

Ranch Management During Drought

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Drought is a periodic occurrence in many areas of the northern Great Plains. Data collected at the USDA Fort Keogh Range Research Station, Miles City, Montana, yielded several interesting facts:

- 1) The precipitation in any given month is not necessarily indicative of the next month's precipitation.
- 2) If spring precipitation is below normal, total annual precipitation tends to be below normal.
- 3) Precipitation in April and May is the primary factor affecting forage production.
- 4) Annual grass production will reach 79 percent completion by July 1 in two of three years and in 19 of 20 years it will reach at least 65 percent completion.

North Dakota is much like Montana in that we depend largely on spring precipitation as the driving force for forage production. Consequently, you may be able to manage your cattle and rangeland based on spring precipitation received and forage production around the first of July. If spring precipitation and forage growth on July 1 is below normal, you are likely to have lower than average annual forage production.

The past seven to ten year wet cycle has lulled us into a false sense of security. But history shows that drought is common in the northern Great Plains. There are no simple drought management solutions; however, planning and implementing appropriate strategies now can have a positive effect on both the short- and long-term health, condition, and economics of your ranching operation. If you do nothing and adopt a wait and see attitude, you may find that those decisions have already been made for you.

Short-Term Decisions

The basic health needs of the rangeland and cow herd are simple. Rangeland should not be overgrazed or overstocked during drought. Cattle need adequate nutrition now and to sustain them through the winter. To accomplish this you need to reduce stock density, and/or provide supplemental feed. Depending on the severity of the drought, both of these options may be necessary.

Reducing Stocking Rate

Reducing stocking rate can be accomplished a number of different ways. Some ideas to consider are: Sell yearlings or place them in a feedlot; Cull less productive pairs; Move cattle to other pastures; Early weaning

If you have yearlings or stocker cattle, a simple drought management solution is to use yearlings as a forage management tool. During wet years, yearlings are utilized to consume excess forage but during drought years when forage production is lower than expected, they are sold or placed in a feedlot. This system frees up pasture for the cow herd and keeps genetic and selection programs within the cow herd intact.

Culling less productive pairs is another alternative to reduce stocking rate. To do this effectively good production records are needed to select culling candidates. In all likelihood, you have cows targeted for fall culling due to age, pregnancy status, or general lack of social graces. These cows are good candidates to leave the ranch during a drought. Severe or long-lasting drought may necessitate deeper culling than desired.

Moving cattle to rented pastures outside the drought area is another option. This alternative may look attractive initially, but be careful. Thought must be given to the economic and management ramifications of moving cattle to pastures in another state or region. Be sure to factor in transportation costs as you evaluate this option. Selecting a good business partner you trust to provide adequate care for the grazing pairs is key to making this system work.

Early weaning is a very effective management tool, especially for two- and three-year-old cows. Lactating cows typically consume 0.4 to 0.6 percent of body weight more forage than dry cows. By the time a calf weighs 400 to 500 pounds, it is consuming 1.8 to 2.0 percent of body weight in forage. Weaning calves early can significantly improve your late season forage situation. Weaning can be done as early as two months of age but generally results are better if you wait until calves are at least three months old. Be sure to discuss an early weaning vaccination program with your veterinarian.

Supplementation

Providing supplemental feed is another short-term option for dealing with drought. In most situations, herbage production is reduced on drought effected pastures. Consequently, some sort of forage substitute must be provided to maintain performance and health of grazing animals. Byproducts such as wheat midds, corn gluten feed, soybean hulls, and barley malt sprouts are among the feedstuffs available. Cereal grains such as corn, barley, or oats may also be used. Limit supplemental grain to less than 0.4 percent of body weight in most situations since excess starch can depress fiber digestibility in forages. Providing supplemental hay or other forages may be considered, but this is typically not cost effective. Consider putting the cow herd in drylot in lieu of feeding hay.

Creep feeding can also be used to provide supplemental nutrients to the calf. Creep feeds typically replace forage in the diet of the grazing calf. Consequently, using creep feeds can free up forage for the cow herd. However, unless pastures are severely overstocked, do not expect improvements in cow condition with creep feeding. In addition, calf milk intake does not

typically decrease when creep feeds are offered, so the lactation demand is still placed on the cow when creep feeds are offered.

When drought is severe, drylot feeding of high concentrate or high grain diets may be warranted. This requires careful management, but provides an alternative to high-priced forages. In most cases, grains are cheaper per unit of energy than forages, making them attractive alternatives when forage prices are high.

Consider annuals such as millet and sorghum sudan hybrids as potential emergency drought feeds. These forage crops can produce acceptable yields, even when planted as late as July 1.

Long-Term Management

Successfully managing a ranching operation in North Dakota will require dealing with dry conditions sooner or later and any long-term management plan should include strategies for dealing with drought. Culling the cow herd and early weaning calves are difficult decisions to make and implement. Another effective drought management strategy is to stock a portion of the ranch with yearlings. Yearlings can be easily marketed or placed in a drylot during dry periods. Used in conjunction with conservative stocking rates this can be an effective management tool.

Though there are no easy answers to the tough questions during drought, effective planning and management decisions can keep your operation sustainable and profitable in the long run. Be sure to carefully evaluate the economics of any short term drought management practice that you implement. In today's era of high feed and fuel prices, it is critical that economics drive your decision making process.

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