2009 Joint ADSA®-CSAS-ASAS Meeting Symposia

Please note titles and presenters are subject to change.

ADSA Production Division Symposium: Driving Forces in the Dairy Industry That Will Change Dairy Farm Management

- What the retailer will want from dairy farms. Kevin Murphy, Food-Chain Communications.
- Will animal welfare affect dairy farm manangement? Marina von Keyserlingk, University of British Columbia.
- Deriving value from DNA markers using SNP Chips. Curt Van Tassell, USDA - Beltsville.
- Affects of Climate Change and Environmental Regulation on Management of Dairy Farms. Wendy Powers, Michigan State University.

ADSA Southern Section Symposium: Dairy Replacement Health Challenges in the Southeastern U.S.

- Strategies to manage colostrum to enhance calf survivability and performance. Sandra Godden, University of Minnesota.
- Development of vaccination programs that enhance heifer immune systems. Sheila McGuirk, University of Wisconsin.
- Strategies to minimize the impact of heat stress on heifer health and performance. Joe West, University of Georgia.
- Differences in health and survivability between purebred and crossbred heifers. Bennet Cassell, Virginia Polytechnic Institute and State University.
- Producer's perspective on heifer health challenges in the Southeast and strategies to manage them. Mike Rainey, Briarpatch.

ALPHARMA Beef Cattle Nutrition Symposium: Alternative Energy Sources in High Energy Diets for Beef Cattle: Challenges, Benefits, and Management Options

- Predicting the Feeding Value of Co-products Based on Chemical Composition. Fred Owens, Pioneer Hi-Bred International.
- Interesting but Minor Ingredients Available for Use. Richard Zinn, University of California-Davis.
- Changes and Evolution of Chemical Composition of Corn Based Co-products. Larry Berger, University of Illinois.
- Utilization and Application of Wet Co-products. Mark Nelson, Washington State University.
- Implications of Feed Technology Use with Alternative Energy Sources. Mike Galyean, Texas Tech University.

Animal Behavior and Well-Being: The Behavior*Nutrition Interaction

- Behavior*Nutrition Interaction, Goats. Arthur Goetsch, American Inst. for Goat Research, Langston University.
- Behavior*Nutrition Interaction, Horses. Dennis Sigler, Equine Science, Dept. of Animal Science, Texas A&M.
- Behavior*Nutrition Interaction, Swine. Jeremy-Marchant-Forde, Livestock Behavior Research Unit, Purdue University & USDA ARS.
- Making sense of fear testing - validating common behavioral tests used in swine. Don Lay, Livestock Behavior Research Unit, Purdue University & USDA ARS.

Animal Health: Emerging Foreign Animal and Zoonotic Diseases

- Potential Threat of Foreign Animal Diseases to US Agriculture. Larry Barrett, PhD, Director of Plum Island Animal Disease Center.
- Preventing and Detecting Foreign Animal Diseases. Gary Adams, PhD, Professor, Assoc. Dean of Research, College Vet Med, TAMU.
- Response to a Foreign Animal Disease Incident. Andy Vestal, PhD, Associate Prof., Disaster Education, Agric-Life, TAMU.

Animal Health: Animal Well Being: Tackling the Issue of Cow Longevity

- New frontiers in mastitis research. Stephen Oliver, University of Tennessee.
- Battling lameness. Jan K. Shearer, Extension Veterinarian UF, CVM, LACS.
- Improving fertility. Milo C. Wiltbank, University of Wisconsin - Madison.
- Improving longevity with new genetic models & marker assisted selection. Kent Weigel, University of Wisconsin.

ARPAS Symposium: Feed Management: ARPAS, NRCS, and The National Project

- Update on ARPAS Feed Management Certification. Randy Shaver, UW-Madison.
- Update on National Feed Management Project. Joe Harrison, Washington State University.
- Update on Feed Management from Perspective of NRCS at National and State Levels. Glenn Carpenter, NRCS.
- Northeast U.S. Perspective on Feed Management. Virginia Ishler, Penn State University.
- Virginia Feed Phosphorus Monitoring Project. Charlie Stallings, Virginia Tech.

ASAS Cell Biology: REDOX Regulation of Cell Function

- Enzyme Regulation. Rodney Guttmann, University of Kentucky.
- Redox Potential/Status Regulation of Cell Function in Skeletal Muscle. Graeme Close, University of Liverpool, UK.
- Mitochondria Function In Poultry Sperm. David Froman, Oregon State University.
- Glutathione Peroxidases, Oxidative Stress And Post-Testicular Sperm Maturation. Joel Drevet, CNRS and Blaise Pascal University, Clermont, France.

