Summary of Scheduled Events

Tuesday, June 21, 2005
4:00–7:00 PM Registration
Corbett Center Auditorium
Foyer
4:30–6:00 PM WSASAS Executive Committee Meeting
Quay Room 327

Wednesday, June 22, 2005
7:00 AM–5:00 PM Registration
Corbett Center Auditorium
Foyer
8:00 AM–5:00 PM SYMPOSIUM
“Your Beef Cattle Industry in 2025”
Corbett Center Auditorium
Room 247
3:00 PM ARPAS Exams
Corbett Center
Colfax Room 210
6:30–9:00 PM Informal Reception
NMSU Golf Clubhouse

Thursday, June 23, 2005
7:00 AM–12 NOON Registration
Corbett Center Auditorium
Foyer
8:00–9:45 AM Graduate Student Competition
Corbett Center Auditorium
Room 247
9:45–10:00 AM BREAK
10:00 AM ARPAS Exams
Corbett Center
Colfax Room 210
10:00–11:30 AM Graduate Student Competition (cont’d)
11:30 AM Distinguished Service Award Paper (Dr. Martin Vavra,
Oregon State University)
Corbett Center Auditorium
12 NOON–1:15 PM Graduate Mixer/Career Forum Luncheon
Friday, June 24, 2005

8:00– 9:00 AM Business Meeting
Corbett Center Auditorium

9:00–11:00 AM Poster Session II
Corbett Center Ballroom
Room 247
(Ruminant Nutrition; Pastures/Forages)

9:15–10:30 AM Breeding/Genetics II
Senate Chambers Room 304

9:15–11:45 AM Environment/Livestock Management
Doña Ana Room 312

9:15–10:15 AM Food Safety/Meat Science
Senate Gallery Room 302

9:15–10:30 AM Ruminant Nutrition II
Corbett Center Auditorium
Room 247

12 NOON ADJOURN

12:30–2:00 PM WSASAS Executive Committee Meeting
Quay Room 327
2005 ASAS Western Section Meeting
Wednesday, June 22, 2005 to Friday, June 24, 2005

Wednesday, June 22

Your Beef Cattle Industry in 2025

7:00 AM Registration
8:00 AM Introductions & Welcome
Elaine Grings, USDA-ARS Fort Keogh, Miles City, MT - WSASAS president
Tom Geary, USDA-ARS Fort Keogh, Miles City, MT - Symposium Chair
Mark Wise, New Mexico State University – Animal and Range Sciences Dept. Chair

8:15 AM Implementation of Best Management Practices: Feedlot to Retail Product
Wayne Smith, Manager Hergert Cattle Feeding, CAB Feeder of the Year 2003

9:00 AM Implementation of Best Management Practices: Cow/Calf Producer
R. W. (Butch) Whitman, Nutrition Tech Services

9:45 AM BREAK

Mark Cowan, General Manager Camp Cooley Ranch, BIF 2004 Seedstock Operation of the Year

11:00 AM What have we learned from efforts to develop coordinated supply chains?
Ronnie Green, USDA-ARS National Program Leader, Food Animal Production

11:45 Introduction of Sponsors
12:00 NOON LUNCH

1:30 What challenges does the Beef Industry need to overcome?
Barry Dunn, TAMU Kingsville, King Ranch School of Ranch Management

2:15 BREAK

2:45 Bovine Genome: What tools will really be provided to the Beef Industry?
Eduardo Casas, USDA-ARS, Clay Center

