

# Nora M. Bello, PhD, DVM

Curriculum Vitae updated as of 07/01/2024

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## PROFESSIONAL EMPLOYMENT EXPERIENCE

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<b>Statistician</b> Agricultural Research Service – Northeast Area United States Department of Agriculture, Beltsville, Maryland (remote) Responsibilities: Research, statistical consulting	2024 – Present
<b>Professor, adjunct appointment</b> Department of Biomedical Informatics, College of Medicine The Ohio State University, Columbus, OH	2024 – Present
<b>Professor, tenured</b> Systems Modeling and Statistics, Department of Animal Sciences The Ohio State University, Columbus, OH Responsibilities: Research, teaching	2021 – 2024
<b>Faculty Affiliate</b> Translational Data Analytics Institute The Ohio State University, Columbus, OH	2021 – 2024
<b>Invited Professor</b> Department of Ecology, Genetics and Evolution College of Exact and Natural Sciences University of Buenos Aires, Buenos Aires, Argentina	2023
<b>Professor of Statistics, tenured</b>	2020 – 2021
<b>Associate Professor of Statistics, tenured</b>	2015 – 2020
<b>Assistant Professor of Statistics, tenure-track</b> Department of Statistics, Kansas State University, Manhattan, KS 50% appointment with the Agricultural Experiment Station Responsibilities: Research, statistical consulting, teaching, service	2010 – 2015
<b>Ancillary Faculty</b> Department of Diagnostic Medicine and Pathobiology, College of Veterinary Medicine Kansas State University, Manhattan, KS	2011 – 2021
<b>Visiting Scientist (Sabbatical leave)</b> Department of Animal Science, University of Wisconsin - Madison, WI	2017 – 2018
<b>Director, Statistical Consulting Laboratory</b>	2016 – 2017
<b>Interim Director, Statistical Consulting Laboratory</b> Department of Statistics, Kansas State University, Manhattan, KS	2016
<b>Statistical consultant</b> Statistical Consulting Center, College of Agriculture and Natural Resources and Michigan Agricultural Experiment Station, Michigan State University, East Lansing, MI  Emphasis on experimental design and data analysis, with emphasis in General and Generalized Linear Mixed Models. Software proficiency: SAS, R, High Performance Computing. Duties: Provided statistical support, including experimental design, data analysis and interpretation of research results, to faculty,	2007 – 2009

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research associates, technicians and graduate students at the MSU College of Agriculture and Natural Resources, and the Michigan Agricultural Experimental Station.

- Graduate Research Assistant** 2004 – 2010  
Department of Animal Science, Michigan State University, East Lansing, MI
- Dairy Reproductive Management Internship** 2003  
National Institute of Agricultural Technology (INTA), Rafaela, Santa Fe, Argentina  
Advisor: Martin Maciel, DVM, MSc.
- Dairy Management Internship** 2003  
Don Jose Dairy Farm, Colonia Caroya, Cordoba, Argentina  
Advisor: Roberto Sartori, DVM
- Beef Management Internship** 2003  
La Esperanza Cow-Calf Aberdeen Angus Ranch, Entre Rios, Argentina  
Advisor: Anibal Castiglione, Agronomist.

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## EDUCATION

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- Graduate Certification, Public and Nonprofit Leadership** 2023  
John Glenn College of Public Affairs, The Ohio State University, Columbus, OH GPA: 4.00/4.00
- Doctor of Philosophy** 2010  
Department of Animal Science, Michigan State University, East Lansing, MI  
Dissertation title: "Hierarchical Bayesian Modeling of Heterogeneity in the Relationship between Milk Production and Reproductive Performance in Dairy Cows". Emphasis on methodological development and implementation of hierarchical Bayesian multivariate statistical models for heterogeneous (co)variances.  
Advisor: Dr. Robert J. Tempelman, Professor
- Master of Science, Applied Statistics** 2008  
Department of Statistics and Probability GPA: 3.94/4.00  
Michigan State University, East Lansing, MI
- Master of Science, Animal Science** 2006  
Department of Animal Science GPA: 4.00/4.00  
Michigan State University, East Lansing, MI  
Thesis Title: "Optimizing ovulation to first GnRH improved outcomes to each hormonal injection of Ovsynch in lactating dairy cows". Emphasis in reproductive physiology and management of cattle  
Advisor: Dr. J. Richard Pursley, Associate Professor
- Doctor of Veterinary Medicine (DVM)** 2003  
Catholic University of Cordoba, Cordoba, Argentina GPA: 9.85/10.00
- Junior Computer Science and Database Management Technician** 1997  
Cervantes Institution for Computer Sciences, Cordoba, Argentina

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## HONORS and AWARDS

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- The Ohio State University Office for International Affairs  
Faculty Travel Award** 2023
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Project title: "Statistical capacity building for agricultural research through interdisciplinary US-Argentina collaborations". Amount: \$3,700

**The Ohio State University Center for Latin American Studies** 2022  
**Faculty Travel Award**

Project title: "Statistical capacity building for agricultural research through interdisciplinary US-Uruguay collaborations". Amount: \$ 5,250.

**American Society of Agronomy (ASA) Presidential Award** 2021

Presented to active members of the North Central Coordinating Committee 170 (NCCC-170) on Research Advances in Agricultural Statistics and Experiment Station Statisticians for the group's many contributions including: statistical courses in classrooms; one-on-one guidance on specific research problems; resolution of statistical issues surfaced during the peer-review process; convening popular workshops; authoring key books on emerging statistical methods; and participation in and improving grant applications. To quote 2021 ASA President Dr. Jeffrey Volenec, "This group has guided ASA members through decades of change in statistical analyses starting with punch cards and SAS and ending with clouds and R. Most importantly, our science, the evidence underpinning our conclusions and recommendations, and the students we have educated are better because of their scholarly contributions".

**President's Faculty Development Award** 2018

**Office of Research and Sponsored Programs, Kansas State University**

In partial support for professional travels to the 2018 International Biometric Conference in Barcelona, Spain. Summer 2018. Award: \$4,100.

**2012 Winner of Best Paper in Journal of Agricultural, Biological and Environmental Statistics** 2014

"Inferring upon heterogeneous associations in dairy cow performance using a bivariate hierarchical model". Journal of Agricultural, Biological and Environmental Statistics (JABES) 17(1): 142-161 by N. M. Bello, J.P. Steibel, R. J. Erskine and R. J. Tempelman.

**President's Faculty Development Award** 2014

**Office of Research and Sponsored Programs, Kansas State University**

In partial support for professional travel to present 2012 winner of "Best Paper in Journal of Agricultural, Biological and Environmental Statistics" at the 2014 International Biometric Conference in Florence, Italy. Summer 2014. Award: \$4,500.

**American Society of Animal Science Presidential Pick** 2013

Research abstract by Bello et al., entitled "Accounting for heterogeneous pleiotropy in whole genome selection models" as one of 30 abstracts selected out of 2,200 abstracts submitted to the 2013 Joint Annual Meetings of the American Dairy Science Association and the American Society of Animal Science (ASAS). The Presidential Pick program consists of a special poster session and is intended to create a closer link between the science presented at the national meetings and the science honored during the ASAS awards program. Selection criteria included scientific merit and overall interest. The panel that chose the posters included the ASAS President, the ASAS Past President and ASAS President-Elect

**Faculty Development Award** 2012

**Office of Research and Sponsored Programs, Kansas State University**

Travel support. Amount: \$500

**NSF ADVANCE Distinguished Lecture Series Awards** 2011, 2012

Kansas State University ADVANCE Institutional Transformation.

**Young Dairy Scholar Award** 2011

American Dairy Science Association

**Dissertation Completion Fellowship** 2010

College of Agriculture and Natural Resources, Michigan State University

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<b>Travel Fellowships, multiple awards</b>	2006 - 2010
Jointly awarded by the MSU Graduate School, the MSU College of Agriculture and Natural Resources and the MSU Department of Animal Science to attend and present research results at professional meetings.	
<b>Jacob A. Hoefer Endowed Fellowship in Animal Science</b>	2010
Department of Animal Science, Michigan State University	
<b>National Milk Producers Federation Paper Presentation Contest in Dairy Production: PhD division.</b>	
Joint Annual Meetings of the American Dairy Science Association, Montreal, Canada	2009
<b>Innovation Award from Children Central and Michigan Children's Trust Fund</b>	2009
Jointly awarded in collaboration with Dr. Laura Bix, Assistant Professor, School of Packaging, Michigan State University.	
<b>Elwood Kirkpatrick Dairy Research Endowment</b>	2008
In collaboration with Dr. R.J. Tempelman. Partnership between Michigan Milk Producers Association, the MSU Department of Animal Science and the MSU College of Agriculture and Natural Resources	
<b>National Dairy Leadership Award</b> (Top recipient)	2006
<b>Murray Hintz Memorial Scholarship</b>	
National Milk Producers Federation, US	
<b>Outstanding PhD Student Award</b>	2010, 2009
<b>Outstanding Graduate Instructor Award</b>	2009, 2007
<b>Outstanding M.S. Student Award</b>	2006
Department of Animal Science, Michigan State University	
<b>State Award for Student Academic Performance at University Level– First Place</b>	2000
Government of the State of Cordoba, Argentina	
<b>Special Mention to the highest qualification on English examination</b>	1996
University of Cambridge, England	

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## RESEARCH FUNDING

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### **National Science Foundation - ADVANCE Partnership**

#### **Program NSF 20-554**

**Total cost: \$ 1,250,000**

Project title: "STEM Intersectional Equity in Departments (SIEDS): A Partnership for Inclusive Work Cultures Michigan State University with The Ohio State University and Wayne State University". Principal Investigators: Provosts Teresa K. Woodruff (Michigan State University), Melissa Gilliam (The Ohio State University), and Mark Kornbluh (Wayne State University). Faculty PIs: Stephanie Nawyn (MSU), Wendy Smooth (OSU). Timeline: 2023-2024. Status: Awarded.

**Role: invited collaborator and faculty leader.**

### **U.S. Department of Agriculture – National Institute of Food and Agriculture (AFRI)**

#### **Foundational Program A1332 Food Safety and Defense**

**Total cost: \$ 589,000**

Project title: "Utilizing pre-harvest enumeration and risk factors to predict ground turkey test results". Principal Investigator: Jessie Vipham, Department of Animal Sciences and Industry, Kansas State University. Timeline: 2022-2024. Status: Awarded.

**Role: co-PI**

### **United States Agency for International Development (USAID)**

**Total cost: \$ 760,000**

#### **Feed the Future Innovation Laboratory on Food Safety at Purdue University**

Project title: "Reducing foodborne pathogen contamination of vegetables in Cambodia: Innovative research, targeted interventions and impactful Cambodian-led engagement". Lead investigators: Jessie Vipham,

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Animal Sciences and Industry, Kansas State University; and Paul Ebner, Department of Animal Sciences, Purdue University. Timeline: 2020-2024. Award #: 21-0968, F.00048684.02.087.

**Role: co-PI**

**U.S. Department of Agriculture – National Institute of Food and Agriculture (AFRI)**

**Conference Grant**

**Total cost: \$ 22,575**

2022 Conference on Applied Statistics in Agriculture and Natural Resources, held at Utah State University, Logan, Utah on May 16-19, 2022. Principal Investigator: Xin Dai, Utah State University. Timeline: 2022. Award #: 2022-67022-36954.

**Role: co-PI**

**National Science Foundation – EPSCoR Research Infrastructure Improvement Program**

**Program NSF 18-503**

**Total cost: \$ 3,999,999**

Project title: "RII Track-2 FEC: Building Field-based Ecophysiological Genome-to-Phenome Prediction". Principal Investigator: Stephen Welch, Department of Agronomy, Kansas State University. Timeline: 2018-2022. Award #: 1826820.

**Role: collaborator**

**U.S. Department of Agriculture - Agriculture and Food Research Initiative (USDA - AFRI)**

**Foundational Program A1221**

**Total cost: \$ 489,466**

Project title: "Risk Management Strategies to Reduce the Impacts of Bovine Respiratory Disease Complex in Commercial Feeder Cattle". Principal Investigator: David Renter, College of Veterinary Medicine, Kansas State University. Timeline: 2015-2019. Extended to 2020. Award #: 2015-67015-23079.

\*\*\*\*\*Ranked "Outstanding" and the #1 ranked proposal for this review panel

**Role: co-PI.**

**Global Food Systems Innovation Grant Program**

**Total cost: \$ 45,415**

**Kansas State University**

Grant proposal: "Development of a National Genetic Evaluation system for feet and leg conformation in beef cattle". Principal Investigator: Robert Weaber, Dept. Animal Sciences and Industry, Kansas State University. Timeline 2015-2016. Status: Funded.

**Role: co-PI.**

**Morris Animal Foundation**

**Total cost: \$ 41,446**

Grant proposal: "The effects of ophthalmic prednisolone and diclofenac on diabetes mellitus regulation in dogs". Principal Investigator: Amy Rankin, College of Veterinary Medicine, Kansas State University. Timeline: 2014-2016. Award # D14CA-321.

**Role: co-PI.**

**U.S. Department of Agriculture - Agriculture and Food Research Initiative (USDA - AFRI)**

**Foundational Program A1201**

**Total cost: \$ 677,108**

Grant proposal: "Statistical Methods And Bioinformatics Tools For Multiple Trait Whole Genome Precision Selection For Heterogeneous Environments". Principal Investigator: Robert Tempelman, Michigan State University. Timeline: 2011-2016. Award #2010-04538.

**Role: co-PI.**

**Micronutrients**

**Total cost: \$ 25,000**

Grant proposal: "The effects of SID Lysine and Intellibond C (TBCC) feeding strategy in finishing pigs on growth performance, carcass characteristics and economics". Principal investigator: Steve Dritz, College of Veterinary Medicine, Kansas State University. Timeline: 2014-2015. Awarded.

**Role: co-PI.**

**Zoetis (formerly Pfizer Animal Health)**

**Total cost: \$ 39,611**

Grant proposal: "Evaluation of immunologic response following oral vaccination with a USDA approved, attenuated, live Streptococcus equi vaccine". Principal Investigator: Elizabeth Davis, Dept. of Clinical Sciences, College of Veterinary Medicine, Kansas State University. Timeline: 2013-2014. Awarded.

**Role: co-PI.**

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**Pfizer Animal Health**

**Total cost: \$ 216,000**

Grant proposal: "Immune responses in healthy foals following vaccination: characterization of immune activation in the first year of life when the vaccination protocol is initiated at 90 days of age". Principal Investigator: Elizabeth Davis, Dept. of Clinical Sciences, College of Veterinary Medicine, Kansas State University. Timeline: 2012-2013. Awarded.

**Role: Consulting statistician.**

**College of Arts and Sciences Faculty Enhancement Program  
Kansas State University**

**Total cost: \$ 9,910**

Grant proposal: "Development and Validation of Statistical Methodology for Multiple Trait Genomic Selection". Timeline: 2012. Awarded.

**Role: PI.**

**National Institutes of Health (NIH)**

**Total cost: \$ 365,351**

**Program: Impact of Health Communication Strategies on Dietary Behaviors (R21)**

Grant proposal: "Evaluating Human Processing of Front of Pack Nutritional Labels". PI: Mark Becker and Laura Bix, Michigan State University. Timeline: 2011-2013. Award #: 1R21CA155818-01A1

**Role: co-PI.**

**MCAT College of Veterinary Medicine Intramural Grant Program  
Kansas State University**

**Total cost: \$ 14,624**

Grant proposal: "The Effects of Ophthalmic Prednisolone and Diclofenac on Diabetes Mellitus Regulation in Dogs (Pilot Study)". Principal Investigator: Amy Rankin, Department of Clinical Sciences, Kansas State University. Timeline: 2011-2012. Awarded.

**Role: co-PI.**

**Industry contract: Borregaard LignoTech**

**Total cost: \$ 68,000**

Project title: "Susceptibility of Acid Resin Treated Flaxseed to Ruminant Degradation and Implications for Milk Fatty Acid Profile of Lactating Dairy Cattle". PI: Barry Bradford, Kansas State University. Timeline: Summer 2011. Awarded.

**Role: collaborator.**

**U.S. Department of Agriculture - National Institute of Food and Agriculture (USDA - NIFA)**

**Total cost: \$ 8,000**

Grant proposal: "Food production, food safety and the global food supply". Principal Investigator: Randall Singer, University of Minnesota. Role: Subcontract awardee to support an international research externship for a student from Latin America in the US. Timeline: Summer 2011. Award #: 2006-55212-17250.

**Role: Subcontract.**

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**PUBLICATIONS**

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**In Preparation or under Review**

*us* Undergraduate student

*gs* Graduate student

*pd* Post doctoral fellow

*rd* Resident fellow

\* Senior author

1. Hay<sup>gs</sup>, V., S. Gragg, **N. M. Bello**, D. L. Boyle, V. Trinetta and J. Vipham\*. "Efficacy of cleaning and sanitation methods in reducing *Escherichia coli* on banana leaves and bamboo baskets: common food contact surfaces used in Cambodian fresh food markets". Journal of Food Microbiology. Submitted for publication.

2. Hayden<sup>gs</sup>, C. B., J. C. L. Motta<sup>gs</sup>, R. V. Sala, **N. M. Bello**, M. A. Coutinho da Silva, and A. Garcia Guerra\*. “Efficacy of methods to synchronize follicle wave emergence in pregnant heifers”. *Journal of Dairy Science*. Submitted for publication.
3. Ambike<sup>gs</sup>, V., L. Garcia\* and **N. M. Bello**. “Network modeling of meat quality traits in the Ohio beef industry”. *Translational Animal Science*. In preparation.
4. Ambike<sup>gs</sup>, V., S. Mosimann<sup>gs</sup>, K. Ouk<sup>gs</sup>, P. D. Ebner and **N. M. Bello**\*. “Learning network structure for ordinal outcomes: An application of inductive causation to food safety in Cambodia”. *Journal of Agricultural, Biological and Environmental Statistics (JABES)*. In preparation.
5. Shaffer<sup>gs</sup>, W. R., J. A. H. Moreno<sup>gs</sup>, **N. M. Bello**, R. Noland, J. Bormann, R. Weaver, C. M. Ahlberg, K. Allwart, K. Bruno, L. McPhillips, A. Taylor, C. R. Krehbiel, M S. Calvo-Lorenzo, C. J. Richards, S. E. Place, U. Desilva, L. A. Kuehn and M. M. Rolf\*. “Beef cattle phenotypic plasticity and stability of dry matter intake and respiration rate across varying levels of temperature humidity index”. *Journal of Animal Sciences*. In preparation.
6. Liu<sup>gs</sup>, L., M. W. Becker, B. Martin, R. Breslow, **N. M. Bello**, and L. Bix\*. “Do older patients read critical information appearing on the Drug Facts Label? Eye tracking of self-medicating older adults’ with over-the-counter (OTC) labeling during decision making.” *Research in Social and Administrative Pharmacy*. In preparation.
7. Bakin<sup>gs</sup>, C., **N. M. Bello**, J. M. Scheffler, N. L. Arnold, N. Asamene, T. Eguale, A. F. Haile, G. Tasew, and B. B. Kowalczyk\*. “A general linear mixed modeling approach for evaluating a training intervention on risk mitigation of coliform contamination on beef carcasses in Addis Ababa, Ethiopia”. *Journal of Food Protection*. In preparation.
8. Clinesmith<sup>gs</sup>, M., M. Nyine, E. Ahkunov, **N. M. Bello**, M. Guttieri and A. Fritz\*. “Contribution of haplotypes introgressed from *Aegilops tauschii* to end-use quality traits in common bread wheat”. *Crop Science*. In preparation.
9. Clinesmith<sup>gs</sup>, M., A. Fritz\*, C. L. da Silva, R. Bowden, **N. M. Bello**, M. Guttieri and E. Akhunov. “Genomic regions associated with adult plant resistance to leaf rust in wheat cultivars Everest and WB-Cedar”. *Crop Science*. In preparation.
10. Clinesmith<sup>gs</sup>, M., A. Fritz\*, C. L. da Silva, R. Bowden, **N. M. Bello**, M. Guttieri and E. Akhunov. “Genomic regions conferring leaf tip necrosis in wheat and their association with leaf rust resistance”. *Crop Science*. In preparation.
11. Karren<sup>gs</sup>, A. and **N. M. Bello**\*. “Investigating diagnostics for generalized linear mixed models”. In preparation.
12. Cheng<sup>pd</sup>, T., J. Pempek, D. Renaud, K. Proudfoot, Z. England, D. Wilson, **N. M. Bello** and G. Habing\*. 2023. “Benchmarking hydration, navel health and transfer of passive immunity in surplus dairy calves”. *Journal of Animal Science*. In preparation.

