



*Your Experts for Life*

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If you wish to no longer receive this newsletter please call 766-6223 and ask to be removed from the livestock mailing list.

#### FORAGE FIELD DAY

Tennessee will conduct its Forage Field Day on Thursday July 26<sup>th</sup> beginning at 9:00 A.M. at the Springhill Experiment Station. This is always an excellent program and I encourage anyone that can to attend. For more information call me 766-6223.

#### NUTRITION SERIES

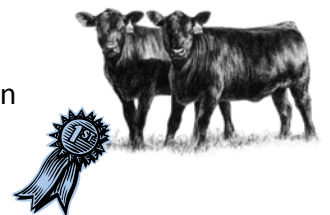
Be sure to sign up for the Fall Nutrition Series beginning on July 31<sup>st</sup>. See the enclosed flyer for more information. Remember that a cow must receive at least .005 percent of her body weight in hay or roughage per day in order to keep her rumen functioning properly. That would be about 6 pounds of hay for an 1100 pound cow.

#### STORED GRAIN PEST MANAGEMENT

There will be a stored grain pest management workshop on Thursday, July 26<sup>th</sup> at TruGreen Equipment in Leighton beginning at 10 A.M. They will have several speakers covering aflatoxin issues, aeration, bin treatments and more. For more information contact Heath Potter at 256-476-8885.

#### 4-H HEIFER SHOW

There has some interest in having a county 4-H Heifer Show. If you are someone you know would like to show a beef heifer they should contact me at the Extension office, 766-6223. There will be a meeting at the Extension office on Monday July 30<sup>th</sup> beginning at 6:00 P.M. for anyone interesting in showing a heifer.



## GOVERNMENT ASSISTANCE

All the proper forms and reports have been submitted concerning the drought situation. We are waiting to hear if there will be any assistance available. We are looking at a long tough winter ahead in wintering our cattle. However, if the present rain pattern continues it will go a long way toward growing some forage between now and first frost. This would be a good year to think about fertilizing and stockpiling fescue or maybe planting some cool season forages such as rye and ryegrass.



## BEEF FIELD DAY

More than 120 beef producers attended our annual Beef Field Day at the Roger Hamner Farm near Greenhill in April. We had good weather, good program and good fellowship. The proceeds from the Field Day go to the County Cattlemen Scholarship Fund.

## HAY LOSSES

According to a University of Tennessee study there are big losses in hay based on how it was stored. They weighed the bales at the time of harvest and storage and then again in January at the time of feeding. The following table lists the type storage and the resulting percentage hay loss.

### LOSES OF HAY STORED USING SIX METHODS OF STORAGE

Type of Storage	% of Hay Loss
On ground, no cover	37%
On tires, no cover	29%
On ground, covered	29%
On tires, covered	8%
New wrap on ground	19%
In barn	6%

Sincerely,

Randall Armstrong

County Extension Agent

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# TIMELY INFORMATION

## Agriculture & Natural Resources

AGRONOMY AND SOILS, AUBURN UNIVERSITY, AL 36849-5633

### **DROUGHT-RELATED PASTURE MANAGEMENT\***

The severe dry weather Alabama livestock producers have had to deal with recently has taken a toll in many ways. Many producers are understandably concerned about their forage crops as well as their animals, and face some critically important management decisions. This information sheet provides a discussion of: (1) factors that may affect the impact of drought on forage stands (especially pastures); (2) how to assess the condition of a forage stand; and (3) some options a producer may have for minimizing the impact of a bad situation.

#### **Situation Assessment**

Before taking action it is usually of great importance to be careful to make a correct assessment of the situation. To fail to do this is likely to lead to less-than-optimum decisions and results. The first question a producer in a severely drought-stressed area is likely to ask is, "Are the plants in my pastures dead or merely dormant?" In the long run the answer to this question will be evident, but unfortunately it can be a difficult question to answer in the short run. In trying to make this determination, it may be helpful to think about how the pasture had been treated and the condition it was in before the drought occurred.

First, due to the fact that warm season species are generally more heat- and drought-tolerant than cool season species, cool season forages are much more likely to have died. Usually warm season perennial pastures or hayfields more than one year old will not be killed by drought.

Second, on many farms, heat and drought are not the only stresses to which pasture plants may have been exposed, and to a significant extent, stress is cumulative. The point is that pastures that were in particularly good condition before a drought began are much more likely to have survived than those that had already been under some sort of stress, or that were exposed to some type of stress in addition to the drought.

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\*Prepared by Dr. Don Ball, Extension Agronomist/Professor, Department of Agronomy and Soils, Auburn University, AL 36849

**For example**, plants in fields in which the fertility is low resulting in spindly, weak plants with a shallow root system are more vulnerable to drought than plants in well-fertilized fields; recently-planted pastures with shallow root systems are more vulnerable than well-established pastures in which plants have deep root systems; and (in particular) pastures that were overgrazed before a drought began are much more likely to be dead than pastures that had not been overgrazed.

