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Western Section American Society of Animal Science
June 16–18, 2009
Colorado State University
Fort Collins, Colorado

Summary of Scheduled Events

Unless otherwise noted, all events will be held in the Hilton Fort Collins.

Monday, June 15, 2009
4:00 PM – 6:00 PM Registration
CSU Ballroom Foyer
4:00 PM – 6:00 PM WSASAS Executive Committee, CSU Vet Medicine Room

Tuesday, June 16, 2009
7:00 AM – 6:00 PM Registration
CSU Ballroom Foyer
8:45 AM – 4:30 PM Beef Symposium, Salon I/V
6:00 PM – 9:00 PM Welcome Reception, Pickett Arena, CSU Equine Center

Wednesday, June 17, 2009
7:00 AM – 6:00 PM Registration
CSU Ballroom Foyer
8:00 AM – 11:15 AM Graduate Student Paper Competition, Salon I/V
11:15 AM – 12:00 PM Distinguished Service Award Presentation, Salon I/V
1:00 PM – 3:00 PM Poster Session I, Atrium
1:00 PM – 4:15 PM Extension Symposium, Salon I/V
1:00 PM – 5:00 PM Writing a Scientific Paper for Publication Workshop (pre-registration required), Physiology 103
1:15 PM – 4:30 PM Environment and Livestock Management, The Rams Room
1:15 PM – 2:45 PM Physiology I - Synchronization, Salon II
1:15 PM – 2:45 PM Ruminant Nutrition I, Green & Gold
3:15 PM – 4:45 PM Physiology II - Nutrition and Behavior, Salon II
3:15 PM – 4:45 PM Ruminant Nutrition II, Green & Gold
6:30 PM – 9:00 PM Awards Banquet
CSU Ballroom
Thursday, June 18, 2009

7:00 AM – 12:30 PM  Registration  
CSU Ballroom Foyer  

8:00 AM – 9:00 AM  Annual Business Meeting, Salon I/V  

9:00 AM – 1:00 PM  Writing a Scientific Paper for Publication Workshop (pre-registration required), Physiology 103  

9:15 AM – 11:15 AM  Poster Session II, Atrium  

9:15 AM – 11:30 AM  Breeding and Genetics, The Rams Room  

9:30 AM – 9:45 AM  Meat Science & Muscle Biology, Green & Gold  

10:00 AM – 10:45 AM  Pastures and Forages, Green & Gold  

10:00 AM – 12:00 PM  Physiology III, Salon I/V  

10:00 AM – 11:15 AM  Ruminant Nutrition III, Salon II  

12:15 PM – 2:00 PM  WSASAS Executive Committee, CSU Vet Medicine Room  

*ARPAS exams will be scheduled as applications are received. Contact the ARPAS headquarters to schedule an exam (arpas@assochq.org).

Uploading Presentation Files

Upload of PowerPoint files for oral presentations will be conducted in the CSU Aggie Room on the 2nd floor of the Hilton Fort Collins. Files must be uploaded between 4:00 PM and 5:30 PM of the day prior to the scheduled presentation time.

Oral Presentation  
Tuesday, June 16  
Wednesday, June 17  
Thursday, June 18  

Upload Deadline, 5:30 PM  
Monday, June 15  
Tuesday, June 16  
Wednesday, June 17  

Tuesday, June 16

SYMPOSIA AND ORAL SESSIONS

Beef Symposium
Chair: Dr. Steve Paisley, University of Wyoming
Salon I/V

8:45 AM  
Welcome to Colorado. Mr. William Wailes, Head, Department of Animal Sciences, Colorado State University, Fort Collins, CO.

9:00 AM  
Introductions. Dr. Steve Paisley, University of Wyoming, Lingle, WY.

9:15 AM  
Animal welfare: finding solutions in all circumstances. Mr. Ivan Steinke, Colorado Livestock Association, Greeley, CO.

10:00 AM  
Raising beef in a first world country: science, media and politics. Dr. Tom Field, National Cattlemen’s Beef Association, Englewood, CO.

