

# Drought Advice

*Despite the difficult situation, be proactive in making management decisions.*

by **Kindra Gordon**

The drought of 2012 will certainly go down in the history books as one of the driest years ever. It is certainly a difficult and depressing time for the farm and ranch industry. But, farmers and ranchers are a strong bunch who are used to pulling themselves up by their bootstraps and persisting — no matter what conditions are thrown their way.

We have gathered a collection of advice from the industry to help land managers navigate through this drought and look to the future (see also Pages 68-71).

Chan Glidewell with the Noble Foundation says the principles of range management are as important during a drought as ever. Foremost is to maintain proper stocking rates.

He explains that proper stocking rate means matching the actual stocking rate to the carrying capacity of the land. Stocking rate is the amount of grazing pressure applied to pastures from all grazing

animals including cows and other livestock. The carrying capacity for a particular area is the amount of forage the land can produce, and this changes from year to year based on precipitation and prior management.

Stocking rate should be adjusted each year to reflect carrying capacity — and must especially be reduced during a drought year when the carrying capacity declines. To adjust may mean feeding supplemental hay or feedstuffs — or selling some of the livestock.

Glidewell also emphasizes that maintaining stubble height of the forage on the land is important for water holding capacity. As a rule of thumb, it is suggested landowners maintain grazing heights for introduced grasses above a three-inch residual height and for native grasses above a six-inch residual height.

Glidewell explains that the shorter that grasses are grazed, the shallower the root systems

become. Shallow root systems inhibit the plants' ability to obtain water that is deeper in the soil profile. It also reduces their ability to act as a water filter when it does rain. Without this filtering effect, rainfall washes sediments (soil) into our ponds, lakes, rivers and streams.

## Manage, manage, manage

Experienced landowners know that drought is a normal part of the climate. And seasoned ranchers also know that the best way to manage drought is to plan and prepare for it before it occurs. A new website has been developed to help landowners do just that — to plan and prepare for and manage drought.

The site — available at [drought.unl.edu/ranchplan](http://drought.unl.edu/ranchplan) — was launched during the summer of 2011 by the National Drought Mitigation Center at the University of Nebraska-Lincoln.

The website spotlights several ranchers across the Great Plains and their drought management efforts. Materials on the site are generally applicable to the Great Plains region — from Texas to North Dakota. Sections on the site include information about:

- Drought basics
- Inventory and monitoring
- Strategies to consider before drought
- Strategies to consider during drought
- Strategies to consider after drought
- Writing a drought plan

Bottomline: It is important to stay in control of the livestock and continue to rotate them to provide periods of active rest to the plants. Active rest is allowing the plants to rest while they are growing, which is needed for recovery of plant health and vigor.

Glidewell says if hay feeding is required, select a poorly producing, preferably introduced, grass pasture as a sacrifice pasture. Feed livestock in the sacrifice pasture instead of degrading all pastures equally. He adds, "Remember: heavy culling or selling of livestock is not the same as giving up — it is a part of managing and best done proactively. In fact, strategic culling and selling of livestock may be the most economically feasible way to survive a drought."

Tonya Haigh, a rural sociologist who helped coordinate the drought website, notes that sample drought plans from eight Great Plains ranching operations are included in the "Write a Plan" section on the site. Haigh says, "I think the lessons shared in these real life examples are one of the most helpful parts of the website."

Haigh notes that these eight case studies share their critical dates and the target conditions they monitor during the year. Haigh says each landowner stresses how important it has been to have such dates. "A common recommendation that kept coming up from landowners and drought advisors as we put together this website, was that the earlier producers make decisions

## What do ranchers do to prepare for drought?

Rural sociologist Tonya Haigh acknowledges that every ranch is unique and different. But through research conducted by the National Drought Mitigation Center she says there are some commonalities among ranchers who have been successful at mitigating the effects of drought on their ranches. What are their strategies? Haigh shares this list:

- They know how much forage they are capable of producing, how much rainfall it takes to produce that forage and what their forage demand is throughout the year.
- They build flexibility into their system.
- They manage to improve the health of their rangeland resources.
- They track rainfall and monitor their forage production.
- They know when in the year they have to make decisions about stocking rates, and they stick to those dates.
- They know what they are going to do if their precipitation or forage levels tell them that they need to adjust the stocking rate.
- They think about the long-term health of their resources and the long-term financial management of their operations. **HW**



## When it does start to rain...

Even when rain eventually comes, Bruce Anderson, Extension forage specialist with the University of Nebraska, says, "The worst may be still to come. Because drought and grazing weakened most perennial pasture plants, grass stands and plant vigor have been reduced, and opportunities for weeds to invade are great."

Anderson points out that fall rains could easily stimulate an unprecedented invasion of winter annuals like cheatgrass, wild oats and downy brome. Or spring rains could encourage the population of plants like ragweed to explode.

Recovery of grazing capacity might be slow, and producers need to be vigilant in observation and anticipation of weed outbreaks, as well as be prepared with all the tools at their disposal — like herbicides, mowing and grazing management — to deal with these challenges as timely as possible, he concludes. **HW**

## Online drought resources

The drought of 2012 is being called the worst since 1956. Several online pages have been developed to assist landowners and livestock producers with planning their drought management strategies. Here are some of the available resources:

The Drought Management Page by the editors at *BEEF* magazine includes links to the U.S. Drought Monitor, the Samuel Roberts Noble Foundation and several university sites. See it at [beefmagazine.com/drought-management-resources](http://beefmagazine.com/drought-management-resources).

A drought calculator is available online at [nd.nrcs.usda.gov/technical/Drought\\_Calculator.html](http://nd.nrcs.usda.gov/technical/Drought_Calculator.html). Development of the Drought Calculator (DC) has been a collaborative process involving U.S. Department of Agriculture (USDA) Agricultural Research Service in Fort Collins, Colo., USDA Natural Resources Conservation Service and North Dakota State University Central Grasslands Research Extension Center. Funding was provided by the USDA Risk Management Agency. Utilizing precipitation information, the DC was developed to help ranchers and other rangeland managers assess the impacts of drought on forage production, enabling them to make better informed decisions as to alternative drought strategies.

The Managing Drought Risk on the Ranch website ([drought.unl.edu/ranchplan/Overview.aspx](http://drought.unl.edu/ranchplan/Overview.aspx)) offers step-by-step instructions in writing a drought plan and profiles producers in different states and how they've managed before, during and after drought. **HW**

and adjust stocking rates during drought, the better.”

### Lessons learned

One of the featured case studies on the Managing Drought website is Welch Ranch from southern Colorado. Of lessons learned, the ranch manager shares: “You cannot drought proof a ranch. You can help and you can delay the effects and you can minimize them, but you can't drought proof your ranch.”

Haigh concurs. She notes that severe drought can undermine anyone's plans and the choices rangeland managers must make can be difficult.

But she adds, “The landowners we've surveyed emphasize that the planning you do early is definitely beneficial. This website is focused on defining drought options before the

drought happens.” She adds, “Then if your monitoring indicates a drought situation, the plan is there and the stress and uncertainty has less of an impact on your decision.” **HW**

**Editor's Note:** Access the *Managing Drought Risk on the Ranch* website at [drought.unl.edu/ranchplan](http://drought.unl.edu/ranchplan). The *U.S. Drought Monitor* map is available at [droughtmonitor.unl.edu](http://droughtmonitor.unl.edu) and the *Drought Impact Reporter* is available at [droughtreporter.unl.edu](http://droughtreporter.unl.edu).