

## CURRICULUM VITAE

**Kacie L. McCarthy**  
Assistant Professor, Beef Cow-Calf Specialist  
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### **EDUCATION**

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<b>Institution</b>	<b>Area</b>	<b>Degree</b>	<b>Year</b>
North Dakota State University, Fargo, ND	Animal Science	Ph.D.	2019
New Mexico State University, Las Cruces, NM	Ruminant Nutrition	M.S.	2016
Colorado State University, Fort Collins, CO	Animal Science	B.S.	2014
California State University, Chico, Chico, CA	Animal Science		2009-11

### **PROFESSIONAL EXPERIENCE**

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**Assistant Professor, Beef Cow-Calf Specialist, Department of Animal Science:** University of Nebraska, Lincoln, NE

- January 1, 2020 to Present
- 60% Extension, 40% Teaching
- Teach the Cow-Calf Management course and team teach the Livestock Management on Range and Pasture course
- Program lead for the Nebraska Beef Industry Scholars minor
- Secured Endowment funding for the Beef Scholar minor
- Team teach the Beef Industry Study Tour course within the minor
- Coordinate internships and co-lead Internship Experience in Grazing Livestock Systems planning course
- Developing a Ranch Management Internship focused on Spring Semester cow-calf experiential learning
- Advisor for Block and Bridle; Program and Speaker Committee chair for 101<sup>st</sup> National Block and Bridle Convention
- Program focus is to increase beef cow-calf production efficiency and profitability through utilization of applied reproductive technologies and strategic supplementation strategies
- Hosted BeefWatch Webinar Series – extension presentations weekly focused on beef cattle management

**Graduate Research Assistant, Department of Animal Science:** North Dakota State University, Fargo, ND

- January 2017 to December 2019
- Assist and perform on site rapid liver biopsy procedure to determine mineral status in grazing cattle
- Manage mineral intake of cattle on pasture through precision agricultural technology (SmartFeed system)
- Collaborated with extension faculty and staff to understand how to develop needs-based programs to find solutions to problems currently faced by beef producers
- Assisted with the In-service Training for the Corn Silage Extension Program
- Managed data received for the Drought-Stressed Forages Extension Program
- Organized Animal Science Workshop for Expanding Your Horizons (program to increase young women's interest and career opportunities in STEM-related fields)
- Chaperoned Saddle & Sirloin students at the Block & Bridle National Convention in Orlando, FL (March 2018)

**Internship: Zoetis**

- October and November 2017
- Assisted with vaccination administration trials in weaning pigs
- Managed data collection including weights and treatment administration
- Administered booster vaccine to weaning pigs

**Graduate Student, Department of Animal Science:** New Mexico State University, Las Cruces, NM

- Fall 2014- Fall 2016
- Managed large data sets including organization of data and analysis with SAS effectively
- Evaluated DMI of milk and grain components of experiments
- Coordinated research between the producer, industry (Merck), and New Mexico State University
- Conducted community outreach through hands-on farm tours for primary and secondary students
- Proctored beef practicum for Academic Quadrathlon
- Assisted with rumen evacuations, cattle processing, breeding-synchronization and artificial insemination, health, implants, and ration formulation
- Assisted with rumen cannulation surgeries of sheep and cattle
- Mentored high school and undergraduate students at the U.S. Beef Academy Extension and Outreach program

**Graduate Assistant Coach:** New Mexico State University Softball, Las Cruces, NM

- Fall 2014- Spring 2016
- Videographed and worked video tagging through Right View Pro
- Helped manage pitchers in the bullpen for preparation of game time situations
- Worked on defensive skills with pitchers by creating drills and talking through situations
- Organized travel itineraries, which included hotel information, food orders and transportation
- Contacted and organized community service opportunities
- Helped organize team fundraising event

**Student Assistant Coach:** Colorado State University Softball, Fort Collins, CO

- Fall 2013 – Spring 2014
- Helped manage pitchers in the bullpen, preparing them mentally and physically to be successful in a game situation
- Worked defensive skills with pitchers by creating drills and talking through situations

**Undergraduate Research Assistant:** Colorado State University, Fort Collins, CO

- Fall 2013 - Spring 2014
- Advanced Beef Reproductive Management: 40 Hours of pregnancy checks, AI certification
- Animal Ultrasound: carcass and reproductive ultrasound of horses, cattle, goats, and sheep
- ARDEC calving: Assisted with calving, nursing, and care of newborn calves
- Cashmere Goat Project: Wrote SOP and factsheets on cashmere goat production and related animal science knowledge to teach locals at the satellite farm in Afghanistan

**EXTENSION**

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**Extension Outputs**

Extension Output Overview	2020	2021	2022	2023	2024	Total
NebGuide & Factsheets		1				1
Webinars	3	2	2	1		8
Media Interviews	8	11	9	2	1	30
Market Journal Videos		4	1		2	7
Presentations (In-State)	2	8	4	2		16
Farm Visits	1	2	2			5
Phone/Email Consultations	10	5	2	4	5	21
Articles written for trade journals		1	1		1	2

**Extension Articles**

1. Funk, B. and **K.L. McCarthy**. 2024. Should I trich test my mature bulls? BeefWatch Electronic Newsletter. [May](#).
2. Wilke, K. and **K.L. McCarthy**. 2024. Chasing the Elusive Second Calf. BeefWatch Electronic Newsletter. [March](#).
3. R. Rasby and **K.L. McCarthy**. 2024. Managing and developing young beef bulls. BeefWatch Electronic Newsletter. [February](#).
4. R. Rasby and **K.L. McCarthy**. 2024. How to use night feeding to increase daytime calving. BeefWatch Electronic Newsletter. [January](#).

