
THE CATTLEMAN'S ROUND TABLE

A UGA EXTENSION NEWSLETTER FOR
NORTHEAST GEORGIA BEEF PRODUCERS

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HAVE YOU H.E.R.D.?

Have you heard about the Heifer Evaluation and Reproductive Development (HERD) programs conducted in Tifton and Calhoun each year? The programs (a cooperation of multiple UGA departments and the Georgia Cattlemen's Association) were developed to serve and educate Georgia beef producers. The programs demonstrate feeding and health protocols that get heifers to target weights required for successful breeding performance. Beef producers are also provided with a way of

evaluating heifers' performance, reproductive traits, and dispositions. The heifers developed in the programs are source identified and genetically verified.

The 21st Annual Calhoun Bred Heifer Sale recently concluded June 2, 2021. A total of 76 heifers sold averaging \$1,797 per head. The top selling lot was lot 4, a registered heifer selling for \$2,800. Visit ugabeef.com for sale reports and program entry forms.

Contact your local Extension office for more information on entering your replacement heifers into the HERD program, selling, or buying at one of the annual HERD program sales.

LEADING LADIES

By Jason Duggin
UGA Beef Extension Specialist

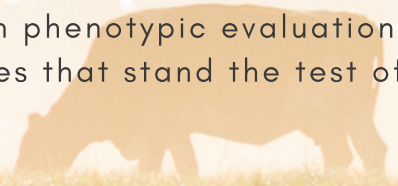
Purchasing or developing functional females is one, if not, the main objective every cattle producer should focus their attention towards. However, it's always easier said than done. A focus on females can be made using many tools, some of which were discussed in our spring article. Then a few EPDs, foot scoring and breeding season considerations were briefly discussed. With all of the genetic tools available for sire and female selection it is easy to discount the need for a phenotypic evaluation. Although it may not be as commonly discussed in certain circles, building functional herds and offspring is done at least in part using a keen eye and old fashioned stockmanship of knowing what works in the pasture and what doesn't.

Females in the herd should undoubtedly look like females. This is an all too often overlooked fact in a breeding herd. A feminine front end includes an appropriate head and a long, supple neck that blends into a relatively smooth, angular shoulder. Traditional femininity in cattle isn't discussed that often, but this traditional animal husbandry will always be a measuring stick for good quality replacements. We can observe the trends in our own herds where females can become overly masculine appearing over time if ignored. This often corresponds to a lack of maternal productivity whether it be infertility or mothering ability.

Body volume can be overlooked as well.

Females with appropriate depth and spring of rib will always be a necessity. Maintaining heifers with adequate body volume that progressively deepen from forerib to flank is a guidepost for the maternal appearance that often yields productive females. Cattle with appropriate body volume tend to develop and maintain ideal body condition more easily compared to cattle that are tighter through their forerib or flank and are shallow bodied. Low volumed cattle are more difficult for producers to maintain ideal body condition. This can be particularly problematic with 2-year-old females not breeding back within a 110-day window after that first calf as their body type is difficult fleshing compared to better bodied herd mates. Low volumed cattle often require more feed resources to attain the same level of body condition. In a similar fashion, females should have appropriate width and skeletal muscle. Stoutness of bone, body and muscle combined account for fleshing ability in breeding animals and days to finish in the terminal cattle in the feedyard. When feed prices trend upward, body volume, mature cow size and other efficiency traits rebound in importance.

Although it may not be practical to evaluate every potential replacement heifer for femininity, body volume or other visual parameters, we can more easily evaluate groups of cattle. A group of heifers that is short necked and bulky shouldered or tight ribbed and fine boned, for example, often yield poor results from a reproductive, longevity and cow cost standpoint. Using EPDs that moderate cow cost in concert with phenotypic evaluation can make females that stand the test of time.





**"MOST PRODUCERS
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HANDLING FACILITY
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WORK SMARTER, NOT HARDER: 10 THINGS TO CONSIDER BEFORE BUILDING A CATTLE WORKING FACILITY

By Shanna Reynolds
Oglethorpe County Extension

Sound animal care and handling practices impact cattle health, welfare, and productivity. This ultimately results in enhanced beef quality and producer profitability. A well-designed handling system will reduce stress to both you and your animals. It will allow you to carry out necessary jobs in a more humane manner with less risk of injury to your animals or yourself. Most producers will only build a handling

facility once in their lifetime, so pre-planning is crucial. If you're in the market for a new system or planning upgrades, here are some items worth your consideration.

