

Western Section American Society of Animal Science

Summary of Scheduled of Events

All Rooms are in the Convention Center unless stated otherwise

NOTE: All posters will be in Room 2250A. The posters will be displayed from 8:30 a.m.

Thursday, June 10 until 12:00 Noon Friday, June 11. Authors will be present at the times stated in the program.

Wednesday, June 9, 1999

- | | |
|-----------------------|---------------------------------------------------------------------------------------------------------|
| 8:00 a.m. - 4:00 p.m. | Registration, Rm 2297B |
| 8:00 a.m. - 4:30 p.m. | Livestock Symposium: "Consumer-Driven, Science-Based Beef Production Systems" - Rm 2254 CC (Auditorium) |
| 6:00 p.m. - 8:30 p.m. | Informal Reception - Bean Museum |

Thursday, June 10, 1999

- | | |
|------------------------|--------------------------------------------------------------------|
| 6:30 a.m. - 8:30 a.m. | Livestock Extension Specialists Business Breakfast - Morris Center |
| 8:00 a.m. - 4:00 p.m. | Registration, Rm 2297B |
| 8:00 a.m. - 4:00 p.m. | Posters, Rm 2260A |
| 9:00 a.m. - 11:45 a.m. | Graduate Student Competition, Rm 2254 CC (Auditorium) |
| 9:00 a.m. - 4:00 p.m. | Spouses and Teen Activities |
| 1:30 p.m. - 4:00 p.m. | Breeding and Genetics, Rm 2265 CC |
| 1:30 p.m. - 2:45 p.m. | Physiology, Rm 2267 CC |
| 2:00 p.m. - 4:30 p.m. | Ruminant Nutrition, Rm 2295 CC |
| 5:30 p.m. - 7:30 p.m. | Steak Barbeque, Riverside Park |

Friday, June 11, 1999

- | | |
|------------------------|--------------------------------------------------------------|
| 8:00 a.m. - 12:00 Noon | Registration, Rm 2297B |
| 9:00 a.m. - 11:15 a.m. | Animal Behavior/Livestock Production Environment, Rm 2265 CC |
| 9:15 a.m. - 11:30 a.m. | Growth-Development/Meat Science/Teaching, Rm 2295 CC |
| 9:00 a.m. - 10:00 a.m. | Forages/Pastures, Rm 2267 CC |
| 8:00 a.m. - 12:00 Noon | Posters, Rm 2260A |
| 12:00 Noon - 2:30 p.m. | Business and Awards Luncheon, Rm 2258A |

Livestock Symposium

Consumer-Driven, Science-Based Beef Production Systems

Wednesday, June 9, 1999
8:00 a.m. - 4:30 p.m.
Rm 2254 CC (Auditorium)

Dr. R. L. Preston, Pagosa Springs, CO, Presiding

- 8:50 Introduction Dr. Robert Short, USDA, Miles City, MT
- 9:00 How Can the Beef Industry Recapture Lost Market Share? Dr. Ted Schroeder, Kansas State University
- 9:45 Break
- 10:00 New approaches for Improvement of Beef Tenderness, Quality and Consistency. Dr. Daryl Tatum, Colorado State University
- 10:40 Can Cow Adaptability and Carcass Acceptability Both be Achieved? Dr. Ronnie Green, Colorado State University
- 11:20 How Can the Early Post-partum Heifer be Physiologically and Nutritionally Manipulated to Optimize Reproductive Efficiency? Drs. Mark Peterson, Dean Hawkins and Milt Thomas, New Mexico State University
- 12:00 Lunch
- 1:30 Can the Nutrient Status of Grazing Cattle be Monitored to Determine Supplement Needs? Dr. Ted McCollum, Texas A&M University
- 2:10 Will Integrated Production Alliances Restore Beef Market Share? Dr. Darrell Wilkes, Future Beef Management, Inc., Englewood, CO
- 2:50 Break
- 3:00 NCBA Perspective on Industry Direction. Mr. Terry Stokes, National Cattlemen's Beef Assoc., Englewood, CO
- 3:40 Incorporating Science into The Production of Consumer Acceptable Beef Panel.
Dr. Doug Hixon, Moderator
Dr. Don Clanton, C&S Cattle, Co., Elizabeth, CO
Dr. Art Raun, Eagle's Nest Ranch, CO
Dr. Tom Dunn, ZC Ranch, Laramie, WY
Dr. Dell Allen, Excel Corp., KS