### Published Peer-Review Articles

<sup>us</sup> Undergraduate student

<sup>gs</sup> Graduate student

<sup>pd</sup> Post doctoral fellow

<sup>rd</sup> Resident fellow

\* Senior author

Publications available at: <https://norabello.weebly.com>

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**h-index = 31; Citations: 3234** (Google Scholar, as of 07/01/24)  
<https://scholar.google.com/citations?hl=en&user=chmsGRUAAAAJ>

1. Horne\*, E., P. Blackmore, **N. M. Bello**, J. Taylor and A. Skibbe. 2024. "Spatial and physical characteristics of bison wallows in the Flint Hills of Kansas". *Ecosphere* <http://doi.org/10.1002/ecs2.4861>
2. Hay<sup>gs</sup>, V., J. Vipham\*, **N. M. Bello**, D. L. Boyle, S. Gragg and V. Trinetta. "Efficacy of cleaning and sanitation in reducing *Salmonella spp.* on banana leaves and bamboo baskets: common food contact surfaces used in Cambodian fresh food markets". *Food Protection Trends*. In press.
3. Mosimann<sup>gs</sup>, S., K. Ouk<sup>gs</sup>, **N. M. Bello**, M. Chhoeun, L. Thompson, J. Vipham, L. Hok and P. Ebner\*. 2023. "Describing food safety perceptions amongst growers and vendors in Cambodian informal vegetable markets". *Frontiers in Sustainable Food Systems*. Volume 7, 2023: doi: 10.3389/fsufs.2023.1111580.
4. Wisnieski<sup>pd</sup>, L., M. W. Sanderson\*, D. G. Renter and **N. M. Bello**. 2023. Inferential implications of normalizing binomial proportions in a structural equation model: A simulation study motivated by feedlot data". *Preventive Veterinary Medicine* 2023 Aug; 217:105963. doi: 10.1016/j.prevetmed.2023.105963.
5. Mosimann<sup>gs</sup>, S., K. Ouk<sup>gs</sup>, **N. M. Bello**, M. Chhoeun, J. Vipham, L. Hok and P. Ebner\*. 2023. "Describing capability, opportunity, and motivation for food safety practices among actors in Cambodian informal vegetable market". *Frontiers in Sustainable Food Systems*. Volume 7, 2023: <https://doi.org/10.3389/fsufs.2023.1060876>
6. Gareli<sup>gs</sup>, M. S., A. Mendoza\*, **N. M. Bello**, F. Lattanzi, S. Farina and J.V. Savian\*. 2023. "Effects of grazing management and concentrate supplementation on intake and milk production of dairy cows grazing orchardgrass". *Animal Feed Science and Technology*, Volume 301, 2023, 115668. <https://doi.org/10.1016/j.anifeeds.2023.115668>.
7. Xu<sup>gs</sup>, J., G. M. Strasburg, K. M. Reed, **N. M. Bello** and S. G. Velleman\*. 2023. "Differential effects of temperature, and mTOR and Wnt-planar cell polarity pathways on syndecan-4 and CD44 expression in growth-selected turkey satellite cell populations". *PLoS One* 18(2): e0281350. <https://doi.org/10.1371/journal.pone.0281350>
8. Poudel<sup>gs</sup>, P., **N. M. Bello**, R. P. Lollato and P. D. Alderman\*. 2022. "A hierarchical Bayesian approach to dynamic ordinary differential equation modeling for repeated measures data on wheat growth". *Field Crops Research* 283:108549. <https://doi.org/10.1016/j.fcr.2022.108549>
9. Sheppard-Olivares<sup>rd</sup>, S., N. **M. Bello**, C. Johannes, S. Hocker, B. Biller, B. Husbands, E. Snyder, T. McKee, M.A. McMillan and R. M. Wouda\*. 2022. "Toceranib phosphate in the management of canine insulinoma: A retrospective multicentre study of 30 cases (2009-2019)". *Veterinary Record Open* 9:e27. <https://doi.org/10.1002/vro2.27>
10. Johnson\*, L., M. Gallart<sup>gs</sup>, J. Aldsdurf<sup>gs</sup>, B. Maricle, D. Gibson, A. Smith, S. Baer and **N. M. Bello**. 2022. "Invited review: Reciprocal gardens as gold standard to detect local adaptation in grassland species: New opportunities moving into the 21<sup>st</sup> century". *Journal of Ecology* 110(5):1054-1071. DOI: <https://doi.org/10.1111/1365-2745.13695>
11. Poudel<sup>gs</sup>, P., **N. M. Bello**, D. Marburger, B. F. Carver, Y. Liang and P. D. Alderman\*. 2021. "Ecophysiological modeling of yield and yield components in winter wheat using hierarchical Bayesian analysis". *Crop Science* 62(1): 358-373. <https://doi.org/10.1002/csc2.20652>
12. Bergamasco\*, L., **N. M. Bello**, L. N. Edwards-Callaway, S.H. Mijares<sup>gs</sup>, C. A. Cull<sup>gs</sup>, S. Rugan, R. A. Mosher<sup>gs</sup>, R. Gehring and J. F. Coetzee. 2021. "Unmitigated surgical castration in calves of different



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- ages: Cortisol concentrations, heart rate variability, and infrared thermography findings". *Animals* 11(9): 2719. DOI: <https://doi.org/10.3390/ani11092719>.
13. Bergamasco\*, **N. M. Bello**, L., L. N. Edwards-Callaway, S.H. Mijares<sup>gs</sup>, C. A. Cull<sup>gs</sup>, R. A. Mosher<sup>gs</sup> and J. F. Coetzee. 2021. "Unmitigated surgical castration in calves of different ages: Electroencephalographic and neurohormonal findings". *Animals* 11(6): 1791. DOI: 10.3390/ani11061791
  14. Schwan<sup>gs</sup>, C., K. C. Desiree<sup>gs</sup>, **N. M. Bello**, L. Bastos, L. Hok, R. K. Phebus, S. Gragg, J. Kastner and J. Vipham\*. 2021. "Prevalence of *Salmonella enterica* isolated from food contact and non-food-contact surfaces in Cambodian informal markets". *Journal of Food Protection* 84(1):73-79. DOI: 10.4315/JFP-20-112.
  15. Desiree<sup>gs</sup>, K., C. Schwan<sup>gs</sup>, V. Ly, L. Hok, **N. M. Bello**, L. Nwadike, R. K. Phebus and J. Vipham\*. 2021. "Investigating *Salmonella enterica*, generic *Escherichia coli* and coliforms on fresh vegetables sold in informal markets in Cambodia." *Journal of Food Protection* 84(5):843-849. doi: 10.4315/JFP-20-219.
  16. Chitakasempornkul<sup>gs</sup>, K., A. Jager, G. J. M. Rosa and **N. M. Bello**\*. 2020. "Hierarchical modeling of structural coefficients for heterogeneous networks, with an application to animal production systems". *Journal of Agricultural, Biological and Environmental Statistics (JABES)*. DOI: 10.1007/s13253-020-00389-0.  
\*\*\*\*\*Invited paper for a Special Issue of JABES titled "Recent Advances in Design and  
\*\*\*\*\*Analysis of Experiments and Observational Studies in Agriculture".
  17. Wang<sup>pd</sup>, X., P. Silva<sup>gs</sup>, **N. M. Bello**, D. Singh, B. Evers, S. Mondal, F. Espinosa, R. P. Singh and J. Poland\*. 2020. "Improved accuracy of high-throughput phenotyping from unmanned aerial systems by extracting traits directly from orthorectified images". *Frontiers in Plant Science* <https://doi.org/10.3389/fpls.2020.587093>
  18. Murphy<sup>rd</sup>, M.L., D. S. Hodgson\* and **N. M. Bello**. 2020. "Accuracy of oxygen delivery through bubble humidifiers and nasal catheters". *Veterinary Anaesthesia and Analgesia* 47: 356-367. DOI: <https://doi.org/10.1016/j.vaa.2020.01.004>
  19. Gallart<sup>gs</sup>, M., S. Sabates<sup>us</sup>, H. Tetreault<sup>gs</sup>, A. DeLaCruz, J. Bryant<sup>us</sup>, J. Alsdurf<sup>gs</sup>, M. Knapp, **N. M. Bello**, S. Baer, B. Maricle, D. A. Gibson, J. Poland, P. St Amand, N. Unruh, O. Parrish and L. Johnson\*. 2020. "Adaptive genetic potential and plasticity of trait variation in the foundational prairie grass *Andropogon gerardii* across a US Great Plains' climate gradient: Implications for climate change and restoration". *Evolutionary Applications* 00:1-24. DOI: <https://doi.org/10.1111/eva.13028>
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### Book Chapters

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### Conference ABSTRACTS

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1. Gordon\*, T., **N. M. Bello** and Z. Stansell. "Evaluation of Directly Seeded Hemp Accessions from the USDA Collection". Abstract. 2024 Agronomy Society of America, Crop Science Society of America and Soil Science Society of America International Annual Meeting. San Antonio, Texas, US. November 10-13, 2024.
  2. **Bello\***, **N. M.**, W. Stroup, R. Macchiavelli, B. Craig, M. Ptukhina and J. Couton. "What SAS and R software users need to know about Generalized Linear Mixed Models: an example-driven discussion". Abstract. 2024 Annual Meeting of the North Central Coordinating Committee 170 (NCCC170): Research Advances in Agricultural Statistics. Mayagüez, Puerto Rico. June 13-14, 2024.
  3. Ambike<sup>gs</sup>, V., L. Garcia and **N. M. Bello\***. "Network modeling of meat quality traits in the Ohio beef industry". Abstract. 2024 Conference on Applied Statistics in Agriculture and Natural Resources. Ames, Iowa, US. May 13-16, 2024.
  4. Craig\*, B. A., S. M. Brouder, J.J. Volenec, C. Cai, J. K. Yatilla, S. Murrell, M. Ruark, C. Barford, B. B. Sisolak, K. Dunn, S. J. Eschker, J. Gurevitch, J. Page and **N. M. Bello**. "The Evolution and Future Trajectory of a Systematic Review Course". Abstract. 2024 Conference on Applied Statistics in Agriculture and Natural Resources. Ames, Iowa, US. May 13-16, 2024.
  5. Archila Godinez<sup>gs</sup>, J.C., A. Melaku, S. Nigatu, K. Amenu, J. Barkley, A. Yousef, **N. M. Bello** and B. Kowalczyk. "Using mixed models to assess microbial contamination in raw milk from a pre- and post-training intervention in the central Oromia Region, Ethiopia". Abstract. Annual Meeting of the International Association of Food Protection. Long Beach, California, US. July 14-17, 2024.
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  7. Chhoeun<sup>gs</sup>, M., K. Ouk<sup>gs</sup>, P. Sokhom<sup>gs</sup>, R. Chrun, N. Sreng, C. Peng, **N. M. Bello**, P. Ebner\*, and J. L. Vipham\*. "Detection of Salmonella enterica and Escherichia coli on vegetables sold utilizing two different selling methods in fresh food markets in Battambang province, Cambodia". Abstract. Annual Meeting of the International Association of Food Protection. Long Beach, California, US. July 14-17, 2024.
  8. Ouk<sup>gs</sup>, K., M. Chhoeun<sup>gs</sup>, P. Sokhom<sup>gs</sup>, R. Chrun, N. Sreng, C. Peng, **N. M. Bello**, P. Ebner\*, and J. L. Vipham\*. "Assessment of Escherichia coli and Salmonella enterica on fresh vegetables grown on crop-only farms vs. integrated crop-livestock farms in Siem Reap, Cambodia". Abstract. Annual Meeting of the International Association of Food Protection. Long Beach, California, US. July 14-17, 2024.
  9. Tep<sup>gs</sup>, P., B. Bun, M. Chhoeun<sup>gs</sup>, K. Ouk<sup>gs</sup>, R. Chrun, C. Peng, C. Sem, N. Sreng, **N. M. Bello**, P. Ebner\*, and J. L. Vipham\*. "Prevalence of Escherichia coli and Salmonella enterica in the vegetable value chain in the province of Siem Reap, Cambodia". Abstract. Annual Meeting of the International Association of Food Protection. Long Beach, California, US. July 14-17, 2024.
  10. Tzirin<sup>gs</sup>, M. O., E. A. Mendez<sup>gs</sup>, M. Paredes<sup>gs</sup>, A. Carlson, A. J. Byrd, S. F. Applegate, **N. M. Bello**, T. G. O'Quinn, M. D. Zumbaugh and J. L. Vipham\*. "Utilizing pre-harvest enumeration and detection of Salmonella for ground turkey production". Abstract. Annual Meeting of the International Association of Food Protection. Long Beach, California, US. July 14-17, 2024.
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13. Cheng<sup>pd</sup>, T.Y., J. Pempek, D. Renaud, K. Proudfoot, Z. England, D. Wilson, **N. M. Bello** and G. Habing\*. "Effect of benchmarking reports on the transfer of passive immunity, navel health and hydration in surplus dairy calves". Abstract. Conference of Research Workers in Animal Diseases (CRWAD). Chicago, Illinois, US. January 20-23, 2024.
14. Bakin<sup>gs</sup>, C., N. Asamene, T. Eguale, A. F. Haile, G. Tasew, J. M. Scheffler, T. O'Bannon, **N. M. Bello** and B. Kowalczyk\*. "On meat hygiene and safety training interventions for mitigating risk of coliform contamination of raw beef in butcher shops of Addis Ababa city, Ethiopia". Abstract. Annual meeting of the Bill and Melinda Gates Foundation. Ethiopia. October 26-27, 2023.
15. Rykaczewski<sup>gs</sup>, C., J. D. Kieffer, **N. M. Bello**, A. Chang, M. Trotter and A. Garcia-Guerra\*. "Evaluation of on-animal sensors for monitoring diurnal physical activity of beef bulls during the breeding season". Abstract. Annual Conference of the American Association of Bovine Practitioners. Milwaukee, Wisconsin, US. September 21-23, 2023.
16. Bakin<sup>gs</sup>, C., N. Asamene, T. Eguale, J. M. Scheffler, A. F. Haile, G. Tase, **N. M. Bello** and B. Kowalczyk\*. "Effectiveness of Meat Hygiene and Safety Training Intervention for Mitigating Risk of Coliform Contamination Levels of Raw Beef in Selected Butcher Shops in Addis Ababa, Ethiopia". Abstract. Annual Meeting of the International Association for Food Protection. Toronto, Canada. July 16-19, 2023.
17. Hay<sup>gs</sup>, V., V. Trinetta\*, **N. M. Bello** and J. Vipham. "Effect of cleaning and sanitation on microbial load of experimentally inoculated banana leaves and bamboo baskets: food contact surfaces commonly used in Cambodian wet markets". Abstract. Institute of Food Technologists (IFT) Annual Meeting and Food Expo. Chicago, Illinois, US. July 16-19, 2023.
18. Rykaczewski<sup>gs</sup>, C., **N. M. Bello**, J. D. Kieffer, A. Chang, M. Trotter and A. Garcia-Guerra\*. "Evaluation of on-animal sensors for monitoring diurnal physical activity of beef bulls during the breeding season". Abstract. 2023 Annual Meeting of the American Society for Animal Science. Albuquerque, New Mexico. July 16-20, 2023.
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21. Habing\*, G., J. Pempek, D. Renaud, D. Wilson, K. Proudfoot, Z. England, **N. M. Bello** and T. Cheng. "Effect of benchmarking reports on the health of surplus calves". Abstract. Annual Meeting of the American Dairy Science Association. Ottawa, Canada. June 25-28, 2023.
22. Ambike<sup>gs</sup>, V., S. Mosimann<sup>gs</sup>, K. Ouk<sup>gs</sup>, P. E. Ebner and **N. M. Bello**\*. "Learning network structure for potential determinants of food safety practices in Cambodia's informal vegetable markets". Abstract. 2023 Conference on Applied Statistics in Agriculture and Natural Resources. West Lafayette, Indiana, US. May 16-19, 2023.