5. Crouch, J., **K.L. McCarthy**, and J.T. Mulliniks. 2024. Heifer percent mature body weight at breeding: What does it mean for pregnancy rates and calf performance? BeefWatch Electronic Newsletter. [January](#).
6. Rosasco, S and **K.L. McCarthy**. 2023. Registration open for applied reproductive strategies in beef cattle symposium. BeefWatch Electronic Newsletter. [August](#). (210 unique pageviews)
7. **McCarthy, K.L.** and L. Waechter-Mead. 2023. Considerations for early pregnancy diagnosis and early weaning this summer and fall. Electronic Newsletter. [July](#). (224 unique pageviews)
8. **McCarthy, K.L.** 2023. Winter Bull Management and what to do if your bulls get frostbite on the testes? BeefWatch Electronic Newsletter. [April](#). (135 unique pageviews)
9. **McCarthy, K.L.** 2023. Krutsinger gift helps contribute to Beef Scholar Minor. BeefWatch Electronic Newsletter. [April](#). (15 unique pageviews)
10. Crouch, J., **K.L. McCarthy**, and T. Mulliniks. 2023. Thin Cows and Limited Hay Resources: What are my options? BeefWatch Electronic Newsletter. [April](#). (469 unique pageviews)
11. **McCarthy, K.L.**, S.L. Rosasco, and T.L. Meyer. 2023. Options for Estrus Synchronization this Breeding Season. BeefWatch Electronic Newsletter. [April](#). (440 unique pageviews)
12. Drewnoski, M., C. Biehler, W. Pickinpaugh, and **K.L. McCarthy**. 2022. Measure to Manage: Exploring management strategies to cut costs, increase performance, and capture value at the Three State Beef Conference. BeefWatch Electronic Newsletter. [December](#).
13. Xiong, Y., **K.L. McCarthy**, and T. Mulliniks. 2022. Technology in Cow-Calf Production Systems: A good or bad thing? BeefWatch Electronic Newsletter. [November](#). (277 unique pageviews)
14. **McCarthy, K.L.** and M. Drewnoski. 2022. Nebraska Extension to Host BeefWatch Webinar Series. BeefWatch Electronic Newsletter. [October](#). (293 unique pageviews)
15. Waechter-Mead, L. and **K.L. McCarthy**. 2022. Can Early Pregnancy Detection Help You Make Culling and Replacement Decisions This Fall? BeefWatch Electronic Newsletter. [September](#). (316 unique pageviews)
16. **McCarthy, K.L.** and T. Mulliniks. 2022. Adequate Nutrition for Breeding Season Success. BeefWatch Electronic Newsletter. [July](#). (325 unique pageviews)
17. Niemeyer, S. and **K.L. McCarthy**. 2022. AI Season is Just Around the Corner. BeefWatch Electronic Newsletter. [May](#). (374 unique pageviews)
18. **McCarthy, K.L.** and L. Waechter-Mead. 2022. How Valu-Bull are Breeding Soundness Exams? BeefWatch Electronic Newsletter. [April](#). (365 unique pageviews)
19. Elliott, D., K. Wilke, and **K.L. McCarthy**. 2021. The Impact of Price and Management on Culling Decisions. Center for Agricultural Profitability. [December](#). (350 unique pageviews)
20. Niemeyer, S. and **K.L. McCarthy**. 2021. What to Consider When Selecting Replacement Heifers. BeefWatch Electronic Newsletter. [December](#). (360 unique pageviews)
21. Woita, N., **K.L. McCarthy**, T. Mulliniks. 2021. Managing Summer Calving Herds During the Breeding Season. BeefWatch Electronic Newsletter. [August](#). (404 unique pageviews)
22. **McCarthy, K.L.** and T. Mulliniks. 2021. Quality of Forage and Impacts on Intake and Animal Performance. BeefWatch Electronic Newsletter. [July](#). (407 unique pageviews)
23. **Beard, J.**, K.L. McCarthy, and T. Mulliniks. 2021. Selecting an Optimum Breeding Season Length. BeefWatch Electronic Newsletter. [April](#). (504 unique pageviews)
24. **McCarthy, K.L.** 2021. Managing Postpartum Anestrus in Beef Cows for a Successful Breeding Season. BeefWatch Electronic Newsletter. [March](#). (1389 unique pageviews)
25. **McCarthy, K.L.** 2021. Nebraska Extension to Host BeefWatch Webinar Series on Drought Management. BeefWatch Electronic Newsletter. [March](#). (179 unique pageviews)
26. **McCarthy, K.L.** 2021. February 2021 BeefWatch Webinar Series Registration Now Open. BeefWatch Electronic Newsletter. [February](#). (387 unique pageviews)
27. **McCarthy, K.L.** 2021. Considerations for Maintaining Condition in our Breeding Bulls during Winter. BeefWatch Electronic Newsletter. [January](#). (470 unique pageviews)
28. **McCarthy, K.L.** 2020. Making Dollars out of Decisions: Three State Beef Conference. BeefWatch Electronic Newsletter. [December](#).
29. **McCarthy, K.L.** 2020. January 2021 BeefWatch Webinar Series Registration Now Open. BeefWatch Electronic Newsletter. [December](#).
30. Wilke, K.H., M. Drewnoski, and **K.L. McCarthy**. 2020. Cornstalk Residue Grazing with Weaned Calves, Dry Pregnant Cows or Pairs – What Supplementation Do They Need? BeefWatch Electronic Newsletter. [December](#).
31. **McCarthy, K.L.** 2020. December 2020 BeefWatch Webinar Series Registration Now Open. BeefWatch Electronic Newsletter. [November](#).

32. **McCarthy, K.L.** 2020. November 2020 BeefWatch Webinar Series Registration Now Open. BeefWatch Electronic Newsletter. [October](#).
33. **McCarthy, K.L.** 2020. Nebraska Extension to Host BeefWatch Webinar Series. BeefWatch Electronic Newsletter. [September](#).
34. **McCarthy, K.L.** and N. Woita. 2020. “Technical Note: Super SmartFeed System”. GSL Researcher. [Fall 2020](#)
35. **McCarthy, K.L.** 2020. Managing Bull Fertility Prior to the Breeding Season. BeefWatch Electronic Newsletter. [June](#).

