

# **WESTERN SECTION – AMERICAN SOCIETY OF ANIMAL SCIENCE**

**June 22-24, 2005  
New Mexico State University  
Las Cruces, New Mexico**

## **Summary of Scheduled Events**

### **Tuesday, June 21, 2005**

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|--------------|--|
| 4:00–7:00 PM | Registration<br>Corbett Center Auditorium<br>Foyer     |
| 4:30–6:00 PM | WSASAS Executive<br>Committee Meeting<br>Quay Room 327 |

### **Wednesday, June 22, 2005**

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|-----------------|--|
| 7:00 AM–5:00 PM | Registration<br>Corbett Center Auditorium<br>Foyer   |
| 8:00 AM–5:00 PM | SYMPOSIUM<br>“Your Beef Cattle Industry in<br>2025”<br>Corbett Center Auditorium<br>Room 247 |
| 3:00 PM         | ARPAS Exams<br>Corbett Center<br>Colfax Room 210   |
| 6:30–9:00 PM    | Informal Reception<br>NMSU Golf Clubhouse  |

### **Thursday, June 23, 2005**

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

	Corbett Center Ballroom Rooms 316–320
1:30–3:00 PM	Breeding/Genetics I Senate Chambers Room 304
1:30–3:00 PM	Physiology Senate Gallery Room 302
1:30–4:15 PM	Ruminant Nutrition I Corbett Center Auditorium Room 247
1:30–5:00 PM	Extension Symposium Doña Ana Room Room 312
2:00–4:00 PM	Poster Session I Corbett Center Ballroom East Room 320 (Behavior; Breeding/ Genetics; Environment/ Livestock Management; Food Safety; Growth and Development; Meat Science; Physiology; Non-Ruminant Nutrition)
3:00 PM	ARPAS Exams Corbett Center Colfax Room 210
3:00–3:15 PM	BREAK
6:30 PM	Awards Program/Barbeque/ Dance Dickerson's Event Center (West Picacho Ave.)

### **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	<b>Registration</b>
8:00 AM	<b>Introductions &amp; Welcome</b> 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	<b>Implementation of Best Management Practices: Feedlot to Retail Product</b> Wayne Smith, Manager Hergert Cattle Feeding, CAB Feeder of the Year 2003
9:00 AM	<b>Implementation of Best Management Practices: Cow/Calf Producer</b> R. W. (Butch) Whitman, Nutrition Tech Services
9:45 AM	<b>BREAK</b>
10:15 AM	<b>Implementation of Best Management Practices: Purebred Producer</b> Mark Cowan, General Manager Camp Cooley Ranch, BIF 2004 Seedstock Operation of the Year
11:00 AM	<b>What have we learned from efforts to develop coordinated supply chains?</b> Ronnie Green, USDA-ARS National Program Leader, Food Animal Production
11:45	<b>Introduction of Sponsors</b>
12:00 NOON	<b>LUNCH</b>
1:30	<b>What challenges does the Beef Industry need to overcome?</b> Barry Dunn, TAMU Kingsville, King Ranch School of Ranch Management
2:15	<b>BREAK</b>
2:45	<b>Bovine Genome: What tools will really be provided to the Beef Industry?</b> Eduardo Casas, USDA-ARS, Clay Center
3:30	<b>Panel of Speakers - Questions</b>

**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

<b>Time</b>	<b>Abstract No.</b>	
8:00 AM	87	<b>Characteristics and potential nutritive value of sagebrush-grassland vegetation collected from sites continuously grazed, rested for one year and one year post-disturbance.</b> T. R. Weston* <sup>1</sup> , R. A. Olson <sup>2</sup> , V. Nayigihugu <sup>1</sup> , S. L. Lake <sup>1</sup> , J. D. Derner <sup>3</sup> , G. E. Schuman <sup>3</sup> , and B. W. Hess <sup>1</sup> , <sup>1</sup> <i>University of Wyoming, Laramie</i> , <sup>2</sup> <i>Department of Renewable Resources, Laramie, WY</i> , <sup>3</sup> <i>High Plains Grasslands Research Station, USDA-ARS, Cheyenne, WY</i> .
8:15 AM	88	<b>Assessing storage of wet brewers' grains with straws.</b> M. Kennedy*, J. Males, and M. Keller, <i>Oregon State University, Corvallis</i> .
8:30 AM	89	<b>Effect of trace mineral supplementation on fecal shedding of <i>E. coli</i> O157:H7 in calves.</b> K. Skinner* <sup>1</sup> , J. Paterson <sup>1</sup> , T. Standley <sup>1</sup> , B. Rainey <sup>1</sup> , and K. Hager <sup>2</sup> , <sup>1</sup> <i>Montana State University, Bozeman</i> , <sup>2</sup> <i>CHS Nutrition, Billings, MT</i> .
8:45 AM	90	<b>Vaccination of gestating beef cows with an experimental <i>E. coli</i> O157:H7 vaccine to determine if antibody transfer occurred in the new born calf.</b> T. Standley* <sup>1</sup> , J. Paterson <sup>1</sup> , K. Skinner <sup>1</sup> , B. Rainey <sup>1</sup> , A. Roberts <sup>2</sup> , T. Geary <sup>2</sup> , G. Smith <sup>3</sup> , and R. White <sup>4</sup> , <sup>1</sup> <i>Montana State University, Bozeman</i> , <sup>2</sup> <i>USDA-ARS, Ft. Keogh, Miles City, MT</i> , <sup>3</sup> <i>Colorado State University, Ft. Collins</i> , <sup>4</sup> <i>Ft. Dodge Animal Health, Ft. Dodge, IA</i> .
9:00 AM	91	<b>Resumption of ovarian cycling activity and breeding performance of first-calf suckled beef cows exposed to mature bull urine.</b> S. Tauck*, J. Berardinelli, and N. Johnson, <i>Montana State University, Bozeman</i> .
9:15 AM	92	<b>Effects of ruminal protein degradability and frequency of supplementation on nitrogen retention and apparent digestibility in lambs fed low-quality forage.</b> R. L.

Atkinson\*, C. D. Toone, L. R. Allen, and P. A. Ludden, *University of Wyoming, Laramie.*

- 9:30 AM 93 **Effect of Estradiol Cypionate on conception and pregnancy rates of beef cattle synchronized with a modified timed artificial insemination protocol.** J. M. Howard\*<sup>1</sup>, R. Manzo<sup>1</sup>, F. Frago<sup>1</sup>, D. G. Falk<sup>1</sup>, J. B. Glaze<sup>2</sup>, and A. Ahmadzadeh<sup>1</sup>, <sup>1</sup>*University of Idaho, Moscow*, <sup>2</sup>*University of Idaho, Twin Falls.*
- 9:45 AM **BREAK**
- 10:00 AM 94 **Evaluation of milk somatic cells as a source of mRNA for study of mammary gland lipogenesis in lactating beef cows.** C. M. Murrieta\*<sup>1</sup>, E. J. Scholljegerdes<sup>1</sup>, B. W. Hess<sup>1</sup>, D. C. Rule<sup>1</sup>, T. E. Engle<sup>2</sup>, and K. L. Hossner<sup>2</sup>, <sup>1</sup>*University of Wyoming, Laramie*, <sup>2</sup>*Colorado State University, Ft. Collins.*
- 10:15 AM 95 **Effects of pre- and postpartum nutrition on reproduction in cows and calf feedlot performance.** L. A. Stalker\*<sup>1</sup>, D. C. Adams<sup>2</sup>, T. J. Klopfenstein<sup>1</sup>, and R. N. Funston<sup>2</sup>, <sup>1</sup>*University of Nebraska, Lincoln*, <sup>2</sup>*West Central Research and Extension Center, North Platte, NE.*
- 10:30 AM 96 **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.*
- 10:45 AM 97 **Effects of implant programs on subcutaneous adipose lipogenic gene expression and subcutaneous and abdominal fatty acid profiles in long-fed Holstein steers.** R. C. Cheatham\*, G. C. Duff, P. C. Gentry, S. R. Sanders, and L. H. Baumgard, *University of Arizona, Tucson.*
- 11:00 AM 98 **Supplemental methionine and uterine infection alters essential amino acid metabolism in nulliparous ewes.** T. M. Thelen\*<sup>1</sup>, C. A. Loest<sup>1</sup>, S. Wang<sup>2</sup>, G. S. Lewis<sup>2</sup>, and J. B. Taylor<sup>2</sup>, <sup>1</sup>*New Mexico State University, Las Cruces*, <sup>2</sup>*USDA-ARS, US Sheep Experiment Station, Dubois, ID.*
- 11:15 AM 99 **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\*, *Eatern Oregon Agricultural Research Center, Union, OR.*

