



# Equine News



Department of Animal Science  
Oklahoma Cooperative Extension Service • Division of Agricultural Sciences and Natural Resources  
Oklahoma State University

## Winter 2013

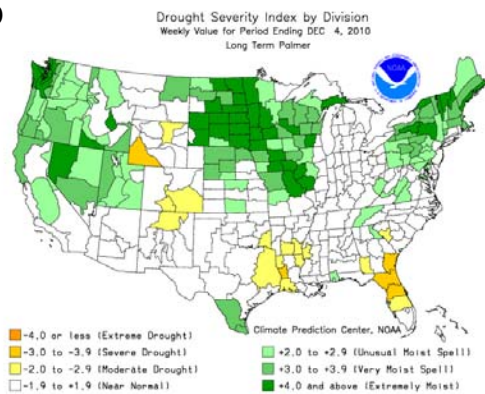
**What if the drought continues for another year(s)?**

**David W. Freeman**

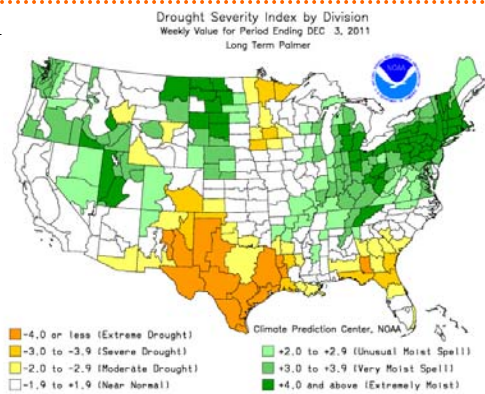
**OSU Extension Equine Specialist**

The following pictures show the magnitude and progression of drought in the U.S. over the past three years (December 2010 to 2012 from The National Weather Services Climate Prediction Center website).

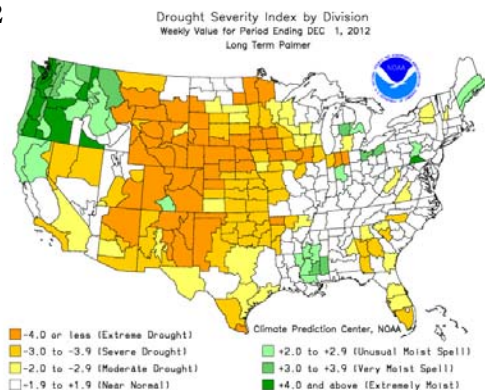
2010



2011



2012



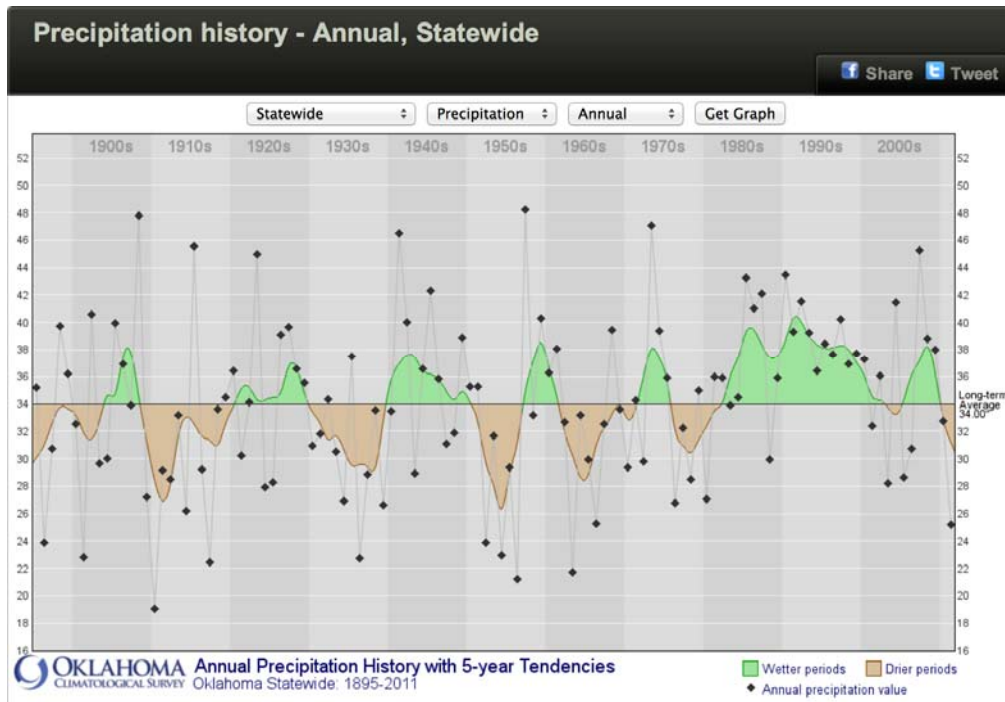
We love orange at Oklahoma State University; however, in this case, we just as soon not see so much. The yellow to orange colored regions show locations of severe to extreme drought. Much of the central region of the U.S. has expanded into large scale severe to extreme drought over the past three years.