10:45 AM  
Break.

11:00 AM  
What I see as public relations concerns about animal welfare. Dr. Temple Grandin, Department of Animal Sciences, Colorado State University.

11:45 AM  
Lunch.

1:15 PM  
Recent and upcoming rules related to air quality and cattle operations. Dr. Andy Cole, USDA-ARS Conservation and Production Research Laboratory, Bushland, TX.

2:00 PM  
Carbon credits and how they apply to the cattle industry. Dr. Terry Mader, Animal Science Department, University of Nebraska, Concord, NE.

2:45 PM  
Break.

3:00 PM  
Beef marketing and cattle management that emphasizes animal welfare. Mr. Wade Small, AgriBeef Co., Boise, ID.

3:45 PM  
Current issues concerning animal agriculture and the environment. Mr. Dennis Avery, Center for Global Food Issues, The Hudson Institute, Washington, DC.
Wednesday, June 17
Graduate Student Paper Competition
Chair: Dr. Shanna Ivey, New Mexico State University
Salon I/V

8:00 AM  Welcome and Introductions. Dr. Denny Crews, Secretary-Treasurer, WSASAS, Colorado State University; Dr. Richard Battaglia, President, WSASAS, University of Idaho; Dr. Lee Sommers, Interim Dean, College of Agricultural Sciences, Colorado State University.


8:30 AM  23 Influence of thiamin supplementation on feedlot performance, carcass quality, and incidence of polioencephalomalacia in lambs fed a 60% distillers dried grains with solubles finishing rations. B. W. Neville*, C. S. Schauer², K. Karges³, M. L. Gibson⁴, M. M. Thompson², P. T. Berg¹, and G. P. Lardy¹, ¹North Dakota State University, Fargo, ²Hettinger Research and Extension Center, Hettinger, ND, ³Dakota Gold Research Association, Sioux Falls, SD.

8:45 AM  24 Pregnancy rate, offspring performance and serum prolactin, estradiol, insulin, and glucose concentrations in ewes treated with recombinant bovine somatotropin before breeding. L. E. Camacho*, J. M. Benavidez, and D. M. Hallford, New Mexico State University, Las Cruces.

9:00 AM  25 The effects of starch or fiber based supplements on nutrient digestion by wethers and feeding behavior by heifers. T. J. McDonald*, J. A. Paterson, B. M. Nichols, and M. M. Harbac, Montana State University, Bozeman.

9:15 AM  26 Ruminal metabolism during continuous culture fermentation when replacing alfalfa (Medicago sativa L.) hay with birdsfoot trefoil (Lotus corniculatus L.) hay. C. M. Williams*, C. M. Dschaak, J.-S. Eun, A. J. Young, and J. W. MacAdam, Utah State University, Logan.


9:45 AM  Break.
10:00 AM 28 Microsatellite ETH10 in the promoter of signal transducer and activator of transcription-6 gene predicts 205-d weight in Red Angus cattle. K. L. DeAtley*, G. Rincon², C. R. Farber², J. F. Medrano², R. M. Enns³, D. VanLeeuwen¹, G. A. Silver¹, and M. G. Thomas¹, ¹New Mexico State University, Las Cruces, ²University of California, Davis, ³Colorado State University, Fort Collins.


10:30 AM 30 Influence of stocking density on grazing beef cattle performance, diet composition, foraging efficiency, and diet quality on a late-spring early-summer native bunchgrass prairie. S. Wyffels¹*, T. DelCurto¹, A. Clark¹, P. Kennedy¹, R. Taylor², and S. Debano³, ¹Eastern Oregon Agricultural Research Center, Oregon State University, Union, ²The Nature Conservancy, Enterprise, OR, ³Hermiston Agricultural Research and Extension Center, Oregon State University, Hermiston.

10:45 AM 31 Analysis of estrone sulphate, testosterone, and cortisol concentrations around time of ejaculation and potential correlation to sexual behavior and sperm characteristics in Stallions. J. Seale*, G. Briers, D. Sigler, and C. Cavinder, Texas A&M University, College Station.