### Breeding and Genetics

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

- | Time    | Abstract No. |   |
|---------|--------------|---|
| 1:30 PM | 55           | <b>Development of a multiple trait selection index for feedlot traits in beef cattle including feed efficiency.</b> D. H. Crews, Jr.* <sup>1</sup> , G. E. Carstens <sup>2</sup> , and P.A. Lancaster <sup>2</sup> , <sup>1</sup> <i>Agriculture and Agri-Food Canada Research Centre, Lethbridge, Alberta, Canada</i> , <sup>2</sup> <i>Texas A&amp;M University, College Station.</i>   |
| 1:45 PM | 56           | <b>Prediction of reproductive traits in Brangus heifers using a SNP and translated product of the IGF-I gene.</b> K. L. Shirley* <sup>1</sup> , M. G. Thomas <sup>1</sup> , D. M. Hallford <sup>1</sup> , G. A. Silver <sup>1</sup> , V. R. Beauchemin <sup>1</sup> , R. Steiner <sup>1</sup> , and R. M. Enns <sup>2</sup> , <sup>1</sup> <i>New Mexico State University, Las Cruces</i> , <sup>2</sup> <i>Colorado State University, Fort Collins.</i>                        |
| 2:00 PM | 57           | <b>Sire and dam effects on distribution patterns of cows grazing mountainous rangeland.</b> D. W. Bailey* <sup>1</sup> , H. C. VanWagoner <sup>2</sup> , D. J. Garrick <sup>3</sup> , M. G. Thomas <sup>1</sup> , and R. Weinmeister <sup>2</sup> , <sup>1</sup> <i>New Mexico State University, Las Cruces</i> , <sup>2</sup> <i>Northern Agricultural Research Center, Montana State University, Havre, MT</i> , <sup>3</sup> <i>Colorado State University, Fort Collins.</i> |
| 2:15 PM | 58           | <b>Weaning weight heritability estimates in different environments.</b> S. E. Speidel*, R. M. Enns, and D. J. Garrick, <i>Colorado State University, Fort Collins.</i>  |
| 2:30 PM | 59           | <b>Economic evaluation of genetic differences among Angus bulls.</b> M. MacNeil* <sup>1</sup> and W. Herring <sup>2</sup> , <sup>1</sup> <i>USDA Agricultural Research Service, Miles City, MT</i> , <sup>2</sup> <i>Smithfield Premium Genetics, Roanoke Rapids, NC.</i>   |
| 2:45 PM | 60           | <b>Segregation of disposition scores among families of <i>Bos indicus</i>-<i>Bos taurus</i></b>   |

**crosses.** A. D. Herring\*<sup>1</sup>, J. O. Sanders<sup>1</sup>, D. K. Lunt<sup>2</sup>, J. E. Sawyer<sup>1</sup>, M. A. Wegenhoff<sup>1</sup>, and C. A. Gill<sup>1</sup>, <sup>1</sup>*Texas A&M University, College Station*, <sup>2</sup>*Texas A&M University, McGregor*.

## **Extension Symposium**

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

<b>Time</b>	<b>Abstract No.</b>	
1:30 PM	75	<b>Effects of BSE and border/trade issues on cattle and meat markets.</b> J. G. Robb*, <i>Livestock Marketing Information Center, Lakewood, CO.</i>
1:50 PM	76	<b>Estimates of the effectiveness of current beef cattle tracking systems.</b> K. Ringwall*, <i>Dickinson Research Extension Center, Dickinson, ND.</i>
2:10 PM	77	<b>Tracking cattle from the ranch to the packer: The Montana Beef Network and National ID Pilot Project.</b> J. Paterson* <sup>1</sup> , L. Duffey <sup>1</sup> , J. Peterson <sup>1</sup> , S. Pilcher <sup>2</sup> , and M. Bridges <sup>3</sup> , <sup>1</sup> <i>Montana State University, Bozeman</i> , <sup>2</sup> <i>Montana Stockgrowers Association, Helena, MT</i> , <sup>3</sup> <i>Montana Department of Livestock, Helena, MT.</i>
2:30 PM	78	<b>Tri-National National Animal Identification System (NAIS) Project Synopsis.</b> J. C. Whittier* <sup>1</sup> , J. Scanga <sup>1</sup> , W. Umberger <sup>1</sup> , W. Cunningham <sup>2</sup> , C. Heckendorf <sup>2</sup> , and J. Heller <sup>3</sup> , <sup>1</sup> <i>Colorado State University, Ft Collins</i> , <sup>2</sup> <i>Colorado Department of Agriculture, Lakewood, CO</i> , <sup>3</sup> <i>Research Management Systems, Inc., Ft Collins, CO.</i>
2:50 PM		<b>Break</b>
3:10 PM	79	<b>The Northwest Pilot Project: Finding real world solutions to animal identification.</b> J. A. Morrison <sup>1</sup> , R. R. Stott <sup>2</sup> , J. B. Glaze, Jr.* <sup>3</sup> , and J. K. Ahola <sup>4</sup> , <sup>1</sup> <i>Idaho Cattle Association, Boise, ID</i> , <sup>2</sup> <i>Agri Beef Company, Boise, ID</i> , <sup>3</sup> <i>University of Idaho, Twin Falls</i> , <sup>4</sup> <i>Univeristy of Idaho, Caldwell.</i>
3:30 PM	80	<b>Colorado Sheep ID Project: Using RFID for tracking sheep.</b> J. Parsons* <sup>1,2</sup> , C. Kimberling <sup>2</sup> , G. Parsons <sup>2</sup> , and S. LeValley <sup>2</sup> , <sup>1</sup> <i>Optimal Ag Consulting, Inc., Fort Collins, CO</i> , <sup>2</sup> <i>Colorado State University, Fort Collins.</i>
3:50 PM	81	<b>Extension programs monitoring market animal quality.</b> W. F. Gipp*, <i>Montana State University, Bozeman.</i>

