

# Stretching Your Hay Supply

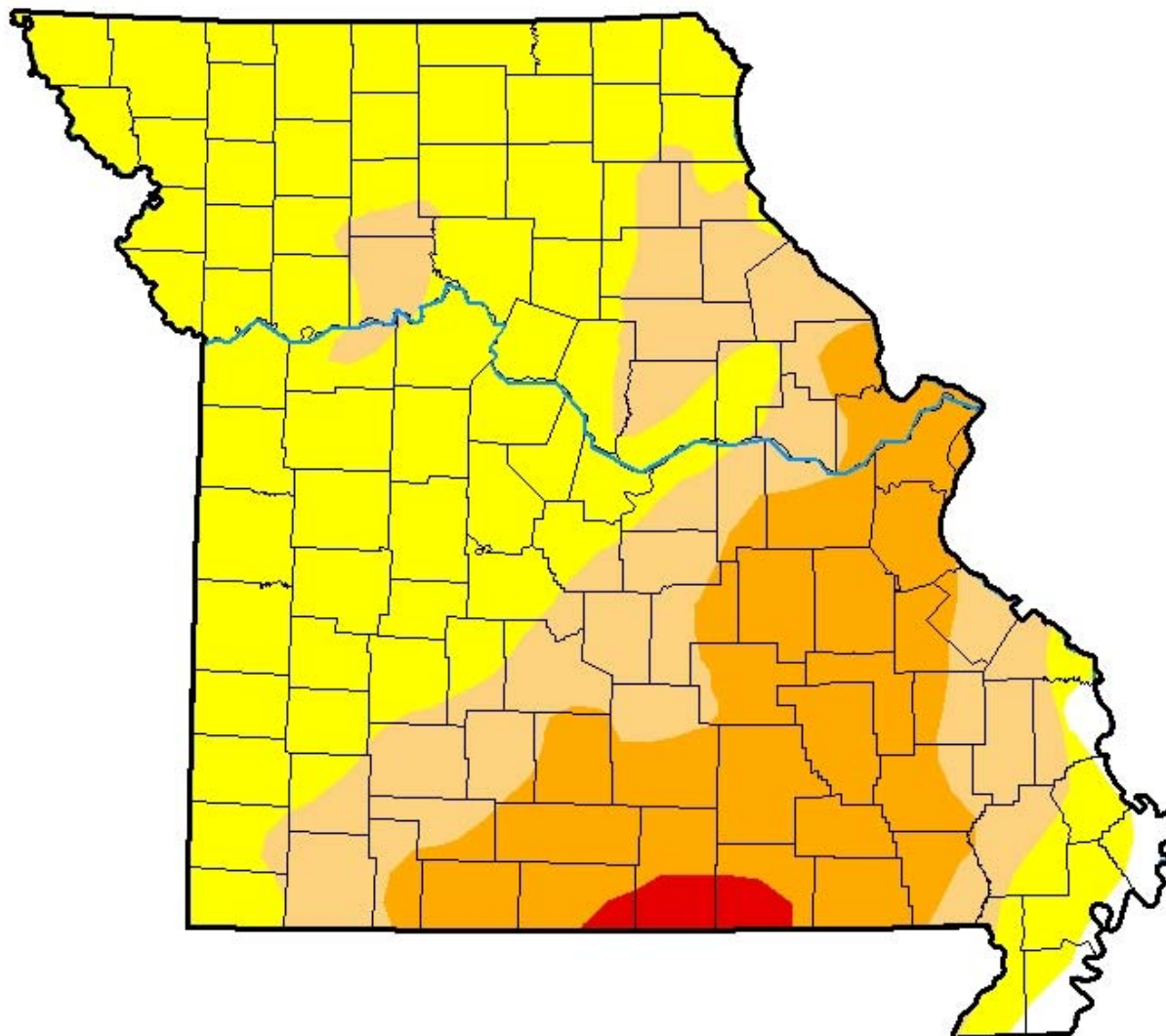
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# U.S. Drought Monitor Missouri

