Updated 11/13/26

CURRENT SYMPOSIA

SUNDAY, MARCH 14, 2027

Insights into the Contents of the Nutrient Requirements of Swine, Twelfth Revised Edition Symposium. *Sponsored by National Academies of Science, Engineering, and Medicine (NASEM), National Research Council (NRC)*
This symposium will present detailed insight into the contents of the 12th Revised Edition, including what has changed since the release of the 11th Revised Edition in 2012, specifically key updates on energy, protein and amino acids, vitamins, minerals, lipids and carbohydrates. . The objective of the symposium is to help attendees gain an understanding of the breadth and depth of information contained in this new edition and how the report can be used in their roles as teachers, researchers, commercial nutritionists, extension personnel, veterinarians and students, as well as regulatory and policy personnel.

MONDAY, MARCH 15, 2027 - MORNING

Animal Behavior, Health and Well-Being Symposium: From Signals to Solutions: Using Animal Behavior Research to Improve Swine Health, Welfare, and Production.
This symposium will explore what current research is finding, challenges that producers still face, and the research that is needed. Speakers represent a range of academic researchers, industry leaders, and producers bringing a unique perspective to this symposium. Join us as we discuss the next frontier of swine research for optimizing productive life while maximizing health and welfare.

- Dr. Laura Boyle, Teagasc and University College of Dublin – *Bentley Lecture: The Sow Welfare Paradox.*
- Dr. Ashley DeDecker, Smithfield Foods – *Emerging and Persistent Challenges in Swine Welfare: Priorities for Future Research.*
- Dr. Tami Brown-Brandl, University of Nebraska-Lincoln – *Beyond Monitoring: Turning Animal Behavior into Actionable Insights.*
- Stephanie Wetter, National Pork Board – *Measuring What Matters: Science and Progress in the Common Swine Industry Audit.*
- Dr. Janeen Salak-Johnson, Michigan State University – *Physiological Indicators Drive Behavioral Solutions in Swine Health and Welfare.*

Genetics, Genomics and Bioinformatics: Epigenetics in Livestock Production: From Molecular Mechanisms to Livestock Improvement.
This symposium will explore how epigenetic mechanisms regulate economically important traits in livestock and how emerging technologies are advancing both fundamental discovery and practical applications.

- Dr. Hasan Khatib, University of Wisconsin-Madison – *Genes, Environment, and Inheritance: The Expanding World of Livestock Epigenetics.*
- Dr. Gabriel Costa Monteiro Moreira, INRAE, France – *Environmental Epigenetics in Livestock: From Molecular Signatures to Phenotypic Programming.*
- Dr. Lea Rempel, USDA-ARS – *Flex in the Genes: A Lifetime of Epigenetic Impacts Within Livestock.*
- Dr. Stephanie McKay, University of Missouri – *Beyond the Genome: Deciphering Epigenetic Regulation in Livestock.*
- Dr. Benjamin Rosen, USDA-ARS – TBD

Physiology Symposium 1: Microbiome in the Reproductive Tract and their Effects on Reproduction.

- Dr. Rebecca Poole, Texas A&M University – *Understanding Uterine Microbiota During the Estrous Cycle and Gestation to Improve Reproductive Outcomes in Livestock.*
- Dr. Jessica Drum, South Dakota State University – *The Vaginal Microbiome: Exploring Potential Links to Reproductive Performance.*
- Dr. Jeremy Block, University of Wyoming – *The Presence and Composition of Microbial Communities within Organs of the Bull Reproductive System.*
- Dr. Caleb Lemley, University of Mississippi – *Exploring the Relationships Between Semen and Preputial Microbiota and Sperm Quality in Angus Bulls.*

MONDAY, MARCH 15, 2027 - AFTERNOON

David Baker Symposium: Amino Acid Nutrition in Modern Swine Feed Formulation. *Sponsored by David H. Baker Appreciation Club*

- Dr. Katlyn A McClellan, University of Illinois Champaign-Urbana – *Phase Feeding of Sows in Gestation: Importance of Amino Acids and Other Nutrients.*
- Dr. Jan Fledderus, Schothorst Fede Research – *Role of Dietary Protein and Single Amino Acids on Gut Health in Pigs.*
- Dr. John Patience, Iowa State University – *Implications of New Swine NRC on Applied Diet Formulation for Amino Acids and Other Nutrients.*

Physiology Symposium 2: Male Fertility/Sperm Selection-finding Biomarkers or Signals and Practical Implications.