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

Time	Abstract No.	
1:30 PM	101	<b>Effects of Flunixin Meglumine on pregnancy establishment in beef cattle.</b> T. Geary* <sup>1</sup> , R. Ansotegui <sup>2</sup> , A. Roberts <sup>1</sup> , R. Waterman <sup>1</sup> , M. MacNeil <sup>1</sup> , E. Grings <sup>1</sup> , B. Thompson <sup>3</sup> , and R. Lipsey <sup>4</sup> , <sup>1</sup> USDA-ARS, Miles City, MT, <sup>2</sup> Montana State University, Bozeman, <sup>3</sup> USDA-APHIS, Billings, MT, <sup>4</sup> American Simmental Association, Bozeman, MT.
1:45 PM	102	<b>Utilization of whole soybeans or corn milling co-products in beef heifer development diets.</b> H. Harris*, A. Cupp, and R. Funston, <i>University of Nebraska, Lincoln</i> .
2:00 PM	103	<b>Intraluteal treatment of bovine CL with Indomethacin.</b> R. D. Speckmann* <sup>1</sup> , K. K. Kane <sup>1</sup> , L. M. Dixon <sup>1</sup> , J. S. Nelson <sup>1</sup> , J. E. Bruemmer <sup>2</sup> , G. D. Niswender <sup>2</sup> , and D. E. Hawkins <sup>1</sup> , <sup>1</sup> New Mexico State University, Las Cruces, <sup>2</sup> Colorado State University, Ft. Collins.
2:15 PM	104	<b>Artificial insemination pregnancy rates using a modified Co-Synch protocol for primiparous suckled cows exposed to the biostimulatory effect of bulls.</b> J. Berardinelli*, P. Joshi, and S. Tauck, <i>Montana State University, Bozeman</i> .
2:30 PM	105	<b>Associations of growth and carcass traits with attainment of puberty in heifers fed at two levels.</b> A. J. Roberts* <sup>1</sup> , E. E. Grings <sup>1</sup> , M. D. MacNeil <sup>1</sup> , T. W. Geary <sup>1</sup> , and S. I. Paisley <sup>2</sup> , <sup>1</sup> USDA-ARS Ft Keogh, Miles City, MT, <sup>2</sup> University of Wyoming, Laramie.
2:45 PM	106	<b>Quality standards for somatic cell counts and accuracy of pooled samples to detect subclinical mastitis in ewes milk.</b> A. Ciliax*, D. Holcombe, G. Fernandez, E. Huether, and L. Mortensen, <i>University of Nevada, Reno</i> .
3:00 PM		<b>BREAK</b>



## Ruminant Nutrition

Chair: Bret Hess, University of Wyoming  
Corbett Center Auditorium - Room 247

Time	Abstract No.	Abstract
1:30 PM	107	<b>Body condition score at parturition and effects of postpartum supplemental fat on metabolite and hormone concentrations of beef cows.</b> S. Lake* <sup>1</sup> , E. Scholljegerdes <sup>1</sup> , V. Nayigihugu <sup>1</sup> , R. Atkinson <sup>1</sup> , E. Van Kirk <sup>1</sup> , D. Rule <sup>1</sup> , D. Hallford <sup>2</sup> , G. Moss <sup>1</sup> , and B. Hess <sup>1</sup> , <sup>1</sup> <i>University of Wyoming, Laramie</i> , <sup>2</sup> <i>New Mexico State University, Las Cruces</i> .
1:45 PM	108	<b>In vitro and in vivo rumen fermentation and gas production: influence of corn and mineral oils and their bloat potential.</b> B. Min* and W. Pinchak, <i>Texas Agricultural Experiment Station, Vernon, TX</i> .
2:00 PM	109	<b>Fatty acid composition of plasma, medial basal hypothalamus, and uterine tissue in primiparous beef cows fed high-linoleate safflower seeds.</b> E. Scholljegerdes* <sup>1</sup> , S. Lake <sup>1</sup> , T. Weston <sup>1</sup> , D. Rule <sup>1</sup> , G. Moss <sup>1</sup> , T. Nett <sup>2</sup> , and B. Hess <sup>1</sup> , <sup>1</sup> <i>University of Wyoming, Laramie</i> , <sup>2</sup> <i>Colorado State University, Ft. Collins</i> .
2:15 PM	110	<b>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.</b> J. Reed*, A. Gelvin, G. Lardy, M. Bauer, and J. Caton, <i>North Dakota State University, Fargo</i> .
2:30 PM	111	<b>Evaluation of performance and costs of two heifer development systems.</b> R. R. Salverson* <sup>1</sup> , H. H. Patterson <sup>1</sup> , G. A. Perry <sup>1</sup> , and M. L. Gibson <sup>2</sup> , <sup>1</sup> <i>South Dakota State University, Brookings</i> , <sup>2</sup> <i>Dakota Gold Research Association, Sioux Falls, SD</i> .
2:45 PM	112	<b>Effect of level and source of dietary selenium (Se) on maternal and fetal tissue Se concentrations of pregnant ewe lambs during late gestation.</b> M. Ward* <sup>1</sup> , J. Caton <sup>1</sup> , J. Taylor <sup>2</sup> , S. Soto-Navarro <sup>3</sup> , K. Vonnahme <sup>1</sup> , J. Reed <sup>1</sup> , D. Redmer <sup>1</sup> , and L. Reynolds <sup>1</sup> , <sup>1</sup> <i>North Dakota State University, Fargo</i> , <sup>2</sup> <i>USDA-ARS Sheep Experiment Station, Dubois, ID</i> , <sup>3</sup> <i>New Mexico State University, Las Cruces</i> .
3:00 PM		<b>BREAK</b>

- 3:15 PM 113 **Effects of nutrient restriction and dietary selenium (Se) on maternal and fetal metabolic hormones in pregnant ewe lambs.** M. Ward\*<sup>1</sup>, J. Caton<sup>1</sup>, J. Taylor<sup>2</sup>, D. Hallford<sup>3</sup>, J. Reed<sup>1</sup>, P. Borowicz<sup>1</sup>, K. Vonnahme<sup>1</sup>, D. Redmer<sup>1</sup>, and L. Reynolds<sup>1</sup>, <sup>1</sup>*North Dakota State University, Fargo*, <sup>2</sup>*USDA-ARS Sheep Experiment Station, Dubois, ID*, <sup>3</sup>*New Mexico State University, Las Cruces*.
- 3:30 PM 114 **Increasing glucogenic precursors in range supplements alters nutrient partitioning in young postpartum range cows.** R. L. Endecott\*, C. M. Black, S. H. Cox, M. R. Rubio, R. B. Lueras, K. L. Shirley, R. D. Speckmann, C. A. Loest, D. E. Hawkins, and M. K. Petersen, *New Mexico State University, Las Cruces*.
- 3:45 PM 115 **Effects of nutrient restriction and dietary selenium (Se) on Se concentrations in maternal and fetal tissues of pregnant ewe lambs.** M. Ward\*<sup>1</sup>, J. Caton<sup>1</sup>, J. Taylor<sup>2</sup>, J. Reed<sup>1</sup>, P. Borowicz<sup>1</sup>, K. Vonnahme<sup>1</sup>, M. Kapphahn<sup>1</sup>, K. Freeberg<sup>1</sup>, D. Redmer<sup>1</sup>, and L. Reynolds<sup>1</sup>, <sup>1</sup>*North Dakota State University, Fargo*, <sup>2</sup>*USDA-ARS Sheep Experiment Station, Dubois, ID*.
- 4:00 PM 116 **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

- 1 **Estimates of genetic and phenotypic parameters of postweaning growth traits in Limousin cattle in Samalayuca, México.** A. Pérez-Márquez\*<sup>1</sup>, J. Trejo<sup>2</sup>, J. F. Ponce<sup>1</sup>, M. Montaña<sup>1</sup>, A. Correa<sup>1</sup>, L. Avendaño<sup>1</sup>, H. González<sup>2</sup>, and J. N. Guerrero<sup>3</sup>, <sup>1</sup>*Universidad Autónoma de Baja California, Instituto de Ciencias Agrícolas, Mexicali, Baja California, México*, <sup>2</sup>*Universidad Autónoma de Ciudad de Juárez, Ciudad Juárez, Chihuahua, México*, <sup>3</sup>*University of California, El Centro*.