3:30 Panel of Speakers - Questions
### Thursday, June 23

#### SYMPOSIA AND ORAL SESSIONS

**Graduate Student Paper Competition**

Chair: Denny Crews, Agriculture/Agri-Foods Canada Research Center

Corbett Center Auditorium - Room 247

<table>
<thead>
<tr>
<th>Time</th>
<th>Abstract No.</th>
<th>Abstract</th>
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<tbody>
<tr>
<td>8:00 AM</td>
<td>87</td>
<td>Characteristics and potential nutritive value of sagebrush-grassland vegetation collected from sites continuously grazed, rested for one year and one year post-disturbance. T. R. Weston*1, R. A. Olson2, V. Nayigihugu1, S. L. Lake1, J. D. Derner3, G. E. Schuman4, and B. W. Hess1, 1University of Wyoming, Laramie, 2Department of Renewable Resources, Laramie, WY, 3High Plains Grasslands Research Station, USDA-ARS, Cheyenne, WY.</td>
</tr>
<tr>
<td>8:15 AM</td>
<td>88</td>
<td>Assessing storage of wet brewers' grains with straws. M. Kennedy*, J. Males, and M. Keller, Oregon State University, Corvallis.</td>
</tr>
<tr>
<td>8:30 AM</td>
<td>89</td>
<td>Effect of trace mineral supplementation on fecal shedding of <em>E. coli</em> O157:H7 in calves. K. Skinner*1, J. Paterson1, T. Standley1, B. Rainey1, and K. Hager2, 1Montana State University, Bozeman, 2CHS Nutrition, Billings, MT.</td>
</tr>
<tr>
<td>8:45 AM</td>
<td>90</td>
<td>Vaccination of gestating beef cows with an experimental <em>E. coli</em> O157:H7 vaccine to determine if antibody transfer occurred in the new born calf. T. Standley*1, J. Paterson1, K. Skinner1, B. Rainey1, A. Roberts2, T. Geary2, G. Smith3, and R. White4, 1Montana State University, Bozeman, 2USDA-ARS, Ft. Keogh, Miles City, MT, 3Colorado State University, Ft. Collins, 4Ft. Dodge Animal Health, Ft. Dodge, IA.</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>91</td>
<td>Resumption of ovarian cycling activity and breeding performance of first-calf suckled beef cows exposed to mature bull urine. S. Tauck*, J. Berardinelli, and N. Johnson, Montana State University, Bozeman.</td>
</tr>
<tr>
<td>9:15 AM</td>
<td>92</td>
<td>Effects of ruminal protein degradability and frequency of supplementation on nitrogen retention and apparent digestibility in lambs fed low-quality forage. R. L.</td>
</tr>
</tbody>
</table>
Effect of Estradiol Cypionate on conception and pregnancy rates of beef cattle synchronized with a modified timed artificial insemination protocol. J. M. Howard*, R. Manzo1, F. Frago1, D. G. Falk1, J. B. Glaze2, and A. Ahmadzadeh1, 1University of Idaho, Moscow, 2University of Idaho, Twin Falls.


Effects of pre- and postpartum nutrition on reproduction in cows and calf feedlot performance. L. A. Stalker*, D. C. Adams2, T. J. Klopfenstein1, and R. N. Funston2, 1University of Nebraska, Lincoln, 2West Central Research and Extension Center, North Platte, NE.

Comparative hepatotoxicity of metabolites associated with snakeweed (Gutierrezia spp.). L. Hernandez*, G. Bell, T. Ross, R. Halasheh, A. Carman, and C. Loest, New Mexico State University, Las Cruces.

Supplemental methionine and uterine infection alters essential amino acid metabolism in nulliparous ewes. T. M. Thelen*, C. A. Loest1, S. Wang2, G. S. Lewis2, and J. B. Taylor2, 1New Mexico State University, Las Cruces, 2USDA-ARS, US Sheep Experiment Station, Dubois, ID.

Influence of energy supplementation and monensin on forage digestibility and intake. C. Dahl*, K. Olson, C. Stonecipher, and L. Wood, Utah State University, Logan.
2004 Distinguished Service Award
11:30 AM
Corbett Center Auditorium
Dr. Martin Vavra, Oregon State University

11:30 AM 100 Random musing on land grant universities: Their relevance and future. M. Vavra*, Eastern Oregon Agricultural Research Center, Union, OR.

Breeding and Genetics
Chair: Leonel Avendano-Reyes, Universidad Autonoma de Baja California
Senate Chambers - Room 304

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<th>Time</th>
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<th>Title</th>
<th>Authors</th>
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<tr>
<td>1:30 PM</td>
<td>55</td>
<td>Development of a multiple trait selection index for feedlot traits in beef cattle including feed efficiency.</td>
<td>D. H. Crews, Jr.*1, G. E. Carstens2, and P.A. Lancaster2, 1Agriculture and Agri-Food Canada Research Centre, Lethbridge, Alberta, Canada, 2Texas A&amp;M University, College Station.</td>
</tr>
<tr>
<td>1:45 PM</td>
<td>56</td>
<td>Prediction of reproductive traits in Brangus heifers using a SNP and translated product of the IGF-I gene.</td>
<td>K. L. Shirley*1, M. G. Thomas1, D. M. Hallford1, G. A. Silver1, V. R. Beauchemin1, R. Steiner1, and R. M. Enns2, 1New Mexico State University, Las Cruces, 2Colorado State University, Fort Collins.</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>57</td>
<td>Sire and dam effects on distribution patterns of cows grazing mountainous rangeland.</td>
<td>D. W. Bailey*1, H. C. VanWagoner2, D. J. Garrick3, M. G. Thomas1, and R. Weinmeister2, 1New Mexico State University, Las Cruces, 2Northern Agricultural Research Center, Montana State University, Havre, MT, 3Colorado State University, Fort Collins.</td>
</tr>
<tr>
<td>2:15 PM</td>
<td>58</td>
<td>Weaning weight heritability estimates in different environments.</td>
<td>S. E. Speidel*, R. M. Enns, and D. J. Garrick, Colorado State University, Fort Collins.</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>59</td>
<td>Economic evaluation of genetic differences among Angus bulls.</td>
<td>M. MacNeil*1 and W. Herring2, 1USDA Agricultural Research Service, Miles City, MT, 2Smithfield Premium Genetics, Roanoke Rapids, NC.</td>
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<tr>
<td>2:45 PM</td>
<td>60</td>
<td>Segregation of disposition scores among families of Bos indicus-Bos taurus</td>
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crosses. A. D. Herring*1, J. O. Sanders1, D. K. Lunt1, J. E. Sawyer1, M. A. Wegenhoft1, and C. A. Gill1, 1Texas A&M University, College Station, 2Texas A&M University, McGregor.

