

Western Section

American Society of Animal Science

76th Annual Meeting



Oregon State University

Corvallis, Oregon

LaSells Stewart Center

June 16–18, 2004

WESTERN SECTION AMERICAN SOCIETY OF ANIMAL SCIENCE

Summary of Scheduled Events

Tuesday, June 15, 2004

- 4:00–7:00 p.m. Registration and Check-in
LaSells Stewart Center
(LSC) Maple Tree Alcove
- 4:30–6:00 p.m. WSASAS Executive
Committee Meeting, LSC

Wednesday, June 16, 2004

- 7:30 a.m.–5:00 p.m. Registration
LSC, Maple Tree Alcove
- 8:00 a.m.–5:00 p.m. Beef Symposium, Repro-
ductive Management for
Extensive Environments
LSC, Construction &
Eng. Auditorium
- 6:30–9:00 p.m. Informal reception
LSC, C. A. Anderson
Courtyard

Thursday, June 17, 2004

- 7:30 a.m.–5:00 p.m. Registration
LSC, Maple Tree Alcove
- 8:00–10:00 a.m. Graduate Student Competi-
tion
LSC, Austin Auditorium
- 10:00–10:15 a.m. Break
- 10:15–11:45 a.m. Graduate Student Competi-
tion
LSC, Austin Auditorium
- 12:00–1:30 p.m. Graduate Student Luncheon
CH2M Hill Alumni
Center, Dr. David
Froman, Oregon State
University
So You Want to be a
Scientist: How Fast Can
You Adapt?
- 12:00–1:00 p.m. Poster Set-up
CH2M Hill Alumni
Center, Ballroom

1:00–4:30 p.m.	Posters I – <i>Physiology, Ruminant Nutrition, and Environment and Livestock Production</i> CH2M Hill Alumni Center, Ballroom
1:30–4:30 p.m.	Breeding and Genetics LSC, Agriculture Science Room
1:30–3:30 p.m.	Extension Symposium LSC, Agriculture Production Room
1:30–3:30 p.m.	Pastures and Forages LSC, Agriculture Leaders Room
2:30–3:30 p.m.	Ruminant Nutrition I LSC, Construction & Eng. Auditorium
3:00–3:30 p.m.	Break
6:30 p.m.	Barbecue and Awards Program CH2M Hill Alumni Center, Garden Area

Friday, June 18, 2004

8:00 – 12:00 p.m.	Registration LSC, Maple Tree Alcove
8:00 – 9:15 a.m.	Business Meeting & Distinguished Service Award Presentation, Dr. Temple Grandin, Colorado State University LSC, Construction & Eng. Auditorium
8:00 – 9:00 a.m.	Poster Set-up CH2M Hill Alumni Center, Ballroom
9:00 – 11:30 a.m.	Posters II – <i>Breeding and Genetics, Environment and Livestock Production, Extension, Growth, Meat Science, Nonruminant Nutrition, and Pastures and Forages</i> CH2M Hill Alumni Center, Ballroom

9:15 – 11:00 a.m.	Environment and Livestock Management LSC, Agriculture Production Room
9:30 – 11:00 a.m.	Physiology LSC, Agriculture Science Room
9:30 – 11:00 a.m.	Ruminant Nutrition II LSC, Agriculture Leaders Room
10:00 – 10:30 a.m.	Break
12:00 noon	Adjourn
12:30 – 2:00 p.m.	WSASAS Executive Com- mittee Meeting

2004 ASAS Western Section Meeting

Wednesday, June 16, 2004 to Friday, June 18, 2004

Reproductive Management for Extensive Environments

Western Section, American Society of Animal Science

Oregon State University, Corvallis Oregon

Wednesday, June 16, 2004, 8:00 a.m. – 5:00 p.m.

LSC - Construction & Eng. Auditorium

7:00–8:00 a.m.	Registration
8:00–8:15 a.m.	Introductions & Welcome Dr. Jack Whittier, Colorado State University, WSASAS President Dr. Gary Pulsipher, Eastern Oregon Ag. Res. Center, Symposium Chair
8:15–9:15 a.m.	The Importance of Calving Distribution And Reproductive Efficiency on Returns to the Cow/Calf Producer Dr. Norman Dalsted, Colorado State University, Department of Agricultural and Resource Economics
9:15–10:15 a.m.	Nutritional Controls On Reproduction Dr. Bret Hess, University of Wyoming, Department of Animal Science
10:15–10:45 a.m.	Break
10:45–11:45 a.m.	Range Management For Efficient Reproduction Dr. Kenneth Olson, Utah State University, Department of Animal Dairy and Veterinary Sciences
11:45 a.m.–12:00	Introduction of Sponsors
12:00–1:30 p.m.	Lunch

1:30–2:30 p.m.	Management Considerations To Improve Reproductive Performance Dr. Dean Hawkins, New Mexico State University, Department of Animal and Range Sciences
2:30–3:30 p.m.	Manipulating Reproduction In Extensive Environments Dr. Thomas Geary, USDA-ARS Fort Keogh Livestock and Research Laboratory
3:30–4:00 p.m.	Break
4:00–5:00 p.m.	Putting It Together: Can We Improve Reproductive Efficiency In All Environments Or Scenarios

Graduate Student Competition - Oral

Session Chair: Gary Moss, University of Wyoming
Thursday, June 17, 2004, 8:00 a.m. – 11:45 a.m.
LSC - Austin Auditorium

