

RUTH WOIWODE

Assistant Professor, Animal Behavior & Well-being Specialist

University of Nebraska-Lincoln

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<https://animalscience.unl.edu/faculty-staff/ruth-woiwode>

EDUCATION

<i>Institution</i>	<i>Area</i>	<i>Degree</i>	<i>Year</i>
Colorado State University	Animal Science Livestock Behavior and Welfare	PhD	2015
Colorado State University	Animal Science Livestock Behavior and Welfare	MS	2013
Colorado State University	Animal Science	BS	2010
National American University	Business Administration Applied Management	AAS	2002

PROFESSIONAL EXPERIENCE

Assistant Professor, Animal Behavior & Well-being, University of Nebraska-Lincoln 08/2020-present
(50% Extension, 30% Research, and 20% Teaching); *program focus is to increase workforce integration of evidence-based measures of human skill and animal welfare; to increase science literacy in the traditional classroom and beyond through integration of science-based animal welfare assessment.*

Postdoctoral Research Associate, New Mexico State University 2015 – 2016
Research Associate and Interim Superintendent of Clayton Livestock Research Center; research focused on the relationship between cattle handling, performance, and welfare. Managed research station personnel in daily operations of the research station, including research and maintenance projects.

Manager of Livestock Audit Services, FSNS Certification & Audit, LLC 2016 – 2021
Led the development of Livestock Audit Services, an allied industry service provider. Identified key business opportunities and established strong working relationships with industry leaders. Recruited, trained, and led a highly qualified team that continues the tradition of superior service to industry. Highly effective in communicating critical information up the chain of command to facilitate rapid growth of a company providing service to an industry at a critical time. Earned trust of producers, allied industry groups, veterinarians, academics, and corporations through honest, open communication, understanding the needs of the industry, and working to provide solutions under high pressure.

CERTIFICATIONS

- **Feedlot Animal Welfare Auditor**, PAACO – 2017 to present
- **Meat Plant Animal Welfare Auditor**, PAACO – 2016 to present
- **Dairy Animal Welfare Auditor**, PAACO – 2016 to present
- **Poultry Animal Welfare Auditor**, PAACO – 2017 to present
- **Swine Animal Welfare Auditor**, PAACO – 2016 to present
- **FARM Trainer**, NMPF Dairy FARM Program, 2016 - present

EXTENSION OUTPUTS

<i>Extension Output Overview</i>	2020*	2021	2022	2023	2024†	Total
Articles				4		4
Webinars	1	1	4	6	3	15
Podcasts			1	1	2	4
Media Interviews			2	4	3	9
Presentations (In-state)		1	13	8	1	23
Presentations (Out-of-state)			1	3	2	6
Site visits	1	1	3	4	1	10
Phone/email consultations	16	42	39	44	12	153

*Starting late August of 2020 (4 months)

†Through June 2024 (6 months)

Articles

1. **Woiwode, R.** 2023. Feedlot Cattle Handling Practices. BeefWatch Electronic Newsletter. [October](#).
2. **Woiwode, R.** 2023. Animal Care and Handling. Norfolk Daily News Ag Column. [October](#).
3. Fulton, J., Laborie, E., Dicostanzo, A., and **Woiwode, R.** 2023. Don't Get Caught Off Guard, Be Prepared to Beat the Heat. BeefWatch Electronic Newsletter. [August](#).
4. Woiwode, R. 2022. 2023 – Year of the Stockman. BeefWatch Electronic Newsletter [December](#).
5. Fulton, J., **Woiwode, R.**, and Haight, T. Preparing for a Natural Disaster Ahead of Time. 2022 <http://nebraskacattleman.org/NCJan2022/> Nebraska Cattlemen magazine.

Webinars & Podcasts

1. **Woiwode, R.** 2024. Beef Cattle Welfare. The Beef Podcast Show. [May](#).
2. **Woiwode, R.** 2024. Animal Welfare Judging at PASE 2024. Nebraska Extension Youth Educator Animal Science Professional Development Webinar Training Series. April.
3. **Woiwode, R.** 2024. Animal Welfare Content Planned for PASE 2024. Nebraska Extension Youth Educator Animal Science Professional Development Webinar Training Series. March.
4. **Woiwode, R.** 2024. Cattle Handling Fundamentals for Exhibitors: Nebraska Extension Fed Steer Challenge Program Leader Support. February.
5. **Woiwode, R.** 2024. Low-Stress Animal Handling. Livestock Wala'au Podcast. [February](#).
6. **Woiwode, R.** 2023. Feedlot Cattle Handling Practices. BeefWatch Podcast. [October](#).