23. Hayden<sup>gs</sup>, C. B., J. C. L. Motta<sup>gs</sup>, **N. M. Bello**, R. V. Sala, P. Ross, J. F. Moreno and A. Garcia Guerra\*. "Assessment of methods to synchronize follicle wave emergence in pregnant heifers". Abstract. 49<sup>th</sup> Annual Conference of the International Embryo Technology Society. Lima, Peru. January 16-19, 2023. Published in *Reprod. Fertil. Develop.* 35:204-205. <https://doi.org/https://doi.org/10.1071/RDv35n2Ab153>.
  24. Legaz<sup>gs</sup>, G., **N. M. Bello** and P. M. Corva\*. "Genetic and environmental factors associated with productivity of aspirated oocytes in Brangus females". Abstract. 50<sup>th</sup> Argentinean Congress of Genetics. Corrientes, Argentina. October 2-5, 2022.
  25. Rykaczewski<sup>gs</sup>, C., J. D. Kieffer, **N. M. Bello**, M. Trotter and A. Garcia Guerra\*. "Retention and recovery of different on-animal sensors for monitoring behavior of beef bulls during breeding". Abstract. 2022 Conference of the American Association of Bovine Practitioners. Long Beach, California. September 22-24, 2022.
  26. K. Chitakasempornkul<sup>gs</sup>, G. J. M. Rosa, A. Jager and **N. M. Bello**\*. "Hierarchical Modeling of Heterogeneous Networks for Animal Production Systems". Abstract. 2022 ISBA (International Society for Bayesian Analysis) World Meeting, invited session on "Interventions in Complex Systems". Montreal, Canada. June 26 - July 1, 2022.
  27. Kogan\*, C., L. Devetter, **N. M. Bello** and G. Hoheisel. "Predicting blueberry cold hardiness in Washington". Abstract. Conference on Applied Statistics in Agriculture and Natural Resources. Logan, Utah. May 16-19, 2022.
  28. Gareli<sup>gs</sup>, M. S., A. Mendoza\*, **N. M. Bello**, F. Lattanzi, S. Farina, J. Davila, V. Raggio and J.V. Savian\*. "Intake and milk yield in cows grazing *Dactylis glomerata* in Spring: Effect of pasture management and supplementation". VII Congress of the Uruguayan Association of Animal Science. Virtual platform. December 14-15, 2021.
  29. Ortiz-Aquino<sup>gs</sup>, A., E. Hale<sup>gs</sup>, L. White<sup>gs</sup>, N. Albin, **N. M. Bello** and S. Welch\*. "Using a Special Problems Course to Conduct Research: Learning and Leassons". Abstract. 2021 Conference of the Coalition for Advancing Digital Research and Education (CADRE) at Oklahoma State University. April 14-16, 2021. Virtual platform.
  30. Karren<sup>gs</sup>, A. and **N. M. Bello**\*. "Investigating diagnostics for generalized linear mixed models". Abstract. Conference on Applied Statistics in Agriculture and Natural Resources. May 17-20, 2021. Virtual platform.
  31. Wisnieski<sup>pd</sup>, L., M. W. Sanderson\* and **N. M. Bello**. "Inferential implications of normalizing binomial proportions in a structural equation model: A simulation study based on feedlot data" Abstract. Conference on Applied Statistics in Agriculture and Natural Resources. May 17-20, 2021. Virtual platform.
  32. Poudel<sup>gs</sup>, P., P. D. Alderman\*, **N. M. Bello** and R. P. Lollato. "Repeated measures analysis of wheat data using dynamic ordinary differential equation modeling". Abstract. Conference on Applied Statistics in Agriculture and Natural Resources. May 17-20, 2021. Virtual platform.
  33. Poudel<sup>gs</sup>, P., **N. M. Bello**, R. P. Lollato and P. D. Alderman\*. "Repeated measures analysis of wheat data using dynamic ordinary differential equation model". Abstract. International Annual Meeting of the American Society of Agronomy (ASA), the Crop Science Society of America (CSSA) and the Soil Science Society of America (SSSA). November 9-13, 2020. Virtual platform due to COVID-19.
  34. Hale<sup>gs</sup>, E., A. Ortiz-Aquino<sup>gs</sup>, L. White<sup>gs</sup>, N. Albin, P. Alderman, S. Welch and **N. M. Bello**\*. "Computational efficiency of Hamiltonian Monte Carlo for Genomic Prediction". Abstract. 2020 Society for the Advancement of Chicano/Hispanics and Native Americans in Science (SACNAS) National Diversity in STEM Conference. October 22-24, 2020. Virtual platform due to COVID-19.
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35. Ortiz-Aquino<sup>gs</sup>, A., E. Hale<sup>gs</sup>, L. White<sup>gs</sup>, N. Albin\*, P. Alderman, **N. M. Bello** and S. Welch. "The Escalator Boxcar Train method for time-dependent wheat models". Abstract. 2020 Society for the Advancement of Chicano/Hispanics and Native Americans in Science (SACNAS) National Diversity in STEM Conference. October 22-24, 2020. Virtual platform due to COVID-19.
  36. Hale<sup>gs</sup>, E., A. Ortiz-Aquino<sup>gs</sup>, L. White<sup>gs</sup>, N. Albin, P. Alderman, S. Welch and **N. M. Bello**\*. "Computational efficiency of Hamiltonian Monte Carlo for Genomic Prediction". 2<sup>nd</sup> Joint Annual Meeting of the Society for Industrial and Applied Mathematics (SIAM) and the Canadian Applied and Industrial Mathematics Society (CAIMS). July 6-10, 2020. Virtual platform due to COVID-19.
  37. Hale<sup>gs</sup>, E., A. Ortiz-Aquino<sup>gs</sup>, L. White<sup>gs</sup>, N. Albin, P. Alderman, S. Welch and **N. M. Bello**\*. "Computational efficiency of Markov Chain Monte Carlo methods for Genomic Prediction". Abstract presented at the Year 2 annual meeting of the RII Track-2 FEC: Building Field-based Ecophysiological Genome-to-Phenome Prediction. May 28, 2020. Virtual platform due to COVID-19.
  38. Poudel<sup>gs</sup>, P., P. D. Alderman\*, **N. M. Bello** and R. P. Lollato. "Repeated measures analysis of wheat data using dynamic ordinary differential equation modeling". Abstract. Conference on Applied Statistics in Agriculture and Natural Resources. Gainesville, Florida. April 26-28, 2020. Abstract accepted for presentation but conference cancelled due to COVID-19.
  39. White<sup>gs</sup>, L., Hale<sup>gs</sup>, E., A. Ortiz-Aquino<sup>gs</sup>, N. Albin, P. Alderman, S. Welch and **N. M. Bello**\*. "Computational efficiency of Hamiltonian Monte Carlo for Genomic Prediction". Abstract. Conference on Applied Statistics in Agriculture and Natural Resources. Gainesville, Florida. April 26-28, 2020. Abstract accepted for presentation but conference cancelled due to COVID-19.
  40. Ortiz-Aquino<sup>gs</sup>, A., E. Hale<sup>gs</sup>, L. White<sup>gs</sup>, N. Albin\*, P. Alderman, **N. M. Bello** and S. Welch. "The Escalator Boxcar Train method for time-dependent wheat models". Abstract. Conference on Applied Statistics in Agriculture and Natural Resources. Gainesville, Florida. April 26-28, 2020. Abstract accepted for presentation but conference cancelled due to COVID-19.
  41. Welch\*, S., G.M. Hettiarachchi, **N. M. Bello**, P. D. Alderman. "Current needs and transitional concepts related to soil sensors". Abstract. Joint International Annual Meeting of the American Society of Agronomy (ASA), the Crop Science Society of America (CSSA) and the Soil Science Society of America (SSSA). San Antonio, Texas. November 10-13, 2019.
  42. Galliard<sup>gs</sup>, M., P. St. Amand, J. Poland, **N. M. Bello**, M. Knapp, S. Baer, B. R. Maricle and L. Johnson\*. "Experimental natural selection of big bluestem ecotypes across the Great Plains climate gradient". Abstract. 2019 Annual Meeting of the Ecological Society of America (ESA) Louisville, Kentucky. August 11-16, 2019.
  43. Johnson\*, L., M. Galliard<sup>gs</sup>, **N. M. Bello**, S. Baer, B. Maricle, J. Poland. "Experimental selection of big bluestem grass ecotypes across the Great Plains climate gradient". Abstract. Evolution 2019: Joint Annual Conference of the American Society of Naturalists, the Society for the Study of Evolution and the Society of Systematic Biologists. Providence, Rhode Island. June 21-25, 2019.
  44. K. Chitakasempornkul<sup>gs</sup>, G. J. M. Rosa, A. Jager and **N. M. Bello**\*. "Hierarchical modeling of structural coefficients for heterogeneous networks with an application to animal production systems". Oral presentation. Annual Meetings of the Multi-state Research Project NCCC-170 on "Recent Advances in Agricultural Statistics" sponsored by USDA-CSREES. Urbana-Champaign, Illinois. June 20-21, 2019.
  45. Albin, N., P. Alderman, **N. M. Bello**, C. Chen, L. Duke, D. Flippo, F. Fondjo-Fotou, A. Fritz, G. Hettiarachchi, C. Howard, K. Jagadish, J. Poland, E. Santos, J. Snow, S. Welch\*, L. Yan. "Building field-based ecophysiological genome-to-phenome prediction". Abstract. Kansas State University Global Food Systems Focus Day. Manhattan, Kansas. March 7, 2019.
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46. Renter\*, D. G., **N. M. Bello**, N. Cernicchiaro, R. L. Larson, M. W. Sanderson, T. C. Schroeder, B. J. White. "Risk management strategies to reduce the impacts of bovine respiratory disease complex I commercial feedlot cattle". Abstract. Conference of Research Workers in Animal Disease (CRWAD). Chicago, Illinois. December 1-4, 2018.
  47. Welch\*, S. M., P.D. Alderman, F. Fondjo, C. Leuschen, A. Lamsal, D. Gomez-Garcia, M. Guttieri, A. Fritz, A. Asebedo, **N. M. Bello**, S. Kulesza, B. Washburn, E. Santos, K. Corwin. "Co-design of Gene-Based Ecophysiological Crop Models for Breeding and Management". 2018 International Annual Meeting of the American Society of Agronomy, the Crop Science Society of America and the Canadian Society of Agronomy. Baltimore, Maryland. November 4-7, 2018
  48. Johnson\*, L., S. Sharpe<sup>gs</sup>, **N. M. Bello**, M. Galliard and O. Parrish. "Rapid adaptation in a contaminated environment: Evolutionary adaptive response of old field grass *Andropogon virginicus* to heavy metals in an abandoned mine site". Abstract. Botany 2018. Annual meeting of the Botanical Society of America. July 21-25, 2018, Rochester, Minnesota
  49. Chitakasempornkul<sup>gs</sup>, K., A. Jager, **N. M. Bello**\*. "Hierarchical Bayesian structural equation modeling of heterogeneous relationships between performance outcomes in animal production systems". Oral presentation. 2018 International Biometrics Conference. Barcelona, Spain. July 8-13, 2018.
  50. **Bello\***, **N. M.**, K. Chitakasempornkul<sup>gs</sup>, M. B. Menegat<sup>gs</sup>, M. A. D. Goncalves, S. S. Dritz, A. Jager, M. D. Tokach, R. D. Goodband. "Searching for causal networks in experimental data: a swine application". Oral presentation. Annual Meetings of the Multi-state Research Project NCCC-170 on "Recent Advances in Agricultural Statistics" sponsored by USDA-CSREES. Fayetteville, Arkansas. June 28-29, 2018.
  51. Johnson\*, L.C., M. Galliard<sup>gs</sup>, **N. M. Bello**, J. Poland, P. St Amand, M. Knapp, B. Maricle, S. Baer. "Experimental natural selection of big bluestem grass ecotypes across the Great Plains' climate gradient". Poster presentation. 2018 Population, Evolutionary and Quantitative Genetics Conference PEQG18. Madison, Wisconsin. May 13-17. 2018.
  52. Chitakasempornkul<sup>gs</sup>, K., A. Jager, **N. M. Bello**\*. "Hierarchical Bayesian structural equation modeling of heterogeneous relationships between performance outcomes in animal production systems". Oral presentation. 2018 Conference on Applied Statistics in Agriculture. Manhattan, Kansas. May 6-8, 2018.
  53. Chitakasempornkul<sup>gs</sup>, K., M. B. Menegat<sup>gs</sup>, M. A. D. Goncalves, S. S. Dritz, A. Jager, M. D. Tokach, R. D. Goodband, **N. M. Bello**\*. "Exploring causal biological relationships between reproductive traits in high-performing gilts and sows". Oral presentation. 2018 Midwest Meetings of the American Society of Animal Sciences. Omaha, Nebraska. March 12-14, 2018.
  54. Shawk<sup>gs</sup>, D. J., K. N. Nemechek, R. D. Goodband, J. C. Woodworth, M. D. Tokach, S. S. Dritz, Chitakasempornkul<sup>gs</sup>, **N. M. Bello** and J. M. DeRouchey\*. "Effect of increasing chloride concentration on 7 to 12 kg nursery pig growth performance". Abstract. 2018 Midwest Meetings of the American Society of Animal Sciences. Omaha, Nebraska. March 12-14, 2018.
  55. Wu<sup>gs</sup>, F., M. D. Tokach, J. M. DeRouchey, S. S. Dritz, J. C. Woodworth, R. D. Goodband, K. Capp, S. Remfry, K. Chitakasempornkul, **N. M. Bello**, T. G. Nagaraja, R. G. Amachawadi\*. "Effects of tylosin administration route on the development of antimicrobial resistance in fecal enterococci of finishing swine". Abstract. 2018 Midwest Meetings of the American Society of Animal Sciences. Omaha, Nebraska. March 12-14, 2018.
  56. Sharpe<sup>gs</sup>, S., L. Johnson\*, **N. M. Bello**, O. Parrish and M. Galliard. "Rapid evolution in a contaminated environment: evolutionary response of native grass *Andropogon virginicus* to heavy metals in an abandoned mine site". Abstract. Annual Conference of the oSTEM professional society (Out in Science, Technology, Engineering and Mathematics). Chicago, Illinois. November 16-18, 2017.
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57. Rankin\*, A. J., T. O. Schermerhorn, K. S. KuKanich, **N. M. Bello**, J. A. S. Huey, K. A. Fentiman and J. A. Meekins. "The effects of ophthalmic prednisolone and diclofenac on diabetes mellitus regulation in dogs". Abstract. 2017 American College of Veterinary Ophthalmologists Conference. Baltimore, Maryland. October 11-14, 2017.
  58. Murphy<sup>rd</sup>, M., D. Hodgson\*, **N. M. Bello**. "On accuracy and precision of oxygen flow meters". Abstract. International Veterinary Emergency and Critical Care Symposium. September 13-17, 2017. Nashville, Tennessee.
  59. Sharpe<sup>gs</sup>, S., L. Johnson\*, **N. M. Bello**, O. Parrish and M. Galliard. "Rapid evolution in a disturbed environment: evolutionary response of native grass *Andropogon virginicus* to heavy metals in an abandoned mine site". Abstract. "Switchgrass IV: Prairie and Native Grass International Conference". Lincoln, Nebraska. August 7-10, 2017.
  60. Sharpe<sup>gs</sup>, S., L. Johnson\*, **N. M. Bello**, M. Galliard and O. Parrish. "Rapid adaptation in a contaminated environment: evolutionary adaptive response of old field grass *Andropogon virginicus* to heavy metals in abandoned Lead and Zinc mines". Abstract. "Evolution 2017" Joint Annual Conference of the American Society of Naturalists, the Society for the Study of Evolution and the Society of Systematic Biologists. Portland, Oregon. June 23-27, 2017.
  61. Bridges, W., W.W. Stroup, **N. M. Bello** and B. Craig. "Overview of Statistics as a scientific discipline and practical implications for evaluation of faculty excellence". Abstract for oral presentation and discussion at the annual meeting of NCCC 170 on "Research Advances in Agricultural Statistics". Elk River, Minnesota. June 22-23, 2017.
  62. Sharpe<sup>gs</sup>, S., L. Johnson\*, O. Parrish, M. Galliard, **N. M. Bello**. "Rapid evolution in a disturbed environment: evolutionary response of native grass *Andropogon virginicus* to heavy metals in an abandoned mine site". Abstract. 2017 Botany Conference. Fort Worth, TX. June 24-28, 2017.
  63. Chitakasempornkul<sup>gs</sup>, K. , E. Cha, M. Sanderson, A. Jager, N. Cernicchiaro, T. Schroeder, D. G. Renter and **N.M. Bello**\*. "Accounting for data architecture on structural-equation-based modeling of feedlot performance outcomes". Abstract for oral presentation at the 2017 Kansas State University Conference on Applied Statistics in Agriculture, Manhattan, Kansas. April 23-25, 2017.
  64. Chitakasempornkul<sup>gs</sup>, K. , M. B. Menegat<sup>gs</sup>, S. S. Dritz, M. A. D. Goncalves, A. Jager, M.D. Tokach, R. D. Goodband and **N.M. Bello**\*. "Exploring biological relationships between reproductive outcomes in high-performing gilts and sows following nutritional management during late gestation". Abstract for oral presentation at the 2017 Kansas State University Conference on Applied Statistics in Agriculture, Manhattan, Kansas. April 23-25, 2017.
  65. Cha, E., M. Sanderson\*, **N.M. Bello**, N. Cernicchiaro, A. Jager and D. G. Renter "Network assessment of the relationship between Bovine Respiratory Disease Morbidity and performance in feedlot cattle". Abstract for oral presentation at the 2017 Kansas State University Conference on Applied Statistics in Agriculture, Manhattan, Kansas. April 23-25, 2017.
  66. Sharpe<sup>gs</sup>, S., L. Johnson\*, O. Parrish, M. Galliard, **N. M. Bello**. "Rapid evolution in a disturbed environment: evolutionary response of native grass *Andropogon virginicus* to heavy metals in an abandoned mine site". Kansas State Graduate Research, Arts and Discovery (GRAD) Forum. Manhattan, KS. March 30, 2017.
  67. Galliard<sup>gs</sup>, M., P. St Amand, J. Poland, **N. M. Bello**, M. Knapp, S. G. Baer, B. R. Miracle and L. Johnson. "Experimental natural selection of big bluestem grass ecotypes across the Great Plains climate gradient". Kansas State Graduate Research, Arts and Discovery (GRAD) Forum. Manhattan, KS. March 30, 2017.
  68. Chitakasempornkul<sup>gs</sup>, K. , E. Cha, M. Sanderson, A. Jager, N. Cernicchiaro, T. Schroeder, D. G. Renter and **N.M. Bello**\*. "Accounting for data architecture on structural-equation-based modeling of feedlot
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- performance outcomes". Abstract for oral presentation at the 2016 Conference of Researcher Workers in Animal Disease, Chicago, Illinois. December 4-6, 2016.
69. Cha E., M. Sanderson, N. Cernicchiaro, A. Jager, T. Schroeder, D. G. Renter and **N.M. Bello\***. "Assessing causal relationships between health and performance outcomes in feedlot cattle". Abstract for oral presentation at the 2016 Conference of Researcher Workers in Animal Disease, Chicago, Illinois. December 4-6, 2016.
70. Galliar<sup>gs</sup>, M., P. St. Amand, J. Poland, **N. M. Bello**, M. Knapp, S. G. Baer, R. Maricle and L. Johnson\*. "Experimental natural selection of big bluestem ecotypes across the Great Plains: A novel test for evaluating local adaptation". 12<sup>th</sup> Annual Ecological Genomics Symposium. Kansas City, Missouri. October 31 - November 2, 2016.
71. **Bello, N.M.\***, E. Cha, M. Sanderson, A. Jager, N. Cernicchiaro, D. G. Renter. "Using structural equation models to assess causal relationships between health and performance outcomes in feedlot cattle". XXI Meeting of the International Biometric Society Argentinean Chapter (Grupo Argentino de Biometria). Corrientes, Argentina. September 28-30, 2016.
72. Johnson\*, L., J. Alsdurf<sup>gs</sup>, A. Smith, **N. M. Bello** and M. Knapp. "Phenotypic variation of the dominant prairie grass *Andropogon gerardii* and its predicted response to climate change across Midwest grasslands". Ecologic Society of America 2016 Annual Meeting. Fort Lauderdale, Florida. August 7-12, 2016.
73. Johnson\*, L., J. Alsdurf<sup>gs</sup>, **N. M. Bello**, A. Smith and M. Knapp. "Phenotypic variation of the dominant prairie grass *Andropogon gerardii* and its predicted response to climate change across Midwest grasslands". Abstract. 2016 Botany Conference. Savannah, Georgia. July 30 - August 3, 2016.
74. Johnson\*, L., M. Galliar<sup>gs</sup>, **N. M. Bello**, M., J. Poland, P. St. Amand, M. Knapp, B. R. Maricle, S. G. Baer and D. Gibson. "Adaptive ecotypic variation and genetic divergence of an ecologically dominant prairie grass across the Great Plains precipitation gradient". Abstract. 2016 Botany Conference. Savannah, Georgia. July 30 - August 3, 2016.
75. Galliar<sup>gs</sup>, M., P. St. Amand, J. Poland, **N. M. Bello**, M. Knapp, S. G. Baer, D. Gibson, B. R. Maricle and L. Johnson\*. "Adaptive ecotypic variation and genetic divergence of a widespread grass, big bluestem, across a Great Plains climate gradient". Abstract. 2016 American Genetic Association Annual Meeting. Asilomar, California. July 14-17, 2016.
76. Ou<sup>gs</sup>, Z., R. J. Tempelman, J. P. Steibel, C. W. Ernst, R. O. Bates, C. Chen and **N. M. Bello\***. "Heteroskedastic extensions for genome-wide association studies". Abstract for oral presentation at the 2016 Joint Annual Meetings of the American Society of Animal Sciences and the American Dairy Science Association. Salt Lake City, Utah. July 19-23, 2016.
77. **Bello\*, N. M.**, A. Jager, E. Cha, M. Sanderson, N. Cernicchiaro and D. Renter. "Rethinking causal inference from observational data: a structural equation modeling approach". Oral presentation. Annual Meetings of the Multi-state Research Project NCCC-170 on "Recent Advances in Agricultural Statistics" sponsored by USDA-CSREES. College Park, Maryland. June 23-24, 2016.
78. Cha, E., D. G. Renter\*, N. Cernicchiaro, C. Hanthorn, **N. M. Bello**, T. C. Schroeder, D. L. Pendell, R. Larson, B. White and M. Sanderson. "Center for Outcomes Research and Education: Center of excellence quantifying the value of animal health initiatives". 21<sup>st</sup> Annual International Meeting of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR). Washington D.C., MD. May 21-25, 2016.
79. Ou<sup>gs</sup>, Z., R. J. Tempelman, J. P. Steibel, C. W. Ernst, R. O. Bates, C. Chen and **N. M. Bello\***. "Heteroskedastic extensions for genome-wide association studies". Abstract for oral presentation at the 2016 Kansas State University Conference on Applied Statistics in Agriculture. Manhattan, KS. May 1-3, 2016.
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80. Cha, E., M. Sanderson\*, **N. M. Bello**, N. Cernicchiaro, A. Jager, D. G. Renter. "Using structural equation models to assess interrelationships between health and performance outcomes in feedlot cattle". Abstract for oral presentation at the 2016 Kansas State University Conference on Applied Statistics in Agriculture. Manhattan, KS. May 1-3, 2016.
  81. Alsdurf<sup>gs</sup>, J., L. Johnson\*, **Nora M. Bello**, M. Knapp and A. Smith. "Phenotypic variation of the dominant prairie grass *Andropogon gerardii* and association with climate across Midwest grasslands climate gradient". Kansas Academy of Science Annual Meeting. McPherson, KS. April 1-2, 2016.
  82. Alsdurf<sup>gs</sup>, J., L. Johnson\*, **Nora M. Bello**, M. Knapp and A. Smith. "Phenotypic variation of the dominant prairie grass *Andropogon gerardii* and association with climate across Midwest grasslands climate gradient". K-State Graduate Research, Arts and Discovery Forum. Manhattan, KS. March 30, 2016.
  83. Goncalves<sup>gs</sup>, M. A. D., **N. M. Bello\***, S. S. Dritz\*, M. D. Tokach, J. M. DeRouchey, J. C. Woodworth and R. D. Goodband. "An update on modeling dose-response relationships: accounting for correlated data structures and heterogeneous variances in linear and non-linear mixed models". Abstract. 2016 Midwest Meetings of the American Society of Animal Sciences. Des Moines, Iowa. March 14-16, 2016.
  84. Goncalves<sup>gs</sup>, M. A. D., M. D. Tokach, S. S. Dritz\*, **N. M. Bello**, K. T. Touchette, R. D. Goodband, J. M. DeRouchey and J. C. Woodworth. "Effects of standardized ileal digestible valine:lysine ratio on growth performance of 25- to 45-kg pigs under commercial conditions". Abstract. 2016 Midwest Meetings of the American Society of Animal Sciences. Des Moines, Iowa. March 14-16, 2016.
  85. Goncalves<sup>gs</sup>, M. A. D., K. Gourley, S. S. Dritz\*, M. D. Tokach, **N. M. Bello**, J. M. DeRouchey, J. C. Woodworth and R. D. Goodband. "Effect of lysing and energy intake during late gestation on individual piglet birth weight and subsequent reproductive performance of gilts and sows under commercial conditions". Abstract. 2015 Conference of the Australasian Pig Science Association. Melbourne, Australia. November, 22-25 2015.
  86. Issa<sup>gs</sup>, M. S., J. Campbell\*, K.Y. Zhu, F. Arthur, B. Subramanyam and **N. M. Bello**. "Systematic review and meta-analysis of aerosol insecticide efficacy in the control of stored product insects". Abstract. 2015 Meeting of the Entomological Society of America. Minneapolis, Minnesota. November 15-18, 2015.
  87. Alsdurf<sup>gs</sup>, J., L. Johnson\*, A. Smith, **N. M. Bello** and M. Knapp. "Phenotypic distribution models incorporate ecotypic variation of the dominant prairie grass *Andropogon gerardii* in response to climate change in Midwest grasslands" Abstract. Sigma Xi Annual Meeting. Kansas City, Missouri. October 22-25, 2015.
  88. Eshar\*, D., S. Gardhouse<sup>rs</sup>, **N. M. Bello** and D. Mason. "Evaluation of changes in blood gas analytes during isoflurane anesthesia in black-tailed prairie dogs (*Cynomys ludovicianus*)". 2015 ExoticsCon: Building Exotics Excellence: One City, One Conference. San Antonio, Texas. August 29 – September 2, 2015.
  89. Johnson\*, L., M. M. Gray<sup>gs</sup>, P. St. Amand, M. Galliard<sup>gs</sup>, J. Alsdurf<sup>gs</sup>, S. Brown, J. Poland, A. Smith, K. Garret, E. Akhunov, **N. M. Bello**, T. Morgan, H. Tetreault, S. G. Baer and B. Maricle. "Genetic differentiation and local adaptation of dominant prairie grass *Andropogon gerardii* along the climate gradient of the US Midwest: Implications for climate change" Invited oral presentation at 2014 Ecological Society of America Annual Meeting. Baltimore, Maryland. August 9-14, 2015.
  90. Ou<sup>gs</sup>, Z., R. J. Tempelman, J. P. Steibel, C. W. Ernst, R. O. Bates and **N. M. Bello\***. "Breeding implications of heteroskedastic whole-genome prediction of genetic merit". Abstract for poster presentation at the 2015 Joint Annual Meetings of the American Dairy Science Association and the American Society of Animal Science. Orlando, Florida. July 12-16, 2015.
  91. Lu<sup>gs</sup>, Y., M. J. Vandehaar, D. M. Spurlock, K. A. Weigel, L. E. Armentano, C. R. Staples, E. E. Connor, Z. Wang, M. Coffey, R. F. Veerkamp, Y. deHass, **N. M. Bello** and R. J. Tempelman\*. "Hierarchical
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- Bayesian inference on genetic and non-genetic components of partial efficiencies determining feed efficiency in dairy cattle". Abstract for oral presentation at the 2015 Joint Annual Meetings of the American Dairy Science Association and the American Society of Animal Science. Orlando, Florida. July 12-16, 2015.
92. Delph<sup>gs</sup>, K., E. G. Davis\*, **N. M. Bello**, K. Hankins, M. J. Wilkenson and C. Ewen. "Comparison of immunologic responses following intranasal and oral vaccination with a USDA-approved, live-attenuated *Streptococcus equi* vaccine". 2015 American College of Veterinary Internal Medicine Forum. Indianapolis, IN. June 4-6, 2015.
  93. Johnson\*, L., M. M. Gray<sup>gs</sup>, P. St. Amand, M. Galliard<sup>gs</sup>, S. Brown, J. Poland, K. Garret, E. Ekhunov, **N. M. Bello**, T. Morgan, S. G. Baer and B. Maricle. "Genetic differentiation, transcriptome variation, and local adaptation of dominant prairie grass *Andropogon gerardii* along the climate gradient of the US Midwest: Implications for climate change" Oral presentation at SMBEBA 2015 (Society for Molecular Biology and Evolution Satellite Meeting). Montpellier, France. May 26-29, 2015.
  94. Ou<sup>gs</sup>, Z., R. J. Tempelman, J. P. Steibel, C. W. Ernst, R. O. Bates and **N. M. Bello**\*. "Breeding implications of heteroskedastic whole-genome prediction of genetic merit". Abstract. Kansas State University Conference on Applied Statistics in Agriculture. Manhattan, Kansas. April 26-28, 2015.
  95. Raithel<sup>gs</sup>, S., L. Johnson, M. Galliard<sup>gs</sup>, S. Brown, J. Shelton, N. Herndon and **N. M. Bello**\*. "A plasmid-based approach to inform inference on low-count RNA-seq transcripts of an edaphic subspecies of dominant prairie grass *Andropogon gerardii*". Abstract. Kansas State University Conference on Applied Statistics in Agriculture. Manhattan, Kansas. April 26-28, 2015.
  96. Eshar\*, D., S. Gardhouse<sup>rs</sup>, **N. M. Bello** and D. Mason. "Evaluation of changes in blood gas analytes during isoflurane anesthesia in black-tailed prairie dogs (*Cynomys ludovicianus*)". 2015 International Conference on Avian Herpetological and Exotic Mammal Medicine (iCARE). Paris, France. April 18-23, 2015.
  97. Galliard<sup>gs</sup>, M., P. St. Amand, J. Poland, **N. M. Bello**, S. Sabates, H. Tetreault, A. DeLaCruz, J. Bryant, T. J. Morgan, M. Knapp, S. G. Baer, D. Gibson, L. Wilson, B. R. Maricle and L. Johnson\*. "Trait variation and genetic divergence of a widespread grass *Andropogon gerardii* across a Great Plains climate gradient". Abstract. 2015 American Society of Plant Biologists Midwestern Section Meeting. Lincoln, Nebraska. March 24-25, 2015.
  98. Goncalves<sup>gs</sup>, M. A. D., S. S. Dritz\*, M. D. Tokach, **N. M. Bello**, J. M. DeRouche, R. D. Goodband and J. C. Woodworth. "Effect of lysing and energy intake during late gestation on weight gain and reproductive performance of gilts and sows under commercial conditions". Abstract. Joint Midwest Meetings of the American Dairy Science Association and the American Society of Animal Science. Des Moines, Iowa. March, 15<sup>th</sup> to 18<sup>th</sup>, 2015.
  99. Goncalves<sup>gs</sup>, M. A. D., M. D. Tokach\*, S. S. Dritz\*, **N. M. Bello**, K. J. Touchette, J. M. DeRouche, J. C. Woodworth and R. D. Goodband. "Effect of standardized ileal digestible (SID) tryptophan:lysine ratio on growth performance of 11- to 20-kg nursery pigs". Abstract. Joint Midwest Meetings of the American Dairy Science Association and the American Society of Animal Science. Des Moines, Iowa. March, 15<sup>th</sup> to 18<sup>th</sup>, 2015.
  100. Goncalves<sup>gs</sup>, M. A. D., M. D. Tokach\*, S. S. Dritz\*, **N. M. Bello**, K. J. Touchette, J. M. DeRouche, J. C. Woodworth and R. D. Goodband. "Effect of standardized ileal digestible (SID) tryptophan:lysine ratio on growth performance of finishing pigs". Abstract. Joint Midwest Meetings of the American Dairy Science Association and the American Society of Animal Science. Des Moines, Iowa. March, 15<sup>th</sup> to 18<sup>th</sup>, 2015.
  101. Delph<sup>gs</sup>, K., E. G. Davis\*, **N. M. Bello**, K. Hankins, M. J. Wilkenson and C. Ewen. "Comparison of immunologic responses following intranasal and oral vaccination with a USDA-approved, live-attenuated *Streptococcus equi* vaccine". Phi Zeta Research Day. Manhattan, Kansas. March 10, 2015.
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102. Cull<sup>gs</sup>, C., D. Renter\*, **N. M. Bello**, A. Babcock, S. Ives and T. G. Nagaraja. "Efficacy of a vaccine and a direct-fed microbial against fecal shedding of *Escherichia coli* O157:H7 and corresponding impacts on cattle performance in a commercial feedlot" Abstract. Kansas State University Cattlemen's Day. Manhattan, KS. March 6, 2015.
  103. Johnson\*, L., J. Shelton<sup>gs</sup>, **N. M. Bello**, S. Raithel<sup>gs</sup>, M. Galliert<sup>gs</sup>, S. J. Brown, N. Herndon, R. Welti, B. Nikolau, T. Samarakoon, Z. Song and R. Jeannotte. "Divergent epicuticular wax and transcriptome of edaphically differentiated *Andropogon* grasses in the US Midwest prairies". Abstract. XXIII International Plant & Animal Genome Conference. San Diego, California. January 10-14, 2015.
  104. Johnson\*, L., M. M. Gray<sup>gs</sup>, P. St. Amand, M. Galliert<sup>gs</sup>, S. Brown, J. Poland, K. Garret, E. Ekhunov, **N. M. Bello**, T. Morgan, S. G. Baer and B. Maricle. "Genetic differentiation, transcriptome variation, and local adaptation of dominant prairie grass *Andropogon gerardii* along the climate gradient of the US Midwest: Implications for climate change and restoration" Abstract. XXIII International Plant & Animal Genome Conference. San Diego, California. January 10-14, 2015.
  105. Galliert<sup>gs</sup>, M., P. St. Amand, J. Poland, **N. M. Bello**, S. Sabates, H. Tetreault, A. DeLaCruz, J. Bryant, T. J. Morgan, M. Knapp, S. G. Baer, D. Gibson, L. Wilson, B. R. Maricle and L. Johnson\*. "Trait variation and genetic divergence of a widespread grass *Andropogon gerardii* across a Great Plains climate gradient". Abstract. XXIII International Plant & Animal Genome Conference. San Diego, California. January 10-14, 2015.
  106. Kivett<sup>gs</sup>, J., **N. M. Bello** and R. Cloyd\*. "Efficacy of rotation programs against the western flower thrips, *Frankliniella occidentalis*, that include entomopathogenic fungi". 2014 Entomological Society of America Annual Meeting. Portland, Oregon. November 16-19, 2014.
  107. Raithel<sup>gs</sup>, S., L. Johnson, M. Galliert<sup>gs</sup>, S. Brown, J. Shelton, N. Herndon and **N. M. Bello**\*. "Assessing gene filtering strategies in RNA-Seq differential expression analysis of an edaphic subspecies of dominant prairie grass *Andropogon gerardii*". 12<sup>th</sup> Annual Ecological Genomics Symposium. Kansas City, Missouri. October 31 - November 2, 2014.
  108. Galliert<sup>gs</sup>, M., P. St. Amand, J. Poland, **N. M. Bello**, S. Sabates, H. Tetreault, A. DeLaCruz, J. Bryant, T. J. Morgan, M. Knapp, S. G. Baer, D. Gibson, L. Wilson, B. R. Maricle and L. Johnson\*. "Trait variation and genetic divergence of a widespread grass *Andropogon gerardii* across a Great Plains climate gradient". 12<sup>th</sup> Annual Ecological Genomics Symposium. Kansas City, Missouri. October 31 - November 2, 2014.
  109. Cull<sup>gs</sup>, C.A., D.G. Renter\*, **N. M. Bello**, A. H. Babcock and T. G. Nagaraja\*. "Efficacy of a vaccine and a direct-fed microbial against fecal shedding of *Escherichia coli* O157:H7 and corresponding impacts on cattle performance in a commercial feedlot". 10<sup>th</sup> Annual Applied Animal and Public Health Research and Extension Symposium. Kansas, City, Missouri. October 18<sup>th</sup>, 2014.
  110. Gardhouse<sup>rs</sup>, S., D. Eshar\*, **N. M. Bello** and D. Mason. "Evaluation of changes in critical care blood analytes during isoflurane anesthesia in zoo-kept black-tailed prairie dogs (*Cynomys ludovicianus*)". 2014 American Association of Zoo Veterinarians Annual Conference. Orlando, Florida. October 18-24, 2014.
  111. Maricle\*, B. R., K. L. Caudle<sup>gs</sup>, J. T. Olsen, J. Bryant<sup>ug</sup>, A. de la Cruz, A. Jensen, S. G. Baer, **N. M. Bello** and L. C. Johnson\*. "A possible mechanism for increased performance of a xeric adapted big bluestem (*Andropogon gerardii*) ecotype: Photosynthesis, nitrogen and chlorophyll concentration of leaves in reciprocal gardens across the Great Plains". Abstract. Botany 2014: New Frontiers in Botany - Annual Meeting of the Botanical Society of America, Boise, Idaho. July 26-30, 2014.
  112. Gaffney<sup>us</sup>, J., M. Galliert<sup>us</sup>, S. Sabates<sup>us</sup>, S. Baer, B. Maricle, E. McCrea, **N. M. Bello** and L. C. Johnson\*. "Variations in polyploidy in big bluestem (*Andropogon gerardii*) ecotypes across the Great Plains".
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Abstract. Botany 2014: New Frontiers in Botany - Annual Meeting of the Botanical Society of America, Boise, Idaho. July 26-30, 2014.