Pres. Time	Ab #	Title/Author Information
8:00 a.m.	37	Fertility in beef heifers synchronized using a modified Co-Synch plus CIDR protocol with or without GnRH at timed AI. R. S. Walker* ¹ , M. Enns ² , T. W. Geary ³ , N. W Wamsley ² , E. R. Downing ² , R. G. Mortimer ² , B. A. LaShell ¹ , D. D. Zalesky ¹ ; ¹ San Juan Basin Research Center, ² Colorado State University, ³ USDA-ARS
8:15 a.m.	38	Validation and improvement of the Texas A&M Grazinglands Animal Nutrition Laboratory near-infrared reflectance spectroscopy prediction equation. A.D. Jinks*, J.W. Oltjen, P.H. Robinson, C.C. Calvert; University of California, Davis
8:30 a.m.	39	Efficacy of an intravaginal progesterone insert and an injection of PGF-{2a}- to advance date of breeding in postpartum beef cows while utilizing natural service. J.L. Olson* ¹ , A.J. Roberts ² , R.P. Ansotegui ¹ , J.A. Paterson ¹ , R.N. Funston ³ ; ¹ Montana State University, ² USDA-ARS, ³ University of Nebraska
8:45 a.m.	40	Glucose half-life of young postpartum lactating cows was half that of non-lactating herd mates. R. L. Endecott*, C. M. Black, K.

		A. Notah, J. L. Duffey, K. L. Shirley, S. H. Cox, J. A. Hartung, C. A. Loest, M. K. Petersen; New Mexico State University
9:00 a.m.	41	Endogenous prostaglandin F _{2a} concentrations in bovine whole semen, seminal plasma and extended semen. John R. Jaeger*, Timothy DelCurto; EOARC- Union Station, Oregon State University
9:15 a.m.	42	Response of Gestating Beef Cows to Limit-Fed Diets Containing Rolled Barley. E.H. Ward*, H.H. Patterson, R.J. Pruitt; South Dakota State University
9:30 a.m.	43	Reproductive characteristics of grass fed LHRH immunocastrated <i>Bos indicus</i> bulls. J. A. Hernandez* ¹ , E. L. Zanella ² , R. Bogden ³ , D. M. deAvila ¹ , J. J. Reeves ¹ ; ¹ Washington State University Pullman, WA, ² Universidade e Passo Fundo Passo Fundo-RS, Brazil, ³ Amplicon Express
9:45 a.m.	44	Effects of supplemental high-linoleate or high-oleate safflower seeds on adipose tissue fatty acids, apparent mobilization, and potential uptake and storage in postpartum cows. S. L. Lake*, B. W. Hess, D. C. Rule, Eric J. Scholljegerdes, V. Nayigihugu, R. L. Atkinson, C. M. Murrieta; University of Wyoming Laramie, WY 82071
10:00 a.m.		Break
10:15 a.m.	45	Genetic parameter estimates for yearling scrotal circumference and semen traits of Line 1 Hereford bulls. C. G. Kealey* ¹ , M. D. MacNeil ² , M.W. Tess ¹ , R. E. Bellows ² ; ¹ Montana State University, ² USDA-ARS, Fort Keogh Livestock and Range Research Laboratory
10:30 a.m.	46	Effects of short-term propylthiouracil and melatonin treatment during gestation on serum thyroxine, postpartum reproduction, and lamb performance in fine-wool ewes. C. A. Gifford*, R. L. Knight, J. L. Duffey, D. M. Hallford; New Mexico State University
10:45 a.m.	47	Supplemental fat in limit-fed, high grain prepartum diets of beef cows: Effects on cow weight gain, reproduction, and calf health, immunity, and performance. W.T. Small* ¹ , S.I. Paisley ¹ , B.W. Hess ¹ , S.L. Lake ¹ , E.J. Scholljegerdes ¹ , T.A. Reed ¹ , E.L. Belden ¹ , S. Bartle ² ; ¹ University of Wyoming, ² ADM Alliance Inc.
11:00 a.m.	48	Effects of barley cultivar and growing environment on feedlot performance and carcass characteristics of finishing beef cattle. M.F. McDonnell*, J.G.P. Bowman, C.W. Labbe; Montana State University
11:15 a.m.	49	Effects of in vivo infusion of a nitric oxide donor on progesterone secretion by the bovine corpus luteum. John S. Nelson*, Kim K. Kane, Rebecca S. Kelling, Reyna D. Speckmann, Lane M. Dixon, Dean E. Hawkins; New Mexico State University

11:30 a.m. 50 Breeding performance of first-calf suckled beef cows exposed to bulls before, during, and after an estrous synchronization protocol that included CIDR, PGF_{2a}, GnRH and timed AI. Shaun A. Tauck*, James G. Berardinelli; Montana State University Dept. of Animal and Range Sciences

Breeding and Genetics - Oral

Session Chair: Michael MacNeil, USDA-ARS, Fort Keogh Livestock and Range Res. Lab.
Thursday, June 17, 2004, 1:30 p.m. – 4:30 p.m.
LSC - Agriculture Science Room

