

# **Mount 'n Cattle**

Article for the Wyoming Livestock Roundup

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## **Rangeland Recovery Following Drought**

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I've read and heard lately topics about rangeland recovery following drought that have concerned me.

Those who have lived and ranched in Wyoming or another western state for any length of time have almost certainly experienced drought years. Drought is a normal and reoccurring part of the climate in the area in which we live and ranch.

Too often, you hear or read about how the rangeland will take several years to recover.

I recently read an article in another weekly livestock paper where an "expert" was saying this year's drought will create a 50-percent reduction in forage production for the next several years while the grasses recovered. From research I've found and the experts I talk to, this statement is FALSE! Universities of several western states including Wyoming have conducted research into this and have not found drought to have near that level of impact on subsequent year forage production.

There is a great study by R. K. Heitschmidt and colleagues conducted at Miles City, Mont., where they used a rainout shelter to create a severe drought, combined that

with grazing for two years, and compared that to areas that received near-normal precipitation.

Their conclusions were (my comments in parentheses):

- 1) Intense spring drought reduced soil water content in the upper 30 centimeters of the soil profile (OK, this one was easy) and subsequently reduced total forage production 20 percent to 40 percent (maybe not as much as we would have guessed)
- 2) Periodic grazing during drought had minimal impact on forage production (nice to know) whereas impacts on non-drought plots ranged from moderate enhancements to moderate suppression
- 3) Substantial recovery occurred during the first post-drought year, with near full recovery realized within two years (These plants really are adapted to drought!)

Mike Smith, University of Wyoming Cooperative Extension Service range management specialist, has researched precipitation amounts, timing, and subsequent forage production at three Wyoming sites and examined two decades of records. Smith will say that carryover effects from drought years – if they exist – are difficult to separate from normal variation due to annual weather fluctuations.

It's pretty clear rangeland plants in this area are well adapted to surviving drought and will not take years to recover productivity following drought.

Don't misunderstand what I'm saying. Rangelands can't be grazed at the same levels as during good years. Overgrazing, especially in spring, will reduce subsequent production – drought or no drought.

If forced to overgraze due to drought, resting the overgrazed pastures for an entire season, or at least the spring months, would certainly be appropriate; however, don't make stocking rate decisions for next year based upon what happened this year.

My understanding of the available research suggests that each year is a new year. Even if we had a drought this year and we get good spring moisture, the rangeland is ready to recover for next year.