113. Galliard<sup>ug</sup>, M., L. Johnson\*, S. Sabates<sup>ug</sup>, H. Tetreault<sup>gs</sup>, A. DeLaCruz, J. Bryant<sup>ug</sup>, T. J. Morgan, M. Knapp, **N. M. Bello**, S. G. Baer, D. Gibson, L. Wilson, B. R. Maricle. "Adaptive potential and trait variation of a widespread grass *Andropogon gerardii* across a Great Plains climate gradient: Implications for climate change". Abstract. Botany 2014: New Frontiers in Botany - Annual Meeting of the Botanical Society of America, Boise, Idaho. July 26-30, 2014.
  114. Craver<sup>gs</sup>, J., C. Miller\*, K. Williams\* and **N. M. Bello**. "UVB radiation affects intumescence development in *Ipomoea batatas* (ornamental sweet potato)". Abstract. 2014 American Society for Horticultural Science Annual Conference. Orlando, Florida. July 28-31, 2014.
  115. Ou<sup>gs</sup>, Z., R. J. Tempelman, J. P. Steibel, C. Ernst, R. Bates and **N. M. Bello**\*. "Genomic prediction accounting for residual heteroskedasticity". Abstract. 2014 Joint Annual Meeting of the American Dairy Science Association and the American Society of Animal Science. Kansas City, Missouri, July 20<sup>th</sup> to 24<sup>th</sup>, 2014.
  116. **Bello**\*, **N. M.**, J. Schroeder and W. W. Stroup. "A hierarchical Bayesian approach to assess fit of generalized linear mixed models". Abstract. Annual Meetings of the Multi-state Research Project NCCC-170 on "Recent Advances in Agricultural Statistics" sponsored by USDA-CSREES. Lincoln, Nebraska. July 17-18, 2014.
  117. Douthit<sup>gs</sup>, C. J., T. L. Douthit\*, A. M. Reeg<sup>gs</sup>, **N. M. Bello**, M. E. Gordon, K. K. Williamson. "Utilizing fecal pH to predict cecal pH in the equine". Abstract. 2014 Joint Annual Meeting of the American Dairy Science Association and the American Society of Animal Science. Kansas City, Missouri, July 20<sup>th</sup> to 24<sup>th</sup>, 2014.
  118. Delano<sup>us</sup>, K.M., T. L. Douthit\*, A. M. Reeg<sup>gs</sup>, **N. M. Bello**, M. E. Gordon, K. K. Williamson. "Dynamics of pH changes in the hindgut of horses". Abstract. 2014 Joint Annual Meeting of the American Dairy Science Association and the American Society of Animal Science. Kansas City, Missouri, July 20<sup>th</sup> to 24<sup>th</sup>, 2014.
  119. **Bello**\*, **N. M.**, J. P. Steibel, R. J. Erskine and R. J. Tempelman. "Inferring upon heterogeneous associations in dairy cow performance using a bivariate hierarchical model". 2014 International Biometric Conference, Florence, Italy. July 8-11, 2014.
  120. Galliard<sup>ug</sup>, M., L. Johnson\*, **N. M. Bello**, S. Sabates<sup>ug</sup>, H. Tetreault<sup>gs</sup>, A. DeLaCruz, J. Bryant<sup>ug</sup>, T. J. Morgan, M. Knapp, S. G. Baer, D. Gibson, L. Wilson, B. R. Maricle. "Adaptive potential and trait variation of a widespread grass *Andropogon gerardii* across a Great Plains climate gradient: Implications for climate change". Abstract. "Evolution 2014" Joint Annual Meeting of the Society for the Study of Evolution, the Society of Systematic Biologists and the American Society of Naturalists. North Carolina. June 20-24, 2014.
  121. Schroeder<sup>gs</sup>, J., W. W. Stroup and **N. M. Bello**\*. "Hierarchical Bayesian implementation of generalized linear mixed models for count data". Abstract. Kansas State University Conference on Applied Statistics in Agriculture. Manhattan, Kansas. April 27-29, 2014.
  122. Ou<sup>gs</sup>, Z., R. J. Tempelman, J. P. Steibel, C. Ernst, R. Bates and **N. M. Bello**\*. "Genomic prediction accounting for residual heteroskedasticity". Abstract. Kansas State University Conference on Applied Statistics in Agriculture. Manhattan, Kansas. April 27-29, 2014.
  123. Galliard<sup>ug</sup>, M., L. Johnson\*, S. Sabates<sup>ug</sup>, H. Tetreault<sup>gs</sup>, A. DeLaCruz, J. Bryant<sup>ug</sup>, T. J. Morgan, M. Knapp, **N. M. Bello**, S. G. Baer, D. Gibson, L. Wilson, B. R. Maricle. "Adaptive potential and trait variation of a widespread grass *Andropogon gerardii* across the Great Plains climate gradient: Implications for climate change". Abstract. 146<sup>th</sup> Annual Meeting of the Kansas Academy of Science, Emporia State University, April 4-5, 2014.
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124. Johnson\*, L., M. Gray, J. Shelton, S. J. Brown, S. Chellapilla, **N. M. Bello**, A. Akhunova, H. Liang, T. Morgan, K. Garret and E. Akhunov. "Linking ecology to the transcriptome: Transcriptional differences of mesic and xeric ecotypes of the ecologically-dominant prairie grass *Andropogon gerardii* to abiotic stress". Abstract. International Plant and Animal Genome (PAG) XXIII. San Diego, California. January 11-15, 2014.
  125. Davis\*, E. G., A. J. Bryan<sup>gs</sup>, **N. M. Bello**, K. Hankins, M. Wilkerson. "Comparison of immune responses in healthy foals when a multivalent vaccine protocol was initiated at 90 and 180 days of age". 2013 Annual Convention of the American Association of Equine Practitioners. Nashville, Tennessee. December 7-11, 2013.
  126. Johnson\*, L., **N. M. Bello**, M.Gray<sup>gs</sup>, J. Shelton<sup>gs</sup> and S. Brown. "Leveraging multiple sequencing technologies, assembly algorithms, and assembly parameters to create a *de novo* reference transcriptome for *Andropogon gerardii*". Abstract. 11<sup>th</sup> Annual Ecological Genomics Symposium. Kansas City, Missouri. November 1-3, 2013.
  127. Baer\*, S. G., B. R. Maricle\*, **N. M. Bello**, K. L. Caudle, M. Galliard, D. J. Gibson, M. Gray, R. K. Goad, E. McCrea, M. L. Mendola, J. T. Olsen, S. Sabates, H. Tetreault, L. Wilson and L. C. Johnson\*. "Discerning the presence and ecological consequences of ecotypic variation: a dilemma for restoration". Society for Ecological Restoration 2013 World Conference. Madison, Wisconsin. October 6-11, 2013.
  128. **\*\*Bello, N. M.\***, J. P. Steibel and R. J. Tempelman. "Accounting for heterogeneous pleiotropy in whole genome selection models". 2013 Joint Annual Meeting of the American Dairy Science Association and the American Society of Animal Science. Indianapolis, Indiana. July 8<sup>th</sup> to 12<sup>th</sup>, 2013.  
**\*\*American Society of Animal Science Presidential Pick.** Abstract was one of 30 abstracts selected out of 2,200 abstracts submitted. Selection criteria included scientific merit and overall interest
  129. Galliard<sup>us</sup>, M., S. Sabates<sup>us</sup>, E. McCrea, S. Baer, L. Wilson, D. Gibson, B. Maricle, K. Caudle, **N. M. Bello** and L. Johnson\*. "How does phenology and seed production of Big Bluestem (*Andropogon gerardii*) ecotypes vary across the Great Plains climatic gradient? A reciprocal garden approach". Abstract. "Evolution 2013" Joint Annual Meeting of the Society for the Study of Evolution, the Society of Systematic Biologists and the American Society of Naturalists. Snowbird, Utah. June 21-25, 2013.
  130. Johnson\*, L., S. Baer\*, B. Maricle\*, M. Gray<sup>gs</sup>, H. Tetreault<sup>gs</sup>, **N. M. Bello**, S. Brown, T. Morgan, J. Shelton, S. Chellapilla. "Transcriptome variation and local adaptation of an ecologically dominant prairie grass *Andropogon gerardii* (Big Bluestem) occurring along the climate gradient in the US Midwest". Abstract. "Evolution 2013" Joint Annual Meeting of the Society for the Study of Evolution, the Society of Systematic Biologists and the American Society of Naturalists. Snowbird, Utah. June 21-25, 2013.
  131. Wesselowski<sup>rs</sup>, S., M. Borgarelli\*, **N. M. Bello** and J. Abbott. "Discrepancies in identification of left atrial enlargement using left atrial volume versus left atrial to aortic root ratio". American College of Veterinary Internal Medicine (ACVIM) 2013 Forum. Seattle, Washington. June 12-15, 2013.
  132. **Bello\*, N. M.**, J. P. Steibel and R. J. Tempelman. "Heterogeneous pleiotropy in whole genome selection models". Kansas State University Conference on Applied Statistics in Agriculture. Manhattan, Kansas. April 28<sup>th</sup> to 30<sup>th</sup>, 2013.
  133. Cull<sup>gs</sup>, C. A., D. G. Renter\*, Z. D. Paddock, **N. M. Bello** and A. H. Babcock. "Performance and carcass characteristics of commercial feedlot cattle from a study of vaccine and direct-fed microbial effects on *E. coli* O157:H7 fecal shedding". Kansas State University Phi Zeta Research Day. Manhattan, Kansas. March 5, 2013.
  134. Becker\*, M., L. Bix\*, **N. M. Bello** and R. Sundar<sup>gs</sup>. "The application of attention research to the design of more effective product labels". The Psychonomic Society 2012 Meeting. Minneapolis, MN. November 15-18, 2012.
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135. Gaffney<sup>us</sup>, J., S. Sabates<sup>us</sup>, S. Baer, B. Miracle, E. McCrea, **N. M. Bello** and L. Johnson\*. "Variations in polyploidy in Big Bluestem (*Andropogon gerardii*) ecotypes across the Great Plains". Ecological Genomics: 10<sup>th</sup> Anniversary Symposium. Kansas City, Missouri. October 26-28. 2012.
  136. Rankin\*, A. J., L. Sebbag<sup>gs</sup>, **N. M. Bello**, W. R. Crumley, R. A. Allbaugh. "Inhibition of paracentesis-induced blood-aqueous barrier breakdown by oral administration of anti-inflammatory medications in normal cats". 43<sup>rd</sup> Annual Meeting of the American College of Veterinary Ophthalmologists. Portland, Oregon. October 17-20, 2012.
  137. Cernicchiaro<sup>pd</sup>, N., **N. M. Bello**, S. Xiang, B. J. White and D. G. Renter\*. "Identification of sources of heteroskedasticity of average dairy weight gain in commercial feedlot cattle using a hierarchical Bayesian approach". 13<sup>th</sup> International Symposium on Veterinary Epidemiology and Economics (ISVEE). Maastricht, Netherlands. August 20-24, 2012
  138. Gray<sup>gs</sup>, M., P. St Amand, H. Tetreault<sup>gs</sup>, K. Garrett, E. Ahkunov, **N. M. Bello**, J. Bryant, A. deLaCruz, N. An, T. Morgan, S. Baer, B. Maricle, R. Goad, J. Olsen and L. Johnson\*. "Ecotypic variation in drought tolerance and genetic diversity of the ecologically dominant grass big bluestem (*Andropogon gerardii*) across the Great Plains precipitation gradient". 97<sup>th</sup> Annual Meeting of the Ecological Society of America. Portland, Oregon, US. August 5-10, 2012.
  139. Killian<sup>s</sup>, P. D., J. M. Briggs\* and **N. M. Bello**. "Physiological integration of *Cornus drummondii* and the mechanisms driving woody encroachment in the tallgrass prairie" 97<sup>th</sup> Annual Meeting of the Ecological Society of America. Portland, Oregon, US. August 5-10, 2012.
  140. Veach<sup>gs</sup>, A. M., E. C. Martin<sup>gs</sup>, **N. M. Bello**, K. B. Gido and W. K. Dodds\*. "Consumer effects on stream metabolism at decimeter and reach scales". Society for Freshwater Science 2012 Meeting. Louisville, KY. May 20-24, 2012.
  141. Xiang, S., D. G. Renter, N. Cernicchiaro, B. White and **N. M. Bello**. "Hierarchical Bayesian modeling of heteroskedasticity in average daily weight gain of feedlot cattle". Abstract. Kansas State University Conference on Applied Statistics in Agriculture. April 30<sup>th</sup> to May 3<sup>rd</sup>, 2012.
  142. Samarakoon<sup>pd</sup>, T. N., J. M. Shelton<sup>gs</sup>, R. Jeannotte, Z. Song, **N. M. Bello**, B. Nikolau, R. Welti, L. Johnson\*. "Gas Chromatography/Mass Spectrometry Reveals Contrasts in Epicuticular Wax Composition of Big Bluestem (*Andropogon gerardii*) and edaphic variety Sand Bluestem (*A. gerardii* var *halli*)". American Society of Plant Biologists 2012 Meeting. Nebraska, Lincoln. March 24-25, 2012.
  143. Renter\*, D. G., C. Cull, Z. Paddock, **N. M. Bello**, A. Babcock and T. G. Nagaraja. "Efficacy of the SRP® vaccine and/or low-dose Bovamine against fecal shedding of *E. coli* O157:H7 in a randomized field trial of commercial feedlot cattle". Beef Industry Safety Summit. Tampa, Florida. March 7-9, 2012.
  144. Bix\*, L., C. DeHenau<sup>gs</sup>, **N. M. Bello**, S. Liu, M. W. Becker. "Applying change detection to test the effectiveness of TALLman lettering for look-alike, sound-alike drug names". Abstract. Symposium on Human Factors and Ergonomics in Health Care: Bridging the Gap. Baltimore, Maryland. March 12-14, 2012.
  145. Diaz<sup>us</sup>, J., L. Bergamasco\*, L. Edwards, **N. M. Bello**, J. Coetzee, H. Watson, J. Dockweiler and H. Glynn. "Drug effects of behavior and cortisol levels during castration in calves". Abstract. Kansas State University Research Forum. Manhattan, Kansas. March 8<sup>th</sup>, 2012.
  146. Cull<sup>gs</sup> C. A., D.G. Renter\*, Z.D. Paddock, **N.M. Bello**, A.H. Babcock and T. G. Nagaraja. "Effects of a vaccine and a direct-fed microbial on fecal shedding of *E. coli* O157:H7 in pens of commercial feedlot cattle". Kansas State University Phi Zeta Research Day. Manhattan, Kansas. February 3, 2012.
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147. Xiang<sup>gs</sup>, S., D. G. Renter, N. Cernicchiaro<sup>pd</sup>, B. White and **N. M. Bello**\*. "Hierarchical Bayesian modeling of heteroskedasticity in average daily weight gain of feedlot cattle". Abstract. Conference of Research Workers in Animal Diseases (CRWAD). Chicago, Illinois. December 4<sup>th</sup> to 6<sup>th</sup>, 2011.
  148. Cull<sup>gs</sup>, C. A., D. G. Renter\*, Z. D. Paddock, **N. M. Bello**, A. H. Babcock and T. G. Nagaraja." Efficacy of a vaccine and a direct-fed microbial on fecal shedding of E. coli O157:H7 in a randomized field trial of a commercial feedlot cattle fed distiller's grains". Abstract. Conference of Research Workers in Animal Diseases (CRWAD). Chicago, Illinois. December 4<sup>th</sup> to 6<sup>th</sup>, 2011.
  149. Ellick<sup>gs</sup>, R., S. Fitzgerald, J. Newsted, **N. M. Bello** and S. Bursian\*. "The examination of mandibular and maxillary squamous cell proliferation in mink (*Mustela vison*)". Abstract. Society of Environmental Toxicology and Chemistry (SETAC) North America 32<sup>nd</sup> Annual Meeting. Boston, Massachusetts. November 13-17, 2011.
  150. Gray<sup>gs</sup>, M., H. Tetreault<sup>gs</sup>, C. Rodewald, P. St. Amand, S. Baer, B. Maricle, T. Morgan, **N. M. Bello**, R. Goad, J. Olsen, L. Wheeler, E. Akhunov, K. Garrett, G. Bai and L. Johnson\*. "Evidence for Local Adaptation and Genetic Differentiation across *Andropogon gerardii* (big bluestem) Tall Grass Ecotypes Occurring along a Precipitation Gradient". Abstract. Ecological Genomics Symposium. Kansas City, Kansas. November 2011.
  151. Pucket<sup>rs</sup>, J. D., R. A. Allbaugh\*, A. J. Rankin, Z. Ou and **N. M. Bello**. "Comparison of efficacy and duration of topical anesthetics on corneal sensitivity in clinically normal horses". Abstract. 2011 Conference of the American College of Veterinary Ophthalmologists. Hilton Head, South Carolina. October 26-29, 2011.
  152. Tetreault<sup>gs</sup> H., C. Rodewald, S. Baer, B. Maricle, **N. M. Bello**, T. Morgan, R. Goad, J. Olsen and L. Johnson\*. "Local drought adaptation of the ecologically dominant prairie grass big bluestem *Andropogon gerardii*: Contribution of genotype and environment to phenotypic variation". Abstract. Ecological Society of America Annual Meeting. Austin, Texas. August 2011.
  153. Tetreault<sup>gs</sup> H., C. Rodewald, S. Baer, B. Maricle, **N. M. Bello**, T. Morgan, R. Goad, J. Olsen and L. Johnson\*. "Local drought adaptation of the ecologically dominant prairie grass big bluestem *Andropogon gerardii*: Contribution of genotype and environment to phenotypic variation". Abstract. Gordon Research Conference: Ecological and Evolutionary Genomics. Biddeford, Maine. July 10-15, 2011.
  154. Tempelman\*, R.J., W. Yang<sup>gs</sup>, J.P. Steibel and **N. M. Bello**. "Adapting Bayesian mixture model algorithms to estimate hyperparameters that characterize genetic architecture in genomic selection models". Abstract. Joint Annual Meeting of the American Dairy Science Association and the American Society of Animal Science. New Orleans, Louisiana. July 2011.
  155. Bergamasco\*, L., L.N. Edwards, **N. M. Bello**, S. Mueting, C. Cull, R. Mosher and J.F. Coetzee. "Castration as a model for studying pain-triggered cardiac responses in growing calves". Abstract. 45<sup>th</sup> Congress of the International Society for Applied Ethology. Indianapolis, IN. July 31-August 4, 2011.
  156. Edwards\*, L.N., J.F. Coetzee, **N. M. Bello**, L. Koslosky, R. Mosher, C. Cull and L. Bergamasco. "Castration as a model for studying pain-triggered behavioral responses in growing calves". Abstract. 45<sup>th</sup> Congress of the International Society for Applied Ethology. Indianapolis, IN. July 31-August 4, 2011.
  157. Tetreault<sup>gs</sup> H., M. Gray<sup>gs</sup>, C. Rodewald, P. St. Amand, G. Bai, E. Akhunov, K. Garrett, S. Baer, B. Maricle, T. Morgan, **N. M. Bello**, R. Goad, J. Olsen and L. Johnson\*. "Phenotypic variation and genetic differentiation of a dominant prairie grass along a longitudinal precipitation gradient". Abstract. "Evolution 2011" Joint Annual Meeting of the Society for the Study of Evolution, the Society of Systematic Biologists and the Society of Naturalists. Norman, Oklahoma. June 17-21, 2011.
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158. Larrabe<sup>gs</sup>, B., H. M. Scott and **N. M. Bello**\*. "Ordinary least squares regression of ordered categorical data: Inferential implications for practice". Abstract. Conference on Applied Statistics in Agriculture. Manhattan, KS. May 1 to 3, 2011
  159. Cernicchiaro<sup>pd</sup>, N., **N. M. Bello**, B.J. White and D. G. Renter\*. "Exploring heterogeneous associations between health and performance of feedlot cattle using bivariate hierarchical Bayesian Models". Abstract. Canadian Association of Veterinary Epidemiology and Preventive Medicine 2011 Conference. University of Montreal, Quebec, Canada. May 26 to 27, 2011.
  160. Allbaugh\*, R.A., S.M. Keil and **N. M. Bello**. "Intraocular pressure changes in equine athletes during endurance competitions". Abstract. Dorothy Havemeyer Foundation Equine Ophthalmology Symposium organized by the International Equine Ophthalmology Consortium. West Palm Beach, Florida April 1<sup>st</sup> to 2<sup>nd</sup>, 2011.
  161. **Bello, N. M.**, J.P. Steibel, R. J. Erskine and R.J. Tempelman. "On heterogeneous associations between milk production and reproduction in dairy cows". Abstract. Joint Midwest Meetings of the American Dairy Science Association and the American Society of Animal Science. Des Moines, Iowa. March, 14<sup>th</sup> to 16<sup>th</sup>, 2011.
  162. **Bello, N. M.**, R. J. Erskine, J.P. Steibel and R.J. Tempelman\*. "Management-driven heterogeneity in the relationship between milk production and reproductive performance of dairy cows". Abstract and oral presentation at the 2010 Joint Annual Meeting of the American Dairy Science Association and the American Society of Animal Science. Denver, Colorado. July 11<sup>th</sup> to 15<sup>th</sup>, 2010.
  163. **Bello<sup>gs</sup>, N. M.**, J. P. Steibel and R. J. Tempelman\*. "A hierarchical bivariate generalized linear mixed model for inferring upon heterogeneous covariances: Application in dairy production systems". Abstract and oral presentation at the Kansas State University Conference on Applied Statistics in Agriculture, Manhattan, KS. April 25<sup>th</sup> to 27<sup>th</sup>, 2010.
  164. Sundar<sup>gs</sup>, R. P., L. Bix\* and **N. M. Bello**. "Quantifying the attentive behavior of older adults when viewing prescription drug packaging". Poster presentation at the 2010 Michigan State University Agriculture and Natural Resources Week Luncheon Reception. East Lansing, Michigan. March 9<sup>th</sup>, 2010.
  165. Moore<sup>gs</sup> J., S. Bursian\*, S. Fitzgerald, J. Giesy, J. Newsted, M. Shotwell, **N. M. Bello**, J. Link, H. Zhang, S. Wiseman, D. Kay, V. Bhat and M. Zwiernik\*. "The effects of TCDD, PeCDF and TCDF on development of maxillary and mandibular squamous epithelial proliferation in mink (*Mustela vison*)". 30<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC) focused on "Human-Environment Interactions: Understanding Change in Dynamic Systems". New Orleans, Louisiana. November 19<sup>th</sup> to 23<sup>rd</sup>, 2009.
  166. Bix\*, L., **N. M. Bello**, D. Lively and A. Gou. "Understanding the physical interface between children and packaging". Conference on Consumer Culture and Ethical Treatment of Children: Theory, Research and Fair Practice". November 12<sup>th</sup> and 13<sup>th</sup>, 2009. Michigan State University, East Lansing, MI.
  167. Policelli<sup>gs</sup>, R. K., J. P. N. Martins, **N. M. Bello** and J. R. Pursley\*. "The effect of luteolysis at d 5, 6 or 7 of a GnRH-induced second follicular wave on peak serum estradiol-17 $\beta$  concentrations in lactating dairy cows". 42<sup>nd</sup> Annual Meeting of the Society for the Study of Reproduction. Pittsburgh, Pennsylvania. July 18<sup>th</sup> to 22<sup>nd</sup>, 2009.
  168. **Bello<sup>gs</sup>, N. M.**, J.P. Steibel, R.J. Erskine and R.J. Tempelman. "Unveiling new dimensions of heterogeneity: implications for dairy cow performance". Joint Annual Meetings of the American Dairy Science Association and the American Society of Animal Science, Montreal, Canada. July 12<sup>th</sup> to 16<sup>th</sup>, 2009.
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169. **Bello<sup>gs</sup>, N. M.**, R.J. Erskine and R.J. Tempelman. "Heterogeneous relationship between milk production and reproduction in dairy cows: Preliminary evidence". Joint Annual Meeting of the American Dairy Science Association and the American Society of Animal Science, Montreal, Canada. July 12<sup>th</sup> to 16<sup>th</sup>, 2009.
  170. Hollmann<sup>gs</sup>, M., W.J. Powers, A. Fogiel, **N. M. Bello**, J.S. Liesman and D.K. Beede\*. "Increasing dietary concentration of coconut oil reduces enteric methane emission from lactation Holstein cows". Joint Annual Meeting of the American Dairy Science Association and the American Society of Animal Science, Montreal, Canada. July 12<sup>th</sup> to 16<sup>th</sup>, 2009
  171. Heleski\*, C.R. and **N. M. Bello**. "Evaluation memory of a learning theory experiment one year later in horses". 5<sup>th</sup> International Equitation Science Conference, Sydney, Australia. July 12<sup>th</sup> to 14<sup>th</sup>, 2009.
  172. Sundar<sup>gs</sup>, R., L. Bix\*, **N. M. Bello** and V. Viraporn. "The effect of color combination of text and background on the legibility and noticeability of prescription drugs labels". 16<sup>th</sup> International Association of Packaging Research Institutes World Conference on Packaging. May 18<sup>th</sup> to 21<sup>st</sup>, 2009. Clemson University, Greenville, SC.
  173. **Bello<sup>gs</sup> N. M.**, J. P. Steibel and R. J. Tempelman\*. "Bayesian statistical methods to model heterogeneity in cow- and herd-level relationships between production and reproduction in dairy cows". Kansas State University Conference on Applied Statistics in Agriculture, Manhattan, KS. April 11 to 13<sup>th</sup>, 2009.
  174. Tanojo<sup>gs</sup> A. D., R. Ravi, K. D. Dolan, J. B. Harte\*, **N. M. Bello**. "Influence of pinto bean (*Phaseolus vulgaris* L.) flour and modified food starches on physical properties of cookies". American Association of Cereal Chemists (AACC) International Annual Meeting, Honolulu, Hawaii. September 21<sup>st</sup> to 24<sup>th</sup> 2008.
  175. **Bello<sup>gs</sup>, N. M.** and R. J. Tempelman\*. "Statistical extensions to model *cow-* and *herd-level* relationships between production and reproduction in dairy cows". Abstract. Animal Science Graduate Research Forum, East Lansing, MI. September 12<sup>th</sup>, 2008.
  176. Smith, N. L., C.R. Heleski\*, P.D. McGreevy, L. Kaiser, **N. M. Bello** and H.M. Clayton. "Effects on behavior and rein tension in horses ridden with/without martingales and rein inserts". 4<sup>th</sup> International Equitation Science Conference, Dublin, Ireland. August 2<sup>nd</sup> to 4<sup>th</sup>, 2008.
  177. **Bello<sup>gs</sup>, N. M.** and J. R. Pursley. "Strategies to maximize ovulation to 1<sup>st</sup> GnRH of Ovsynch in lactating dairy cows". 2007 National ADSA-ASAS Annual Meeting, San Antonio, TX. July 8<sup>th</sup> to 12<sup>th</sup>, 2008.
  178. Hill\* G.M., J.E. Link, D.O. Liptrap, M. Giesmann, M.J. Dawes, J.A. Snedegar, **N. M. Bello**, and R.J. Tempelman. "Withdrawal of distillers dried grains with solubles (DDGS) prior to slaughter in finishing pigs". 2008 American Society of Animal Science Midwest Meetings, Des Moines, IA. March 17<sup>th</sup> to 19<sup>th</sup>, 2008.
  179. Pawlak<sup>ug</sup> E.A., P.S.D. Weber, P.E. Almeida<sup>pd</sup>, **N. M. Bello**, and J.L. Burton\*. "Glucocorticoid increases mRNA expression of bactericidal/permeability-increasing protein in bovine blood and bone marrow neutrophils". 2007 Conference of Research Workers in Animal Diseases (CRWAD). Chicago, IL. December 2<sup>nd</sup> to 4<sup>th</sup>, 2007.
  180. Wagstaff<sup>gs</sup>, S. A., K. D. Thelen\* and **N. M. Bello**. "Spring-seeded winter annual rye as a living mulch in dry bean production systems". 2007 International Annual Meetings of the American Society of Agronomy, the Crop Science Society of America and the Soil Society of America. New Orleans, LA. November 4<sup>th</sup> to 8<sup>th</sup>, 2007.
  181. **Bello<sup>gs</sup>, N. M.** and J. R. Pursley\*. "Controlling age and size of the ovulatory follicle in lactating dairy cows". International Conference on Fertility in Dairy Cows, organized by the British Society of Animal Science. Liverpool, United Kingdom. August 30 and 31<sup>st</sup>, 2007.
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182. **Bello<sup>gs</sup>, N. M.**, J. P. Steibel, and J. R. Pursley\*. “Optimizing ovulation to 1<sup>st</sup> GnRH improved outcomes to each hormonal injection of Ovsynch in lactating dairy cows”. National ADSA-ASAS Joint Annual Meeting, Minneapolis, MN. July 9<sup>th</sup> to 13<sup>th</sup>, 2006.
  183. **Bello<sup>gs</sup>, N. M.**, J.P. Steibel, and J.R. Pursley\*: “Reducing variability in the age and size of the ovulatory follicle may enhance fertility following Ovsynch in lactating dairy cows”. 2006 ASAS/ADSA Midwest Meeting, Des Moines, IA. March 20<sup>th</sup> to 22<sup>nd</sup>, 2006.
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## INVITED TALKS