Pres. Time	Ab #	Title/Author Information
1:30 p.m.		Invited Speaker - Ephraim Matjuda, Deputy Director, Agricultural Research Council, Animal Improvement Institute, Irene, South Africa. Using animal breeding technologies to assist resource poor emerging farmers.
2:30 p.m.	1	Genetic analysis of two lines of Rambouillet sheep divergently selected for lambing rate. Breanne R. Ilse*, Janice M. Rumph, K.C. Davis, Stephanie L. Wallin; Department of Animal and Range Sciences, Montana State University
2:45 p.m.	2	Changes in body weight, pelvic measures and semen characteristics of Hereford cattle due to selection for scrotal circumference. K.C. Davis* ¹ , Donald C. Anderson ^{1,2} , Don D. Kress ¹ , Janice M. Rumph ¹ , Darrin L. Boss ² ; ¹ Department of Animal and Range Sciences, Montana State University, ² Northern Agricultural Research Center, Montana State University
3:00 p.m.		Break
3:15 p.m.	3	Genetic parameters among growth and carcass traits of Canadian Charolais cattle. D. H. Crews, Jr* ¹ , M. Lowerison ² , N. Caron ³ , R. A. Kemp ⁴ ; ¹ Agriculture and Agri-Food Canada Research Centre, ² Canadian Charolais Association, ³ The Semex Alliance, ⁴ RAK Genetic Consulting, Ltd.
3:30 p.m.	4	Genetic analysis of mature cow weights in a population of inbred Hereford cattle. Janice M. Rumph* ¹ , Don D. Kress ¹ , K.C. Davis ¹ , Don C. Anderson ^{1,2} , Darrin L. Boss ² ; ¹ Department of Animal and Range Sciences, Montana State University, ² Northern Agricultural Research Center, Montana State University
3:45 p.m.	5	The status of equine genetic evaluation. E.M. Burns*, R.M. Enns, D.J. Garrick; Colorado State University
4:00 p.m.	6	SAS Tools to Facilitate QTL Discovery. V.L. Reisenauer*, M.D. MacNeil; USDA-ARS Fort Keogh Livestock and Range Research Laboratory

4:15 p.m. 7 Effect of using linear measurements and weight to predict future production of heifer calves. D. C. Anderson*¹, K. C. Davis², D. E. Doornbos¹; ¹Northern agricultural Research Center, ²Montana State University

Extension - Oral

Session Chair: Benton Glaze, University of Idaho
 Thursday, June 17, 2004, 1:30 p.m. – 4:00 p.m.
 LSC - Agriculture Production Room

Pres. Time	Ab #	Title/Author Information
1:30 p.m.	27	Bringing break even analysis one step further. L. B. Bruce*, W. W. Riggs, R. C. Torelli; University of Nevada
1:50 p.m.	28	The Montana Beef Network. Lisa Duffey, John Paterson*, Jim Peterson, Brian Rainey, Kim Skinner, Travis Standly, Marc King; Montana State University
2:10 p.m.	29	Interactive Training in Sustainable Rangeland Livestock Production Systems. R.N. Gates*, H.H. Patterson, P.S. Johnson, C.A. Tusler; South Dakota State University
2:30 p.m.	30	New Mexico forage mineral survey. C. P. Mathis* ¹ , J. E. Sawyer ² ; ¹ New Mexico State University, ² Texas A&M University
2:50 p.m.		Break
3:10 p.m.	31	2003 Livestock Feed Assistance Program and Feeding Non-Fat Dried Milk. Steven I. Paisley*; University of Wyoming
3:30 p.m.	32	Educating cow-calf producers through a retained ownership program. Ivan Rush*, Don Huls; University of Nebraska

Pastures and Forages - Oral

Session Chair: Ron Hathaway, Oregon State University
 Thursday, June 17, 2004, 1:30 p.m. – 3:30 p.m.
 LSC - Agriculture Leaders Room

Pres. Time	Ab #	Title/Author Information
1:30 p.m.	57	Alfalfa hay storage in the Sonoran Desert. Martin I. Lopez ^{1,2} , Juan N. Guerrero* ¹ , Miguel Cervantes ² ; ¹ Univ. Calif. Desert Research and Ext. Ctr. Holtville, 92250, ² Aut. Univ. Baja Calif. Mexicali, BCN, Mexico
1:45 p.m.	58	Effect of species and varietal type on yield and nutritional quality of small grain forage. W. Poland* ¹ , H. Peterson ² , R. Ashley ¹ , L. Tisor ¹ ; ¹ Cooperative Extension Service, North Dakota State University, ² Cooperative Extension Service, North Dakota State University

2:00 p.m.	59	Relationship of IVDMD to ADF in oat (<i>Avena</i> spp.) and barley (<i>Hordeum vulgare</i> L.) forage. W. Poland* ¹ , H. Peterson ² , R. Ashley ¹ , L. Tisor ¹ ; ¹ Cooperative Extension Service, North Dakota State University Dickinson, ² Cooperative Extension Service, North Dakota State University
2:15 p.m.	60	The long-term effects of cattle and(or) big game herbivory and logging on the subsequent diet quality of steers grazing grand fir (<i>Abies grandis</i>) habitats in northeastern Oregon. K.J. Walburger* ¹ , T. DelCurto ¹ , M. Vavra ² , G.D. Pulsipher ¹ ; ¹ Eastern Oregon Agricultural Research Center, Oregon State University, ² PNW Research Station, USDA, Forest Service
2:30 p.m.	61	The effect of fertilizing with sodium selenite on selenium concentration of hay and drain water and serum selenium concentrations in beef heifers and calves. G. D. Pulsipher* ¹ , R. L. Hathaway ² , G. J Pirelli ² , W. Mosher ² , T. DelCurto ¹ ; ¹ Eastern Oregon Agricultural Research Center, ² Oregon State University, Department of Animal Science
2:45 p.m.		Break
3:00 p.m.	62	Effects of Sulfates in Water on Performance of Steers Grazing Rangeland. P.S. Johnson, H.H. Patterson*; South Dakota State University
3:15 p.m.	63	Effects of sulfates in water on performance of cow-calf pairs. H.H. Patterson*, P.S. Johnson, E.H. Ward, R.N. Gates; South Dakota State University

