"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.

Southwest Grazing Land Innovations
CORONA
Range and Livestock Research Center

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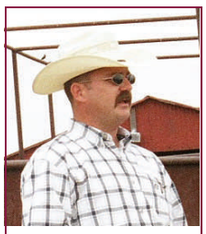
Ranch Update



Shad Cox, Ranch Manager

As I put together this newsletter, I hear thunder and step out to see a few threatening clouds. We have not received much more than a tenth to a quarter inch in a few episodes so far this spring. I hope that you have caught a good shower or two as we wait for the monsoonal flow to begin in full force.

The start of this year has brought many changes to the CRLRC. Dean Hawkins accepted the position of Department Head of Agricultural Sciences at WTAMU in Canyon, Texas. We wish him well and look forward to seeing him down the road as we continue to monitor the productive lifespan of cows that were included in his research studying the impact of heifer development methods on cow longevity. Mark Petersen retired from the department and then took a position with the USDA, Fort Keogh Livestock and Range Research Laboratory, Miles City, MT as Research Leader. Most of Mark's research has been completed on the CRLRC and you may look forward to final summaries of his many years of range nutrition research at Corona. We will continue to work with Mark as we finalize the last year of a USDA funded research study that investigates the effects of cow pre-partum nutrition on calf health from birth through the feedlot. Both of these men will be missed. Further, Jon Boren who was instrumental in developing and securing funding for our current deer and pronghorn research program, has accepted the position of Associate Dean and Director of the Cooperative Extension Service at NMSU. We congratulate Jon and will miss his days on the ranch counting and collaring deer and pronghorn. We look forward to continuing our working relationship with the CES and as partners we will continue our efforts to bring great programs to central NM.

We are in the final planning stages of the Southwest Center for Rangeland Sustainability (SWCRS). We originally planned to break ground in August, but due to circumstances beyond our control, it looks like we will be breaking ground closer to October or November. As most of you know, the SWCRS will be the new research and outreach center of the CRLRC. It will bring much needed presentation and seminar space to the ranch, with centralized offices, a library and technology to increase our research capabilities and outreach activities. Phase II of the facility, when adequate funding has been secured, will bring a state of the art laboratory and overnight accommodations that will also increase our research and outreach opportunities. We look forward to hosting the next Triennial Field Day in 2011 at the new SWCRS.

You will find in this issue, summaries of two projects aimed at increasing your net income when selling calves in the fall. In the first one, we implanted half of our steer calves over the last five years and compared them to herd mate steers that were not implanted. This is interesting, considering we have been through some pretty dry periods throughout the study and we maintained a $9.65 per head average advantage for the calves that were implanted at branding. I can only imagine the average over a few above average precipitation years. The second study looks at the differences in preconditioning weaned calves on pasture with a self-fed preconditioning pellet or a 32% cube fed three days a week. These calves were followed through the feedlot and until harvest. The self-fed group cost more to feed on the ranch, but stayed healthier in the feedlot. Both sets of calves were similar at harvest and the self-feds never recouped the dollars to pay for the higher feed cost on the ranch. I find this interesting and I wonder what the magic level of feed intake would be or what certain nutrient is improving the health of these calves.

In closing, I would like to invite you to visit the ranch during our Half Day of College program on July 17th. Information on times and topics are located on the back of this page. Please know that you are always welcome to visit us throughout the year. Please contact me when you're in the area at (575)849-1015 or email me at shadcox@nmsu.edu.

Shad

IMPACT OF CALFHOOD GROWTH-PROMOTING IMPLANTS ON WEANING WEIGHT AND VALUE

Methods A 5-year study (2003-2007) using 265 spring-born steer calves from the Corona Range and Livestock Research Center (**CRLRC**) were either 1) implanted at branding (early May) with Synovex-C™ (n= 130 head; 10 mg estradiol benzoate plus 100 mg progesterone) or 2) not given an implant (n = 135 head) at branding. Calves were weaned in late September or early October each year. Weight of each calf was measured at weaning, and prices were individually applied to calves based upon the combined New Mexico weighted average price reported by USDA-AMS for the week that calves were weaned. The price reporting category used to best represent calves in the study was medium to larger frame score with muscle score of 1 to 2. The weaning weight and weaning value of implanted and non-implanted steers was compared within and across years.