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1. “Understanding Replication and Subsampling in Food Safety Research”. Invited webinar for the International Association for Food Protection. Virtual platform. May 23, 2024.
  2. “Systems Modeling: A Step-by-Step Example in Livestock Production”. Invited seminar for the Michigan State University Animal Breeding and Genetics Seminar Series. Virtual platform. April 5, 2024.
  3. “Specifying a Statistical Model: So What? And How to Go About It?” Invited seminar for the US Department of Agriculture Agricultural Research Service - Northeast Area Postdoctoral Network. Virtual platform. March 20, 2024.
  4. “Systems Modeling: A Step-by-Step Example in Livestock Production”. Invited seminar for the Department of Biomedical Informatics Seminar Series at The Ohio State University. Columbus, Ohio. Virtual platform. September 8, 2023.
  5. “Reproducible Research from Noisy Data: A Statistical Perspective”. Invited seminar. One Health Social Science (OHSS) Initiative, Food Safety and Food Security Working Group, sponsored by the One Health Commission (OHC) <https://www.onehealthcommission.org/>. Virtual platform. August 7, 2023.
  6. “Reproducible Research from Noisy Data: A Statistical Perspective”. Invited seminar. National University of the NorthEast – Corrientes, Colleges of Agricultural Sciences and Veterinary Medicine, Argentina. July 17, 2023.
  7. “Reproducible Research from Noisy Data: A Statistical Perspective”. Invited seminar. National University of Buenos Aires (UBA), College of Exact and Natural Sciences, Buenos Aires, Argentina. July 10, 2023.
  8. “Reproducible Research in Animal Welfare: A Data-Driven Perspective”. Invited seminar for the Dairy Cattle Welfare Council (DCWC) Webinar Series. Virtual platform. April 13, 2023. ~400 registrants worldwide.
  9. “Systems Modeling for Livestock Production: A Brief Intro”. Invited seminar for the Ohio State Scholars Program in Biological Sciences. Columbus, Ohio. February 7, 2023.
  10. “Systems Modeling: A Step-by-Step Example in Livestock Production”. Invited seminar for the Department of Food Science and Technology Autumn 2022 Seminar Series at The Ohio State University. Columbus, Ohio. November 16, 2022.
  11. “Feed the Future Innovation Lab for Food Safety – Cambodia Long-Term Subaward: Project Updates”. Invited talk at the 2022 Annual Meeting of the Food Safety Innovation Lab. San Marcos, Texas, USA. November 10, 2022.
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12. "Hierarchical Modeling of Heterogeneous Networks for Animal Production Systems". Invited talk at the Statistics Seminar Series, Department of Statistics, The Ohio State University. Columbus, Ohio. October 25, 2022.
  13. "Thinking through Systems Modeling: A Step-by-Step Example in Livestock Production". Invited seminar for the Applied Statistics Seminar Series at University of Idaho and Washington State University. Virtual platform. September 28, 2022.
  14. "Reproducible Research from Noisy Data: Thoughts from Agricultural Statistics". Invited seminar at the National Institute of Agricultural Research (INIA), Experimental Station "La Estanzuela", Colonia, Uruguay. July 7, 2022.
  15. "Reproducible Research from Noisy Data: Thoughts from Agricultural Statistics". Invited seminar at the University of the Republic (UdelaR) College of Veterinary Medicine, Montevideo, Uruguay. July 11<sup>th</sup>, 2022.
  16. "Hierarchical Modeling of Heterogeneous Networks for Animal Production Systems". Invited talk at the 2022 International Society for Bayesian Analysis (ISBA) World Meeting, invited session on "Interventions in Complex Systems". Montreal, Canada. June 30, 2022.
  17. "Reproducible Research from Noisy Data: Thoughts from Agricultural Statistics". Departmental Seminar Series, Department of Animal Sciences, The Ohio State University. Columbus, OH. December 9<sup>th</sup>, 2021.
  18. "Statistics for Reproducible Research in Companion Animal Nutrition". Invited talk at the Companion Animal Symposium: Experimental Design and Statistics Applied to Companion Animal Nutrition, at the American Society of Animal Science (ASAS) and Canadian Society of Animal Science (CSAS) Annual Meeting and Trade Show. Virtual platform. July 15, 2021.
  19. "Thoughts on Modern Quantitative Literacy for the Agricultural Sciences". Invited Seminar, Department of Animal Sciences, The Ohio State University. Virtual platform. June 9, 2021.
  20. "Systems Modeling for Integrated Animal Production". Invited Seminar, Department of Animal Sciences, The Ohio State University. Virtual platform. June 8, 2021.
  21. "On Transdisciplinary Research and Education at K-State: A Personal Snapshot". Department of Statistics Seminar Series, Kansas State University. Virtual platform. April 22, 2021.
  22. "Statistics for Reproducible Research: Transition Cows". Invited talk at the 39<sup>th</sup> American Dairy Science Association (ADSA) Discover Conference on Food Animal Agriculture: The transition period – from physiology to management. Virtual platform. October 28, 2020.
  23. "Excellence in Engaged Scholarship: Thoughts for the Animal Sciences of the 21<sup>st</sup> Century". Invited talk, Department of Animal Sciences, Purdue University. Virtual platform. October 16, 2020.
  24. "Mixed Models for Data Architecture". Invited talk at the Data Semantics Lab, Department of Computer Science and Engineering, Kansas State University, Manhattan, Kansas. November 19, 2019.
  25. "Grasping Messiness in Big Data for Agricultural Systems". Invited talk at the Global Food Systems Big Data Workshop. Kansas State University, Manhattan, Kansas. October 15, 2019.
  26. "Dynamic crop modeling: A hierarchical Bayesian specification and extensions for genomic prediction". Invited short talk at AgMiP Global Workshop. Oklahoma State University. Stillwater, Oklahoma. May 29, 2019.
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27. "Systems modeling: interdisciplinary opportunities in animal agriculture". Invited talk at the Department of Pathobiology, College of Veterinary Medicine, University of Illinois, Urbana-Champaign. March 29, 2019.
  28. "Systems modeling: a case study in animal production agriculture". Invited talk at the Department of Pathobiology, College of Veterinary Medicine, University of Illinois, Urbana-Champaign. March 28, 2019.
  29. "Causality networks and experimental data: a swine application". Invited talk at the XXIII Meeting of the International Biometric Society Argentinean-Chilean Chapter (Grupo Argentino de Biometria). Neuquen, Argentina. October 13, 2018.
  30. "Searching for causal networks in experimental data: a swine application". Invited talk at the Biometry Seminar, Dept. of Statistics, University of Wisconsin – Madison. April 27, 2018.
  31. "Exploring biological relationships between reproductive outcomes in a swine production system". Invited talk at the Department of Agronomy and Department of Economics and Statistics, National University of Cordoba, Argentina. December 22, 2017.
  32. "Data architecture and related considerations for big data analytics". Invited talk at the USDA National Animal Genome Research Program (NAGRP) Meeting on Livestock High-Throughput Phenotyping and Big Data Analytics, Beltsville, Maryland. November 13-14, 2017.
  33. "Statistical principles for reproducible research in the Animal Sciences". Invited talk at the Department Seminar Series, Department of Animal Sciences, University of Wisconsin – Madison. September 26<sup>th</sup>, 2017.
  34. "Further thoughts for reproducible research in animal health and production (Part II)". Invited talk at the Center for Outcomes Research and Epidemiology, Kansas State University. Manhattan, Kansas. May 18, 2017.
  35. "Towards reproducible research in animal health and production: Thoughts from Statistics". Invited talk at the Center for Outcomes Research and Epidemiology, Kansas State University. Manhattan, Kansas. February 24, 2017. (Ideas developed jointly with David Renter, CORE, K-State).
  36. "A closer look at low-expression RNASeq transcripts: Motivations from the prairie". Invited talk at the Department Seminar Series at the University of Kansas Cancer Center. Kansas City, Kansas. July 26, 2016.
  37. "On linear and non-linear mixed modeling of dose responses: Lessons learnt". Keynote address at the David H. Baker Aminoacid Symposium, 2016 Midwest Chapter Meetings of the American Society of Animal Sciences. Joint invited interdisciplinary talk with Dr. Marcio Goncalves, Senior Scientist, PIC (<http://www.picgenus.com/home.aspx>). DesMoines, Iowa. March 14, 2016.
  38. "Brief tour of Structural Equation Models: Rethinking causal inference in beef cattle". Kansas State University Center for Outcomes Research and Education. Manhattan, Kansas. February 24, 2016.
  39. "Honing in on low-expression RNASeq transcripts: Motivations from the prairie". Invited talk at the Applied Bioinformatics Seminar Series at Kansas State University. Manhattan, Kansas. February 10, 2016.
  40. "Hierarchical Modeling in Agriculture: Interdisciplinary Opportunities". Invited talk at the Departments of Animal Science, Agronomy and Statistics, Purdue University, West Lafayette, Indiana. October 22, 2015.
  41. "Inferring upon heterogeneous associations in dairy cow performance using a bivariate hierarchical model". Invited talk at the 2014 International Biometric Conference, Florence, Italy. July 11, 2014.
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42. "Heterogeneous Pleiotropy in Whole-Genome Selection Models". Invited talk at the Departmental Seminar Series. Departments of Statistics and Animal Science, University of Nebraska – Lincoln. Lincoln, NE. November 15<sup>th</sup>, 2013.
43. "Heterogeneous Pleiotropy in Whole-Genome Selection Models". Invited talk at the Bioinformatics Seminar, Department of Statistics, Purdue University. West Lafayette, IN. November 5<sup>th</sup>, 2013.
44. "Statistics: Catalyst for Interdisciplinary Interactions". Invited talk at the College of Arts and Sciences Dean's Advisory Council Meeting, Kansas State University. Manhattan, KS. October 24<sup>th</sup>, 2012
45. "Towards a Systems Approach in Animal Agriculture: Integrating the Genetics/Genomics Piece". Invited talk at the Department of Animal Sciences, University of Florida, Gainesville. February 22<sup>nd</sup>, 2012.
46. "Heterogeneity of Covariances: Expanding the Linear Mixed Model". Invited talk at the Department of Statistics, University of Nebraska - Lincoln, Nebraska. November 16<sup>nd</sup>, 2011.
47. "Reproduction and Production: What Have We Learned?" Invited talk at the 2011 Dairy Cattle Reproduction Conference. Dairy Cattle Reproduction Council. Kansas City, Missouri. November 11<sup>th</sup>, 2011.
48. "Heterogeneity of Covariances: Expanding the Linear Mixed Model". Invited talk at the Department of Statistics, University of Missouri - Columbia, Missouri. November 2<sup>nd</sup>, 2011.
49. "On Heterogeneous Associations between Milk Production and Reproduction in Dairy Cows ". Invited talk at the monthly meetings of the Interdisciplinary Dairy Focus group at Kansas State University. Manhattan, Kansas. May 26<sup>th</sup>, 2011.
50. "On Heterogeneous Associations between Milk Production and Reproduction in Dairy Cows ". Invited talk at the Annual Meetings of the American Society of Animal Science Midwestern Section and the American Dairy Science Association Midwest Branch. Des Moines, Iowa. March 15<sup>th</sup>, 2011.
51. "High Producing-High Fertility Dairy Cows: Oxymoron? A Hierarchical Bayesian Perspective". Invited talk at the Department of Diagnostic Medicine/Pathobiology at the College of Veterinary Medicine, Kansas State University. Manhattan, KS. October 7<sup>th</sup>, 2010.
52. "High Producing-High Fertility Dairy Cows: Oxymoron? A Hierarchical Bayesian Perspective". Invited talk at the Department of Animal Sciences and Industry, Kansas State University. Manhattan, KS. October 14<sup>th</sup>, 2010.
53. "Heterogeneity of Covariances: A New Dimension in the Linear Mixed Model". Invited talk at the Department of Statistics, Kansas State University, Manhattan, KS. February 2010.