Extension Symposium
Chair: H. H Patterson, South Dakota State University
Dona Ana Room - Room 312

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<th>Time</th>
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<tr>
<td>1:30 PM</td>
<td>75</td>
<td>Effects of BSE and border/trade issues on cattle and meat markets. J. G. Robb*, Livestock Marketing Information Center, Lakewood, CO.</td>
</tr>
<tr>
<td>1:50 PM</td>
<td>76</td>
<td>Estimates of the effectiveness of current beef cattle tracking systems. K. Ringwall*, Dickinson Research Extension Center, Dickinson, ND.</td>
</tr>
<tr>
<td>2:10 PM</td>
<td>77</td>
<td>Tracking cattle from the ranch to the packer: The Montana Beef Network and National ID Pilot Project. J. Paterson*1, L. Duffey1, J. Peterson1, S. Pilcher2, and M. Bridges3, 1Montana State University, Bozeman, 2Montana Stockgrowers Association, Helena, MT, 3Montana Department of Livestock, Helena, MT.</td>
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<tr>
<td>2:50 PM</td>
<td></td>
<td>Break</td>
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<tr>
<td>3:50 PM</td>
<td>81</td>
<td>Extension programs monitoring market animal quality. W. F. Gipp*, Montana State University, Bozeman.</td>
</tr>
</tbody>
</table>
4:10 PM 82 Developing beef quality assurance materials for youth. L Holmgren*, D.R. ZoBell, and C. Kim Chapman, Utah State University.

**Physiology**

Chair: Dale Holcombe, University of Nevada-Reno Senate Gallery - Room 302

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<tr>
<td>1:30 PM</td>
<td>101</td>
<td>Effects of Flunixin Meglumine on pregnancy establishment in beef cattle. T. Geary*1, R. Ansotegui2, A. Roberts1, R. Waterman1, M. MacNeill1, E. Grings1, B. Thompson3, and R. Lipsey4, 1USDA-ARS, Miles City, MT, 2Montana State University, Bozeman, 3USDA-APHIS, Billings, MT, 4American Simmental Association, Bozeman, MT.</td>
</tr>
<tr>
<td>1:45 PM</td>
<td>102</td>
<td>Utilization of whole soybeans or corn milling co-products in beef heifer development diets. H. Harris*, A. Cupp, and R. Funston, University of Nebraska, Lincoln.</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>103</td>
<td>Intraluteal treatment of bovine CL with Indomethacin. R. D. Speckmann*1, K. K. Kane1, L. M. Dixon1, J. S. Nelson1, J. E. Bruemmer2, G. D. Niswender2, and D. E. Hawkins1, 1New Mexico State University, Las Cruces, 2Colorado State University, Ft. Collins.</td>
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<tr>
<td>2:15 PM</td>
<td>104</td>
<td>Artificial insemination pregnancy rates using a modified Co-Synch protocol for primiparous suckled cows exposed to the biostimulatory effect of bulls. J. Berardinelli*, P. Joshi, and S. Tauck, Montana State University, Bozeman.</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>105</td>
<td>Associations of growth and carcass traits with attainment of puberty in heifers fed at two levels. A. J. Roberts*1, E. E. Grings1, M. D. MacNeill1, T. W. Geary1, and S. I. Paisley2, 1USDA-ARS Ft Keogh, Miles City, MT, 2University of Wyoming, Laramie.</td>
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<td>3:00 PM</td>
<td>BREAK</td>
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<td>1:30 PM</td>
<td>107</td>
<td><strong>Body condition score at parturition and effects of postpartum supplemental fat on metabolite and hormone concentrations of beef cows.</strong> S. Lake*, E. Scholljegerdes, V. Nayigihugu, R. Atkinson, E. Van Kirk, D. Rule, D. Hallford, G. Moss, and B. Hess, University of Wyoming, Laramie, New Mexico State University, Las Cruces.</td>
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<tr>
<td>1:45 PM</td>
<td>108</td>
<td><strong>In vitro and in vivo rumen fermentation and gas production: influence of corn and mineral oils and their bloat potential.</strong> B. Min* and W. Pinchak, Texas Agricultural Experiment Station, Vernon, TX.</td>
</tr>
<tr>
<td>2:15 PM</td>
<td>110</td>
<td><strong>Effect of creep feed supplementation and season on intake, microbial protein synthesis and efficiency, digestion, and ruminal fermentation in nursing calves grazing native range in southeastern North Dakota.</strong> J. Reed*, A. Gelvin, G. Lardy, M. Bauer, and J. Caton, North Dakota State University, Fargo.</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>111</td>
<td><strong>Evaluation of performance and costs of two heifer development systems.</strong> R. R. Salveson*, H. H. Patterson, G. A. Perry, and M. L. Gibson, South Dakota State University, Brookings, Dakota Gold Research Association, Sioux Falls, SD.</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>112</td>
<td><strong>Effect of level and source of dietary selenium (Se) on maternal and fetal tissue Se concentrations of pregnant ewe lambs during late gestation.</strong> M. Ward*, J. Caton, J. Taylor, S. Soto-Navarro, K. Vonnahme, J. Reed, D. Redmer, and L. Reynolds, USDA-ARS Sheep Experiment Station, Dubois, ID, New Mexico State University, Las Cruces.</td>
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<td>3:00 PM</td>
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<td><strong>BREAK</strong></td>
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</table>
Effects of nutrient restriction and dietary selenium (Se) on maternal and fetal metabolic hormones in pregnant ewe lambs. M. Ward*1, J. Caton1, J. Taylor2, D. Hallford3, J. Reed1, P. Borowicz1, K. Vonnahme1, D. Redmer1, and L. Reynolds1, 1North Dakota State University, Fargo, 2USDA-ARS Sheep Experiment Station, Dubois, ID, 3New Mexico State University, Las Cruces.