- 2        **Genetic parameters for birth weight and calving difficulty in the progeny of Holstein heifers mated AI by Jersey sires.** A. Pérez-Márquez\*<sup>1</sup>, J.M. Bañuelos<sup>1</sup>, J.F. Ponce<sup>1</sup>, M. Montaña<sup>1</sup>, L. Avendaño<sup>1</sup>, A. Correa<sup>1</sup>, F. Rivera<sup>1</sup>, and J. Guerrero<sup>2</sup>, <sup>1</sup>*Universidad Autónoma de Baja California-Instituto de Ciencias Agrícolas, Ejido Nuevo León, Baja California*, <sup>2</sup>*University of California, El Centro*.
- 3        **Reproduction traits and calf performance of first calf heifers sired by bulls with high marbling or high retail product EPD.** K. Davis\*<sup>1</sup>, M. Tess<sup>1</sup>, J. Rumph<sup>1</sup>, R. Ansotegui<sup>1</sup>, and H. VanWaggoner<sup>2</sup>, <sup>1</sup>*Montana State University, Bozeman*, <sup>2</sup>*Northern Agricultural Experiment Station, Havre, MT*.
- 4        **Characterization of the Montana Line 4 inbred Hereford herd.** J. M. Rumph\*<sup>1</sup>, D. D. Kress<sup>1</sup>, K. C. Davis<sup>1</sup>, D. C. Anderson<sup>1,2</sup>, H. C. Van Wagoner<sup>2</sup>, and D. L. Boss<sup>2</sup>, <sup>1</sup>*Montana State University, Bozeman*, <sup>2</sup>*Northern Agricultural Research Center; Montana State University, Havre, MT*.
- 5        **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*.
- 6        **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*.
- 7        **Fertility, prolificacy and birth weight in crossbreds from Pelibuey sheep in two consecutive years.** L. Avendaño-Reyes\*<sup>1</sup>, F.D. Alvarez-Valenzuela<sup>1</sup>, L. Molina-Ramírez<sup>2</sup>, R. Rangel-Santos<sup>3</sup>, A. Correa-Calderón<sup>1</sup>, A. Pérez-Márquez<sup>1</sup>, and J. S. Quintero-Saucedo<sup>1</sup>, <sup>1</sup>*Instituto de Ciencias Agrícolas, UABC, Ejido Nuevo León, Baja California*, <sup>2</sup>*CeBTA No. 41, Poblado Benito Juárez, Baja California*, <sup>3</sup>*Universidad Autónoma de Chapingo, Chapingo, Edo. México*.
- 8        **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\*<sup>1</sup>, J. M. Evoniuk<sup>1</sup>, C. L. Stoltenow<sup>1</sup>, K. I. O'Rourke<sup>2</sup>, and D. A. Redmer<sup>1</sup>, <sup>1</sup>*North Dakota State University, Fargo*, <sup>2</sup>*USDA, ARS, ADRU, Pullman, WA*.
- 9        **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*.
- 10       **Effect of chromium methionine supplementaion on kidney function indicators, liver and kidney weight in finishing hair lambs.** F. Juárez\*, R. Barajas, and M. A. Espino, *FMVZ-Universidad Autonoma de Sinaloa, Culiacan, Sinaloa, Mexico*.

- 11 **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.*
- 12 **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.*
- 13 **Performance of Holstein calves at weaning according to its birth season in Mexicali Valley.** J. S. Saucedo\*<sup>1</sup>, L. Avendaño<sup>1</sup>, F. D. Alvarez<sup>1</sup>, C. Ceseña<sup>1</sup>, T. B. Rentería<sup>2</sup>, J. F. Moreno<sup>2</sup>, M. F. Montaña<sup>2</sup>, G. E. Medina<sup>2</sup>, and M. P. Gallegos<sup>3</sup>, <sup>1</sup>*Instituto de Ciencias Agrícolas, UABC, Ejido Nuevo León, Baja California, México*, <sup>2</sup>*Instituto de Investigaciones en Ciencias Veterinarias, UABC, Mexicali, Baja California, México*, <sup>3</sup>*FMVZ, Universidad Juárez del Estado de Durango, Durango, Durango, México.*
- 14 **Idaho dairy beef quality assurance survey.** J. B. Glaze, Jr.\* and M. Chahine, *University of Idaho, Twin Falls.*
- 15 **Vaccination as an intervention strategy for reduction of *Escherichia coli* O157:H7 in cattle feces.** T. Choat\*<sup>1</sup>, J. Paterson<sup>1</sup>, B. Rainey<sup>1</sup>, G. Smith<sup>2</sup>, K. Belk<sup>2</sup>, and R. White<sup>3</sup>, <sup>1</sup>*Montana State University, Bozeman*, <sup>2</sup>*Colorado State University, Ft. Collins*, <sup>3</sup>*Ft. Dodge Animal Health, Ft. Dodge, IA.*
- 16 **Prevalence of Shiga toxin-producing *Escherichia coli* in beef cattle.** L. M. Bollinger\*<sup>1</sup>, H. S. Hussein<sup>1</sup>, T. Sakuma<sup>1</sup>, M. R. Hall<sup>1</sup>, and E. R. Atwill<sup>2</sup>, <sup>1</sup>*University of Nevada, Reno*, <sup>2</sup>*University of California, Tulare.*
- 17 ***Salmonella* persistence on a Southwestern United States dairy.** T. Edrington<sup>1</sup>, C. Martinez\*<sup>2</sup>, T. Ross<sup>2</sup>, T. Callaway<sup>1</sup>, K. Genovese<sup>1</sup>, R. Anderson<sup>1</sup>, and D. Nisbet<sup>1</sup>, <sup>1</sup>*USDA-ARS, Food and Feed Safety Research Unit, College Station, TX*, <sup>2</sup>*New Mexico State University, Las Cruces.*
- 18 **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.*
- 19 **Effect of GnRH-analogue and chromium methionine supplementation on reproductive performance of sows.** J. A. Romo\*<sup>1</sup>, R. Barajas<sup>1</sup>, J. J. Valencia<sup>2</sup>, J. Castañeda<sup>3</sup>, E. Silva<sup>4</sup>, and A. Orihuela<sup>5</sup>, <sup>1</sup>*FMVZ-Universidad Autónoma de Sinaloa, Culiacan, Sinaloa, Mexico*, <sup>2</sup>*FMVZ-Universidad Nacional Autónoma de Mexico, Mexico, D.F., Mexico*, <sup>3</sup>*FMVZ-Universidad de Guadalajara, Guadalajara, Jalisco, Mexico*, <sup>4</sup>*FMVZ-*

*Universidad de Colima, Colima, Colima, Mexico, <sup>5</sup>FCA-Universidad Autonoma del Estado de Morelos, Cuernavaca, Morelos, Mexico.*