Considering the condition of the pasture plants before the drought began and the factors that enhance the likelihood of plant death are helpful in determining the probable status of a pasture, but it is quite something else to actually tell for certain if the plants are dead. For a producer who wants to assess plant viability in a seemingly-dead stand, the first thing to look for is green leaf tissue. If there is even a small amount of green tissue on forage plants, they are still alive.

However, even if cool season perennials have no green leaf tissue present, it may be that the crowns and roots are still alive and that the plants may simply be in a dormant state. Cool temperatures and a slow, soaking rain may result in a surprising recovery from what appears to be a “dead” cool season perennial grass pasture.

Additional insight can be gained by doing a bit of digging, then looking at the crowns and roots of a few plants. If you split the crown of a plant with a pocket knife and observe that the center of the crown still has a creamy (not brown) center, it probably is alive. If the roots are firm and not withered, that is another good sign. Finally, if there are viable (non-withered) buds at the crowns of the plants, they are probably still alive.

## **Having Some Dead Plants May Not Mean Disaster**

There is no avoiding the fact that if stress is severe enough, pasture plants (sometimes the majority of them in a given field) will die. However, a more typical scenario is that drought will cause thinning of pastures and reduced plant vigor. When this happens, pasture productivity is obviously reduced, but not totally or permanently. A thin stand of endophyte-infected fescue plants, for example, together with fescue seed in the soil that can result in volunteer plants, may result in a thick, productive fescue pasture developing again within a few months, assuming soil fertility is good and overgrazing is avoided.

Clover, which is a particularly valuable component of many cool season pastures, is unfortunately more vulnerable to drought and more likely to have been killed than cool season perennial grasses such as tall fescue. White clover is more vulnerable to drought than red clover, but drought-killed white clover is more likely than red clover to come back later in the form of volunteer plants arising from seed present in the soil.

Various cool season perennial grasses differ in their vulnerability to drought as well. Endophyte-infected tall fescue (including novel endophyte tall fescue such as Max Q) is more stress tolerant than either endophyte-free fescue or orchardgrass. Thus, the likelihood of severe thinning of these species is considerably greater than for infected fescue.

# MANAGEMENT OPTIONS

## Introduce Clover

There is an old saying to the effect, “When life gives you lemons, make lemonade.” While this may seem trite and simplistic, it is a concept that often has some value and relevance on many livestock farms after a drought has occurred. In some cases a little thinning or reduction of vigor of a cool season perennial grass pasture might be viewed as an opportunity to introduce clovers. Evidence of the truth of this is that “good clover years” usually follow droughts that open up pasture sods and reduce competition. However, it is important to remember that clovers and other legumes can only be expected to establish and grow well in areas in which the soil pH is suitable (usually 6.0 to 6.5 or higher) and where there are good levels of soil phosphorus and potassium available for the legume plants.

## Thicken Cool Season Perennial Grass Stands

Sometimes a drought will thin cool season perennial grass pastures enough that grass forage production is likely to be severely reduced for quite some time unless stands are thickened. In such cases, simply drilling around 10 pounds of orchardgrass or tall fescue seed per acre at a depth of 1/4 to 1/2 inch will help ensure that there will be a good stand of perennial grass present in the field in future months. However, the value of the concept of introducing clover still applies and thus planting clover along with seeding additional cool season perennial grass should be given serious consideration.

Auburn University recommendations are to plant cool season perennial grasses in autumn because this is normally the single best time to dependably obtain a stand. However, in the northern 1/3 or so of Alabama, there is a reasonably good likelihood of success with drilling in grass seed and/or white clover or red clover in late winter (around early March) as well. Therefore, a failure with no-till seeding in autumn, a failure to drill in seed in autumn due to a misjudgment as to the extent to which a stand has thinned, or omission of autumn planting due to continued severe drought, might be corrected with a late winter planting.

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## Overseeding Warm Season Perennial Pastures

Overseeding summer pastures with winter annual forages can be of great value when hay supplies are low. Annual ryegrass in particular is well suited to be seeded into bermudagrass, bahiagrass, or dallisgrass fields in autumn after the summer grass has ceased vigorous growth. Small grains can also be drilled into warm season perennial grass pastures, but are less economically feasible to plant into a sod than ryegrass because of greater expense and relatively little time for them to make growth before cold weather. Various annual legumes, especially crimson clover and arrowleaf clover, can also be overseeded on summer sods. Alabama

Cooperative Extension System Circular ANR-227, which is available from Alabama Cooperative Extension System offices, provides detailed information about overseeding.

## Interseeding Annuals Into Cool Season Perennial Pastures

Often when producers who have cool season perennial grass stands (in most cases, dominated by tall fescue) realize that their stands are thin are tempted to seed winter annuals (especially annual grasses such as small grain and/or annual ryegrass) into them. The idea, of course, is that this will provide some additional forage in late autumn and spring, to help compensate for reduced fescue growth.

However, there can be some problems associated with seeding winter annuals into cool season perennial grass pastures. In most cases there will be little forage growth from such seedings until late February or March. Winter annuals make more growth during cool weather than perennials like fescue, and when they begin growing vigorously in spring, they create competition for the perennial grass that has already been weakened and thinned by drought. Winter annuals are especially competitive against any perennial grass or legume seedlings that may be present. There may be some situations in which seeding winter annuals into cool season perennial grasses can be justified, but the negatives associated with using this technique need to be considered carefully because in many situations it is a questionable practice. However, the feasibility of doing this is greater if a substantial portion of a pasture consists mainly of warm season species such as common bermudagrass, crabgrass, or bahiagrass.