Ruminant Nutrition - Oral

Session Chair: David Bohnert, EOARC, Burns, OR
 Thursday, June 17, 2004, 2:00 p.m. – 3:45 p.m.
 LSC - Construction and Engineering Auditorium

Pres. Time	Ab #	Title/Author Information
2:00 p.m.	80	Supplement Intake Variation in Grazing Beef Cows. J. J. Kincheloe*, J.G.P. Bowman, B. F. Sowell, R. P. Ansotegui, B. L. Robinson, L.M.M. Surber; Montana State University
2:15 p.m.	81	Effects of corn condensed distillers soluble supplementation on intake and digestion in beef steers consuming low-quality hay. S. A. Soto-Navarro*, T. C. Gilbery, G. P. Lardy, M. L. Bauer, J. S. Caton; North Dakota State University
2:30 p.m.	82	Effects of canola seed supplementation on steers fed low-quality forage. J. L. Leupp*, G. P. Lardy, S. A. Soto-Navarro, M. L. Bauer, J. S. Caton; North Dakota State University
2:45 p.m.	83	Effects of maternal undernutrition from early- to mid-gestation on visceral organs of the ewe and fetus. E. J. Scholljegerdes* ¹ , K. A.

Vonnahme², J. D. C. Molle¹, V. Nayigihugu¹, S. L. Lake¹, R. L. Atkinson¹, P. A. Ludden¹, L. R. Miller¹, S. P. Ford¹, B. W. Hess¹; ¹Department of Animal Science, University of Wyoming, ²Department of Animal and Range Sciences, North Dakota State University

3:00 p.m.

Break

3:15 p.m.

84

Identification of the mechanisms by which OmniGen-AF, a nutritional supplement, augments immune function in ruminant livestock. Yongqiang Wang*, Steven B. Puntenney, Neil E. Forsberg; Oregon State University Department of Animal Sciences

3:30 p.m.

85

Incidence of foodborne pathogens and antimicrobial susceptibility of fecal coliforms in stocker calves fed ionophore. Sasha S. Shroeder*¹, Tom S. Edrington², Mike L. Looper³, Carrie L. Schultz², Charlie F. Rosenkrans Jr.⁴, Rene Flores⁴, Todd R. Callaway², Robin C. Anderson², Shawn Ramsey¹, David J. Nisbet²; ¹Texas A&M University, ²USDA-ARS, Food and Feed Safety Research Center, ³USDA-ARS, Dale Bumpers Small Farm Research Center, ⁴University of Arkansas

POSTER I

Thursday, June 17, 2004

Ballroom CH2M Hill Alumni Center

Authors present 2:00 p.m. – 4:00 p.m.

Environment & Livestock Management

- | Ab # | Title/Author Information |
|------|--|
| 21 | Use of ultrasound to determine body composition of beef cows nutrient restricted during early to mid-gestation. L.R. Miller*, S.I. Paisley, J.D.C. Molle, E.J. Scholljegerdes, S.L. Lake, R.L. Atkinson, V. Nayigihugu, W.T. Small, S.P. Ford, W.J. Means, K.R. Underwood, S.A. Thompson, B.W. Hess; Department of Animal Science, University of Wyoming |
| 22 | Effect of selecting for scrapie resistance at codon 171 on ram performance and carcass quality. B. M. Alexander* ¹ , R. H. Stobart ¹ , W. C. Russell ¹ , K. I. O'Rourke ² , W. J. Means ¹ , D. C. Rule ¹ , G. E. Moss ¹ ; ¹ University of Wyoming, ² USDA-ARS |
| 23 | Cooling dry cows during summer reduces stress and improves postpartum milk yield. L. Avendaño-Reyes* ¹ , F. D. Alvarez-Valenzuela ¹ , A. Correa-Calderon ¹ , A. Algandar-Sandoval ¹ , S. Saucedo-Quintero ¹ , P. H. Robinson ² , ¹ Institute de Ciencias Agricolas, Universidad Autonoma de Baja California, ² UCCE, University of California, Davis |
| 24 | Incidence of <i>escherichia coli</i> and <i>salmonella</i> in fecal, wool, and carcass samples in feedlot lambs. M. Long* ¹ , T.T. Ross ¹ , T.S. Edrington ² , B.F. Craddock ³ , M. |

Salisbury⁴, K.L. Christensen¹; ¹New Mexico State University Las Cruces, NM, ²USDA/ARS, ³Texas Extension Service, ⁴Angelo State University

