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Assistant Extension Professor

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EDUCATION

University of New Hampshire, Durham, NH December 2019 – August 2023

Ph.D. in Agricultural Science

Advisor: Dr. Peter Erickson

Dissertation committee: Peter S. Erickson, Ph.D., Andre F. Brito, Ph.D., David P. Marcinkowski, Ph.D., Allen J. Young, Ph.D., and Eric D. Reid, Ph.D.

Dissertation title: Effects of Dietary Cation Anion Difference and Nicotinic Acid

Supplementation Prepartum on Jersey Cows, Colostrum, and Calves AND Creating a Model for the Prediction of Colostrum Quality and Quantity in Jersey Cows from Performance in the Previous Lactation and Environmental Changes

University of New Hampshire, Durham, NH Fall 2017 – December 2019

M.S. in Agricultural Science

Advisor: Dr. Peter Erickson

Thesis committee: Peter S. Erickson, Ph.D., Andre F. Brito, Ph.D., and Kayla M. Aragona, Ph.D.

Thesis title: Sodium Butyrate and Monensin Supplementation to Post-weaned Heifer Diets: Effects on Growth Performance, Nutrient Digestibility, and Health

Delaware Valley University, Doylestown, PA August 2015 – May 2017

B.S. in Animal Science: Livestock Science and Management

Minor in Dairy Science

Warren County Community College, Washington, NJ September 2014 – May 2015

Associates in Applied Sciences: Business Management

Magna Cum Laude

PROFESSIONAL ASSOCIATIONS

American Registry of Professional Animal Scientists	2022 – present
American Society of Animal Science	2021 – present
American Dairy Science Association	2017 – present

RESEARCH EXPERIENCE

University of New Hampshire	In progress
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Non-thesis experiment*Under the supervision of Dr. Peter Erickson***Research funded by University of Massachusetts: Boston**

Performing both in vitro and in situ analysis to evaluate the digestibility of lobster and crab meal in dairy cows

- In vitro- utilizing a batch culture incubator to simulate rumen and intestinal conditions to evaluate digestibility (DM, protein, fiber (NDF and ADF), minerals)
- In situ- utilizing cannulated cows to evaluate digestion of nutrients in the rumen (evaluating DM, protein, fiber (NDF and ADF), minerals)

University of New Hampshire**December 2019 – August 2023****Doctoral Candidate***Under the supervision of Dr. Peter Erickson***Research funded by George Walker Milk Research Fund**

- 1) Evaluating supplementation of prepartum, multiparous Jersey cows with either low (-80 mEq/kg) DCAD +/- 23 g/d nicotinic acid or medium (-40 mEq/kg) DCAD +/- 23 g/d nicotinic acid on colostrum (quality and quantity), cow (prepartum), and calf performance
 - Laboratory work performed:
 - Calves- Glucose and xylose assay on plasma (small intestine development), serum beta hydroxybutyrate (to evaluate rumen development)
 - Cows- purine derivatives (uric acid and allantoin, in urine to estimate microbial protein synthesis) and creatinine (to calculate urine volume), plasma non-esterified fatty acid
 - Colostrum assays- immunoglobulin G, insulin-like growth factor-1, transforming growth factor beta, lactoferrin, and insulin
- 2) Developing a regression equation to predict colostrum quality and quantity in Jersey cows from performance in the previous lactation and environmental changes
 - Herds that have multiparous Jersey cows (all Jerseys or mixed herds) were enrolled throughout the country
 - Producers are collecting colostrum (weight and a sample for evaluation of immunoglobulin G concentration) and answering survey questions on management, housing, and diets of prepartum cows

University of New Hampshire**Fall 2017 – December 2019****Graduate Student (M.S.)***Under the supervision of Dr. Peter Erickson***Research funded by Nutriad Inc.**

Evaluating supplementation of post-weaned dairy heifers with sodium butyrate, monensin, or the combination on growth, nutrient digestibility, and coccidia counts.