There is historical precedent of multi-year drought in Oklahoma. Much has been recorded about the 1930's 'dust bowl' and the disastrous consequences centered around the Oklahoma panhandle. A web-report from the Oklahoma Mesonet reminds us that multi-year episodes of drought continue to occur: "Drought episodes can last from a few months to several years. Since modern climatological record-keeping began in the late nineteenth century, the state has seen five major multi-year and multi-regional drought events. These occurred in the late 1890s, from 1909-18, 1930-40, 1952-58 and, to a lesser extent, 1962-72. Each of these episodes contained at least one year of above-normal rainfall. The drought of the 1930s is associated with the Dust Bowl of the Great Plains, when socio-economic conditions, agricultural practices and drought forced the largest emigration of Oklahomans in state history." (OKLAHOMA'S CLIMATE: AN OVERVIEW web report from Oklahoma mesonet [http://climate.mesonet.org/county\\_climate/Products/oklahoma\\_climate\\_overview.pdf](http://climate.mesonet.org/county_climate/Products/oklahoma_climate_overview.pdf)).

The Oklahoma Climatological Survey compiles annual precipitation records. A graph of rainfall patterns over the past 100 years shows somewhat of a cyclic pattern to rainfall amounts. The graph, shown on the next page, documents the pattern of multiple years of above average rainfall followed by multiple years of below rainfall since the beginning of the 20th century. Looking across the last 30 years, one might come to the conclusion that we have been 'overdue' for a drought episode for several years. Oklahoman's have been blessed with above average rainfall amounts for most years since the early 1980's, that is until the last couple of years. We've become accustomed to receiving these above average amounts to supply our surface water and fuel our forage production.

(continued)

(Drought, continued)



([http://climate.ok.gov/index.php/climate/climate\\_trends/precipitation\\_history\\_annual\\_statewide/CD00/prcp/Annual/oklahoma\\_south-central\\_u.s](http://climate.ok.gov/index.php/climate/climate_trends/precipitation_history_annual_statewide/CD00/prcp/Annual/oklahoma_south-central_u.s))

While no one can predict for certain, if the cyclic patterns of rainfall amounts continue, it is likely that we are several years away from rainfall amounts that we've become accustomed to since the 1980's. Those familiar with beef cattle production know how that industry has had to respond; largely by removing a large portion of the 'cattle on grass' from the production herd. These responses aren't proprietary to the beef industry in Oklahoma. Many of our larger horse production farms have responded similarly. Drought has not only affected our capacity to house broodmares on pasture. Its' effect confounds all horse owner budgets with rises in feed costs and unavailable supplies of grass and hay.

So, what if the drought DOESN'T last for several more years? Even if we experience a 'wet spring', those of us with pastures have a lot of 'reclaiming' to do. Those of us who consider ourselves in the animal production business will need to heighten our role as forage producers. Predominant types of forage grasses may be different with a likelihood of increases in weedy species. Sacrifice areas have expanded. Forage plans to 'bring back' desired forage species will need to be detailed before the actual time of regrowth. Weed control, fertilization, and delayed grazing practices will need to be preplanned and be based on pasture condition. Agronomists at OSU have released several articles outlining recommendations for reclaiming pastures after several years of drought. Two recently published OSU Fact Sheets bear reading: *PSS-2592 Pasture Recovery Following Drought* and *PSS-2593 Assessing Drought Damage in Perennial Grass Pastures*. These are available through Oklahoma Cooperative Extension offices or on-line at <http://pods.dasnr.okstate.edu/docushare/dsweb/HomePage>. Hopefully, we will all be actively instituting these reclaiming practices in 2013.