2008 Distinguished Service Award
Chair: Dr. Gary Moss, University of Wyoming
Salon I/V

11:15 AM Introduction. Dr. Gary Moss, University of Wyoming.

Environment and Livestock Management

Chair: Dr. Shawn Archibeque, Colorado State University
The Rams Room

1:15 PM 10 Beef calf performance and carcass characteristics following rumen-protected choline supplementation of cows during the periparturient period. J. R. Jaeger*, K. C. Olson, S. R. Goodall, and J. W. Bolte, Kansas State University, Manhattan.

1:30 PM 11 Post weaning management of heifer calves impacts average daily gain and feed efficiency as pregnant heifers. D. M. Larson, T. L. Meyer*, L. A. Stalker, and R. N. Funston, West Central Research and Extension Center, North Platte, NE.

1:45 PM 12 Extending grazing in heifer development systems decreases costs without compromising production. D. M. Larson*, A. S. Cupp², and R. N. Funston¹, ¹West Central Research and Extension Center, North Platte, NE, ²University of Nebraska, Lincoln.

2:00 PM 13 Estrus synchronization increases early calving frequency, which enhances steer progeny value. D. M. Larson* and R. N. Funston, West Central Research and Extension Center, North Platte, NE.

2:15 PM 14 Increasing glucogenic precursors in range supplements improves reproductive efficiency and profitability in young postpartum range cows in years 2000 to 2007. J. T. Mulliniks*, S. H. Cox¹, M. E. Kemp¹, R. L. Endecott², R. C. Waterman³, and M. K. Petersen³, ¹New Mexico State University, Las Cruces, ²Montana State University, Miles City, ³USDA-ARS, Fort Keogh Livestock and Range Research Laboratory, Miles City, MT.

2:30 PM 15 Impact of body condition score on reproductive performance in young postpartum range cows grazing native range. J. T. Mulliniks*, S. H. Cox¹, M. E. Kemp¹, R. L. Endecott², R. C. Waterman³, and M. K. Petersen³, ¹New Mexico State University, Las Cruces, ²Montana State University, Miles City, ³USDA-ARS, Fort Keogh Livestock and Range Research Laboratory, Miles City, MT.

2:45 PM 16 Implications of going against the dogma of feed them to breed them. A. J. Roberts*, E. E. Grings, R. C. Waterman, T. W. Geary, L. J. Alexander, and M. D. MacNeil, USDA-ARS, LARRL, Miles City, MT.

3:00 PM Break.

3:30 PM 18 Factors influencing the adoption of best management practices for feedlot ammonia emissions. C. H. Davidson*, J. G. Pritchett, N. M. Embertson, and J. G. Davis, Colorado State University, Fort Collins.

3:45 PM 19 Efficacy of best management practices for ammonia reduction on feedlots and dairies. N. M. Embertson and J. G. Davis, Colorado State University, Fort Collins.

4:00 PM 20 The influence of lactation on botanical composition and diet quality of cattle grazing at different stocking densities in a mixed grass prairie. A. Clark*, T. DelCurto, S. Wyffels, C. Mueller, and G. Tschida, Eastern Oregon Agricultural Research Center, Oregon State University, Union.

4:15 PM 21 Comparison of feeding wet distillers grains in a bunk or on the ground to cattle grazing native Sandhills winter range. J. A. Musgrave*, L. A. Stalker, and T. J. Klopfenstein, University of Nebraska, Lincoln.

**Extension Symposium**

Chair: Dr. Jim Sprinkle, University of Arizona
Salon I/V

1:15 PM Welcome and Introductions. Dr. Jim Sprinkle, Chair, WSASAS Extension Committee.

1:20 PM How Can Cooperative Extension Continue Our Mission in the Midst of the Current Funding Climate? Dr. Deborah Young, Director of Extension, Colorado State University.

1:40 PM Funding Opportunities for Multi-State Extension Programming. Dr. Pete Burfening, National Program Leader, Competitive Programs, CSREES.

