

June 2-4, 2026
Holiday Inn Estes Park
Estes Park, Colorado



WESTERN SECTION MEETING

Wednesday, June 3, 2026

Graduate Student Paper Competition

Chair: Rachel Gibbs, NDSU

8:30 AM - 11:15 AM

Salon AB

8:30 a.m. 1 Cattle preferential intake of seaweed supplementation and effects on methane emissions

Jocelyn Torres ¹, Aline C. Rezende dos Santos ¹, Erica Ferri de Oliveira ¹, James Fox ¹, Rory C. O'Connor ², Juliana Ranches ¹

¹Oregon State University, ²United States Department of Agriculture

8:45 a.m. 2 Effects of dietary energy supplementation on growth, puberty attainment, and wool characteristics in growing ewe lambs fed medium-quality wheat forage

Karime L. Luna ¹, Naomi Lucero ¹, Jeffrey F. Dominguez ¹, Sara C. Gurule ¹, Rachel L. Gibbs ², Jennifer A. Hernandez Gifford ¹, Sergio A. Soto-Navarro ¹

¹New Mexico State University, ²NDSU

9:00 a.m. 3 Effects of repeated low-dose maternal lipopolysaccharide exposure during the periconception period on ewe immune responses and lamb performance

Jeffrey F. Dominguez ¹, Karime L. Luna ¹, Sara C. Gurule ¹, Sergio A. Soto-Navarro ¹, Jennifer A. Hernandez Gifford ¹, Craig A. Gifford ², Rachel L. Gibbs ³

¹New Mexico State University, ²Department of Animal and Range Sciences, New Mexico State University, ³NDSU

9:15 a.m. 4 Effects of salt as a corn-supplement intake limiter and forage maturity on intake, digestibility, and ruminal fermentation in beef cattle grazing wheat pasture

Naomi Lucero ¹, Noemi M. Macias ¹, Luisa Oroz Sonoqui ¹, Sara C. Gurule ¹, Karime L. Luna ¹, Jeffrey F. Dominguez ¹, Brandon Smythe ¹, Sergio A. Soto-Navarro ¹

¹New Mexico State University

9:30 a.m. 5 Effects of vitamin B complex supplementation level on plasma biotin and stress responses in preconditioned beef calves

Erica Ferri de Oliveira ¹, Aline C. Rezende dos Santos ¹, Ana Laura Patelli Ramalho ², Carlos E. M. Dos Santos ³, Matheus L. Ferreira ⁴, Jeff S. Heldt ⁵, Chance G. Farmer ⁵, Juliana Ranches ¹

¹Oregon State University, ²Oregon State University- EOARC, ³Oregon State University- EOARC, ⁴Louisiana State University, ⁵Selko

9:45 a.m. Graduate Student Paper Competition Break

10:00 a.m. 6 **Elucidating the role of the CXCL12/CXCR4 chemokine axis in regulating vascular endothelial growth factor (VEGF) localization during sheep pregnancy**

Niklas B. Kronlein ¹, Kyla Saucedo ¹, Charlotte C. Gard ¹, Ryan L. Ashley ¹

¹New Mexico State University

10:15 a.m. 7 **Increasing concentrate in lamb finishing diets improved feed efficiency and produced subtle effects on methane emissions**

Carlos D. Ruiz-Vázquez ¹, Christopher S. Schauer ¹, Xiaoyu Y. Feng ¹, Samantha L. Ekstrom ¹, Rachel L. Gibbs ¹

¹NDSU

10:30 a.m. 8 **Pre-breeding body condition score influences reproductive efficiency and ewe productivity but is not associated with late-gestation metabolic status or lamb health in fall-lambing Rambouillet ewes.**

Samantha L. Ekstrom ¹, Rachel L. Gibbs ¹, Christopher S. Schauer ¹, Carlos d. Ruiz ¹, Jetzairy Irizarry ²

¹NDSU, ²University of Puerto Rico-Mayaquez

10:45 a.m. 9 **Repeated low-dose endotoxin exposure elicits maternal endocrine and hematologic alterations in nulliparous ewes**

Sara C. Gurule ¹, Jonathon Valencia ¹, Jeffrey F. Dominguez ¹, Karime L. Luna ¹, Craig A. Gifford ², Sergio A. Soto-Navarro ¹, Jennifer A. Hernandez Gifford ¹