## Planting Annuals On A Prepared Seedbed

Some livestock producers who feel they don't have enough hay and/or enough cool season perennial pasture to get them through the winter after a drought may think of planting some acreage of winter annuals on a prepared seedbed. The economic feasibility of doing this depends on several factors, but especially the level of nutrition that needs to be provided to livestock and the cost of providing stored feed instead of planting the winter grazing. For many producers, prepared seedbed plantings of winter annuals could be cost effective, especially if the planting is limit grazed or strip grazed to maximize utilization of the forage produced.

# Quick Tips on Drought Management

Check this web site for more information <http://www.aces.edu/issues/drought/2007>

## Water

Water is the most important nutrient for cattle, but providing clean water for cattle is often overlooked. Most problems will occur in the summer or during a drought when pond water is contaminated with one of the anti-water quality factors such as manure, dissolved solids, nitrates, algae, or sulfates. Research is variable, but has shown weight gain increases up to 20% in calves provided water pumped into a tank versus calves drinking from a pond to which they have access. Poor water quality can lead not only to poor performance and poor reproduction that often goes unnoticed, but can be deadly as well. Special attention should be given to water quality during the hot summer months when most problems occur. Using the best quality of water available will contribute to the optimal production of cattle. Drinking water quality should be part of an evaluation when there is a problem with poor cattle performance.

Cattle generally need 2 gallons of water per 100 lb. of body weight if the environmental temperature is 70-75 degrees F. As the temperature increases and gets into the 90's the daily water requirement can double.

## Winter Feeding

Plan for your winter feeding program now. Plan for 30 lbs. of hay for each cow each day and plan to feed about 120 days. Example: 30 cows x 30 lbs. x 120 days = 108,000 lbs. If the round bales weigh 1000 lbs. then you would need 108 rolls. It should be remembered that most 1000 lb rolls generally only weigh about 800 lbs. A true 1000 lb bale in June will weigh only 850 lbs. when you feed it. Even covered bales will lose 10 to 15 % of its weight. In our example above, if the bales only weigh 850 lbs. then you would need 127 rolls of hay.  $108,000 \text{ divided by } 850 = 127 \text{ rolls}$ .

Except for water, energy is the most needed feed nutrient. It takes about 5 lbs. of corn to replace the energy of 9 lbs. of hay. If corn is selling for \$3.75 a bushel the cost of a lb of corn is .067 cents per lb. and 5 lbs. would cost .35 cents. If hay is selling at \$80 per ton then a lb of hay would cost 4 cents. Since it takes 9 lbs. of hay to replace a lb of corn,  $9 \times 4 = .36$  cents then the relative feed value of corn and hay would be about equal. If corn or hay were to cost more, the equation would be different. Remember, corn should not replace more than 50% of the forage in most cow-calf rations. From this example we see that even when corn and hay prices are high it is still economical to feed corn to replace some of the shortage of hay. I would remind you that most of the time the hay would be higher in protein than the corn.

One way to limit feed rolls of hay is to feed the hay in a closed lot and only allow cows access for two hours per day and then feed the corn or other by-products outside the feedlot so they will leave the hay and come to the feed. In this method it is important that all cows have access to the hay, 1 roll for every ten cows.



# Fall Nutrition Series

## Applied Tools for Efficient Production

Meet last Tuesday night of every month from July to November

July 31	Assessing Cattle Nutritional Needs and Available Feed	6:45 to 9 p.m.
Aug 28	Winter Pasture Planning	6:45 to 9 p.m.
Sept 25	Nutritional Transitions – Weaning & Preconditioning	6:45 to 9 p.m.
Oct 30	Commodity Feeds in Detail	5:45 to 8 p.m.
Nov 27	Applied Nutrition Tools	5:45 to 8 p.m.

**Cost is \$50 for entire series or \$15/night**  
Alabama Video Conference Sites

- Upchurch Hall, AU campus
- Autauga Co. Ext. Office
- Calhoun Co. Ext. Office
- Chilton Co. Ext. Office
- Clarke Co. Ext. Office
- Cullman Co. Ext. Office
- Conecuh Co. Ext. Office
- Lauderdale Co. Ext. Office
- Lee Co. Ext. Office
- Marengo Co. Ext. Office
- Mobile Co. Ext. Office
- Montgomery Co. Ext. Office
- Sand Mountain Research/Ext Ctr.
- Shelby Co. Extension Office
- TN Valley Research/Ext. Ctr.
- Upper Coastal Plain Substation
- Walker Co. Ext. Office
- Wiregrass Research/Ext. Ctr.

Contact Your Local Cooperative Extension Office or Animal Science & Forages Regional Agent for more information and registration. Call 766-6223 or visit website at

[www.aces.edu/animalforage/2007fallnutritionseries.php](http://www.aces.edu/animalforage/2007fallnutritionseries.php)

