



OKLAHOMA FORAGES NEWSLETTER



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BOOKMARKS

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We welcome contributions and suggestions. Comments about and contributions to the Oklahoma Forages Newsletter and/or our web sites are welcome and should be submitted to john.caddel@okstate.edu or daren.redfearn@okstate.edu

Everyone interested in forages is welcome to receive and contribute to the Oklahoma Forages Newsletter.

Drought Management and Grazing Strategies for Cow-Calf Operations

Often, forage and livestock producers have **no** management plan, much less a *drought management plan*. The consequences of not planning for drought conditions are a *reaction management strategy* that results in crisis management due to reduced forage production. This may be the first time many producers exhausted their forage supply this early in the year. We need to make some decisions within the next few weeks about our summer grazing strategies. Even with the recent rains, subsoil moisture is still considered short to very short in many areas. It will take several significant rainfall events to recharge the subsoil moisture.

What Is the Outlook for Summer Pastures this Year?

Right now, it is not good (but better than a couple of weeks ago). The condition of most pastures goes back to late summer of 2005. The key period was late-fall through winter when it was extremely dry. Also, there has been a minimal amount of precipitation this spring. There was no moisture replenishment until the end of April during this period, when we typically expect some significant rains to occur. This is the time of year when we typically store subsoil moisture for warm-season grass growth during the mid-to late-summer.

There are already scattered reports in eastern Oklahoma of thinning bermudagrass pastures and reports in western Oklahoma of thinning Old World bluestem and weeping lovegrass pastures, so this appears to be a wide-spread situation. There are also some reports of thinning native grass pastures.

What Is the Easiest Way to Reduce the Current Forage Deficiency?

The quickest way to reduce a forage deficiency is to reduce the number of animals. Since cattle prices are still high, now is the time consider reducing the size of the cow herd. All breeding-aged females should be pregnancy checked and sold if not pregnant. Cull any animals that in good years would be kept with *reservations*, such as older animals that you hope may produce *just one more calf*. Also cull and sell any cows that do not fit the herd genetics you are building, even if they are good cows.

Drought Management and Grazing Strategies, continued

All animals, including cows, calves, replacement animals, and bulls should be sold if they are not doing well. We do not have the luxury of adequate pasture this year to sustain non-productive or poor animals, and *we certainly do not want to have to feed them hay*.

Fertilizing introduced pastures with a small amount of nitrogen fertilizer can also be used to offset forage deficiencies. The best approach to using this strategy is to apply 50 to 75 pounds of N to only the best grass pastures. This will help stretch the forage supply by taking advantage of any rainfall that does occur.

During Drought, Which Grazing Strategy, Continuous Stocking or Rotational Stocking, Is Better to Help Stretch Limited Forage Supplies?

In short, some form of rotational stocking would offer the best chance to stretch limited pasture production. However, **stocking rate** is so much more important than grazing strategy that it is difficult to be certain which grazing strategy is actually better during a drought.

When employing continuous stocking, cattle have the opportunity to be more selective than with rotational stocking. With continuous stocking, cattle have the opportunity to choose the plants that are grazed. Thus, individual animal gain should be greater because of the opportunity to choose a higher quality diet. With rotational stocking, beef production per acre is sometimes higher up to the point of forcing animals to eat toxic and near-toxic plants. The advantages of either grazing strategy are lost when pastures are over grazed.

Assuming that stocking rate is correct, the first consideration may be *pasture health*. Some perennial grasses and some reseeding annuals will not persist if overgrazed for too long. It may be better to overstock and ruin certain pastures than to overstock and hurt all pastures. This would favor rotational stocking. An additional advantage to using this strategy is that in the future, it would be certain which pastures may need better grazing management or renovation.

In the case of cow-calf operations, the increased beef production is not only calf weight gain, but also loss

of body condition on the cows. Regardless of which grazing strategy is implemented, it is likely that pasture quality will be low. If forage quality becomes low enough that it results in loss of body condition, it will become necessary to supplement an economical concentrate.

Are There Other Options That Can Be Considered?

First, we do not want the any cows remaining in the herd to drop a lot of body condition. One consideration is to wean fall-born calves. The calves may need to be fed to keep them gaining weight, but, if necessary, they would be ready to sell. Another option for fall-born calves is to sell them early.

Other options include feeding hay until it rains and pastures become productive. However, if the drought continues for an extended period of time, it will not be economical to feed hay during the summer months. Likewise, hay supplies will be rapidly depleted during a continuing drought, which will result in widespread liquidation of livestock. Should this occur, cattle prices will likely decrease. Thus, it is necessary to be prepared to sell calves as soon as possible.