ASAS Graduate Student Symposium: Decisions, Decisions, Decisions. Making Informed Decisions on Your Future From Career Opportunites to Developing a Successful Research Program.

- Exploring career prospects in extension with masters degree. Greg Lardy, North Dakota State University.
- In a rapidly changing and consolidating livestock industry what opportunites are available for a masters or doctorate animal science student? William Platter, Elanco Animal Health.
- Unique and non-traditional opportunties with an advance degree in animal science. Jennifer Garrett, Kellogg.
- Should I get a Ph.D. and if so is a post doc warranted? Terry Etherton, Penn State University.
- Interviewing for your first faculty position. How to prepare and what to expect. Linda Martin, Ohio State University.
- Developing a compettive research program and securing tenure as a new faculty hire. Brett Hess, University of Wyoming.

Beef Species: Population Data Analyses to Evaluate Trends in Animal Production Systems

- Gathering, managing, and quality control of population data. Normand R St-Pierre, The Ohio State University.
- Statistical tools employed by geneticists for analyses of population data. Jim Gosey, Prof. Emeritus, University of Nebraska.

- Data collection and determination of factors affecting efficiency of cow-calf production systems. Rodney Jones, Kansas State University.
- Analyses of carcass quality trends and impact on cattle value. Pete Anderson, VetLife.
- Combining financial and biological results: modeling and prediction. Albert De Vries, University of Florida.

Bioethics: A Scientist's Guide to Approaching Bioethics

- Agricultural Bioethics: Production, Products and Beyond. W. Ray Stricklin, University of Maryland, College Park.
- Thinking Critically about Bioethical Issues. Keith Schillo, University of Kentucky.
- A Pedagogical Tool for Scientists Faced with Ethical Issues. Candace Croney, Oregon State University.

Bioethics: Working through Bioethical Issues in Practice

- Introduction of Case Exercises and Working Process. 2009 ASAS ADSA Bioethics Committee.
- Work on Cases in Small Groups. Workshop Participants, guided by 2009 ASAS ADSA Bioethics Committee.
- Group Presentations on Working Processes and Conclusions. Workshop Participants, mediated by Janice Siegford.

Breeding and Genetics: Whole Genome Selection - The New Frontier?

- Experience with Whole Genome Selection in Dairy Cattle. Curt Van Tassell, USDA - Beltsville.
- Evaluation of Economically Relevant Traits in Beef Cattle. Mike Goddard, University of Melbourne (Australia).
- Use/Utilization of the 50K SNP panel in sheep. John McEwan, AgResearch (New Zealand).
- Use/Utilization of the 50K SNP panel in pigs. Larry Shook, University of Illinois.
- Bioinformatics Requirements to Apply Whole Genome Selection in Livestock. Dorian Garrick, Iowa State University.

Companion Animals: Dietary Supplements in Companion & Exotic Animal Nutrition - Use, Regulations & Safety

- Pet Food Regulations for Dietary Supplement Use. Sharon Benz, PhD, FDA/CVM.
- Safety of Dietary Supplements for Companion Animals – New NRC Publication. Gail Czarnecki-Maulden, PhD, Nestle Purina Company.
- If and when to use dietary supplements in exotic animal diet formulations. Nancy Irlbeck, PhD, Colorado State University.
- Veterinarian use of dietary supplements in companion animals. Phil Brown, DVM, Nutri-Vet LLC.
- Who are we, what do we do and how can we help? Bill Bookout, National Animal Supplement Council.
- Opportunities in Companion Animal Sciences. Gail Kuhlman, PhD, Procter & Gamble Pet Care.

Contemporary and Emerging Issues: Science-Based Approaches to Address Consumer Concerns with the Processing and Marketing of Animal Products

- Organic and Sustainable Agriculture in Dairy and Meat: Environment. Frank Mitloehner, University of California, Davis.
- Organic and Sustainable Agriculture in Dairy and Meat: Nutrition. Dale Bauman, Cornell University.
- Truth in Labeling. Rob Byrne, NMPF.
- Consumer Misconceptions About Dairy Foods. Rafael Jimenez-Flores, Cal - Poly.
- Dairy Foods: Inherent Nutrition vs. Value-Added. Greg Miller, DMI.
- Meat Product Safety. Ed Mills, Pennsylvania State University.