- Laboratory work performed:
 - Plasma- glucose and plasma urea nitrogen assay
 - Serum- beta hydroxybutyrate (to evaluate rumen development)
 - Feces- fecal floats to count coccidian oocysts

Delaware Valley University**December 2016 – March 2017**

Undergraduate Student*Under the supervision of Dr. Bruce Richards*

Conducted research on housing and its effects on the growth and intake of dairy calves.

TEACHING EXPERIENCE

University of New Hampshire **Spring 2023****Department of Agriculture, Nutrition, and Food Systems***Teaching Assistant, ANSC 698: Cooperative for Real Education in Agricultural Management**Under the supervision of Dr. Andrew Conroy*

- Advising and assisting undergraduate students in their management decisions for a string of 25-30 cows, heifers, and calves

University of New Hampshire **Spring 2023****Department of Agriculture, Nutrition, and Food Systems***Teaching Assistant, ANSC 406: Careers in Animal Science**Under the supervision of Dr. Andrew Conroy*

- Assisting with monitoring the Zoom attendance and chat
- Supporting the professor with reading and grading papers/assignments

University of New Hampshire **Fall 2022****Department of Agriculture, Nutrition, and Food Systems***Teaching Assistant, ANSC 511: Anatomy and Physiology**Under the supervision of Dr. Elizabeth Brock*

- Created learning material: weekly quizzes and presentations for students in laboratory
- Guided students through the dissection process, connecting concepts learned in class
- Graded weekly quizzes and exams

University of New Hampshire **Fall 2017 – Fall 2021****Department of Agriculture, Nutrition, and Food Systems***Guest lecturer for ANSC 543: Technical Writing in Animal Science, ANSC 715/815:**Physiology of Lactation, ANSC 727/827: Advanced Dairy Management I, and ANSC 710/810:**Dairy Nutrition**With guidance from Dr. Peter Erickson*

- Taught sections of these courses while the instructor was absent

University of New Hampshire **Fall 2017 – Spring 2019****Department of Agriculture, Nutrition, and Food Systems***Teaching Assistant, Animal Science 511 and 512: Anatomy and Physiology**Under the supervision of Dr. Vanessa Grunkemeyer*

- Created learning material: study handouts, weekly quizzes, exams, and presentations for students in laboratory
- Guided students through the dissection process, connecting concepts learned in class
- Graded weekly quizzes and exams

Delaware Valley University
School of Agriculture and Environmental Sciences
Undergraduate Teaching Assistant, Introduction to Animal Science
Under the supervision of Mr. Aaron Stepnoski

Spring 2017

- Guided students through laboratory activities and answered questions

PUBLICATIONS

Accepted:

Klobucher, K.N., T.C. Stahl, T. Islam, A.S. Gray, S.I. Curreri, and P.S. Erickson. 2023. Supplementing sodium butyrate to limit-fed heifers: Effects on growth, coccidiosis, urinary purine derivatives and apparent total tract nutrient digestibility. *J. Dairy Sci.*

In-print:

Hatungimana, E, T.C. Stahl, and P.S. Erickson. 2021. Effect of storage of wet brewer's grains with incremental levels of salt on apparent total-tract nutrient digestibility and purine derivative excretion in dairy heifers. *J. Anim. Sci.* 99(1):1–8.

Clark, M. O. C., T.C. Stahl, and P.S. Erickson. 2020. The effect of meloxicam on neonatal dairy calves: IgG uptake and preweaning performance. *J. Dairy Sci.* 103:11363–11374.

Stahl, T.C., E. Hatungimana, K.D. Klanderman, S.C. Moreland, and P.S. Erickson. 2020. Sodium butyrate and monensin supplementation to post-weaned heifer diets: Effects on growth performance, nutrient digestibility, and health. *J. Dairy Sci.* 103:10207–10218.

Hatungimana, E, T.C. Stahl, and P.S. Erickson. 2020. Growth performance and apparent total tract nutrient digestibility of precision-fed diets containing wet brewer's grains to Holstein heifers. *Trans. Anim. Sci.* 4(3):1–12.