- 25 Growth and pubertal responses of female offspring produced by ewes treated with propylthiouracil and melatonin during pregnancy. R. L. Knight*, C. A. Gifford, J. L. Duffey, D. M. Hallford; New Mexico State University
- 26 Evaluation of four feeding systems for Holstein calves in the Mexicali valley, Mexico. J. S. Saucedo-Quintero*¹, L. Avendaño-Reyes¹, F. D. Alvarez-Valenzuela¹, T. B. Renteria-Evangelista², J. F. Moreno-Rosales², M. F. Montaña-Gomez², G. E. Median-Basulto², M. P. Gallegos-de la Hoya³, ¹Instituto de Ciencias Agricolas, Universidad Autonoma de Baja California, ²Instituto de Inv. en Ciencias Veterinarias, ³Universidad Juarez del Edo. de Durango

Physiology

- | Ab # | Title/Author Information |
|------|---|
| 74 | Comparison of somatic cell counts, milk constituents and weaning weights in ewes with and without subclinical mastitis. Amanda B. Ciliax* ¹ , Dale W. Holcombe ¹ , Doug Redelman ³ , Duane L. Garner ¹ , George C. J. Fernandez ² ; ¹ University of Nevada, Reno Department of Animal Biotechnology, ² Nevada Agricultural Experiment Station, ³ Sierra Cytometry |
| 75 | Colostrum immunoglobulins transference in Holstein cattle according the age of the dam. J. S. Saucedo-Quintero* ¹ , L. Avendaño-Reyes ¹ , F. D. Alvarez-Valenzuela ¹ , T. B. Renteria-Evangelista ² , J. F. Moreno-Rosales ² , M. F. Montaña-Gomez ² , G. E. Median-Basulto ² , M. P. Gallegos-de la Hoya ³ , ¹ Instituto de Ciencias Agricolas, Universidad Autonoma de Baja California, Mexico, ² Instituto de Inv. en Ciencias Veterinarias, ³ Universidad Juarez del Edo. de Durango |
| 76 | Body temperature and hormonal responses of sheep undergoing rumen cannulation. C. A. Gifford*, A. L. Sosa, R. L. Knight, C. A. Loest, D. M. Hallford; New Mexico State University |
| 77 | Effects of progesterone therapy on embryonic survival and pregnancy rates in ewes. Brian R Faris*, Tim T Ross, Amber S Carman, Cruz H Martinez, Brandon J Herron, Jesse R Saenz, Dennis M Hallford; New Mexico State University |
| 78 | Relative amounts of mRNA encoding ornithine decarboxylase in the bovine corpus luteum. Kim K Kane*, John S. Nelson, Rebecca S. Kelling, Lane M. Dixon, Dean E. Hawkins; New Mexico State University |
| 79 | Effects of short-term fasting on metabolic mediators of reproduction in beef cows. Reyna D. Speckmann* ¹ , Alfonso Ramos III ¹ , Lane M. Dixon ¹ , John S. Nelson ¹ , Kim K. Kane ¹ , Gary E. Moss ² , Dennis M. Hallford ¹ , Dean E. Hawkins ¹ ; ¹ New Mexico State University, ² University of Wyoming Laramie |

Ruminant Nutrition

- Ab #** **Title/Author Information**
- 86 Influence of levels of fat supplementation on bile flow and fatty acid digestion in cattle. A. A. Plascencia*¹, E. G. Arellano¹, A. M. A. Lopez-Soto¹, D. May¹, G.. Mendoza², C. Vazquez³, R. A. Zinn⁴; ¹Universidad Autonoma de Baja California, ²Colegio de Posgraduados, ³Universidad Autonoma de Mexico Mexico City, ⁴University of California Davis
- 87 Effect of corn vitreousness and grain processing on starch digestion. L. Corona*^{1,2}, R. Ware^{1,2}, R. Zinn²; ¹Universidad Autónoma de Baja California, ²University of California, Davis
- 88 Effects of maternal nutrient restriction during early- to mid-gestation on cow and fetal visceral organ measurements. J. D. C. Molle*¹, E. J. Scholljegerdes¹, S. L. Lake¹, V. Nayigihugu¹, R. L. Atkinson¹, L. R. Miller¹, S. P. Ford¹, W. J. Means¹, J. S. Caton², B. W. Hess¹; ¹University of Wyoming Department of Animal Science, ²North Dakota State University Department of Animal and Range Science.
- 89 Effects of corn condensed distillers soluble supplementation on in situ forage disappearance rate in steers consuming low-quality hay. T. C. Gilbery*, S. A. Soto-Navarro, G. P. Lardy, M. L. Bauer, J. S. Caton; North Dakota State University
- 90 The influence of forage source and NDF level on growth performance. R. Ware*^{1,2}, R. Zinn²; ¹Universidad Autónoma de Baja California, ²University of California, Davis
- 91 Comparative feeding value of seasonal Kikuyugrass with summer and winter grasses in Holstein steers fed forage based diets. Ulises Aguilar*¹, Enrique Alvarez¹, Adelfo Vite¹, Giovanni Inzunza¹, Juan Rodriguez¹, Diego Jimenez¹, Gustavo Carrillo¹, Richard Zinn²; ¹Universidad Autonoma de Baja California, ²University of California Davis
- 92 Effects of locoweed on serum constituents and rumen profiles of sheep. B. S. Obeidat*¹, J. R. Strickland², M. L. Vogt¹, C. A. Loest¹, J. E. Sawyer³, M. M. Reed¹, C. R. Krehbiel⁴, J. B. Taylor⁵, R. A. Halalshah¹, L. Chen¹; ¹New Mexico State University, ²USDA-ARS, Forage-Animal Production Research Unit, ³Texas A & M University, ⁴Oklahoma State University, ⁵USDA-ARS, USSSES
- 93 Methionine, and at least one branched-chain amino acid, are limiting in lambs. J. vE. Nolte², C. A. Loest*¹, A. V. Ferreira², N. K. Nolte², M. K. Petersen¹, D. M. Hallford¹; ¹New Mexico State University Las Cruces, NM, ²University of Stellenbosch Stellenbosch, South Africa
- 94 Effects of barley processing for backgrounding diets on performance in beef steers. Wendy L Bengochea*, Marc L Bauer, Greg P Lardy, Sergio A Soto-Navarro; North Dakota State Universtiy 100 Hultz Hall
- 95 Non-conventional phosphates in sheep feeding. Susmira Godoy*, Claudio Chicco; Instituto Nacional de Investigaciones Agrícolas Avenida El Limón, Venezuela
- 96 Effects of feeding *Neotyphodium coenophialum* -infected tall fescue straw on lamb performance. M. De