Graduate Student Competition

Thursday, June 10, 1999
9:00 a.m. - 11:45 a.m.
Rm 2254 CC (Auditorium)

Dr. B. W. Hess, University of Wyoming,
Laramie, Presiding

- Abstract
- | Time | No. | |
|-------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9:00 | 1 | Soybean oil or corn supplementation of heifers grazing summer pasture. L. Brokaw*, B. W. Hess, T. K. Stenbak, J. D. Heeg, M. B. Whitney, and C. M. Tsopito, University of Wyoming, Laramie, WY 82071. |
| 9:15 | 2 | Effects of Supplemental Undegradable Intake Protein on Productivity of Primiparous Beef Cows. B. W. Alderton* ¹ , D. L. Hixon ¹ , B. W. Hess ¹ , D. M. Hallford ² , L. F. Woodard ¹ , and G. E. Moss ¹ , ¹ University of Wyoming, Laramie, WY 82071, ² New Mexico State University, Las Cruces, NM 88003. |
| 9:30 | 3 | Synchronization of ovulation using hCG or GnRH with the CO-Synch protocol in suckled beef cows. R. R. Salverson*, J. C. Whittier, E. R. Downing, and T. W. Geary, Colorado State University, Fort Collins, CO. |
| 9:45 | 4 | Effect of lactation and stage of lactation on self-fed supplement intake and performance of beef cows consuming low-quality forage. N. A. Suverly*, T. DelCurto, S. Paxton, M. R. Keller, D. W. Weber, and C. A. Parsons, Oregon State University, Corvallis, OR. |
| 10:00 | | BREAK |

- 10:30 5 Preliminary evaluation of pituitary responsiveness to growth hormone releasing hormone as a tool to predict growth traits in bulls. C. C. Rasor*¹, M. G. Thomas¹, R. M. Enns², H. C. Salazar², D. M. Hallford¹, and J. D. Thomas¹, ¹New Mexico State University, Las Cruces, NM, USA, ²University of Arizona, Tucson, AZ, USA.
- 10:45 6 Effects of supplemental trace mineral form on trace mineral status and performance of beef heifers. J. D. Bailey*¹, R. P. Ansotegui¹, J. A. Paterson¹, J. G. Berardinelli¹, and A. B. Johnson², ¹Montana State University, Bozeman, ²Zinpro Corporation, Eden Prairie, MN.
- 11:00 7 Digestibility characteristics of barley lines from the world collection in rats. D. C. Regli*¹, J. G. P. Bowman¹, T. K. Blake¹, L. M. M. Surber¹, S. J. Rolando¹, B. L. Robinson¹, and H. Brockleman², ¹Montana State University Bozeman, MT, ²USDA-National Small Grains Germplasm Research Facility Aberdeen, ID.
- 11:15 8 Locoweed bite count correlation with serum swainsonine levels in cattle. D. R. Doherty*¹, J. Vaad¹, G. Greathouse¹, A. P. Knight², T. W. Geary³, and M. H. Ralphs⁴, ¹Colorado State University, Department of Animal Science, ²Colorado State University, Department of Clinical Science, ³USDA, ARS, Fort Keogh, LARRL, USDA, ARS, Poison Plant Research Center.
- 11:30 9 Effects of cutting method, display temperature and vitamin E on retail beefsteak discoloration. Y. Chiang* and T. P. Ringkob, University of Nevada, Reno NV.

