



BEEF CATTLE TIME

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Fall Forage Practices

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With winter approaching, it is time for producers to begin planning the winter forage program. A little effort now can pay big dividends later on. Here are a few forage management practices to incorporate into your overall cattle program.

(1) Stockpile tall fescue. Stockpiling tall fescue has the potential to add approximately 60 more days onto the fall grazing season. This will be 60 days that no hay will have to be fed. Stockpiling is nothing more than trying to save forage while it is growing for use later in the season. Research has shown that the fall growth of tall fescue is of high quality. The quality stays high into the winter, providing an excellent feed for cows. The steps to stockpiling are simple. About the first of September, have the pastures grazed or clipped to remove all of the mature summer forage. Apply 60 units of nitrogen per acre after the fall rains begin, and then allow the fescue to grow as long as possible, even up to a killing frost. Ammonium nitrate is the best nitrogen source to use in the fall. If possible, rotationally graze the fescue, so that less of the forage is trampled and wasted. Even though the nitrogen expense is significant, it is still quite a bit less expensive than having to feed hay for the extra 60 days.

(2) Reduce hay storage losses. One of the best ways to make your hay inventory last longer is to waste less of the hay you have. Most people would agree that a 5x5 bale that sits outside during the winter will have approximately six inches of rotted forage around the outside. But most people do not realize that this six inches of loss is 30 percent of the bale. This is the same thing as taking every third bale out of the field and throwing it into the ditch, because no value is coming from it. If bales are stored inside or off the ground and covered, hay supplies can be made to go farther because less hay will be lost to rot.

If possible, store hay inside a barn. This will do the best job protecting the hay from the elements. If barn space is not available, get the hay off the ground by putting it on crushed stone, tires, poles, etc. When hay is stored on the ground, as much is lost because of water taken up from the bottom of the bale as from rain damage. Once the bales are off the ground, cover them with some sort of plastic. Several types of hay tarps are available and have been shown to be relatively durable and effective. Be sure to securely tie the tarps down. One of the best ways to do this is to lay ropes down and place the bales on top of the ropes. These ropes can then be used to anchor the tarps. Be sure to not completely cover the ends of the hay stacks. If there is not any air movement up and down the stack under the tarp, there could be a significant amount of mold development on the hay.

(3) Forage test hay. In order to have an efficient winter hay feeding program, test the hay to learn the protein and energy level. Without this information, there is no way to know if the cow's diet will be sufficient to meet her needs. Don't assume that all bales are equal. Different cuttings of hay will be of different qualities, depending on when they were cut, how much fertilizer was applied, the curing conditions, etc. There is no need to sample every bale, but a representative sample from each different cutting will provide valuable information. The University of Tennessee Forage Testing Laboratory can provide the moisture, fiber, protein and TDN content of your hay. The cost is \$7 per sample. Your local Extension agent will be able to provide help in this area.

(4) Control weeds with late fall herbicide application. If they are sprayed in a timely manner, buttercup and musk thistle are weeds that are easy to kill. Usually producers think about spraying these weeds in the spring. However, both of these plants germinate from seed in the fall, grow during the winter and early spring, and then produce blooms in late spring and early summer. A late November or December spray can eliminate these weeds from a

pasture. Use two pints per acre of 2,4-D ester after three days with highs of about 60 F. This temperature will stimulate weed growth, and the chemical will be more effective. By this time of year, most of the germination of seeds will have already occurred. The good part of this procedure is that the residual action of the 2,4-D will be gone by the time clovers need to be seeded in late February. Be sure to read and follow all label instructions.

Temperament, a Convenience Trait in Beef Cattle

*F. David Kirkpatrick, Professor
Animal Science*

Temperament or disposition has been defined as a convenience trait. "What is a convenience trait?" is the usual response from a group of producers when the topic is first brought up. The answer is, "Well, it is just what you would think it is."

Convenience traits are those traits that contribute directly to savings in time, facilities, drugs and labor in a cow-calf enterprise. Some examples of these traits would be temperament, polledness, structural and udder soundness, disease and pest resistance, heat tolerance, doing or "fleshing" ability, mothering ability and calving ease. Although many of these traits of convenience are not highly heritable, they contribute to the ease of participating in and enjoying the beef cattle industry. This article will focus on temperament or disposition of cattle.

