

Texas Dairy Matters

Higher Education Supporting the Industry

SYSTEMATIC DROUGHT FEEDING STRATEGIES

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All too often, Texas and the entire Southern plains region face forage shortages. Hay, or any other forage for that matter, sells at a premium if it can be located. In these tough situations, follow a systematic approach to forage management.

Step 1: Inventory your current forage supply. Analyze all forages for nutritional value. Expect more variability with crops grown under drought conditions. Also, depending upon the crop and growing conditions, check for nitrates and prussic acid.

Step 2: Work with your nutritionist to determine how much forage you are going to need to feed your herd, including replacements and dry cows, during the coming year. You can get a ball park estimate of the forage dry matter you need to feed your herd by using the following equations:



- 1) *Pounds of DM/day for Cows = (1.5 % of Bodyweight/day) * Number of Cows*
- 2) *Pounds of DM/day for Heifers = (1.1 % Bodyweight/day) * Number of Heifers*
- 3) *Total Pounds of DM Needed for Herd = (Pounds of DM/day for Cows + Pounds of DM/day for Heifers) * Number of Days Need to Feed*

For example, if the average bodyweight of a 100 cow herd was 1400 pounds, the herd would need $(1400 \text{ lbs} * .015/\text{d}) * 100 \text{ cows} = 2100 \text{ lbs}$ of forage dry matter per day just for the cows. If the herd has 90 heifers of all ages that average 700 lbs the herd will need an additional $(700 \text{ lbs} * .011/\text{d}) * 90$ or 693 lbs of forage dry matter per day for the heifers. If you estimate it will be

250 days until you'll be able to get more forage from a winter crop, you'll need $(2100 + 693) * 250 = 698,250$ pounds of forage dry matter.

To determine how much hay that would be on an as fed basis, divide the pounds of forage dry matter needed by the percent dry matter in the hay. For example, if the hay is 88 % dry matter, you need $698,250/.88 = 793,466$ lbs or nearly 400 tons to feed your dairy cows and heifers for the 250 days.

Typically rations are developed to maximize the use of high quality forages, but in times of scarce forages ask your nutritionist what is the minimum amount you must have to keep the animals healthy. Due to the shortage of rain, some failed crops are harvested for forage rather than their originally intended use. The fiber content may be higher, so less forage may be required to get the same fiber benefit.

Step 3: Locate forages and high fiber by-product feeds. Again, work with your nutritionist to see how you can stretch your forages with products such as beet pulp, soy hulls, corn cobs or other fibrous products that you don't typically use. Analyze these feeds as well so you can get the most out of them. Test, don't guess.

Step 4: Compare how much forage you need to what you can locate. Then decide if you need to sell or relocate animals to make the two meet. It may be better to send heifers somewhere else to feed rather than bring more feed to them. Or you may decide to sell heifers and concentrate on the cows.

Also, evaluate the cows in your milking herd. Now is the time to cull those cows that aren't producing enough to cover their feed costs. Consider whether to make the forage shortage into an "opportunity" to cull cows with reduced fertility, poor feet and legs, or high somatic cell counts. If you have bulls, ask if this is the time to switch to artificial insemination instead and ship the bull.

Step 5: Conserve the forages you do have. Reduce shrink by storing hay in barns if possible. For hay stored outside, locate it in a well-drained location or on a gravel pad to reduce losses. Consider tarping the hay to further reduce rain damage. If you've been feeding free choice in bale rings, move to a TMR to reduce waste.

Mother Nature regularly provides challenges. Make systematic decisions, rather than buying on impulse. If fall rains permit, consider planting winter forage crops such as small grains to help meet the forage needs of your herd.

For other drought related resources visit our Texas A&M Agrilife Extension Service website at: <http://texashelp.tamu.edu/004-natural/droughts.php>

<http://texasdairymatters.org>

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