- Dr. Sofia Ortega, University of Wisconsin-Madison – *Paternal Effects on Embryonic Development and Placentation.*
- Dr. Karl Kerns, Iowa State University – *Defining Sire Fertility Through Single-Cell Phenotyping to Uncover Practical Biomarkers in Livestock.*
- Dr. Dave Grieger, Kansas State University – *An Attempt to Bridge the Gap Between In Vitro Assessment and In Vivo Performance of Beef Bulls.*
- Dr. Wansheng Liu, Penn State - *Beyond Sperm Formation: The Role of Y-Linked PRAME in Male Fertility, Fertilization, and Early Embryonic Development.*

TUESDAY, MARCH 16, 2027 - MORNING

Harlan Ritchie Symposium: The Beef Industry in 2040. *Sponsored by American Angus Association*

- Dr. Kirsten Rospierski, Certified Angus Beef, LLC – *The Beef Consumer of 2040*
- Dr. Glen Dolezal, King Ranch Institute for Ranch Management, Texas A&M-Kingsville – *History of Change in the Beef Industry and Going Forward.*
- Dr. Timothy DelCurto, Montana State University – *Finding the Cow of the Future.*
- Dr. Robbi Pritchard, Annawan Cattle, LLC - *The Changing Beef Industry and What Lies Ahead.*

Nonruminant Intestinal Health Symposium 1: Aligning Biology, Technology, and Production Outcomes in Swine Systems. *Sponsored by Kemin*

This symposium will provide a forum to examine the biological, nutritional, and management factors that influence intestinal health, clarify where and when different technologies are most effective, and identify opportunities to better align solutions with specific production challenges. By fostering cross-species learning and collaboration among experts from the beef and swine industries, the symposium will help advance a more practical and science-based understanding of intestinal health and the role it has in supporting sustainable livestock production. Prior intestinal health symposia have successfully demonstrated the value of bringing together experts across multiple livestock sectors to discuss intestinal integrity, immune function, microbial balance, and animal performance.

- Dr. Alexander Yitbarek, University of Delaware – *IgA at the Interface of Innate and Adaptive Immunity: Implications for Gut Health in Monogastric Animals.*
- Dr. Sung Woo Kim, NC State University – *Jejunal Microbiota: Impacts from Diets and Influence on Mucosal Immunity in the Small Intestine of Nursery Pigs.*
- Dr. Todd Callaway, University of Georgia – *The Microbiome, Pathogen Ecology and Host Interactions.*
- Dr. Trey Kellner, AMVC Swine Nutrition – *Innovation or Distraction? A Decision Framework for Selecting and Applying Technologies.*

Teaching and Extension Education Symposium: Effective Teaching and Extension Programs: Maintaining Relevance in an Era of Constant Change.

Producer and student needs, technology, communication platforms, public expectations, and societal concerns are constantly evolving creating opportunities but also many challenges for institutions and specifically faculty engaged in teaching and extension efforts. This symposium will focus on both teaching and extension-focused presentations addressing both arms of the land grant mission from individuals representing a variety of roles and institutions addressing both teaching and extension focused questions.

- Dr. Gregg Hadley, Kansas State University – *What Do Our Communities Expect of Extension in the 21st Century?*
- Dr. Dan Buskirk, Michigan State University – *Meeting Producer Needs Among Rapid Information Transfer.*
- Dr. Marc Bauer, North Dakota State University – TBD

TUESDAY, MARCH 16, 2027 - AFTERNOON

Ruminant Intestinal Health Symposium 2: Aligning Biology, Technology, and Production Outcomes in Beef Systems. *Sponsored by Kemin*

This symposium will provide a forum to examine the biological, nutritional, and management factors that influence intestinal health, clarify where and when different technologies are most effective, and identify opportunities to better align solutions with specific production challenges. By fostering cross-species learning and collaboration among experts from the beef and swine industries, the symposium will help advance a more practical and science-based understanding of intestinal health and the role it has in supporting sustainable livestock production. Prior intestinal health symposia have successfully demonstrated the value of bringing together experts across multiple livestock sectors to discuss intestinal integrity, immune function, microbial balance, and animal performance.

