

*October 3, 2011*

### ***Beef Programs***

Enclosed is information on lots of beef program opportunities coming up this fall. I encourage you to take advantage of these whenever possible. The first one will be at the County Extension office on Tuesday, Oct. 11 beginning at 6:30 P.M. on pasture nutrient management. The high fertilizer prices should make you want to attend this one. The next meeting in Lauderdale County will be a Friday morning meeting with Dr. Rankin from Auburn on Veterans Day November 11. He will talk about reducing feed and mineral cost. Plan now to attend.

### ***Mailing List***

If you wish to be removed from the mailing list of this letter please let us know by calling our office at 256-766-6223.

### ***Cattle Outlook***

The national cowherd is down to its lowest level since 1958 and the 2012 calf crop is expected to be down for the 17<sup>th</sup> consecutive year. According to Ron Plain of the University of Missouri these lower inventories should mean stronger prices. He says 2011 fed cattle prices will average \$110/cwt with 2012 prices higher still. High corn prices should hold 2012 feeder cattle prices close to this year's range.

Some are predicting it will take 5 to 6 years to start rebuilding the national cowherd. This could be a great time for some young producers to get in the beef business.

### ***Are you Losing Money?***

According to a University of Arkansas study you are losing money selling calves one at a time. Calves selling one head at a time received selling prices .12 to .77 cents per cwt below the average selling price. Meanwhile calves sold in groups of two to five head received a selling price \$1.94 to \$2.74/ cwt. above the average selling price and producers who sold calves in groups of six or greater received a selling price of \$4.02 to \$5.32/cwt. above the average selling price.

### ***Beef Check-off***

The Alabama Cattlemen will hold a referendum on Oct. 20<sup>th</sup> at the County Extension offices around the state to increase the state beef check-off from 50 cents/head to \$1.00/head. Anyone that owns a cow can vote from 8:30 to 4:00. Several members of the same family can vote if they all own a cow. The last referendum was in 2008 and it was for 50 cents and it passed by an 87% yes vote.



### ***Hobby or Business?***

Do you consider your farm to be a hobby or business? For tax purposes all hobby tax losses are not allowable. To be considered a farm you must do certain things. According to the IRS an activity for a profit can deduct all related business expenses if the business makes a profit 3 out of 5 consecutive years. For more information on this topic contact our office and ask to the timely information sheet entitled "Is My Farm a Hobby or Business?" Call 256-766-6223.

### ***Fire Ant Control***

If you are like me there are plenty of fire ants around. Remember to use a bait in order to kill the queen. Put the bait out from the base of the mound and not on the mound. Do not apply when foliage is wet or rain is expected in the next 24 hours. Do not disturb the mound when applying the bait. Baits take 2 weeks or more to work so be patient. No, grits and club soda do not work. Store your bait in a sealed container in a cool, dry place. For complete information on fire ant go to [www.extension.org](http://www.extension.org) and do a search for fire ants.

### ***Web Site Resources***

I would like to invite you to visit our web site resources if you are on the web. Our state web site is [www.aces.edu](http://www.aces.edu) and our county web site is [www.aces.edu/lauderdale](http://www.aces.edu/lauderdale) and our national web page is at [www.extension.org](http://www.extension.org). Another site is [www.alabamacrops.com](http://www.alabamacrops.com) and be sure to look on the left side of the page for hay and pasture weed control. Also try the [www.aces.edu/animalforage/](http://www.aces.edu/animalforage/) for all the various state livestock Extension news and programs. Happy surfing!

### ***Things To Do***

Now is a great time to take those pasture soil samples and send to the lab. Supplies are available at the County Extension office. The cost is \$7 per sample or the value of about ½ bag of fertilizer. If you have a restricted use pesticide permit and it is running out then get the packet from the office and take care of it this fall. There are changes coming to this program in the near future. There will be no more packets given out at the county office. You will be required to attend a meeting costing \$25 and the permit will cost \$25. They are also looking and doing some of this online.