January 16, 2018  
(Released Thursday, Jan. 18, 2018)  
Valid 7 a.m. EST



***Intensity:***

-  D0 Abnormally Dry
-  D1 Moderate Drought
-  D2 Severe Drought
-  D3 Extreme Drought
-  D4 Exceptional Drought

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

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<http://droughtmonitor.unl.edu/>

# Feed Less or Need Less

- **What is your hay supply?**
  - How many lbs?
  - How long will that last?
- **How much to feed?**
  - **Be more accurate when supply is short**
- **Know what your options are if grass is late**

# The Problem



# Your Hay Supply

Table 1. Estimated dry weight or dry matter (DM) of bales of the most common bale dimensions at different bale densities.

Bale Size		Bale Weight			
		---- Density, ( <i>lbs per ft<sup>3</sup></i> ) ----			
Width	Height	9	10	11	12
<i>(ft)</i>		<i>(lbs of DM/bale)</i>			
4.0	4.0	450	500	550	600
4.0	4.5	570	640	700	760
4.0	5.0	710	790	860	940
5.0	4.0	570	630	690	750
5.0	4.5	720	800	870	950
5.0	5.0	880	980	1080	1180
5.0	5.5	1070	1190	1310	1430
5.0	6.0	1270	1410	1560	1700

Overestimating bale density is a common mistake. So, one should assume the bale's weight is ~10% less than indicated in the table.

# Estimating Density

- **Loose/Spongy = 9 lbs/ft<sup>3</sup> density**
- **Slight deform = 10 lbs/ft<sup>3</sup> density**
- **Rigid but will give under pressure = 11 lbs/ft<sup>3</sup> density**
- **Deforms only under weight of tractor = 12 lbs/ft<sup>3</sup> density**

# How Many Days of Hay

- Base hay feeding on cow weight: **3% of estimated body weight per day**
- Example: 1,000 lb bale, 1,400 lb cow (42 lbs of hay)
  - One bale will feed 22.5 cows for one day
  - Bale is 10% water (900 lbs of feed)
  - For easy math, I assumed 40 lbs of hay per cow
- **What about quality???**

# Feeding Rules of Thumb

- **7-9-11% crude protein for mid-gestation/late-gestation/lactating cows**
  - Shoot for supplementing 0.5-1.0 lbs of CP per head per day if deficient
- **55-60-65% TDN for mid-gestation/late-gestation/lactating cows**
  - Very conservative estimate
- **Google “Beef nutrition rules of thumb Noble”**



# How Much Supplement to Feed?



- **0.5% of BW (DM basis) good start**
  - Unlikely to cause digestive upset
- **Protein-specific**
  - 0.5-1.0 lb CP/head/day
  - If forage is abundant

# Short Pasture/Hay Supply

- **1.0% of BW 50:50 mix of grain and a byproduct will go a LONG way to meeting cow requirements**
- **Limit access to hay to conserve**
  - **Roll out one's days worth at a time**
  - **Only give 2-4 hours access to hay feeders**