#### **Other Invited Panels and Events:**

1. Invited discussion panel on "Leveraging Data Analytics to Control Food Safety Hazards". 2023 Center for Foodborne Illness Research and Prevention Think Tank. April 5, 2023. Columbus, Ohio.
  2. Invited Podcast: "Statistical Principles for Pig Research: Myths and Facts" <https://www.swineit.com/blog/statistical-principles-in-pig-research-facts-and-myths-dr-nora-bello> Swine-it Podcast Show, hosted by Dr. Laura Greiner and Dr. Marcio Goncalves, June 21, 2021.
  3. Invited participation on the National Science Foundation Convergence Accelerator Workshop on Digital and Precision Agriculture. Virtual platform. May 10, 12, 14, 21, 2021.
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4. Invited discussion panel on: "The Changing Future of Data and Research: Cross-Disciplinary Problem Solving". 2021 Conference of the Coalition for Advancing Digital Research and Education (CADRE) at Oklahoma State University. Virtual platform. April 14-16, 2021.
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## INVITED SHORT COURSES AND WORKSHOPS DELIVERED

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### **Workshop: How to Specify a Statistical Model?**

2024

Sole or co-instructor. Target audience: USDA Agricultural Research Service scientists and associates. Duration: 8 hours. Various locations.

- March 26-27, 2024: Ithaca, NY.
- April 22-23, 2024: Beltsville, MD.
- June 25-26, 2024: Wyndmoor, PA.

### **Invited Short Course on Modern Statistics for the Agricultural Sciences**

2019, 2023

Instructor. Duration: 5 days. Phnom Penh, Cambodia.

- August 12-16, 2019. Target audience: 20-25 faculty, researchers and graduate students. Royal University of Agriculture (RUA) and Center of Excellence for Sustainable Agricultural Intensification and Nutrition (CE SAIN).
- May 29 to June 6, 2023. Target audience: 25-30 faculty, researchers and graduate students. Center of Excellence for Sustainable Agricultural Intensification and Nutrition (CE SAIN), Royal University of Agriculture (RUA), Institute of Technology Cambodia (ITC) and Pasteur Institute Cambodia (IPC).

### **Invited Short Course: Mixed Models at the Frontier - Scope, limitations and challenges**

2023

Instructor. Short course for ~20 faculty and graduate students from Colleges of Agriculture and Veterinary Medicine at National University of the NorthEast (UNNE) - Corrientes, Argentina. Duration: 5 days. July 17-21, 2023.

### **Invited Short Course: Mixed Models at the Frontier - Scope, limitations and challenges**

2023

Instructor. Short course for ~25 faculty and graduate students from Colleges of Agriculture, Veterinary Medicine and Ecology, Genetics and Evolutionary Sciences at National University of Buenos Aires (UBA), Buenos Aires, Argentina. Duration: 5 days. July 10-14, 2023.

### **Invited Mixed Models Workshop**

2019, 2021, 2023

Delivered in conjunction with the Annual Meetings of the American Dairy Science Association (ADSA). Co-instructor, jointly with faculty colleagues from land-grant Universities under NCCC-170: "Recent Advances in Agricultural Statistics" (<http://www.uark.edu/misc/ncr170/>). Workshop focus: Application of general and generalized linear mixed models to research problems in the animal and food sciences. Approximately ~80 participants per workshop. Duration 1.5 d.

### **Invited Short Course on Modern Statistics for the Agricultural Sciences**

2022

Instructor. Delivered as part of the Graduate Program in Veterinary Medicine and Agriculture at National University of the Republic (UdelaR), Montevideo, Uruguay. Approximately 30 participants, including graduate students, faculty and researchers. July 5-16, 2022.

### **Invited Training: "Sampling Planning: Why does it matter?"**

2021

Feed the Future Innovation Lab for Food Safety Training Sessions: Cambodia Project. Virtual platform. October 25-26, 2021

### **Invited Short Course on Hierarchical Structural Equation Models**

2018

Instructor. Delivered as part of the Graduate Program in Applied Statistics at National University of Cordoba (Universidad Nacional de Cordoba), Argentina. Duration: 1 day. Cordoba, Argentina. December 19, 2018.

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- Invited Short Course on Applied Bayesian Modeling** 2018  
Co-instructor with Dr. Rebecca Smith, PhD, DVM, University of Illinois, Urbana-Champaign. Short course delivered for the Association of Veterinary Epidemiology and Preventive Veterinary Medicine (AVEPM) at the 2018 Conference of Research Workers in Animal Disease (CRWAD). Approximately 32 registrants. Duration: 1.5 days. Chicago, Illinois. December 1-2, 2018.
- Invited Short Course on Generalized Linear Mixed Models** 2018  
Instructor. Delivered at the XXIII Meeting of the International Biometrics Society Argentinean Chapter (Grupo Argentino de Biometria) and the II Argentinean-Chilean Biometrical Meeting. Approximately 30 participants. Duration: 2 sessions of 2 h each. Neuquen, Argentina. October 10-12, 2018.
- Invited Mixed Models Workshop** 2008, 2011, 2013, 2015, 2017  
Delivered in conjunction with the Joint Annual Meetings of the American Dairy Science Association and American Society of Animal Science (JAM ADSA ASAS). Co-instructor, jointly with rotating faculty from land-grant Universities under NCCC-170: "Recent Advances in Agricultural Statistics" (<http://www.uark.edu/misc/ncr170/>). Workshop focus: Application of general and generalized linear mixed models to research problems in the animal and food sciences. Approximately 80-100 participants per workshop. Duration 1.5 d.
- Summer Workshop on Mixed Models – Kansas State University** 2017, 2018  
Instructor. Sponsored by Shell US. Focus: Application of general and generalized linear mixed models for experimental design and data analysis of research problems in animal health and production. 25 participants. Duration 3 d. Manhattan, Kansas.
- Invited Workshop: Introduction to structural equation modeling for production systems in animal agriculture** 2017  
Instructor. Delivered at the Department of Agronomy and Department of Economics and Statistics, National University of Cordoba. 12 participants. Duration: 3 hours. Cordoba, Argentina. December 22, 2017.
- Invited Short Course on Mixed Models for Repeated Measures Data** 2016  
Instructor. Workshop delivered at the XXI Meeting of the International Biometrics Society Argentinean Chapter (Grupo Argentino de Biometria). Approximately 50 participants. Duration: 2 sessions of 1.5 h each. Corrientes, Argentina. September 28-29, 2016

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## ACADEMIC TEACHING AND EXTENSION EXPERIENCE

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### Instructor, The Ohio State University

- FABENG 8193: Mixed Models in Agriculture Fall 2023  
(3 cr., graduate level, 4 students)
- ANIMSCI 8163: Systematic reviews in Agriculture and the Environment Spring 2023  
(3 cr., graduate level, multi-institution interdisciplinary course taught jointly by Purdue University (Depts. of Agronomy and Statistics), University of Wisconsin-Madison (Dept. of Soil Science) and The Ohio State University (Dept. of Animal Sciences). Total: 13 students.
- ANIMSCI 2260: Data Analysis and Interpretation for Decision Making Fall 2022  
(3 cr., undergraduate level, 75 students)
- ANIMSCI 7000: Applied Biometrics (mixed models, 4 cr., graduate level, ~20-25 students) Spring 2022
- Statistical Field Trips: Experimental design and messy data analyses "on your feet"  
– Poultry Brooding House, Columbus, OH 2022
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### Instructor, Kansas State University

STAT 768: Applied Bayesian Modeling (3 cr., graduate level, ~10-12 students)	Spring 2019 - 2021
STAT 870: Analysis of Messy Data (3 cr., graduate level, 10-25 students/semester)	Fall 2013 - 2020
STAT 705: Linear Regression and Analysis of Variance (3 cr., graduate level, 60 students)	Spring 2020
Due to the COVID-19 pandemic and associated shut-down, this course was moved to a 100% remote platform for online teaching half way through the semester. The online teaching platform included synchronous and asynchronous delivery of lectures through Zoom videoconferencing synchronized with Mediasite videorecording, setup of Canvas modules for organization of course materials, online assignments, synchronous and asynchronous communications, including Zoom-mediated office hours, chats and discussion boards for student-to-student and student-instructor interactions.	
MATH 799: Mathematics of Crop Models II (3 cr., graduate level, 3 students)	Spring 2020
Interdisciplinary project-based course in collaboration with faculty from Agronomy and Mathematics	
Due to COVID-19 during Spring 2020, this course was moved to a 100% remote platform for online teaching, similar to that of STAT 705.	
MATH 799: Mathematics of Crop Models I (3 cr., graduate level, 6 students)	Fall 2019
Interdisciplinary project-based course in collaboration with faculty from Agronomy and Mathematics	
STAT 799: Applied Bayesian Statistics (3 cr., graduate level, 5 students)	Spring 2017
STAT 945: Problems in Statistical Consulting (1 cr., graduate level, 4 students)	Spring 2016
STAT 907: Bayesian Statistical Inference (3 cr., graduate level, 5 students)	Fall 2015
STAT 705: Linear Regression and Analysis of Variance (3 cr., graduate level, 60 students)	Spring 2015
STAT 799: Independent study: A Primer in Quantitative Genetics (1 cr., graduate level)	Spring 2014
STAT 704: Analysis of Variance (2 cr., graduate level, 40 students/semester, Fall/Spring)	2011-2014
STAT 950: Applied Statistics in the Field (2 cr., graduate level, 1-2 students/semester)	2013-2014
STAT 726: Introduction to Splus/R Computing (1 cr., graduate level, 36 students)	Spring 2013
STAT 950: Hierarchical Bayesian Inference (3 cr., graduate level, 6 students)	Spring 2012
STAT 713: Applied Statistical Linear Models (4 cr., graduate level, 20 students/semester)	2010-2011
STAT 945: Problems in Statistical Consulting (co-instructor with Leigh Murray)	2010-2011
STAT 705: Linear Regression and Correlation (2 cr., graduate level, 40 students)	2010
Other: (Co-)organized professional development relevant to training of STAT graduate students:	
STAT Field trips: Experimental design and messy data "on your feet"	
– USDA Natural Resources Conservation Services, crop trials on commercial farms	2020
– K-State Soil Testing Lab, Manhattan, KS	2019
– K-State Wheat Quality Laboratory, Manhattan, KS	2019
– Konza Prairie Long-Term Ecological Research Site, Manhattan, KS	2013, 2014, 2016, 2018
– USDA Plant Material Center, Manhattan, KS	2014, 2016, 2018

