

Ranch Update



Shad Cox
Ranch Manager

The winter has started off with a bang! Finally enough snow that the kids could play in it without hitting rocks. Hopefully the New Year will bring everyone above (even average) moisture to help heal our country, pocketbook and soul.

This spring was exceptionally dry, with the lowest strength grass we have ever experienced (protein 3.4%, TDN 40.8%). The year was very challenging to our cow herd and heifers. Cows were losing weight all spring and heifers just wouldn't gain under our current supplementation program. Because we have been looking for lower cost supplementation alternatives, it was decided to continue our current program and rotate frequently and chase any green feed that could be found. This was not the best approach, but now we know what will happen without the correct nutritional response. Our cows bred a little lower than normal, but yearlings and heifers suffered dramatically. We are now wondering physiologically what the difference is between those that bred and those that did not?

Also, the CRLRC observed low lambing rates in ewes with a marking rate of 57%. However, ultrasound pregnancy diagnosis indicated 124% lamb crop in February. The flock had been closely observed during lambing with no sign of predation evident. This low lambing/markings percentage has been observed in many New Mexico flocks over the last several years,

however, it had not affected the CRLRC until this year. Because of supporting evidence that the ewes had been bred, this was the perfect opportunity for us to investigate the cause. In our case (and suspected across the state) the problem was between conception and birth. All available data on ewes was analyzed, as well as, 48 serum samples sent to the diagnostic lab. Lab results were negative for Lepto (serovars Pomona, icterohaemorrhagiae, canicola, grippotyphosa, hardjo), Q Fever (Q1,Q2), Brucella ovis, and BVD. There was one non-specific reaction to Chlamydia. Dr. John Wenzel, NMSU Extension Veterinarian, consulted the data and after analyzing all available information, including lamb survivability by dam age, his conclusion was; "It is my opinion that the pregnancy loss in this case is most likely nutritionally based, due to the lack of evidence suggesting an infectious cause, and the pattern of loss affecting the young and old ewes the most."

In closing, many ranches have analyzed their nutritional program to adjust for higher operating costs. However, this past year was not the year to test any changes nutritionally, so I wanted to share some information about responding correctly to pasture quality. This issue includes two articles by Clay Mathis dealing with managing nutrition programs, one specifically for ewes, the other in analyzing dormant forage samples.

In closing, we continue to plan the construction of the SW Center for Rangeland Sustainability, however, due to state budget balancing, our appropriations are frozen until after the legislative session. We are optimistic, yet cautious, that we will survive major cuts to our funding sources and hope to have the project bid and a contractor selected in the next 90 days. If you would like further information about the research at the CRLRC please feel free to contact me with any questions or comments you may have at (505)849-1015 or shadcox@nmsu.edu.

Shad

WINTER NUTRITION AND LAMB CROP



Clay Mathis, Ph.D.
Ruminant Nutrition
Ext. Livestock Specialist

Marking and weaning rates have been exceptionally low for New Mexico sheep producers in recent years. While predators always have an impact, they are not likely the entire cause for the recent low lamb crops across the state, and no disease issue has been identified as a cause for the suppressed lamb crop.

Precipitation, or more specifically the lack of precipitation, stands out as a significant issue. Spring green-up, most importantly forb/weed growth, is critically important to meet ewe needs during high nutrient requirements of late gestation and lactation. Winter (January – April) precipitation leading to Spring green-up has been almost non-existent in three of the past four years.

To evaluate the impact of precipitation on lamb crops, marking and weaning data from four Roswell-area ranches from 1981 to 2009 were compiled and analyzed. Results showed that if winter precipitation was below one-half inch, marking rates averaged 68 percent and weaning rates averaged 48 percent, when the area received over one-half inch of winter precipitation, marking rates averaged 92 percent and weaning rates averaged 85 percent. In addition, when less than an inch of rain was received, marking rates decreased by four percent and weaning weights decreased by 5.7 percent for every tenth of an inch decrease below that level.

Similar results were found at the Corona Range Livestock Research Center, where the 2009 marking rate was 57 percent. However, all ewes were diagnosed as pregnant in January using ultrasound technology. All losses, therefore, were between January and June marking. In addition, we determined that between 62 and 76 percent of four, five and six-year-old ewes were nursing lambs in June, while only 33-34 percent of the two, seven and eight-year-old ewes were nursing lambs at that time (fig. 4). The young and old ewes were much more likely to have lost their lamb(s) between January and June.

Based upon past performance and an estimate of the current market, the analysis assumes that weaned lambs weigh 80 lbs and are worth \$96/cwt, so each weaned lamb is worth \$77/hd. Therefore, a 1 percent unit difference in weaning rate equals \$0.77/ewe.

When less than an inch of precipitation is received, a tenth of an inch in winter precipitation is worth 5.7 percentage units in weaning rate. So, a decrease of a tenth of an inch in winter precipitation yields a gross income reduction of \$4.39/ewe. Further, if only 0.5" of winter precipitation falls, losses would be expected to approximate \$21.95/ewe because of decreased weaning rate.

Response and Recommendations

Producers first need to know the normal and average winter precipitation for their ranch. Targeting the youngest and oldest ewes in the herd, and targeting spending to less than 50 percent of the expected losses (based upon historical information) should yield a cost-effective response to a dry winter season. The targeted ewes are twice as likely to not wean a lamb during dry years as are three to six year old ewes. The following chart demonstrates this approach with examples of supplementation, other approaches and feeds may also work.

