

Looking Beyond 2020

YOUR 2020 WCDS SPEAKERS

Keynote Speaker



Marty Seymour
Farm Credit Canada

Presentation: **Can You Use Technology to Uber Proof Your Business?**
Wednesday, March 11, 2020; AM Plenary Session I

Marty Seymour was raised on a cattle and grain farm in Carnduff, SK. A cowboy at heart, he moved to Saskatoon and earned a degree in agriculture science from the University of Saskatchewan.

After a decade in sales and marketing in the animal health industry, Marty spent five years as CEO of the Canadian Western Agribition, Canada's largest livestock show and exhibition. Marty has been involved in international trade missions, sat on the economic development board of Sakimay First Nations, has done reality TV and was named a CBC Future 40 recipient for contributions to the community. Currently he's on the marketing committee for the Canadian Roundtable for Sustainable Beef (CRSB).



Geoffrey Dahl
University of Florida

Presentation: **Effects of Pre-partum Cow Management on Health and Performance of Calves**
Thursday, March 12, 2020; PM Concurrent Session V

Geoffrey Dahl is the Harriet B. Weeks Professor in the Department of Animal Sciences at the University of Florida, Gainesville. Geoff grew up on a dairy farm in Massachusetts and received his B.S. in Animal Science from the University of Massachusetts in 1985, an M.S. in Dairy Science from Virginia Tech in 1987, and earned his Ph.D. in Animal Science from Michigan State University in 1991.

Dr. Dahl conducts applied and basic research with direct impact on dairy production. Specific research interests include effects of photoperiod manipulation on production and health, the impact of frequent milking in early lactation on milk production, and heat stress abatement during the dry period on cow productivity and health. Dr. Dahl has authored over 125 peer-reviewed papers and numerous symposium and popular press articles. He has trained 22 graduate students and post-doctoral fellows. Dr. Dahl is a member of several professional and honorary societies including the American Dairy Science Association (ADSA), and currently serves as Past-President of ADSA.

Presentation Overview: Heat stress during the dry period has negative consequences for the dam and the developing fetus. The biology of these effects will be discussed along with considerations for management.



Albert De Vries
University of Florida

Presentation: **Genetics and Economics of Using vitro-Produced Embryo Transfer in Dairy Herds**
Thursday, March 12, 2020; PM Concurrent Session VI

Albert De Vries is currently a professor in the Department of Animal Sciences at the University of Florida. He grew up on a dairy and swine farm near Renswoude in the Netherlands. He went to Wageningen University where he received a BS and MS in Animal Science with a minor in agricultural economics in 1991. In 1995, he came to the US to pursue a Ph.D. in Animal Sciences at the University of Minnesota in St. Paul with a focus on dairy science, applied economics, operations research, and statistics. After graduation in 2001, Albert accepted a faculty position at the University of Florida in Gainesville.

Albert currently teaches two undergraduate dairy courses and advises undergraduate dairy students and graduate students. His research interests are in optimization of culling and replacement strategies, statistical process control, economics of reproduction and genetics, and precision dairy farming. In his extension role, he works with the allied dairy industry and dairy farmers on farm financial management and to apply the results of dairy systems management research. Albert is married to Kim who is a small animal veterinarian. Together they have twin daughters Grace and Karen and four cats. They live near Newberry, Florida.

Presentation Overview: Embryo transfer in dairy cattle from superior animals has the ability to quickly increase genetic merit of the dairy herd, but the cost is high. To maximize herd profitability, the optimal use of in-vitro produced embryo transfer depends on many factors such as the source of the embryos, cost of transfer, and the value of calves not kept as replacements. Budgeting has revealed how much in-vitro produced embryo transfer is economically optimal under various circumstances.



Jocelyn Dubuc
University of Montreal

Presentation: **Trouble-Shooting Reproduction Issues**
Thursday, March 12, 2020; PM Concurrent Session VI

Jocelyn Dubuc completed veterinary and Masters Degrees at the Université de Montréal. He also completed a doctoral degree at the University of Guelph in 2010. Currently, he works as a professor of dairy health management at the bovine ambulatory clinic of the Université de Montréal. His time is shared between being a veterinarian performing herd health management on commercial dairy farms and being a researcher interested by reproduction and transition cow disease management. He is also the President of the Canadian Association of Bovine Veterinarians.