### ***Dates to Remember***

- Friday October 7, Annual Cattlemen Golf Tournament, Joe Wheeler State Park, 12:30 P.M.
- Tuesday, October 11 Nutrient Management Meeting Lauderdale County Extension 6:30 P.M.
- Thursday, October 20 State Beef Check off Referendum , County Extension Office 8:30 to 4:00
- Saturday, November 5 County 4-H Heifer Show, County Extension Office 6:00 P.M.
- Friday, November 11 Beef Nutrition, Lauderdale County Extension 8:30 A.M.
- Thursday, November 17 Co. Cattlemen Banquet, Underwood Senior Center, 6:30 P.M.
- Thursday, December 10 State Forage Conference, Guntersville State Park 9:00 A.M.

Sincerely,



Randall Armstrong  
County Extension Coordinator

# **Educational Opportunities for Livestock Producers in the TN Valley—Fall 2011**

**Tuesday, October 4—Moulton Stockyard, 6:30 pm**

“Cull Cow Management to Maximize Profitability” with Dr. Frank Owsley, Auburn University

**Monday, October 10—Morgan Co. Agricultural Center, Hartselle, 6:30 pm**

“Nutrient Management in Challenging Economic Times” with Kent Stanford, Nutrient Management Specialist, Alabama Cooperative Extension System

**Tuesday, October 11—Russellville, AL, 1:00 pm**

“Pasture and Hay Field Fertilization Using Poultry Litter; CAFO Updates” with Kent Stanford, Nutrient Management Specialist, Alabama Cooperative Extension System

**Tuesday, October 11—Lauderdale Co. Extension Office, Florence, 6:30 pm**

“Nutrient Management in Challenging Economic Times” with Kent Stanford, Nutrient Management Specialist, Alabama Cooperative Extension System

**Monday, October 17—TN Valley Research & Extension Center, Belle Mina, 6:30 pm**

“Infectious Diseases of Concern to Cattle Producers in the TN Valley” with Dr. Soren Rodning, Extension Veterinarian

**Tuesday, October 18—Lawrence Co. Agricultural Center, Moulton, 6:30 pm**

“Infectious Diseases of Concern to Cattle Producers in the TN Valley” with Dr. Soren Rodning, Extension Veterinarian

**Tuesday, November 1—AAMU Agribition Center, Huntsville, 6:30 pm**

“Practical Animal Identification Techniques for Beef Cattle Producers” with Johnny Gladney, Regional Extension Agent for Animal Sciences & Forages, Blackbelt Region

**Thursday, November 10—Northwest Alabama Livestock Auction, Russellville, 6:30 pm**

“Beef Cattle Nutrition” with Dr. Darrell Rankins, Auburn University

**Friday, November 11—Lauderdale Co. Extension Office, Florence, 8:30 am**

“In-depth Look at Feeding By-products to Beef Cattle” with Dr. Darrell Rankins, Auburn University

**Thursday, December 1—Guntersville State Park**

“Statewide Forage Conference”

**Saturday, December 10—Cullman Stockyard, 11:00 am**

“North Alabama Bull Test and Genetic Verified BCIA Heifer Sale”



*Alabama A&M and Auburn Universities*

**For more information you may contact:**  
Gerry Thompson, Regional Extension Agent  
for Animal Sciences and Forages  
Office: 256-353-8702, ext 25  
Cell: 256-508-2020  
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**The Alabama Cooperative Extension System presents**  
**Nutrient Management in Challenging**  
**Economic Times**

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**Tuesday, October 11, 2011**

**6:30 p.m.**

**Lauderdale County Extension Office**  
802 Veterans Drive, Florence, AL 35630

**Speaker:**  
**Kent Stanford, Nutrient Management Specialist,**  
**Alabama Cooperative Extension System**

*Cattle producers are currently enjoying record high prices for their calves, but high input costs for feed, fuel, and fertilizer continue to erode the profitability for most operations.*

*This meeting will give livestock producers the opportunity to learn more about managing the nutrients on their farm effectively and economically.*



*Alabama A&M and Auburn Universities*

**For more information regarding this meeting, please contact:**

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E-mail: armsthr@aces.edu

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# Bale Weight Estimation Table

Dennis W. Hancock,  
Extension Forage Agronomist  
University of Georgia

When buying or selling bales of hay or baleage, one should always know the tonnage or weight of the lot being purchased. Buying by the bale (i.e., \$ per bale) can lead to paying an amount that is too high or too low for the value of the hay.