2:10 PM Partnering with Extension to Deliver Producer Education. Dr. Tom Field, Director of Producer Education, National Cattlemen’s Beef Association.

2:40 PM Oregon State University Annual Beef Cattlemen’s Workshop. Dr. Tim DelCurto and Mr. Cory Parsons, Oregon State University.

2:55 PM Break.

3:15 PM Targeted Grazing. Dr. Rodney Kott and Dr. Lisa Surber, Montana State University.

3:30 PM Reading the Range. Dr. Jim Sprinkle, University of Arizona.
Wyoming Master Cattleman Program. Mr. Bridger Feuz, University of Wyoming.

Questions from the Audience. Dr. Benton Glaze, Moderator, University of Idaho.

Physiology I - Synchronization
Chair: Dr. Kraig Peel, Colorado State University
Salon II


1:30 PM  38  Reproductive performance of beef heifers exposed to bulls during an estrus synchronization protocol that included a 14-d CIDR, PGF2, and timed AI and GnRH. J. Berardinelli*, S. Tauck, J. Wilkinson, J. Olsen, T. Gibbs, and L. Runnion, Montana State University, Bozeman.


2:00 PM  40  Use of either a 7 or 14 d CIDR treatments in an estrus synchronization protocol that included PGF2, and timed AI and GnRH in postpartum, suckled beef cows. S. A. Tauck*, J. R. C. Wilkinson, J. R. Olsen, P. Olind, K. C. Davis, and J. G. Berardinelli, Montana State University, Bozeman.

2:15 PM  41  Comparison of a modified 5-day CO-Synch plus CIDR protocol with CO-Synch plus CIDR protocol in mature beef cows. S. K. Johnson*, J. R. Jaeger, K. Harmoney, and J. W. Bolte, KSU Northwest Research-Extension Center, Colby, KS, KSU Agriculture Research Center, Hays, KS.


Digestibility of dormant warm season vegetation with addition of supplemental protein. P. H. Sanchez*, S. L. Ivey¹, S. H. Cox¹, R. L. Dunlap II¹, C. A. Lœest¹, and M. K. Petersen², ¹New Mexico State University, Las Cruces, ²USDA-ARS, Ft. Keogh Livestock and Range Research Laboratory, Miles City, MT.

Feeding chile pepper byproduct with alfalfa hay decreases total tract diet digestibility in beef steers. C. Graham*, D. Cazac, C. P. Mathis, and C. A. Lœest, New Mexico State University, Las Cruces.


Physiology II - Nutrition and Behavior

Chair: Dr. Hyungchul Han, Colorado State University
Salon II


3:30 PM  44  Growth and attainment of puberty in calves from beef cows supplemented with linseed meal during late gestation. B. R. Ilse*, V. L. Anderson1, J. D. Kirsch2, D. S. Buchanan3, and K. A. Vonnahme4, 1North Dakota State University, Carrington, 2North Dakota State University, Fargo.


4:00 PM  46  Late gestational nutrition of the mare and subsequent effects on adrenal function of the offspring as a yearling. S. Burns*, C. Hammer2, J. Coverdale1, and C. Cavinder2, 1Texas A&M University, College Station, 2North Dakota State University, Fargo.

4:15 PM  47  Fasting lowers gastrin-releasing peptide and FSH mRNA in the ovine anterior pituitary gland. A. M. Fuller*, K. J. Austin1, A. J. Roberts2, G. E. Moss1, and B. M. Alexander1, 1University of Wyoming, Laramie, 2USDA-ARS, Miles City, MT.

4:30 PM  48  Beef cow performance following rumen-protected choline supplementation during the prepartum period. J. R. Jaeger*, K. C. Olson, S. R. Goodall, and J. W. Bolte, Kansas State University, Manhattan.
Effect of winter supplementation on glucose metabolism pre- and postpartum. F. W. Harrelson*, S. L. Lodge-Ivey¹, S. H. Cox¹, R. L. Dunlap II², J. T. Mulliniks¹, B. H. Carter¹, C. A. Loest¹, and M. K. Petersen², ¹New Mexico State University, Las Cruces, ²USDA-ARS Ft. Keogh Livestock and Range Research Laboratory, Miles City, MT.