¹New Mexico State University, ²Department of Animal and Range Sciences, New Mexico State University

11:00 a.m. 10 **Simulated wildfire smoke exposure impairs growth performance of beef heifers**

Aline C. Rezende dos Santos ¹, Erica Ferri de Oliveira ¹, Jocelyn Torres ¹, Matheus L. Ferreira ², Katie Wollstein ¹, Jenifer Cruickshank ¹, Juliana Ranches ¹

¹Oregon State University, ²Louisiana State University

Undergraduate Student Poster Competition

11:45 AM - 12:30 PM

Salon C

11:45 a.m. 14 **Chute exit velocity underrepresents true behavior and temperament compared with continuous accelerometer monitoring in feedlot steers**

Morgan K. Weimer ¹, Chase D. Markel ¹, Emily R. Barr ¹, Lilly R. Masopust ¹, Gabriel D. Denaeyer ¹, Kelly L. Woodruff ², Cody L. Gifford ¹, Amanda K. Lindholm-Perry ³, Cindy Felber ⁴, Hannah C. Cunningham-Hollinger ²

¹Department of Animal Science; University of Wyoming, ²University of Wyoming, ³USDA-ARS, U.S. Meat Animal Research Center, ⁴USDA-ARS US Meat Animal Research Center

11:45 a.m. 12 **Effects of L-carnitine on heifer serum energy metabolites and body condition score**

Madelynn K. Dunivan ¹, Katylyn J. Richardson ², Eric J. Scholljegerdes ²

¹New Mexico State University, ²Department of Animal and Range Sciences, New Mexico State University

11:45 a.m. 11 **Effects of modulating CXCL12 signaling on inflammatory cytokines during gestation in sheep**

Ema T. Alvarez ¹, Kassandra Valdez ¹, Ryan L. Ashley ¹

¹New Mexico State University

11:45 a.m. 15 **Influence of hide color and ranch source on behavior, feed efficiency, and carcass traits in beef steers**

Gabriel D. Denaeyer ¹, Chase D. Markel ¹, Emily R. Barr ¹, Lilly R. Masopust ¹, Morgan K. Weimer ¹, Kelly L. Woodruff ², Cody L. Gifford ¹, Cindy Felber ³, Amanda K. Lindholm-Perry ⁴, Hannah C. Cunningham-Hollinger ²

¹Department of Animal Science; University of Wyoming, ²University of Wyoming, ³USDA-ARS US Meat Animal Research Center, ⁴USDA-ARS, U.S. Meat Animal Research Center

11:45 a.m. 13 **Understanding lamb behavior during band castration with differing routes of lidocaine administration**

Hailey Wood ¹, Ellen Roberts ¹, Julianna Messina ¹, Ryne D. Haggard ¹, Lily N. Edwards-Callaway ¹, Caitlin N. Cadaret ¹

¹Colorado State University

Thursday, June 4, 2026

Production and Management 1

Chair: Eric Scholljegerdes, Department of Animal and Range Sciences,
New Mexico State University

8:00 AM - 10:45 AM

Salon AB

8:00 a.m. 17 **Award Talk: Impact of a western style diet on the function and metabolism of the gastrointestinal tract in a swine model**

Emily R. Barr ¹, Kemsley A. Gallegos ², Josie N. Hernandez ³, Kelly L. Woodruff ², Jeremy L. Burkett ⁴, Cody L. Gifford ¹, Hannah C. Cunningham-Hollinger ²

¹Department of Animal Science; University of Wyoming, ²University of Wyoming,

³Department of Animal Science, University of Wyoming, ⁴Casper College

8:30 a.m. 18 **Effects of timing of mineral drench administration on performance and mineral status of grazing beef calves**

Edilane Costa Martins ¹, Aline C. Rezende dos Santos ², Erica Ferri de Oliveira ², Jocelyn Torres ², David W. Bohnert ², Juliana Ranches ²

¹Oregon State University - EOARC, ²Oregon State University

8:45 a.m. 19 **How does cattle grazing of corn residues affect soil health in the long term?**

Tyler J. Babica ¹, Mary K. Drewnoski ¹, James C. MacDonald ¹, Humberto Blanco ¹

¹University of Nebraska-Lincoln

9:00 a.m. 20 **Virtual fencing is as effective as polywire for strip grazing stockpiled sorghum–sudangrass**