Effects of nutrient restriction and dietary selenium (Se) on Se concentrations in maternal and fetal tissues of pregnant ewe lambs. M. Ward*1, J. Caton1, J. Taylor2, J. Reed1, P. Borowicz1, K. Vonnahme1, M. Kapphahn1, K. Freeberg1, D. Redmer1, and L. Reynolds1, 1North Dakota State University, Fargo, 2USDA-ARS Sheep Experiment Station, Dubois, ID.

Digesta kinetics of steers fed forage kochia (Kochia prostrata) in a low quality forage diet. C. Stonecipher, K. Olson, M. Buck*, and J. Malechek, Utah State University, Logan.

POSTER PRESENTATIONS

Poster Session I

(Breeding/Genetics; Environment/Livestock Production, Extension; Food Safety/Meat Science; Growth and Development; Non-Ruminant Nutrition; Physiology; Behavior; Teaching Corbett Ballroom East - Room 320 Authors Presenting: 2:00–4:00 PM

Estimates of genetic and phenotypic parameters of postweaning growth traits in Limousin cattle in Samalayuca, México. A. Pérez-Márquez*1, J. Trejo2, J. F. Ponce1, M. Montaño1, A. Correa1, L. Avendaño1, H. González2, and J. N. Guerrero3, 1Universidad Autónoma de Baja California, Instituto de Ciencias Agrícolas, Mexicali, Baja California, México, 2Universidad Autónoma de Ciudad de Juárez, Ciudad Juárez, Chihuahua, México, 3University of California, El Centro.
Genetic parameters for birth weight and calving difficulty in the progeny of Holstein heifers mated AI by Jersey sires. A. Pérez-Márquez*, J.M. Bañuelos1, J.F. Ponce1, M. Montaño1, A. Correa1, F. Rivera1, and J. Guerrero2, 1Universidad Autónoma de Baja California-Instituto de Ciencias Agrícolas, Ejido Nuevo León, Baja California, 2University of California, El Centro.

Reproduction traits and calf performance of first calf heifers sired by bulls with high marbling or high retail product EPD. K. Davis*, M. Tess1, J. Rumpff1, R. Anstotegui1, and H. VanWagoner2, 1Montana State University, Bozeman, 2Northern Agricultural Experiment Station, Havre, MT.

Characterization of the Montana Line 4 inbred Hereford herd. J. M. Rumpff*, D. D. Kress1, K. C. Davis1, D. C. Anderson1,2, H. C. Van Wagoner2, and D. L. Boss2, 1Montana State University, Bozeman, 2Northern Agricultural Research Center; Montana State University, Havre, MT.

Effect of protein level on feedlot performance and carcass characteristics of Texas Rambouillet feeder lambs. D. Woolley, B. May*, and M. Salisbury, Angelo State University, San Angelo, TX.

Serum thyroxine and triiodothyronine in preweaning Rambouillet lambs. V. Garcia*, C. Gifford, R. Knight, C. Storer, L. Abercrombie, and D. Hallford, New Mexico State University, Las Cruces.

Fertility, prolificacy and birth weight in crossbreds from Pelibuey sheep in two consecutive years. L. Avendaño-Reyes*, F.D. Alvarez-Valenzuela, L. Molina-Ramirez2, R. Rangel-Santos3, A. Correa-Calderón1, A. Pérez-Márquez1, and J.S. Quintero-Saucedo1, 1Instituto de Ciencias Agrícolas, UABC, Ejido Nuevo León, Baja California, 2CeBTA No. 41, Poblado Benito Juárez, Baja California, 3Universidad Autónoma de Chapingo, Chapingo, Edo. México.

