

# BEEF CATTLE NOTES

## TAEP Applications have arrived at the Extension Office

*Application period is October 1st to 7th.*

Some important changes this year. Here is a quick list:

1. Application period shortened to just one week. No hand delivery of forms to TDA. If you have applied before and received a letter from TAEP recently with account information, you can use this to apply online. Most of the information will automatically fill in and you can be assured that they received your application during the application window.
2. You can only choose **one** program this year.
3. New definition of "Farm Operation" to encourage only one application per farm.
4. Reimbursement maximums have all been reduced due to anticipated demand and budget limitations.
5. Herd health now has a lifetime limit of 3 reimbursements. It is a record keeping reimbursement that pays *per head* not cost share percentage.
6. **Hay Barn is back this year.** Hay Equipment available again in 2021. Pays on square footage, not total \$ spent.
7. Genetics reimbursement request moved to June 1, 2021.
8. Under livestock equipment, added oilers as eligible for fly management.
9. For larger producers, livestock solutions had a few new items added such as feed bin auger, fence-line concrete bunk feeding systems and fence-line hay feeding systems.
10. **BQA must** be current at time of application in October!!!

*If you need assistance filling out your form, we will be glad to assist you.*

## BQA Certification

Online renewal option this year at [tncattle.org](http://tncattle.org)

Once you are on the website, click *Shop*. There you will see 3 fee options:

- \$50 is for BQA training and 1 year membership to TCA
- \$40 BQA training for non-TCA Cattleman members
- \$20 BQA training for current TCA Cattleman members

After you complete payment, they will send you the link and further information to complete the training by email.



# Are the bulls ready for the fall breeding season?

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

The fall breeding season is only about 75 days away. If you have not assessed your bull battery recently, the time to do so is upon us. Contact your local large animal veterinarian and make arrangements to see that your bulls of all ages pass a breeding soundness exam. If we have a return to late summer high temperatures, a late heat wave may reduce bull fertility for several weeks after the weather has moderated. In addition, ask your veterinarian about the need for a trichomoniasis test. Trichomoniasis is a reproductive disease of cattle that will result in a large percentage of open cows at preg checking time. If the bulls' feet need to be trimmed, this would be an excellent opportunity to get that done as well.

Bulls that do not pass a breeding soundness exam will need to be replaced before the start of breeding. Purchase the replacement from a production sale or nearby seedstock producer as soon as possible. It is advantageous to move the bull to his new environment several weeks before breeding. If the bull has been consuming a high energy, grain-based diet, this will give you time to gradually reduce the grain and increase the forage intake. The rumen will take some time to adjust to the forage-based diet that he will consume during the breeding season. A very sudden, steep decline in energy intake could cause a decrease in bull fertility. Therefore a gradual change over several weeks will produce more positive results.

Bulls that will be placed together in multi-sire breeding pastures should be penned together for several weeks before the breeding season begins. Bulls WILL establish a social order. This needs to be settled before the first of the breeding season. We would prefer that cows are getting bred during the first part of the breeding season rather than bulls fighting each other.

Bulls are a sizeable investment in most cow-calf operations. Common sense management before the breeding season can give the best possible return on that investment.

---

## Advanced Master Beef 2020

On the following page, you will find information on Advanced Master Beef Webinars that will be offered in October and November, by industry specialist and UT personnel. You will need to attend 7 out of the 9 sessions to complete the Master Beef training requirements. If you are interested in attending these sessions, please call our office (931-296-2543) and give us your email address so I can send you the sheet with the active registration links to sign up for the webinars you would like to attend. The sessions will start at 5:30pm on the dates listed. Most will be an hour to two hours in length, I am told. Plan to answer some interactive questions as the webinar happens.

Anyone who took the class I offered in 2018 is still current for the 2020 TAEP application/reimbursement cycle. I plan to offer an in person training again in fall of 2021 for those that will need recertification next year. (Barring any Covid restrictions still hanging around!)



**HUMPHREYS COUNTY**

**Tennessee Master Beef Webinar Series**

**\*\*Click the register button beside each webinar you plan to attend.**

Date	Speaker	Topic	Register
<b>Oct. 8th</b>	Dr. Chris Boyer & Dr. Charlie Martinez <i>UT Ag. &amp; Resource Economics</i>	<b>Valuing bulls, helpers, and cull cows</b>	
<b>Oct. 15th</b>	Dr. Jason Smith <i>Texas A&amp;M Animal Science</i>	<b>Supplementation strategies for cow calf &amp; growing cattle nutrition</b>	
<b>Oct. 20th</b>	Dr. Brian Whitlock <i>UT College of Veterinary Medicine</i>	<b>What you need to know about Anaplasmosis &amp; BVDV</b>	
<b>Oct. 26th</b>	Gregg Upchurch & Dr. Dwight Loveday <i>UT Extension</i>	<b>Live cattle evaluation for carcass quality &amp; USDA carcass grading</b>	
<b>Oct. 29th</b>	Dr. Gary Bates <i>UT Beef &amp; Forage Center</i>	<b>Rotational Grazing</b>	
<b>Nov. 9th</b>	Kevin Thompson <i>Director - Middle Tennessee AgResearch &amp; Education Center</i>	<b>Low stress handling techniques</b>	
<b>Nov. 12th</b>	Dr. Andrew Griffith <i>UT Ag. &amp; Resource Economics</i>	<b>Farm transition from one generation to the next</b>	
<b>Nov. 19th</b>	Dr. Jon Beever <i>UT Genomics Center</i>	<b>What you need to know about genetics &amp; genetic testing</b>	
<b>Nov. 23rd</b>	Dr. Les Anderson <i>Univ. of Kentucky Animal &amp; Food Sciences</i>	<b>Management of the postpartum animal</b>	