<p>If by March 1, year to date precipitation is less than 0.4", consider one of the following feeding options that are designed to supply 50% of the ewe's late gestation nutrient requirements. These feedstuffs are identified because they are either common choices or likely relatively cost-effective. There are other approaches that may also work.</p>	<p>Estimated cost of supplementing a ewe for one month.</p> <table border="0"> <tr> <td>2.0 lb/day Alfalfa hay (\$160/ton)</td> <td>\$4.80/ewe</td> </tr> <tr> <td>1.6 lb/day 20% range pellet (\$300/ton)</td> <td>\$7.36/ewe</td> </tr> <tr> <td>1.6 lb/day Wheat middling pellets (\$140/ton)</td> <td>\$3.31/ewe</td> </tr> </table>	2.0 lb/day Alfalfa hay (\$160/ton)	\$4.80/ewe	1.6 lb/day 20% range pellet (\$300/ton)	\$7.36/ewe	1.6 lb/day Wheat middling pellets (\$140/ton)	\$3.31/ewe
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<p>On April 1, if more than 0.3" of precipitation fell during March, and green-up has started, no action is then needed. If, however, year-to-date precipitation is below 0.7", consider continuing the March Action program until green-up occurs.</p>	<p>Estimated cost of continuing through April (60 days total) is:</p> <table border="0"> <tr> <td>2.0 lb/day Alfalfa hay</td> <td>\$9.60/ewe</td> </tr> <tr> <td>1.6 lb/day 20% range pellet</td> <td>\$14.70/ewe</td> </tr> <tr> <td>1.6 lb/day Wheat middling pellets</td> <td>\$6.60/ewe</td> </tr> </table>	2.0 lb/day Alfalfa hay	\$9.60/ewe	1.6 lb/day 20% range pellet	\$14.70/ewe	1.6 lb/day Wheat middling pellets	\$6.60/ewe
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<p>On May 1, if winter precipitation is still less than 0.9", you will be very thankful that you started taking action in March. Consider continuing the previous nutrition program as needed until rain or destocking occurs.</p>	<p>Estimated cost of continuing through May (90 days total) is:</p> <table border="0"> <tr> <td>2.0 lb/day Alfalfa hay</td> <td>\$14.40/ewe</td> </tr> <tr> <td>1.6 lb/day 20% range pellet</td> <td>\$22.08/ewe</td> </tr> <tr> <td>1.6 lb/day Wheat middling pellets</td> <td>\$9.93/ewe</td> </tr> </table>	2.0 lb/day Alfalfa hay	\$14.40/ewe	1.6 lb/day 20% range pellet	\$22.08/ewe	1.6 lb/day Wheat middling pellets	\$9.93/ewe
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WHAT IS YOUR FORAGE QUALITY?



For several cow-calf operations in New Mexico, pre-checking day this fall was not very pleasant. Some reported pregnancy rates less than 60% among 2 and 3-year-olds, and below normal for the mature cowherd as well. The likely

explanation for sub-par reproductive performance is poor nutrition. During February, March and April of 2009, many producers expressed concerns about cows losing more body condition than normal, even though their supplementation program that worked well in the past was unchanged.

Normally, if cows have an adequate supply of forage and start the winter in good condition, winter weight loss can be moderated with supplemental protein. During the winter of 2008-09, protein supplementation alone was beneficial, but not adequate because the forage was also very low

Average crude protein and total digestible nutrients (TDN) of forage samples collected in the winter of 2008-09 and 2009-10.		
	Winter 2008-09	Winter 2009-10
Forage Crude Protein, % of DM	3.4	4.7
Forage TDN, % of DM	40.8	46.6

in energy (Table 1). For those that did not respond through an altered supplementation program, many cows were likely just too thin to cycle soon after calving.

It is recommended that producers sample dormant forage in the late fall or early winter each year to evaluate the winter forage supply. Based on forage sampled during December 2009 at the CRLRC (Table 1), we believe the dormant forage standing in the pastures at the CRLRC is nutritionally near "normal" (CP from 4 to

6%; TDN from 45 to 50%), and better than the previous season. Nevertheless, keep a close eye on body condition losses over the next several months, especially if there is not a spring green-up.

(Note: The CRLRC will post December forage analysis annually on the website for your information. Full laboratory results for this winter are available on the site now.)

For more information contact your county extension office or Clay Mathis directly at (575)646-8022 or email: clmathis@nmsu.edu.

New updates to the website happen all the time. Please check often to see what's new at the CRLRC.

For more information or directions to the CRLRC contact:
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Directions to CRLRC Headquarters: Turn east off of Hwy 54 (north edge of town), travel under the tunnel. Follow county road (under tunnel) for 8 miles. Road ends gate.

<http://CORONA.NMSU.EDU>

Producer/Land Manager Section Improved

Pages set up to contain valuable information available from NMSU and elsewhere.

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|---|--|
| Newsletter Archives | Maps and Images |
| Events and Announcements | Flora of the CRLRC Ranch |
| Past Field Day Proceedings | Climate and Precip Archives |
| Past Half Day of College Handouts | Viewable Research Publications |



DON'T MISS THE SW BEEF SYMPOSIUM IN TUCUMCARI!

Wednesday, January 20th 1:00 pm - 5:00 pm
 Economy, Policy, Animal Welfare, BQA

Thursday, January 21st
 8:00 am - 11:15 am

Cattleman's Toolbox: Nutrition, Genetics, Health, Risk Management

11:00 am - 12:00 pm

Focus on Stockers: Receiving and Health

1:00 pm - 5:00 pm

Stockmanship and Stewardship

BY FAR THE BEST EDUCATIONAL EVENT OF THE YEAR!

<http://cahe.nmsu.edu/ces/swbeef/>

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

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