

LAUDERDALE COUNTY OFFICE
802 Veterans Drive
Florence, AL 35630
Telephone: (256) 766-6223
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Dear Cattlemen:

4-H Heifer Show

The County Heifer Show is back big time. We had 16 youth to exhibit 25 heifers in the show held on September 13th. The top heifer was shown by Caid Cornelius of Rogersville and it was a county bred calf, bred by this great grandmother, Alta Barnett. Klint McCaffery of Rogers School had the reserve champion.

Country of Origin Labeling (COOL) What Does It Mean To Me?

As you know the new labeling law is now in effect, but what do I need to do as a beef producer? Not much really. But it does involve that dreaded word "records". The first thing you need to know is all animals in the U.S. as of July 15, 2008 are considered to be U.S. origin. Therefore it is important for cow-calf producers to document herd size and composition for these animals that are "grandfathered" in under this date. Young cows that may not be sold for several years may need this documentation to verify the status as of July 15, 2008.

This could be as easy as recorded ear tags or tattoos or other production records, vaccination or health records, feed records etc. Producers should be prepared to provide an affidavit to the buyer stating the origin and the existence of such records and the producer should keep a copy of the affidavit noting the buyer, date, and location of sale.

The Alabama Cattlemen Association along with others has prepared a general affidavit that can be used in this process. It is posted on their web site at www.bamabeef.org. When selling cattle at the sale barn in the future, producers are likely to be asked to sign such an affidavit. When buying breeding stock from other producers it would be a good idea to get a signed affidavit for your records.

If you have additional questions you may contact me at the Extension office at 766-6223.



Champion Heifer
Caid Cornelius of Rogersville wins Grand Champion in the Annual County 4-H Heifer Show standing with Cornelius is the Judge of the show Joe Hester of Russellville

Fertilizer Prices

Fertilizer prices are showing no signs of getting better therefore long term plans need to be made to cope with the problem. That could be as simple as putting clovers into pastures or locating a cheap nutrient source such as broiler litter or it may mean reducing cow herds to fit the land available without fertilizer. Think about cross fencing some pastures to better utilize the forage that is produced. Annual cow cost is now \$400 per cow annually and up. The calf revenue will have to pay this plus make up for the cows that don't wean a calf for whatever reason. Times are tough so let's get tough!

Saving Money

The largest expense in a cow-calf operation is the winter feed program. The nutritional needs of the cow change greatly depending on their stage of production. Therefore, the first thing to do to reduce feed cost is get on a limited breeding season so that all the cows will be on the same nutritional plane. Next test some of your hay to determine its quality. The hay could be good enough with additional supplement. You will not know until you test it. I have a hay probe at the office you can check out to take the samples. The cost of a sample is \$10.



Next, cull cows are selling well so cull heavy now before going into the winter feeding season.

Hay Contest

There is still time to enter the Alabama Hay Contest. The cost is \$15 per sample and you will get a complete hay analysis on the hay. If you are interested, let me know 766-6223. The deadline is December 1.

Corn Aflatoxin

A lot of corn has been refused at local buying stations due to the amount of aflatoxin in the corn. This is a naturally occurring chemical by-product from *Aspergillus* fungi. This can be very harmful in poultry and swine feed but cattle are more tolerant and if you are using it in small amounts to supplement your cows this could be a great buy. Check out the additional info provided in this newsletter.

Sincerely,

A handwritten signature in blue ink that reads "Randall Armstrong". The signature is fluid and cursive.

Randall Armstrong
County Extension Coordinator

Beef CHAMPS November 2007

Beef Cattle Health and Management Production Strategies

Cow Culling Strategies

JEREMY POWELL, DVM Assistant Professor Veterinarian

Cow performance should be evaluated at least once a year, and fall is a great time to take a hard look at the cowherd and make culling decisions if necessary. Cull cows make up approximately 20% of the cowherd income on an annual basis. Many factors can play a role in determining which cows should be culled. The most important factor is likely pregnancy status, but other aspects which can help determine culling include body condition score, calf performance, age, temperament, lameness and teeth, udder or eye condition.

Open cows are the greatest contributors to poor economic efficiency in a cowherd, and it's very costly to maintain open cows in the herd until the next breeding season.

It takes the net returns from two to three productive cows to offset the cost of maintaining one open cow for a year.