- - Daren Redfearn, John Caddel, Chris Rice, Bob Woods, Mark Gregory, & Roger Gribble
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Additional Information for Managing Drought

[Drought Management Strategies](#) by Terrence Bidwell and Daren Redfearn
http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-107/F-2870_pod.pdf

[Management of Cows with Limited Forage Availability](#) by Chris Richards, Dave Lalman, and Glenn Selk <http://cowcalfcorner.okstate.edu/Droughtpaper.htm>

[Early Weaning For The Beef Herd](#)
<http://www.ansi.okstate.edu/exten/cc-corner/Earlyweaning.html>

[Noble Foundation Ag. News & Views May 2006](#)
http://noble.org/Ag/news_views/2006/MAY-TOC.html

Additional Information for Managing Drought

The Northeast Extension District Personnel developed a special issue for “drought management” and can be found at [Timely Topics April 27, 2006. Special Drought Issue](http://forage.okstate.edu/publications/TT4-27-06e.pdf)
<http://forage.okstate.edu/publications/TT4-27-06e.pdf>

Contributors include: Kent C. Barnes, Michelle Buchanan, Bill Burton, Mitch Fram, Mike Kizer, Josh Payne, Dave Sparks, & Robert L. Woods.

Topics include:

- Drought In Northeast Oklahoma
- What Will It Take To Break A Drought?

- Bermudagrass Management In A Dry Summer?
- Grazing Management Strategies For Recycling Nutrients
- Will Grasshoppers Hop Into Drought-stressed Crops?
- Now Is A Good Time To Cull The Herd
- Tax Considerations In A Drought Year
- Native Range Site: Stocking Rates In A Dry Year
- Plant Poisonings and Drought Go Hand-In-Hand
- Limit Feeding an Energy Supplement to Extend Forage
- Coping With Drought: Stocker Cattle
- Coping With Drought: Cow Management
- Market Cull Cows In Good Flesh
- Cull Poorer Producing Cows
- Drought And Livestock Water: A Series

Some People Have Really Bad Luck!

So, you think you have problems!! How’s this for wildlife? This is supposedly from Australia. An Australian sheep farmer was puzzled at the disappearance of his sheep. After a few weeks of sheep disappearing, the farmer decided to put up an electric fence. This is what he found.

From the “Believe it or not Department”



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Forage Highlight
ALFALFA
A Drought-tolerant Forage

There is a lot of talk these days about drought, even if the meteorologists and ecologists say this might not really qualify as a drought. Some of them say that we are just experiencing coming out of 20 years or so of “higher than normal” rainfall here in the southern Great Plains. Be that as it may, people are looking for something that will produce high yields of high quality forage with little or no water. The fella who is selling that seed, is the same as the one selling ocean-front property in Woodward, OK.

Well, you may as well stop looking for a miracle. We have some of the best forages in the world growing in Oklahoma. Once established, there is nothing much better than bermudagrass or alfalfa for beating a drought. High yields require a lot of water, but both of these species tolerate long periods with little or no rainfall or irrigation. Once the total amount of water in the soil gets so low, production decreases. Let’s look at how drought resistance works in alfalfa.

The two main traits that confer drought tolerance to alfalfa are its 1) vast root system and 2) ability to go dormant. A mature (more than a year old) alfalfa plant can have roots very deep in the soil. We have seen first year alfalfa roots between 6' and 8' deep, and some were probably deeper. We have seen first-year alfalfa produce more than 7 tons of dry matter per acre without irrigation and little summer rain. We deduced the roots must have hit a intermittent aquifer that was about 15' deep.

Old alfalfa stands can have roots much deeper than this. In general, if conditions are good, alfalfa roots grow until they hit a dry area, a toxic zone, or an impenetrable zone. In at least one studies, alfalfa plants were determined to be more than 20 years old.

Alfalfa has the ability to stop growing (“go dormant”) when conditions are unfavorable, including dry. The plants stop growth and need little additional water. Plants can go for several months with no appreciable growth, sometimes without green leaves. Frequently, when water returns, alfalfa breaks dormancy and start regrowing.

Alfalfa’s ability to live through very dry conditions is related to its ability to survive very cold conditions. Plants change their growth habit during September (in Oklahoma) from upright growth with large leaves and long internodes on the stems to prostrate growth, with small leaves and short internodes. At the same time growth slows drastically, preparing for winter.

During extremely cold conditions no water is available to plants (it is all in the form of ice). So, it should not be surprising that drought tolerance is somewhat related to cold tolerance.

To see other somewhat unique characteristics of alfalfa that makes it such a special crop, go to “[Alfalfa Production Guide for the Southern Great Plains](#)” on the web.

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CONTRIBUTIONS WANTED

Do you have a comment about some aspect of forage production that you would like to share?

Do you have a question about some aspect of forage production?

Have you read something that helped your forage production and want to share it with the readers of Oklahoma Forages Newsletter?

Send comments, questions, or articles you have seen and want to share to Daren Redfearn daren.redfearn@okstate.edu To remain anonymous, just let us know.