Extension Leadership

- Nebraska Extension Disaster Education Network (EDEN) Team, 2023, 2024
- Nebraska Extension Livestock Emergency Response Preparedness (LERP) Team, 2021 to present

Summary of extension presentations

	# of participants/# of presentations				
	2021	2022	2023	2024	Total
Animal behavior and handling principles	192/3	15/1	50/1	280/2	538/7
Stockmanship clinic/demonstration	30/1		151/5	35/1	216/7
Role of Humans; Handler Safety, Training		60/1	15/1	65/2	140/4
Other	144/5	180/4	135/2		459/12
Total	364/9	255/6	351/9	380/5	1,353/30

RESEARCH OUTPUTS

Peer Reviewed Journal Articles

1. Anderson, K. N., **R. Woiwode**, E.M. Hamilton, A. A. Kirk, M.J. Cowel, A.A. Reyes, P. E. Zhitnitskiy, and K. D. Vogel. Relationship between captive bolt placement, tissue parameters, and brain contact in cadaver heads from culled Holstein cows > 30 mos of age. Submitted to J. Dairy Sci.
2. Anderson, K. N., **R. Woiwode**, A. A. Kirk, J. Berger, A. A. Reyes, P. E. Zhitnitskiy, and K. D. Vogel. Evaluation of the capacity and effective angle of thalamic damage for two commercially available captive bolt tool types on cadaver heads from sows > 200 kg body weight. Accepted by J. Anim. Sci.
3. Anderson, K. N., A. A. Kirk, J. Berger, A. A. Reyes, **R. Woiwode**, P. E. Zhitnitskiy, and K. D. Vogel. 2024. Relationship of tissue dimensions and three captive bolt application sites on cadaver heads from mature swine (*Sus scrofa domesticus*) < 200 kg body weight. J. Anim. Sci. 102:skae045. doi: 10.1093/jas/skae045
4. Anderson, K. N., E. M. Hamilton, A. A. Kirk, A. A. Reyes, **R. Woiwode**, P. E. Zhitnitskiy, and K. D. Vogel. 2024. Quantification of cooling effects on basic tissue measurements and exposed cross-sectional brain area of cadaver heads from Holstein cows > 30 mos of age. Transl. Anim. Sci. 8:txae042. doi: 10.1093/tas/txae042
5. Schmidt, T., Psota, E., Mote, B., Lancaster, J., Hulbert, L., Holliday, A., **Woiwode, R.**, Perez, L. 2022. *Evaluation of a novel computer vision-based livestock monitoring system to identify and track specific behaviors of individual nursery pigs within a group-housed environment*. Translational Animal Science, Volume 6, Issue 3, July 2022, txac082, <https://doi.org/10.1093/tas/txac082>.
6. **Woiwode, R.**, Grandin, T., Kirch, B., and Paterson, J. 2016. *Effects of initial handling practices following receiving on behavior and average daily gain of fed steers*. Int J Liv Prod 7: 12-18.
7. **Woiwode, R.**, Grandin, T., Kirch, B., and Paterson, J. 2016. *Compliance of large feedyards in the northern high plains with the Beef Quality Assurance Feedyard Assessment*. Prof Ani Sci 32(6):750-757.