- Lorme*, S.L. Lodge-Ivey, A.M. Craig; College of Veterinary Medicine, Oregon State University
- 97 Effects of diet for early-weaned crossbred beef steers on metabolic profiles and febrile response to an infectious bovine herpesvirus-1. Travis R. Whitney*¹, Glenn C. Duff¹, James K. Collins¹, David A. Henderson¹, Robert A. Kattnig¹, Dennis M. Hallford²; ¹Univ. of AZ Dept. of Anim. Sciences, ²NM State University
- 98 Effects of dietary urea concentration on acid-base balance of feedlot steers fed a high concentrate steam-flaked corn based diet. C. R. Bailey*, G. C. Duff, R. C. Cheatham, T. R. Whitney, O. B. Mendivil, H. C. Hafliger, D. A. Henderson, J. L. Treichel; The University of Arizona Department of Animal Sciences

Environment & Livestock Management - Oral

Session Chair: Howard Meyer, Oregon State University

Friday, June 18, 2004, 9:15 a.m. – 11:30 a.m.
LSC - Agriculture Production Room

Pres. Time	Ab #	Title/Author Information
9:15 a.m.	13	The effects of calf age at weaning of spring calving beef cows and the effect on cow and calf performance and production economics. Christoph E. Weder* ^{1,2} , Mick A. Price ² , Erasmus Okine ² ; ¹ Alberta Agriculture Food and Rural Development, ² University of Alberta Edmonton,
9:30 a.m.	14	Evaluation of beef cattle operations utilizing different seasons of calving, weaning, weaning strategies, post-weaning management, and retained ownership. R. E. Kruse ¹ , M. W. Tess* ¹ , E. E. Grings ² , R. E. Short ² , R. K. Heitschmidt ² , W. A. Phillips ³ , H. S. Mayeux ³ ; ¹ Montana State University, ² USDA-ARS, ³ USDA-ARS
9:45 a.m.	15	Post-weaning production of steers from varying calving and weaning strategies. E. E. Grings*, R. E. Short, R. K. Heitschmidt; USDA-ARS Fort Keogh LARRL
10:00 a.m.	16	Effects of delayed castration of British crossbred beef cattle on weight gain, carcass traits, and consumer acceptability. K. Heaton*, D. R. ZoBell, D. Cornforth; Utah State University
10:15 a.m.		Break
10:30 a.m.	17	Computer Matching of Digital Images of Retinal Vascular Patterns of Sheep for Animal Verification. G.E. Moss* ¹ , J.C. Whittier ² , R.H. Stobart ¹ , D.S. Baker ³ , J.T. Doubet ³ , B.L. Golden ³ ; ¹ University of Wyoming, ² Colorado State University, ³ Optibrand Ltd, LLC
10:45 a.m.	18	Effect of feeding <i>Yucca schidigera</i> (DK Powder) to the sow on piglet blood oxygenation

and survival. P. Herpin¹, A. Vincent¹, P.R. Cheeke^{*2}; ¹INRA UMRVP, FRANCE, ²Department of Animal Sciences, Oregon State University

- 11:00 a.m. 19 Effect of supplementing ruminally undegradable fiber to feedlot steers on fecal nutrient fractions and fecal ammonia emissions. S. G. Escue*, M. L. Bauer, S. A. Soto-Navarro, T. C. Gilberry, G. P. Lardy; North Dakota State University
- 11:15 a.m. 20 Effects of supplying water with varying levels of total dissolved solids and sulfates to steers during the growing period on subsequent finishing performance. K.E. Tjardes*, H.H. Patterson, B.D. Rops; South Dakota State University

Physiology - Oral

Session Chair: Shelby Filley, Oregon State University
 Friday, June 18, 2004, 9:30 a.m. – 10:45 a.m.
 LSC - Agriculture Science Room