In addition, one should never take the seller's word about the weight of the bales as true, unless provided with a scale receipt or other verification of the weight. Often, producers think they know how much the bales weigh, but it is very rare that anyone will know the actual weight of their bales. In fact, it is often the case that a producer will take what the baler's manual says about the bales their baler produces as a true representation of the weight only to find out later that they were either using a different setting or the manual was wrong.

Consequently, the only way to truly know the weight of a bale or lot of hay is to actually weigh it. Of course, it is rare that the seller will have a scale of sufficient size to weigh the bales and it is even less common for a seller to allow the buyer to weigh the bales prior to the purchase.

As a result, the only choice is for those involved in the transaction to use an estimate of the bales' weight. Table 1 lists common bale sizes (width and height) and a calculated estimate of the lbs of dry matter (DM) in bales of that size at different bale densities (i.e., lbs of DM per ft<sup>3</sup>). Of course, bale density is very difficult to estimate. Most modern round balers will make a bale that is between 9 and 12 lbs of DM per ft<sup>3</sup>. If the bales are very loose and spongy when pressed, it is likely that those bales have a bale density of 9 lbs DM per ft<sup>3</sup> or less. If the bale deforms only slightly when pressed or spiked, it is likely to be approximately 10 lbs DM per ft<sup>3</sup>. If the bale is rigid but deforms when pressed hard or spiked, it is likely to be approximately 11 lbs DM per ft<sup>3</sup>. If the bale is very rigid and only deforms under the tractor's weight, it is likely to be approximately 12 lbs DM per ft<sup>3</sup>.

Please note that the values listed in **Table 1** are merely estimates of bale weight. Individual results may vary, as some balers may provide bale densities greater than those listed here. Also note that these values are provided on a DM basis. To calculate the actual "as-fed" or wet weight, divide the weight listed in the table by 1 minus the % moisture in the bale. For example, if the hay is at a stable 15% moisture and the table estimate is 1080 lbs of DM, then the actual "as-fed" or wet weight is 1270 lbs (i.e., 1270 lbs wet weight = 1080 lbs DM / (1 - 0.15))

**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			
Width	Height	----Density, (lbs per ft <sup>3</sup> )----			
		9	10	11	12
(ft)		(lbs of DM/bale)			
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

Source: The University of Georgia and Ft. Valley State University, the U.S. Department of Agriculture and counties of the state cooperating. Cooperative Extension, the University of Georgia College of Agricultural and Environmental Sciences.

# Winter Grazing and Hay Opportunities

Micheal Davis, Forage Agronomist (Retired)

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Fall, winter, and spring are excellent times for producing forage for grazing and hay. These grasses are high in quality and rainfall is usually more dependable. While growing small grains and/or ryegrass can be expensive, they are very good supplements to hay feeding. The most economical way to utilize winter grazing is by limiting animal's access to the pasture for short periods three to four times a week. This can replace needed protein and energy not provided by hay. Overseeding closely grazed perennial summer pasture with ryegrass and crimson clover will provide excellent late winter and spring grazing as well as residual fixed nitrogen for the companion summer perennial grass. A word of caution when using ryegrass on perennial summer grass, with the extended drought periods we seem to be in, use of the longer season ryegrass varieties can take spring water and nutrients needed by the summer perennial. Gulf or Annual ryegrass are short season grasses and provide most of their forage and mature earlier in the spring thereby reducing the competition with the summer perennial.

Over seeded Ryegrass should be broadcast planted on summer perennial pastures about the last part of October at the rate of 25-30 pounds/acre. If crimson clover is also planted it should be drilled in at the rate of 15 pounds/acre. Ryegrass and crimson clover can mixed and planted taking care to plant no deeper than 1/2 inch. When planted alone, crimson clover will provide grazing by early March and not only provides early forage but will fix about 60-80 pounds of N/acre. Ensure that soil pH is 5.8 or higher and adequate P and K are available. Care should be taken when grazing the clover initially not to put the animals on when they are extremely hungry or when the clover is wet. Be sure to keep grass hay available at all times and watch for bloat. If animals bloat, remove them from the clover immediately and allow them hay only. Feeding of an ionophore in the mineral will help prevent bloat as well.