GRANTS

PROJECT TITLE/PURPOSE	YEAR	AMOUNT	SPONSOR
In vitro estimation of ruminal and intestinal digestion of lobster and crab meal	2022	\$2,456	University of Massachusetts: Boston
Developing a model for the prediction of Jersey cow colostrum yield and quality	2020	\$15,880	George Walker Milk Research Trust
Does dietary cation-anion difference and nicotinic acid supplementation affect colostrum yield and quality in multiparous Jersey cows?	2019	\$20,500	George Walker Milk Research Trust

PUBLICATION REVIEWER

Animal Nutrition:

- Animal Nutrition – 3 manuscripts

OUTREACH

Balchem Real Science Exchange Podcast **June 26, 2023**

- Recorded a podcast with Scott Sorrell and Dr. Marcos Zenobi briefly discussing my poster presented at the 2023 ADSA conference

Northeast ADSA/ASAS Joint Meeting **October 20, 2022**

- Participated in the graduate student poster contest during the American Dairy Science Association and American Society of Animal Science joint Northeast meeting

New Hampshire Agriculture in the Classroom **June 8-9, 2022** *School to Farm Days*

- Toured 4th grade students from different elementary schools in NH around the UNH Fairchild Dairy Farm and taught them about dairy cows, milking procedures, and dairy products

University of New Hampshire CREAM class **2021, 2022**

- Spoke to the undergraduate students in the Cooperative Real Education in Agricultural Management class about my journey towards graduate school, as well as my current and former research experiences

University of New Hampshire Dairy Club **2017, 2018, 2022**

- **2017, 2018, and 2022:** Assisted the Dairy Club to educate the students that attended Youth Dairy Expo
 - Walked students through the process of digestion for ruminant animals and lactation physiology
 - Spoke on a career panel about graduate school and experiences in animal science
- **2022:** Assisted the Dairy Club with animal handling at the University of New Hampshire Little Royal Livestock Show

Delaware Valley University Department of Animal Science **April 5, 2022**

- Spoke to undergraduate students in the Livestock Industries and Careers class about graduate school
 - Described the process of applying to graduate school and my own experiences in teaching, research, and publishing

University of Illinois Department of Animal Science **November 2021**

- Recorded an episode of the Dairy Focus PaperCast with Dr. Phil Cardoso to promote my M.S. research after earning Editor's Choice in November 2020

Adisseo USA Inc. Smart Science Series™ Ruminant Podcasts **October 2021**

- Recorded a podcast with Dr. Dan Luchini and Dr. Keith Klanderman briefly discussing my M.S. research presented at the 2021 ADSA conference

2021 American Dairy Science Association Virtual Conference **July 2021**

- Was one of three judges for the ADSA-SAD Undergraduate Student Oral Presentation contest
- Virtual poster presentation of my M.S. research

University of New Hampshire Cooperative Extension **January 2020**

- Helped Dr. Pete Erickson present at the 4-H Animal Science Bonanza at Walpole Elementary School

New Hampshire Union Leader **November 2019**

- Interviewed with Union Leader Correspondent Kimberley Haas about my M.S. research

2018 Northeast Regional Dairy Challenge **November 2018**

- Spoke on a career panel about personal involvement in today's dairy climate
 - Guided undergraduates through current experiences in graduate school and steps taken that guided that career path

Delaware Valley University Sigma Alpha **Spring 2016 – Spring 2017**

- Gave 4-H students, their parents, and 4-H leaders a tour of Delaware Valley University's Dairy Science Center and lectured them about the science and function of each part of the dairy
- Aided with public outreach at The Market at Delaware Valley University's "Fall Fun" teaching the public about agriculture, biosecurity, and the dairy industry.

COMMITTEES

University of New Hampshire Department of Agriculture, Nutrition and Food Systems

- Seminar committee- August 2020 until August 2023

HONORS, AWARDS, & CERTIFICATIONS

- 2021 University of New Hampshire Little Royal Livestock Show Dedication
- Journal of Dairy Science Editor's Choice November 2020- Sodium butyrate and monensin supplementation to post-weaned heifer diets: Effects on growth performance, nutrient digestibility, and health.
- March 2020- New Hampshire Agricultural Experiment Station Doctoral Graduate Research Assistant Support Program awarded a GRA for 2 years
- January 6, 2016- Completed the Select Sires course: Instruction in the Techniques of Artificial Insemination