- | Pres. Time | Ab # | Title/Author Information |
|------------|------|--|
| 9:30 a.m. | 69 | Breeding performance of first-calf suckled beef cows exposed to familiar or unfamiliar bulls using a modified CO-Synch protocol. James G. Berardinelli*, Pramod S. Joshi, Shaun A. Tauck; Montana State University |
| 9:45 a.m. | 70 | Breeding performance of first-calf suckled beef cows exposed to familiar or unfamiliar bulls using a modified CO-Synch protocol. James G. Berardinelli*, Pramod S. Joshi, Shaun A. Tauck; Montana State University Dept. of Animal and Range Sciences |
| 10:00 a.m. | 71 | Effect of exogenous gonadotropin releasing hormone five days after artificial insemination on ovarian structures, serum progesterone, and conception rate in Holsteins cows. R. Manzo ¹ , Amin Ahmadzadeh ^{*1} , J. C. Dalton ² , F. Frago ¹ , J. M. Howard ¹ ; ¹ University of Idaho, ² University of Idaho, Research & Extension Center |
| 10:15 a.m. | 72 | The effects of melatonin supplementation on <i>E. coli</i> O157:H7 shedding in wethers. C. L. Schultz ^{*1} , T.S. Edrington ¹ , S.B. Schroeder ² , K. J. Genovese ¹ , R. C. Anderson ¹ , D. J. Nisbet ¹ ; ¹ USDA, Agricultural Research Service, Southern Plains Agricultural Research Center, ² Texas A&M University |
| 10:30 a.m. | 73 | Effect of flunixin meglumine on early embryonic mortality in stressed beef females. M.L. Merrill ^{*1} , R.P. Ansotegui ¹ , T.W. Geary ² ; ¹ Montana State University Department of Animal and Range Sciences, Montana State University, ² USDA-ARS Fort Keogh |

Ruminant Nutrition - Oral

Session Chair: Tim DelCurto, Oregon State University

Friday, June 18, 2004, 9:30 a.m. – 10:45 a.m.
LSC - Agriculture Leaders Room

Pres. Time	Ab #	Title/Author Information
9:30 a.m.	99	Effects of a long acting trace mineral rumen bolus upon range cow and calf trace mineral profiles. J. E. Sprinkle* ¹ , S. P. Cuneo ¹ , H. M. Frederick ¹ , R. M. Enns ² , D.W. Schafer ¹ , G. E. Carstens ³ , L. J. Slay ³ , S. B. Daugherty ³ , T. H. Noon ¹ , B. M. Rickert ¹ , C. Reggiardo ¹ ; ¹ University of Arizona, ² Colorado State University, ³ Texas A & M University
9:45 a.m.	100	Effects of a long acting trace mineral rumen bolus upon range cow productivity. J. E. Sprinkle* ¹ , S. P. Cuneo ¹ , H. M. Frederick ¹ , R. M. Enns ² , D. W. Schafer ¹ , G. E. Carstens ³ , L. J. Slay ³ , S. B. Daugherty ³ , T. H. Noon ¹ , B. M. Rickert ¹ , C. Reggiardo ¹ ; ¹ University of Arizona Tucson, AZ 85721, ² Colorado State University Fort Collins, CO 80523, ³ Texas A & M University College Station, TX 77843
10:00 a.m.	101	Effect of level and source of selenium on maternal and fetal metabolic hormones in serum of pregnant yearling ewes. M. A. Ward, J. S. Caton, J. B. Taylor, T. L. Lawler, D. M. Hallford, S. Soto-Navarro, D. A. Redmer, and L. P. Reynolds, North Dakota State University, USDA-ARS. Sheep Experiment Station. New Mexico State University, Marcy A. Ward* ¹ , J. S. Caton ¹ , J. B. Taylor ² , T. L. Lawler ² , D. M Hallford ³ ; ¹ North Dakota State University, ² USDS-ARS Sheep Experiment Station, ³ New Mexico State University Knox Hall
10:15 a.m.	102	Effects of vitamin E levels in creep feeds for nursing calves on performance and subsequent feedlot performance. S. A. Gunter* ¹ , P. A. Beck ¹ , M. E. Davis ² , T. J. Wistuba ² ; ¹ Southwest Research & Extension Center (SWREC) Hope, ² Animal Science Department, University of Arkansas
10:30 a.m.	103	Effects of Thiamin Supplementation on Performance and Health of Growing Steers Consuming High Sulfate Water. E.H. Ward*, H.H. Patterson; South Dakota State University

POSTER II

Breeding and Genetics

9:00 a.m. – 11:30 a.m.

Ballroom CH2M Hill Alumni Center

Authors present 9:00 a.m. – 11:00 a.m.