Therefore, a common goal among most operations is for a cow to calve every 365 days. During your fall herd work, have your vet present to palpate cows for pregnancy or pull blood samples for the BioPRYN™ pregnancy test to determine pregnancy status on your herd. A high number of open cows would warrant further investigation to determine the problem. Causes could range from reproductive disease or poor bull fertility to poor cow body condition.

Body condition scoring is another tool to utilize for culling decisions. It's important for a producer to try to maintain a uniform body condition across the herd. One should determine if cows will require costly extra supplementation going into the winter to help put on body condition before spring calving begins. There is a direct relationship in body condition score (BCS) at calving and follow-up pregnancy rates among cows. Cows in an ideal BCS of 6 at calving will have subsequent pregnancy rates of 93%. A BCS of 5 at calving yields a subsequent pregnancy rate of 86%. When the BCS drops to 4 at calving, pregnancy rates fall to 61%. Take a close look at other factors that may be affecting poor BCS such as poor soundness, possible disease or a bad mouth.

While herd genetic improvement is largely dependent on sire selection, the dam contributes half of the genetics to the calf. Poor calf performance can be a result of poor milk production, inferior genetics, calf illness or a combination of these factors. If poor calf performance is due in large part to calf sickness and not associated with the dam, then the cow may still have a productive future in the herd. However, if the cow is passing on inferior genetics to her calf or if she is a cow with unacceptably low milk production, then these are good criteria for culling. According to the data collected by the University of Arkansas Cow Herd Performance Testing Program, cows exhibiting poor performance over several calving seasons are not likely to show greatly improved performance in future calving seasons. Results revealed that most cows ranking in the bottom one-third of the herd for calf 205-day adjusted weaning weights consistently ranked in the bottom one-third of the herd over a period of several years. Therefore, identification and culling of poorly performing herd females can be effective for improving herd performance averages. Age of the dam should also be considered when culling for low performance because first- and second-calf heifers should not be expected to perform at the same level as more mature cows.



Figure 1. Poor udder soundness is one reason for culling.

Another important culling gauge is structural soundness of the cow. Poor structural soundness can eventually hamper mobility. For example, cows that have difficulty moving around the pasture may be less active grazers. Cows need to be sound enough for effective grazing and successful pasture breeding. Condition and performance of structurally unsound or crippled cattle often goes downhill. Obvious structural defects can decrease the market appeal of an animal as well. Proper udder structure in a beef female is important for a long, efficient, productive life. A sound udder should be firmly attached with a strong, level floor and four properly formed teats proportional to body size. Weak udder suspension results in pendulous udders that are difficult for a sucking calf to nurse. Balloon or funnel-shaped teats are also difficult to nurse and may hurt calf milk consumption and weaning weight (Figure 1). Udder soundness affects milk production, milk consumption and ultimately calf weaning weights. Teeth wear with normal use over time, and cows can eventually wear their teeth down where grazing effectiveness is impacted. This results in poor body condition despite adequate available nutrients. "Smooth-mouthed" cows have teeth worn down to the gums. These cattle may dribble feed from the mouth and have a hard time consuming adequate quantities of feed or forage. Annual inspection of the teeth and mouth during routine cattle working is recommended. The productive lifetime of a beef cow is variable. As long as teeth, udders, feet and legs are sound, many older cows are often still able to perform well.

Selection Checklist

✓ Reproduction

- Is she pregnant or open?
- Does she breed back in the proper time frame and produce a calf annually?
- Is frame size or pelvic area too small, making calving difficulty a concern?
- Is there a history of vaginal prolapse?

✓ Body Condition

- Is she healthy (free of disease) and in good condition for calving and rebreeding?
- Is her frame size too large for feed and forage conditions?
- Is she an easy keeper (keeps flesh and condition with proper nutrition)?

- Does she have adequate body capacity for carrying a calf and consuming large quantities of forage/feed?
- Is her breed composition suited to the environment?

✓ Performance Traits

- Does she milk adequately for acceptable calf growth?
- Is her milking potential excessive for feed and forage conditions?
- Do performance test results indicate desirable performance over her lifetime (acceptable Most Probable Producing Ability values and calving intervals)?
- If her calf did not perform well, was it due to the genetics or milking ability of the dam? (Calf health problems and sire genetics can contribute to this.)
- Does she exhibit desirable maternal instincts (licks off calf at birth, readily accepts nursing calf, etc.)?

