



University of California ≈ Cooperative Extension

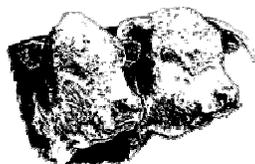
Sutter/Yuba Counties

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HERD ROUND THE RANGE

February 2007



CSU, Chico Annual Beef Day & Trade Show

February 17th 2007

Sponsored by: CSU, Chico, YCA, CBCIA, UCCE, and CDFa

- 8:00 - 9:00** **Registration and Trade Show**
- 9:00 - 9:15** **Introductions and Welcome**
- 9:15 -10:00** **Food borne Pathogens on Beef, Lettuce, and Fresh Spinach**
Dr. Gary Smith, Colorado State University
- 10:00-10:45** **A New Partnership for Ranching & Wildlife - *Kim Delfino, Defenders of Wildlife***
- 10:45-11:00** **Break - Coffee, Doughnuts and Trade Show**
- 11:00-11:30** **CCA Update - *CCA Officers and Staff***
- 11:30-12:15** **Preconditioning Cattle for the Feedlot - What Works? What Doesn't?**
Dr. Del Miles/ Mike Smith, Harris Ranch Beef Company
- 12:15-1:15** **Tri-tip Lunch and Trade Show - *Butte County Cattlemen's Association***
- 1:15-2:00** **"Are Niche Markets the Future for Beef?" - *Mack Graves – C.E.O. Panorama Meats***
- 2:00-3:00** **Breakout sessions –**
- Animal Identification – "Where do we go from here?"**
Dr. John Evans – CDFa, Dr. Dave Daley, Kasey DeAtley and Sean Earley – CSU, Chico
- "Considering Cow Age, Supplementation and Stocking Rate as Factors in Culling Decisions" - *Dr. James Oltjen – UCCE Specialist***
- "New Weed Threats on Rangeland and Irrigated Pasture"**
Glenn Nader – UCCE Livestock and Natural Resource Advisor
Josh Davy – UCCE Livestock and Natural Resource Rep.
- 3:00-4:00** **Sessions repeated**

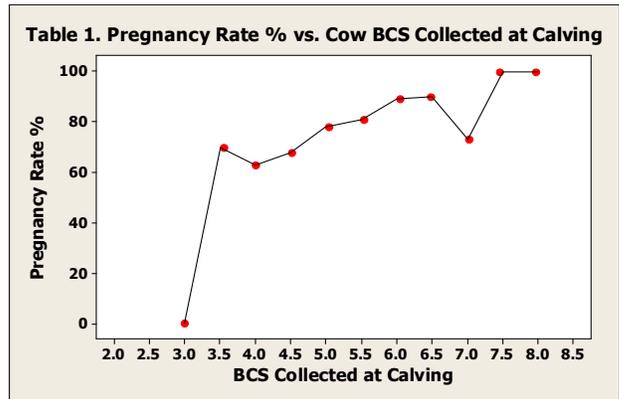
UC Research Aids in Older Cow Culling Decisions

Josh Davy, Benjamin Renquist and James Oltjen

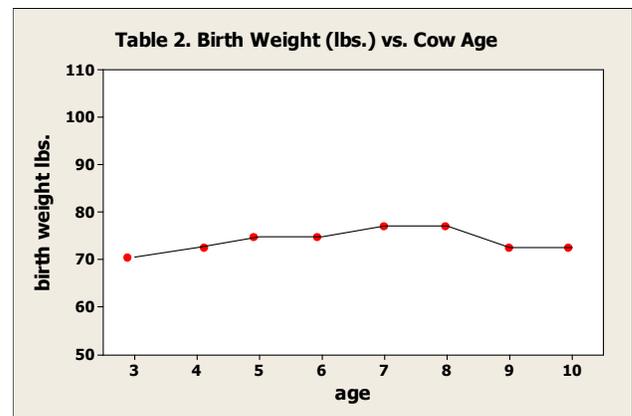
Generally, cow-culling decisions are made at pregnancy testing, with open cows being “sent down the road.” Results of studies conducted by UCD researchers at the Sierra Foothill Research and Extension Center provide a new perspective for considering how long to keep cows around. The research looked at the contributions of age, supplementation and body condition score (BCS) to reproductive efficiency and calf performance. Reproductive efficiency was gauged by pregnancy rate and calving interval. Birth weight and weaning weight were used as the determinants of calf performance. Keep in mind this research was collected on 454 British crossbred cattle at one location, thus results are not necessarily exactly the same in all herds. In any case, the information does prove valuable.