Lunch

11:45 a.m. - 1:30 p.m.
Morris Center

Breeding and Genetics

Thursday, June 10, 1999
1:30 p.m. - 4:00 p.m.
Rm 2265 CC

Dr. G. D. Snowder, USDA, ARS, DuBois, ID, Presiding

- | Time | Abstract No. | |
|------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1:30 | 18 | Genetic parameter estimates for birth weight, weaning weight, and post weaning gain in Salers beef cattle. L. A. Kuehn* ¹ , B. L. Golden ¹ , C. R. Comstock ¹ , L. R. Hyde ¹ , and S. Doubet ² , ¹ Colorado State University, Fort Collins, ² American Salers Association, Englewood, CO. |
| 1:45 | 19 | Age of dam by contemporary group interaction for weaning weight in Salers cattle. L. R. Hyde* ¹ , B. L. Golden ¹ , C. R. Comstock ¹ , L. A. Kuehn ¹ , and S. Doubet ² , ¹ Colorado State University, Fort Collins, ² American Salers Association, Englewood, CO. |
| 2:00 | 20 | Using microsatellites to determine genetic similarities and differences in Criollo cattle. N. D. Russell* ¹ , E. G. Fraser ¹ , G. Erosa ² , J. Rios ² , and D. E. Hawkins ¹ , ¹ New Mexico State University, Las Cruces, NM USA, ² University of Chihuahua, Mexico. |
| 2:15 | 21 | Evaluation of a Panel of Microsatellite DNA Markers for Use in Individual Identification of Beef Cattle. E. M. Stockburger* ¹ , R. D. Green ¹ , W. O. Wood ¹ , T. Holm ² , M. D. MacNeil ³ , D. W. Schafer ⁴ , R. S. Yemm ¹ , and J. Berg-Ramsey ¹ , ¹ Department of Animal Sciences, Colorado State University, ² Perkin Elmer AgGen, Salt Lake City, UT, ³ USDA-ARS Livestock and RAnge Research Laboratory, Miles City, MT, ⁴ Colorado State University, San Juan Basin Research Center, Hesperus, CO. |
| 2:30 | 22 | Docility EPD for Salers cattle. J. L. Evans* ¹ , L. A. Kuehn ¹ , L. R. Hyde ¹ , C. R. Comstock ¹ , B. L. Golden ¹ , and S. Doubet ² , ¹ Colorado State University, Fort Collins, ² American Salers Association, Englewood, CO. |
| 2:45 | | BREAK |
| 3:15 | 23 | Estimation of heritability for heifer pregnancy in Limousin cattle. M. D. Summers* ¹ , J. L. Evans ¹ , L. R. Hyde ¹ , C. R. Comstock ¹ , B. L. Golden ¹ , and K. J. Andersen ² , ¹ Colorado State University, Fort Collins, ² North American Limousin Foundation, Englewood, CO. |
| 3:30 | 24 | Economic values for stayability and heifer fertility of beef cattle. P. L. Charteris* ¹ , P. R. Amer ² , and B. L. Golden ¹ , ¹ Colorado State University, Fort Collins, ² AgResearch, Invermay Agricultural Center, Mosgiel, New Zealand. |
| 3:45 | 25 | Correlation between progeny carcass ultrasound measurements and sire carcass EPD in Limousin cattle. R. J. Ruppert* ¹ , L. R. Hyde ¹ , C. R. Comstock ¹ , B. L. Golden ¹ , and K. J. Andersen ² , ¹ Colorado State University, Fort Collins, ² North American Limousin Foundation, Englewood, CO. |

Physiology

Thursday, June 10, 1999

1:30 p.m. - 2:45 p.m.

Rm 2267 CC

Dr. R. W. Silcox, Brigham Young University,
Provo, UT, Presiding

Abstract		
Time	No.	
1:30	26	Serum LH and GH as indicators of onset of puberty in young Debouillet ewe lambs. K. L. Shirley*, D. M. Hallford, J. A. Hernandez, and J. L. Bollinger, New Mexico State University, Las Cruces, NM USA.
1:45	27	Serum thyroxine, progesterone, and LH and body weight and milk characteristics in ewes treated with PGF and propylthiouracil during gestation. J. A. Hernandez*, D. M. Hallford, J. L. Bollinger, K. L. Shirley, and J. B. Richards, New Mexico State University, Las Cruces, NM USA.
2:00	28	Effect of oxytocin (OT) on concentrations of phosphorylated extracellular signal regulated protein kinase (ERK 1/2), c-Jun N terminal/stress-activated protein kinase (JNK/SAPK) and p38 in ovine endometrial tissue in vivo. P. D. Burns* ¹ , C. M. Clay ² , S. E. Nelson ² , S. H. Hayes ³ , and W. J. Silvia ³ , ¹ Department of Animal Sciences, Colorado State University, ² Animal Reproduction Laboratory, Department of Physiology, Colorado State University, ³ Department of Animal Sciences, University of Kentucky.
2:15	29	Effect of excess degradable intake protein on early embryonic development, ovarian steroids, and blood urea nitrogen on days 3 and 5 of the estrous cycle in mature ewes. J. G. Berardinelli*, P. J. Burfening, and R. Adair, Montana State University, Bozeman MT.
2:30	30	Effects of increasing levels of undegradable intake protein (UIP) on metabolic and endocrine factors in cycling beef heifers. K. K. Kane*, D. E. Hawkins, G. D. Pulsipher, L. A. Balstad, C. R. Krehbiel, M. G. Thomas, D. D. Denniston, M. K. Petersen, and D. M. Hallford, New Mexico State University, Las Cruces, NM USA.