- | Ab # | Title/Author Information |
|-------------|--|
| 8 | Estimates of genetic parameters of birth weight, weaning weight, and calving difficulty in beef cattle. A Perez-Marquez* ¹ , A Correa-Calderon ¹ , F Ponce-Medina ¹ , J Guerrero ² ; ¹ Universidad Autonoma de Baja California, ² University of California Field Station |
| 9 | Estimates of genetic parameters of final weight at slaughter, yield grade and marbling score in beef cattle. A Perez-Marquez* ¹ , A Correa-Calderon ¹ , F Ponce-Medina ¹ , J Guerrero ² ; ¹ Universidad Autonoma de Baja California Mexicali, B.C. Mexico, ² University of California |
| 10 | Genetic parameters and breeding values for milk yield of Holstein sires in a commercial Holstein dairy herd in Mexicali, Mexico. A Perez-Marquez*, A Correa-Calderon, F Ponce-Medina; Universidad Autonoma de Baja California |
| 11 | Economic selection indexes to improve fiber productivity for Cashmere goats in Mongolia. Batchimeg Tseveenjav* ¹ , Dorian Garrick ¹ , Stephen Levalley ¹ , Cleon Kimberling ² , Yondon Zagdsuren ³ ; ¹ Department of Animal Sciences Colorado State University, ² Veterinarian Medicine and Biomedical Sciences Colorado State University Fort Collins, ³ Cashmere Goat Association |
| 12 | Detection of quantitative trait loci for marbling and backfat in Wagyu x Limousin F2 crosses using a candidate gene approach. Sachinandan De ^{1,3} , Michael D. MacNeil ² , Xiao-Lin Wu ¹ , Jennifer J. Michal ¹ , Qianjun Xiao Xiao ¹ , Matthew D. Garcia ¹ , Kirsten B. Griffin ¹ , Charley T. Gaskins ¹ , Jerry J. Reeves ¹ , Jan R. Busboom ¹ , Raymond W. Wright Jr. ¹ , Zhihua Jiang* ¹ ; ¹ Department of Animal Sciences, Washington State University, ² USDA, ARS, Fort Keogh Livestock and Range Research Laboratory, ³ Animal Biotechnology Centre, National Dairy Research Institute |

Extension

- | Ab # | Title/Author Information |
|-------------|---|
| 33 | Comparison of beef cattle management practices for planning beef quality assurance education. Lisa M. Duffey*, John A. Paterson, James E. Peterson, Marc C. King, Kelsey M. Rolfe; Montana State University |
| 34 | Effect of high starch vs. high fiber on ADG and carcass characteristics of early-weaned calves. Brian M. Rainey*, John A. Paterson, Marc C. King, William T. Choat; Montana State University |
| 35 | A to Z Retained Ownership, Inc.: Factors affecting profitability in the Inland Northwest. J.B. Glaze, Jr* ¹ , B. Wilhelm ² , N.R. Rimbey ² , K.S. Jensen ² , G.C. Keetch ² , |

W.F. Cook², C.W. Gray¹, J.N. Hawkins¹, E.J. Morrison², S.K. Williams¹, J.A. Church³, P.A. Momont²; ¹University of Idaho, ²University of Idaho, ³University of Idaho
36 Frequent rinsing and cleaning of drinking water vessels improved the performance of hutch-raised Holstein calves. R.D. Wiedmeier*, A.J. Young, P.R. Schmidt; Utah State University

Growth and Development

- Ab # Title/Author Information**
- 51 Effects of implants on live performance, carcass characteristics, and serum concentrations of glucose and NEFA for long-fed Holstein steers. R. C. Cheatham*, G. C. Duff, C. R. Bailey, S. R. Sanders; The University of Arizona Department of Animal Sciences
- 52 Effect of early and delayed implant application on performance, carcass traits and meat cuts yielding of Holstein steers. N. Torrentera*, J.L. Valdivia, M. Cervantes, R. Cerda; Insituto de Ciencias Agrícolas, Universidad Autónoma de Baja California

Meat Science & Muscle Biology

- Ab # Title/Author Information**
- 53 Growth implants affect tenderness of beef steaks. Jane Boles*, K.C. Davis, Darrin Boss, Kris Clawson, Michael Tess; Montana State University
- 54 Cooking does not affect fatty acid composition of beef *longissimus* muscle. V. Nayigihugu*, F. S. D'Angieri, C. M. Murrieta, D. C. Rule, B. W. Hess; Department of Animal Science, University of Wyoming

Nonruminant Nutrition

- Ab # Title/Author Information**
- 55 Effects of incorporating an antibiotic "avilamycin" and a probiotic "activis" in broiler diets. Mediha Haj Ayed*, Zina Laamari, Boulbaba Rekik; ESA
- 56 Optimization of Conditions for Leukotriene B4 Synthesis by Neutrophils or Heterophils Isolated from Peripheral Blood of Monogastric Animals. Shantibhushan Jha*¹, Jean A. Hall², Gita Cherian¹, John W. Schlipf²; ¹Oregon State University Department of Animal Sciences, ²Oregon State University College of Veterinary Medicine, ³Oregon State University Department of Animal Sciences, ⁴Oregon State University College of Veterinary Medicine

Pastures and Forages

- Ab # Title/Author Information**
- 64 Utilization of forage kochia for fall/winter grazing. D. R. ZoBell*¹, B. L. Waldron², K. C. Olson¹, R. D. Harrison², H. Jensen¹; ¹Utah State University, ²USDA-ARS
- 65 Intake and digestibility response to forage kochia

- (*Kochia prostrata*) in a low quality forage diet. CA Stonecipher*, KC Olson, JC Malechek, DD Carter; Utah State University
- 66 Cow-calf production on irrigated pastures composed of monocultures versus a mixture of forages. D.M. Meek*, R.D. Wiedmeier, P.R. Schmidt, A.J. Young; Utah State University
- 67 A comparison of low-quality forage utilization by cattle versus horses. H.A. Wayment*, D.M. Meek, P.R. Schmidt, R.D. Wiedmeier, A.J. Young; Utah State University
- 68 Comparative productivity of five cool-season pasture grasses under intermittent flood irrigation and grazed by beef cow-calf pairs using management intensive grazing practices. R.D. Wiedmeier*, P.R. Schmidt, D.M. Meek, A.J. Young, K.C. Olson, D.R. ZoBell, K.R. Wiedmeier; Utah State University

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