### Extension Webinars and Presentations

1. NDSU Extension Junior Beef Producer Webinar Series. “Post Calving/Pre-Breeding Nutrition” March 14, 2023 (20 attendees)
2. Academy of Veterinary Consultants Invited Talk. “Bull Development Strategies” December 3, 2022. (175 attendees)
3. BeefWatch Webinar Series. “Decisions for Culling Cows and Heifers and Utilizing Pregnancy Detection”. October 18, 2022. (15 live views, 99 YouTube Views)
4. Gudmundsen Sandhills Laboratory Open House, Moderator and “Research Update”. August 24, 2022.
5. Nebraska Cattlemen - Cass/Otoe Cattlemen Meeting. “Buying Bred Heifers” July 23, March 2, 2022. (20 attendees)
6. Vision Angus Producer Webinar. “Preparing your Bull Battery for the Breeding Season”. February 21, 2022 (4 attendees)
7. Farmers & Ranchers Cow-Calf College. “Preparing your Bull Battery for the Breeding Season” January 25, 2022 (27 attendees, 15 virtual)
8. Three State Beef Conference. “Do your cows fit your environment?” January 11, 12, 13, 2022 (40, 6, 4 attendees, respectively)
9. Holt County Extension. “Heifer Selection, Development, and Management for Success” December 20, 2021. (6 attendees)
10. Nebraska Cattlemen Cattlemen’s College. “Body Condition Score Demonstration” November 30, 2021. (30 attendees)
11. Ranch Practicum, “Mineral Considerations for the Cowherd”. November 4, 2021
12. Ranch Practicum, “Bull Management”. November 4, 2021
13. Herd That! Conference, “Don’t get caught in the cold – winter nutrition considerations for late gestating cows”. September 15, 2021 (30 attendees)
14. Gudmundsen Sandhills Laboratory Open House, “Research Update”. August 25, 2021
15. Nebraska Cattlemen - Cass/Otoe Cattlemen Meeting. “Bred Cow Management” July 23, 2021. (30 attendees)
16. Nebraska Cattlemen – Dawson County Cattlemen Meeting. “Nebraska Beef Industry Scholars” April 8, 2021. (40 attendees)
17. Farmers & Ranchers Cow-Calf College. “Tips for a Successful Synchronization Program” January 28, 2021
18. Nebraska Cattlemen Cattlemen’s College. “Tips for a Successful Synchronization Program” December 1, 2020. <https://www.youtube.com/watch?v=3acq4uFnGK0&feature=youtu.be> (40 views; 30 live views)
19. BeefWatch Webinar Series. “Bull Management During Winter”. December 1, 2020. <https://www.youtube.com/watch?v=uZLCIZplsnc&feature=youtu.be> (185 views; 30 live views)
20. British White Cattlemen Association of America. “Replacement Heifer Selection”. September 11, 2020 (15 attendees)
21. Gudmundsen Sandhills Laboratory Open House Webinar, “Managing the Cowherd during and after a Drought”. August 26, 2020. <https://mediahub.unl.edu/media/14352> (13 views; 75 live views)
22. Beef Profit Tips Workshop, “Mineral Supplementation While Grazing.” March 2020. West Point, NE. (8 attendees)

### Popular Press Articles

1. **McCarthy, K.L.** Selection and Management of Bulls for a Successful Breeding Season. Progressive Cattle. [February 2024](#).
2. **McCarthy, K.L.** Bull battery nutrition and management in preparation for the breeding season. Nebraska Cattlemen Magazine. [March 2022](#).
3. **McCarthy, K.L.** Managing postpartum anestrus in beef cows. Progressive Cattle. [February 2021](#).

## Podcasts

1. Allied Advantage Podcast. Turn-Out Time Considerations. [May 9, 2024](#)
2. UNL BeefWatch Podcast. Considerations for early pregnancy diagnosis and early weaning this summer and fall. [July 7, 2023](#). (868 unique downloads)
3. UNL BeefWatch Podcast. Options for estrus synchronization this breeding season. [April 18, 2023](#). (1076 unique downloads)
4. UNL BeefWatch Podcast. Winter bull management and what to do if your bulls get frostbite on the testes? [April 12, 2023](#). (1063 unique downloads)
5. UNL BeefWatch Podcast. Can Early Pregnancy Detection Help You Make Culling and Replacement Decisions This Fall? [September 7, 2022](#). (1003 unique downloads)
6. UNL BeefWatch Podcast. Adequate Nutrition for Breeding Season Success. [July 1, 2022](#). (1225 unique downloads)
7. UNL BeefWatch Podcast. AI Season is Just Around the Corner. [May 12, 2022](#). (1337 unique downloads)
8. UNL BeefWatch Podcast. How Valu-Bull are Breeding Soundness Exams? [April 24, 2022](#). (1322 unique downloads)
9. Casual Cattle Conversations Podcast. “Better Breeding Bulls”. [April 11, 2022](#).
10. UNL BeefWatch Podcast. “What to Consider When Selecting Replacement Heifers” December 3, 2021. (566 unique downloads)
11. UNL BeefWatch Podcast. “Managing Post Partum Anestrus in Beef Cows for a Successful Breeding Season” March 4, 2021. (1046 unique downloads)
12. UNL BeefWatch Podcast. “Considerations for Maintaining Condition in our Breeding Bulls during Winter” January 13, 2021. (1037 unique downloads)
13. UNL BeefWatch Podcast. “Cornstalk Residue Grazing with Weaned Calves, Dry Pregnant Cows or Pairs, What Supplementation Do They Need?” December 8, 2020. (651 unique downloads)
14. UNL BeefWatch Podcast. “Upcoming BeefWatch Webinar Series and Resources Available at beef.unl.edu” November 19, 2020. (26 unique downloads)
15. UNL BeefWatch Podcast. “Managing Bull Fertility Prior to the Breeding Season”. June 9, 2020. (1133 unique downloads)

## Research Reports

1. Crouch, J.N. J.T. Mulliniks, J.A. Musgrave, K.J. Hanford, and **K.L. McCarthy**. 2024. Effect of different percentages of heifer mature body weight at breeding on reproductive performance and longevity. Nebraska Beef Report. [p.10-12](#).
2. Musgrave, J.A., K.L. McCarthy, J.T. Mulliniks. 2024. The effect of late gestation supplementation strategy on cow-calf performance in March-calving mature cows. Nebraska Beef Report. [p.17-19](#).
3. Musgrave, J.A., K.L. McCarthy, J.T. Mulliniks. 2024. The impact of prepartum supplementation strategy on cow-calf performance in May-calving mature cows. Nebraska Beef Report. [p.20-22](#).

## Proceedings

1. Rosasco, S.L. and **K.L. McCarthy**. 2023. [Managing Reproductive Efficiency: Taking a Systems Approach](#). Range Beef Cow Symposium. Loveland, CO.
2. Mulliniks, J.T., J. Ranches, J.A. Musgrave, and **K.L. McCarthy**. 2023. [Ionophores and Reproduction: What is the Benefit for Range Cows and Heifers?](#) Range Beef Cow Symposium. Loveland, CO.

## TEACHING

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### Instructor of Record

Course Taught	Semester	No. of Students	Role	Evaluation
Beef Cow-Calf Management 455	Spring 2024	38	Develop all course materials including lectures, homework, quizzes, and exams.	Formal post-semester evaluations.