A self-fed, small-package protein supplement for post-weaning beef cows. R. L. Endecott*¹ and R. C. Waterman², ¹Montana State University, Miles City, ²USDA-ARS, Fort Keogh Livestock and Range Research Laboratory, Miles City, MT.


Effects of nutritional plane and selenium supply on cellularity estimates of neonatal lamb jejunal mucosa, heart, and skeletal muscle. T. L. Neville**, A. M. Meyer¹, J. J. Reed¹, J. B. Taylor², L. P. Reynolds¹, D. A. Redmer¹, K. R. Maddock Carlin¹, K. A. Vonnahme¹, and J. S. Caton¹, ¹North Dakota State University, Fargo, ²USDA-ARS, U. S. Sheep Experiment Station, Dubois, ID.

Impact of gastrointestinal parasites on antibody titer responses to vaccination and IBR challenge in Holstein calves. J. S. Schutz*, E. D. Sharman¹, N. E. Davis¹, J. Carroll², K. L. Neuhold¹, T. E. Engle¹, T. Shelton³, S. Nordstrom³, and J. Hutcheson³, ¹Colorado State University, Fort Collins, ²USDA-ARS-Livestock Issues Research Unit, Lubbock, TX, ³Intervet Schering-Plough Animal Health, Desoto, KS.
Poster sessions will be held in the Atrium at the Hilton Fort Collins. Presenters are to mount their poster to the appropriate board (see below) prior to the reception on the evening of Tuesday, June 16. Posters will then be removed after the last session on Thursday, June 18. Specific times when presenters should be present with their posters is indicated below.

**Posters I**

Chair: Dr. Mark Enns, Colorado State University Atrium

(Authors Present 1:00 pm–3:00 pm, Wednesday, June 17)

**Behavior**


**Breeding and Genetics**


75 Estimates of genetic parameters for growth traits of Brahman, Brangus, Charolais, Gelbeih, and Simmental. A. Pérez*, M. Montañó1, J. S. Saucedo1, J. A. Terriquez1, and J. N. Guerrero2, 1Instituto de Ciencias Agrícolas, Mexicali, Baja California, México, 2Natural and Research Institute, Holtville, CA.

76 Associations of prolactin receptor (PRLR) genotypes and reproductive traits in pigs. A. Barreras-Serrano1, J. G. Herrera-Haro2, S. Hori-Oshima1, C. Lemus-Flores3, A. L. Kinejara- Espinoza1, A. González-Arangüer, and J. G. Soto-Avila1, 1Universidad Autónoma de Baja California, Mexicali, Baja California, México, 2Programa Recursos Genéticos y Productividad-Ganadería, Colegio de Postgraduados, Montecillo, Edo. de México, México, 3Universidad Autónoma de Nayarit, Tepic, Nayarit, México.
Extension

Determining the viability of composting on-farm feedstuffs and animal waste in northern Montana. J. M. Dafoe* and D. L. Boss, Montana State University, Havre, MT.

Growth & Development

The effects of maternal obesity and high nutrient intake on ovine colostrum nutrient composition. N. M. Long*,1,2, A. B. Uthlaut1,2, D. C. Rule1, P. W. Nathaniel1sz2,3, and S. P. Ford1,2, 1Center for the study of fetal programming, Laramie, WY, 2University of Wyoming, Laramie, 3University of Texas Health Sciences Center, San Antonio.

Meat Science & Muscle Biology

Effects of implanting and castration on carcass characteristics of hair lambs fed a high-concentrate diet. G. Villalobos*,1, F. Nuñez1, H. González-Rios2, D. Domínguez1, H. Castillo1, and J. Ortega1, 1Universidad Autónoma de Chihuahua, Chihuahua, Chihuahua, Mexico, 2CIAD, Hermosillo, Sonora, Mexico.

