



"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

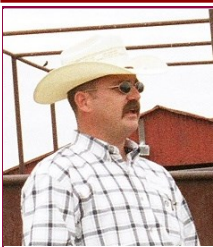
CORONA

Range and Livestock Research Center

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Ranch Update



Shad Cox

CRLRC Superintendent

What a year it was!!! I hope it was great for everyone; plenty of precipitation, heavy calves, best calf prices, great pregnancy rates. It started pretty mixed here at Corona, early big rains on the east end with nothing on the west end, then finished with pretty fair rains across the ranch when we needed it the most and grew a considerable amount of grass in late July and August. Not that everything is back to normal just a little bit more enjoyable. We still have concerns with plant mortality and subsequent range improvement or recuperation, and a much lower inventory of producing females. The next few years will be challenging as we figure out if we are truly coming out of the drought, retaining females when we can, all while dealing with weedy pastures, tumbleweed damage to fencing, reduced cash flow and total overall income as we retain those females. On the bright side, at least what we market are worth a considerable amount more than in the past, overstocking should be a limited factor and we should have more time for maintaining the ranch, instead of putting out feed and maintaining feed trucks.

This year's calf and lamb crop was one of the best on record. Calves and lambs weaned heavy, condition of the dams was the best in some time, cows rebred at a decade ago percentages, and we anticipate the ewes should follow up the same as we get ready to turn out the rams. We have been following the effect of calf-hood implants on our heifer calves and its effect on weaning weight and replacement productivity over the last couple of years, this year should show quite a contrast compared to previous dry years. If that is of interest to you, Eric has provided information on that project on the back of the newsletter. As a new faculty member with an interest in heifer development, Dr. Adam Summers has come on board at the right time as we gear up to develop more heifers than the last few years to promote to our cowherd as quickly as possible. Below, you will find an introduction to Dr. Summers who you will be seeing here at Corona as he develops his program and participates with our outreach program from time to time.

The Southwest Center for Rangeland Sustainability (SWCRS) will soon have an addition of a single cabin by the end of January. During this phase, three more sites have been leveled, plumbed and wired for quick installation of three additional cabins as funding becomes available. With the addition of these cabins, we would be able to offer overnight accommodations for up to 22 guests for future functions hosted by the SWCRS. This options will empower us with the option to add more intensive, multi-day educational programs, as well as, make the SWCRS more attractive for hosting small conferences, trainings, retreats, etc.

This year's Rancher's Roundtables were highly attended by our clientele and with the addition of the new "Beyond the Roundtable" format we just hosted a very successful Symposium on Minerals and Their Role in Ranch Sustainability. We had 43 registered attendees for this event which brought in two leading mineral experts from Texas and Colorado to explain the importance of mineral nutrition, delve into the interactions of these minerals with our environment, and offering solutions to enhance mineral nutrition through testing and observation. Eric finished the day by addressing areas of concern specific to New Mexico, then led a question and answer session for the attendees to answer specific questions or concerns that they had. We are currently in the process of gearing up for a new year of Rancher's Roundtables and Beyond the Roundtable events. If you are not on our mailing list yet, please send me your email address, or you can join us on Facebook for regular updates here at the ranch. As always, we will continue to carry our monthly ad in the New Mexico Stockman, as well as, issue press releases for each event so that your local paper or trade magazine can keep you informed of upcoming events.

In closing, I hope that the New Year will be a productive one with plenty of rain, pregnant cows and with much needed time to shake off the drought. By the way, if you're attending the Joint Stockman's this week, we will have a booth in partnership with the Clayton Livestock Research Center where we will have over thirty research posters on display, as well as, an interactive survey to aid us in developing this coming year's events. We will have a number of small prizes for a lucky few who participate in the survey. So, drop by and visit with us to discuss the research that has been completed over the last few years or give us your ideas for the future. If you would like further information about the CRLRC or SWCRS, please feel free to contact me at (505)849-1015 or shadcox@nmsu.edu.