Development of an assay to determine single nucleotide polymorphisms (SNP) in the prion gene for the diagnosis of genetic susceptibility to scrapie in sheep. M.L. Johnson*, J.M. Evoniuk1, C.L. Stoltenow1, K.I. O’Rourke2, and D.A. Redmer1, 1North Dakota State University, Fargo, 2USDA, ARS, ADRU, Pullman, WA.

Relationships among growth traits, serum hormone profiles, and date puberty in Rambouillet ewe lambs. C. Storer*, R. Knight, C. Gifford, V. Garcia, L. Abercrombie, M. McBee, and D. Hallford, New Mexico State University, Las Cruces.

Comparative hepatotoxicity of plant extracts, pure compounds, and gastrointestinal fluids associated with snakeweed (Gutierrezia spp.). L. Hernandez, G. Bell*, and T. Ross, New Mexico State University, Las Cruces.

Breeding Suffolk rams to Western White Face ewes on New Mexico rangelands increases weaning weight of lambs. R. Redden*, S. Cox, and T. Ross, New Mexico State University, Las Cruces.

Performance of Holstein calves at weaning according to its birth season in Mexicali Valley. J. S. Saucedo*, L. Avendaño1, F. D. Alvarez1, C. Ceseña1, T. B. Rentería2, J. F. Moreno2, M. F. Montaño2, G. E. Medina2, and M. P. Gallegos3, 1Instituto de Ciencias Agrícolas, UABC, Ejido Nuevo León, Baja California, México, 2Instituto de Investigaciones en Ciencias Veterinarias, UABC, Mexicali, Baja California, México, 3FMVZ, Universidad Juárez del Estado de Durango, Durango, Durango, México.


Vaccination as an intervention strategy for reduction of Escherichia coli O157:H7 in cattle feces. T. Choat*1, J. Paterson1, B. Rainey1, G. Smith2, K. Belk2, and R. White3, 1Montana State University, Bozeman, 2Colorado State University, Ft. Collins, 3Ft. Dodge Animal Health, Ft. Dodge, IA.

Prevalence of Shiga toxin-producing Escherichia coli in beef cattle. L. M. Bollinger*1, H. S. Hussein1, T. Sakuma1, M. R. Hall1, and E. R. Atwill2, 1University of Nevada, Reno, 2University of California, Tulare.

Salmonella persistence on a Southwestern United States dairy. T. Edrington1, C. Martinez2*2, T. Ross2, T. Callaway1, K. Genovese1, R. Anderson1, and D. Nisbet1, 1USDA-ARS, Food and Feed Safety Research Unit, College Station, TX, 2New Mexico State University, Las Cruces.

Effects of estradiol (E2) and linseed meal (LSM) on liver weight, protein concentration, and DNA concentration in (OVX) ewes. M. R. O’Neil*, G. P. Lardy, L. P. Reynolds, J. S. Caton, and K. A. Vonnahme, North Dakota State University, Fargo.

Effect of GnRH-analogue and chromium methionine supplementation on reproductive performance of sows. J. A. Romo*, R. Barajas1, J. J. Valencia2, J. Castañeda3, E. Silva4, and A. Orihuela5, 1FMVZ-Universidad Autonoma de Sinaloa, Culiacan, Sinaloa, Mexico, 2FMVZ-Universidad Nacional Autonoma de Mexico, Mexico, 3FMVZ-Universidad de Guadalajara, Guadalajara, Jalisco, Mexico, 4FMVZ-
Effect of GnRH-analogue and chromium methionine supplementation on reproductive performance of young sows. J. A. Romo1, R. Barajas1, J. J. Valencia2, J. Castañeda3, E. Silva4, and A. Orihuela5, 1FMVZ-Universidad Autonoma de Sinaloa, Culiacan, Sinaloa, Mexico, 2FMVZ-Universidad Nacional Autonoma de Mexico, Mexico, D.F., Mexico, 3FMVZ-Universidad de Guadalajara, Guadalajara, Jalisco, Mexico, 4FMVZ-Universidad de Colima, Colima, Colima, Mexico, 5FCA_Universidad Autonoma del Estado de Morelos, Cuernavaca, Morelos, Mexico.

Effects of protein and energy feeding on ovine oocyte production and developmental capacity. W. Kiker1, M. Salisbury1, G. Engdahl1, and B. Green2, 1Angelo State University, San Angelo, TX, 2Ovagenix Laboratories, San Angelo, TX.

