



# Ridin' Herd

► by **Rick Rasby**, beef specialist, University of Nebraska

## Have a drought-management plan?

*Drought seems to happen somewhere every year. The key to getting a cow-calf enterprise through drought conditions is to have a management plan. Drought forces forage/livestock producers to develop strategies that deal with indirect economic and biological effects of too many animals for the available feed resources, as well as direct effects of a possible reduction in water supply for animals. Trying to feed the whole herd through a drought with purchased feeds can be financial suicide, especially if drought conditions last more than one growing season. Many strategies can be used to reduce forage demand. Bottom line, have a plan written down and detail steps for implementation.*

### Livestock inventory

Adjusting livestock inventory to reduce and balance total forage required with available forage supply usually is the most economical alternative. Individual production records come in handy to identify low-producing females.

Cull late-calving cows, older cows and less-productive cows. Cull early to avoid selling when prices are low because everyone else is selling. Currently, the market for cull cows is good compared to other years and seems to be good even during the summer months. Consider culling females that are in the bottom 15%-20% of production for two to three years in succession.

Remove yearlings from pasture early and sell or drylot. One of the advantages of having a yearling enterprise along with a cow-calf enterprise is if pasture becomes limited yearlings can be sold or moved to the feedlot and the cow herd can be kept intact.

Usually during drought conditions, weaning calves early is more effective than creep-feeding. Lactational pressure is not removed from the dam when calves are creep-fed. Data from the University of Illinois indicates early-weaned calves are efficient at converting feed to gain. If calves are early-weaned, consider retaining them to take advantage of the efficient gain.

### Drylotting beef cows

Drylotting beef cows is not a new concept

for beef producers. There are data that suggest performance of calves and cows is similar whether they were drylotted or managed on pasture (see [www.ag.ndsu.edu/pubs/beef.html](http://www.ag.ndsu.edu/pubs/beef.html)).

Drylotting beef cows may be an alternative to expensive forages or trucking cattle to another location or state. It would be important to check with your state department of environmental quality to determine if permits are needed for this type of confined animal feeding operation (CAFO).

Pen size and lot space can vary depending on soil type and drainage. A general recommendation is to provide 500 to 800 square feet (sq. ft.) per pair. Plan to provide 28 inches (in.) to 36 in. of bunk space per cow, depending on cow weight.

If the herd is a mix of young and old cows, it would be ideal to have

separate pens for these groups. If separate pens are not possible, hedge toward the higher number in regard to bunk space per cow.

Diets for drylotted cows can contain a lot of forage and are bulky, so deep feedbunks will help limit waste. In drought situations, forage may be expensive and used in limited amounts in the diet. A rule of thumb is to provide at least 0.5% of the cow's weight on a dry-matter (DM) basis as forage to keep the rumen healthy. As an example, if the average weight of the cows being drylotted is 1,200

pounds (lb.), include at least 6 lb. per head per day of forage (DM basis) in the diet. If the forage is 85% dry matter, then feed 7.0 lb. per head per day ( $6 \text{ lb.} \div 0.85 = 7.06$ ) as fed.

As the calf gets older, it will come to the bunk and eat, and diets need to be adjusted.

### Diet design

There are many ways to design diets for cow-calf pairs or nonlactating cows in a drylot. Cheap, or less-expensive feeds are needed to make this a profitable enterprise. Baled cornstalk residue, Conservation Reserve Program (CRP) hay, and straw can work to stretch higher-quality forages such as alfalfa. If cows are drylotted because of drought, forages are usually high-priced.

Depending on the price, corn may or may not fit into the diets for drylotted cows. Corn byproducts can serve as an alternative to corn, especially in the summer. Distillers' grain (DG) is usually cheaper in the summer because feedlot inventories are low. Also, distillers' grains (wet and modified) and gluten feed can be stored in bunkers or ag bags.

DG is a good source of protein, energy and phosphorus. Consider adding calcium (Ca) to the diet because of the high phosphorus (P) content of DGs. Mix the diet uniformly, pay attention to sulfur (S) content, and make sure there is plenty of bunk space so all cows get their share.

Because of the high energy and protein content of DGs, it may not be necessary to feed cows to their capacity in a drylot situation. Drylotted nonpregnant cows were fed either a control diet consisting of bromegrass hay, cornstalks and alfalfa haylage, or limit-fed either bunkered wet distillers' grains plus solubles (WDGS) and cornstalks or bunkered distillers' solubles (DS) and cornstalks (Kovarik, et al., 2009 *Nebraska Beef Report*).

Cows fed the control diet were full-fed. Limit-fed cows were fed 17 lb. per head daily (DM basis, 1.3% of body weight) of the bunkered material. Of the 17 lb. of bunkered material fed, about 7 lb. (DM basis) was either WDGS or DS.

All treatment groups gained weight and the cows that were limit-fed either the bunkered WDGS or DS gained as much or more weight than the control group. Cows exhibited no signs of sulfur toxicity, but

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sulfur content should be monitored in limited diets using WDGS and DS. Although fat level showed no negative effect on animal performance in this experiment, dietary fat should be closely monitored because of its possible negative effect on forage digestion.

These data suggest nonlactating, nonpregnant mature beef cows can be maintained on a limit-fed diet of WDGS or DS. As a management consideration, limited diets should contain some low-quality forage to slow down rate of passage of the diet through the digestive tract, which will help cows adapt to being drylotted.

These data have direct application if

lactating pairs are drylotted. Diets will need to be balanced for nutrients and account for calves consuming some of the diet.

### **Final thought**

Have a management plan and be prepared to implement it when a drought occurs. There are economical options to keep the productive cows in the herd. Records will be critical in drought situations, both from a cow culling and pasture-management standpoint. Be creative in designing feeding alternatives.

Drylotting beef cows may be an alternative. If you decide to drylot cows,

check with your Department of Environmental Quality or similar group within your state to determine if a nutrient management plan needs to be developed.



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**Editor's Note:** "Ridin' Herd" is a monthly column written by Rick Rasby, professor of animal science at the University of Nebraska. The column focuses on beef nutrition and its effects on performance and profitability.