Thomas Aquino ¹, Pedro Fernandes ¹, Biquan zhao ¹, Miranda Meehan ², Yijie Xiong ¹, Mary K. Drewnoski ¹

¹University of Nebraska-Lincoln, ²North Dakota State University

9:15 a.m. **Production and Management 1 Break**

9:30 a.m. 21 **Determining agreement between metabolizable energy intake values derived from wet-chemistry analysis and measured individual animal gas flux and performance**

John Pennington ¹, Nathan S. Long ¹, Jarret Proctor ¹, Kyle Vahlenkamp ¹, Jason K. Smith ², Vinicius N. N. Gouvea ³, Logan R. Thompson ⁴, Gordon E. E. Carstens ¹, Matthew R. Beck ¹

¹Texas A&M University, ²Texas A&M AgriLife Extension, ³Texas A&M, ⁴Kansas State University

9:45 a.m. 22 **Associations among growth performance, gas exchange, and residual index traits of receiving beef heifers**

Matthew R. Beck ¹, Kyle Vahlenkamp ¹, John Pennington ¹, Jerry Hudec ¹, Cortland Smith ¹, Egleu D. M. Mendes ², Gordon E. E. Carstens ¹

¹Texas A&M University, ²TEXAS A&M UNIVERSITY

10:00 a.m. 23 **Backgrounding strategy impacts finishing performance and carcass characteristics**

Paul A. Beck ¹, Matthew R. Beck ², Cade A. Hamil ¹

¹Oklahoma State University, ²Texas A&M University

10:15 a.m. 24 **Heat stress mitigation in feedyards: Effects of shade inclusion and night-time feeding on steer performance**

Madeline R. Mancke ¹, Brad J. White ¹, Eduarda Bortoluzzi ¹, Robert L. Larson ¹

¹Beef Cattle Institute, Kansas State University

10:30 a.m. 25 **Inclusion of a yeast derived product as a natural feed additive in early weaned calves diet: impact on performance and parameters indicating the level of stress**

Stefania Pancini ¹, María Victoria V. Burjel ¹, Natalia Zabalveytia ¹, Joaquín Gutierrez ¹, Diego Aldaya ¹, Virginia Beretta ¹, Alvaro Simeone ¹

¹Facultad de Agronomía, Udelar

General Poster Session 1

11:00 AM - 12:00 PM

Salon C

11:00 a.m. 28 **Development of a pipeline to enhance the competitiveness of underrepresented scholars for entry into agriculture, scientific and professional careers**

Kasey L. DeAtley ¹, Jennifer A. Hernandez Gifford ², Sergio A. Soto-Navarro ²

¹California State University, Chico, ²New Mexico State University

11:00 a.m. 16 **Early pregnancy detection during the peri-implantation period in sheep using pregnancy associated glycoprotein**

Asia T. Hendrix ¹, Sienna Noftz ¹, Jessica Munoz ¹, Anthony Zinselmeir ¹, Matthew Meda ¹, Benjamin Duran ¹

¹California State University Chico

11:00 a.m. 32 **Enhancing team-based learning in animal science through Lego Serious Play®: A culturally responsive approach in the Cal Poly Bull Test Program**

Zachary D. McFarlane ¹, Erin K. Gorter ², Nicole Ray ²

¹California Polytechnic State University, San Luis Obispo, ²California Polytechnic State University, San Luis Obispo, Agricultural Education and Communication Department

11:00 a.m. 33 **Evaluating cow-calf spatial interactions on pasture using GPS data**

Biquan zhao ¹, Tanner K. Wansing ¹, Pedro Fernandes ¹, Mary K. Drewnoski ¹, Yijie Xiong ¹

¹University of Nebraska-Lincoln

11:00 a.m. 26 **Externally validated bioelectrical impedance–based screening model for caseous lymphadenitis in goats**

Aftab Siddique ¹, David Shapiro-Ilan ², Cristina Pisani ², Thomas H. Terrill ¹

¹Fort Valley State University, ²USDA, Byron

11:00 a.m. 31 **Industry perspectives on professional standards and essential competencies for workforce preparedness**

Zachary D. McFarlane ¹, Erin K. Gorter ², Bailey Doherty ³

¹California Polytechnic State University, San Luis Obispo, ²California Polytechnic State University, San Luis Obispo, Agricultural Education and Communication Department,

