



# New Mexico State University

## Department of Animal & Range Sciences

Number 249

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### PUBLICATIONS

Recent departmental publications include:

“Soil depth and climatic effects on desert vegetation dynamics,” **Godfrey Khumalo, Jerry Holechek, Milt Thomas,** and Francisco Molinar. *Rangeland Ecology and Management* 61:269-274.

“Comparison of low-moisture blocks and salt for manipulating grazing patterns of beef cows,” **Derek Bailey,** H.C. VanWagoner, R. Weinmeister, and D. Jensen. *Journal of Animal Science* 86:1271-1277.

“Limiting amino acids for growing lambs fed a diet low in ruminally undegradable protein,” Joubert Nolte, Vlok Ferreira, **Clint Löest, Justin Waggoner, and Clay Mathis.** *Journal of Animal Science* 86.

### TRAVELS

Attending the WERA-39 meetings in Chico Hot Springs, Pray, Montana on May 30-June 2 was Andres Cibils. On June 17-19, he presented a poster, “How does targeted grazing with small ruminants influence subsequent patch use by mule deer and cattle?” at the 15<sup>th</sup> Wildland Shrub Symposium in Bozeman, Montana.

**Derek Bailey** attended the WERA 1 meeting in Laramie, Wyoming on June 21-23, while **Dean Hawkins and Dennis Hallford** attended the W-112 meeting, also in Laramie, on June 26-27.

**Ciara Cusack** will be attending the American Water Resources Association Summer Specialty Conference on Riparian ecosystems and buffers: Working at the waters edge on June 30-July 2 in Virginia Beach, Virginia. She will give a poster presentation titled “Effects of acequias and ground-water levels on riparian vegetation, evapotranspiration, and restoration.”

### NMCGA/NMWG MEETING

The joint New Mexico Cattle Growers and Wool Growers short course and meeting was held on June 15-17 at the Inn of the Mountain Gods in Ruidoso. Appearing on the program were **Milt Thomas** (“Genetic markers: What comes next”); **Manny Encinias** (“Survival – Hi Feed, Hi Fuel”); **John Wenzel** (“Animal Rights vs. Animal Welfare”); **Jack Thomas** (“Meat Safety”); **Tim Ross** (“Improve wool and maintain lamb with SAM?”). Others in attendance were **Dennis Hallford, Mark Petersen, Shad Cox, Richard Dunlap, Clay Mathis, Red Baker.**

### NEUMANN COMPETITION

The 24<sup>th</sup> annual A. L. Neumann Scientific Paper Competition for Animal Science Graduate Students was held on June 19 with eleven students competing. First place was awarded to **Cole Gardner** (“Ovarian function in heifers consuming low quality dormant forage”); second place went to **Johnathon Walsh** (“Neuroendocrine function in heifers consuming low quality dormant forage”); and third place was presented to **Sara Kuykendall** (“Effect of supplemental energy on post-ruminal utilization of methionine by growing lambs”). Cole and Johnathon are master’s students working with Dean Hawkins while Clint Löest serves as Sara’s masters advisor. Judges were Shanna Ivey and Mark Petersen.

Other students participating were:

**Kasey DeAtley** (“Association of microsatellite ETH10 genotypes with growth and carcass trait levels in Brangus cattle”)

**Pablo Luna-Nevarez** (“Altered growth curve characteristics and pregnancy rate levels in thirty-four years of Brangus cattle production in a Chihuahuan Desert management system”)

**Lelanya Hill** (“Histological examinations of major organs from Sprague-Dawley female rats fed

ruminally digested snakeweed and undigested snakeweed”)

**Garrett Gilliam** (“Effects of branched-chain amino acid supplementation on growing steers during an endotoxin challenge”)

**Alfonos Islas** (“Effect of dry distillers gain plus solubles supplementation level on forage intake and characteristics of digestion of beef heifers grazing wheat pasture”)

**Dustin Yates** (“Comparison of salivary and serum cortisol concentration in response to ACTH challenge in sheep”)

**Travis Mulliniks** (“Reproduction in young post-partum range cows supplemented with glucogenic precursors”)

**Sergio Valverde-Saenz** (“Age at puberty in beef heifers: A comparison of Criollo cattle and British crossbred cattle”)

### WSASAS

The 80<sup>th</sup> annual meeting of the Western Section, American Society of Animal Science was held June 24-26 in Laramie, Wyoming. Papers and posters presented at the conference include:

“Effect of supplemental energy on post-ruminal utilization of methionine by growing lambs,” **Sara Kuykendall**, Clint Löest, Garrett Gilliam, D. M. Griego, and Dennis Hallford (Competition)

“Effects of branched-chain amino acid supplementation on growing steers during an endotoxin

challenge,” **Garrett Gilliam**. Brock Graham, Justin Waggoner, Kasey DeAtley, Dennis Hallford, and Clint Löest (Competition)