Ruminant Nutrition

Thursday, June 10, 1999

2:00 p.m. - 4:30 p.m.

Rm 2295 CC

Dr. R. D. Wiedmeier, Utah State University,
Logan, Presiding

Abstract		
Time	No.	
2:00	31	Effects of supplementation on intake and digestion kinetics of prairie hay. T. N. Bodine* ¹ , H. T. Purvis II ¹ , M. T. Van Koevinger ² , and E. E. Thomas ³ , ¹ Oklahoma Agricultural Experiment Station, ² Farmland Industries, ³ Elanco.
2:15	32	Effect of increasing undegradable intake protein on visceral organ mass, digesta pH and enzyme activity in heifers fed sudan grass hay. L. A. Burgwald-Balstad*, C. R. Krehbiel, G. D. Pulsipher, M. K. Petersen, K. K. Kane, D. E. Hawkins, B. M. Capitan, S. A. Soto-Navarro, J. E. Sawyer, and R. C. Waterman, New Mexico State University, Las Cruces, NM USA.
2:30	33	Effects of forage to concentrate ratio on flow of unsaturated fatty acids to the small intestine of sheep. O. Kucuk*, B. W. Hess, and D. C. Rule, University of Wyoming, Laramie, Wyoming/USA.
2:45	34	Evaluation of ewe and lamb immune response in pregnant ewes supplemented with vitamin E. J. T. Daniels*, P. G. Hatfield, D. E. Burgess, and R. W. Kott, Montana State University, Bozeman MT.
3:00		BREAK
3:30	35	Effect of degree of grain processing on serum metabolic hormone profiles and performance by finishing steers. M. S. Brown* ¹ , C. R. Krehbiel ¹ , M. L. Galyean ² , D. M. Hallford ¹ , D. Walker ¹ , G. Duff ¹ , M. Wiseman ¹ , and K. Malcolm-Callis ¹ , ¹ New Mexico State University, Las Cruces, NM USA, ² Texas Tech University, Lubbock, TX USA.

- 3:45 36 Variation in feed quality characteristics in the Lewis x Baronesse recombinant inbred barley lines. L. M. M. Surber*, J. G. P. Bowman, T. K. Blake, T. C. Blackhurst, and S. J. Rolando, Montana State University Bozeman, MT USA.
- 4:00 37 Feeding value of Lewis x Baronesse recombinant inbred barley lines for finishing steers. T. C. Blackhurst*, J. G. P. Bowman, L. M. M. Surber, T. J. Milner, T. K. Daniels, and T. K. Blake, Montana State University, Bozeman, Montana USA.
- 4:15 38 Ileal amino acid digestibility of low and high protein, grain sorghum-soybean meal diets added with a fungal protease in growing pigs. M. Cervantes*¹, J. González¹, N. Torrentera¹, V. González¹, and M. Cuca², ¹Instituto de Ciencias Agrícolas, Universidad Autónoma de Baja California, ²Colegio de Postgraduados.

Posters I

Authors Present: Thursday, June 10, 1999
1:30 p.m. - 3:30 p.m.
Rm 2260A

Abstract

No.