Effects of supernutritional levels of Selenium (Se) on vascular density and cell proliferation in the sheep placenta. P. Borowicz1, M. Ward1, J. Caton1, S. A. Soto-Navarro2, D. Redmer1, J. Taylor3, and L. Reynolds1, 1North Dakota State University, Fargo, 2New Mexico State University, Las Cruces, 3USDA-ARS, Sheep Experiment Station, Dubois, ID.

Heparin level effect on sperm capacitation of fresh and frozen-thawed bovine semen. F. A. Rodríguez-Almeida1, M. Cuadras1, A. Anchondo1, S. Romo-García1, B. E. Sánchez1, J. A. Jiménez1, and A. D. Alarcón-Rojo1, 1Universidad Autónoma de Chihuahua, Chihuahua, México, 2Universidad Nacional Autónoma de México, México, D.F.


Relationship between sexual behavior classifications of rams and lambs sired in a competitive breeding environment. J. Stellflug1, N. Cockett2, and G. Lewis1, 1USDA-ARS U.S. Sheep Experiment Station, Dubois, ID, 2Utah State University, Logan.
**Friday, June 24**

**Poster Session II**

(Ruminant Nutrition/Pastures and Forages)
Corbett Ballroom East - Room 320
Authors Presenting 9:00–11:00 AM

27 **The effects of early weaning on cow performance and grazing behavior in the Intermountain West.** D. W. Bohnert*1, D. C. Ganskopp2, D. D. Johnson2, and S. J. Falck2, 1Oregon State University, Burns, 2Eastern Oregon Agricultural Research Center, ARS-USDA, Burns, OR.

28 **Use of green fodder produced in hidroponic systems as supplement for salers lactating cows during the dry season.** C. Rodriguez Muela*, H. E. Rodriguez, O. Ruiz, A. Flores, J. A. Grado, and C. Arzola, Universidad Autónoma de Chihuahua, Chihuahua, Chihuahua, México.

29 **Yearly forage production of irrigated pastures grazed by cow-calf pairs as affected by the timing of sprinkler irrigation application.** R. Wiedmeier*, A. Young, and P. Schimdt, Utah State University, Logan.

30 **Long-term use of low-quality forages in beef cow nutritional management: Effects on productivity and economics.** H. Wayment, R. Wiedmeier*, K. Olson, D. Snyder, and P. Schmidt, Utah State University, Logan.


32 **Forage quality and agronomic characteristics of spring barley core collection lines compared to commercial barley cultivars.** L. M. M. Surber, J. A. Pugh*, K. K. Krausz, S. D. Cash, A. L. Todd, B. L. Robinson, and J. G. P. Bowman, Montana State University, Bozeman.

33 **Effects of sampling date on the forage quality and quantity of stockpiled native range in southwestern North Dakota.** W. Poland*1, B. Porter2, and L. Tisor1, 1North Dakota State University, Dickinson, 2Dickinson State University, Dickinson, ND.

35 **Effect of weaning date and retained ownership on cattle performance and forage disappearance in spring calving beef systems.** D. Landblom*1, H. Patterson2, P. Johnson2, R. Gates2, and S. Paisley3, 1North Dakota State University, Dickinson, 2South Dakota State University, Rapid City, 3University of Wyoming, Laramie.
Utilization of field pea and sunflower meal as dietary supplements for beef cows. W. Poland*1, L. Tisor1, C. Smith2, T. Transtrom2, and A. Bartlett2, 1North Dakota State University, Dickinson, 2Dickinson State University, Dickinson, ND.

Seed bandwidth, plant population and maturity stage effects on barley forage when using air drill technology. D. L. Boss*1, G. C. Carlson1, P. L. Bruckner2, R. N. Stougaard3, P. F. Lamb1, T. K. Blake2, and J. G. P. Bowman2, 1Northern Agricultural Research Center, Havre, MT, 2Montana State University, Bozeman, 3Northwestern Agriculture Research Center, Kalispell, MT.


Effect of level and source of selenium on growth and cellular proliferation of maternal jejunal tissue in growing pregnant ewe lambs. S. L. Julius*1, J. S. Caton1, M. A. Ward1, S. A. Soto-Navarro3, D. A. Redmer1, K. A. Vonnahme1, P. P. Borowicz1, J. B. Taylor2, and L. P. Reynolds1, 1North Dakota State University, Fargo, 2USDA-ARS Sheep Experiment Station, Dubois, ID, 3New Mexico State University, Las Cruces.

The influence of length of supra-selenium supplementation on selenium status, feedlot performance, and carcass characteristics of finishing lambs. C. S. Schauer*1, J. Held2, J. A. Daniel2, J. S. Caton3, P. G. Hatfield4, R. Stobart5, L. P. Anderson1, and J. O. Hall6, 1Hettinger Research Extension Center, North Dakota State University, Hettinger, ND, 2South Dakota State University, Brookings, 3North Dakota State University, Fargo, 4Montana State University, Bozeman, 5University of Wyoming, Laramie, 6Utah State University, Logan.