- 20 **Effect of GnRH-analogue and chromium methionine supplementation on reproductive performance of young sows.** J. A. Romo\*<sup>1</sup>, R. Barajas<sup>1</sup>, J. J. Valencia<sup>2</sup>, J. Castañeda<sup>3</sup>, E. Silva<sup>4</sup>, and A. Orihuela<sup>5</sup>, <sup>1</sup>FMVZ-Universidad Autonoma de Sinaloa, Culiacan, Sinaloa, Mexico, <sup>2</sup>FMVZ-Universidad Nacional Autonoma de Mexico, Mexico, D.F., Mexico, <sup>3</sup>FMVZ-Universidad de Guadalajara, Guadalajara, Jalisco, Mexico, <sup>4</sup>FMVZ-Universidad de Colima, Colima, Colima, Mexico, <sup>5</sup>FCA\_Universidad Autonoma del Estado de Morelos, Cuernavaca, Morelos, Mexico.
- 21 **Effects of protein and energy feeding on ovine oocyte production and developmental capacity.** W. Kiker<sup>1</sup>, M. Salisbury\*<sup>1</sup>, G. Engdahl<sup>1</sup>, and B. Green<sup>2</sup>, <sup>1</sup>Angelo State University, San Angelo, TX, <sup>2</sup>Ovagenix Laboratories, San Angelo, TX.
- 22 **Effects of supernutritional levels of Selenium (Se) on vascular density and cell proliferation in the sheep placenta.** P. Borowicz\*<sup>1</sup>, M. Ward<sup>1</sup>, J. Caton<sup>1</sup>, S. A. Soto-Navarro<sup>2</sup>, D. Redmer<sup>1</sup>, J. Taylor<sup>3</sup>, and L. Reynolds<sup>1</sup>, <sup>1</sup>North Dakota State University, Fargo, <sup>2</sup>New Mexico State University, Las Cruces, <sup>3</sup>USDA-ARS, Sheep Experiment Station, Dubois, ID.
- 23 **Heparin level effect on sperm capacitation of fresh and frozen-thawed bovine semen.** F. A. Rodríguez-Almeida\*<sup>1</sup>, M. Cuadras<sup>1</sup>, A. Anchondo<sup>1</sup>, S. Romo-García<sup>1</sup>, B. E. Sánchez<sup>1</sup>, J. A. Jiménez<sup>1</sup>, and A. D. Alarcón-Rojo<sup>1</sup>, <sup>1</sup>Universidad Autónoma de Chihuahua, Chihuahua, México, <sup>2</sup>Universidad Nacional Autónoma de México, México, D.F.
- 24 **Changes in pituitary gene expression between surgically castrated and LHRH immunocastrated male rats.** J. A. Hernandez\*, J. M. Sosa Manzo, J. J. Reeves, and D. J. McLean, Washington State University, Pullman.
- 25 **Team teaching agricultural sciences at 1994 land grant institutions.** J. Hafer<sup>1</sup>, M. Eggers<sup>2</sup>, G. Whiteman<sup>2</sup>, J. G. P. Bowman<sup>3</sup>, B. Sowell\*<sup>3</sup>, M. Frick<sup>3</sup>, and V. Smith<sup>3</sup>, <sup>1</sup>Chief Dull Knife College, Lame Deer, MT, <sup>2</sup>Little Big Horn College, Crow Agency, MT, <sup>3</sup>Montana State University, Bozeman.
- 26 **Relationship between sexual behavior classifications of rams and lambs sired in a competitive breeding environment.** J. Stellflug\*<sup>1</sup>, N. Cockett<sup>2</sup>, and G. Lewis<sup>1</sup>, <sup>1</sup>USDA-ARS U.S. Sheep Experiment Station, Dubois, ID, <sup>2</sup>Utah 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<sup>1</sup>, D. C. Ganskopp<sup>2</sup>, D. D. Johnson<sup>2</sup>, and S. J. Falck<sup>2</sup>, <sup>1</sup>*Oregon State University, Burns*, <sup>2</sup>*Eastern 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*.
- 31 **Predicting nutritive value of irrigated pastures using near infrared reflectance spectrophotometer (NIRS).** O. Ruiz-Barrera\*, C. Rodriguez-Muela, C. Arzola-Alvarez, A. Torres-Rivas, and Y. Castillo-Castillo, *Universidad Autonoma de Chihuahua, Chihuahua, Chihuahua, Mexico*.
- 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<sup>1</sup>, B. Porter<sup>2</sup>, and L. Tisor<sup>1</sup>, <sup>1</sup>*North Dakota State University, Dickinson*, <sup>2</sup>*Dickinson 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\*<sup>1</sup>, H. Patterson<sup>2</sup>, P. Johnson<sup>2</sup>, R. Gates<sup>2</sup>, and S. Paisley<sup>3</sup>, <sup>1</sup>*North Dakota State University, Dickinson*, <sup>2</sup>*South Dakota State University, Rapid City*, <sup>3</sup>*University of Wyoming, Laramie*.

- 36 **Utilization of field pea and sunflower meal as dietary supplements for beef cows.** W. Poland\*<sup>1</sup>, L. Tisor<sup>1</sup>, C. Smith<sup>2</sup>, T. Transtrom<sup>2</sup>, and A. Bartlett<sup>2</sup>, <sup>1</sup>*North Dakota State University, Dickinson*, <sup>2</sup>*Dickinson State University, Dickinson, ND*.
- 37 **Seed bandwidth, plant population and maturity stage effects on barley forage when using air drill technology.** D. L. Boss\*<sup>1</sup>, G. C. Carlson<sup>1</sup>, P. L. Bruckner<sup>2</sup>, R. N. Stougaard<sup>3</sup>, P. F. Lamb<sup>1</sup>, T. K. Blake<sup>2</sup>, and J. G. P. Bowman<sup>2</sup>, <sup>1</sup>*Northern Agricultural Research Center, Havre, MT*, <sup>2</sup>*Montana State University, Bozeman*, <sup>3</sup>*Northwestern Agriculture Research Center, Kalispell, MT*.
- 38 **Calcium absorption and calcium kinetics in sheep fed non conventional phosphates.** S. Godoy\* and C. F. Chicco, *Instituto Nacional de Investigaciones Agrícolas, Maracay, Aragua, Venezuela*.
- 39 **Effect of level and source of selenium on growth and cellular proliferation of maternal jejunal tissue in growing pregnant ewe lambs.** S. L. Julius\*<sup>1</sup>, J. S. Caton<sup>1</sup>, M. A. Ward<sup>1</sup>, S. A. Soto-Navarro<sup>3</sup>, D. A. Redmer<sup>1</sup>, K. A. Vonnahme<sup>1</sup>, P. P. Borowicz<sup>1</sup>, J. B. Taylor<sup>2</sup>, and L. P. Reynolds<sup>1</sup>, <sup>1</sup>*North Dakota State University, Fargo*, <sup>2</sup>*USDA-ARS Sheep Experiment Station, Dubois, ID*, <sup>3</sup>*New Mexico State University, Las Cruces*.
- 40 **The influence of length of supra-selenium supplementation on selenium status, feedlot performance, and carcass characteristics of finishing lambs.** C. S. Schauer\*<sup>1</sup>, J. Held<sup>2</sup>, J. A. Daniel<sup>2</sup>, J. S. Caton<sup>3</sup>, P. G. Hatfield<sup>4</sup>, R. Stobart<sup>5</sup>, L. P. Anderson<sup>1</sup>, and J. O. Hall<sup>6</sup>, <sup>1</sup>*Hettinger Research Extension Center, North Dakota State University, Hettinger, ND*, <sup>2</sup>*South Dakota State University, Brookings*, <sup>3</sup>*North Dakota State University, Fargo*, <sup>4</sup>*Montana State University, Bozeman*, <sup>5</sup>*University of Wyoming, Laramie*, <sup>6</sup>*Utah State University, Logan*.
- 41 **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 Muela<sup>1</sup>, E. Aguirre Cano<sup>1</sup>, F. Salvador<sup>1</sup>, J.A. Ortega<sup>1</sup>, C. Villalobos\*<sup>2</sup>, and C. Arzola<sup>1</sup>, <sup>1</sup>*Universidad Autónoma de Chihuahua, Chihuahua, Chihuahua, México*, <sup>2</sup>*Texas Tech University, Lubbock*.
- 42 **Kinetics of ruminal degradation of four corn silage hybrids using in vitro gas production.** N. Y. Castillo, C. Arzola\*, O. Ruiz, and C. Rodriguez-Muela, *Universidad Autónoma de Chihuahua, Chihuahua, Chihuahua, Mexico*.
- 43 **Valine limits nitrogen retention of growing lambs.** J. W. Waggoner\*<sup>1</sup>, C. A. Loest<sup>1</sup>, A. V. Ferreira<sup>2</sup>, J. E. van Nolte<sup>2</sup>, M. K. Petersen<sup>1</sup>, and D. M. Hallford<sup>1</sup>, <sup>1</sup>*New Mexico State University, Las Cruces*, <sup>2</sup>*University of Stellenbosch, Stellenbosch, South Africa*.