³California Polytechnic State University, San Luis Obispo, Animal Science Department

11:00 a.m. 34 **Influence of activity and mounting behavior of feedlot steers on complete blood cell analysis metrics**

Kelly L. Woodruff ¹, Chase D. Markel ², Emily R. Barr ², Lilly R. Masopust ², Gabriel D. Denaeyer ², Morgan K. Weimer ², Cody L. Gifford ², Cindy Felber ³, Amanda K. Lindholm-Perry ⁴, Hannah C. Cunningham-Hollinger ¹

¹University of Wyoming, ²Department of Animal Science; University of Wyoming, ³USDA-ARS US Meat Animal Research Center, ⁴USDA-ARS, U.S. Meat Animal Research Center

11:00 a.m. 27 **Ovine reproductive management strategies for successful cervical AI**

Courtney McPherson ¹, Lisa A. Herickhoff ¹, Myles Shepherd ¹

¹Membrane Protective Technologies Inc.

11:00 a.m. 30 **Utilization of experiential learning courses to enhance knowledge and workforce readiness of animal science students**

Janae S. Bulosan ¹, Yunuen Bustamante ¹, Marla Fergerstrom ¹, Mark S. Thorne ¹, Lyda G. Garcia ², Melelani A. Oshiro ¹, Caleb C. Reichhardt ¹

¹University of Hawaii at Manoa, ²The Ohio State University

General Poster Session 2

1:30 PM - 2:30 PM

Salon C

1:30 p.m. 36 **Effect of lupin grain processing as a supplement during winter backgrounding of grazing beef calves**

Natalia Zabálveytia¹, Virginia Beretta¹, María Victoria V. Burjel¹, Stefania Pancini¹, Oscar Bentancur¹, Lucia Machado¹, Agustín Curbelo¹, Fabian Acosta¹, Facundo Vasquez¹, Alvaro Simeone¹

¹Facultad de Agronomía, UdelaR

1:30 p.m. 39 **Effects of an antibody-based direct-fed microbial on feed intake, growth performance, and feed efficiency in feedlot cattle**

Emma A. Briggs¹, Mindy King¹, Adam King¹, Terry Arthur², Jessie Vipham¹

¹Kansas State University, ²Fremonta Corporation

1:30 p.m. 37 **Effects of vitamin B12 metabolites, hydroxycobalamin and adenosylcobalamin, on primary ovine satellite cells**

Vianca Mae D. Dacumos¹, Amaia M. Cariaga¹, Courtney F. Rivera¹, Taya J. Blad¹, Jesus A. Rojas-reyes¹, Jenee S. Odani¹, Caleb C. Reichhardt¹

¹University of Hawaii at Manoa

1:30 p.m. 41 **Evaluating the stability of 5-hydroxytryptamine in rumen fluid using an in vitro culturing approach**

Alexandra P N Ewing¹, Benoit St. Pierre¹, Rebecca M. M. Swanson²

¹South Dakota State University, ²Department of Animal Sciences and Center for Nutrition and Pregnancy, North Dakota State University

1:30 p.m. 40 **Influence of weaning strategy, pulmonary arterial pressure, and performance outcomes in beef heifers**

Lilly R. Masopust¹, Chase D. Markel¹, Emily R. Barr¹, Gabriel D. Denaeyer¹, Morgan K. Weimer¹, Kelly L. Woodruff², Cody L. Gifford¹, Hannah C. Cunningham-Hollinger²

¹Department of Animal Science; University of Wyoming, ²University of Wyoming

1:30 p.m. 42 **Methods for bitter-taste sensitivity classification of sheep using phenylthiocarbamide-laced water and feed**

Danny Schaub¹, Brenda M. Murdoch², Melinda J. Ellison², J. Bret B. Taylor³

¹Michigan State University Extension, ²University of Idaho, ³USDA-ARS-RSPER

1:30 p.m. 43 **Pulmonary arterial pressure as a predictor of performance in beef calves across weaning and preconditioning strategies**

Emily R. Barr¹, Lilly R. Masopust¹, Gabriel D. Denaeyer¹, Morgan K. Weimer¹, Kelly L. Woodruff², Cody L. Gifford¹, Hannah C. Cunningham-Hollinger², Chase D. Markel¹