1 Your To-Do List

The size and specific components of a handling system will be different based on space restrictions, herd size, and personal preferences. The first step in planning a handling system is to make a list of the jobs you will need to accomplish with it. Sorting, weighing, dehorning, vaccinating, branding, pregnancy checking, etc. Your design efforts should meet the goals of your farm.

2 Location

The next item to contemplate is location. The site selected should be almost level with good drainage. If there is a slight slope, be sure cattle will be moving up the slope while being worked to account for their natural instinct. Ask yourself if it will be convenient for you to get cattle to and from and if it will be a suitable load out spot for buyers. A bonus to your animals and your farm help will be if it's in the shade.

3 Comfort/Convenience

Be thoughtful of your handlers and the animals when planning a facility. Shelter from sun or rain will make working days more pleasant for everyone. Also, determine if your needs require water or electricity? Lights for evening work, plug ins for digital scales or electric branding iron, or a fridge could be handy (although having lost expensive medication in a barn fridge that went out, I wouldn't necessarily recommend this one). Water for the animals is a must have if cattle will remain in the working or sorting areas for long periods of time.

4 Flooring

Avoid slick surfaces, particularly where cattle enter and exit the handling system. Grooved concrete, dull metal grating, sand, and rubber mats can all be good options to minimize slipping. Even if a surface seems ok when built, be sure it will hold up to manure and urine buildup throughout the day.

5 Safety

Providing safe working conditions for people and cattle should be of utmost priority in your design. Build catwalks along the chutes. Standing along side is safer than standing behind cattle. Include safety passes or escape gates in strategic locations. Ensure you have an adequate way to restrain animals when working them. Throwing heads and kicking are common causes of injury. A head gate is the most essential part of the entire facility and should be sturdy and easy to operate. Once a facility is in place, I urge you to train those who care for your cattle to ensure proper use of handling and restraining devices. All surfaces should

be checked for splinters and other obstructions on a regular basis. Remember, processing cattle should never be treated as a race.

6 Cattle Behavior

Cattle have a strong herding instinct, so it's best to avoid any animal being left alone. Serious accidents can occur when cattle are left alone and agitated. Handling systems should take advantage of cattle's natural instincts. Generally speaking, livestock prefer to move toward light rather than entering a dark building. Cattle have a wide field of vision. Working systems with solid walls prevent animals from seeing distractions and curved single file chutes are useful for moving cattle forward. Curved designs take advantage of natural tendency to circle and it prevents the animals from seeing what is in front of them. Placing rubber stops on gates and chutes may help reduce loud noises for cattle to balk at. If using a hydraulic pump, consider placing motors away from the squeeze chute. Finally, be sure your handlers understand the concepts of flight-zone and point of balance on cattle.

7 Back Flow

When cattle balk or become frightened, they may try to turn around or back up. Size alleys appropriately to the breed of cattle you are working and place sorting or cut gates in areas where animals move from one phase of the system to the next. Pens should be no larger than necessary for the size of your operation and gates should be easy to operate.

8 Scales

Collecting cattle weight is an essential tool for measuring their performance.

Consider adding a scale in a location cattle can be easily moved on and off to encourage utilization and record keeping.

9 Palpation Cage

For any work done behind an animal (castrating, pregnancy checking, etc) you will want to consider a palpation cage. At the very least, provide a 2 foot service gate at the back of the chute and a way to keep the next cow in line from running over you or your vet.

10 Future Growth

The last aspect I recommend you consider when planning your cattle handling facility, is the “master plan” for your farm. Visualize both what you will do in the short-term future and

and what you would like to see happen in the long term. Visit other farms and talk with people who are operating in a similar fashion to meet your goals. Ask yourself if there is something you can't afford or don't need now, but you'd like to have in the future. Maybe a calf tilt table or that hydraulic squeeze chute you've been eyeing for years at cattleman's conventions. Build with expansion in mind and make the facilities easy to add on to.

Good husbandry results in productive animals. In addition to making work harder, an ill-planned handling facility can lead to essential management tasks being delayed or forgotten. Give this large investment time and thought so you're sure to work smarter, not harder.



Approved Rulebook Changes for the 2021-22 Georgia Junior National Livestock Shows (Beef)



There will be no Livestock Banquet in 2022. State Staff will work towards continuing to recognize exhibitors and record book winners while potentially hosting a reception in appreciation of supporters and sponsors.

Entry fees will be \$30 for each animal.

No more than 2 beef heifers can be entered per class by an exhibitor and not more than 4 heifers in the entire show. No more than 2 market beef animals can be entered per class by an exhibitor and not more than 4 market beef animals can be entered in the Georgia National Market Beef Show.