✓ Structural Soundness

- Are her feet and legs structurally sound for ease of movement under pasture and breeding conditions?
- Are her eyes healthy?
- Is her udder healthy with a level floor and good suspension?
- Does she have four evenly spaced, acceptably sized teats?
- Does she still have teeth that will be effective for grazing?
- Is her disposition manageable with available labor and facilities?

Forages

By Dr. Rocky Lemus

Winter feeding programs can contribute heavily to the overall ownership costs of a livestock production system. In Mississippi, annual production cost per cow could range from \$400.00 to \$650.00, with grazing and winter feeding cost per cow representing 50 to 80% of the total annual cost. While the costs of some of the supplemental feed, fuel, and fertilizer are on the rise, stockpiling should be aimed at reducing feed costs. When properly implemented, it could reduce the hay feeding period by two months or more.

Stockpiling is defined as the accumulation of forage at one time of the year for grazing at a later time. It works well with cool- and warm-season perennial grasses, but today we are going to focus on stockpiling warm-season perennial grasses.

Warm-season perennial grasses (WSG) such as bermudagrass and bahiagrass could provide grazing from late October to early January. Availability of stockpiled warm-season forages is much shorter than tall fescue (late November or early December to late February) because of faster dry matter deterioration with WSG. Stockpiling works well with bermudagrass or bahiagrass as monocultures or mixed with most legumes. Clovers (white or red) are good choices for stockpiling. This could help to fill the gap until some of the annual cool-season grasses such as annual ryegrass and small grains are available for grazing. A three year study (2003-06) conducted in Arkansas indicated that stockpiling bermudagrass can provide an average savings of \$20.14 per animal unit when compared to feeding hay (Univ. of Arkansas, 2007). Although most perennial warm-season grasses are good for stockpiling, quality will be lower than with cool-season species such as tall fescue.

Stockpiling involves much more than just excluding live-stock from the pasture for a few weeks before the winter starts, it requires management. Graze pastures to a 3" stubble height or harvest the final cutting of hay approximately 8 weeks prior to the first estimated frost. Mowing the existing biomass is used as the last resort, but it is not recommended because it places a thatch on top of the grass which delays new growth. Stockpiling warm-season grasses should start mid-August to early September provided that there is adequate moisture and the appropriate fertility program. This will give grasses the opportunity to grow for two months before going dormant in mid to late October. Nitrogen application should be between 50 and 70 lbs of N per acre when stockpiling pure or mixed warm-season grasses (no legumes present) to produce the required forage quantity and nutritive value. Phosphorous and potassium should be applied based on soil test recommendations.

Stockpiled warm-season grasses (bermudagrass or bahiagrass) can provide the required nutrition for dry mature cows and spring-calving cows (with good body condition) late in the fall if properly managed until overseeded annual ryegrass can provide necessary nutrition throughout the remainder of the winter feeding period. Stockpiling of warm-season perennials in the autumn depends on forage variety ([Table 1](#)), precipitation, temperature, nitrogen fertilization, and duration of the stockpiling period.

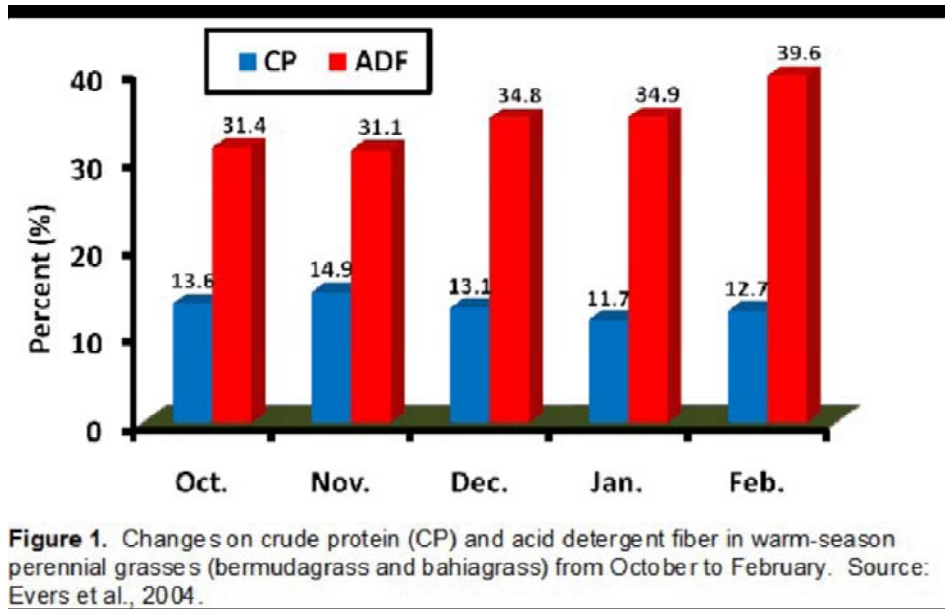
Studies have suggested that forage quality is maintained through late autumn (Evers, et al., 2004; Scarbrough et al., 2001). Crude protein (CP) remains relatively stable while neutral detergent (NDF) and acid detergent fiber (ADF) increase slightly ([Table 1](#)). One of the most significant increases is lignin concentration. Most stockpiled warm-season perennial grasses should provide 8 to 14% CP and >50% total digestible nutrients