Abstracts and Conference Proceedings

1. Anderson, K. N., E.M. Hamilton, A. A. Kirk, M.J. Cowel, A.A. Reyes, **R. Woiwode**, P. E. Zhitnitskiy, and K. D. Vogel. 2024. Impact of captive bolt placement on tissue dimensions of heads from Holstein cows > 30 mos old. American Dairy Science Association Annual Meeting.
2. Anderson, K. N., **R. Woiwode**, E.M. Hamilton, A. A. Kirk, M.J. Cowel, A.A. Reyes, P. E. Zhitnitskiy, and K. D. Vogel. 2024. Impact of captive bolt placement on tissue dimensions of head from Holstein cows > 30 mos old. Dairy Cattle Welfare Council Symposium.
3. Anderson, K. N., J. Berger, A. A. Reyes, **R. Woiwode**, P. E. Zhitnitskiy, and K. D. Vogel. 2023. Relationship of tissue dimensions and three captive bolt placements on cadaver heads from mature swine (*Sus scrofa domesticus*) < 200 kg body weight. <https://sites.google.com/a/umn.edu/leman-swine-conference/current-years-conference>.
4. Anderson, K. N., J. Berger, A. A. Reyes, **R. Woiwode**, P. E. Zhitnitskiy, and K. D. Vogel. 2023. Relationship of tissue dimensions and three captive bolt placements on cadaver heads from mature swine (*Sus scrofa domesticus*) < 200 kg body weight. <https://www.ufaw.org.uk/ufaw-events/ufaw-online-animal-welfare-conference-2023>.
5. **Woiwode, R.**, and B. Mote. 2022. A Mobile System for Humane Mass Depopulation of Swine. Midwest Section ASAS Annual Meeting.
6. Lima, M, **R. Woiwode**, C. Paro de Paz, and T. Grandin. *Blocking the steer's view of people during restraint in a squeeze chute results in calmer behavior*. J Ani Sci 94 (supplement5):40.

7. Lima, M, **R. Woiwode**, C. Paro de Paz, and T. Grandin. *Effect of different hydraulic squeeze chute and cattle breed on behavior of steer during restraining in feedyard facilities*. J Ani Sci 94 (supplement5):41.
8. **Woiwode, R.** 2015. *Increase in demand for hands-on instruction in animal science curriculum*. J Ani Sci 94:851.

Grantsmanship

	2020	2021	2022	2023	2024	TOTAL
Total \$ Applied for	\$84,460	\$4,936,000	\$42,833,746	\$11,449,458	\$1,244,690	\$60,548,354
Awarded	\$75,000	\$252,400	\$270,000	\$20,000	\$950,000	\$1,567,400

GRANTS RECEIVED (\$2,050,900)

2024. USDA NIFA \$241,450. Updating obsolete animal handling facilities. PI: **Woiwode, R.** Project lead; *responsible for design and construction of a state-of-the-art cattle handling system in the UNL Animal Science Complex. This required securing an external 100% cash match, resulting in support totaling \$482,900.*
2024. USDA NIFA. \$300,000. A novel system for objective scoring of animal handling. Co-PIs: **R. Woiwode**, H. Akin, E.J. Dennis. Project lead; *responsible for project administration, coordination, hiring of research staff, oversight of proposed work, data collection, analysis, and reporting.*
2024. USDA NIFA. \$650,000. NCTA Targeted Credentialing Pilot. PI: J. Wicks. Co-Is: G. Sullivan, B.O. Chaves, R. Woiwode, B. Garcia. *Responsible for development of animal handling training modules and credentials; approximately 5% contribution.*
2023. UNMC CS-CASH. \$20,000. An investigation of factors associated with the severity of work-related injuries in the feedlot sector. Co-PIs: E.J. Dennis and **R. Woiwode**. *Shared responsibility for managing project scope and outputs.*
2022. USDA NIFA \$270,000. Investigations of tissue profiles and characteristics associated with captive bolt euthanasia and stunning of mature swine and cattle. Co-PIs: K.N Anderson, K.D. Vogel, P. E. Zhitnitskiy, and **R. Woiwode**. *Student and research supervision, contributed to analysis, review, and reporting of findings.*
2021. ARD Hatch Multistate Enhanced Program. \$250,000. W4173: Elucidating epigenomic, physiological and behavioral targets to improve well-being and performance outcomes of acute heat stress in beef cattle. Co-PIs: J.L. Peterson, D.T. Yates, T.B. Schmidt., **R Woiwode**. *Developed protocols for cattle acclimation and halter training; provided training for research technicians to ensure animal well-being.*
2021. University of Nebraska-Lincoln, UCARE Grant. \$2,400. Evaluation of automated application of electricity for on-site mass depopulation of swine. Co-PIs: L. Peters, **R. Woiwode**, and B. Mote. *Supervised student collection of physiological and behavioral data, analysis, summary, and presentation.*
2020. National Pork Board. \$75,000. Validation of a Mobile Electrocutation System for Humane Mass Depopulation of Swine. Co-PIs: **R. Woiwode** and B. Mote. *Coordinated R&D team through the design, building, and testing of a novel system for mass euthanasia of swine. Developed animal handling and data collection protocols to ensure humane handling during equipment trials and modifications.*

