
	C.S. Eidson	T. Obe
	W.C. Patterson	
	M. Garcia	

Past Presidents of the Southern Conference on Avian Diseases

1931-32 C.L. Morgan	1948-49 J.H. Quisenberry	1962-63 C.W. Hess
1932-33 R.B. Thompson	1949-50 O.E. Goff	1963-64 C.C. Brunson
1933-34 D.F. King	1950-51 E.W. Glazener	1964-65 E.J. Day
1934-35 C. Ingram	1951-52 G.F. Godfrey	1965-66 R.H. Harms
1935-36 C. Ingram	1952-53 J.C. Diggers	1966-67 C.E. Howes
1936-37 N.R. Mehrhof	1953-54 W.E. Briles	1967-68 R.C. Fanguy
1937-38 F.E. Mitchell	1954-55 A. Gannon	1968-69 B. Glick
1938-39 C. Ingram	1955-56 W.A. Johnson	1969-70 H.R. Wilson
1939-40 C.L. Morgan	1956-57 J.E. Hill	1970-71 J.R. Couch
1940-41 F.Z. Beanblossom	1957-58 J.H. Bywaters	1971-72 M.A. Boone
1941-42 L.R. Morris	1958-59 P.H. Gooding	1972-73 W.F. Kruger
1942-43 J.C. Bell	1959-60 C.H. Moore	1973-74 H.V. Shirley
1943-46 No Meetings	1960-61 E.L. Stephenson	1974-75 O.W. Charles
1947-48 J.E. Humphrey	1961-62 B.C. Wormeli	1975-76 G.C. Harris
		1976-77 B.B. Dilworth
		1977-78 R.L. Atkinson
		1978-79 H.S. Siegel
		1979-80 W.L. Beane

Past Presidents of the Southern Poultry Science

1980-81 P.W. Waldroup	1995-96 K.W. Krueger	2010-11 Joe Hess
1981-82 J.P. Thaxton	1996-97 J.D. May	2011-12 M. Persia
1982-83 C.R. Douglas	1997-98 Pat A. Welch	2012-13 D. McIntyre
1983-84 J.E. Jones	1998-99 Billy M. Hargis	2013-14 S. Watkins
1984-85 J. McNaughton	1999-00 Bob Buresh	2014-15 S. Roberts
1985-86 J.H. Whitmore	2000-01 Gene Pesti	2015-16 D. Caldwell
1986-87 G.R. McDaniel	2001-02 Ernie Pierson	2016-17 O. Gutierrez
1987-88 J.A. Hebert	2002-03 Sarge Bilgili	2017-18 E. Oviedo-Rondon
1988-89 A.H. Cantor	2003-04 Bruce Boren	2019-20 A. Levy
1989-90 Y. Vizzier	2004-05 Vern Christensen	2020-21 B. Fairchild
1990-91 G.W. Morgan	2005-06 Tara York	2021-22 M. Barrios
1991-92 A.F. Giesen	2006-07 Bill Huff	2022-23 J. Bray
1992-93 J.M. Casey	2007-08 Ralph Stonerock	2023-24 C. Gehring
1993-94 R.P. Gildersleeve	2008-09 Audrey McElroy	2024-25 J. Grimes
1994-95 F.W. Edens	2009-10 Hector Cervantes	

Past Executive Secretaries of the Southern Poultry Science Society

1980-1992 Milton Y. Dendy	1998-2002 Yvonne Vizzier Thaxton
1993-1995 Leo S. Jensen	2002-2011 Bob Buresh
1995-1998 Gene Pesti	

Southern Poultry Science Society

2024 Donors

Platinum Sponsors

Adisseo
Alltech
Azomite
Boehringer Ingelheim
Cargill
DSM-firmenich
Elanco Animal Health
Evonik Degussa Corporation
Huvepharma, Inc.
Kemin
Mississippi State University Novus
International
Poultry Science Association.
SCAD
Selko
United Soybean Board on behalf of
Soybean Meal InfoCenter
U.S. Poultry & Egg Association
Zoetis

Silver Sponsors

Bill Barr and Company, Inc.
Asahi Biosciences
Hendrix Genetics
Southeastern Minerals

Gold Sponsors

ABVista
AFIA - American Feed Industry
Association
Archer Daniels Midland Company
Aviagen, Inc.
BiomEdit
Cobb-Vantress
DarlingIngredients
Mosaic Feed Ingredients
Perdue Agribusiness
Phibro Animal Health
PrimaLac
Purina Animal Nutrition LLC
QTI
Zinpro

2024 SCAD Donors

American Association of Avian
Pathologists
Huvepharma
Merck
Pilgrims Pride Corp

2024 Sponsor of Wine & Cheese Poster Reception

United Soybean Board on behalf of
Soybean Meal INFOcenter

Sponsored by