CSAS Symposium: Nutrition - Behavior Interactions in Ruminants

- Understanding the feeding behavior in dairy cows and its impact on cow health and productivity. Marina von Keyserlingk, University of British Columbia.
- Feeding behaviour and nutrition interactions in feedlot cattle. Karen Schwartzkopf-Genswein, Agriculture and Agri-Food Canada - Lethbridge.
- Nutrition-behavior interactions in the pre-ruminant calf. Jim Drackley, University of Illinois.
- Feeding behavior of growing cattle. Trevor Devries, University of Guelph.
- New perspectives on the foraging behavior of grazing ruminants. Steven M. Rutter, Harper Adams University College, Newport, Shropshire, UK.

CSAS Symposium: Optimizing Health using Functional Foods and Probiotics

- Postnatal development of the mucosal immune system in domestic animals and consequences on health in adulthood. Mick Bailey, University of Bristol.
- Influence of functional food on Intestinal Microbiota and Function and Their Subsequent Relationship with health. Jeffrey Escobar, Virginia Tech.
- Influence of fermented products on health. Edward Farnworth, Agriculture and Agri-Food Canada.
- Use of probiotics and prebiotics to modulate intestinal health in monogastric farm animals. Martin Lessard, Agriculture and Agri-Food Canada.
- Probiotics/prebiotics in ruminant nutrition. Tim McAllister, Agriculture and Agri-Food Canada.

Dairy Foods: Milk Protein Fractionation

- Introduction. Lloyd Metzger, South Dakota State University.
- Global use, opportunities, and challenges for dairy proteins. Phillip Tong, California Polytechnic State University, San Luis Obispo.
- Isolation of whey proteins from milk. David Barbano, Cornell University.
- Comparison of functional properties of whey proteins isolated from. Allen Foegeding, North Carolina State University.
- Comparison of the flavor chemistry and sensory properties of whey. MaryAnne Drake, North Carolina State University.
- An integrated processing system to produce beta-casein, whey protein and casein concentrates from whole milk. John Lucey, University of Wisconsin - Madison.
- Charged ultrafiltration membranes for whey protein fractionation. Mark Etzel, University of Wisconsin - Madison.
- Utilization of supercritical carbon dioxide to produce milk protein. Peggy Tomasula, USDA, ARS - Eastern Regional Research Center.
- Discussion of milk protein fraction nomenclature and closing remark. Lloyd Metzger, South Dakota State University.

Dairy Foods: Challenges and Opportunities of Microencapsulation Technology in Application to Dairy Foods

- Introduction to scientific principles and engineering technologies to microencapsulation as applicable to dairy foods. Kasipathy Kailasapathy, University of Western Sydney, Australia.
- Microencapsulation of probiotic bacteria: challenges and opportunities in dairy foods. Claude Champagne, Food Research Centre, Agri-Food, Quebec, Canada.
- Strategies to improve survival of probiotic bacteria and to reduce size of microcapsules for dairy food applications. Nagendra P. Shah, Victoria University, Melbourne.
- Food-protein derived polymers for microencapsulation and controlled delivery systems for application in dairy foods. Muriel Subirade, Laval University, Canada.

- Microencapsulation of recombinant enzymes for application in accelerated cheese ripening. Byong Lee, McGill University, Montreal, Canada.

Discover Conference: Physiological Value of Fat and Fat Supplements in Dairy Cow Production

- Symposium Introduction. Adam L. Lock and Donald Palmquist, University of Vermont & The Ohio State University.
- Optimum mix of metabolic fuels and endocrine responses to feeding fats. Niels Kristensen, Aarhus University, Denmark.
- Role of supplemnetal fats in the transition period and their impact on cow metabolism. James K. Drackley, University of Illinois.
- The impact of feeding fats on dry matter intake, energy balance and maintenance of body condition score. Ric Grummer, University of Wisconsin.
- Comparative lipid metabolism; what can we learn from other species? Jack Odle, North Carolina State University.

Extension Education: Models for Dairy Production Decision Making

- To Keep or Cull a Cow: An Economic Decision. Albert De Vries, University of Florida.
- Economic Impact of Reproductive Strageties. Mike Overton, University of Georgia.
- Modelling Nutrition Decisions. Mark Hanigan, Virginia Tech.
- Environmental Decisions Impact on Dairy Management Decisions. Victor Cabrera, University of Wisconsin.
- Impact of Disease on Dairy Production Decisions. David Galligan, University of Pennsylvania.

Food Safety: Emerging Food Pathogens in Animal Agriculture

- Mycobacterium paratuberculosis and its thermal resistance. Mansel Griffiths, University of Guelph.
- MRSA in food animals. Guy H. Loneragan, West Texas A&M University.
- C. difficile in cattle and swine. Roger Harvey, USDA-ARS, College Station.
- Non-O157 E. coli in food products. Jeff LeJeune, Ohio State University.
- Enterobacter and Food safety. John Luchansky or Brendan Niemira, Luchansky-USDA/ARS/ERRC.