Presentation Overview: This presentation will discuss key points to consider when trouble-shooting reproduction issues in dairy herds. A systematic approach will be used for this purpose in order to allow identification of the main bottlenecks. Frequent problem examples and potential solutions will be covered.



Ronald Erskine
Michigan State University

Presentation: **Three Ways to Lose Money on the Farm: A View from the Udder**
Wednesday, March 11, 2020; PM Concurrent Session III
and

Presentation: **Antibiotic Therapy: It's Not the Drugs, It's How We Use Them**
Friday, March 13, 2020; AM Plenary Session VII

Ron Erskine completed his bachelor's degree in Biochemistry and his D.V.M. at the University of Illinois in 1981. Following private practice in Belleville, Pennsylvania, Dr. Erskine completed his M.S. and Ph.D. at Pennsylvania State University in 1989. Dr. Erskine has been at Michigan State University since 1991 and is currently a Professor and Dairy Extension Veterinarian in the Department of Large Animal Clinical Sciences in the College of Veterinary Medicine. He teaches dairy health management to veterinary students. His research focuses on bovine infectious disease, especially in mastitis and milk quality. He is the project director of a multi-institution, USDA-funded project to reduce mastitis and antibiotic use in dairy cattle, including the critical link to employee training.

Presentation Overviews: Topic 1- (Three ways to lose money): Most herds focus on clinical mastitis and bulk tank somatic cell counts to track milk quality and mastitis losses. But subclinical mastitis, milking procedures and treatment decisions cause 'silent' losses that have a bigger impact on the bottom line. Not knowing your herd performance in these areas can also lead to misguided management decisions.

Topic 2- (Antibiotic therapy): Wonder why you treated a cow with antibiotics and it didn't seem to cure the mastitis? Are you sure when you treat a cow that the drug really had a benefit? The problem isn't the drugs, it's the people making the decisions on how to use them.



Rick Grant
William H. Miner Agricultural Institute

Workshop: **Milk as a Diagnostic Tool for Nutritional Management**

Tuesday, March 10, 2020; 1:30 – 4:30 pm

and

Presentation: **Relationships between Fibre Digestibility and Particle Size for Lactating Dairy Cows**

Wednesday, March 11, 2020; PM Concurrent Session II

Rick Grant was raised on a dairy farm in northern New York State. He received a B.S. in Animal Science from Cornell University, a Ph.D. from Purdue University in ruminant nutrition, and held a post-doctoral position in forage research at the US Dairy-Forage Research Center at the University of Wisconsin-Madison. From 1990 to 2003, Rick was a professor and extension dairy specialist in the Department of Animal Science at the University of Nebraska in Lincoln. Currently, he is a co-Trustee of the William Miner Foundation and President of the William H. Miner Agricultural Research Institute in Chazy, NY, a privately funded educational and research institute focused on dairy cattle, equine, and crop management. Rick's research interests include forages, dairy cattle nutrition, and cow behavior. He is an adjunct professor at Cornell University, University of Vermont, and the State University of New York-Plattsburgh. He has been the recipient of the Pioneer Hi-Bred International Forage Award and the Nutrition Professionals Applied Dairy Nutrition Award. Since 2016 he has authored the bi-monthly Dairy Bottom Line for Feedstuffs magazine.

Workshop Overview: Milk and its components are an important tool to identify nutrition and herd management changes that will optimize output of milk components. The workshop will focus on milk fat, protein, milk fatty acids, and other milk metrics to make nutrition and management decisions. The primary nutritional and management factors that influence milk composition will be identified and we'll discuss how they can be optimized on farm.

Presentation Overview: Understanding potential relationships between physically effective fiber and undigested fiber allows formulation of rations that optimize dry matter intake, milk and milk components, and rumen dynamics. Discussion will focus on recent research that integrates fiber digestion measures with particle size for forages and non-forage sources of fiber.



