



"The mission of the CRLRC is to enhance the understanding of woody brush invasion, hydrology, livestock production, wildlife management and discover innovative solutions to improve economic development in rangeland bound communities."

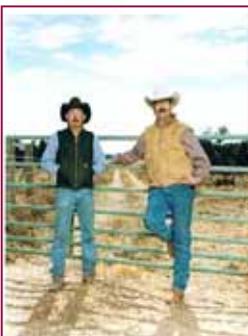
CRLRC is a collaborative effort between animal, range and wildlife scientists, economists, land and wildlife agency personnel and ranchers.



June 15, 2006

Volume 1, Issue 1

Ranch Update



Michael Rubio and Shad Cox live and work on the ranch.

What a challenging year we have all had; with unusual winter and spring wind, the lack of any moisture and the struggle of both livestock and wildlife to maintain condition leaves us hoping that the weather forecasters are right by predicting a return to 'normal' monsoonal weather patterns this summer. As I prepare this inaugural issue of our newsletter, the clouds are building a little each day with scattered distant storms on the horizon. I truly hope that you have caught some of the rain that looks to be falling. The purpose of introducing this newsletter is to keep in touch with each of you between annual July outreach programs. We will conduct a Field Day focusing on the results of completed research projects every three years and have an educational 'Half Day of College' program in subsequent years. At this time, I would like to invite you to join us for the very first 'Half Day of College' coming up on July 21st (see other side for information). It will be an enjoyable and educational day with plenty of time for catching up with distant neighbors and acquaintances.

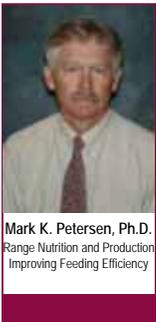
The year started with our annual January Advisory Committee meeting with updates on research progress, discussion of funding strategies for a new high tech educational facility, and the initial planning of this summer's 'Half Day of College' event. In the fall our pregnancy percentage was 90% for all exposed females and we calved 138 cows and 33 heifers this spring. I have sent three dead calves to the state lab; results were; one mild dystocia, one with a punctured esophagus and the other had bear grass and jimsonweed seed in the rumen and vitamin E deficiency. Branding

went well at the end of May and was followed shortly there after with the initial synchronization of all registered Angus, two and three year old crossbred cows and yearling heifers. During the first week of May, we participated in the New Mexico Beef Council's Gate to Plate Tour which was an excellent opportunity to introduce the CRLRC to such an interested and varied audience of civic leaders and media professionals. The next day we flew our annual deer and antelope survey. We finished our AI and turned out the bulls the week of May 15th. Lambing began about the 12th of May (207 head) The last of the ewes have finished lambing and we will mark in a couple of weeks. We find ourselves continuing to feed and waiting for elusive spring (now summer) green-up. Since January we have initiated, completed and/or continued ten research projects.

In closing, I hope that the clouds find you soon and every water gap has to be replaced. As always, if your in the neighborhood and would like to stop by the ranch, we would love to show you around or discuss our research and management with you. I hope to see you in July and please feel free to contact me with any questions or comments you may have at (505)849-1015 or shadcox@nmsu.edu.

Shad

A SMALL PROTEIN SUPPLEMENT PROVIDES A BIG PUNCH



Mark K. Petersen, Ph.D.
Range Nutrition and Production
Improving Feeding Efficiency

Over the last eight years we have been perfecting a self fed supplement that is composed of half Corona Ranch mineral and half 80% crude protein by-product feeds. This supplement was designed in an attempt to decrease the cost of winter supplementation by:

- Decreasing the amount of supplement needed per head per day (4-5 oz/day) due to a highly potent nutritional formulation
- Reduce feeding costs by using a self-fed protein supplement for maintaining body weight and body condition score (BCS) of gestating cows grazing dormant rangeland forage

Increased utilization efficiency resulted in decreased feed costs of maintenance for cows self-fed Small Supplement relative to traditional 36% protein cube despite higher per unit feed costs. Applying



the unit feed costs for 36% cube, small supplement and a group of cows fed only on severe weather days; the total consumption pooled across 2002, 2003 and 2004 results in per cow costs of \$10.08, \$4.70, or \$0.60/cow, respectively. Be-

cause cows fed only on severe weather days failed to maintain body weight (BW) (lost 28 lbs) the Small Supplement was the most economical strategy for BW maintenance (+4 lbs for cows fed Small Supplement and -1 for cows fed 36% cube). This cost comparison does not include additional charges for labor and equipment that might be associated with any of the feeding strategies employed.

TAKE HOME MESSAGE:

A self-fed, small supplement was equally effective for maintaining body weight and body condition score in pregnant wintering cows as a 36% protein cube. This supplement was used with higher efficiency and was more cost effective.

For more information contact your county extension office or Mark Petersen directly at (505)646-1750 or email: marpeter@nmsu.edu.