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- Thomas Livestock Farms (swine farm), Broken Bow, NE 2017
  - K-State Beef Cattle Research Center (beef feedlot), Manhattan, KS 2016
  - K-State Swine Teaching and Research Center (sow farm), Manhattan, KS 2013, 2014
  - K-State Thockmorton greenhouse complex, Manhattan, KS 2013
  - U.S. Meat Animal Research Center, Clay Center, Nebraska 2012
  - K-State Dairy Teaching and Research Center (dairy farm), Manhattan, KS 2011
  - Workshop: How to conduct relevant online searches of the scientific literature 2012
  - Workshop: ASREML. Instructor: S. Kachman, UNL 2012
  - Workshop: Applied Bayesian Epidemiology, Instructor: Wesley Johnson, PhD, University of California-Irvine 2015

**Guest lecturer**

**The Ohio State University**

- ASM 5580 - Data Analytics in Production Agriculture. Guest lecture on "An introduction to Bayesian Modeling" 2022
- ANIMSCI 4006 – Poultry and Avian Management Lab. Guest lecture on: "Synergising UG/Graduate Teaching/Research Efforts: Basic statistical concepts for research in poultry production" 2022
- FDSCTE 6400 - Study Design and Quantitative Methods for Food Science. Guest lecture on "Introduction to Mixed Models" 2022
- ANIMSCI 6000 - Introduction to Graduate Studies in Animal Sciences. Guest lecture. 2021-2022

**University of Wisconsin – Madison**

- ANSCI 610: Quantitative genetics. Lecture on "Introduction to linear models" 2017

**Kansas State University**

- University Honors Undergraduate Program on General Agriculture. Invited lecture on: "Experimental Design Basics" 2011 – 2015
- Course CS 895 - Research Methods in Veterinary Clinical Sciences. Invited lecture on: "Basic Concepts on Experimental Design" 2015

**Michigan State University**

- STT 814: Advanced Statistics for Biologists 2007, 2009
- STT 814: Advanced Statistics for Biologists 2007, 2009
- LCS 682: Food Animal Production Medicine, College of Veterinary Medicine 2006
- ANS 232: Dairy Management 2006 – 2007
- ANS 057: Dairy Herd Reproduction 2006 – 2008

**Instructor, Michigan State University**

- STT 464: Statistics for Biologists (3 credits, upper-undergraduate level, 63 students) 2009

**Laboratory instructor, Michigan State University**

- STT 814: Advanced Statistics for Biologists (4 credits, graduate level, 40 students) 2008

**Coordinator and Instructor for Workshops in Artificial Insemination in Cattle** 2005 – 2008

Agricultural Technology program at the Michigan State University Department of Animal Science

**Coordinator and instructor, Michigan 4H Youth Activities** 2004 – 2009

Including 4H Exploration Days, 4H Dairy Conferences, 4H Dairy Days, 4H Dairy Quiz Bowl and 4H Dairy Management Contests.

**Extension, Michigan State University** 2004 – 2010

Oral presentations at extension meetings for dairy producers, dairy industry representatives and dairy veterinarians on several locations in Michigan. On-farm consultancies.

**Laboratory Teaching Assistant, Veterinary Microbiology** 2000

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Catholic University of Cordoba, Cordoba, Argentina

**Teaching Assistant, Computer Programming Laboratory**  
Cervantes Institution for Computer Sciences, Cordoba, Argentina

1996 – 1997

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## STUDENTS

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\* Indicates role as major advisor or main supervisor

### PhD

At The Ohio State University

- Sara Correia Sequeira, Department of Veterinary Preventive Medicine 2023 - 2024
- Kushal KC, Department of Food, Agricultural and Biological Engineering 2022 - 2024
- \*Vrinda Ambike, Department of Animal Sciences 2022 - 2024
- Ademola Duduyemi, Department of Animal Sciences 2022 - 2023
- Mauricio Oliveira, Department of Animal Sciences 2022 - 2024

At Kansas State University

- Narmandha Meenabhashini Mohankumar, Department of Statistics 2019 - 2022
  - Marshall Clinesmith, Department of Agronomy 2018 - 2022
  - Matt Galliard, Division of Biology 2015 - 2023
  - Nelson Walker, Department of Statistics 2020 - 2021
  - \*Kessinee Chitakasempornkul, Department of Statistics 2016 - 2019  
Recipient of a special recognition by the Kansas State University College of Arts and Sciences for research contributions during her graduate program, April 2019.
  - Megan Calvert, Department of Plant Pathology 2015 - 2020
  - Yinping Li, Department of Entomology 2016 - 2018
  - Kari Otterman, Department of Animal Sciences and Industry 2013 - 2018
  - Charley Cull, Department of Diagnostic Medicine and Pathobiology 2013 - 2016  
College of Veterinary Medicine  
Kansas State University Distinguished Alumni Award 2019
  - Marcio Goncalves, Department of Diagnostic Medicine and Pathobiology 2013 - 2015  
College of Veterinary Medicine
  - Erika Martin, Department of Biology 2010 - 2013
  - Siddartha Torres, Department of Animal Sciences and Industry 2010 - 2012
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Other institutions:

- Yongfang Lu, Department of Animal Science, Michigan State University 2013 - 2016
- Chunyu Chen, Department of Animal Science, Michigan State University 2012 - 2017
- Raghav Sundar, School of Packaging, Michigan State University 2011 - 2013

**Masters**

At The Ohio State University

- Caleb Rykaczewski, Department of Animal Sciences 2021 - 2024
- Bashiru Charles Bakin, Department of Food Science and Technology 2021 - 2024

At Kansas State University

- Marvin Tzirin Patal, Department of Animal Science and Industry 2023 - ...
- Vannith Hay, Department of Animal Science and Industry 2022 - 2023
- \*Adam Karren, Department of Statistics 2020 - 2021
- William Shaffer, Department of Animal Sciences and Industry 2020 - 2021
- Lindsey Grimes, Department of Animal Sciences and Industry 2015 - 2016
- \*Seth Raithel, Department of Statistics 2014 - 2015
- Jessica Kivett, Department of Entomology 2014 - 2015
- Sijia Xiang, Department of Statistics 2011 - 2012
- Garth Highland, Department of Statistics 2011 - 2012
- Joel Vetter, Department of Statistics 2011 - 2012
- Zhining Ou, Department of Statistics 2011 - 2012
- \*Beth Larrabee, Department of Statistics 2010 - 2011
- Eric Mann, Department of Statistics 2010 - 2011
- Chen Shu, Department of Statistics 2010 - 2011
- Mingwei Fei, Department of Statistics 2010 - 2011

Other institutions:

- Sabrina Mosimann, Department of Animal Science, Purdue University 2021 - 2022
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- Linqang Liu, School of Packaging, Michigan State University 2014 - 2016
  - Tony Trierton, School of Packaging, Michigan State University 2011 - 2012
  - Lisa Neums, Department of Cancer Biology, University of Kansas Medical Center 2016

#### Graduate Research Internships/Externships

- \*Sijia Xiang. Interdisciplinary internship between Dept. of Statistics and Dept. of Diagnostic Medicine and Pathobiology, Kansas State University, Summer 2011.
- \*Garth Highland. Interdisciplinary internship between Dept. of Statistics and Dept. of Animal Sciences and Industry, Kansas State University, Summer 2011.
- Maria Jose Suarez (jointly advised with H. Morgan Scott). USDA-funded externship. Interdisciplinary between Dept. of Statistics and Dept. of Diagnostic Medicine and Pathobiology, Kansas State University, Summer 2011

#### Undergraduate Research/Senior Project

- \*Morgan Mauck, DAS 499 – Physical Science Senior Report. Kansas State University. Spring 2019.
- \*Lisa Hillstock (jointly advised with Lora Boyer), McNair Scholar Research Program, Kansas State University. Summer 2011.
- \*Stephanie Wylie, Department of Animal Science, Pre-veterinary Medicine program, Michigan State University, Spring 2007.
- \*Heather Wood, Department of Animal Science, Michigan State University, Spring 2007.
- \*Elizabeth Douglas, Department of Animal Science, Michigan State University, Spring 2007.

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#### TECHNICAL ARTICLES

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- Brown<sup>gs</sup>, W. E., **N. M. Bello** and M. J. Brouk. “Characterizing silo ramp hygiene, forage quality and digestibility of horizontal silos on soil or concrete pads”. 2020. Dairy Day Report of Progress. Dept. of Animal Sciences and Industry, Kansas State University.
  - Wu<sup>gs</sup>, F., M. D. Tokach\*, J. M. DeRouche, S. S. Dritz, J. C. Woodworth, R. D. Goodband, K. Capps, S. Remfry, K. Chitakasempornkul<sup>gs</sup>, **N. M. Bello**, T. G. Nagaraja and R. G. Amachawadi. “Effects of tylosin administration route on the potential development of antimicrobial resistance in fecal enterococci of finishing swine”. 2018 K-State Swine Industry Day Report of Progress.
  - Goncalves<sup>gs</sup>, M. A. D., K. M. Gourley, S. S. Dritz\*, M. D. Tokach, **N. M. Bello**, J. M. DeRouche, J. C. Woodworth and R. D. Goodband. “Effects of amino acid and energy intake during late gestation on piglet birth weight and reproductive performance of gilts and sows housed under commercial conditions”. 2015 K-State Swine Industry Day Report of Progress.
  - Goncalves<sup>gs</sup>, M. A. D., M. D. Tokach\*, S. S. Dritz\*, K. J. Touchette, **N. M. Bello**, J. M. DeRouche, J. C. Woodworth and R. D. Goodband. “Modeling the effects of standardized ileal digestible tryptophan:lysine ratio on growth performance of 65- to 275-lb pigs”. 2015 K-State Swine Industry Day Report of Progress.
  - Goncalves<sup>gs</sup>, M. A. D., M. D. Tokach\*, S. S. Dritz\*, K. J. Touchette, **N. M. Bello**, R. D. Goodband, J. M. DeRouche and J. C. Woodworth. “Effects of standardized ileal digestible tryptophan:lysine ratio on
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growth performance and economics of 25- to 45-lb nursery pigs". 2014 K-State Swine Industry Day Report of Progress.

- Goncalves<sup>gs</sup>, M. A. D., M. D. Tokach\*, S. S. Dritz\*, K. J. Touchette, **N. M. Bello**, R. D. Goodband, J. M. DeRouchey and J. C Woodworth. "Effects of standardized ileal digestible tryptophan:lysine ratio on growth performance and economics of finishing pigs". 2014 K-State Swine Industry Day Report of Progress.
- **Bello\* N. M.** and R.J. Tempelman. "A fresh look at the reproductive efficiency of high producing cows" Progressive Dairyman. Volume 25, Issue 4. March 2011.
- **Bello\* N. M.**, R.J. Erskine and R.J. Tempelman. "Debunking the dogma: A fresh look on reproductive efficiency of high producing cows" Michigan Dairy Review. October 2010.
- **Bello<sup>gs</sup> N. M.**, R.J. Erskine and R.J. Tempelman. "High-fertility High-Producing Dairy Cows: Oxymoron?" Michigan Dairy Review. October 2009.
- **Bello<sup>gs</sup>, N. M.** and J. R. Pursley\*. "Moving Ovsynch forward to improve reproductive performance of dairy cows". Progressive Dairyman Dairy Magazine. March 2007.
- **Bello<sup>gs</sup>, N. M.** and J. R. Pursley\*. "G6G/Ovsynch to improve reproductive performance". Michigan Dairy Review. March 2007.
- Bristle Ekovich, K. and **N. M. Bello**. "New alternative to increase synchronization to Ovsynch." The Point, periodic technical publication by NorthStar Cooperative Inc. Volume 6, Issue 5. 2006.
- Editorial collaboration with Y. Kobayashi, J. R. Pursley and G. W. Smith, at the Department of Animal Science, Michigan State University: "The Virtual Dairy Cattle Encyclopedia of Reproduction" published online in the ANGEL public website of Michigan State University. August 2005.

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## SERVICE and LEADERSHIP

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### Affiliations

American Dairy Science Association (ADSA)	2004 – Present
American Statistical Association (ASA)	2007 – Present
International Biometric Society (IBS), Eastern North American Region (ENAR)	2010 – Present
Sigma Xi, the Scientific Research Society	2015 – Present
American Society of Animal Science (ASAS)	2019 – Present
Association of Veterinary Epidemiology and Preventive Medicine (AVEPM)	2016 – 2017

### Editorial service

Associate Editor, Journal of Agricultural, Biological and Environmental Statistics (JABES\*) 2019 - Present  
2014 - 2015

\*JABES is a peer-reviewed scientific publication by the International Biometric Society (IBS) and the American Statistical Association (ASA).

Reviewer for the following peer-reviewed journals 2006 – 2023

- Science
- Nature Scientific Reports
- Statistics in Medicine
- Journal of Agricultural, Biological and Environmental Statistics (JABES)
- The American Statistician
- Annals of Applied Statistics
- Biometrical Journal
- PLoS One

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- Journal of Dairy Science
- Journal of Animal Science
- G3: Genes | Genomes | Genetics
- Heredity
- Journal of Animal Breeding and Genetics
- Genetics Selection Evolution
- Australian and New Zealand Journal of Statistics
- BMC Genetics
- BMC Medical Research Methodology
- Animal: International Journal of Animal Bioscience
- Livestock Science
- British Journal of Nutrition
- American Journal of Veterinary Research
- Journal of the American Society of Horticultural Sciences
- In-Silico Plants
- Soil Science Society of America Journal
- Proceedings of the Conference on Applied Statistics in Agriculture

**Reviewer for Professional Reference Books**

2011

*“Generalized Linear Mixed Models: Modern Concepts, Methods and Applications”* by Walter Stroup, Statistics, University of Nebraska-Lincoln, for Chapman & Hall / CRC Texts in Statistical Science.

**Reviewer for Federal Grant Review Panels**

USDA – AFRI – NIFA: Several programs, specifics undisclosed as per USDA request 2014 - 2020

**Leadership Service for Professional Societies**

Editorial Management Committee for the Journal of Agricultural Biological and Environmental Statistics (JABES). Role: Committee member (by invitation), in representation of the International Biometric Society (IBS) 2020 – Present

North Central Coordinating Committee (NCCC) 170: Research Advances in Agricultural Statistics. Roles: Project Editor. Lead role in project renewal and review, NIMMS reporting. 2020 – Present

Conference on Applied Statistics in Agriculture and Natural Resources. Role: Organizing and Coordinating Committee 2019 - 2023

American Dairy Science Association Annual Meeting. Role: Program Committee, lead of the Mixed Models Workshop. 2016 – 2023

North Central Coordinating Committee (NCCC) 170: Research Advances in Agricultural Statistics. Role: Program Chair for the Annual Meeting. 2020 – 2021

NCCC170 Committee, position paper prepared for the American Statistical Association on “Overview of Statistics as a Scientific Discipline and Implications for the Evaluation of Faculty Excellence” <http://www.amstat.org/asa/files/pdfs/POL-Statistics-as-a-Scientific-Discipline.pdf>. Role: Co-author. 2017

Nomination of colleagues for professional career awards 2017 – 2024

Joint Annual Meetings of the American Dairy Science Association and the American Society of Animal Science. Role: Member of Program Committee, specifically related to the Mixed Models Workshop 2014 – 2015

**Administrative/Committee Service for The Ohio State University**

\*CFAES stands for College of Food, Agricultural and Environmental Sciences

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Pandemic Research Initiative, sponsored by the Infectious Disease Institute, the Sustainability Institute and the Translational Data Analytics Institute to advance an interdisciplinary team science approach for surveillance, prediction and response to pandemic threats 2022-2023

CFAES Faculty Advisory Council (elected) 2023-2024  
CFAES Diversity Equity and Inclusion Strategic Alignment 2022-2023  
Faculty reviewer for President's Research Excellence Program 2022  
Evaluation committee for the CFAES/OARDC Fellowship competition 2022

**Administrative/Committee Service for the Department of Animal Sciences, The Ohio State University**

Faculty search committee on Precision Livestock Farming 2022-2023  
Special role: Diversity Equity and Inclusion advocate  
Promotion and Tenure Committee 2022-2023  
Awards Committee 2021-2023

**Administrative/Committee Service for Kansas State University**

Graduate School, external chair on graduate committees 2011 - 2021  
Integrity in Research and Scholarly Activity Committee (IRSAC) 2020 - 2021  
College of Arts and Sciences Diversity Committee 2018 - 2019  
Search Committee for the position of Dean of the College of Arts and Sciences 2016 - 2017  
Search Committee, Institute for Computational Comparative Medicine (ICCM) Faculty Cluster Hire 2015  
Search Committee, Institute for Computational Comparative Medicine (ICCM) Faculty Cluster Hire 2014

**Administrative/Committee Service for the Department of Statistics, Kansas State University**

Department Seminar Series, Co-host 2021  
Statistics Club Advisor 2010 - 2014, 2018 - 2020  
Department Seminar Series, Chair 2019  
Dept. Committee for proposed modifications to PhD qualifier examination 2019  
Chair, Committee for Statistics PhD Qualifier Examination - Applied Section 2016 - 2017, 2019 - 2020  
Committee on PhD Qualifier Examination 2010 - 2017, 2019 - 2020  
Director of Statistical Consulting Laboratory 2016 - 2017  
Interim Director of Statistical Consulting Laboratory Spring 2016  
Search Committee, 1 tenure track faculty position on statistical consulting 2015  
Search Committee, 3 tenure-track faculty positions 2014 - 2015  
Conference on Applied Statistics in Agriculture, program co-chair/local arrangements 2012 - 2015  
Department representative, Faculty panel at College Advisory Council meeting 2014  
Committee on Promotion and Tenure for Special Appointments 2014  
Search Committee, Beocat interdisciplinary computational scientist 2013 - 2014  
Curricular Restructuring Committee, chair 2012 - 2014  
Outside Chairperson for final doctoral examination 2013  
Search Committee, Department Head position 2012 - 2013  
Search Committee, 1 tenure-track faculty position 2011 - 2012  
All-University Open House Coordinator 2010 - 2012

**Committee work for the Department of Animal Science, Michigan State University**

Department Seminar Series, co-organizer 2009  
Faculty Search Committee, member 2006 - 2007  
Reproductive/Developmental Biology Program  
First Animal Science Graduate Research Forum, Organizing Committee 2006  
  
Latin American Community, Service chair 2005 - 2006  
Michigan State University

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**PROFESSIONAL DEVELOPMENT – LEADERSHIP TRAINING**

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- The Ohio State University John Glenn College of Public Affairs
    - Leadership Certificate for Public and Non-Profit Professionals. Twelve-week, six-credit graduate certificate in public and nonprofit leadership. Fall 2023. <https://glenn.osu.edu/professional-development/certificate-programs/certificate-public-and-nonprofit-leadership>
  - The Ohio State University College of Food, Agricultural and Environmental Sciences
    - Spring 2023: “Leadership Center – Professional Development Series: Coaching and Mentoring Workshop”, by Brian Raison, PhD, Departments of Extension and Agricultural Communication, Education and Leadership, The Ohio State University. Columbus, Ohio. April 26, 2023.
  - The Ohio State University Office of Academic Affairs
    - Spring 2023: “Engaged Scholarship Symposium”, organized by Nicole Nieto and Jason Reece, Office of Outreach and Engagement. Fawcett Center, Columbus, Ohio. April 20, 2023.
  - The Ohio State University Office of Diversity, Equity and Inclusion
    - Spring 2023: “Foundations of Social Identity”, facilitated by Sophia Antoun, DEI Education Program Specialist. Virtual platform. April 12, 2023.
    - Spring 2023: “DEI Foundations”, facilitated by Sophia Antoun, DEI Education Program Specialist. Virtual platform. April 4, 2023.
    - Spring 2023: “Navigating difficult DEI conversations”, moderated by Sophia Antoun, DEI Education Program Specialist. Virtual platform. March 29, 2023.
    - Fall 2022: “(Mis)understanding critical race theory and the need to confront hard history” by Hasan Jeffries, Department of History, The Ohio State University. Virtual platform. November 17, 2022.
    - Fall 2022: “Microaggressions 101”, led by Sophia Antoun, Leo Taylor, Faculty and Staff Affairs, College of Food Agricultural and Environmental Sciences. Virtual platform. August 23, 2022.
    - Summer 2022: “Inclusive and Equitable Hiring Practices”, moderated by Leo Taylor, Faculty and Staff Affairs, College of Food Agricultural and Environmental Sciences. Virtual platform. June 23, 2022.
    - Spring 2022: “Difficult Conversations: How to Communicate Across Difference”, moderated by Leo Taylor, Faculty and Staff Affairs, College of Food Agricultural and Environmental Sciences. Virtual platform. April 13, 2022.
    - Spring 2022: “Microaggressions 101”, by Sophia Antoun, Education Program Specialist, Strategic Diversity Planning, Training and Assessment. Virtual platform. January 28, 2022.
    - Fall 2021: “Gender Demystified: Creating Inclusive Environments for People of All Genders”. Leo Taylor, Faculty and Staff Affairs, College of Food Agricultural and Environmental Sciences. Virtual platform. October 14, 2021.
    - Fall 2021: “Implicit Associations, Insidious Assumptions: Unintended Manifestations of Bias in Everyday Life”. Leo Taylor, Faculty and Staff Affairs, College of Food Agricultural and Environmental Sciences. Virtual platform. November 23, 2021.
  - Kansas State University Office for the Advancement of Women in Science and Engineering
    - Fall 2020: “Promoting racial equity: a guide for business leaders”, by Alvin Tillery, Corporate Engagement at Northwestern University. Webinar. Virtual platform. August 19, 2020.
    - 2020-2021 Inclusive Leadership Seminar Series.
      - September 15, 2020: “Strategies for hearing all voices: consistency and accessibility”. Sonya Lutter, Applied Human Sciences, Kansas State University. Virtual platform.
      - October 19, 2020: “Being a good ally to people with disabilities”. Amanda Gaulke, Economics, Kansas State University. Virtual platform.
      - April 2, 2021: “Consideration on teaching evaluations to avoid legitimizing biased reviews of faculty”. Bonnie Rush, College of Veterinary Medicine, Kansas State University. Virtual platform.
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- University of Wisconsin-Madison Women and Leadership Symposium, Madison, Wisconsin. June 7, 2018
- 2012 James R. Coffman Leadership Institute. Immersive leadership development training consisting of series of workshops, panel discussion, small and large group activities, group discussions, presentations, case studies and self assessments on a variety of topics including inclusive leadership, leadership style assessment, personality types, team building, shared leadership, conflict resolution, change management, amongst others. Junction City, KS. July 6-8, 2012.

