



# THE CUTTING EDGE OF NUTRITION

## The Bulletin for Alumni of the Beef Cattle Nutrition School

**May 1996**

### Check With El Niño

Drought is a pretty dry subject for an exciting newsletter but it needs to be addressed - **now!**

#### What If

For our consulting clients (*those in the drought region*), we are plotting animal performance, relative to forage quality and availability, and **management alternatives**. A current forage analysis and present BCS spell out the situation. Frame size, EMBW, latitude, calving period, etc. are already in the computer from times past. An action is proposed and we project the consequences in terms of conception rate, calf performance, etc. A change is made; we do it again and again until the best alternative is found. We are in this together. There is a fire extinguisher next to the Fax machine.

#### How Big

The southwest quadrant of north America (from about the 40<sup>th</sup> parallel south, through and including northern Mexico, and from the Pacific, east to the Mississippi River) is dry, dry, dry. There is help out there - not in the form of hay bales and oilseed cakes but information. Dr. Stan Parsons has a paper entitled "Hot Tips for Drought" that deals with drought management strategies. It's excellent. Send Stan a self-addressed envelope to receive the tips.

*Ranch Management Consultants  
7719 Rio Grande Blvd NW  
Albuquerque, NM 87107-6437*

### Back To Basics

Please recall the principles of a high production/least cost nutrition program. They are: 1) Time of calving. 2) The cow's ability to store and relinquish body fat (BCS). 3) A balanced supplement that accounts for forage deficiencies - *except energy*. The first and foremost necessity that must be satisfied by the application of these principles is conception. The single, most influential factor of conception is BCS at calving. The second is photoperiod. Your best forage

should be used to condition the cow prior to calving. Remember that depositing fat (increasing BCS) requires a great deal more energy than does maintenance and lactation combined. For most of North America, winter and spring moisture produce forage of highest quality and quantity. Calving should occur in very late spring or early summer in order to achieve the desired BCS at calving. Since the cow that calves closest to the longest day of the year breeds earliest, availability of quality forage and photoperiod work in concert. (*The summer monsoon-dependent extreme southwest is an exception. Also, photoperiod impact lessens as you go south.*)

### Before The Drought

If your goal has been weaning weight as opposed to conception rate and market weight, you've been selecting for large cattle with high milk production. This is foolish, especially in semi-arid to arid regions where one raindrop is so critical. Cow maintenance is overhead and conversion of forage to milk is extremely inefficient. For the long term, match size and lactation to the land.

### Managing BCS

Let's make some assumptions. Your mature cows are a frame size 4 and have an EMBW of 1102 lb. Your ranch lies close to the 35<sup>th</sup> parallel so your cows must be in BCS 6 for 95% conception within 45 days of breeding. Your spring forage is such that BCS can decline during the winter to 4.5 and recover by next calving. The key to controlling the BCS of 4.5 is weaning.

### Scout Motto



Why not produce a cushion with a BCS of 6.5. Sure, more feed energy is required but it's like money in the bank or a rain shower on hold. Further, the energy relinquished with each lb of weight loss at BCS 6.5 is 3.52 Mcal of NEm, while at BCS 6 it is 3.35 Mcal. The EBW of your cows in BCS 6 is 935 lb, and it is 980 lb when in BCS 6.5. That's a 45-lb feather pillow. Set the

weaning BCS at 5. Your cow's EBW will be 845 lb. From BCS 6.5 to 5, you have 135 lb of cow weight to work with.

### Now The Drought

*The situation is:* bred/lactating cows losing BCS and no rain. Forage quality is equivalent to dormant forage, NEm *a* 0.42 Mcal. When the cows reach BCS 5 it is decision time. In your favor are the tools of a 45 lb cushion (BCS 5 to 4.5) and weaning. The non-lactating cow at BCS 5 has an EBW of 845 lb. With suitable degradable protein, she will gain 7 to 8 lb per month. You need 90 lb of gain (your minimum at BCS 6) by calving. If you wean at BCS 4.5, she must gain 135 lb by calving time. Either way, some improvement in forage quality prior to calving will be necessary. If you elect to destock at this time, you will be selling a bred cow in BCS 4.5 to 5. Your famine is someone's feast but not for hamburger. Your next opportunity for destocking will be a pair, bred late and in good shape.

### Supplementation

In a good year, supplementation with escape protein during early lactation (*it is inevitably deficient*) commonly is omitted. The slight fall in cow BCS and reduced milk production are not worth the added expense. We agree with the big boys that it is disastrous to feed your way out of drought. However, if you are in a drought situation at (or shortly after) calving, making up for the escape protein deficiency could assure your conception rates.

### Schools in '96

**Grand Junction, CO** July 8 - 11  
**Albuquerque, NM** August 5 - 8  
**North Platte, NE** September 10 - 13  
**Kerrville, TX** October 7 - 10  
**Redding, CA** October 28 - 31

#### Dick Diven

Agri-Concepts, Inc.  
12850 N. Bandanna Way  
Tucson, AZ 85737-8906

**(800) 575-0864 FAX (520) 742-2607**