Cameron Knight
University of Calgary

Presentation: **Investigating Fetal Calf Loss**
Friday, March 13, 2020; AM Plenary Session VII

Cameron Knight is a US board certified veterinary anatomic pathologist. Since 2012 he has taught pathology at the Faculty of Veterinary Medicine, University of Calgary. Prior to that, he spent 6 years in New Zealand teaching at the veterinary college there, where he also completed his PhD on papillomaviral causes of cancer in horses. His pathology residency training was at Cornell University (New York), where he also taught anatomy and histology for 3 years. Before that he taught at veterinary colleges in New Zealand (Massey University) and the USA (Michigan State University). He is from New Zealand and trained as a veterinarian there. Despite having lived outside New Zealand for almost 20 years he still hasn't managed to lose his accent.

Presentation Overview: This presentation covers bovine abortion from the point of view of the producer / veterinarian / diagnostic laboratory interface. Rather than listing the numerous specific causes of abortion, this talk discusses the logical approach to working up abortion cases in general, focussing on correct and appropriate tissue sampling. The aim is to explain how the producer and veterinarian can collaborate to maximize the chance that a cause of abortion can be determined.



Anne Laarman
University of Alberta

Presentation: **Rethinking Ruminal Acidosis in Dairy Calves**
Thursday, March 12, 2020; PM Concurrent Session V

Anne Laarman completed his PhD and MSc degrees at the University of Alberta and started as an assistant professor in ruminant nutrition at the University of Idaho in 2015, in Moscow, ID. His research program focuses on both gut development and diet transitions, looking at how calves and cows absorb nutrients while maintaining gut health. The majority of his research focuses on how the calf gastrointestinal tract develops, and how the gastrointestinal tract functions differently from adult cows.

Presentation Overview: Subacute ruminal acidosis is a costly disease in dairy cows that reduces feed intake, milk production, and animal health. Recently, evidence has emerged that calves may thrive even during subacute ruminal acidosis. In calves, the response to highly fermentable diets changes as calves are weaned, and do not match the rumen pH and productivity response typically seen in adult cows. A new mindset is needed on the implications of low rumen pH in young calves.



Keith Lehman

Alberta Agriculture and Forestry

Presentation: **When (Before) Disaster Strikes: Preparation For a Disease Outbreak**

Friday, March 13, 2020; AM Plenary Session VII

Keith Lehman was born and raised in the Vegreville, Alberta area, spending a great deal of time on the family farm near Myrnam, Alberta. He currently lives in Edmonton with his wife, Cary. Upon completion of high school, he pursued an early passion for veterinary medicine by initially completing a Bachelor of Science in Agriculture at the University of Alberta and successfully applying for a seat at the Western College of Veterinary Medicine at the University of Saskatchewan. After graduation, he began his veterinary career in mixed animal practice northwest of Edmonton. Following that, he moved to the public service working for the Canadian Food Inspection Agency in Edmonton, Calgary, and a brief assignment in Ottawa. In the summer of 2014, he made the decision to move on from the federal government and apply for a position with Alberta Agriculture. In 2016, he was appointed as Alberta's Chief Provincial Veterinarian and in 2017 began a two year term as the chair of the Canadian Council of Chief Veterinary Officers. In his personal time, Dr. Lehman enjoys mountain biking, hiking, kayaking, and playing hockey. Today, Dr. Lehman will be speaking to us about preparing for disease outbreaks in his presentation titled "When (before) Disaster Strikes".

Presentation Overview: The presentation will start with an overview of basic biosecurity principles that can build a foundation for disease outbreak preparedness. This will include establishment of biosecurity zones, plans for continued access to your farm for milk pick-up and feed delivery, and development of a farm plan for other disease control activities.



Bill Mahanna

Pioneer

Presentation: **Corn Silage: Managing the Manageable**

Wednesday, March 12, 2020; PM Concurrent Session II

Bill Mahanna was raised on a Holstein dairy in Upstate New York and has a B.S. in Animal Science from Cornell University with M.S. and Ph.D. degrees in Dairy Science from the University of Wisconsin-Madison.