Beef Industry Study Tour 311E	Spring 2024	26	Identify beef cattle related enterprises that represent the cattle industry.	Formal post-semester evaluations.
Beef Industry Study Tour 311E	Spring 2023	13	Identify beef cattle related enterprises that represent the cattle industry.	Formal post-semester evaluations.
Beef Cow-Calf Management 455	Spring 2023	49	Develop all course materials including lectures, homework, quizzes, and exams.	Formal post-semester evaluations.
Livestock Management on Range and Pasture 451	Fall 2022	7	Develop asynchronous course materials including lectures, homework, quizzes, and ranch plan.	Formal post-semester evaluations.
Internship Experience in Grazing Livestock Systems 490	Fall 2022	1	Provide guidance, review Internship Learning Plans and provide feedback	
Beef Industry Study Tour 311E	Spring 2022	23	Identify beef cattle related enterprises that represent the cattle industry.	Formal post-semester evaluations.
Beef Cow-Calf Management 455	Spring 2022	34	Develop all course materials including lectures, homework, quizzes, and exams.	Formal post-semester evaluations.
Beef Industry Study Tour 311E	Spring 2021	22	Identify beef cattle related enterprises that represent the cattle industry.	Formal post-semester evaluations.
Livestock Management on Range and Pasture 451/851	Fall 2021	24	Develop collaborative course materials including lectures, homework, quizzes, and ranch plan.	Formal post-semester evaluations. FIRST project portfolio
Beef Cow-Calf Management 455	Spring 2021	50	Develop all course materials including lectures, homework, quizzes, and exams.	Informal student classroom evaluation. Formal post-semester evaluations.
Beef Industry Study Tour 311E	Spring 2021	20	Identify beef cattle related enterprises that represent the cattle industry.	Formal post-semester evaluations.
Livestock Management on Range and Pasture 451/851	Fall 2020	25	Develop collaborative course materials including lectures, homework, quizzes, and ranch plan.	Formal post-semester evaluations.
Internship Experience in Grazing Livestock Systems 490	Fall 2020	8	Review Internship Learning Plans and provide feedback	Formal post-semester evaluations.

Beef Cow-Calf Management 455	Spring 2020	59	Develop all course materials including lectures, homework, quizzes, and exams.	Informal student classroom evaluation. Formal post-semester evaluations.
Beef Industry Study Tour 311E	Spring 2020	15	Identify beef cattle related enterprises that represent the cattle industry. Facilitate driving to tour stops.	Formal post-semester evaluations.
Beef Industry and Production Systems 486	Spring 2019	29	Develop all course materials including lectures, labs, homework, quizzes, and exams.	Informal student classroom evaluation. Formal SROI student post-semester evaluations.

### Teaching Assistant

Course Taught	Semester	No. of Students	Role	Evaluation
Physiology of Reproduction 463	Spring 2018	75	Developed supplemental materials for studying, created quizzes, graded and managed the grade book	Informal student classroom evaluation. Formal SROI student post-semester evaluations.
Beef Industry and Production Systems 486	Spring 2017	23	Assisted with grading, managing the grade book, and lectured on Bull Management	Informal student classroom evaluation.
Introduction to Animal Science 100	Fall 2016	100	Graded lecture and laboratory materials, facilitated labs, and proctored exams and quizzes	

### In-Preparation or Submitted

1. **McCarthy, K. L.**, S. Winkel, T. Burkey and L.K. Karr. The Nebraska Beef Industry Scholars Program Develops Employability Skills and Improves Career Development. NACTA J. (*In Preparation*)

### Scholarship of Teaching Publications

1. **McCarthy, Kacie L.**, "Benchmark Portfolio for ASCI 451/851: Livestock on Range and Pasture, Fall 2021" (2022). UNL Faculty Course Portfolios. 215. <https://digitalcommons.unl.edu/prtunl/215>

## PUBLICATIONS

### In-Preparation or Submitted

1. Muhammad A., A.K. Ward, K.L. McCarthy, P.P. Borowicz, L.P. Reynolds, J.S. Caton, C.R. Dahlen, W.J.S. Diniz. 2023. lncRNA-gene network analysis reveals the effects of early maternal nutrition on mineral homeostasis and energy metabolism in the fetal liver transcriptome of beef heifers. (*Accepted in J. Nutr. Biochem.*)
2. Musgrave, J.A., **K.L. McCarthy**, and J. T. Mulliniks. 2024. Impact of flexible prepartum supplementation strategies on cow-calf and subsequent progeny feedlot performance in May-calving herd. (*Under Revisions in Applied Animal Science*)
3. **McCarthy, K. L.**, L. G. Sitorski, K. C. Swanson, S. R. Underdahl, K. K. Sedivec, B. W. Neville and C. R. Dahlen. 2023. The relationship between steer creep feeder appearance pre-weaning and post-weaning feeding behavior and carcass characteristics. (*Under Revisions in Applied Animal Behavior*)
4. Crouch, J.N., J.T. Mulliniks, J.A. Musgrave, K.J. Hanford, and **K.L. McCarthy**. 2024. The effect of developing heifers to a lower percentage of mature body weight at breeding on pregnancy rates and longevity within the herd. (*In Preparation for Appl Anim Sci*)