Temperament is a measure of the relative docility, wildness or aggression of an animal toward unfamiliar situations, human handlers or management interventions. Temperament reflects the ease with which animals respond to handling treatment and routine management. Animals with bad disposition problems are a safety risk to handlers, themselves and other animals within the herd. Disposition affects handling equipment requirements, operation liability exposure, beef quality assurance, carcass quality and performance.

Wild, hard to handle cattle are a danger to themselves and the people working with them. They are the ones that create handling and gathering problems. Once they are confined, they are the gate and fence crashers. They are "wild eyed" upon leaving the chute and exit the headgate on the run. They may look for something to hit and when extremely agitated may look for a human being to charge.

In addition those wild, unmanageable animals do not perform as well as calmer cattle in the feedlot. Research from Iowa State University has shown that these cattle gain nearly one-half pound per day less in the feedlot than quiet, easily managed cattle and returned \$61 less profit. Also, easily excited cattle tend to produce carcasses that have a higher incidence of dark cutters which are heavily discounted in market price in the packing industry.

Results of a survey of Tennessee cow-calf producers, conducted during three performance tested bull sales, revealed that temperament was rated 4.13 out of 5.0 as being important in sire selection. Cow-calf producers do not want a bull with a bad attitude. Heritability of temperament is moderately high, and directional change can be made by selecting and culling for calmer herd bulls and replacement heifers. The North American Limousin Foundation has developed its own breed EPD for docility or temperament which aids producers in making directional change for disposition in this breed.

Dr. Temple Grandin reported that location of the hair whorl on the forehead in cattle is associated with temperament. Cattle with hair whorls above the midpoint of the eyes are more susceptible to excitement than cattle with hair whorls below the midpoint of the eyes. Excitability is measured when cattle are in the chute by assigning temperament scores according to their response to restraint.

"Oh yeah. I know what you are talking about now. Those wild cattle sure are not convenient to work."

Reaping the Fruits of the Harvest — Part II

*Emmit L. Rawls, Professor
Agricultural Economics*

You may be asking, "Did I see part I?" It was published last fall and evaluated the sale of feeder cattle from the Giles County Beef Cattle Alliance and the Smokey Mountain Feeder Calf Association's Southeast Pride Plus sale. The cattle sold quite well in relation to weekly auction prices.

The price differences achieved were due to several factors. The most important were genetics, a consistent health/management program and weaning of all cattle from Giles County and most of the cattle at Sweetwater. Finally, marketing the cattle in large groups, truckloads of 48,000 to 50,000 pounds where possible, certainly helped prices. Based on current knowledge, the cattle performed well. However, it has been a devastating 18 months for the cattle feeding sector. So, despite excellent performance, most of the cattle lost money for the buyer. That recent loss of equity, higher feed costs and current lower fed cattle cash and futures prices have made it fairly certain that prices this fall will not match last year's levels.

This year, the Giles Beef Cattle Alliance cattle sold on August 2 in the Lower Middle Tennessee Cattle Association's video board sale managed by Tennessee Livestock Producers. The cattle were sired by bulls with minimum EPD's for birth weight, growth and carcass traits. The cattle were all weaned at least 45 days and were double vaccinated with a four-way product for shipping fever and pasteurella. For the first time, these cattle were all graded and sorted into truckloads or at least large groups at the Fayetteville market the day of the sale. This helped buyers know exactly what they were bidding on especially regarding

weight. Prices received resulted in added value of \$48.47 per head for steers and \$23.61 per head for heifers compared to weekly auction weighted averages for that week. Keep in mind that these premiums were due to all of the above mentioned attributes.

Another alliance type activity has been “cooking” over in the Dickson trade area under the leadership of the Dickson Livestock Center. Over the last two years, the market at Dickson has purchased over 120 bulls from the Nichols purebred operation in Iowa and resold those bulls to their customers. On September 6 a sale of 494 calves sired by Nichols Genetics bulls was held. The cattle were all source verified, individually weighed and grouped by frame and muscling. In addition these calves were all vaccinated using the Merial SureHealth (veterinarian certified) program. The calves sold very well with many groups bringing \$8 to \$13 per cwt. over weighted averages for the weekly sales that week. The sale, modeled after similar Nichols Genetics sales in Iowa, attracted several out-of-state buyers who participate in other Nichols sales.