Bill has been with Pioneer for 32 years and is currently the Global Nutritional Sciences Manager. He also serves as a collaborative, associate professor in the Animal Science Department at Iowa State University and a visiting professor at Bila Tserkva State Agrarian University in the Ukraine.

Bill has worked with dairy producers across the United States, Canada, Europe, Japan and China and is known to many as a frequent speaker at producer and nutrition conferences. Bill has authored over 200 popular press articles including penning the "Dairy Bottom Line Nutrition" column in Feedstuffs Magazine from 2007 to 2015 and the "Field to Feed Bunk" column in Hoards Dairyman from 2010 to 2015. The American Dairy Science Association (ADSA) awarded Bill the 2014 Nutrition Professionals award for significant contributions to the field of applied dairy nutrition.

The Global Nutritional Sciences Team which Bill leads, is responsible for providing technical support for Pioneer dairy and livestock field specialists, overseeing on-farm field trials and nutritional troubleshooting as well as working closely with Pioneer breeders and agronomy researchers in all aspects of selecting, growing, harvesting, storing and feeding quality forage and grain crops. This team also wrote the Pioneer Silage Zone Manual, which encompasses plant, grow, harvest, store and feed aspects of corn silage, high-moisture corn and alfalfa silage.

Presentation Overview: Review of the genetic, growing environment and producer management factors contributing to corn silage yield and nutrient value.



Lisa McCrea
Agwest Veterinary Group

Presentation: **The 5 Habits of Highly Effective Farmers**
Wednesday, March 11, 2020; PM Concurrent Session III

Lisa McCrea grew up in rural New Brunswick. She studied at the University of Prince Edward Island where she obtained a Bachelor of Science degree in Biology. Dr. McCrea went on to graduate from the Atlantic Veterinary College in 1998. She spent the next ten years practicing in large animal clinics in Orangeville and Navan, Ontario where she developed an interest in dairy production medicine and reproduction. Lisa furthered her education in 2004 by completing the two-year Dairy Health Management Certificate Program at the Ontario Veterinary College in Guelph.

In 2007 Dr. McCrea joined Agwest Veterinary Group, Abbotsford BC, as a bovine veterinarian and business partner. Currently, Dr. McCrea specializes in advanced reproduction technologies including Embryo Transfer and in vitro Fertilization, along with a focus in Herd Production Management, calf health/nutrition, cow comfort and lameness. Dr. McCrea encourages a proactive approach in the herds she works with by monitoring herd production and productivity. Dr. McCrea has been appointed to the Dairy Farmers of Canada ProAction Animal Care Technical Committee as a representative for both the Canadian Veterinary Medical Association and practicing veterinarians.

Presentation Overview: Despite increasing pressures present in the dairy industry today, successful farms have found a way to adapt and thrive. Top performing dairy farms have the distinct ability to step back and objectively assess both their businesses and themselves. This presentation will walk through 5 key habits that the most effective farmers practice every day.



Mike Overton
Elanco Animal Health

Presentation: **Economics of Raising Dairy Replacement Heifers**
Thursday, March 12, 2020; PM Concurrent Session V

Michael Overton obtained his B.S. and D.V.M. from North Carolina State University and spent eight years in private practice. He returned to school to complete a dairy production medicine residency and his M.P.V.M. from the University of California-Davis. After thirteen years in academia, Dr. Overton has spent the past eight years in industry working for Elanco Animal Health in a data analytics and consultancy role. He has worked extensively in the areas of reproductive management, transition management, analysis of on-farm records, heifer management and economic decision making. He and his wife live in North Topsail Beach, NC and have two grown children.

Presentation Overview: For most dairies, the top three operating costs are feed, replacements, and labor but many producers underestimate the cost associated with raising their own replacement heifers. While the cost of raising heifers can vary considerably by geography and herd size, careful attention to details and nutritional management to support an efficient rate of gain can lead to improved value relative to cost. This presentation will describe the estimated cost of raising heifers and describe the value of improved performance.