## Refereed Publications

1. Cushman, R.A., M. Kaps, A.P. Snider, M.S. Crouse, B.L. Woodbury, B.N. Keel, and **K.L. McCarthy**. 2024. Relationship of length of the estrous cycle to antral follicle number in crossbred beef heifers. *Transl. Anim. Sci.* 8: txae074, <https://doi.org/10.1093/tas/txae074>
2. Dávila-Ruiz, B.J., C.R. Dahlen, **K.L. McCarthy**, J.S. Caton, J.L. Hurlbert, F. Baumgaertner, A.C.B. Menezes, W.J.S. Diniz, S. R. Underdahl, J.D. Kirsch, K.K. Sedivec, P.P. Borowicz, S. Cánovas, and L.P. Reynolds. 2024. Influence of Maternal Supplementation with Vitamins, Minerals, and (or) Protein/Energy on Placental Development and Angiogenic Factors in Beef Heifers during Pregnancy. *Vet. Sci.* 11:111. <https://doi.org/10.3390/vetsci11030111>
3. Neville, B.W. F. Baumgaertner, W.J. Pickinpaugh, A.C.B. Menezes, **K.L. McCarthy**, M.R. Undi, and C.R. Dahlen. 2024. Influence of maternal trace mineral exposure on subsequent performance and trace mineral status and of beef calves during finishing. *Bov. Pract.* 58:1-7. doi: <https://doi.org/10.21423/bovine-vol58no1p1-7>
4. Kassetas, C.J., T.W. Geary, A.L. Zezeski, J.S. Caton, J.D. Kirsch, S.T. Dorsam, W.J.S. Diniz, **K.L. McCarthy**, M.S. Crouse, K.K. Sedivec, B.W. Neville, and C.R. Dahlen. 2023. Effects of Feeding 60% Dried Corn Distillers' Grains or the Equivalent Sulfur as CaSO<sub>4</sub> on DNA Integrity and Gene Expression in Yearling Angus Bull Sperm. *Ruminants.* 3:286-298. <https://doi.org/10.3390/ruminants3040026>
5. Reynolds L.P., C.R. Dahlen, A.K. Ward, M.S. Crouse, P.P. Borowicz, B.J. Dávila-Ruiz, C. Kanjanaruch, K.A. Bochantin, K.J. McLean, **K.L. McCarthy**, A.C.B. Menezes, W.J.S. Diniz and J.S. Caton. 2023. Role of placenta in developmental programming: Observations from models using large animals. *Anim Reprod Sci.* 257:107322. doi: 10.1016/j.anireprosci.2023.107322.
6. Hurlbert, J.L., F. Baumgaertner, **K.L. McCarthy**, T. Long, C. Wieland, K.K. Sedivec, and C.R. Dahlen. 2023. Effects of feeding a vitamin and mineral supplement to cow-calf pairs grazing native range. *Transl. Anim. Sci.* 7: 1-10 <https://doi.org/10.1093/tas/txad077>
7. Diniz, W.J.S., A.K. Ward, **K.L. McCarthy**, C.J. Kassetas, F. Baumgaertner, L.P. Reynolds, P.P. Borowicz, K.K. Sedivec, J.D. Kirsch, S.T. Dorsam, T.L. Neville, J.C. Forcherio, R.R. Scott, J.S. Caton, and C.R. Dahlen. 2023. Dataset of RNA-Seq transcriptome of the fetal liver at day 83 of gestation associated with periconceptual maternal nutrition in beef heifers. *Data Br.* 48: 109173. <https://doi.org/10.1016/j.dib.2023.109173>
8. **McCarthy, K. L.**, S. R. Underdahl, M. Undi, and C. R. Dahlen. 2023. Using precision tools to manage and evaluate the effects of mineral and protein/energy supplements fed to grazing beef heifers. *Transl. Anim. Sci.* 7: 1-11. Doi: <https://doi.org/10.1093/tas/txad013>
9. Webb, E. M., D. B. Holman, K. N. Schmidt, M. S. Crouse, C. R. Dahlen, R. A. Cushman, A. P. Snider, **K. L. McCarthy**, and S. Amat. 2023. A longitudinal characterization of the seminal microbiota and antibiotic resistance in yearling beef bulls subjected to different rate of gains. *Microbiol. Spectr.* Doi: <https://doi.org/10.1128/spectrum.05180-22>
10. Diniz, W.J.S., A.K. Ward, **K.L. McCarthy**, C.J. Kassetas, F. Baumgaertner, L.P. Reynolds, P.P. Borowicz, K.K. Sedivec, J.D. Kirsch, S.T. Dorsam, T.L. Neville, J.C. Forcherio, R.R. Scott, J.S. Caton, and C.R. Dahlen. 2023. Periconceptual maternal nutrition affects fetal liver programming of energy and lipid-related genes. *Animals.* 13:600. Doi:[10.3390/ani13040600](https://doi.org/10.3390/ani13040600)
11. Menezes, A.C.B., C.R. Dahlen, **K.L. McCarthy**, C.J. Kassetas, R. Baumgaertner, J.D. Kirsch, S.T. Dorsam, T.L. Neville, A.K. Ward, P.P. Borowicz, L.P. Reynolds, K.K. Sedivec, J.C. Forcherio, R. Scott, J.S. Caton, and M.S. Crouse. 2023. Fetal hepatic lipidome is more greatly affected by maternal rate of gain compared with vitamin and mineral supplementation at day 83 of gestation. *Metabolites* 13. Article 175. <https://doi.org/10.3390/metabo13020175>
12. Snider AP, **K.L. McCarthy**, E.C.Wright-Johnson, J.D. Ondrak, W.T. Oliver, C.R. Dahlen, R.A. Cushman, and M.S. Crouse. 2022. Yearling bulls have reduced sperm concentration and increased seminal plasma interleukin-8 after a 28-day breeding season. *Reprod. Domest. Anim.* 57:1465-1473. doi: 10.1111/rda.14223.
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## Research Reports

1. Dahlen, C.R, S. R. Underdahl, M. S. Crouse, **K. L. McCarthy**, C. J. Kassetas, F. Baumgaertner, J. D. Kirsch, S. T. Dorsam, K. K. Sedivec, A. K. Ward, and J. S. Caton. 2021. Managing mature beef bulls on divergent planes of nutrition alters scrotal circumference and concentrations of hormones and metabolites. 2021 North Dakota Livestock Research Report, pp. 50-53. <https://www.ag.ndsu.edu/publications/livestock/north-dakota-livestock-research-report>
2. Bochantin, K. A., P. P. Borowicz, J. Flaten, S. R. Underdahl, M. S. Crouse, **K. L. McCarthy**, C. J. Kassetas, F. Baumgaertner, A. C. B. Menezes, J. D. Kirsch, S. T. Dorsam, K. K. Sedivec, A. K. Ward, J. S. Caton, and C. R. Dahlen. 2021. Bulls managed on a negative plane of nutrition for 112 days have increased abundance of mammalian Target of Rapamycin (mTOR) in testicular biopsies. 2021 North Dakota Livestock Research Report, pp. 46-49. <https://www.ag.ndsu.edu/publications/livestock/north-dakota-livestock-research-report>
3. Menezes, A. C. B., **K. L. McCarthy**, C. J. Kassetas, F. Baumgaertner, J. D. Kirsch, S. Dorsam, T. L. Neville, A. K. Ward, P. P. Borowicz, L. P. Reynolds, K. K. Sedivec, J. C. Forcherio, R. Scott, J. S. Caton, and C. R. Dahlen. 2020. Vitamin and mineral supplementation and rate of gain in beef heifers: Effects of concentration of

trace minerals in maternal and fetal liver at day 83 of gestation. NDSU Central Grasslands Research Extension Center 2020 Annual Report. <https://www.ag.ndsu.edu/centralgrasslandsrec/archive/cgrec-annual-reports-1/2020-annual-report/CGRECAR2015Menezesetal.Tracemineralconcentrations.pdf>