The Southeast Pride Plus sale at Sweetwater on September 6 sold 1342 head. Cattle in this sale sold anywhere from \$3 to \$15 per hundred over weighted average weekly sales with several repeat buyers from previous years. All the cattle had the Southeast Pride program for Level II Red Tag (does not require weaning) and Level III Blue Tag (requires weaning for 30 days). In addition the program requires pasteurized and use of only Pfizer products. There were three pens of cattle which were all sired by registered Angus bulls, all weaned and fed the same TFC ration, fed Amproleum for coccidiosis, given a pasteurized shot 30 days before sale and a Bovishield-4 vaccination. The weaned calves in this sale qualified for the Pfizer SureHealth program.

This sale did include 135 head of calves from a demonstration to show that weaning calves, combined with a good feed and vaccination program, would more than pay the costs incurred. The demonstration involved five producers from five counties with assistance from Pfizer Animal Health and Tennessee Farmers Cooperative and respective local Co-Op stores. The steers averaged gaining from 1.87 to 3.13 pounds per day across the five operations, while the heifers gained from 1.54 to 2.71 pounds per day. The calves were all weaned 45 days prior to the sale. Some were hand fed while others were self fed. The feed was a 14 percent crude protein ration containing 25 percent fiber and was intended to grow calves and not fatten them. In each case, the additional gain in weight more than paid for the feed and vaccinations priced at full values by an average of \$40 per head. Meetings were held at each farm just prior to the sale to let other producers evaluate the demonstration. Extension agents in Bledsoe, Blount, McMinn, Meigs and Monroe counties coordinated the demonstrations in each respective county.

Tennessee Farmers Cooperative continues to move ahead with its “Beef Advantage” program. A successful sale of 1193 head was conducted at Cookeville on September 27. Several of the pens brought \$7 to \$11 per hundred pounds over weekly auctions. TFC has changed the requirements of the program to allow some feeding of corn, to extend the weaning period to 45 days and to allow private treaty sale. They have also reduced the fee to \$1 from \$2.

All of these production/marketing efforts, while slightly different, involve some degree of cooperation with other producers and require giving up total independence for the benefit of the group and therefore the individual. Based on these efforts, the hope is to have repeat buyers in future sales, assuming of course that the customer was satisfied with the product. The “proof is in the pudding,” as Mom used to say. We want these buyers to come back and be the last bidder again.

How Can a Producer Tell if the Genetics of the Cow Herd Fit the Environment?

*James B. Neel, Professor
Animal Science*

This question was recently asked by a producer during a county meeting, and the following reply might be worth sharing with others.

Generally, we are talking about how efficiently the cow herd’s nutritional requirements “match” the ability of the farm’s forage supply to provide those needs. The simple answer is to monitor the condition of the females and the herd’s reproductive performance. Following are some easily monitored indicators that “things are not in synch.”

- *Failure to breed and calve on schedule.* Probably the most sensitive group of females in the herd is replacement heifers and first-calf females. An indicator that things are not in “synch” is young replacement heifers that fail to reach puberty in time for the start of the breeding season. Another indicator is young females that calve as two year olds and fail to breed back on time. When they eventually do, they are out of the calving scheme. This situation is prevalent in many Tennessee cow herds that have been built on increased gain, milk production and also fall calving.
- *Mature cows that are in poor body condition.* This could be due to calving at a time of year when feed supply is limited. But, most poor body condition situations are because the nutrient needs of the cow herd exceed the farm’s feed supply.
- *Reduced or delayed conception rates.* But, this will never be known unless the herd is on a definite breeding and calving season. Females will not rebreed until they are in an adequate nutritional state.

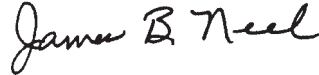
- *A shift or change in calving distribution with more and more being dropped in the later period of the season or, in some situations, outside the calving period. (See preceding) The result will be lighter market weights of calves from those cows that don't "match" and a calf crop that varies in weight.*

Reproduction is recognized as having the greatest economic importance to the success of the cow herd and is directly affected by how well the cow herd's genetic potential matches the feed supply. When a number of open cows turn up, things are out of synch.

It will pay producers to reduce genetic variation in the cow herd and maintain the genotype that will fit the "environment" of the farm. Fitting the genetic potential to the feed resources is the key.

BEEF CATTLE EVENTS

- November 8 Tennessee Forage and Grassland Council**
Ellington Center, Nashville
- November 26 West Tennessee Beef Conference**
West Tennessee Agricultural Center Jackson
- December 11 On The Farm Performance Tested Bull Sale**
Tennessee Livestock Center, Murfreesboro
- January 23 Senior Bull Test Station Sale**
Middle Tennessee Experiment Station, Spring Hill



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Beef Cattle Time

From:

Leader/Agent

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