

Tough Times, the Drought

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About 1955 I remember my Grandpa saying “No matter how advanced we become in agriculture, we remain at the whims of mother nature”. He would also often make comments like “It’s not how much moisture you receive but when you receive it”. He would claim that he could raise a good crop of wheat with 5 inches of rain if it would come at the right time. I had little idea what he was talking about back in those days, attributing such statement to too much asthma medication. However these statements have become more meaningful to me these past several months or as Grandpa would put it “ That crow has really come home to roost”.

Abnormally dry weather during the late summer and fall of 2017 resulted in reductions in hay production, fall grazing, and the stockpiling of winter pasture forage. Normally about a third of our yearly forage production takes place during this period. To maintain their cow herds many producers grazed their pastures shorter, used their accumulated hay inventories, or purchased hay (often at high prices). This spring offered little relief with the second coldest April on record followed by the hottest May on record. Temperatures in June have been well above average. This is the period when the other two thirds of our forage productions occurs.

As a consequence, MU Extension and MU College of Veterinary Medicine have prepared and distributed an **Emergency Alert** in which Drs. Eric Bailey, Tim Evans, Scott Poock, Stacey Hamilton, Rob Kallenbach, and Graig Roberts have offered some facts, figures and helpful council regarding this difficult period. This document has been posted on most county extension websites. **If you do not have access to one of these websites, please contact your county extension office for a copy.**

The following are a few statements about this challenging time that I hope will be helpful:

1. I can’t think of a better time to promote **management intensive grazing practices**. By maintaining a three inch post grazing stubble height for cool-season grasses and six for warm-season grasses, forage roots penetrate more deeply into the soil, the soil and its organisms are protected from temperature and other weather extremes, and the water holding capacity of the soil is greatly enhanced. These factors allow forage plants to maintain productivity even during challenging weather conditions.

2. The purchase or production of hay is always expensive compared to having our livestock harvest their forage directly from our pastures. Figures vary with circumstances but hay dry matter is usually about 2.5X the cost of pasture forage dry matter harvested directly by livestock. Additionally, pasture forage is usually of higher energy content than most of our Ozark hays so the energy cost of hay is often 3X that of grazed pasture forages. Another one of my Grandpa's concepts was "Harvesting forages with Ivory Not Iron". **So try to manage so that your livestock are grazing as long as possible.**
3. If you must purchase hay, especially during challenging times such as these, make the best buy you can. **Avoid buying by the bale.** Even the common 4x5 round bales can vary by as much as 200 lbs. or more. It is a fact that most of us over estimate the weight of round bales of hay. For example if the bale were priced at \$45/bale and weighed 800 lbs. the cost/ton would be \$112.50. But if the bales weighed 900 lbs. the cost/ton would be only \$100.00. So if you were paying \$45/bale for 900 versus 800 lb. bales the savings would be about \$25/cow/year with a normal 130-day hay feeding period. Since the USDA is predicting returns to cow-calf producers in 2018 at near **breakeven**, that \$25 is significant, the difference between **Red** versus **Black**. If possible, weigh the bales and purchase accordingly.
4. **If you must buy hay, purchase quality tested hay.** For investing \$100 in testing hay for nutrient content, there can be literally thousands returned. A while back a producer came to the office for advice on a hay purchase. He had two choices: \$45/bale or \$50/bale for comparable bale weights. I asked if he could see any differences in hay quality, to which he replied that he could not see any difference. For that reason he was favoring the purchase of the \$45 hay. I suggested that he have the hays tested for nutrient content, to which he replied, "How much will that cost". To which I replied that for less than \$60 we could obtain some good information on the two hays. He agreed and I was astonished at the differences in the nutrient content of the two hays. The \$45 hay contained .48 mcal NEm/lb. DM and 6.52% crude protein. The \$50 hay contained .55 mcal NEm/lb. DM and 9.8% crude protein. I balanced diets for his fall-calving cows using the two hays and demonstrated that considering the amount of hay needed, protein and vitamin-mineral supplementation required, the use of the \$50 hay would actually cost him about **\$.24/cow/day less** than the use of the \$45 hay. For a 130-day winter feeding period that would account for **\$31.20/cow/year**. So the savings on just two cows payed for the analyses of the hays. More details can be found at extension.missouri.edu/aginfocus/forage-testing.aspx.
5. **Try to reduce hay waste.** I have heard some startling statistics regarding hay waste in Missouri. One report indicated that only about half the hay harvested was actually consumed by livestock. So between losses at harvest, transport, storage, and feeding, half of our hay is lost due to waste. Obviously if you are paying high prices for hay you will want to reduce waste to a minimum. It is beyond the scope of this article to address all of the methods that can be used to reduce hay waste. A good source of information on the subject in Missouri is <https://extension2.missouri.edu/g4570>. Limiting the access cows have to hay by rolling out round bales behind electric polywire is one hay feeding method that has been reported to greatly reduce hay waste during feeding. This method also allows reduction of animal density at the feeding surface and thus reduces soil damage. Due to the mobility and flexibility of this method, manure can also be more evenly dispersed on a field or paddock <https://www.progressiveforage.com/forage-production/management/hay-is-worth-more-than-its-feed-value>.