Pastures and Forages

Adaptation of warm-season annual legumes for forage in southeastern New Mexico. D. Calderon-Mendoza*,1, A. Islas2, M. F. Martínez-Perez2, J. Armeñídez2, F. E. Contreras-Govea3, S. Angadi3, M. Marsalis3, L. Lauriault5, and S. A. Soto-Navarro5, 1Universidad Autónoma de Baja California, Mexicali, BC, Mexico, 2New Mexico State University, Las Cruces, 3New Mexico State University, Artesia, 4New Mexico State University, Clovis, 5New Mexico State University, Tucumcari.


Physiology

Microarray analysis of bovine granulosa cells from normal and cystic follicles. J. A. Grado-Ahuir*,2, P. Y. Aad1, and L. J. Spicer1, 1Oklahoma State University, Stillwater, 2Universidad Autónoma de Chihuahua, Chihuahua, Chihuahua, Mexico.
Serum hormone profiles and cyclic activity in prepubertal Rambouillet ewes treated with progesterone and pregnant mare’s serum gonadotropin. K. A. Jurado*, A. D. Stapp, L. E. Camacho, A. N. Iroz, and D. M. Hallford, New Mexico State University, Las Cruces.

Effect of post weaning GnRH-A injection on reproductive performance of sows. J. A. Romo*1, J. M. Romo1,2, O. S. Acuña1, H. R. Guemez1,2, R. Barajas1, F. Juarez1, and S. A. Felix1, 1FMVZ-Universidad Autónoma de Sinaloa, Culiacan, Sinaloa, Mexico, 2Granja Porcina La Huerta, Culiacan, Sinaloa, Mexico.

Ovarian activity postpartum in Holstein cows in the northwest of Mexico. M. P. Gallegos1, H. L. Castro1, J. R. Cervantes2, J. F. Villarreal2, J. S. Saucedo3, A. Pérez3, and M. Montaño3, 1Universidad Juárez del Estado de Durango, Durango, Durango, México, 2Universidad Autónoma de Nuevo León, Monterrey, Nuevo León, México, 3Universidad Autónoma de Baja California, Mexicali, Baja California, México.
Thursday, June 18
Annual Business Meeting

Chair: Dr. Richard Battaglia, University of Idaho
Salon I/V

8:00 AM  Business Meeting.

SYMPOSIA AND ORAL SESSIONS

Breeding and Genetics
Chair: Dr. Harvey Blackburn, USDA-ARS-NCGRP
The Rams Room


9:30 AM  3  Growth endocrine axis and bovine chromosome 5: Association of SNP genotypes and reproductive phenotypes in an Angus, Brahman, and Romosinuano diallele. P. Luna-Nevarez*, G. Rincon2, D. G. Riley2, C. C. Chase3, J. F. Medrano2, D. VanLeeuwen1, G. A. Silver1, and M. G. Thomas1, 1New Mexico State University, Las Cruces, 2University of California, Davis, 3USDA-ARS, STARS, Brooksville, FL.

9:45 AM  Break.

10:00 AM  4  Aggregate stayability - using information from younger ages. B. W. Brigham*,1, S. E. Speidel1, D. J. Garrick2, L. D. Keenan3, and R. M. Enns1, 1Colorado State University, Fort Collins, 2Iowa State University, Ames, 3Red Angus Association of America, Denton, TX.

10:15 AM  5  Phenotypic relationships of residual feed intake with growth and carcass performance traits of spring-born Angus bulls. G. E. Berryhill*,1, S. P. Doyle1, and L. Rechel1, 1California State University, Chico, 2Snyder Livestock Company, Inc., Yerington, NV.


Pollak, 1Colorado State University, Fort Collins, 2University of Missouri, Columbia, 3West Texas A&M University, Canyon, 4University of Illinois, Urbana, 5South Dakota State University, Brookings, 6Cornell University, Ithaca, NY.

11:00 AM 8 Relationship between ultrasonically-measured beef cow carcass traits and lifetime productivity. L. A. Pacheco*, J. R. Jaeger, J. M. Bormann, and K. C. Olson, Kansas State University, Manhattan.