4. **McCarthy, K.L.**, J. Nestande, C.J. Kassetas, F. Baumgaertner, J. D. Kirsch, S.T. Dorsam, T.L. Neville, A.K. Ward, P.P. Borowicz, L.P. Reynolds, C. Forcherio, R. Scott, J.S. Caton, and C.R. Dahlen. 2020. Effects of feeding vitamin and mineral supplements and rate of gain during the first 83 days of pregnancy on beef heifer performance, concentrations of progesterone, and corpus luteum size and fetal body measurements. 2020 North Dakota Beef and Sheep Report (AS1986): 27-31. <https://www.ag.ndsu.edu/publications/livestock/2020-north-dakota-beef-and-sheep-report#section-11>
5. Baumgaertner, F., S. R. Underdahl, K. K. Sedivec, J. D. Kirsch, S. T. Dorsam, A. C. B. Menezes, W. J. S. Diniz, A. K. Ward, **K. L. McCarthy**, J. S. Caton, and C. R. Dahlen. 2020. Effects of two different rates of gain during early gestation in beef heifers on body weight, concentrations of IGF-1, and calf characteristics. 2020 North Dakota Beef and Sheep Report (AS1986): 32-36. <https://www.ag.ndsu.edu/publications/livestock/2020-north-dakota-beef-and-sheep-report#section-11>
6. Menezes, A. C. B., **K. L. McCarthy**, C. J. Kassetas, F. Baumgaertner, J. D. Kirsch, S. Dorsam, T. L. Neville, A. K. Ward, P. P. Borowicz, L. P. Reynolds, K. K. Sedivec, J. C. Forcherio, R. Scott, J. S. Caton, and C. R. Dahlen. 2020. Effects of feeding a vitamin and mineral supplement and rate of gain during the first 83 days of pregnancy on concentrations of amino acids in beef heifer serum and fetal fluids. 2020 North Dakota Beef and Sheep Report (AS1986): 37- 40. <https://www.ag.ndsu.edu/publications/livestock/2020-north-dakota-beef-and-sheep-report#section-11>
7. Kassetas, C. J., J.S. Caton, J.D. Kirsch, S.T. Dorsam, **K.L. McCarthy**, M.S. Crouse, K.K. Sedivec, B.W. Neville, and C.R. Dahlen. 2020. Effect of feeding 60% dried corn distillers grains plus solubles or the equivalent sulfur as CaSO<sub>4</sub> to yearling Angus bulls on glucose, urea nitrogen and trace mineral concentrations in serum and seminal plasma. 2020 North Dakota Beef and Sheep Report (AS1986): 41-44. <https://www.ag.ndsu.edu/publications/livestock/2020-north-dakota-beef-and-sheep-report#section-11>
8. **McCarthy, K. L.**, S. R. Underdahl, M. Undi, S. Becker, and C. R. Dahlen. 2019. Utilizing an electronic feeder and ear-tag accelerometer to measure mineral and energy supplement intake and reproductive behavior in beef heifers grazing native range. 2019 North Dakota Beef and Sheep Report (AS1938): 5-9. <https://www.ag.ndsu.edu/publications/livestock/2019-north-dakota-beef-and-sheep-report/as1938.pdf>
9. Kassetas, C. J., J.S. Caton, J. D. Kirsch, S. T. Dorsam, M.S. Crouse, **K. L. McCarthy**, B. W. Neville, K. K. Sedivec, and C.R. Dahlen. 2019. Effects of feeding yearling beef bulls 60% dried distillers grains plus solubles or the equivalent as calcium sulfate on performance and reproductive attributes of yearling Angus bulls. 2019 North Dakota Beef and Sheep Report (AS1938): 45-49. <https://www.ag.ndsu.edu/publications/livestock/2019-north-dakota-beef-and-sheep-report/as1938.pdf>
10. Kassetas, C. J., B. W. Neville, J.S. Caton, J. D. Kirsch, **K. L. McCarthy**, K. K. Sedivec, M.S. Crouse, and C.R. Dahlen. 2019. Effects of feeding yearling beef bulls 60% dried distillers grains plus solubles or the equivalent as calcium sulfate on hydrogen sulfide gas production in the rumen of yearling Angus bulls. 2019 North Dakota Beef and Sheep Report (AS1938): 50-52. <https://www.ag.ndsu.edu/publications/livestock/2019-north-dakota-beef-and-sheep-report/as1938.pdf>
11. Anderson, P.P., A. M. Long, E. R. Schlegel, T. W. Hoffman, K.A. Vonnahme, J. L. Momsen, L. L. Hulsman Hanna, J. D. Kirsch, C.R. Dahlen, **K. L. McCarthy**, and C. S. Schauer. 2019. Influences of dietary flax on male reproductive traits when supplemented prior to breeding in sheep. 2019 North Dakota Beef and Sheep Report (AS1938): 53-56.
12. **McCarthy, K. L.**, S. R. Underdahl, M. Undi, S. Becker, and C. R. Dahlen. 2018. Utilizing an electronic feeder and ear-tag accelerometer to measure mineral and energy supplement intake and reproductive behavior in beef heifers grazing native range. 2018 NDSU Central Grasslands Research Extension Center Annual Report: 80-83. <https://www.ag.ndsu.edu/centralgrasslandsrec/cgrec-annual-reports-1/2018-annual-report/2018-annual-report>
13. Da Silva, F.A.C.C., N.N. Pereira, B. J. Funnell, M.R. Crosswhite, **K.L. McCarthy**, S.R. Underdahl, F. Baumgaertner, B. W. Neville, K. K. Sedivec, D. Degroff, and C. R. Dahlen. 2018. The effects of injectable trace mineral supplements in donor cows at the initiation of a superovulation protocol on embryo production and pregnancy rates in recipient females. 2018 NDSU Central Grasslands Research Extension Center Annual Report: 84-87. <https://www.ag.ndsu.edu/centralgrasslandsrec/cgrec-annual-reports-1/2018-annual-report/2018-annual-report>
14. **McCarthy, K. L.**, L. G. Sitorski, K. C. Swanson, S. R. Underdahl, T. C. Gilbery, K. K. Sedivec, B. W. Neville and C. R. Dahlen. 2018. The relationship between creep feeder appearance preweaning and calf intake, gain and

- feed efficiency post-weaning. 2018 North Dakota Beef and Sheep Report (AS1899): 5-8.  
<https://www.ag.ndsu.edu/publications/livestock/2018-north-dakota-beef-and-sheep-report-1>
15. **McCarthy, K. L.**, M. Undi, C. R. Dahlen. 2018. Utilizing an electronic feeder to measure mineral intake, feeding behavior and growth performance of cow-calf pairs grazing native range. 2018 North Dakota Beef and Sheep Report (AS1899): 15-17. <https://www.ag.ndsu.edu/publications/livestock/2018-north-dakota-beef-and-sheep-report-1>
  16. **McCarthy, K. L.**, M. Undi, C. R. Dahlen. 2017. Utilizing an electronic feeder to measure mineral intake, feeding behavior, and growth performance of cow-calf pairs grazing native range. 2017 NDSU Central Grasslands Research Extension Center Annual Report: 57-59. <https://www.ag.ndsu.edu/CentralGrasslandsREC/cgrec-annual-reports-1/2017-annual-report/2017-complete-report>
  17. **McCarthy, K. L.**, L. G. Sitorski, K. C. Swanson, S. R. Underdahl, T. C. Gilbery, K. K. Sedivec, B. W. Neville and C. R. Dahlen. 2017. Creep feeder appearance pre-weaning, and calf intake, gain and feed efficiency post-weaning. 2017 NDSU Central Grasslands Research Extension Center Annual Report: 60- 63.  
<https://www.ag.ndsu.edu/CentralGrasslandsREC/cgrec-annual-reports-1/2017-annual-report/2017-complete-report>