¹Department of Animal Science; University of Wyoming, ²University of Wyoming

1:30 p.m. 44 **Relationship of respiratory gas fluxes between beef cows and their calves**

Stacey A. Gunter¹, Emalee J. Friend¹

¹USDA, Agricultural Research Service

1:30 p.m. 38 **The effects of increasing concentrations of altrenogest on primary satellite cells**

Dylan S. Mastuda ¹, Taya J. Blad ¹, Abigail HE Ana ¹, Jenee S. Odani ¹, Caleb C. Reichhardt ¹

¹University of Hawaii at Manoa

1:30 p.m. 35 **Use of paddy rice in feedlot-finished steers: effect of grain moisture level and processing method on animal performance**

María Victoria V. Burjel ¹, Virginia Beretta ¹, Natalia Zabálveytia ¹, Stefania Pancini ¹, Oscar Bentancur ¹, Mariana Bassagaistéguy ¹, Aranzazu Irurueta ¹, Marcela Paolino ¹, Francisco Paravis ¹, Mathias Poncet ¹, Valentina Vera ¹, Alvaro Simeone ¹

¹Facultad de Agronomía, UdelaR

Production and Management 2

Chair: Eric Scholljerges, Department of Animal and Range Sciences,
New Mexico State University

2:45 PM - 5:15 PM

Salon AB

2:45 p.m. 45 **Award Talk: Investigating the impacts of gestational management on ewe lamb reproductive dynamics**

Julianna Messina ¹, Rachael M. Stucke ¹, Ryne D. Haggard ¹, Ellen Roberts ¹, Alexandria P. Snider ², Caitlin N. Cadaret ¹

¹Colorado State University, ²USDA, ARS, USMARC

3:15 p.m. 46 **Investigating two methods of lidocaine administration for pain mitigation during band castration in lambs**

Ellen Roberts ¹, Julianna Messina ¹, Ryne D. Haggard ¹, Hailey Wood ¹, Lily N. Edwards-Callaway ¹, Caitlin N. Cadaret ¹

¹Colorado State University

3:30 p.m. 47 **Impact of milk production across the lactation curve on cow and calf performance in the Nebraska Sandhills**

Travis Mulliniks ¹, Selby Boerman ², Jacki A. Musgrave ³, Mitch Stephenson ³, Malith Premarathna ³, Reka Howard ⁴

¹Oregon State University, ²UC Davis, ³University of Nebraska, ⁴University of Nebraska-Lincoln

3:45 p.m. 48 **Thiamine modulation of hepatocytes respiration**

Godliver Ngomou ¹, Ahmed Salhab ², Baker Saffouri ², Johnny Amer ², Rifaat Safadi ², Hay Dvir ³

¹Agricultural Research Organization, The Volcani Institute, ²Hadassah University Hospital, ³Volcani Institute, ARO

4:00 p.m. **Production and Management 2 Break**

4:15 p.m. 49 **Alterations in the proteome across subcutaneous adipose depots in finishing beef steers**

Mindy King ¹, Emma A. Briggs ¹, Adam King ¹, Zahid Ahsan ², Kamrul Islam ², Amit Singh ², Zhibo Yang ³, Nagib Ahsan ⁴

¹Kansas State University, ²Department of Chemistry and Biochemistry, University of Oklahoma, ³University of Oklahoma Health Science Center, ⁴University of Oklahoma

4:30 p.m. 50 **Sheep behavior and physiology while grazing solar fields: a preliminary assessment**

Julianna Messina ¹, Ryne D. Haggard ¹, Ellen Roberts ¹, Jeni Backes Kincher ¹, Lily N. Edwards-Callaway ¹, Caitlin N. Cadaret ¹

¹Colorado State University

4:45 p.m. 52 **Protein and energy supplementation to beef heifers during mid-gestation and the influence on growth performance and circulating blood metabolites in the dam and male offspring through weaning**

Jennifer L. Hurlbert ¹, Brooklyn M. Kuzel ², Shelby L. Sullivan ¹, Kevin K. K. Sedivec ³, Carl Robertson R. Dahlen ⁴

¹North Dakota State University, ²Animal Science Department, North Dakota State University, ³Central Grasslands Research Extension Center, North Dakota State University, Streeter, ND, USA, ⁴Center for Nutrition and Pregnancy and Department of Animal Sciences, North Dakota State University, Fargo, North Dakota, United States