
Education

PhD, Department of Animal Science, University of California, Davis (Davis, CA), in progress

M.S., Department of Statistics, University of California, Davis (Davis, CA), 2014-2015

M.S., Department of Animal Science, Penn State University (State College, PA), 2011-2013

B.S., College of Animal Science, China Agricultural University (Beijing, China), 2007-2011

Research Experience

Sep.2013 – Present **Teaching and Research Assistant in UC Davis**, research interest in quantification of methane emissions and nitrogen excretion in lactating dairy cows.

Advisor: Dr. Ermias Kebreab

Research interests: Nutrition and statistical modeling on greenhouse gas emissions and nutrient excretion in ruminants.

Aug.2011 – Aug.2013 **Graduate Assistant in Penn State University**, research interest in the circadian rhythms of feed intake, daily behavior, plasma hormones and metabolites in lactating dairy cows.

Advisor: Dr. Kevin. Harvatine

Research interests: Nutrition on production, behavior, and circadian rhythm of lactating dairy cows.

Sep.2011 – 2011 **Undergraduate Assistant in China Agricultural University**, China-France Beef Cattle Research Center

Publications

- **M. Niu**, Y. Ying, P. A. Bartell, and K. J. Harvatine. The effects of feeding rations that differ in fiber and fermentable starch within a day on milk production and the daily rhythm of feed intake and plasma hormones and metabolites in dairy cows. Accepted, Journal of Dairy Science, 2016.
- S. Biswas, **M. Niu**, J.A.D.R.N. Appuhamy, A. Leytem, R. Dungan, E. Kebreab. Impacts of dietary forage and crude protein levels on the shedding of E. coli O157:H7 and Listeria in dairy cattle feces. In press, Livestock Science, 2016.
- T.A. Tewoldebrhan, J.A.D.R.N. Appuhamy, J.J. Lee, **M. Niu**, S. Seo, S. Jeong, E. Kebreab. Exogenous β -mannanase improved feed conversion efficiency and reduced somatic cell count in dairy cattle. In press, Journal of Dairy Science, 2016.
- **M. Niu**, J.A.D.R.N. Appuhamy, A. Leytem, R. Dungan, E. Kebreab. Effect of dietary crude protein and forage contents on enteric methane emissions and nitrogen excretion from dairy cows simultaneously. Animal Production Science, 2015: Volume 55.
- **M. Niu**, Y. Ying, P. A. Bartell, and K. J. Harvatine. The effects of feeding time on milk production, total-tract digestibility, and daily rhythms of

feeding behavior and plasma metabolites and hormones in dairy cows. *Journal of Dairy Science*, 2014: 97(12):7764-7776.

Conference Abstracts

- Nutritional amendments to simultaneously minimize enteric methane emissions and nitrogen excretion from dairy cows. **M. Niu***, J.A.D.R.N. Appuhamy, A. Leytem, R. Dungan, E. Kebreab. GGAA 2016 Conference.
- Dietary fiber and crude protein contents can be modified to minimize enteric methane emissions and nitrogen excretions from dairy cows simultaneously. **M. Niu***, J.A.D.R.N. Appuhamy, A. Leytem, R. Dungan, E. Kebreab. ADSA-ASAS Joint Annual Meeting, 2015.
- Effects of dietary forage and protein levels on the concentration and total load of *Escherichia coli* and *Listeria monocytogenes* in feces of dairy cows. **M. Niu***, S. Biswas, J. A. D. R.N. Appuhamy, P. K. Pandey, A. Leytem, R. Dungan, and E. Kebreab. ADSA-ASAS Joint Annual Meeting, 2015.
- Saliva sodium, potassium, and phosphorus concentrations of post-peak lactating Holstein cows are not affected by dietary fiber or protein content. J. A. D. R. N. Appuhamy*, **M. Niu**, T. Tewoldebrhan, A. Leytem, R. Dungan, and E. Kebreab. ADSA-ASAS Joint Annual Meeting, 2015.
- Water partitioning in lactating Holstein cows fed two levels of dietary forage and crude protein contents. J. A. D. R. N. Appuhamy*, **M. Niu**, T. Tewoldebrhan, A. Leytem, R. Dungan, and E. Kebreab. ADSA-ASAS Joint Annual Meeting, 2015.
- The effects of feeding time on the circadian pattern of feed intake, milk production, and plasma hormones and metabolites in dairy cows. **M. Niu***, Y. Ying, P.A. Bartell, K.J. Harvatine. ADSA-ASAS Joint Annual Meeting, 2013.
- The effect of a two ration feeding regimen on feed intake, milk production and composition, and plasma hormones and metabolites in dairy cows. **M. Niu***, Y. Ying, P.A. Bartell, K.J. Harvatine. ADSA-ASAS Joint Annual Meeting, 2013.
- Effect of a commercially available natural plant extract on intake and milk production of dairy cows. Y. Ying, **M. Niu**, A. R. Clarke, and K. J. Harvatine. ADSA-ASAS Joint Annual Meeting, 2013.
- Family consumption of dairy products report in Beijing. S. Zhang, Y. Wang, Y. Yu, D. Pan, L. Guo, S. He, P. Wang, S. Qi, **M. Niu**. *China Dairy*, 2009(11): 36, 37.

Teaching Experience

Aug. 2011 – Dec. 2011 **Principles of Animal Nutrition** (AN SC 301, Dr. Kevin Harvatine), Department of Animal Science, Penn State University

Course description: Nutrients and their metabolism; the nutritional requirements of livestock; the nutritional value of various feeds; principles of ration formulation.

Aug. 2013 – Dec. 2013 **Animal Biochemistry & Metabolism** (ABI 102, Dr. Chris Calvert), Department of Animal Science, UC Davis

Course description: Water and biological buffers; thermodynamics of metabolism; structure and function of biomolecules; enzyme kinetics

and function; membrane biology; digestion and absorption; carbohydrate metabolism.

Jan. 2014 – Apr. 2014 **Lactation** (ANS 124, Dr. Russ Hovey), Department of Animal Science, UC Davis

Course description: Consideration of the biochemical, genetic, physiological, nutritional, and structural factors relating to mammary gland development, the initiation of lactation, the composition of milk and lactational performance.

Apr. 2014 – Jun. 2014 **Animal Growth** (ANS 123, Dr. Pablo Ross), Department of Animal Science, UC Davis

Course description: Growth and development of animals from conception to maturity viewed from practical and biological perspectives; includes genetic, metabolic, nutritional control of cell and organism function.

Sep. 2015 – Dec. 2015 **Production Animal Laboratory** (ANS 198, Dr. Roberto Sainz) Department of Animal Science, UC Davis

Course description: To provide the student with information and skills needed for developing and conducting research with production animals, as well as interpreting and presenting the results obtained.

Jan. 2016 – Mar. 2016 **Animal Nutrition** (NUT 115, Dr. Ed. DePeters) Department of Animal Science, UC Davis

Course description: Comparative differences among animals in digestion and metabolism of nutrients. Nutrient composition of feeds, digestive systems, digestion, absorption, feeding strategies.

Professional Associations

May. 2012 - Present Member of American Dairy Science Association

Awards & Honors/Fellowships

July. 2016 Austin Eugene Lyons Fellowship (UC-Davis)

Jun. 2014 Richard H. Johnson Fellowship (UC-Davis)

Aug. 2012 Obie and Mary Ann Snider scholarship (PSU)

Sep. 2010 Samsung Scholarship for Agricultural Talents (CAU)