Effect of the urea concentration in protein supplement added to dry grass on the invitro production of gas, volatile fatty acids and ammonia. C. Rodríguez Muela1, E. Aguirre Cano1, F. Salvador1, J. A. Ortega1, C. Villalobos2, and C. Arzola1, 1Universidad Autónoma de Chihuahua, Chihuahua, Chihuahua, México, 2Texas Tech University, Lubbock.


Valine limits nitrogen retention of growing lambs. J. W. Waggoner*1, C. A. Loest1, A. V. Ferreira2, J. E. van Nolte2, M. K. Petersen1, and D. M. Hallford1, 1New Mexico State University, Las Cruces, 2University of Stellenbosch, Stellenbosch, South Africa.
Effects of various exposure routes of swainsonine on serum constituents, rumen characteristics, and nutrient metabolism of sheep. B. S. Obeidat1, C. A. Loest1, T. M. Thelen1, J. R. Strickland2, J. E. Sawyer3, J. B. Taylor4, and D. M. Hallford1, 1New Mexico State University, Las Cruces, 2USDA-ARS, Forage-Animal Production Research Unit, Lexington, KY, 3Texas A&M University, College Station, 4USDA-ARS, US Sheep Experiment Station, Dubois, ID.


Influence of dietary fat on digestive function of beef steers fed a steam-flaked corn-based finishing diet containing wet corn gluten feed. L. Morrison2, S. Soto-Navarro2, D. Walker1, K. Malcolm-Callis1, J. Gleghorn1, P. Defoor1, T. Covey2, and D. Hallford2, 1Clayton Livestock Research Center, Clayton, NM, 2New Mexico State University, Las Cruces.

Effect of distiller's grain based creep feed and season on intake, microbial protein synthesis and efficiency, digestion, and ruminal fermentation in nursing calves grazing native range in southeastern North Dakota. J. Reed*1, J. Lund1, G. Lardy1, M. Bauer1, M. Gibson2, and J. Caton1, 1North Dakota State University, Fargo, 2Dakota Gold Research Association, Sioux Falls, SD.

Effect of distiller’s grain based creep feed and season on intake, performance, and grazed diet quality in nursing steer calves grazing native range in southeastern North Dakota. J. Lund*1, J. Reed1, G. Lardy1, M. Bauer1, M. Gibson2, and J. Caton1, 1North Dakota State University, Fargo, 2Dakota Gold Research Association, Sioux Falls, SD.

Effects of nutrient restriction and dietary Se on growth and estimates of cellularity in jejunal, placental, and mammary tissues in pregnant ewe lambs. M. Ward*1, J. Caton1, J. Taylor2, J. Reed1, P. Borowicz1, A. Grazul-Bliska1, K. Vonnahme1, D. Redmer1, and L. Reynolds1, 1North Dakota State University, Fargo, 2USDA-ARS Sheep Experiment Station, Dubois, ID.

Phytic acid levels in barley for beef cattle finishing diets. J. G. P. Bowman1, J. J. Kincheloe1, L. M. M. Surber1, A. V. Grove1, V. Raboy2, J. A. Dorsch2, and T. K. Blake1, 1Montana State University, Bozeman, 2USDA-ARS National Small Grains Germplasm Research Facility, Aberdeen, ID.
Influence of chromium methionine supplementation on growth performance of medium stressed bull-calves during feedlot receiving period. R. Barajas*1, B. J. Cervantes1, R. J. Virgilio2, L. Almeida1, J. M. Romo1, and J. C. Calderon1, 1FMVZ-Universidad Autonoma de Sinaloa, Culiacan, Sinaloa, Mexico, 2Tecnología de Maxima Produccion, Culiacan, Sinaloa, Mexico.


Dietary energy source impacts insulin sensitivity in finishing steers. R. Rhoades*, J. Sawyer, K. Chung, D. Lunt, and S. Smith, Texas A&M University, College Station.

SYMPOSIA AND ORAL SESSIONS

Breeding and Genetics

Breeding and Genetics II

Chair: Mike MacNeil, USDA-ARS, Miles City, MT

Senate Chambers - Room 304

<table>
<thead>
<tr>
<th>Time</th>
<th>Abstract No.</th>
<th>Abstract</th>
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<tbody>
<tr>
<td>9:15 AM</td>
<td>61</td>
<td>Using additional phenotypic information in data poor analyses. B. W. Brigham*, R. M. Enns, and D. J. Garrick, Colorado State University, Fort Collins.</td>
</tr>
<tr>
<td>9:45 AM</td>
<td>63</td>
<td>Variability in economic value is dependent upon herd average stayability. R. M. Enns*, D. J. Garrick, and B. W. Brigham, Colorado State University, Fort Collins.</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>64</td>
<td>Influence of incorrect estimates of inbreeding on the genetic analysis of mature cow weights in a population of inbred Hereford cattle. J. M. Rumph*1, D. D. Kress1, K. C. Davis1, D. C. Anderson1,2, H. C. Van Wagoner2, and D. L. Boss2, 1Montana State University, Bozeman, 2Northern Agricultural Research Center; Montana State University, Havre, MT.</td>
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</tbody>
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### Environment & Livestock Management