- 44 **Effects of various exposure routes of swainsonine on serum constituents, rumen characteristics, and nutrient metabolism of sheep.** B. S. Obeidat<sup>1</sup>, C. A. Loest<sup>1</sup>, T. M. Thelen\*<sup>1</sup>, J. R. Strickland<sup>2</sup>, J. E. Sawyer<sup>3</sup>, J. B. Taylor<sup>4</sup>, and D. M. Hallford<sup>1</sup>, <sup>1</sup>*New Mexico State University, Las Cruces*, <sup>2</sup>*USDA-ARS, Forage-Animal Production Research Unit, Lexington, KY*, <sup>3</sup>*Texas A&M University, College Station*, <sup>4</sup>*USDA-ARS, US Sheep Experiment Station, Dubois, ID*.
- 45 **Feedlot performance, carcass characteristics, and health responses of steers fed inorganic and organic sources of copper, manganese, and zinc.** T. Covey\*<sup>2</sup>, D. Walker<sup>1</sup>, K. Malcolm-Callis<sup>1</sup>, J. Gleghorn<sup>1</sup>, K. Ridenour<sup>3</sup>, J. Thurman<sup>3</sup>, G. Culp<sup>3</sup>, S. Soto-Navarro<sup>2</sup>, L. Morrison<sup>2</sup>, and D. Hallford<sup>2</sup>, <sup>1</sup>*Clayton Livestock Research Center, Clayton, NM*, <sup>2</sup>*New Mexico State University, Las Cruces*, <sup>3</sup>*Global Animal Products Inc., Amarillo, TX*.
- 46 **Influence of dietary fat on digestive function of beef steers fed a steam-flaked corn-based finishing diet containing wet corn gluten feed.** L. Morrison\*<sup>2</sup>, S. Soto-Navarro<sup>2</sup>, D. Walker<sup>1</sup>, K. Malcolm-Callis<sup>1</sup>, J. Gleghorn<sup>1</sup>, P. Defoor<sup>1</sup>, T. Covey<sup>2</sup>, and D. Hallford<sup>2</sup>, <sup>1</sup>*Clayton Livestock Research Center, Clayton, NM*, <sup>2</sup>*New Mexico State University, Las Cruces*.
- 47 **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\*<sup>1</sup>, J. Lund<sup>1</sup>, G. Lardy<sup>1</sup>, M. Bauer<sup>1</sup>, M. Gibson<sup>2</sup>, and J. Caton<sup>1</sup>, <sup>1</sup>*North Dakota State University, Fargo*, <sup>2</sup>*Dakota Gold Research Association, Sioux Falls, SD*.
- 48 **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\*<sup>1</sup>, J. Reed<sup>1</sup>, G. Lardy<sup>1</sup>, M. Bauer<sup>1</sup>, M. Gibson<sup>2</sup>, and J. Caton<sup>1</sup>, <sup>1</sup>*North Dakota State University, Fargo*, <sup>2</sup>*Dakota Gold Research Association, Sioux Falls, SD*.
- 49 **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\*<sup>1</sup>, J. Caton<sup>1</sup>, J. Taylor<sup>2</sup>, J. Reed<sup>1</sup>, P. Borowicz<sup>1</sup>, A. Grazul-Bilska<sup>1</sup>, K. Vonnahme<sup>1</sup>, D. Redmer<sup>1</sup>, and L. Reynolds<sup>1</sup>, <sup>1</sup>*North Dakota State University, Fargo*, <sup>2</sup>*USDA-ARS Sheep Experiment Station, Dubois, ID*.
- 50 **Phytic acid levels in barley for beef cattle finishing diets.** J. G. P. Bowman<sup>1</sup>, J. J. Kincheloe<sup>1</sup>, L. M. M. Surber<sup>1</sup>, A. V. Grove\*<sup>1</sup>, V. Raboy<sup>2</sup>, J. A. Dorsch<sup>2</sup>, and T. K. Blake<sup>1</sup>, <sup>1</sup>*Montana State University, Bozeman*, <sup>2</sup>*USDA-ARS National Small Grains Germplasm Research Facility, Aberdeen, ID*.



- 51 **Influence of chromium methionine supplementation on growth performance of medium stressed bull-calves during feedlot receiving period.** R. Barajas\*<sup>1</sup>, B. J. Cervantes<sup>1</sup>, R. J. Virgilio<sup>2</sup>, L. Almeida<sup>1</sup>, J. M. Romo<sup>1</sup>, and J. C. Calderon<sup>1</sup>, <sup>1</sup>*FMVZ-Universidad Autonoma de Sinaloa, Culiacan, Sinaloa, Mexico*, <sup>2</sup>*Tecnologia de Maxima Produccion, Culiacan, Sinaloa, Mexico*.
- 52 **Effect of feeding range protein supplement on ruminal methylglyoxal production.** S. L. Lodge-Ivey\*, R. L. Endecott, K. D. Richardson, and M. K. Petersen, *New Mexico State University, Las Cruces*.
- 53 **Effects of undegradable intake protein on milk yield, dry matter digestibility and blood urea nitrogen in lactating goats fed ammoniated corn stover.** A. L. Rivas and J. S. Serrato-Corona\*, *Facultad de Agricultura y Zootecnia - UJED, Venecia, Dgo. México*.
- 54 **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

<b>Time</b>	<b>Abstract No.</b>	<b>Abstract</b>
9:15 AM	61	<b>Using additional phenotypic information in data poor analyses.</b> B. W. Brigham*, R. M. Enns, and D. J. Garrick, <i>Colorado State University, Fort Collins</i> .
9:30 AM	62	<b>Genetic parameter estimates for docility in limousin cattle.</b> D. Beckman*, S. Speidel, B. Brigham, D. Garrick, and R. Enns, <i>Colorado State University, Fort Collins</i> .
9:45 AM	63	<b>Variability in economic value is dependent upon herd average stayability.</b> R. M. Enns*, D. J. Garrick, and B. W. Brigham, <i>Colorado State University, Fort Collins</i> .
10:00 AM	64	<b>Influence of incorrect estimates of inbreeding on the genetic analysis of mature cow weights in a population of inbred Hereford cattle.</b> J. M. Rumph* <sup>1</sup> , D. D. Kress <sup>1</sup> , K. C. Davis <sup>1</sup> , D. C. Anderson <sup>1,2</sup> , H. C. Van Wagoner <sup>2</sup> , and D. L. Boss <sup>2</sup> , <sup>1</sup> <i>Montana State University, Bozeman</i> , <sup>2</sup> <i>Northern Agricultural Research Center; Montana State University, Havre, MT</i> .