The applicability of this five-year project comes from the individual analysis of cows ranging in specific ages of three through ten, rather than simply comparing first calf heifers to older cows. Without the consideration of BCS, it seemed that cow age was very significant in determination of pregnancy rate. However, further analysis shown that body condition score outweighed the importance of age on pregnancy rate. This implicates a more causative affect to be attributed to the cow’s body condition score when evaluating pregnancy rate. More explicitly, it most likely demonstrates that a cow can be fed to a high pregnancy rate by maintaining her BCS, regardless of age. Table 1 shows the relationship of BCS collected at calving to the subsequent pregnancy rate. Note that the extremes of pregnancy rate seen at body condition scores of less than three and a half and more than seven could partially be due to the low number of cows seen at these two extremes.

Calving interval dropped in the three to four year old cows by 11 days, but had little difference in the older aged cows. The difference in calving intervals between younger cows can be expected due to the normal complications of dealing with first calf heifers.



The difference in calf birth weights at any cow age was never greater than seven pounds. This is shown in Table 2. Regardless of the BCS effect, a dramatic drop in calf weaning weights was seen as cows reached age 10. At age 10, cows weaned calves that were 44 pounds lighter than even their three-year-old herd mates. Even more alarming, 10 year old cows weaned calves 77 pounds lighter than five-year-old cows.



The relationship of age and weaning weight can be seen in Table 3. It’s important to note that this is a difference between weaning weights of calves that were born with no statistical difference in birth weights.



UC Research Aids in Older Cow Culling Decisions continued.....

Taking it one step further, a complementary analysis subjected cattle with varying ages to different supplement and stocking rate strategies for five years. Again, there was no difference between birth weights. Increases in weaning weights by supplemented groups over non-supplemented cows were only seen when cow age was considered as a factor in the analysis. If cow age wasn't considered, no difference in weaning weight appeared. This indicates that the nutrition management was compensating for the difference performance, which gave the impression of the herd being on a level plane of performance. However, the addition of cow age to the analysis complemented the previous finding of cow age importance on calf weaning weight. No difference was seen between adjustments of stocking rates. The implications of this research demonstrate that although adequate nutrition can help older cows to continue producing calves in a timely manner, calf performance still decreases. Management time may be better suited to replacing these older cows with heifers that that will gain in efficiency.

References:

Renquist B. J., J. W. Oltjen, R. D. Sainz, and C. C. Clavert. 2006. Effects of age on body condition and production parameters of multiparous beef cows. *J. Anim. Sci.* 84:1890-1895.

Renquist B. J., J. W. Oltjen, R. D. Sainz, and C. C. Clavert. 2006. Relationship between body condition score and production of multiparous beef cows. *Livestock Sci.* 104: 147-155.

Renquist B. J., J. W. Oltjen, R. D. Sainz, J. M. Connor, and C. C. Clavert. Effects of supplementation and stocking rate on body condition and production parameters of multiparous beef cows. *Anim. Sci.* 81: 403-411.

Milestone, a New Herbicide for Yellow Starthistle

By Glenn Nader and Guy Kyser

Milestone® (aminopyralid) is a new herbicide for use in rangeland, pasture, wildlands, and rights-of-way to control broadleaf plants, especially thistles. It controls some important Sacramento valley weeds such as yellow starthistle, Italian thistle, and artichoke thistle. The label rate for the control of most thistles with Milestone is 3 to 5 ounces per acre. The very low amount of material required per acre and the limited movement of the product from the application point has allowed it to be registered under the Reduced Risk Pesticide Initiative of the U.S. Environmental Protection Agency. Research trials conducted from 2000 to 2006 on rangeland sites in California by UC Weed Specialist Joe DiTomaso found that as low as 2 ounces per acre controlled yellow starthistle.

It is made by Dow Agrosiences, the same company that makes Transline. Milestone® is expected to replace Transline for starthistle control because of its lower costs (estimated \$9 to \$10 per acre for the product at the 3 ounce per acre rate and \$6 for the 2 ounce rate), and the fact that it has a broader control spectrum which includes fiddleneck.

Milestone® gives three to four months of pre-emergence control of starthistle in addition to postemergence control. Starthistle can germinate in the Sacramento valley from October to May. Thus, treatments of Milestone are best applied from December to March. March applications may require a higher rate to be effective. Applications should be made before starthistle bolts or before annual grasses exceed four to six inches in height. Research has shown that the earlier the application, the more grass that is produced on the site.

GLENN NADER,
UC FARM ADVISOR

In this Issue

Day Program

Older

Culling Decisions

New Herbicide for Yellow
Starthistle

to Remember

Beef Day at CSU Chico Farm.
.
17

Niche Meat Conference CSU Chico Farm. .
. March 20-21