#### Environment and Livestock Production

Chair: Steve Daugherty, California Polytechnic State University-San Luis Obispo  
Dona Ana Room - Room 312

<table>
<thead>
<tr>
<th>Time</th>
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<tr>
<td>9:15 AM</td>
<td>67</td>
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<td>9:30 AM</td>
<td>68</td>
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<td>9:45 AM</td>
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<td>10:00 AM</td>
<td>69</td>
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<tr>
<td>10:15 AM</td>
<td>70</td>
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<tr>
<td>10:30 AM</td>
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</table>
| 10:45 AM        | 71       | Relationships between serum metabolites at feedlot entry and subsequent carcass characteristics in Brangus-crossbred calves. R. Flores\*\^1, J. May\^1, M. Nihsen\^1, M. Looper\^2, K. May\^3, D. Hallford\^4, and C. Rosenkrans, Jr.\^1, 1University of Ar-

---

[1]: Location withheld for privacy.
[2]: Location withheld for privacy.
[3]: Location withheld for privacy.
11:00 AM 72 Effects of forage cultivar and anthelmintic on steer responses to immune challenge. C. Rosenkranz, Jr.*1, M. Nihsen1, R. Flores1, T. Yazwinski1, D. Kreider1, K. Coffey1, W. Coblenz1, C. West1, M. Looper2, and N. Schrick3, 1University of Arkansas, Fayetteville, 2USDA-ARS, Dale Bumpers Small Farms Research Center, Booneville, AR, 3University of Tennessee, Knoxville.

11:15 AM 73 Impact of preconditioning duration on feedlot performance, carcass characteristics and profitability of New Mexico ranch to rail steers. J.W. Waggoner*1, C.P. Mathis1, C. A. Loest1, J. E. Sawyer2, and F. T. McCollum, III2, 1New Mexico State University, Las Cruces, 2Texas A & M University, College Station.

11:30 AM 74 Productivity and profitability of pasture-based versus intensive value addition strategies for culled beef cows. J. Sawyer*1, C. Mathis2, R. Kirksey3, and L. Lauriault3, 1Texas A&M University, College Station, 2New Mexico State University, Las Cruces, 3Tucumcari Agricultural Science Center, New Mexico State University, Tucumcari, NM.

Food Safety

Food Safety/Meat Science/Muscle Biology

Chair: Tom Edrington, USDA-ARS, College Station, TX
Senate Gallery - Room 302

9:15 AM 83 Vaccination on the ranch as an intervention strategy to reduce the probability of detecting E. coli O157:H7 associated with commercial feedlot cattle. R. Peterson*2, J. Paterson1, D. Smith2, R. Moxley2, T. Klopfenstein2, G. Erickson2, W. Choat1, and S. Hinkley2, 1Montana State University, Bozeman, 2University of Nebraska, Lincoln.

9:30 AM 84 Effects of feeding endophyte-infected tall fescue seed to sheep experimentally infected with Escherichia coli O157:H7. M. L. Looper*1, T. S. Edrington2, C. F. Rosenkranz, Jr.3, J. M. Burke1, R. Flores3, T.

Effects of feed intake, stress or exogenous hormones on Salmonella enterica serovar Cholerasuis in pigs. T. Edrington*, K. Genovese, C. Schultz, T. Callaway, J. McReynolds, R. Anderson, and D. Nisbet, USDA-ARS, Food and Feed Safety Research Unit, College Station, TX.

Ruminant Nutrition
Ruminant Nutrition II

Chair: Joel Caton, North Dakota State University
Corbett Center Auditorium - Room 247

Time Abstract


9:45 AM Influence of slice bailing hay on performance of newly received feedlot steer calves. F. Loya-Olguin**, D. Walker1, K. Malcolm-Callis1, M. Encinas1, and S. Soto-Navarro2, 1Clayton Livestock Research Center, Clayton, NM, 2New Mexico State University, Las Cruces.

10:00 AM Evaluation of feed efficiency traits in growing bulls and relationships with feeding behavior and ultrasound carcass estimates. P. A. Lancaster*, G. E. Carstens, and S. A. Woods, Texas Agricultural Experiment Station, College Station, TX.
Efficacy of a self-fed small supplement for prepartum cows grazing dormant pi-
non-juniper rangeland. J. Sawyer*1, S. Cox2, R. Endecott2, M. Rubio2, S. Ivey2, and
M. Petersen2, 1Texas A&M University, College Station, 2New Mexico State University,
Las Cruces.
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1991  L.J. Krysl, University of Nevada-Reno  
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2002  H. H. Patterson, South Dakota State University
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