11:15 AM 9 Genetic parameters for cow weight and height using a repeatability model in American Angus cattle. M. G. Dib*1, M. L. Spangler1, and L. D. Van Vleck1,2, 1University of Nebraska, Lincoln, 2ARS-USDA, Lincoln, NE.

Meat Science & Muscle Biology
Chair: Dr. J. Daryl Tatum, Colorado State University
Green & Gold


Pastures and Forages
Chair: Dr. Shawn Archibeque, Colorado State University
Green & Gold

10:00 AM 34 Effects of level of supplemental flax oil on ruminal disappearance of soybean meal. E. J. Scholljegerdes*, USDA-ARS, Northern Great Plains Research Laboratory, Mandan, ND.

10:15 AM 35 Winter cereals as a pasture-hay system in Montana. A. N. Hafla*1, S. D. Cash1, L. M. M. Surber1, J. A. Paterson1, A. W. Lenssen2, A. L. Todd1, and M. S. Huffman1, 1Montana State University, Bozeman, 2Northern Plains Agricultural Research Unit, USDA-ARS, Sidney, MT.

10:30 AM 36 Supplemental corn dry distiller grains plus solubles on performance of steers grazing native range. M. F. Martinez-Perez*1, D. Calderon-Mendoza2,3, F. Loya-Holguin2,3, C. Murdock3, A. M. Encinias3, and S. A. Soto-Navarro1, 1New Mexico State University, Las Cruces, 2Instituto de Ciencias Agricolas, Mexicali, BC, Mexico, 3New Mexico State University, Clayton.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>10:00 AM</td>
<td>49</td>
<td>Reproductive performance of Bison (<em>bison bison</em>) at the National Bison Range.</td>
<td>M. J. Borgreen¹,², T. Roffe², K. Phillips¹, and J. G. Berardinelli², ¹Montana State University, Bozeman, ²U.S. Fish and Wildlife Service, Bozeman, MT.</td>
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<tr>
<td>10:15 AM</td>
<td>50</td>
<td>Duration of daily bull exposure on leptin concentrations during resumption of ovulatory activity in primiparous, postpartum, anestrous, beef cows.</td>
<td>J. R. Olsen*, S. A. Tauck¹, J. R. C. Wilkinson¹, D. H. Keisler², and J. G. Berardinelli², ¹Montana State University, Bozeman, ²University of Missouri, Columbia.</td>
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<tr>
<td>10:45 AM</td>
<td>52</td>
<td>Effect of sex of co-twin and breed on ewe flock productivity.</td>
<td>V. A. Uthlaut*, B. M. Alexander, and G. E. Moss, University of Wyoming, Laramie.</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>55</td>
<td>Serum progesterone profiles and conception rates in Rambouillet ewes treated with intravaginal progesterone at two stages of the estrous cycle.</td>
<td>A. N. Iroz*, L. E. Camacho, A. D. Stapp, K. A. Jurado, M. B. Horvath, and D. M. Hallford, New Mexico State University, Las Cruces.</td>
</tr>
<tr>
<td>11:45 AM</td>
<td>56</td>
<td>Serum progesterone, prolactin, and thyroid hormone profiles in nulliparous Rambouillet ewes after removal of an intravaginal progesterone insert.</td>
<td>A. D. Stapp*, K. A. Jurado, L. E. Camacho, A. N. Iroz, and D. M. Hallford, New Mexico State University, Las Cruces.</td>
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The effects of co-ensiling wet distiller’s grains plus solubles with haylage on feedlot performance and carcass characteristics of finishing steers. R. P. Arias*, R. P. Lemenager, L. J. Snyder, and S. L. Lake, *Purdue University, West Lafayette, IN, University of Wyoming, Laramie.