Shad

Dr. Adam Summers Joins the Research Team at Corona

In July of this year, the Animal and Range Sciences Department welcomed Dr. Adam Summers to the faculty. Dr. Summers took over the Cattle Physiology position formerly



held by Dr. Milt Thomas. Dr. Summers grew up in Northern Utah and received his

Bachelor's and Master's degrees from Utah State University in Animal Science. His research at Utah State involved identifying the effects, both animal and economical, of grazing spring calving pairs on improved irrigated pastures.

After completing his Master's degree, Adam and his family, moved to Nebraska where he completed his Ph.D. in Animal Science with an

emphasis in Reproductive Physiology at the University of Nebraska. While at Nebraska, Dr. Summers worked on heifer development projects, including identifying alternative strategies to develop heifers and the impact these systems have on reproduction. He was also involved in several fetal programming studies trying to identify the amount or type of protein to supplement cows during late gestation to maximize calf performance. After completing his Doctoral degree, Dr. Summers remained at the University of Nebraska, where he worked as a Post-Doctoral Research Associate, studying factors that impact cow fertility.

Dr. Summers will be involved in the department teaching the undergraduate Animal Breeding and Beef Production courses. His research will be focused on identifying the impact of pre- and post-conceptual nutrition

on developing heifer oocyte quality and fertility. Furthermore, he will continue to focus on developing supplementation strategies for pregnant heifers to improve performance and maximize both male and female progeny efficiency through fetal programming.

Adam hit the ground running this fall at the Corona Ranch, implementing a heifer development project where he is committed to traveling to Corona every other week for blood samples and body weights prior to his investigation of heifer physiological response to differing levels of nutritional supplementation to start after the new year. The Corona Ranch welcomes Adam to the Corona Research Team!

You can contact Adam Summers by phone: (575)646-1549 or by email: asummers@nmsu.edu.

Use of Implants in Replacement Heifers



Eric Scholljegerdes, Ph.D.
Range Nutrition

One of the challenges with livestock production in the desert southwest, is the rain fall pattern. This has not been more evident than in the past few years with the staggering drought. It is desirable to keep heifers to maintain or build the herd but one never really knows until mid to late summer as to how much grass will be grown based on precipitation. Therefore, the situation arises where a producer asks the question, “do I sell at weaning or do I have enough grass to keep heifers”. Well, in the case where heifers must be sold, a higher weaning weight is desirable, particularly with current calf prices. Hormonal implants are one of the most cost effective ways to increase weight gain in calves. However, it has been considered taboo to implant replacement heifers because early research showed varying impact on reproduction, therefore, to err on the side of caution it has been recommended to not im-

plant heifers. However, implants have changed and most of this work was not done in heifers in extensive rangeland settings, particularly during drought when forage quality was poor. Therefore, based on requests by our clientele, researchers at Corona Range and Livestock Research Center sought



to revisit this work. Our objectives were to determine if weaning weights were consistently greater in heifers implanted at branding across a number of years and would implanted heifers have impaired reproductive performance. To date, 2 years of data are complete and 109 Angus crossbred heifers were assigned to either the

control (C) or implant (Synovex C) treatment groups at branding (approximately 3 mo. of age). Heifers were managed on native pasture with the same supplementation programs if required from weaning to breeding. Heifers were bled every 14 d starting 56 d prior to the breeding season to determine cyclicity before and at breeding. Implanting heifers provided greater weaning weights and weight at breeding than non-implanted heifers. The percent heifers cycling prior to and at breeding was not influenced by implanting. Furthermore, heifers conceiving within the first 21 days of the breeding season did not differ, however, overall pregnancy rate tended to be slightly greater for non-implanted heifers. We intend to carry out this research for a couple more years to see if the slight difference in overall pregnancy rates holds true.

For more information contact your county extension office or Eric Scholljegerdes directly at (575)646-1750 or email: ejs@nmsu.edu.

Southwest Center for Rangeland Sustainability located on the Corona Range and Livestock Research Center

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Shad Cox — Ranch Manager
CRLRC
P.O. Box 392
Corona, NM 88318
(575)849-1015 Office
(575)799-3569 Mobile
(575)849-1021 Fax
E-mail: shadcox@nmsu.edu



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

More information at www.corona.nmsu.edu

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