Table 1. Biomass Production and forage quality of warm-season perennial grasses from November to February.

Biomass Accumulation (Nov. – Feb.)	Yield	Crude Protein	ADF
	lb/ac	%	
Bahiagrass			
Tifton 9	588.5	13.6	35.8
Pensacola	458.1	13.9	35.0
Bermudagrass			
Coastal	666.2	11.6	33.0
Common	725.1	--	34.1
Cheyenne	761.7	14.0	32.4
Giant	714.4	--	38.2
Tifton 85	1068.9	12.5	37.4
Wrangler	513.5	--	30.7

Source: Evers et al., 2004.

through January (Figure 1). Dry matter digestibility during fall and winter is highly dependent on the stage of maturity when dormancy occurs. Leaves of bermudagrass or bahiagrass are not as tolerant to freezing damage as tall fescue so the amount of leaf material and palatability declines steadily after the onset of freezing weather. There is the possibility that appropriate supplementation will likely be required.



Strip grazing is the recommended method to obtain a better return. If grazing is not controlled, much forage will be wasted because cattle will select the leafy material the first 4 to 6 weeks. The goal is to efficiently harvest the forage by manipulating access so that they will graze down only the top 2/3 of the grass which is primarily leaf. Leave the bottom one-third of the grass, which is mostly low-quality stem, to protect the pasture against winter freeze and help control erosion. Use a single-strand electric fence to partition the available forage in the paddocks and graze for a 2 to 3 day period, allowing the cows to harvest 65% of the standing forage. Always begin grazing the area close to water to avoid wasting forage due to animal trampling. When properly grazed, stockpiled WSG could provide 45 to 60 days for grazing. It is important that free choice minerals are supplemented during the grazing period and their body condition is closely monitored. Observe the manure consistency in the animals to determine if protein deficiency might be an issue. In this case, resume the traditional hay feeding program, add protein and/or energy supplements if the average body condition starts to decline, or initiate grazing ryegrass if ready to be grazed. Gains will generally be considerably better in November and early December rather than later in the season. The extent of deterioration of the accumulated warm-season grasses growth will also affect animal gains.

Many Mississippi beef producers in the winter make daily hay-feeding runs. Grazing stockpiled forages is not a new concept. Stockpiling helps cut hay consumption and saves labor and time. Some producers usually comment that strip grazing is too labor intensive, but it only takes 30 minutes to move a fence that could provide two or three days of grazing. On the other hand, it takes about three hours to feed hay everyday and about 7 hours per acre to produce that hay during the summer. These changes in winter feeding/grazing programs can substantially reduce winter feeding costs.

Soil Testing

Fertilizer prices dictate you must soil test to determine the fertility needs. You may not be able to afford to fertilize according to the recommendations but it will help determine where to spend the fertilizer dollar. For example, if you need lime then that is where the first fertilizer dollars should go. Soil test boxes are available at my office and the cost is \$7 per sample. This is a great time of year to get it done.

Computer Classes

Do you have a need to learn to keep records on your computer for your cattle operation? Call me at 766-6223 and if we can get enough together we will schedule some classes.

Hay Barn or Commodity Barn

If you have need of a hay barn or commodity barn the State Dept of Ag has some low money to assist you. You can contact the Dept of Ag at 1-800-642-7761. Remember what they say, you will pay for a hay barn whether you build one or not.

Prussic Acid Poisoning

Prussic acid poisoning can be a real problem this time of year as we near frost. This is a problem on sorghum type species including Johnson grass. Pearl millet is apparently free of prussic acid in toxic amounts. This is also the same poison found in wilting wild cherry trees. To reduce your risks follow these management practices.