Karen Schwartzkopf-Genswein
Agriculture and Agri-Food Canada

Presentation: **Transporting Cattle in 2020: Research and Regulation Update**
Wednesday, March 11, 2020; PM Concurrent Session III

Dr. Schwartzkopf-Genswein is a senior scientist whose expertise and research is in the area of Beef Cattle Welfare. She was raised on a farm in southern Alberta active in the feedlot business which was instrumental in sparking her interest of cattle, their care and management. In 1996, she obtained her PhD at the University of Saskatchewan in Applied Animal Ethology and in 2003 accepted a research scientist position in Beef Cattle Welfare with Agriculture and Agri-Food Canada in Lethbridge.

Her research includes pain/stress assessment and mitigation strategies associated with routine management procedures such as transport, castration, dehorning, and lameness. She has also focused her research in the area of stress reduction and early detection of illness in feedlot cattle. Based on her research she provides expert advice to provincial, federal and international producer groups on issues related to beef welfare including the National Cattle Feeders Association, Beef Cattle Research Council, Canadian Council on Animal Care and the NCBA, and North American Food Animal Well-Being Commission. She has served (2011-2013) as the co-chair of the Scientist Committee requested by the Canadian National Farm Animal Care Council to revise the Codes of Practice for the Care and Handling of Beef Cattle and the Transportation Codes of Practice (2018 -2021). Dr. Schwartzkopf-Genswein is currently an adjunct professor at the University of Saskatchewan, University of Calgary, University of Manitoba and UNESP University in Sao Paulo, Brazil where she is active in supervising and mentoring students at the Bachelors, Masters, and PhD levels.

Presentation Overview: Transportation of cattle continues to be both a public and industry concern from an animal welfare perspective. This presentation will include a summary of old and new research assessing the impacts of transport on cattle well-being with a focus on dairy cattle. Discussion will include recent changes to the transport regulations and what it means for producers. Practical recommendations for management before, during and after transport will be outlined.



Mike Steele
University of Guelph

Presentation: **Advances in Colostrum and Milk Feeding**
Thursday, March 12, 2020; PM Concurrent Session V

Michael Steele is an associate professor at the University of Guelph, NSERC Industrial Research Chair in Dairy Cattle Nutrition and Past-President of the Canadian Society of Animal Science (CSAS). He completed his Ph.D. at the University of Guelph and worked for Nutreco Canada Agresearch for two years prior to returning to academia at the University of Alberta and Guelph as an NSERC Industrial Research Chair. He was recently awarded the CSAS Young Scientist Award, the Cargill Young Animal Nutritionist Award, the Lallemand Award for Excellence in Dairy Nutrition Research and the American Society of Animal Science Early Researcher Award. His current research focuses on the mechanisms that control gastrointestinal health and development in cattle and has published over 70 manuscripts in his career.

Presentation Overview: One of the most critical management factors in calf survival and health is feeding a sufficient amount of high-quality colostrum in order to improve passive transfer. However, further benefits to GIT function and health are now being recognized and will be reviewed in this presentation. In addition, some of the newest strategies for transitioning calves from colostrum to high planes of milk nutrition in the first weeks of life will be discussed.



Jeffrey Stevenson
Kansas State University

Presentation: **New Strategies to Maximize Pregnancy Outcomes**
Wednesday, March 6, 2019; PM Concurrent Session III

Jeff is a native of Utah. His undergraduate degree is in Dairy Science from Utah State University. His graduate work (MS and PhD) was conducted at Michigan State University and at North Carolina State University. He is currently in his 40th year as a Professor at Kansas State University in the Department of Animal Sciences and Industry. He teaches courses in dairy science and ovarian physiology, conducts research in reproductive physiology, and is responsible for their 250-cow university dairy. Since 1992, he has contributed a monthly artificial breeding column published in Hoard's Dairyman.