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## PROFESSIONAL DEVELOPMENT – CONFERENCES AND PROFESSIONAL MEETINGS

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- Conference on Applied Statistics in Agriculture and Natural Resources.
  - Iowa State University, Ames, IA. May 13-16, 2024.
  - Purdue University, West Lafayette, IN. May 15-18, 2023.
  - Utah State University, Logan, UT. May 16-19, 2022.
  - Virtual platform. May 17-20, 2021.
  - University of Florida, Gainesville, FL. April 27-28, 2020. Cancelled due to COVID-19 shut-down.
- Annual Meeting of the Multi-state North Central Coordinating Committee 170 (NCCC-170) on “Research Advances in Agricultural Statistics”
  - Mayagüez, Puerto Rico, 2024.
  - Madison, Wisconsin, 2023.
  - Stillwater, Oklahoma, 2022.
  - Virtual platform, 2021.
  - Virtual platform, 2020.
  - Urbana-Champaign, Illinois, 2019.
  - Fayetteville, Arkansas, 2018.
  - Elk River, Minnesota, 2017.
  - College Park, Maryland, 2016.
  - Mayaguez, Puerto Rico, 2015.
  - Lincoln, Nebraska 2014
  - East Lansing, Michigan 2013
  - Cary, North Carolina 2012
  - West Lafayette, Indiana 2011
- American Dairy Science Association (ADSA) Annual Meeting.
  - Ottawa, Canada. June 25-29, 2023.
  - Virtual platform. July 11-14, 2021.
  - Cincinnati, Ohio. June 23-27, 2019.
  - Pittsburgh, Pennsylvania. June 25-28, 2017.
- International Society for Bayesian Analysis (ISBA) World Meeting, Montreal, Canada. June 25 to July 1, 2022.
- Ohio Forage and Grasslands Council Conference: “Foraging for profit”. London, Ohio. February 18, 2022.
- Translational Data Analytics Institute, The Ohio State University, Columbus, Ohio
  - 2021 Fall Forum: Data for Good, Ethically. November 2-3, 2021.
  - 2022 Fall Forum: Interdisciplinary Research. November 7, 2022.
- Feed the Future Innovation Lab on Food Safety Annual Meetings: Cambodia, Senegal, Bangladesh, Nigeria, Nepal and Kenya Project Teams.
  - San Marcos, Texas, USA. November 9-10, 2022.



- Indianapolis, Indiana, USA, and hybrid mode. November 9-10, 2021.
  - Kansas State University Conference on Applied Statistics in Agriculture
    - Manhattan, KS. 2009 - 2018.
  - American Society of Animal Science (ASAS) and Canadian Society of Animal Science (CSAS) Annual Meeting and Trade Show.
    - Virtual platform. July 15-18, 2021.
  - Joint Annual Meetings of the American Dairy Science Association and the American Society of Animal Sciences:
    - Salt Lake City, Utah, 2016
    - Orlando, Florida, 2015
    - Kansas City, Missouri, 2014
    - Indianapolis, Indiana, 2013
    - Phoenix, Arizona, 2012
    - New Orleans, Louisiana 2011
    - Denver, Colorado 2010
    - Montreal, Quebec, Canada 2009
    - Indianapolis, Indiana 2008
    - San Antonio, Texas 2007
    - Minneapolis, Minnesota, 2006
    - Cincinnati, Ohio, 2005
    - St. Louis, Missouri, 2004
  - 2021 Conference of the Coalition for Advancing Digital Research and Education (CADRE) at Oklahoma State University. Virtual platform. April 14-16, 2021.
  - Joint Statistical Meetings 2020: Everyone counts – Data for the public good. Sponsored by the American Statistical Association. Virtual conference. August 1-6, 2020
  - SAS Global Forum 2020. Virtual platform. June 16, 2020.
  - Annual meeting of the RII Track-2FEC: Building Field-based Ecophysiological Genome-to-Phenome Prediction NSF EPSCoR Project
    - Year 1 Annual Meeting. Stillwater, Oklahoma. May 29-30, 2019.
    - Year 2 Annual Meeting. Virtual platform, May 28, 2020.
    - Year 3 Annual Meeting. Virtual platform, June 17-18, 2021.
  - 39<sup>th</sup> Discover Conference on Food Animal Agriculture: “The Transition Period – From Physiology to Management”. Sponsored by the American Dairy Science Association (ADSA). Chicago, IL. October 26-29, 2020. Moved to a virtual platform due to COVID-19.
  - AgMiP Global Workshop on “Modeling Wheat Genetic Yield Potential” – A joint workshop of the “Building Field-based Ecophysiological Genome-to-Phenome Prediction NSF EPSCoR Project” and the “Agricultural Model Intercomparison and Improvement Project-Wheat Team ([www.agmip.org](http://www.agmip.org))”. Hosted by Oklahoma State University, Stillwater, Oklahoma. May 28-30, 2019.
  - International Biometric Conference (IBC), sponsored by the International Biometric Society
    - Barcelona, Spain. 2018.
    - Florence, Italy. 2014
  - Annual Meeting of the International Biometrics Society - Argentinean Chapter (IBS-GAB; Grupo Argentino de Biometria)
    - XXIII Meeting, joint with the II Argentinean-Chilean Biometrical Meeting. Neuquen, Argentina. October 10-12, 2018.
    - XXI Meeting. Corrientes, Argentina. September 28-30, 2016.
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- Conference of Research Workers in Animal Diseases (CRWAD), the annual meeting of the Association of Veterinary Epidemiology and Preventive Medicine. Chicago, Illinois.
  - December 4-6, 2016.
  - December 1-3, 2018.
- USDA National Animal Genome Research Program (NAGRP) Meeting on Livestock High-Throughput Phenotyping and Big Data Analytics, Beltsville, Maryland. November 13-14, 2017.
- 5<sup>th</sup> International Conference on Quantitative Genetics (ICQG5), Madison, Wisconsin. June 12-17, 2016.
- 14<sup>th</sup> Symposium of the International Society for Veterinary Epidemiology and Economics (ISVEE), Merida, Yucatan, Mexico. November 2-7, 2015.
- Ecological Genomics Research Forum, sponsored by the Ecological Genomics Institute, Kansas State University Division of Biology. Konza Prairie Biological Station, Manhattan, KS. June 23, 2015.
- 12<sup>th</sup> Annual Ecological Genomics Symposium, sponsored by the Ecological Genomics Institute at Kansas State University. Kansas City, Missouri. October 31 to November 2, 2014.
- Kansas State University Plant Breeding and Genetics Symposium: Next Generation Plant Breeding. Manhattan, KS. April 2, 2013.
- Conference on Innovations in Teaching and Learning: Speakers, Thinkers and Doers. Manhattan, KS. March 4-5 2013.
- Annual Meetings of the Eastern North American Region (ENAR) of the International Biometrics Society. Washington, DC 2012
- Conference on New Statistical Methods for Next Generation Sequencing Data Analysis. Iowa State University. Ames, IA. May 11, 2012.
- American Dairy Science Association Midwest Branch and American Society of Animal Sciences Midwestern Section Annual Meetings.
  - DesMoines, Iowa. March 2006, 2011, 2016.
- Dairy Cattle Reproduction Council Annual Meeting. Kansas City, Missouri, 2011.
- International Conference on Fertility in Dairy Cows, organized by the British Society of Animal Science. Liverpool, United Kingdom. August 30 and 31<sup>st</sup>, 2007
- 5<sup>th</sup> International Symposium on Animal Reproduction, organized by the Institute of Animal Reproduction of Cordoba (IRAC). Cordoba, Argentina, 2003.

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## **PROFESSIONAL DEVELOPMENT – SHORT COURSES AND WORKSHOPS**

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- USAID Feed the Future Innovation Lab on Food Safety: Virtual Project Workshop on Local Capacity Strengthening – Cambodia/Senegal/Bangladesh/Nepal Teams. Virtual platform. April 25, 2023.
  - The Ohio State University Translational Data Analytics Institute (TDAI):
    - Fall 2022: “Predictive Intelligence and Pandemic Prevention Workshop”. Joint with the OSU Infectious Disease Institute and the Sustainability Institute. December 5, 2022.
  - The Ohio State University College of Food Agricultural and Environmental Sciences (CFAES):
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- Fall 2022: “Suicide Prevention Gatekeeper Training”, offered by David Wirt, CFAES Counseling and Consultation Service. August 18, 2022.
  - Spring 2022: “Introduction to Graduate Advising Resources”, offered by CFAES Office of Research and Graduate Education and OSU Counseling and Consultation Service. March 10, 2022.
  - Spring 2022: “Finding and managing international funding opportunities”, offered by Office of Sponsored Programs Grant Development Support Unit. January 25, 2022.
  - Spring 2022: “Budgeting basics” offered by Pam Schlegel, Office of Sponsored Programs Grant Development Support Unit. January 11, 2022.
  - The Ohio State University Michael V. Drake Institute for Teaching and Learning
    - Spring 2023: “From Debate to Dialogue: Conversation Strategies to Build Connection Across Differences”, moderated by Sophia Antoun and Erin Mercurio, Education Program Specialists, and Shadia Siliman, American University. April 3, 2023
    - Spring 2023: “Drake Institute Assessment for Learning Workshop Series: Gauging Student Prior Knowledge”, facilitated by Jane Hammons, OSU Libraries, and David Sovic. February 2, 2023.
    - Spring 2022: “Better Research through Better Mentoring: Parts I and II”, moderated by William Ray, Interdisciplinary Biophysics Graduate Program and Tom Maglieri, Vice Chair of Graduate Studies, Dept. of Chemistry and Biochemistry. April 12 & 14, 2022. Virtual platform.
    - Spring 2022: “Course Design Institute”, facilitated by Larry Hurtubise and David Sovic. February 8, 15, 22, and March 1, 8, 2022. Virtual platform.
    - Spring 2022: “Beyond Evaluations: Cultivating Student Feedback Across the Semester”, by Chelsea Taylor. Virtual platform. February 16, 2022.
    - Fall 2021: “Leveraging team-based learning to promote lasting impact”, by Larry Hurtubise. Virtual platform. October 12, 2021.
  - The Ohio State University College of Arts and Sciences Teaching Forum
    - Spring 2022: “Managing Large Online Classes”, by Chelsea Taylor. Virtual platform. March 3, 2022.
    - Spring 2022: “High Impact Practices in Online and Hybrid Courses”, moderated by Jeremie Smith, Virtual platform. April 29, 2022.
  - The Ohio State University Office of Academic Affairs
    - Spring 2022: “Promotion and Tenure Workshop”, by Helen Malone. Virtual platform. April 28, 2022.
  - Kansas State University College of Agriculture Diversity Programs Office:
    - Fall 2020: “Growing our Mindset: Differences Make us Stronger – Inclusion, Diversity and Equity in the Workplace”, by Ed Honesty Jr., CEO, Best Harvest Bakeries. October 20, 2020.
  - Michigan State University Virtual Field Day: “Precision Livestock Farming: from the Field”. October 7, 2020.
  - Kansas State University Global Food Systems Initiative, workshop series, Manhattan, Kansas.
    - Big Data workshop. October 15, 2019.
    - Microbiome workshop. April 30, 2020.
  - Workshop Series on Applied Statistics in Agriculture and Natural Resources.
    - 2023: “Scalable Bayesian models and estimation methods for the analysis of big spatial and spatio-temporal data”, by Dr. Andrew Finley and Jeff Doser, Michigan State University. West Lafayette, Indiana. May 15, 2023.
    - 2022: “Regression and Classification Applied to Precision Agriculture”, by Dr. Guilherme Rosa, University of Wisconsin-Madison. Logan, Utah. May 16, 2022.
    - 2021: “Practical Bayesian Data Analysis”, by Dr. Fang Chen, SAS Institute Inc. Virtual platform. May 17, 2021.
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- 2020: “Practical Bayesian Data Analysis”, by Dr. Fang Chen, SAS Institute Inc. Gainesville, Florida. April 26 2020. Cancelled due to COVID-19.
  - Kansas State University Office of Research Development Workshops, Manhattan, KS
    - “Pivot Funding Opportunities Database Training”, by Laura Hohenbary. August 21, 2019.
  - Kansas State University Teaching and Learning Center. Workshops, Manhattan, KS:
    - Spring 2021: “Engaging and supporting our international students: Resources, tools and best practices today”, by Taylor Jennings, English language program at K-State. March 31, 2021.
    - Fall 2020: “Helpful Canvas features for online courses”, by Colby Moorberg, Brian Lindshield and Scott Finkeldei. September 23, 2020.
    - Spring 2020: “Teachers Thriving Remotely” series, panel of professionals, March 31, 2020.
    - Spring 2020: “Difficult dialogues: Encouraging empathy to promote diversity and inclusion”, by Dr. Don Saucier. April 23, 2020.
    - Spring 2019: “Fostering Inclusivity and Equity in the Classroom”, by Dr. Eleanor Sayre. April 16, 2019.
    - Spring 2019: “On the Scholarship of Teaching and Learning”, by Dr. Eleanor Sayre. February 13, 2019.
    - Spring 2016: “Generation Me and iGen”. Keynote address: Jean Twenge. February 5, 2016.
    - Spring 2015: “Motivating 21<sup>st</sup> Century Learners”. January 30-31, 2015.
    - Spring 2014: “Actively engaging the brain”. January 31 – February 1, 2014.
  - Consultative Group on International Agricultural Research (CGIAR) - Platform for Big Data in Agriculture. Webinar and Demonstration on “A tale of two platforms: GARDIAN and G.E.M.S.” Organized by the Crop Modeling Community of Practice. April 10, 2019.
  - National Science Foundation XSEDE Program: “High Performance Computing Workshop on Big Data Analytics and Machine Learning”. Delivered by the Pittsburg Supercomputing Center on a Wide Area Classroom training platform based at Kansas State University Dept. of Computed Science, Manhattan, Kansas. April 2-3, 2019.
  - Kansas State University Workshop Series on Applied Statistics in Agriculture, Manhattan, KS.
    - 2018: “Graphical Models”, by Dr. Guilherme Rosa, University of Wisconsin-Madison.
    - 2017: “Statistical and Machine Learning”, by Dr. David L. Banks, Duke University.
    - 2015: “Statistics for Spatio-Temporal Data”, by Dr. Christopher Wikle, University of Missouri.
    - 2014: “Statistical Methods for Genome-Enabled Prediction of Complex Traits”, by Dr. Gustavo de los Campos, University of Alabama-Birmingham.
    - 2013: “Statistical Graphics in Agriculture” by Dr. Kevin Wright, DuPont, Pioneer.
    - 2012: “Applied Bayesian Inference for Agricultural Statisticians”, by Dr. Robert J. Tempelman, Michigan State University.
    - 2011: “Living with Generalized Linear Mixed Models in Agriculture”, by Dr. Walt Stroup, University of Nebraska, Lincoln.
    - 2010: “Applied Survival Analysis”, by Dr. Susanne May, University of Washington, Seattle.
    - 2009: “Analysis of Messy Data Revisions”, by Dr. George Milliken and Dallas Johnson, Kansas State University.
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- International Biometric Conference Short Course on “Mediation analysis using R”, by Dr. Stijn Vansteelandt, Ghent University, Belgium and Dr. Theis Lange, University of Copenhagen, Denmark. Barcelona, Spain. July 8, 2018.
- University of Wisconsin Workshop on “Cool Software Tools” by UW Software Training Services. Madison, Wisconsin. January 25, 2018.
- University of Wisconsin Workshop on “High-Throughput computing skills with HTCondor software” by Dr. Fernando Brito, University of Wisconsin – Madison. Madison, Wisconsin. November, 27, 2017.
- “Introduction to Spatial Data Analysis in R”. Instructors: Drs. Trevor Hefley and Mevin Hooten. Kansas State University. Manhattan, Kansas. May 19, 2017.
- “Machine learning”. Instructor: Dr. Irene Diaz, Universidad de Oviedo, Spain. XXI Meeting of the International Biometric Society Argentinean Chapter (Grupo Argentino de Biometria). Corrientes, Argentina. September 29-30, 2016.
- “Simulation as a pedagogic strategy in the teaching of Statistics”. Instructor: Drs. Adriana Perez and Gerardo Cueto, Universidad de Buenos Aires, Argentina. XXI Meeting of the International Biometric Society Argentinean Chapter (Grupo Argentino de Biometria). Corrientes, Argentina. September 28, 2016.
- “Computational Approaches for Inference and Analysis of Molecular Networks”. Instructor: Dr. Sushmita Roy, University of Wisconsin - Madison. ICQG5, Madison, Wisconsin. June 8-10. 2016.
- Workshop on Applied Bayesian Epidemiology, sponsored by the Epidemiology and Population Health group and the Center for Outcomes Research and Education (CORE) at the Kansas State University College of Veterinary Medicine. Instructor: Wesley Johnson, Professor at the Department of Statistics, University of California at Irvine. Manhattan, KS. February 16-18, 2015.
- Kansas State University Workshop Series “Working with Industry Boot Camp”, including 7 sessions scheduled throughout Spring 2015. Manhattan, KS.
- Professional Development Workshop: “Enhancing the Grant-Writing Environment in the Animal Health Industry, Global Food Systems Arenas and Beyond: Writing Winning NIH, NSF and USDA Grant Proposals”. Presented by the Grant Writer’s Seminars and Workshops, LLC. and hosted by the K-State Office of Research and Sponsored Programs. Manhattan, KS. April 24-25, 2014.
- “Introduction to High Performance Computing with Beocat”. Manhattan, KS. May 28, 2013.
- “Statistical Methods for Genome-Enabled Selection”, by Drs. Daniel Gianola, University of Wisconsin-Madison and Gustavo de los Campos, University of Alabama-Birmingham. Iowa State University, Animal Breeding and Genetics Short Courses. Ames, IA. May 6-10, 2012.

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## IN THE MEDIA

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- AgriLinks, September 1, 2023: “Intensive course strengthens statistics capacity for Cambodian-led agricultural research”. Link: <https://agrilinks.org/post/intensive-course-strengthens-statistics-capacity-cambodian-led-agricultural-research>
  - The Ohio State University Office of International Affairs News. February 15, 2023: “Statistical capacity building – an Ohio State-Uruguay partnership”. <https://oia.osu.edu/news/statistical-capacity-building-an-ohio-state-uruguay-partnership/>.
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- Swine-it Podcast Show, June 21, 2021: “Statistical Principles for Pig Research: Myths and Facts” <https://www.swineit.com/blog/statistical-principles-in-pig-research-facts-and-myths-dr-nora-bello>
  - Science Daily, August 6, 2012: “Cattle vaccine works to reduce E.coli O157:H7” <https://www.sciencedaily.com/releases/2012/08/120806125927.htm>
  - Progressive Dairy, February 24, 2011: “A fresh look at the reproductive efficiency of high-producing cows”. <https://www.agproud.com/articles/29623-a-fresh-look-at-the-reproductive-efficiency-of-high-producing-cows>
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## **LANGUAGES**

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- English: Speaks, reads and writes with high proficiency. TOEFL. GRE. Certifications by University of Cambridge, England.
  - Spanish: Native language.
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*References and additional information readily available upon request*

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