1. Graze sorghum or sorghum cross plants only when they are at least 15 inches tall.
2. Do not graze plants during and shortly after drought periods when growth is severely reduced.
3. Do not graze wilted plants or plants with young tillers.
4. Do not graze for 2 weeks after a non-killing frost.
5. Do not graze after a killing frost until plant material is dry (toxin is usually dissipated within 48 hours).
6. Do not graze at night when frost is likely.
7. Delay feeding silage 6 to 8 weeks following ensiling.
8. Do not allow access to wild cherry leaves whether they are wilted or not. After storms always check pastures for fallen limbs.



Aflatoxin-Contaminated Corn Use for Beef Cattle

Darrell Rankins, Jr., Extension Nutritionist

First and foremost, it is important to note that the following information is in regard to **feeding aflatoxin-contaminated corn to beef cattle** and does not have any validity for selling corn. For interstate commerce, there are very strict guidelines with regard to aflatoxin-contaminated corn.

Aflatoxin can result in a reduced appetite, reduced growth or milk production, rough hair coat, immunosuppression as well as many other possible symptoms. Depending on interactions with other mycotoxins (realizing that when mold is present there are probably several different mycotoxins being produced), aflatoxin concentrations as low as 100 parts per billion (ppb) may be toxic to beef cattle. However, the toxic level is generally considered to be between 300 and 700 ppb. A good rule of thumb would be to use 200 ppb as a target concentration to stay below. Obviously, all people have differing ideas on degree of risk, as an extension employee I would rather error on the side of caution.

The 200 ppb concentration is a number that would be for the total diet; therefore, if you were supplementing brood cows with 4 pounds of corn per day and they were consuming an additional 24 pounds of hay then the corn could actually contain as much as 1,400 ppb aflatoxin and the cow's total intake is still at the 200 ppb level. However, be aware that some cows will get more than 4 pounds when group-feeding and also you may get to high enough levels that the grain is actually unpalatable to the cows and they won't consume 4 pounds of it.

Various strategies for reducing the effects of the aflatoxin include the following: ammoniation, blending with aflatoxin-free grain, screening and addition of clays. Again, all of these strategies are for on-farm feeding not for sale of corn. Ammoniation of the grain with anhydrous ammonia at a rate of approximately 3/4 pound per bushel of corn has been shown to destroy the aflatoxin. It is best to do this with the corn on concrete and under plastic not in a grain bin. Once the anhydrous has been put into the stack the process takes about three weeks at which time the plastic is removed and remaining anhydrous allowed to escape. CAUTION - Anhydrous ammonia is dangerous! Blending with uncontaminated grain simply is a dilution technique. Screening may be beneficial in that most of the aflatoxin is in the broken kernels, tips and otherwise damaged pieces. Once the corn has been screened it can be re-tested to see what the new aflatoxin level is, probably reduced. Research has shown some benefit from incorporating small quantities of clays (e.g., bentonite at .5%; 10 pounds per ton) for binding the aflatoxin so that it is carried on through the digestive tract and into the manure rather than absorbed into the body. Does not always work.

A key factor in all of this is that the analysis is accurate which starts with getting a good, representative sample of the corn. Once the sample is obtained it will need to be sent to a testing lab. On the following page you will find a list of some labs that can measure aflatoxin as well as other mycotoxins. I am unfamiliar with their costs. I'm sure there are many other labs as well, this just happens to be the list that I have.

One in-state lab that I am aware of that will also measure aflatoxin is the Peanut Inspection Service in Dothan, AL. Their phone number is 334-792-5185.

A&A Laboratories Inc.
411 N. 3rd St.
Memphis, TN 38105
901-527-2780

A&A Laboratories Inc.
1000 Backus Ave.
Springdale, AR 72764
800-962-7120

Woodson-Tenent Laboratories
1331 Union Ave, Suite 1500
Memphis, TN 38104
901-272-7511

Central Analytical Laboratories Inc.
101 Woodland Hwy
Belle Chasse, LA 70037
504-393-5290

Anitox Corp.
1055 ProgressCorc:e
Lawrenceville, GA 30043
800-241-8357

Analab
18246 Waller Rd
Fulton, IL 61252
800-435-9560

Diversified Laboratories Inc
3810 Concorde Parkway
Chantilly, VA 20151
703-222-8700