## **PRESENTATIONS**

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1. American Society of Animal Science, “Effects of feeding vitamin and mineral and (or) energy supplements to beef heifers during the first 83 days of gestation on progesterone concentrations, corpus luteum size, and fetal body measurements.” 2020. Virtual Meeting, Madison, WI.
2. Midwest Section American Society of Animal Science, “Young Scholar Presentation: Energy and Mineral Supplementation Strategies for Beef Cattle Grazing the Northern Great Plains.” 2020. Omaha, NE.
3. NDSU Department Ph.D. Defense Seminar, “Energy and Mineral Supplementation Strategies for Beef Cattle Grazing the Northern Great Plains.” 2019. Fargo, ND.
4. NDSU Department Seminar, “Micronutrients and Fetal Development.” 2019. Fargo, ND.
5. Extension & Outreach – NDSU CREC Field Day, “Mineral supplementation for beef cattle.” 2019. Carrington, ND.
6. American Society of Animal Science, “Effects of a vitamin and mineral bolus on heifer feedlot performance, feeding behavior, carcass characteristics, and liver mineral concentrations.” 2019. Austin, TX.
7. Western Section American Society of Animal Science, “Utilizing an electronic feeder to measure mineral and energy supplement intake in beef heifers grazing native range.” 2019. Boise, ID.
8. Guest Lecture for Cal Poly Beef Production Class via Zoom Video Communications, “Mineral Intake Research and Future Directions.” 2019. Fargo, ND.
9. NDSU Department Seminar, “Nitrate QuikTest for Forage.” 2018. Fargo, ND.  
<https://www.facebook.com/NdsuAnimalSciencesDepartment/videos/264399677530545/>
10. Poster, American Society of Animal Science, “The relationship between preweaning creep feeder appearance on postweaning calf intake and carcass characteristics.” 2018. Vancouver, B.C.
11. NDSU Department Seminar, “The relationship between preweaning creep feeder appearance on postweaning calf intake and carcass characteristics.” 2018. Fargo, ND.
12. Midwest Section American Society of Animal Science, “Mineral intake, feeding behavior, and growth performance of cow-calf pairs grazing native range.” 2018. Omaha, NE.
13. NDSU Department Seminar, “Who’s eating all of your mineral?” 2018. Fargo, ND  
<https://www.facebook.com/NdsuAnimalSciencesDepartment/videos/1710441932346037/>
14. Extension & Outreach – NDSU CGREC Field Day, “Mineral supplementation for cow-calf pairs.” 2017. Streeter, ND.
15. Western Section American Society of Animal Science, “Effects of early administration of Ralgro to Holstein calves on feedlot performance and carcass characteristics.” 2017. Fargo, ND.
16. Lecture NDSU ANSC 468, “Managing the Bull.” 2017. Fargo, ND
17. NMSU Department Masters Defense Seminar, “The effect of administering Ralgro to Holstein calves in the hutch period and fed to finish on growth performance and carcass characteristics.” 2016. Las Cruces, NM.
18. Western Section American Society of Animal Science, “Effects of administering Ralgro to Holstein calves during the hutch period on growth performance.” 2016. Salt Lake City, UT.
19. Extension & Outreach-- U.S. Beef Academy, “Body Condition Score.” 2016. Corona, NM

20. NMSU Neumann Competition, "Effects of administering Ralgro to Holstein calves during the hutch period on growth performance." 2016. Las Cruces, NM.
21. Extension & Outreach -- Valencia County 4-H, "Project Animal Nutrition." 2016. Los Lunas, NM.
22. NMSU Department Seminar, Mock Interview: "North Dakota State University Extension Specialist 4-H Youth Development- Animal Science." 2016. Las Cruces, NM.
23. NMSU Department Seminar, "The effects of implants on growth and health of Holstein calves." 2015. Las Cruces, NM.

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## **GRANTS**

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1. 2022 Nebraska Beef Industry Endowment Award and Grant. Nebraska Cattlemen Foundation. \$5,000 - *Funded*
2. Mulliniks, J.T. (PI), Stephenson, M., Y. Shi, **K.L. McCarthy** and Y. Xiong. 2021-2024. Improving Livestock Production through the Development of Precision Rangeland Management Technologies. USDA. \$450,000. - *Funded*
3. Mulliniks, J.T. (PI) and **K.L. McCarthy**. 2020. Impact of strategic supplementation strategy on reproductive performance in May-caving young range cows grazing native range. C-Lock Inc. \$21,683.90 – *Funded*
4. **McCarthy, K.L.** 2020. The Nebraska Beef Industry Scholars Program. Nebraska Dept. of Agriculture. \$2,000 – *Funded*
5. Allen, C. (Principal Investigator), Schick, B. (Investigator), Volesky, J. (Investigator), Stephenson, M. (Investigator), Banerjee, S. (Investigator), Brown-Brandl, T. (Investigator), Forsberg, M. (Investigator), Mahmood, R. (Investigator), McCarthy, K. (Investigator), Powell, L. (Investigator), Schacht, W. (Investigator), Shi, Y. (Investigator), Stephenson, M. (Investigator), Svoboda, M. (Investigator), Uden, D. (Investigator), Volesky, J. (Investigator), Awada, T. (Investigator), Sharma Dangal, S. R. (Investigator), Dennis, E. (Investigator), Gamon, J. (Investigator), Haigh, T. (Investigator), MacDonald, J. (Investigator), Qi, Y. (Investigator), Schick, B. (Investigator), Wardlow, B. (Investigator), 139482, Grant, "Collab Adaptive Mgmt Sust Grasslnds", Dept of Agriculture-NIFA, Federal, Research, Submitted. (sub: April 1, 2021) – not funded

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## **Received prior to joining UNL**