Average weaning weight and values for calves either receiving a Synovex-C implant at branding (1 to 3 months of age) or not implanted[1]

	Weight, lb			Value, $/hd		
	Implant	No Implant	Difference	Implant	No implant	Difference
2003	569	537	32	524.13	515.43	8.70
2004	601	598	3	651.40	644.93	6.47
2005	547	536	11	645.42	639.58	5.84
2006	479	457	22	607.39	590.86	16.53
2007	533	510	23	637.26	626.57	10.69
5 yr avg	546	528	18	613.12	603.47	9.65

[1] Synovex-C™ contains 10 mg estradiol benzoate and 100 mg progesterone

Results Calves implanted at branding consistently ranked heavier at weaning, with a weaning weight advantage to implanted calves ranging from 1% to 6% (Table 1). Over the entire 5-year period, implanted calves averaged 3.4% heavier at weaning than calves not implanted at branding. Implanted calves also consistently ranked higher in gross value, ranging from 1.7% to 2.8% more income at weaning for implanted calves. The average advantage in calf value attributed to implanting over the study period was almost $10/head. Non-implanted calves were worth $2.00/cwt more than implanted calves because they were 18 lbs lighter at weaning. However, an additional price premium of $1.83/cwt would have been needed to return the same gross value as the implanted calves. Therefore, a total price difference of $3.83/cwt ($2.00 + $1.83 = $3.83) is needed to justify not implanting calves at branding.

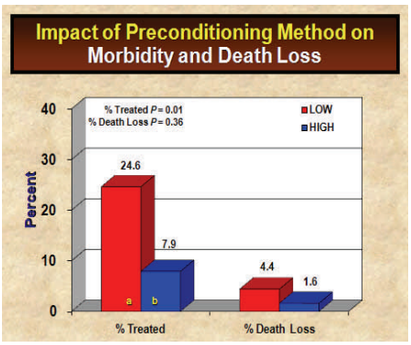
Conclusion While the additional price premium needed for non-implanted calves to breakeven with heavier implanted calves falls within the range of premiums paid for non-implanted calves marketed through programs that identify the calves as non-implanted, such premiums are generally only captured when calves are appropriately marketed according to implant status. Implanting suckling beef calves with growth-promoting implants at branding provides Southwest beef producers the opportunity to cost-effectively increase weaning weight and revenue when calves are marketed through conventional channels.

For more information contact your county extension office or Clay Mathis directly at (505)646-8022 or email: clmathis@nmsu.edu.

COMPARISON OF PASTURE PRECONDITIONING METHODS

Clay P. Mathis, Ph.D.
Extension Livestock Specialist
Ruminant Nutrition and
Reproductive Pysiology

Over 2 years, 132 steers were used to compare a low (**RANGE CUBE**) and high (**SELF-FED PELLET**) input pasture preconditioning method to evaluate performance and profit during the preconditioning and finishing phases. At weaning, steers were randomly assigned to RANGE CUBE or SELF-FED PELLET preconditioning treatments. Steers were fenceline-weaned for 7 days; then transported to their respective treatment pastures. The SELF-FED PELLET steers had ad libitum access to a self-fed corn/wheat midds-based pellet, and RANGE CUBE steers were supplemented with a 32% CP range cube delivered three times a week to average 1.25 lb/day. At the end of preconditioning, SELF-FED PELLET steers were 42 lb heavier, and had a $20/steer greater final value, but their preconditioning feed costs were $42/steer higher. During preconditioning, RANGE CUBE steers had a net income advantage of $20.54/head. Following preconditioning, steers were finished at a commercial feedlot. During finishing there were no differences in ADG, final body weight, or carcass characteristics. However, 16.7 percentage units more of the RANGE CUBE steers were treated for sickness during finishing (see graph), resulting in $6.63/steer greater medicine cost than SELF-FED PELLET steers. Preconditioning method had no impact on finishing net income, or profit from weaning to harvest.



IMPLICATIONS

The cost of nutritional inputs to a preconditioning program has a substantial influence on profitability. Grazing calves on native rangelands at a higher rate of preconditioning gain can better prepare calves to remain healthy after shipping. However, increased feed input costs often required to achieve a higher rate of gain on pasture may not be cost-effective relative to a lower-cost approach if calves are sold after preconditioning, or retained through harvest.

For more information contact your county extension office or Clay Mathis directly at (505)646-8022 or email: clmathis@nmsu.edu.

Year of Sustainability

NM STATE UNIVERSITY

Southwest Grazing Land Innovations
CORONA
Range and Livestock Research Center

Friday, July 17, 2009
Registration at 8:30 am
Introduction at 9:00 am
Classes begin at 10:00 am

Half Day of College

Three Concurrent Sessions

Rangeland Carbon Sequestration—Carbon Credits
Hydrology of Piñon-Juniper Rangelands—Facts vs. Fiction
Ranch Scale Alternative Energy—Wind and Solar

Our website address is: http://corona.nmsu.edu

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