Presentation Overview: Jeff will summarize current successful programs and practices to maximize pregnancy rate in lactating dairy cows that include aspects of transition health, ovulation control, estrus detection, and pregnancy diagnosis.



Adelle Stewart
The Do More Agriculture Foundation

Presentation: **How to Do More Mental Health in Agriculture**
Wednesday, March 11, 2020; PM Concurrent Session III

Adelle Stewart is the Executive Director for The Do More Agriculture Foundation. Joining the team in May of 2019, she is focused on the continued growth and expansion of the foundation across Canada.

Adelle is a Certified Life and Business Coach, and brings over 20 years' experience in health and wellness, mental health, workshop facilitation, disability management, human resources; as well as alternative and complimentary health supports, making mental health in ag a natural fit. Lastly, Adelle lives on a ranch in Saskatchewan where she also runs an equine stable, providing boarding, equi-health and equine assisted learning courses.

Presentation Overview: This presentation will review the current state and history of mental health in agriculture. This presentation will give attendees a brief overview into mental health, the basic skills to identify warning signs around mental health and arm them with strategies to become active in positive change for themselves and those around them. Adelle will also cover the important topic of self-care and supporting within your means.



Nina von Keyserlingk
University of British Columbia

Presentation: **Identifying Gaps in Building Bridges: Working Towards a Sustainable Dairy Industry**
Wednesday, March 11, 2020; AM Plenary Session I

Dr. Nina von Keyserlingk is a Natural Sciences and Engineering Research Council Industrial Research Chair in Animal Welfare. Her interdisciplinary approach has focused on identifying measures and ways of improving the lives of animals under our care. She is also among the first in her field to combine experimental and qualitative methods when addressing animal welfare issues. She has published over 250 peer reviewed publications and has received numerous awards, including the 2018 Hans Sigrist Foundation Prize, administered by the University of Bern, Switzerland, for her outstanding achievements as an international leader working in the field of sustainable food animal production. She was also awarded the American Dairy Science Association Extension Award in 2018 and is the only woman to have received the American Dairy Science Association Award for Excellence in Dairy Science (in 2013).

Presentation Overview: Practices common on dairy farms in North America are increasingly subject to criticism by consumers, citizens, and other stakeholders. In this presentation I will review different approaches that livestock farming industries have applied to counter these criticisms, explain how and why these approaches have largely failed, and then describe a new plan for stakeholder engagement that we believe will more effectively address these concerns. More importantly, people working within the dairy industry need to develop a vision for their sector, and plan to ensure that all practices on farm are consistent with this vision and the underlying values.



Claire Wathes
Royal Veterinary College, United Kingdom

Presentation: **Potential Impact of Viral Diseases on Conception Rates in Cattle**
Thursday, March 12, 2020; PM Concurrent Session VI

Claire Wathes graduated with a first degree in Biological Sciences then studied for a PhD in dairy fertility at the University of Nottingham. She then worked for periods at the University of Bristol and the Babraham Institute, Cambridge before moving to the Royal Veterinary College London in 1994 as Professor of Veterinary Reproduction. She “retired” in 2019 but is continuing to pursue her research. The main focus is on farm animal reproduction. She has a longstanding interest in the causes of infertility in dairy cows. One aspect has been to understand the metabolic signals which influence fertility, which then led to an interest in aspects of growth and development in heifers which affect their performance as an adult. More recently her work has expanded to include the additional effects of disease. She was awarded the Research Medal of the Royal Agricultural Society of England (RASE) in 2006 and the Marshall Medal of the Society for Reproduction and Fertility in 2015. She is a Fellow of the RASE and a Council member of the Royal Society of Biology. She has published over 200 research papers and over 60 reviews in the general area of farm animal reproduction, with a current h-index of 53.

Presentation Overview: The fertility of individual dairy cows is influenced by many factors including their age, genotype and metabolic status. These in turn affect the likelihood that uterine recovery after calving will be delayed by inflammatory processes. The main emphasis to date has concerned bacterial infections causing endometritis and mastitis. Many viral diseases are, however, endemic in cattle populations worldwide and this paper will review recent evidence that these are also influential in reducing conception rates.