IS PRESCRIBED FIRE FOR SNAKEWEED CONTROL A GOOD IDEA?



Kirk C. McDaniel, Ph.D.
Brush Ecology and Management

One of the first research projects initiated on the CRLRC in 1990, shortly after the ranch was acquired by NMSU, investigated prescribed fire for eliminating broom snakeweed competition on blue grama grassland. During the course of this 15 year study nearly 100 research burns were conducted within small (0.1 acre) experimental plots at 2 ranch locations.

Experience gained from this research has shown that safely burning New Mexico's blue grama grassland and producing positive results can be tricky. Fires conducted in spring 1990, 1991, 1993 and 1996 reduced snakeweed cover by about 80%. However, grass yield was usually

reduced the first and sometimes second post-burning growing seasons. In later years, even with adequate rainfall, none of these fires resulted in a significant increase in grass yield relative to non-burned areas. A fire conducted in 1998 was followed by drought conditions from 1999 through 2003 and this combination resulted in a significant decrease in grass yield in 7 of the next 8 years. Data from this fire emphasized that without adequate rainfall after burning, blue grama and other grasses can be harmed.

Some experimental plots were re-burned to gain information on blue grama's tolerance to frequent burning.



We saw no advantage to re-burning areas twice within a 5 to 7 year period. Severe damage to blue grama and other



grasses occurred when we re-burned an area five times, or about once every 2 to 4 years over the course of this study. Our findings suggest that fire should not be repeated more frequently than once every 10+ years in a given area so as not to retard grass yield over the long term.

For more information contact your county extension office or Kirk McDaniel directly at (505)646-1191 or kmcdanie@nmsu.edu.

REPRODUCTIVE WASTAGE AND LAMB SURVIVAL OF WESTERN WHITE FACE SHEEP GRAZING RANGE-



Timothy T. Ross, Ph.D.
Sheep and Wool Production
Reproduction/Toxicology

The objective of the three year study at the New Mexico State University Corona Range and Livestock Research Center was to identify the periods at which reproductive wastage is greatest. Western Whiteface Ewes were randomly divided into four similar pastures in 2003, 2004, and 2005. Rams were randomly applied to each treatment at a rate of less than 25 ewes per ram for a breeding season of 34 to 40 days. In 2005, ovulation rates were measured in eight randomly selected ewes from each pasture via mid-ventral laparotomies 28 days after the breeding season began. Each year, one week before expected lambing half of the ewes from each pasture were randomly selected and brought in the

corrals to be shed lambed in order to estimate the number of lambs born per ewe. Lambs born to the shed lambing ewes were ear tagged, weighed, and returned to their original pasture within 24 hours of birth. Approximately 55 days



after onset of lambing, lambs were docked, castrated, weighed, and ear tagged (pasture born lambs). Lambs were weaned at about 150 days after lambing began and all lamb IDs' and weights were recorded. Across all pas-

tures and years potential lamb survival averaged 134, 121, and 113 percent of ewes exposed to rams for birth (shed lambing), marking, and weaning rates, respectively. Shed lamb survivability at birth was greater ($P < 0.001$) than shed lamb survivability at marking and weaning. Lamb survivability was similar from marking to weaning for both pasture ($P > 0.5$) and shed lambs ($P > 0.10$). Ovulation rates (1.75 CLs per ewe) were greater ($P < 0.01$) than birth, marking, and weaning rates for 2005. Assuming ovulation rates represent potential lambs, combining prenatal and pre-marking lamb loss a total of 31 percent potential lambs were absent at weaning.

For more information contact your county extension office or Tim Ross directly at (505)646-3402 or email: ross@nmsu.edu.



Join us for: *HALF DAY OF COLLEGE*

Friday, July 21, 2006
CRLRC Headquarters

Course topics selected by ranchers

Three concurrent sessions:

RANGE ANALYSIS 101

COMPUTERS FOR RANCH MANAGEMENT 110

SPECIAL TOPICS 199: EID for Management

Registration at 9:00 am. Welcome at 9:30 am. First classes start at 10:00 am, second at 11:00 am, lunch served from 12:00 to 1:00 pm. Last classes start at 1:00 pm. Pick and choose the courses you want to attend. Come and visit with your neighbors and researchers from the Corona Range and Livestock Research Center.

Over 200 people made last years field day a great success with their attendance

For more information or directions to the CRLRC contact:
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(505)849-1021 Fax
E-mail: shadcox@nmsu.edu

Directions to CRLRC Headquarters: Turn east off of Hwy 54 (north edge of town) at the Field Day sign. Follow county road (thru underpass) for 8 miles. Road ends at gate.



P.O. Box 392
934 County Line Road
Corona, NM 88318

Please feel free to contact us with any comments or suggestions regarding format and content of this newsletter. If you would like to help cut printing expenses and receive this newsletter via email, or if you would like us to add you, a neighbor or friend to our mailing list please call (505)849-1015 or email: corona@nmsu.edu