- 10:15 AM 65 **Age-of-dam adjustment factors for scrotal circumference in the Montana Line 4 Hereford herd.** J. M. Rumph\*<sup>1</sup>, D. D. Kress<sup>1</sup>, K. C. Davis<sup>1</sup>, D. C. Anderson<sup>1,2</sup>, H. C. Van Wagoner<sup>2</sup>, and D. L. Boss<sup>2</sup>, <sup>1</sup>Montana State University, Bozeman, <sup>2</sup>Northern Agricultural Research Center; Montana State University, Havre, MT.

## Environment & Livestock Management

### Environment and Livestock Production

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

- |          | <b>Abstract<br/>No.</b> |   |
|----------|-------------------------|---|
| Time     |                         |   |
| 9:15 AM  | 67                      | <b>Growth performance and carcass characteristics of finishing hogs consuming 'Dun' or 'White' field peas.</b> A. Wolf* <sup>1</sup> , E. Scholljegerdes <sup>1</sup> , J. Krall <sup>2</sup> , S. Lake <sup>1</sup> , and B. Hess <sup>1</sup> , <sup>1</sup> University of Wyoming, Laramie, <sup>2</sup> University of Wyoming, Torrington.              |
| 9:30 AM  | 68                      | <b>A survey of cow-calf producers in Oregon and Nevada - production practices.</b> D. W. Bohnert* <sup>1</sup> , R. F. Angell <sup>2</sup> , and R. C. Torell <sup>3</sup> , <sup>1</sup> Oregon State University, Burns, <sup>2</sup> Eastern Oregon Agricultural Research Center, ARS-USDA, Burns, OR, <sup>3</sup> University of Nevada, Elko.           |
| 9:45 AM  | 66                      | <b>Milk yield of beef heifers from three calving systems.</b> E. E. Grings*, A. J. Roberts, and T. W. Geary, USDA-ARS Fort Keogh LARRL, Miles City, MT.   |
| 10:00 AM | 69                      | <b>Timing of puberty, anestrus, and return to cyclicity in female offspring of ewes treated with propylthiouracil and melatonin during pregnancy.</b> R. Knight*, C. Gifford, and D. Hallford, New Mexico State University, Las Cruces.   |
| 10:15 AM | 70                      | <b>The effect of bloat on ingestive behavior patterns of steers grazing wheat forage.</b> W. Pinchak* and B. Min, Texas Agricultural Experiment Station, TX.  |
| 10:30 AM |                         | <b>BREAK</b>  |
| 10:45 AM | 71                      | <b>Relationships between serum metabolites at feedlot entry and subsequent carcass characteristics in Brangus-crossbred calves.</b> R. Flores* <sup>1</sup> , J. May <sup>1</sup> , M. Nihsen <sup>1</sup> , M. Looper <sup>2</sup> , K. May <sup>3</sup> , D. Hallford <sup>4</sup> , and C. Rosenkrans, Jr. <sup>1</sup> , <sup>1</sup> University of Ar- |

kansas, Fayetteville, <sup>2</sup>USDA-ARS, Dale Bumpers Small Farms Research Center, Booneville, AR, <sup>3</sup>Caldwell Farms, Rosebud, AR, <sup>4</sup>New Mexico State University, Las Cruces.

- 11:00 AM 72 **Effects of forage cultivar and anthelmintic on steer responses to immune challenge.** C. Rosenkrans, Jr.\*<sup>1</sup>, M. Nihsen<sup>1</sup>, R. Flores<sup>1</sup>, T. Yazwinski<sup>1</sup>, D. Kreider<sup>1</sup>, K. Coffey<sup>1</sup>, W. Coblenz<sup>1</sup>, C. West<sup>1</sup>, M. Looper<sup>2</sup>, and N. Schrick<sup>3</sup>, <sup>1</sup>University of Arkansas, Fayetteville, <sup>2</sup>USDA-ARS, Dale Bumpers Small Farms Research Center, Booneville, AR, <sup>3</sup>University 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\*<sup>1</sup>, C. P. Mathis<sup>1</sup>, C. A. Loest<sup>1</sup>, J. E. Sawyer<sup>2</sup>, and F. T. McCollum, III<sup>2</sup>, <sup>1</sup>New Mexico State University, Las Cruces, <sup>2</sup>Texas 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\*<sup>1</sup>, C. Mathis<sup>2</sup>, R. Kirksey<sup>3</sup>, and L. Lauriault<sup>3</sup>, <sup>1</sup>Texas A&M University, College Station, <sup>2</sup>New Mexico State University, Las Cruces, <sup>3</sup>Tucumcari 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

- | Time    | Abstract No. | Abstract   |
|---------|--------------|--|
| 9:15 AM | 83           | <b>Vaccination on the ranch as an intervention strategy to reduce the probability of detecting <i>E. coli</i> O157:H7 associated with commercial feedlot cattle.</b> R. Peterson* <sup>2</sup> , J. Paterson <sup>1</sup> , D. Smith <sup>2</sup> , R. Moxley <sup>2</sup> , T. Klopfenstein <sup>2</sup> , G. Erickson <sup>2</sup> , W. Choat <sup>1</sup> , and S. Hinkley <sup>2</sup> , <sup>1</sup> Montana State University, Bozeman, <sup>2</sup> University of Nebraska, Lincoln. |
| 9:30 AM | 84           | <b>Effects of feeding endophyte-infected tall fescue seed to sheep experimentally infected with <i>Escherichia coli</i> O157:H7.</b> M. L. Looper* <sup>1</sup> , T. S. Edrington <sup>2</sup> , C. F. Rosenkrans, Jr. <sup>3</sup> , J. M. Burke <sup>1</sup> , R. Flores <sup>3</sup> , T.   |

R. Callaway<sup>2</sup>, and G. E. Aiken<sup>4</sup>, <sup>1</sup>USDA-ARS, Dale Bumpers Small Farms Research Center, Booneville, AR, <sup>2</sup>USDA-ARS, Southern Plains Agricultural Research Center, College Station, TX, <sup>3</sup>University of Arkansas, Fayetteville, <sup>4</sup>USDA-ARS, Forage-Animal Production Research Unit, Lexington, KY.

