

## **DRAFT DROUGHT TIP** **AUGUST 2015**

### **Drought strategies for beef cattle culling**

*Josh Davy, Jeff Stackhouse, and Glenn Nader, University of California Cooperative Extension*

Drought management usually combines strategies of supplementation and culling. Reducing herd size is the most direct way of saving forage on drought-stricken rangeland. Strategic culling requires the foresight to navigate the current year's challenges without overlooking the need to rebuild cattle numbers in the future. When culling, different classes of cattle can be selectively sold to lessen the consumption of forage and match the level of decreased forage production. The following are recommended orders for culling dependent upon drought severity.

#### **1. Early Weaning**

The first action to consider is early weaning of calves. The calves can be sold or confined and put on a higher plain of nutrition to increase gains.

#### **2. Sell cattle that will have delayed income**

Replacement heifers and open cows will take up feed without producing any income for over a year. This action will keep animals that will provide returns, with a focus to address the immediate increased feed costs.

#### **3. Sell cattle that have a higher feed costs to maintain body condition**

With additional drought feed costs, low body condition score and broken mouth cows will require better nutrition to breed and lactate. Also, by keeping younger cows, there is a longer lifespan to recoup the additional feed costs and increased contribution to rebuilding herds post-drought.

#### **Early weaning**

The first consideration of culling should be weaning calves off cows. Lactating increases cattle protein and caloritic demands by 100% and 60%, respectively. Weaning calves saves cow body condition and reduces feed consumption. Both of these have long term savings. Most producers wean 30 to 90 days early. Dry cows have a much lower energy requirement, which can save supplementation costs. Early weaning makes it easier to keep cows in satisfactory body condition at breeding to ensure a successful calf crop. UC research has demonstrated body condition to be the most important factor in getting cows bred. The UC Veterinary Medicine manual on minimum standards for cattle welfare provides a great explanation for body condition scoring cattle [http://www.vetmed.ucdavis.edu/vetext/local-assets/pdfs/pdfs\\_animal\\_welfare/2011cattlestandards.pdf](http://www.vetmed.ucdavis.edu/vetext/local-assets/pdfs/pdfs_animal_welfare/2011cattlestandards.pdf).

Once calves are weaned off cows the decision must be made to either keep the calves and feed them to a desired market weight or sell them directly. Usually selling the weaned calves

immediately is the most economically sound option, but if low cost feed and high market prices are attainable, it may make sense to feed them. A ration balancing program such as the 'Taurus' program available from the University of California can help determine estimated gains based on different rations and the associated cost per pound of gain. Lower average daily gains create cheaper rations, but results in longer feeding time or lighter weight calves to market.

After the cost of gain is estimated the next step is matching the extra weight of the calf with the market price. Since there is no way to predict the future, current markets and seasonal trends are the only ways to estimate what a fed calf might be worth. (Note: Make certain that the higher price per pound for the lighter calf versus the fed calf is accounted for in an estimated value.) Estimate the value of the larger calf and subtract the estimated value of the smaller calf. The cost of feeding over the entire feed period, plus labor, needs to be lower than this value to obtain profit over selling calves directly after weaning.

### **Replacement heifers**

Knowing the herd will likely need rebuilding after drought makes heifer development important, but keeping any excess heifers consumes the already short forage supply. In a drought situation pregnancy checking heifers early, even 90 days after bulls are turned out, is recommended. This allows the quick culling of late-bred heifers which will help to narrow the breeding season the subsequent year and contributes to a smooth transition of second calf heifers into the cow herd. Selling open or late bred heifers early preserves forage for those that will be retained.

There are values to keeping a core herd such as: good genetics, disease resistance including foothill abortion and anaplasmosis immunity, and cattle's knowledge of the range they graze. All of these attributes have real costs when rebuilding a herd.

### **Cow Culling**

In an annual rangeland trial at the UC Sierra Foothill Research and Extension Center, cow age did not affect birth weight, but interestingly had a significant impact on weaning weight. Ten year old cows weaned calves 77 pounds lighter than five year old cows. This makes cows over older cows a target for a culling program.

Conception rate in thin cows is greatly reduced. Thinner cows are also more susceptible to disease and plant poisoning. For these reasons drought management should take a look at culling the cows that are not able to make it in this particular ranch environment. This may increase efficiency in the future even when drought is no longer occurring.

Besides thin cows, any cows with structural issues such as lameness, bad eyes, or poor udders should be immediately sold. All open cows should also be culled as a first priority as they will not contribute income to the ranch. During pregnancy testing borderline cows can be mouthed to determine any tooth caused constraints to forage consumption. Cows with missing teeth, called "broken mouths", can be easily identified and culled. Since cattle's teeth wear down with age mousing can be used as a method to cull older cows if no birth year branding or tagging method is used. The downside with mousing cows for age is that it doesn't account for environmental factors that may have caused excessive wear or tooth loss that are not attributed to age, but it does provide a general estimate.

### **Bulls**

During drought the management of bulls is worth extra consideration. Bulls can consume up to 25% more forage than a cow. Semen checking within a month of the end of the breeding season can help to determine the bulls that should be culled and can subsequently save feed. This is especially important when cattle prices are high because the salvage value of the cull bull can be half or more of the cost of a purchased replacement the next year.

## **Taxes**

There are several sections in the tax code (Code Section 451(e) and 1033(e)) that allow for the deferral of federal capital gains during the drought if cattle are replaced upon drought completion. The plan chosen is dependent upon whether a drought designation has been declared in the affected area. In most cases, if beyond normal culling management is necessary it is likely that a drought disaster has been declared in that area. The National Cattlemen's Beef Association has a fact sheet that describes the requirements and tax deferrals available. Copies of these fact sheets are posted at <http://www.beefusa.org/uDocs/qaondroughtaxmay07.pdf>. A copy of this fact sheet can be very handy when used in conjunction with an accountant.

## **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.
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