- 39 Effects of monensin and ponderosa pine needle chemicals on ingestion of oats by cattle. S. L. Kronberg and A. V. Earley*, South Dakota State University, Brookings, SD.
- 40 Spatial distribution of grazing cattle: does grazing area preference bias foraging-pathway decisions? M. R. Keil*¹, L. R. Rittenhouse¹, D. W. Bailey², and D. M. Swift¹, ¹Colorado State University Department of Rangeland Ecosystem Science, ²Montana State University Northern Agricultural Research Center.
- 41 Evaluation of a biopsy procedure for collection of liver samples. R. C. Waterman*, J. E. Sawyer, T. L. Dean, J. B. Taylor, L. A. Balstad, D. Bradden, G. B. Donart, J. R. Strickland, and M. K. Petersen, New Mexico State University, Las Cruces, NM USA.
- 42 Comparison of nutrient composition and ensiling characteristics of corn versus wheat-based spent fruit fly media for consideration as livestock feed. J. R. Carpenter*, R. Y. Niino-DuPonte, and L. Loando, CTAHR, University of Hawai'i at Manoa, Honolulu, HI.
- 43 Monitoring changes in carcass quality across time-on-feed using real-time ultrasound. S. A. Nash*, S. N. Harrison, J. H. Packham, R. R. Panting, and S. K. Duckett, University of Idaho, Moscow.
- 44 Lymphoblastogenic responses of New Mexico range calves. J. R. Strickland*, J. B. Taylor, M. K. Petersen, D. A. Walker, H. B. Melloy-Encinas, J. E. Sawyer, R. C. Waterman, and J. E. Harmon, New Mexico State University, Las Cruces, NM USA.
- 45 Feedlot Performance and Carcass Differences Among Dorper, Suffolk, and Western White Face Sired Wethers. K. A. Staab*, B. W. Hess, W. J. Means, J. E. Nel, and J. T. Cecil, University of Wyoming, Laramie WY.
- 46 Nutritional quality of high-sugar corn forage during a fall grazing period. L. M. Yun*, L. Brokaw, E. J. Scholljegerdes, C. M. Tsopito, B. W. Hess, and D. W. Koch, University of Wyoming, Laramie, WY 82071.
- 47 The effects of molasses-urea with or without fat and(or) methionine hydroxy analog (MHA) on nutritional status, reproductive performance and calf growth in cows grazing native range. G. D. Pulsipher*, C. R. Krehbiel, M. K. Petersen, J. E. Sawyer, D. Dhuyvetter, E. E. Parker, S. Cox, and T. Dean, New Mexico State University, Las Cruces, NM USA.
- 48 Effects of previous grazing on gain and feedlot performance in steers. B. M. Capitan*¹, C. R. Krehbiel¹, R. E. Kirksey², L. M. Lauriault², G. C. Duff³, and G. B. Donart¹, ¹New Mexico State University, Las Cruces, NM USA, ²Agricultural Science Center, Tucumcari, NM USA, ³Clayton Livestock Research Center, Clayton, NM USA.

Steak Barbeque, Riverside Park
5:30 p.m. - 7:30 p.m.

Animal Behavior/Livestock Production Environment

Friday, June 11, 1999
9:00 a.m. - 11:15 a.m.
Rm 2265 CC

Dr. R. A. Bellows, USDA-ARS,
Miles City, MT Presiding

Abstract		
Time	No.	
9:00	49	The effects of metaphylactic injectable antibiotics on feeding and watering behavior of newly received feedlot calves. T. K. Daniels* ¹ , J.G.P. Bowman ¹ , B. F. Sowell ¹ , M. E. Branine ² , and M. E. Hubbert ³ , ¹ Montana State University Bozeman, MT, ² Roche Vitamins Inc. Parker, CO, ³ McElhaneey Cattle Company Wellton, AZ.
9:15	50	Ram sexual performance predicts sexual performance of male offspring. C. J. Bench*, E. O. Price, M. R. Dally, and R. E. Borgwardt, University of California, Davis Davis, Ca USA.
9:30	51	Initial evaluation of the Decision Evaluator for the Cattle Industry model using a single production system. B. M. Ripley*, R. D. Green, and P. H. Gutierrez, Colorado State University, Fort Collins, Colorado.
9:45	52	Delaying postpartum supplementation changes the pattern of cow weight loss without affecting total weight loss or calf performance. J. E. Sawyer*, R. C. Waterman, K. K. Kane, and M. K. Petersen, New Mexico State University, Las Cruces, NM, USA.
10:00		BREAK
10:30	53	Effects of dystocia on cold tolerance and serum glucose and cortisol in newborn beef calves. R. A. Bellows* ¹ , M. A. Lammoglia ² , T. W. Geary ¹ , and R. N. Funston ¹ , ¹ Fort Keogh LARRL, ARS, USDA, Miles City, MT, ² BovaGen, San Antonio, TX.
10:45	54	Effect of prenatal exposure to a low magnetic field on growth and maze behaviour of calves. J. Broucek* ¹ , C. W. Arave ² , M. Uhrincat ¹ , A. Sandor ¹ , and A. Hanus ¹ , ¹ Research Institute Animal Production, Nitra, SK, ² Utah State University, Logan, UT.
11:00	55	Sheep grazing to control wheat stem sawfly. P. G. Hatfield*, S. L. Blodgett, G. D. Johnson, P. M. Denke, and M. W. Carrol, Montana State University, Bozeman.