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6. Dahlen, C.R., J. S. Caton, and **K.L. McCarthy**. 2019. Evaluation of mineral and energy supplement effects on fetal development. Purina Animal Nutrition LLC, Land O'Lakes, Inc. \$145,000 – *Funded*
7. Dahlen, C.R., **K.L. McCarthy**, and J.S. Caton. 2017. Effects of pre-breeding mineral supplementation on fetal development. State Board of Agricultural Research & Education. \$20,820 – *Not Funded*
8. **McCarthy, K.L.** and C.R. Dahlen. 2017. The role of forages, water, and supplements in meeting beef cattle mineral requirements. NCR-SARE 2017 Graduate Student Proposal. \$11, 999 – *Not Funded*

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## **SERVICE**

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### **University of Nebraska-Lincoln**

- Advisor Block and Bridle, August 2020 – Present
- Advisor Committee, August 2020 – Present
- Academic Quadrathlon Committee, August 2020 – Present
- Center for Grassland Systems, faculty member, 2020- Present
- UNL Beef Report reviewer, 2020-Present
- Ad Hoc Onboarding Committee Co-Chair, September 2022

### **University of Nebraska-Lincoln Hiring Committee**

- Committee member for Dept. of Animal Science Department Head, 2023
- Committee member for Dept. of Animal Science Communication Specialist, 2022
- Committee member of Cherry County Beef Educator, 2021
- Committee member of Grazing Lands Ecologist, 2021 & 2022

### **North Dakota State University Hiring Committee**

- Committee member of Beef Extension Specialist, 2018

## PROFESSIONAL SERVICE

- WSASAS Graduate Student Oral Competition, Moderator 2020
- WSASAS Graduate Student Oral Competition Committee, 2021-2023
- Animal Reproduction Science reviewer, 2020
- Applied Animal Science reviewer, 2020

## American Society of Animal Science

- Western Section Graduate Student Representative July 2018 to July 2020

## Selected Professional Activities

- Gamma Sigma Delta Member, Nebraska, 2022 – Present
- American Registry of Professional Animal Scientists 2020 – Present
- American Society of Animal Science 2015 to Present
- Animal Science Graduate Student Organization: North Dakota State University 2017-2019
  - Vice President August 2018- May 2019
- Animal and Range Science Graduate Student Association Member: New Mexico State University 2014-2016
  - Vice President August 2015- May 2016
- National Fastpitch Coaches Association 2014-2016
- California State University, Chico State Young Cattlemen's 2009-2011

## SUPERVISION OF GRADUATE STUDENTS

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### Graduate Student Committees Since joining UNL

Student	Degree	Major	Advisor
1. Robert Ziegler	M.S./S2020	Ruminant Nutrition	J.T. Mulliniks and J. MacDonald (UNL)
2. Nicole Woita	M.S./S2022	Ruminant Nutrition	J.T. Mulliniks and K.L. McCarthy (UNL)
3. Aspen Cavalli	MAS/F2022	Beef Cattle Production	Mary Drewnoski (UNL)
4. Landon Tadich	M.S./S2023	Physiology	R. Funston and A. Cupp (UNL)
5. Shawna Houdek	MAS/Su2023	Beef Cattle Production	Andrea Watson (UNL)
6. Tim Goodnight	MAS/F2023	Beef Cattle Production	J.T. Mulliniks (UNL)
7. Julie Kehole	MAS/S2024	Agronomy	D. Uden (UNL)
8. Josie Crouch	M.S./Su2024	Ruminant Nutrition	K.L. McCarthy and J.T. Mulliniks (UNL)
9. Alexa Johnson	M.S./F2026	Extension and Education	Mary Drewnoski (UNL)
10. Connor Biehler	Ph.D./S2026	Ruminant Nutrition	Mary Drewnoski (UNL)
11. Jesse Fulton	PhD./S2026	Ruminant Nutrition	Mary Drewnoski (UNL)
12. Thomas Aquino	Ph.D./S2027	Ruminant Nutrition	Yijie Xiong and Mary Drewnoski (UNL)
13. Tanner Wansing	M.S./S2026	Ruminant Nutrition	Mary Drewnoski and K.L. McCarthy (UNL)

## SUPERVISION OF UNDERGRADUATE STUDENTS

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### Undergraduate Directed Student Learning Since joining UNL

Student	Date	Major	Activity
1. Shaye Koester	Spring 2021	Animal Science	Bull BSE Video
2. Ralston Ripp	Spring 2022	Animal Science	Honors Thesis



## **HONORS AND AWARDS**

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### **Scholarship: Collegiate Softball Athlete** Colorado State University, Fort Collins, CO

- Fall 2011- Spring 2013
- Completed full-time student status with 15+ hours of course work
- Participated in 20+ hours a week of practice, traveling, and competition at the Division 1 level for collegiate softball
- Demonstrated leadership as a student assistant coach by utilizing good communication skills and patience to educate 80+ softball campers on knowledge of the game.

### **Achievements**

- 2024 Holling Family Excellence in Teaching Early Achievement Award and \$3,000
- 2022 Nebraska Beef Industry Endowment Award and a \$5,000 grant from the Nebraska Cattlemen Foundation
- Gamma Sigma Delta Member, Nebraska, 2022
- Faculty-led Inquiry into Reflective and Scholarly Teaching (FIRST) project participant and stipend
- ASAS Wilson Pond Travel Scholarship, 2020
- ASAS Midwestern Section Animal Science Young Scholar, 2020
- Joseph P. Fontenot Appreciation Club Travel Scholarship, American Society of Animal Science, 2018
- 3<sup>rd</sup> Place Midwest American Society of Animal Science Ph.D. Oral Competition, 2018
- ND Livestock Endowment Foundation Arlon G. Hazen Memorial Scholarship, NDSU, 2017
- Gamma Sigma Delta Member, New Mexico State University, 2016
- Lee S. and Lou C. Evans Memorial Scholarship, New Mexico State University, 2016
- Alvin L. and Lorena P. Neumann Memorial Endowed Scholarship, New Mexico State University, 2016
- Academic All- Mountain West Softball Team, 2013
- Mountain West Softball Pitcher of the Year, 2012
- Mountain West All Conference Softball Team, 2012 & 2013
- Mountain West Softball Pitcher of the Week x3, 2012
- Rustici Livestock Scholarship Recipient, California Farm Bureau, 2009
- Record Searchlight/Exchange Club Scholar Athlete, 2009
- 1<sup>st</sup> Place Shasta District Fair Advanced Beef Showmanship, 2007-2009
- Shasta District Fair Carcass Contest Winner, 2007
- Three Sport Varsity High School Athlete, 2005-2009

### **Certifications**

- Beef Quality Assurance Certification in Nebraska 2021
- Beef Quality Assurance Certification in North Dakota 2019
- Beef Quality Assurance Certification in New Mexico 2016
- Artificial Insemination Certification 2013