The effects of re-ensiling wet distiller’s grains plus solubles with corn silage on growth performance of yearling beef heifers. R. P. Arias*, R. P. Lemenager, L. J. Snyder, and S. L. Lake, *Purdue University, West Lafayette, IN, University of Wyoming, Laramie, WY.
Poster sessions will be held in the Atrium at the Hilton Fort Collins. Presenters are to mount their poster to the appropriate board (see below) prior to the reception on the evening of Tuesday, June 16. Posters will then be removed after the last session on Thursday, June 18. Specific times when presenters should be present with their posters is indicated below.

### Posters II

**Chair:** Dr. Mark Enns, Colorado State University  
**Atrium**

*(Authors Present 9:15 am–11:15 am, Thursday, June 18)*

#### Environment & Livestock Management

<table>
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<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
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<tr>
<td>88</td>
<td>Development and implementation of a vertically-integrated beef cattle data collection system.</td>
<td>D. J. Drake*, A. L. Van Eenennaam*, and J. D. Lowe*, 1University of California, Davis, 2Midwest MicroSystems, Lincoln, NE.</td>
</tr>
<tr>
<td>89</td>
<td>Influence of pen-shade on feedlot performance and carcass characteristics of bulls naturally exposed long time to high temperature.</td>
<td>R. Barajas*, B. J. Cervantes1,2, M. A. Espino1,2, F. Juarez*, J. A. Romo*, and E. A. Velazquez*, 1FMVZ-Universidad Autonoma de Sinaloa, Culiacan, Sinaloa, Mexico, 2Ganadera Los Migueles SA de CV, Culiacan, Sinaloa, Mexico, 3Tecnologia de Maxima Produccion, S.A. de C.V., Culiacan, Sinaloa, Mexico.</td>
</tr>
</tbody>
</table>
Nonruminant Nutrition

92 Validation of acid insoluble ash (AIA) as an internal biomarker for digestibility studies in harbor seals (Phoca vitulina). K. S. Yamamoto*, J. R. Carpenter, S. Atkinson, L. Polasek, and H. Zaleski, 1University of HI at Manoa, Honolulu, 2Alaska SeaLife Center, Seward, AK.


Ruminant Nutrition

95 Microhistological characterization of the botanical composition of diets grazed by beef cows in the Kansas Flint Hills during winter. G. J. Eckerle*, K. C. Olson, W. H. Fick, L. A. Pacheco, and K. Walburget, 1Kanas State University, Manhattan, 2University of Saskatchewan, Saskatoon, Saskatchewan, CN.

96 Effects of supplemental energy on post-ruminal utilization of tryptophan by growing lambs. S. A. Kuykendall, L. E. Camacho, L. Chen, and C. A. Lóest, New Mexico State University, Las Cruces.

97 Conception rate of first calf heifers supplemented with different protein concentrates in the tropics. R. Mora*, C. F. Chicco, S. Godoy, and A. Herrera, Postgrado de Producción Animal, Universidad Central de Venezuela, Maracay, Aragua, Venezuela.

98 The feed value of dry distillers grains plus soluble in 90% concentrate diets for feedlot lambs. G. Orosco, M. F. Martinez-Perez, Y. Diaz, J. M. Garcia-Madrid, A. Islas, J. D. Thomas, and S. A. Soto-Navarro*, New Mexico State University, Las Cruces.

99 Effects of time of transporting prior to sale date on selling weight of weaned steer calves. L. M. Kovarik*, M. K. Luebbe, J. R. Benton, G. E. Erickson, and R. J. Rasby, University of Nebraska-Lincoln, Lincoln.


102 Effect of zeranol and sex condition on finishing hair lamb performance. G. Villalobos*, F. Núñez¹, H. González-Ríos², D. Domínguez¹, H. Castillo¹, J. Valles¹, and M. Luján¹, ¹Universidad Autonoma de Chihuahua, Chihuahua, Mexico, ²CIAD, Hermosillo, Sonora, Mexico.


106 Effect of sunflower oil supplementation on nutrients digestibility and milk fat content of conjugated linoleic acid in dairy camels. S. N. Al-Dobaib*, Qassim University, Buriedah-51452, Saudi Arabia.
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1999  A.M. Swinker, Colorado State University  
1998  J.C. Whittier, Colorado State University  
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