Growth-Development/Meat Science/Teaching

Friday, June 11, 1999
9:15 a.m. - 11:30 a.m.
Rm 2295 CC

Dr. T. F. Robinson, Brigham Young University, Provo, UT, Presiding

Abstract		
Time	No.	
9:15	56	Characteristics of Metacarpal Bones from Cows of Different Age and Weight. R. A. Field*, R. A. Gebault, W. J. Means, D. L. Hixon, and W. C. Russell,
9:30	57	Effects of varying degrees of muscularity and muscular hypertrophy in Hereford, Limousin, and Piedmontese F2 crossbred calves on traits measured at slaughter. R. E. Short*, M. D. Grosz, M. D. MacNeil, and E. E. Grings, USDA-ARS, Fort Keogh LARRL, Miles City, MT.
9:45	58	Growth, LH release, pregnancy, intake, and forage digestion in Suffolk ewe lambs supplemented with high or low levels of undegradable intake protein. M. W. Salisbury*, T. T. Ross, C. R. Krehbiel, C. L. Schultz, L. Melton, and S. Langley, New Mexico State University, Las Cruces, NM USA.
10:00		BREAK
10:30	59	Carcass Characteristics of Forage-Fed Dorper, Suffolk, and Western White-Face Sired Lambs. W. J. Means*, K. A. Staab, R. A. Field, B. W. Hess, J. E. Nel, and F. S. Hruby, Univeristy of Wyoming, Laramie, WY.
10:45	60	Carcass Components, By-Product Yields, and Shear Force Values of Steaks from <i>Bison bison</i> . W. J. Means*, S. R. Pohlman, R. A. Field, A. L. Johnson, D. C. Rule, and K. A. Staab, University of Wyoming, Laramie, WY.

- 11:00 61 An Overview of the New Western Center for Integrated Resource Management. R. D. Green*, G. D. Niswender, T. G. Field, J. C. Whittier, L. R. Roath, L. R. Garry, J. O. Green, and N. L. Dalsted, Colorado State University, Fort Collins, CO 80523-1171.
- 11:15 Comparison of carcass traits of Bos Taurus x Bos Taurus, Bos Indicus x Bos Indicus and Bos Taurus x Bos Indicus. A.P. Márquez, V.C. Carlos, R.S. Ortiz, and G.A. Carrillo

Forages/Pastures

Friday, 9:00 a.m - 10:00 a.m.
Rm 2267 CC

Dr. K. C. Olson, Utah State University, Logan, Presiding

- | Time | Abstract No. | |
|------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9:00 | 62 | Effects of supplemental trace mineral form on copper status, estrus, ovulation rate, and fertility in beef heifers. R. P. Ansotegui ¹ , J. D. Bailey ¹ , J. A. Paterson ¹ , P. G. Hatfield ¹ , and C. K. Swenson ² , ¹ Montana State University, Bozeman, ² Zinpro Corporation, Eden Prairie, MN. |
| 9:15 | 63 | Effectiveness of loose zinc sulfate supplementation on average daily gain (ADG) of Stocker cattle grazing native range. T. L. Dean*, R. C. Waterman, J. E. Sawyer, M. K. Petersen, and G. B. Donart, New Mexico State University, Las Cruces, NM USA. |
| 9:30 | 64 | Effect of grass-legume pasture on forage availability and quality, and growth of Holstein heifers. R. Lopez ^{*1} , C. Krehbiel ¹ , C. Barnes ² , E. Hanson ² , E. Castellanos ¹ , I. Hernandez ¹ , K. Duncan ² , G. Donart ¹ , and R. Flynn ² , ¹ New Mexico State University, Las Cruces, NM USA, ² Agricultural Science Center, Artesia, NM USA. |
| 9:45 | 65 | Evaluation of temperate bamboo foliage as an animal feedstuff: Seasonal changes in composition ¹ and digestibility in ponies. S. G. Greenway ^{*2} , M. Keller ² , G. Nelson ³ , P. R. Cheeke ² , and D. J. Carroll ⁴ , ² Oregon State University, Corvallis, OR, ³ RKR Bamboo Plantation, Coquille, OR, ⁴ Purina Mills, St. Louis, MO. |