Forages and Pastures: Forage Management Strategies to Offset High Input Costs

- Effects of supplementation and fertilization strategies on forage intake, diet selection, and performance of growing cattle. Stacey Gunter, USDA-ARS SPRRS.
- Effects of grazing management and stockpiling on productivity of cow-calf and stocker cattle operations. Matt Poore, NC State University.
- Effects of biological N fixation on stocking rates, animal productivity, and pasture species composition in cow calf and stocker programs. Monte Rouquette, Texas Agrilife.
- Economic analysis of costs, rewards, and trade-offs. Jeff Benson or Curt Lacey, NC State / U of Georgia.

Growth and Development: Fetal Programming in Animal Agriculture

- Dam/grand-dam nutrition during pregnancy effects milk supply in offspring and reproductive performance in grand-offspring. Hugh Blair, Massey University, New Zealand.
- Fetal programming of skeletal muscle development in ruminant animals. Min Du, University of Wyoming.
- Fetal programming of porcine adipose tissue development. Gary Hausman, ARS USDA, Athens, Georgia.
- Epigenetic and Maternal Programming: Transgenerational Control of Endocrinology and Metabolism. Michael Meaney, Departments of Psychiatry and Neurology and Neurosurgery, McGill University, Canada.

- Large animal models of developmental programming. Lawrence Reynolds, North Dakota State University.

Meat Science and Muscle Biology: Balancing Live Cattle Performance and Beef Quality

- Growth Technologies: Performance Benefits and Quality Considerations. Daryl Tatum, Colorado State University.
- Production systems to optimize growth and beef quality. Pete Anderson, VetLife.
- Cellular differentiation: What do we know regarding growth and marbling deposition? Brad Johnson, Texas Tech University.
- Managing genetic antagonisms: growth and marbling. Bob Weaber, University of Missouri.

Meat Science and Muscle Biology: The Effects of By-product Feeding on Meat Quality Traits

- Effects of distillers grains on beef carcass quality and palatability. Chris Calkins, University of Nebraska.
- Overview of potato by-products and their impact on beef quality traits. Greg Lardy, North Dakota State University.
- By-product feeding effects on pork quality and carcass traits. Jeff Wood, University of Bristol.

Milk Protein and Enzymes: Milk Enzymes their impact in dairy foods and human health

- Overview and Review of the enzymes in milk. Alan Kelly, University College Cork.
- Proteases in milk: Their role in processing and impact in human health. Kirby Hayes, Cal Poly.
- Lipases in milk. TBA.
- Enzymes associated to the MFGM. Rafael Jimenez-Flores, Cal Poly.

Nonruminant Nutrition: Mineral-Mineral Interactions: Implications for Nutrition

- The Ionome. James Fleet, Purdue University.
- Micromineral Interactions. Gretchen Hill, Michigan State University.
- Macromineral Interactions. Scott Radcliffe, Purdue University.
- How Should Future Mineral Requirement Studies Be Designed? Panel Discussion.

Nonruminant Nutrition: Improving the Nutritional Value of Alternative Feed Ingredients

- Carbohydrates in Alternative Feed Ingredients. George Fahey, University of Illinois.
- Mycotoxins in Alternative Ingredients. Trevor Smith, University of Guelph.
- Anti-Nutritional Compounds and Other Limitations to the Use of Alternative Feed Ingredients. Hans Stein, University of Illinois.
- NSPases and Phytase for Alternative Feed Ingredients. Ruurd Zijlstra, University of Alberta.

Physiology and Endocrinology: Impact Of Gonadal Steroids On Brain Development And Function

- Actions of Androgens in Regulating Sexual Differentiation of the Sheep Brain and Consequent Effects on Sexual Behavior. Charles Roselli, Oregon Health and Science University, Portland, OR.
- Nongenomic Actions of Estrogens Directly on the Ovine Pituitary Facilitates LH Secretion. Terry Nett, Colorado State University.
- Genomic and Nongenomic Aspects of Negative and Positive Feedback of Estrogens on the Hypothalamus. Jon Levine, Northwestern University.

Ruminant Nutrition: Forage Digestibility Estimates: Obtaining and Applying Meaningful Values

- Opportunities and Challenges in Determining Forage Digestibility Values. Ralph Ward, Cumberland Valley Analytical Services.
- Obtaining & Applying Meaningful Digestibility Estimates: Dairy. William P. Weiss, The Ohio State University.
- Obtaining & Applying Meaningful Digestibility Estimates: Forage-Fed Beef. Eric Vanzant, University of Kentucky.
- Addressing Fiber Digestibility in Low-Forage Diets. Michael L. Galyean, Texas Tech University.
- Real-World Application of Digestibility Estimates. Tom Peters, Superior Attitude Livestock Technology.