So, what if the drought DOES last for several more years? Regardless, it is likely that decreased production numbers of foals as compared to a decade ago will become the norm. Drought is just one of several factors that are tending our foal production numbers downward. Some might think this will affect only those 'large commercial broodmare farms'. Conversely, review of past records documenting mare ownership, number of mares owned and number of mares bred to individual stallions suggests similar decreased activity for those with small numbers of horses, and those who are far from considering themselves involved for 'commercial' reasons.

(continued)

*(Drought, continued)*

A large proportion of our horse owners aren't in the business of producing foals. Their concern with the drought is centered on lack of pasture forage and the rising cost of feed of the horses they currently own. Even though the acreage owned would lead reports to discount the individual effect of drought on small-acreage horse owners, these operations can be affected as significantly as the big ranches. Alternatives to move animals into non-grazed areas are nonexistent. Alternatives for purchasing hay are less because of smaller allotments purchased as compared to those who have the possibility of 'trucking in' large amounts of forage. As such, the significance of drought to the survivability of small acreage operations is as or more critical than our large farms. And, it bears remembering that the most common number of horses owned are less than 10 head per owner. The cumulative effect of continued drought on the horse industry will depend greatly on the recovery of these small acreages.

So, what if the drought continues for several more years? Even if it doesn't, expect processed feed prices to be at or increase above levels you are currently experiencing. History of pricing suggest that future increases in supply won't result in decreases in retail prices. Fortunately, what we are experiencing in the mid-west isn't being felt as much in the southeastern part of the U.S. So, hay needs may continue to be supplied largely from areas of the U.S. with more substantial rainfall, along with our local forage producers who are fortunate to get the localized rainfall episodes in times of forage growth. Recommendations have always been given to plan feed purchases early in the year, increase purchase amounts by 'partnering' with others in your locale, and seeking out other opportunities to insure forage supplies. With drought, these recommendations surpass the role of improving efficiency of your financial and operational practices. These recommendations become essential practices of continued ownership.

Purchasing commercially available feed on a nutrient need basis should drive your selection of feedstuffs. The cost variance for prepared horse feeds may not be as different as first thought when surveying prices. If transportation costs are held to a minimum, higher priced 'bagged' feed may be as cost effective as cheaper alternatives simply because the feeds meet nutrient needs more specifically to your type of horse or in nutrient concentrations that require less amounts to be fed. Conversely, the 'pasture potato' out your back door may not need the same nutrient quality as the 'Olympic athlete', so lower quality feedstuffs may more than suffice his nutrient needs.

Conserve what you have. Feed to maintain a desired body condition (fat cover) on your horses rather than over or under feeding. Overfeeding is wasteful and when excessive can led to health issues. Underfeeding will mean increased health problems and subsequent times of feeding a lot more to increase body condition. Hay wastage can be reduced by feeding hay in allotted amounts rather than free choice and/or by use of feeding bunks and hay feeders designed to reduce wastage.

Conservation practices to maintain our topsoil will need prioritization. For most of us owning horses, this means doing everything we can to preserve what growing forage we have. Conservation of water may mean it is time to improve the pond we once had by removing silt and increasing water holding capacity. Those who don't rely on surface water obtain water from wells or municipal supplies. We can expect water costs to increase, so watering practices that reduce even small amounts of wastage and evaporation can add up to significant savings.

And finally, regardless of whether the drought continues for several years or not, try to increase your involvement and enjoyment of ownership per head owned rather than increasing your involvement by increasing your head owned. We've a lot of horses in our Oklahoma herd that are not being used to their potential or purpose. And, the opportunities for involvement are at an all time high. New sports are being organized, competitive structures at shows are being reorganized to foster the beginning enthusiast, and 'stay-vacations' by riding trails in your surrounding areas are in vogue. And, drought or not, more and more people are needing what a horse can provide them for quality of life. So, make effort to introduce others to the benefits of horse ownership and foster their interests.

*[Several short article fact sheets on horse management and production are available on-line and through your Oklahoma Cooperative Extension County educators. You can access horse-related fact sheets from [www.ansi.okstate.edu/e-equine](http://www.ansi.okstate.edu/e-equine) . In addition, you will find similar articles on related topics such as forage production and health within the on-line library of OSU Facts and available through your local Oklahoma Cooperative Extension Educator.]*

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