Bill Weiss
Ohio State University

Presentation: **Managing Dietary Variation to Maintain or Improve Efficiency**
Wednesday, March 11, 2020; PM Concurrent Session II

Bill Weiss has been a professor of dairy cattle nutrition at Ohio State for more than 30 years with research and extension duties. His research program concentrates on the effect of nutrient variation on cow performance, effects of vitamins and minerals on cow health and improved methods of estimating digestibility of diets. He has published more than 120 scientific papers and 400 proceedings papers and is currently serving on the dairy NRC committee. Bill says that he “has had the pleasure of attending this conference 5 times over my career.”

Presentation Overview: Formulating effective diets for dairy cows is complicated because within a pen nutrient requirements of cows can vary greatly and nutrient composition of diets can vary day to day. A proper feed sampling schedule and interpretation of feed data are needed to manage feed variation which should reduce feed costs by avoiding over supplementation or increase production by avoiding nutrient deficiencies. Incorporating cow variation within a pen into ration formulation should also reduce feed costs or increase production.



Heather White
University of Wisconsin-Madison

Presentation: **Feeding For a Healthy Liver: The Role of Methionine and Choline in Transition Cows**

Wednesday, March 11, 2020; PM Concurrent Session II
and

Presentation: **Use of Big Data to Monitor Herd Health**
Friday, March 13, 2020; AM Plenary Session VII

Heather White is an Associate Professor in the Department of Dairy Science at the University of Wisconsin-Madison. Dr. White received her BS in 2005 from St. Mary's College in Notre Dame, Indiana and her MS and PhD degree at Purdue University, focusing in the area of Nutritional Physiology. She then went on to become a NIH post-doctoral fellow at Indiana University School of Medicine, in the Department of Medicine, Division of Endocrinology. She joined the University of Connecticut as an Assistant Professor in 2011 and then moved to the University of Wisconsin - Madison as an Assistant Professor in nutritional physiology in 2013.

Dr. White's research program focusses on utilization of nutrients, such as choline, methionine, and lactate, to optimize liver function and metabolism, determining post-absorptive influences on feed efficiency, genetic predisposition to metabolic disorders, and the impact of metabolic disorders on nutrient partitioning, tissue nutrient utilization, and feed efficiency. Dr. White was awarded the American Dairy Science Association Midwest Branch Young Dairy Scholar in 2011 and the ADSA Young Scientist Award in 2017.

Presentation Overviews

Feeding for a Healthy Liver: The liver is the center of energy, glucose, and lipid metabolism, especially during the transition period. Ensuring that there is sufficient supply of key nutrients is critical to optimizing liver metabolism. While the roles of methionine and choline are complimentary, they each serve a unique role in liver function and supporting transition cow health and productivity.

Use of Big Data to Monitor Herd Health: Early detection and treatment of metabolic health disorders is essential to reducing the economic and long-term health impacts; however, detection is expensive and laborious. Integrating prediction tools into your management practices can allow for herd-level monitoring and individual cow detection and treatment of some disorders such as ketosis.



Robin White
Virginia Tech

Presentation: **Sustainability of Animal Agriculture in the Global Food System**
Wednesday, March 11, 2020; AM Plenary Session I

Robin White earned her B.S. and Ph.D. degrees from Washington State University before moving to Virginia Tech to work as a postdoc for the National Animal Nutrition Program and subsequently as a USDA Postdoctoral Fellow. She began as an Assistant Professor in the Department of Animal and Poultry Sciences in 2015, where she leads a research group focused on improving our understanding of ruminant nutrition and leveraging nutrition as a strategy to enhance sustainability of ruminant production systems.

Presentation Overview: Sustainability of animal agriculture is frequently called into question because of the environmental impact of producing animal-source foods for human consumption. We evaluate the roles of livestock in the global food production system in terms of providing human-edible nutrients and contributing to agricultural greenhouse gas emissions and resource use. Although livestock are resource-intensive, they provide critical up-cycling functions and contribute to micro-nutrients that would otherwise be in low supply.