- Dr. Rand Broadway, USDA Livestock Research Service – *Exploring the Intestinal Link to Liver Abscesses and Livestock Disease.*
- Dr. Jon Schoonmaker, Purdue University – *Beyond the Rumen: Intestinal Barrier Function and Its Implications for Cattle Health and Productivity.*
- Dr. Barry Bradford, Michigan State University – *Physiology vs. Pathology: An Evolving Picture of Gut Acidosis and Inflammation in Ruminants.*
- Dr. Josh McCann, University of Illinois – *Last but Not Least: Hindgut Happenings.*

Soybean Meal Symposium: Discovery and Application of Soybean Co-Products beyond Traditional Nutrition Considerations. *Sponsored by United Soybean Board (USB)*

- Dr. Ryan Dilger, University of Illinois Urbana-Champaign – *Immunomodulatory Properties of Soy-Derived Saponins in Young Pigs.*
- Dr. Amy Petry, University of Missouri – *Carbohydrases as a Strategy to Reduce Antinutritional Effects and Promote Prebiotic Benefits of Soy Carbohydrates in Swine Diets.*
- Dr. David Rosero, Iowa State University – *Soybean Hulls in Sow Nutrition: Effects on Sow Performance and Progeny Growth and Livability.*
- Dr. Paul Yeske, Swine Vet Center – *A New Way of Thinking about Soybean Meal – Its Impact on Swine Respiratory Disease and Specifically PRRSv.*
- Dr. Caleb Shull, The Maschhoffs, LLC – *Formulating Soybean Meal Levels to Optimize Grow-Finish Growth Performance and Pig Survival in Commercial Environments.*
- Dr. Bart Borg, Passel Farms, LLC – *Feed4Profit: Updates to the Model and Comparative Projections for 2027.*
- Dr. Zachary Smith, South Dakota State University – *Protein Quality Beyond Performance: The Potential Role of Soybeans in Supporting Immune Function of Beef Cattle.*
- Dr. Monty Kerley, Boveta Nutrition, LLC – *Health Benefits of Soybean Meal in Feedlot Cattle Diets: Gut Health and Respiratory Challenge Responses.*

Growth, Development, Muscle Biology and Meat Sciences Symposium: Selected for Growth, Judged on Quality: Molecular Phenotypes of Fresh Meat.

WEDNESDAY, MARCH 17, 2027 - MORNING

Swine Translational Symposium: Feeding the Health-Challenged Pig: From Theory to Practice.

- Dr. Derald Holtkamp, Iowa State University – *Impacts of Disease on Production (losses, etc.).*
- Dr. Wes Schweer, Cargill – *Field Perspective: How Disease Impacts Feeding Strategies*
- Dr. Luciano Hauschild, UNESP – *Current Work/Research in Nutrition Interventions Using a Salmonella-Challenged Models.*
- Dr. Andreas Gomez, University of Minnesota – *Addressing Health-Challenged Pig Nutrition Through the Mirobiome.*
- Dr. Nestor Gutierrez, Trouw Nutrition – *International Perspective: Feeding the Health-Challenged Pig in a Zn- and Antibiotic-Free Environment.*
- Dr. Kayla Miller, The Maschhoffs, LLC – *Industry Perspective: What is Disease Costing Us and How Do We Combat It?*

Workshop: Nutrient Requirements of Swine, Twelfth Revised Edition. *Sponsored by National Academies of Science, Engineering, and Medicine (NASEM), National Research Council (NRC)*
The purposes of this workshop are 1) to provide attendees with insight into where the requirement model and tool developed as part of the 12th edition of the Nutrient Requirements of Swine can fit into commercial nutrition programs and into research/education/extension programs, 2) to explain the main nutrition concepts upon which the model is based, and 3) demonstrate how to use the tool. After attending this workshop, attendees will feel more comfortable using the growth model and tool to determine nutrient requirements of animals (wean to finish and sows) to support a specific level of performance.