

## **Breeding Soundness Exams**

*John Cothren, Livestock Agent, Wilkes County*

As most producers have started their fall calving season it is not too early to start preparing for the breeding season that is just around the corner. The importance of the bull in a cattle-breeding program often is underestimated. A cow is responsible for half the genetic material in only one calf each year, while the bull is responsible for half the genetic material in 20 to 50 calves or more. The bull's ability to locate cows in estrus and breed them is clearly vital to a successful breeding program. In the past, when a cow failed to become pregnant it was assumed that she was at fault. Occasionally, that is true. However, a clear understanding of the male reproductive system and the differences between reproductive capabilities of bulls indicates that the cow is not always at fault.

One of the cheapest insurance policies that a cattle producer can purchase is to have a yearly Breeding Soundness Exam (BSE) performed with their Bulls. BSEs should be completed each year at least three months before breeding season. This leaves time to recheck questionable bulls and locate replacements if necessary. Breeding soundness evaluation is a useful tool for screening out low fertility.

A breeding soundness evaluation is administered by a licensed veterinarian and includes a physical examination (feet, legs,

eyes, teeth, flesh cover, scrotal size and shape), an internal and external examination of the reproductive tract, and semen evaluation for sperm cell motility and normality. A breeding soundness evaluation does not evaluate a bull's libido or actual mating ability, nor does it ensure that a bull will remain a satisfactory potential breeder the entire breeding season.

After bulls are evaluated they are then graded as satisfactory, unsatisfactory or deferred. A classification of unsatisfactory does not mean a bull is completely sterile but is considered sub-fertile and should not be used for breeding. A sub-fertile bull eventually may get cows pregnant, but he will take longer than a fertile bull to settle a group of cows. The result is that sub fertile bulls produce fewer calves as well as calves that are born late in the calving season, which are therefore younger and lighter at weaning. Bulls that receive the deferred classification have some irregularities in their ejaculate and a second collection is required to determine his fertility.

Results from a national survey indicate that fewer than 30% of cattlemen routinely subject their bulls to a BSE exam. With cattle prices at near record levels and most BSE exams only costing \$50-\$100 one can see that BSE exams are very cost effective risk management. Do not let the unthinkable disaster happen in your herd. An infertile bull can devastate not just one breeding season, but also several subsequent breeding seasons.

## **Estrus Synchronization Planner**

*Teresa Herman, Livestock Agent, Iredell County*

Uniform calves are the key to improving the beef herd. In order to get that uniformity, estrus cycles can be synchronized to breed and calve in a very short window of time. This process can be a little intimidating but there are a few tools available to make synchronization less complicated.

One easy to use example is the "Iowa Beef Center Estrus Synchronization Planner". This website is available to anyone and is very user friendly. You can download the planner, which opens as an Excel spreadsheet. In the planner worksheet tab, you type in the approximate dates and times that you want to breed the cows. You then choose the synchronization method that best suits your operation. From this information, the Estrus Synchronization Planner calculates backwards, the dates and times that certain procedures must be performed.

For example, if you wanted to breed heifers on December 1<sup>st</sup> using Fixed Time AI, CIDRS and injections would be given on November 21<sup>st</sup>. The second round of injections and CIDR's would be removed on November 28<sup>th</sup>. This synchronized breeding would have cattle calving around September 7, 2016.

A good program would then follow up with blood testing or palpating cattle after 30 days to determine pregnancy. Breeding soundness exams should be performed on clean up bulls as well. For more information, contact your local extension agent or go to [http://www.iowabeefcenter.org/estrus\\_synch.html](http://www.iowabeefcenter.org/estrus_synch.html).

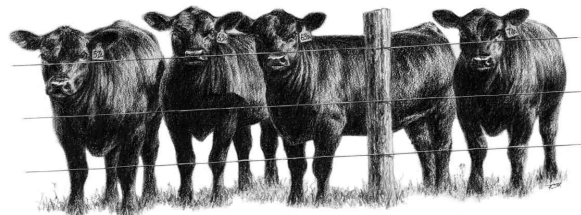
Reference to brand names or commercial services is for educational information only and should not be construed as an endorsement of the product or services by the North Carolina Cooperative Extension Service or discrimination against similar products or services not mentioned.

North Carolina State University and North Carolina A&T State University commit themselves to positive action to secure equal opportunity regardless of race, color, creed, national origin, religion, sex, age, veteran status or disability. In addition, the two Universities welcome all persons without regard to sexual orientation. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.

# Extension

October, 2015

## Cattle Call



Wilkes NC State Extension, 416 Executive Dr. Suite B, Wilkesboro, NC 28697 PHONE: 336.651.7348 FAX: 336.651.7516

### Testing Your Forage

Allison Brown, Livestock Agent, Alexander County

If you are counting calories, how do you know how many calories are in a bag of chips? You read the label! Unfortunately, hay does not come with a label telling you all the ingredients and calories. But did you know that you can get one? Forage testing is the easiest way to determine forage quality and provides you with the information to ensure that you are meeting your cattle's nutritional needs. Generally, we as producers have to worry more about making sure our cows have enough calories, rather than restricting them! So how do you test forage? Contact your local Extension Office, as they have the forms and most likely a probe to collect the sample with.

1. To correctly sample a rectangular bale, the bit is driven into the end of 15 to 20 bales from a particular lot of hay. Drill to the full depth of the sample tube on loose bales and half depth in tight bales. Mix the cores thoroughly and send the entire sample to the lab in a sealed plastic bag.
2. Large round bales should be sampled on the rounded side of the bale. Collect a single sample from each of 10 to 12 bales from the same lot, combining the core samples into one sample for analysis. If the outer layer of the round bale is weathered, pull away 1 to 2 inches and sample below. Drill to the full depth of the tube.

Each hay type (fescue, orchard grass, alfalfa, etc.) and cutting should be sampled. Quality can vary greatly in hay cuttings due to weather, stage of harvest, and fertilizer amounts applied. Samples should be representative and selected at random. Silage can also be analyzed. *Silage and forage samples are sent to the NCDA lab for analysis and cost \$10.00 per sample.*

Once you have your results back, then what? These results will help you determine whether or not you need to supplement in order to meet your herds needs nutritionally. Most producers think that crude protein is our most limiting factor, thus all the protein tubs you see from pasture to pasture. Actually TDN (total digestible nutrients) or energy is our most limiting factor. Often we are able to meet the needs of our dry cows (48- 52% TDN and 7- 7.8% P) with medium quality hay. However, when it comes to feeding 1<sup>st</sup> calf heifers that have to continue growing themselves and raise a calf, our mediocre quality hay won't make the grade.

Body Weight (lb)	Daily Gain (lb)	Dry Matter Intake (lb)	Crude Protein		TDN		Ca (%)	P (%)
			lb/day	% of DM	lb/day	% of DM		
Two-year-old heifers nursing calves-first 3 to 4 months postpartum; 10 lb milk per day								
800	0.5	17.6	1.9	10.8	11.2	63.8	0.34	0.24
900	0.5	19.2	2.0	10.4	12.0	62.7	0.32	0.23
1000	0.5	20.8	2.1	10.0	12.9	61.9	0.31	0.23

HAY QUALITY	
Excellent	(58% TDN, 12% CP)
Good	(55% TDN, 10% CP)
Fair	(52% TDN, 8% CP)
Poor	(48% TDN, 6% CP)

Knowing the nutritional requirements of your animals and knowing the nutritional content of your feed, allows you as producers to adequately meet your animal's needs. For more information on testing your forage or determining your herd's nutritional needs, contact John Cothren at 336.651.7348.