TEACHING OUTPUTS

Teaching Activity Overview	2021	2022	2023	2024	Total
ASCI370 Animal Welfare (In-person) [3cr]	23	24	29	24	100
ASCI370 Animal Welfare (Online) [3cr]	31	75			106
ASCI896 Animal Welfare [3cr]		2	2	2	6
ASCI896 Animal Welfare Auditor Prep [1cr]	3				3
ASCI896 Critical Reading of Animal Welfare Literature [1cr]			6		6
ASCI897 Master of Applied Science Project [5cr]			1		1
ASCI399/170 Intro to Animal Behavior & Welfare [3cr]			5		5
	57	101	43	26	227

SERVICE – University

<p>Faculty Engagement and Inclusion Working Group -Chair Led a group of junior faculty in organizing a grassroots effort to enhance professional collaboration and inclusion through monthly social events.</p>	2021 -Present
<p>Extension Working Group -Chairperson Led a group tasked with defining and describing the role of Extension in the NIBS Hubs. Presented group work at Beef Interest Group January 2022 meeting.</p>	2021 -Present
<p>Curriculum Committee -Committee Member Appointed by Animal Health, Welfare, and Precision Management specialization to represent the discipline's interests in departmental curriculum.</p>	2021 -Present
<p>Curriculum Review Committee -Committee Member Appointed by Animal Health, Welfare, and Precision Management to represent the discipline in the review of curriculum needs. Present concepts for voting using technology to capture votes anonymously.</p>	2021 -Present
<p>Capstone Review Committee -Committee Member Appointed by the Curriculum Review Committee to review fit of capstone courses.</p>	2022
<p>Internal Advisory Committee -Committee Member Appointed by Animal Health, Welfare, and Precision Management to serve as the group representative. Engage in discussion about curriculum, advising, program vision, and more.</p>	2021 - 2022
<p>New Faculty Position Working Group -Committee Chair Coordinated efforts between department and unit heads in the drafting and proposal of a new joint position supported by ANSC, SNR, and Henry Doorly Zoo.</p>	2021 -Present
<p>New Specialization Development -Chair Led a cross-disciplinary group of faculty members interested in creating a new specialization for recruiting and training graduate students. Guided the process through unanimous faculty co-sponsorship of a new Animal Health, Welfare, and Precision Management specialization cross listed with ANSC and BSE.</p>	2021 -Present

Animal Welfare Judging Team -Faculty Advisor	2021 -Present
Responsible for coaching and preparing students to compete in an international contest. Travel with team for competition.	
Meat Lab Renovation Working Group -Committee Member	2021 -Present
Provide guidance related to animal handling facilities and the associated training of students and workforce development.	
Feedlot Innovation Center - Handling Facilities Working Group Lead	2021 -Present
Provide oversight and guidance related to the design and construction of animal handling facilities that will enable the testing of facility design and allow student and workforce training.	
New Faculty Mentoring Guidance Working Group -Chairperson	2021 -Present
Coordinated a group of new faculty in providing input on the departmental effort to formalize new faculty mentoring practices.	
Animal Behavior & Welfare Club -Faculty Advisor	2021 -Present
Provided mentorship for a group of students wishing to form a new club. Provided guidance for writing bylaws and connected students with RSO staff. Led the process through full recognition as a UNL RSO. Oversee programming, scheduling, recruiting, industry engagement, and more.	
Livestock Emergency Response Program -Committee Co-Chair	2021 -Present
Review and update training materials for emergencies and SOPs for emergency personnel response. Provide on-site training for first responders to increase awareness of animal considerations in traffic accidents involving livestock.	

SERVICE - Professional

PAACO Audit Review Panel	2021 - 2023
Provide expert review of NAMI Meat Plant Audit for renewal.	
Nebraska Feedlot Safety Advisory Committee	2021 – Present
Provide expertise related to animal welfare and handler safety in the feedlot sector.	
Animal Ag Alliance Issues Management Committee	2017 – 2022
Assist with monitoring of radical group activity targeting the livestock industry.	
Meat Institute Animal Welfare Committee	2016 – Present
Provide guidance on matters of animal welfare in the meat industry space.	
NCFE PAACO Feedlot Audit Advisory Committee	2016 – 2020
Review and update Canadian Feedlot Animal Care Assessment Program. Led original development and conduct annual reviews of the program material.	
American Sheep Industry Association	2016 – Present
Editorial review of Sheep Care Guide. Review literature and include updates to guidance.	