POSTERS II

Authors present: Friday, June 11, 1999
9:00 a.m. - 11:00 a.m.
Rm 2260A

- | Abstract No. | |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10 | Effects of calving season and weaning age on bioeconomic efficiency in range beef cattle. M. H. Makarechian ^{*1} , H. Pang ¹ , and J. A. Basarab ² , ¹ Department of AFNS, University of Alberta, ² Alberta Agriculture, Food and Rural Development. |
| 11 | Effects of cow size and milk production on bioeconomic efficiency of range beef cattle. M. H. M. Makarechian ^{*1} , H. Pang ¹ , and J. A. Basarab ² , ¹ Dept. of AFNS, University of Alberta, ² Alberta Agriculture, Food and Rural Development. |
| 12 | Laparoscopic insemination of ewes using resazurin-treated ram semen. S. Wang ¹ , R. C. Evans ^{*1} , G. R. Holyoak ¹ , R. W. Godfrey ² , J. N. Stellflug ³ , and T. D. Bunch ¹ , ¹ Utah State University, Logan, UT, ² University of Virgin Islands, St. Croix, VI, ³ USDA-ARS U.S. Sheep Experiment Station, Dubois, ID. |
| 13 | The development of bovine preimplantation embryos treated with swainsonine <i>in vitro</i> . S. Wang ¹ , K. E. Panter ^{*2} , G. R. Holyoak ¹ , Y. Liu ¹ , R. J. Molyneux ³ , R. C. Evans ¹ , and T. D. Bunch ¹ , ¹ Utah State University, Logan, UT, ² USDA-ARS, Poisonous Research Laboratory, Logan, UT, ³ USDA-ARS, Western Regional Research Center, Albany, CA. |
| 14 | Effects of bulls and fertilization media on production of bovine embryos <i>in vitro</i> . S. Wang ¹ , T. D. Bunch ^{*1} , G. Seidel Jr. ² , and G. R. Holyoak ¹ , ¹ Utah State University, Logan, UT, ² Colorado State University, Fort Collins, CO.
Determination of the stringency of DNA microsatellite marker genotypes for use in individual animal identification. E.M. Stockburger, R.D. Green, W.O. Wood, T. Holm, M.D. MacNiel, D.W. Schafer, R.S. Yemm, and J. Berg-Ramsey |
| 15 | Bovine embryo development <i>in vitro</i> after exposure to fluorescent light. T. J. Bunch ^{*1} , S. Wang ² , G. R. Holyoak ² , and T. D. Bunch ² , ¹ University of Utah School of Medicine, Salt Lake City, UT, ² Utah State University, Logan, UT. |

- 16 Artificial insemination of lactating Angus cows with sexed semen. S. P. Doyle*¹, G. E. Seidel, Jr.¹, J. L. Schenk², L. A. Herickhoff², D. G. Cran², and R. D. Green¹, ¹Colorado State University, Fort Collins, ²XY, Inc., Fort Collins, CO.
- 17 LH response to a GnRH challenge in beef heifers. H. C. Salazar*¹, R. M. Enns¹, M. G. Thomas², C. C. Rasor², D. M. Hallford², and R. L. Ax¹, ¹University of Arizona, Tucson, AZ, ²New Mexico State University, Las Cruces, NM.

POSTERS III

Authors present: Friday, June 11, 1999
9:00 a.m. - 11:00 a.m.
Rm 2260A

Abstract

No.