- 9:45 AM 85 **Incidence and physicochemical characteristics of bovine fresh meat showing iridescence.** F. Nunez-Gonzalez\*, J. Garcia-Macias, F. Rios-Rincon, J. Hernandez-Bautista, and J. Ortega-Gutierrez, *Universidad Autonoma de Chihuahua, Chihuahua, Mexico.*
- 10:00 AM 86 **Effects of feed intake, stress or exogenous hormones on *Salmonella enterica* serovar Choleraesuis 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

- | <b>Time</b> | <b>Abstract No.</b> | <b>Abstract</b>   |
|-------------|---------------------|---|
| 9:15 AM     | 117                 | <b>Effects of sulfates in water on performance of cow-calf pairs.</b> H. H. Patterson*, P. S. Johnson, G. A. Perry, and R. N. Gates, <i>South Dakota State University, Brookings.</i>   |
| 9:30 AM     | 118                 | <b>Ruminal degradation of a chile pepper byproduct by cows.</b> D. Cazac*, C. A. Loest, J. W. Waggoner, C. P. Mathis, and M. K. Petersen, <i>New Mexico State University, Las Cruces.</i>   |
| 9:45 AM     | 120                 | <b>Influence of slice baling hay on performance of newly received feedlot steer calves.</b> F. Loya-Olguin* <sup>1</sup> , D. Walker <sup>1</sup> , K. Malcolm-Callis <sup>1</sup> , M. Encinias <sup>1</sup> , and S. Soto-Navarro <sup>2</sup> , <sup>1</sup> Clayton Livestock Research Center, Clayton, NM, <sup>2</sup> New Mexico State University, Las Cruces. |
| 10:00 AM    | 121                 | <b>Evaluation of feed efficiency traits in growing bulls and relationships with feeding behavior and ultrasound carcass estimates.</b> P. A. Lancaster*, G. E. Carstens, and S. A. Woods, <i>Texas Agricultural Experiment Station, College Station, TX.</i>  |

10:15 AM

122

**Efficacy of a self-fed small supplement for prepartum cows grazing dormant piñon-juniper rangeland.** J. Sawyer\*<sup>1</sup>, S. Cox<sup>2</sup>, R. Endecott<sup>2</sup>, M. Rubio<sup>2</sup>, S. Ivey<sup>2</sup>, and M. Petersen<sup>2</sup>, <sup>1</sup>*Texas A&M University, College Station*, <sup>2</sup>*New Mexico State University, Las Cruces*.

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1994	K. Koong, Oregon State University
1993	J.S. Brinks, Colorado State University
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1991	C.B. Theurer, University of Arizona
1990	M.H. Kennington, California State Poly Univ.
1989	C.W. Newman, Montana State University
1988	C.J. Kercher, University of Wyoming
1987	D.C. England, Oregon State University
1986	W.N. Garrett, University of California-Davis
1985	R.L. Blackwell, Montana State University
1984	V.R. Bohman, University of Nevada-Reno
1983	R.A. Bellows, USDA, Montana
1982	D.C. Church, Oregon State University
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1979	J.K. Matsushima, Colorado State University
1978	P.T. Cupps, University of California-Davis
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1976	G.P. Lofgreen, University of California-Davis
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1974	J.E. Oldfield, Oregon State University
1973	H.H. Stonaker, Colorado State University
1972	L.E. Harris, Utah State University
1971	R. Bogart, Oregon State University

#### **Young Scientists**

2004	D. H. Crews, Canada Agriculture
2003	B.W. Hess, University of Wyoming
2002	T.W. Geary, USDA-ARS, Miles City, MT
2001	D.E. Hawkins, New Mexico State University
2000	T.J. DelCurto, Oregon State University
1999	K.E. Belk, Colorado State University
1998	N.E. Cockett, Utah State University
1997	J.G.P. Bowman, Montana State University
1996	M.E. Mirando, Washington State University
1995	M.B. Judkins, University of Nevada-Reno
1994	M.E. Wise, University of Arizona
1993	J.D. Tatum, Colorado State University
1992	M.K. Petersen, New Mexico State University
1991	W.J. Murdock, University of Wyoming
1990	D.C. Adams, USDA, Miles City



1989	A.R. Menino, Oregon State University
1988	M.L. Galyean, New Mexico State University
1987	R. Allen, University of Arizona
1986	J.R. Males, Washington State University
1985	G.B. Anderson, University of California-Davis
1984	E.L. Squires, Colorado State University
1983	G.E. Seidel, Colorado State University
1982	P.J. Burfening, Montana State University
1981	R.W. Wright, Jr., Washington State University
1980	T.M. Nett, Colorado State University
1979	P.R. Cheeke, Oregon State University
1978	S.L. Davis, University of Idaho
1977	J.J. Reeves, Washington State University
1976	C.C. Kaltenbach, University of Wyoming
1975	G.D. Niswender, Colorado State University

### **Extension Award**

2004	W. F. Gipp, Montana State University
2003	J. A. Paterson, Montana State University
2002	S. B. LeValley, Colorado State University
2001	D.R. Zobell, Utah State University
2000	R.L. Hathaway, Oregon State University
1999	A.M. Swinker, Colorado State University
1998	J.C. Whittier, Colorado State University
1997	J.W. Oltjen, University of California-Davis
1996	R.W. Kott, Montana State University
1995	N.J. Stenquist, University of Utah
1994	R.C. Torrell, University of Nevada-Reno
1993	J.E. Nel, University of Wyoming
1992	D.L. Hixon, University of Wyoming
1991	L.J. Krysl, University of Nevada-Reno
1990	T.L. Stanton, Colorado State University
1989	C.G. Gibson, University of Idaho
1988	R.M. Brownson, Montana State University
1987	J.M. Sachse, New Mexico State University

### **Teaching Award**

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2003	T. T. Ross, New Mexico State University
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2001	B.F. Sowell, Montana State University
2000	T.R. Famula, University of California
1999	D.W. Holcombe, University of Nevada, Reno
1998	J.D. Tatum, Colorado State University
1997	J.J. Reeves, Washington State University
1996	R.D. Green, Colorado State University
1995	T.G. Field, Colorado State University
1994	D.W. Weber, Oregon State University
1993	W.A. Schurg, University of Arizona
1992	M.L. Riley, University of Wyoming
1991	D.M. Hallford, New Mexico State University
1990	L.E. Orme, Brigham Young University
1989	E.L. Martin, Washington State University
1988	J.A. Froseth, Washington State University
1987	R.E. Taylor, Colorado State University

## **First Place Recipients of the Competition Paper Award**

2004	S. L. Lake, University of Wyoming
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2002	J. A. Morrison, Oregon State University
2001	O.J. Dennison, New Mexico State University
2000	M. Bertolini, University of California
1999	L. Brokaw, University of Wyoming
1998	L.R. McMahon, University of Saskatchewan
1997	T.E. Ludwig, Washington State University
1996	T.M.M. Bernardini, Montana State University
1995	L.M.M. Surber, Montana State University
1994	S.I. Paisley, University of Wyoming
1993	K.A. Naivar, University of Wyoming
1992	M.J. Guthrie, New Mexico State University
1991	T.W. Geary, Washington State University
1990	M.A. Lane, Montana State University
1989	D.L. Rankins, New Mexico State University
1988	D.M. Grieger, Washington State University
1987	M. Flood, Washington State University
1986	J.M. Miner, Montana State University
1985	J.S. Caton, New Mexico State University
1984	M.J. Garber, Washington State University
1983	J. Brown, Washington State University
1982	D. Honeyfield, Washington State University
1981	M.U. Marcano, Washington State University
1980	J.C. Throckmorton, Oregon State University
1979	C.L. Griggin, New Mexico State University
1978	M.K. Petersen, University of Idaho
1977	C.A. Hildebrand, University of Idaho
1976	S.R. Becker, Washington State University
1975	C.C. Calvert, Montana State University
1974	T.M. Bray, Washington State University
1973	C. Shreffler, Oregon State University
1972	P.V. Rattray, University of California
1971	A. Booren, University of Wyoming
1970	R.L. Quaas, Colorado State University
1969	D. Wideman, Colorado State University
1968	A.A. Howells, Washington State University

## **First Place Recipients of the Applied Animal Science Awards**

2004	E. H. Ward, South Dakota State University
2003	H. H. Patterson, South Dakota State University
2002	H. H. Patterson, South Dakota State University
2001	D. D. Kress, Montana State University

## **Institutional Graduate Student Paper Competition**

2004	New Mexico State University
2003	University of Wyoming

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