Commercial heifers will no longer be divided by age then by weight. All commercial heifers will show in one division.

Exhibitors' animals that are eliminated from the show due to weight requirements are not eligible to be shown in showmanship unless the animal is the only eligible animal in that species for that exhibitor.

refer to the official state show rulebook for more details or clarifications

MINERALS FOR GRAZING CATTLE

By Carole Knight
Madison County Extension

It is a generally accepted fact that mineral supplementation is an important part of ruminant nutrition. Proper mineral and vitamin nutrition contribute to strong immune systems, reproductive performance, and weight gain. A properly balanced mineral program requires consideration of animal nutritional needs, forage/feed intake and its mineral concentration, and mineral supplement intake and its concentration. Diets with mineral imbalances may cause poor animal performance, resulting in reduced profitability. There are many differences between mineral supplements designed for a grazing/ forage system versus a grain-based diet. Let's focus on forage system considerations.

At least 17 minerals are required by beef cattle. Macrominerals required include calcium, magnesium, phosphorus, potassium, sodium, chlorine and sulfur. The microminerals required are chromium, cobalt, copper, iodine, iron, manganese, molybdenum, nickel, selenium and zinc. Other minerals, including arsenic, boron, lead, silicon and vanadium, have been shown to be essential for one or more animal species, but there is no evidence that these minerals are of practical importance in beef cattle.

Vitamins of importance include Vitamin A, D and E. Other essential vitamins are usually present in adequate quantities in the diet or are synthesized by bacteria in the rumen.



Mineral requirements are dependent on forage mineral content, animal age, and stage of production. However, simply knowing the animal's requirement is only one component in evaluating an animal's mineral status. Mineral needs also tend to be area specific and change with soil type, fertilization rates, rainfall, and other factors.

Forage mineral concentration is extremely variable and site-specific. Investing a few dollars to test forages, so that you know mineral levels in your hay and pastures enables you to make smarter supplements decisions. The table below shows average mineral concentration in five types of forages common to Georgia and compares these averages with requirements of lactating and growing cattle.

A mineral deficiency is difficult to diagnosis and often silently robs profits and efficiency from the herd. Many of the clinical signs of a problem are not evident until a severe deficiency exists because bone, blood, liver, and other organs provide a substantial pool from which cattle can draw during times of dietary inadequacy. Mineral

deficiencies should always be a concern when animals graze pastures that have been under stress (e.g. drought) over a prolonged period of time.

Controlling daily intake of minerals can be challenging. In what form the mineral is in and what type of feeder will influence intake. Regular monitoring of mineral consumption can help combat intake problems. Selecting a mineral brand that is more palatable could help increase consumption, while adding a limiting factor, like salt, could help slow consumption.

Mineral supplementation is not a one-size-fits-all program. Each operation's decision will be different based on their animals' requirements, nutritional system, and forage mineral availability. But understanding that mineral and vitamin nutrition is vital to overall herd health and reproductive efficiency, is the first step. For more detailed information refer to UGA Publication: Mineral Supplements for Beef Cattle found at https://secure.caes.uga.edu/extension/publications/files/pdf/B%20895_4.PDF.

Table 1. Average mineral concentration of common Georgia forages and dietary requirements of beef cattle.

Mineral	Bahia Pasture	Bermuda Pasture	Bermuda Hay	Fescue Pasture	Fescue Hay	Lactating Cow Requirements	Growing Calving Requirements
Calcium %	0.46	0.39	0.43	0.51	0.51	0.31	0.58
Phosphorus %	0.22	0.26	0.20	0.27	0.37	0.21	0.26
Potassium %	1.45	1.3	1.61	2.3	2.3	0.60	0.70
Sulfur %	0.21	0.28	0.21	0.19	0.18	0.15	0.15
Copper ppm	8.0	9.0	9.0	5.8	6.0	10.0	10.0
Zinc ppm	20.0	20.0	20.0	18.7	22.0	30.0	30.0

^a Adapted from NRC, 2000.

MAXIMIZING COW FERTILITY IN A.I. PROGRAMS

By Pedro L.P. Fontes
UGA Beef Extension Specialist

Reproductive efficiency is the main driver of profitability in the cow-calf segment of the beef industry. Implementing proper reproductive management not only dictates the number of calves an operation is able to produce, but also the quality of the calves being produced. It is important to emphasize that cow-herd fertility goes beyond pregnancy rates. In fact, timing of pregnancy is key when it comes to calf crop quality. The day of the breeding season that a cow becomes pregnant dictates the day of the calving season that she will calve. The distribution of calving events within the calving season play an important role on the performance of cows and their offspring. Heifers or steer calves that are born in the beginning of the breeding season are older and, consequently, heavier at weaning. Heavier steers at weaning will bring extra dollars when marketed, whereas heifers that are born earlier are more likely to reach puberty before the beginning of the breeding season and consequently perform better as replacements. Therefore,

cow-calf producers should consider strategies that maximize the number of cows becoming pregnant in the beginning of the breeding season.