- 66 Effects of an estradiol implant on locoweed consumption and toxicity in growing steers. J. H. Mikus*¹, G. C. Duff¹, M. S. Brown¹, D. A. Walker¹, M. W. Wiseman¹, M. H. Ralphs², and C. R. Krehbiel¹, ¹New Mexico State University, Las Cruces, NM USA, ²USDA Poisonous Plants Lab, Logan, UT USA.
- 67 Ruminal digestion by steers fed high concentrate diets containing corn or barley. T. J. Milner*, J. G. P. Bowman, and L. M. M. Surber, Montana State University Bozeman, MT USA.
- 68 Effect of roasting temperature on the rate of ruminal in situ degradation of four barley varieties (Idagold, Steptoe, 501 and Baronesse). L. R. Kennington*, D. D. Hinman, and C. W. Hunt, University of Idaho, Moscow, Idaho.
- 69 Replacement value of alfalfa leaves for soybean meal protein in diets fed to mature ewes. C. M. Tsopito, B. W. Hess, A. M. Gray, and J. D. Heeg*, University of Wyoming, Laramie, WY 82071.
- 70 Effects of urea concentration on performance and health of receiving and finishing beef cattle. K. J. Malcolm-Callis*, G. C. Duff, M. L. Galyean, M. W. Wiseman, D. A. Walker, and S. A. Soto-Navarro, Clayton Livestock Research Center, New Mexico State University, Clayton.
- 71 Effect of previous consumption of locoweed on feedlot performance by beef steers. D. A. Walker*, G. C. Duff, J. H. Mikus, C. B. McDowell, K. J. Malcolm-Callis, and M. W. Wiseman, Clayton Livestock Research Center, New Mexico State University, Clayton.
- 72 Feeding value of two Lewis x Baronesse recombinant inbred barley lines, LB13 and LB30, for finishing steers. D. L. Boss*¹, J. G. P. Bowman², L. M. M. Surber², D. C. Anderson¹, and T. K. Blake², ¹Northern Agricultural Research Center, Havre, MT, ²Montana State University, Bozeman.
- 73 Effect of ethanol supplementation on in vitro ruminal digestion. J. A. Gould*, B. W. Hess, D. C. Rule, and P. A. Ludden, University of Wyoming, Laramie 82071.
- 74 Effects of supplemental soybean oil on ruminal fermentation in beef heifers. M. B. Whitney, B. W. Hess, D. C. Rule, and L. Brokaw*, University of Wyoming, Laramie WY 82071.
- 75 Influence of tempering on the feeding value of steam-flaked sorghum for feedlot cattle. J. Salinas* and R. A. Zinn,
- 76 Influence of flocculent coating on the feeding value of cottonseed meal and steam-flaked corn for feedlot cattle. E. Alvarez* and L. Sternberg,
- 77 Influence of yeast culture on health, performance, and digestive function of feedlot steers. R. A. Zinn, E. Alvarez, S. Rodriguez*, and J. Salinas,
- 78 Canola meal, feather meal and urea in high barley diets for growing and finishing beef steers. D. D. Hinman and S. J. Sorensen*,
- 79 Influence of drying technique on fatty acid composition of ovine fecal samples. O. Kucuk, B. W. Hess, and D. C. Rule*, University of Wyoming, Laramie, Wyoming/USA.
- 80 Influence of the beta-agonist, zilpaterol, on growth performance and carcass characteristics of feedlot steers. A. Plascencia¹, N. Torrentera*¹, and R. A. Zinn³, ¹Universidad Autonoma de Baja California, Mexico, ²University of California, Davis.
- 81 Ruminal alkalizing potential of brucite (magnesium hydroxide) and sodium bicarbonate for feedlot cattle. M. F. Montano*¹, J. F. Calderon¹, F. Castrejon², J. D. Garza², F. Perez², and R. A. Zinn³, ¹Universidad Autonoma de Baja California, Mexicali, Mexico, ²Universidad Nacional Autonoma de Mexico, D. F., Mexico, ³University of California, Davis.
- 82 Influence of roasting barley on rumen digestibility. S. J. Sorensen and D. D. Hinman*,
- 83 Immediate and carryover effects of short-term therapeutic feeding of chlortetracycline on digestive function in feedlot steers. W. Chai*, M. F. Montano, and R. A. Zinn,
- 84 Subcutaneous versus intramuscular administration of vitamin E in feedlot calves. R. A. Zinn and R. L. Stuart*,

- 85 Effect of NutroCAL™ fed in a peripartum period on serum nutrient profiles and milk production in Holstein cows. R. Lopez*, C. R. Krehbiel, J. S. Serrato-Corona, and P. B. Kloppenburg, New Mexico State University, Las Cruces, NM USA.
- 86 Toxic effects of high dietary sulfur on growth performance of feedlot calves during the early growing phase. R. A. Zinn, E. Alvarez*, M. Montano, and E. Ramirez,
- 87 Influence of potassium spiking on marketing shrink and carcass characteristics of feedlot steers. J. Rosalez* and R. A. Zinn,
- 88 Implant strategies for calf-fed Holstein steers. R. A. Zinn, E. Alvarez, M. Montano, J. E. Ramirez*, and Y. Shen,
- 89 Effects of extrusion and ionophore addition on ruminal starch digestion and duodenal flow of long-chain fatty acids in ewes fed diets containing soybean oil. B. W. Hess, D. C. Rule, J. E. Kaltenbach*, and L. M. Yun

Business and Awards Luncheon

12:00 Noon - 2:30 p.m.

Rm 2258A

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- 1935–36 C. W. Hickman, University of Idaho
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