“Altered growth curve characteristics and pregnancy rate levels in 34 years of Brangus cattle production in the Chihuahuan Desert”, **Pablo Luna-Nevarez**, Dawn VanLeeuwen, Derek Bailey, R. M. Enns, Sergio Soto-Navarro, Gail Silver, and Milt Thomas

“Effect of previous experience on grazing distribution and diet quality of Brangus cows in the Chihuahuan Desert,” **Derek Bailey**, Milt Thomas, J. W. Walker, Barbara Witmore, D. Tolleson, and Calvin Bailey

“Association of micro-satellite ETH10 genotypes with growth and carcass trait levels in Brangus cattle,” **Kasey DeAtley**, G. Rincon, C. R. Farber, J. F. Medrano, R. M. Enns, Gail Silver, and Milt Thomas

“New Mexico Range Improvement Task Force: An integrated team,” **Red Baker**, Clay Mathis, Jon Boren, Sam Smallidge, Jerry Hawkes, Sam Fernald, Chris Allison, and John Fowler

“Evaluation of in vitro degradation of plant cell walls with ruminal microbes,” **Roxanne Reyna-Islas**, Shanna Ivey, Johnette Browne-Silva, Rebecca Creamer, and R. Al-Khatib

“Cow nutrition impacts feedlot pull rate,” **Travis Mulliniks**, Shad Cox, Shanna Ivey, Clay Mathis, Jason Sawyer, and Mark Petersen (poster)

“Age at puberty in beef heifers: Criollo cattle versus British crossbred cattle,” **Sergio Valverde-Saenz**, Johnathon Walsh, Cole Gardner, Travis Mulliniks, Beau Schilling, Dennis Hallford, A. L. Gonzales, Ed Fredrickson, Kim Kane, and Dean Hawkins (poster)

“Neuroendocrine function in heifers consuming low quality dormant forage,” **Johnathon Walsh**, Cole Gardner, Sergio Valverde-Saenz, Mike Horvath, Travis Mulliniks, Dennis Hallford, Shanna Ivey, Kim Kane, and Dean Hawkins (poster)

“Pregnancy rates and serum insulin-like growth factor-1, triiodothyronine, and progesterone profiles in Rambouillet ewes treated with recombinant bovine somatotropin before breeding” **Eli Camacho**, Jillian Benavidez, and Dennis Hallford (poster)

“Ovarian function in heifers consuming low quality dormant forage,” **Cole Gardner**, Johnathon Walsh, Sergio Valverde-Saenz, Mike Horvath, Travis Mulliniks, Dennis Hallford, Shanna Ivey, Kim Kane, and Dean Hawkins (poster)

“Reproduction in young postpartum range cows supplemented with gluogenic precursors,” **Travis Mulliniks**, M.

E. Kemp, Sergio Valverde-Saenz, Cole Gardner, Shad Cox, Andrés Cibils, Dean Hawkins, and Mark Petersen

“Effect of dry distillers grain plus solubles supplementation level on forage intake and characteristics of digestion of beef heifers grazing wheat pasture,” **Alfonso Islas**, Mike Horvath, Eli Camacho, and Sergio Soto-Navarro

“Comparison of salivary and serum cortisol concentration in response to ACTH challenge in sheep,” **Dustin Yates**, Tim Ross, Dennis Hallford, Lelanya Hill, and Robert Wesley

“Histological examination of major organs from rats fed in vitro digested or undigested snakeweed,” **Lelanya Hill**, Tim Ross, R. F. Taylor, Dustin Yates, and Raed Halalsheh

“Effect of level of dry distillers grain plus solubles on serum hormone concentrations in feedlot lambs,” **Yvonne Diaz**, Alfonso Islas, Dennis Hallford, Eli Camacho, Jillian Benavidez, and Sergio Soto-Navarro (poster)

“Impact of nutrient imbalance on rumen and blood metabolites,” **Mike Horvath**, Shanna Lodge-Ivey, Johnette Browne-Silva, Cole Gardner, Johnathon Walsh, and Dean Hawkins (poster)

“Extract from *Larrea* influences rumen fermentation,” **Jeni Petersen**, Shanna Lodge-Ivey,

Johnette Browne-Silva, and Mike Horvath (poster)

“Impact of supplemented glucogenic precursors on nutrient partitioning in young postpartum range cows,” **Travis Mulliniks**, M. E. Kemp, Sergio Valverde-Saenz, Mike Horvath, Shad Cox, Andrés Cibils, Clint Löest, and Mark Petersen

In the Graduate Student Competition, Sara Kuykendall and Garrett Gilliam participated from NMSU. First place was awarded to **Sara Kuykendall**. The Applied Animal Science Award was presented to **Travis Mulliniks**. The Institutional Graduate Student Paper Competition Award was won by **New Mexico State University**.