Small grain varieties most suitable for forage are: **Wheat:** Oglethorpe, Roberts, and Ga. Gore; **Rye and Triticale:** Trical 342, Trical 2700, Fl. 401 rye, Bates rye, Wrens Abruzzi rye; **Oats:** Harrison, Coker 227, SS76-40;

Seeding rate of small grain on a prepared seedbed is 90-100 pounds/acre. Small grain can be seeded into a disked summer perennial pasture as well in an emergency. Disk and plant the pasture about late September. The disking acts to retard the summer perennial growth and allows the small grain to get any available water and nutrients. Small amounts of Bahia grass or bermudagrass seed, 5-8 pounds/acre, may be broadcast over the pasture prior to drilling the small grain to help strengthen the summer grass for next year. It is important to make a 20-25 pound application of N at planting to allow the small grain to thrive and produce tillers in the fall for maximum forage growth in the spring. About February 15 to March 1, apply an additional 60 pounds of N. If the area is to be cut for hay, I suggest that oats be planted and cut for hay in the boot stage with a mower conditioner if possible. The oat varieties that I have listed are the most winter hardy varieties. Summer perennial hay land can be planted to oats and cut for hay without disking. Plant about mid October at the rate of 90-100 pounds seed/acre, apply 20-25 pounds of N/acre at planting followed by 60 pounds of N in March. As with all hay land, be sure that adequate P and K are available for the small grain.

Liquid N fertilizer will probably be the least expensive and can be used in the cooler weather without fear of losing large portions of N to volatilization.

# Incorporating Clovers into Your Pastures

Rocky Lemus

Extension Forage Specialist  
Mississippi State University

Fall is one of the most crucial periods for our cool season pastures. A goal of cattle producers should be to provide the nutrients their cattle require as economically as possible through grazing. Due to rapidly increasing fertilizer prices, there has been a tremendous increase in interest in planting and grazing clovers with winter annual forages (ryegrass) and with perennial forages (bermudagrass and tall fescue). Forage legumes have the ability to remove or “fix” atmospheric nitrogen in a form that plants can utilize. The nitrogen is removed from the atmosphere by *Rizobium* bacteria which live in nodules on the legume roots and convert to ammonium to be utilized by the plant. Clover needs to be properly inoculated with live bacteria in order for it to grow properly. Proper inoculation will greatly increase forage production and quality.

**Table 1.** Characteristics of clovers commonly grown.

Clovers	Seeding Rate	Seedling Vigor <sup>1</sup>	pH Range	Tolerance to <sup>1</sup>				Bloat Potential
				Acidity	Poor Drainage	Drought	Grazing	
<b>Annual</b>								
Arrowleaf	5 - 10	F	6.0-6.5	F	P	G	G	L
Ball	2 – 3	P	5.8-6.5	F	G	G	E	L
Berseem	10 – 20	G	6.5-7.5	P	E	F	F	L
Crimson	20 – 30	E	6.0-7.0	G	P	F	F	M
Vetch	20 – 25	E	5.0-8.0	G	P	F	F	L
<b>Perennial</b>								
Red	8 – 15	E	6.0-6.5	F	F	G	G	L
White	2 – 3	F	6.0-7.0	F	G	F	E	M

<sup>1</sup>E=Excellent; G=Good; F=Fair; P=Poor

<sup>2</sup>L=Low; M=Medium; H=High. Source: Ball et al., 2002.

The characteristics of clover species differ. Some are more tolerant of certain climatic conditions, soil conditions, and/or management regimes than others ([Table 1 and 2](#)). All clovers are not created equal and adding clovers to a winter annual or a perennial grazing system requires that the producer knows his soil and has addressed three major management challenges. The first challenge is to ensure that the pH has been adjusted well before planting. Sample soils at least six months ahead of the planting date and apply recommended lime so that fields will be ready for planting in the fall. Legumes need a higher pH (5.8 to 7) than grasses do, in part so the bacteria that fix the nitrogen can function effectively. Most clovers do poorly in acidic soils. Liming the soil to a pH of at least 5.8 will help ensure a good stand of clover. It is not recommended to attempt legume establishment until the soil pH is within the prescribed range for a specific variety. The second challenge is to ensure that the soil contains adequate levels of potassium and phosphorus for successful establishment and persistence.