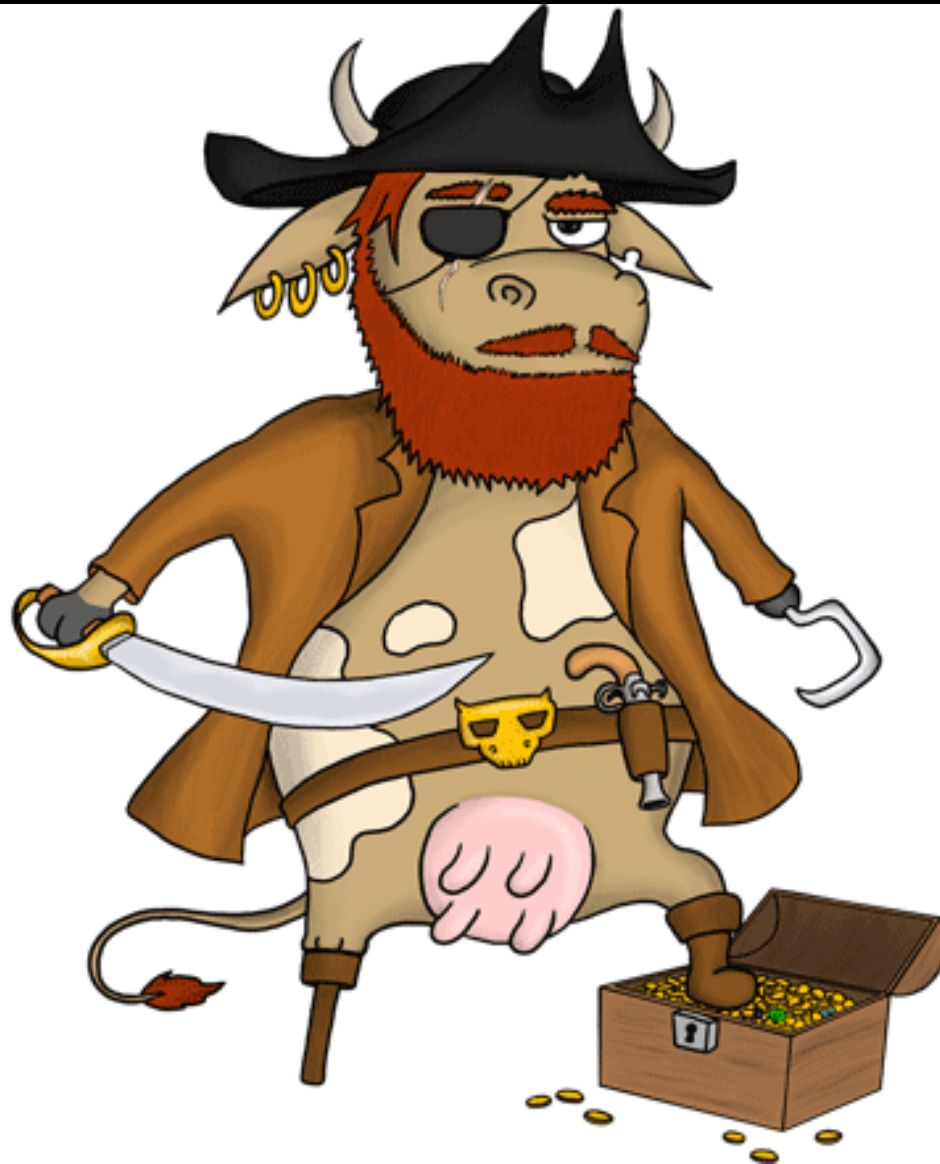
# Limit Hay Access

	Time of Access			
	3 hr	6 hr	9 hr	24 h
<b>BW change, lb</b>	<b>119</b>	<b>161</b>	<b>192</b>	<b>207</b>
<b>Hay disappearance, lb/d</b>	<b>17.6</b>	<b>24.5</b>	<b>29.3</b>	<b>34.2</b>
<b>Hay waste, lb/d</b>	<b>6.0</b>	<b>5.7</b>	<b>9.3</b>	<b>13.5</b>
<b>Hay waste, %</b>	<b>33.3</b>	<b>23.2</b>	<b>31.5</b>	<b>39.5</b>

**Miller et al. (2007)**

**If Drought Persists.....**

# Need Less



# Short-term

- **Preg check**
  - Do not give cows a 2<sup>nd</sup> chance, EVER!!!
  - She failed in your management system, no need to perpetuate mediocrity
- **Cull on physical or behavioral blemishes**
  - Do not sell low and buy high!
  - **Most will sell their dinks off. See if the market will pay for your most valuable cows. (Counterintuitive)**
    - Running age cows (3-6 years old)

# Long-term

- Consider a “stocker cattle” component to your farm (large operations)
  - Not necessarily someone else’s cattle
  - Keep 100% of your heifers and develop them as replacement prospects. One round of timed AI, keep the ones that breed
    - Short calving season and animals adapted to YOUR management system
- Easy to get rid of if forage base gets short
  - Easier than prized brood cows at least





# Contact Info

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