Ruminant Nutrition: Using Molecular Techniques to Advance Research in Ruminant Nutrition

- Molecular Techniques in Nutrition -- "For Dummies". Joanne Knapp, Fox Hollow Consulting.
- Use of DGGE and Real-time PCR to Study Microbial Metabolism in the Rumen. Jeffrey L. Firkins, The Ohio State University.
- Metagenomics of Rumen Microorganisms. Denis O. Krause, University of Manitoba.
- Elucidating Absorptive Metabolism in the Gut Tissues of Beef Cattle. James C. Matthews, University of Kentucky.
- Molecular Adaptations in Transition Dairy Cows. Juan J. Loor, University of Illinois.

Small Ruminant: Organic and Grass-Fed Small Ruminant Challenges and Opportunities

- Obstacles to organic and grass-fed small ruminant production. Joan Burke, USDA, ARS.
- Successful organic systems:Dairy. Francis Thicke, Organic Dairy Farm; OFRF Board Member.
- Livestock systems in transition. Kathy Soder, USDA, ARS.
- Research priortities for organic livestock systems. Jane Sooby, Organic Farming Research Foundation.
- Current views on organic production and consumer demands. Alice Rolls, Georgia Organics.

Swine Species: Environmental Concerns Based on Swine Production

- Swine research and extension needs in air and water quality. David J. Meisinger, Executive Director, U.S. Pork Center of Excellence.
- The effects of swine production on human health and the environment. Kelley J. Donham, Professor, College of Public Health, Department of Occupational and Environmental Health, University of Iowa.
- Utilization of swine nutrition to control environmental parameters for water, air and land. Suzanna Petersen, Swine Marketing Manager, LandOLakes.
- Handling swine manure through anaerobic digestion. Daniel Massé, Research Scientist, Agriculture and Agri-Food Canada, Dairy and Swine Research and Development.
- Chemical and sensory characterization of volatile and semi-volatile organic compounds emitted from swine manure. Steven J. Hoff, Professor, Agriculture and Biosystems Engineering, Iowa State University.

Teaching/Undergraduate and Graduate Education: Enhancing the Undergraduate Writing Experience

- Making the writing experience right. Debra K. Aaron, University of Kentucky.
- Designing effective writing assignments. Mike Orth, Michigan State University.
- Interactive Writing Workshop. Alan Zimmerman, Ohio State University.
- Large class room writing experiences. Jodie Sterle, Texas A&M University.
- Keeping a journal while doing an internship. Clair L. Hicks, University of Kentucky.
- Use of Writing Centers. Michel Wattiaux, University of Wisconsin.
- Panel discussion.

Triennial Reproduction Symposium: Challenges and Opportunities Facing Livestock Reproduction in the 21st Century

- A Global Perspective on the Evolution of Animal Agriculture. Ronnie Green, Global Director, Technical Services, Pfizer Animal Genetics.
- Impact of Animal Health on Endocrinology and Reproduction in Dairy Cows. David Wolfenson, Professor, The Hebrew University, Rehovot, Israel / the Ohio State University.
- Challenges in Matching the Reproductive Physiology and Productivity of the Modern Commercial Sow. George Foxcroft, Professor and Leader of the Swine Reproduction-Development Program, University of Alberta; Co-Director, NSERC EmbryoGENE Strategic Research Network.
- The Impact of Amino Acid Nutrition on Pregnancy Outcome in Pigs: Mechanisms and Implications for Swine Production. Guoyao Wu, Professor of Amino Acid Biochemistry and Nutrition, Dept. of Animal Science, Texas A&M University.
- Application of Genome Based Technologies for Identifying Genes and Their Expression that Are Important for Livestock Reproduction. Jerry Taylor, Professor and Wurdack Chair of Animal Genomics, Division of Animal Sciences, University of Missouri-Columbia.

- Application of molecular and genetic tools for identification of reproductive traits to create and establish commercial lines of swine. Tom Rathje, Chief Technical Officer, Danbred North America.
- Epigenetics: A Mechanism of Adaptation to Perinatal Events. Rob Lane, Associate Chair of Bench Research, Department of Pediatrics, Division of Neonatology, University of Utah School of Medicine, SLC.
- Impact of Dam Nutrition on Subsequent Growth and Reproduction in Beef Heifers. Rick Funston, Associate Professor, West Central Research & Extension Center, University of Nebraska.