Estrus synchronization in combination with fixed-time artificial insemination (FTAI) is an effective tool to increase the percentage of cows calving early and to maximize the use of sires with superior genetics. Large-scale data collected in both research and field settings indicates that pregnancy rates to FTAI averages 50%, and mostly ranges between 40-60%. Understanding the factors that drive these differences in pregnancy between herds when postpartum cows are exposed to FTAI can help cattle producers incorporate management strategies that optimize fertility of their herds.

Failing to meet the nutrient requirements of the cow herd is the most common cause of suboptimal fertility in postpartum cows exposed to estrus synchronization and FTAI. Research has shown that insufficient intake of energy, protein, vitamins, and

"COW-HERD FERTILITY GOES BEYOND PREGNANCY RATES. IN FACT, TIMING OF PREGNANCY IS KEY"

minerals have been associated with suboptimal reproductive performance in cattle. Of these nutritional factors that influence reproduction, energy balance is probably the most important. Understanding how nutrient requirements change according to the production cycle of the cow can help

cattle producers develop feeding strategies to maintain ideal body condition scores (BCS) and consequently maximize fertility. The period of greatest nutritional needs occurs shortly after calving, when cows are required to produce milk, regain weight lost shortly after parturition, and repair their reproductive tract. If the nutritional program fails to meet the requirements of cows during the postpartum period to an extent that high rates of BCS loss are occurring, suboptimal results are expected.

Although prepartum cows have relatively less requirements prior to calving, prepartum nutrition is also important. Increasing body condition scores before calving is less expensive as cows are not partitioning nutrients towards milk production. Also, BCS at calving is a great indicative of fertility in the subsequent breeding season. To efficiently maximize fertility, cow-calf producers should manage cows to calve in adequate BCS and focus on minimizing BCS loss after parturition. This approach will increase the proportion of cows that are cycling before the beginning of the breeding season and increase their fertility to FTAI.

Another major factor that impacts postpartum fertility is the interval between calving and breeding. Cows with greater number of days between parturition and artificial insemination have increased fertility to FTAI. As cattle producers focus on producing one calf per cow per year, the best alternative to minimize the average number of days between calving and breeding is reducing the length of the breeding season. This might sound counter-intuitive, but gradually

decreasing the length of the breeding season increases pregnancy rates over time. This happens because late calving cows are gradually removed from the herd, decreasing the average days postpartum at the time of breeding, and increasing fertility. Hence, in most parts of the country, cow-calf producers should focus on having a breeding season of approximately 60 to 70 days. Keeping only replacements that become pregnant in the first 30 days of the breeding season also helps decrease the average days postpartum of the cow herd over time.

Several other components of an estrus synchronization and FTAI program also influence pregnancy rates. Semen and sire-related factors are important. Working with companies that have high standards of semen quality control minimizes the risk of having suboptimal fertility results associated with semen quality. When it comes to FTAI, compliance with recommendations is also key. This includes not only following proper semen thawing and artificial insemination procedures, but also complying with estrus synchronization recommendations. Over the last few decades, several different estrus synchronization protocols were developed. Selecting the correct protocol and complying to its recommendations will help producers maximize pregnancy rates in their FTAI program. Contact your local Extension service for further guidance when incorporating these programs. Additional resources that can guide producers through the process of selecting a synchronization protocol for their specific herd are also available at the University of Georgia's beef website (www.ugabeef.com).

MARK YOUR CALENDAR

07/08-10

GA Junior Beef Futurity

07/29-31

GCA Summer Conference

09/01

GA National Fair Entry Deadline

09/01

Tifton Bull Test Entry Deadline

11/01

State Heifer and Market Beef
Show Entry Deadline

12/03

Calhoun Bull Sale

CONTRIBUTING AUTHORS



SHANNA REYNOLDS

Editor

Oglethorpe County

Extension Agent

706-743-8341

shanna.reynolds@uga.edu



PEDRO FONTES

UGA Beef Extension

Specialist

706-542-9102

pedrofontes@uga.edu



CAROLE KNIGHT

Madison County

Extension Coordinator

706-795-2281

clh@uga.edu



JASON DUGGIN

UGA Beef Extension

Specialist

706-624-1403

jduggin@uga.edu



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