**DO NOT APPLY NITROGEN.** Nitrogen will not kill legumes, but it stimulates grass growth, which will increase the competition with the legume and the likelihood of legume loss due to shading. If the clover composition in the pasture is less than 25%, then apply 30 to 40 pounds of N per acre. Application of about 2 pounds of boron per acre might also be necessary. The third challenge is to control broadleaf weeds before seeding clover in pastures. Once clovers are seeded in pastures, control of broadleaf weeds ranges from very difficult to impossible. Before planting clover, time your herbicide applications to achieve good weed control while still allowing an adequate period for residual activity to disappear. Keep in mind that the length of residual activity depends upon the herbicide used, the rate applied, and the weather conditions following applications. Check the herbicide label to determine appropriate application rates and timing for various weeds.

**Table 2.** Plant attributes of clovers commonly grown.

Clovers	Cold Tolerance <sup>1</sup>	Maturity	N Replacement (lb/ac)
<b>Annual</b>			
Arrowleaf	G	Late	50 – 110
Ball	G	Medium	60 – 100
Berseem	P	Late	90 – 110
Crimson	G	Early	70 – 125
Hairy Vetch	G	Late	50 – 150
<b>Perennial</b>			
Red	G	Late	75 – 200
White	G	Late	75 – 150

<sup>1</sup>E=Excellent; G=Good; F=Fair; P=Poor

**Source:** Twidwell, 2009; Ball et al., 2002; Lacefield, 2002; Killpack and Buchholz, 1993.

The amount of nitrogen applied to pastures can be reduced or eliminated by planting clover or properly managing existing stands of clover in these pastures. There is a common misconception that nitrogen is released from the root of a growing clover plant and this nitrogen will supply the surrounding plants with nutrition. Research has shown that there is a small amount of nitrogen released or leaked from the nodules and roots of actively growing clover, but it is an insignificant amount and will not supplement the nitrogen requirement of the companion species. The primary method of nitrogen transfer from the clover to the soil is by decomposition of plant material. As clover plants mature and die the nodules, roots, stems, and leaves are decomposed by soil microbes and slowly release nitrogen into the soil. This slow release of nitrogen is beneficial to warm-season and cool-season grasses and will reduce or eliminate the need for nitrogen fertilization during this growing season.

Having 30 to 40% clover (based on a dry weight basis) in your pastures will help reduce your nitrogen needs. Clovers also favor profitability by lowering nitrogen fertilizer expense, which typically accounts for 20 to 50% of the cost of producing forage from grasses. Numerous studies have shown that annual clovers, ladino or white clover, and red clover often fix 60 to 150, 100 to 150, and 150 to 200 lb/ac/year, respectively (**Table 2**). At current nitrogen costs of around \$0.50/lb (ammonium nitrate), this represents a value of \$30 to over \$100 per acre per year. The value of nitrogen fixed by a clover stand in a single year is often several times as much as the cost of planting the clover. Clover seed usually costs \$10 to \$25 per acre. Many factors such as overgrazing, length of the growing season, soil type and the amount of nitrogen present in the soil will influence the amount of nitrogen that is fixed by clover from the atmosphere. Often the value of nitrogen fixed by clovers alone will more than offset the cost of their establishment. Other associated factors with establishing clovers depend on the site, situation and method of seeding, but are typically less than the seed costs.

A four-year study conducted at Texas A&M in the 1980s showed the advantage of incorporating clovers into the pasture when three systems were compared: (1) a high input system on dallisgrass pastures using 150 lbs/acre of nitrogen and herbicides for weed control, (2) a medium input dallisgrass system where white clover was over-seeded, and (3) a no input pasture system using dallisgrass with no nitrogen, no herbicide, and no clover. It was reported that average daily gains for the calves were 1.57, 1.82 and 1.66 lbs/day for the high, medium, and no input systems. By using 2008 costs for pasture and animal inputs, production costs per pound of calf gain were \$1.12, \$0.58 and \$0.81 for the high, medium, and no input pasture systems, respectively.

Source: Forage News, Issue November 2009, Mississippi State University