# ***YOU NEED TO LOOK DOWN***

*Dr. Gary Bates, Director*

*UT Beef and Forage Center*

Weeds seem to be a constant problem in most pastures and hayfields across Tennessee and the Southeast. Often producers do not notice how infested a pasture or hayfield is until spring, when the weeds bloom and become hard to miss. The weed species may change from year to year, but rarely do weed infestations disappear on their own. Usually some type of herbicide is needed to break the cycle of weed infestation in these fields. The problem is that if the herbicide isn't applied until the weeds bloom, its effectiveness is decreased and weed seed is already produced. In order to most efficiently use herbicides to kill weeds, it is important to know what weed species are present. That will help determine the herbicide and rate needed for effective control. The time way to do that is to walk pastures this time of year, looking down to see the type and amount of weeds present.

Winter weeds germinate in September, October and early November. They grow during the winter, and then produce blooms in April and May. When temperatures get hot, these plants usually either die or go dormant, and will remain so until the next fall. Buttercup, musk thistle, curly dock, and the plantains are examples of winter weeds. In order to be the most effective controlling the weeds, they need to be sprayed sometime between December and March. You are trying to spray after most germination has occurred, but before the plants start to bloom.

## **Best conditions to kill winter weeds**

December to March is a long window for adequate weed control. Look for three days in which the high temperature reaches approximately 60 F. After three days, the weeds will be growing adequately to take in the herbicide applied, and successful weed control will be achieved. If you get these three days in December, go ahead and apply the herbicide. If you miss the window, you will still have more time as the winter progresses.

## **Herbicide recommendations for specific weeds:**

**Buttercup, musk thistle** - These weeds are relatively easy to kill. Two pints per acre of 2,4-D will provide excellent control. Staying below two pints per acre has the added benefit of not killing established white clover. If the 2,4-D is applied before early January, you can come back in during the last two weeks of February and seed clovers if needed.

**Buckhorn and broadleaf plantain**- these weeds are slightly more difficult to control. A higher rate of 2,4-D will be needed (4 pints per acre), or stronger herbicides will be needed. Three pints per acre of a 2,4-D and dicamba mix (Weedmaster, Rangestar) will work, or use 1.6 pints per acre of GrazonNext HL. If the plantains are found in orchardgrass, you can also use 2 oz per acre of Chaparral.

**Curly Dock** – if curly dock is an additional weed found in the field, 1.6 pints per acre of Grazon-Next HL will do an adequate job in a tall fescue field. If the field is orchardgrass, 2 ounces per acre of Chaparral is another option.

If you have some other weed that is a problem in your field, contact your local Extension agent for a specific weed control recommendation.



# FALL-CALVING COW NUTRITION

*Katie Mason, Ph.D., Extension Beef Cattle Specialist University of Tennessee  
Institute of Agriculture*

With the fall-calving season just around the corner, it is time to start thinking about increased cow nutrition needs at calving and during lactation. A dry, pregnant cow experiences a shift in nutrient requirements leading up to calving and providing proper nutrition during this crucial time will influence milk production and reproductive efficiency. The main nutrient considerations are total digestible nutrients (TDN), an indicator of energy in the diet, and crude protein (CP). During the last 60 days of pregnancy, brood cow requirements increase from 48 to 54% TDN and from 7 to 9% CP. Moving into peak lactation, which coincides with the greatest nutrient needs, a diet containing 60% TDN and 12% CP is required (Table 1). In terms of dry matter intake, a mature cow will typically consume 2% of her body weight. A combination of adequate quantity and quality in the diet will ensure that nutritional needs are met.

	Total Digestible Nutrients (%)	Crude Protein (%)
Dry, pregnant cow	48	7
60 days before calving	54	9
Peak lactation (60 days after calving)	60	12

How can you tell if a cow is getting enough nutrients? While it may not supply every detail about the cow's nutritional status, body condition score (BCS), measured on a scale of 1 to 9 (1 = extremely thin and 9 = extremely fat), is a good visual indicator of both nutritional and reproductive status. While BCS is enough to comprise a whole article on its own, there are some general rules of thumb to follow. A mature cow should maintain a BCS of 5, and first calf heifers should be in a BCS 6 at calving. Looking at the ribs is typically the simplest way to determine body condition score. A cow in a BCS 5 has her 12<sup>th</sup> and 13<sup>th</sup> ribs slightly visible to the eye, whereas at a BCS 6, her ribs are fully covered. When BCS fall outside of that 5 to 6 range, negative effects on milk production and re-breeding may be observed. Be on the lookout for a full BCS article in the future.

To maintain a 365-day calving interval, a cow must rebreed within 82 days after calving. Cows that calve in BCS 5 to 6 tend to exhibit heat earlier than those who calved in BCS 3 to 4. This is due to the great nutrition requirements during lactation, where cows may lose some condition to meet the physiological demands of producing milk. It is difficult to get a cow to gain body condition during that lactation period; it can require an extra 2 lb of TDN or more per day for 60 days to increase BCS by 1 unit. To ensure that cows are in the ideal BCS range for rebreeding and in turn maintaining a year-long calving interval, make sure proper nutrition is provided in the days leading up to calving and throughout lactation.



## **Record Level of Prime Grading**

**Josh Maples, Assistant Professor & Extension Economist**  
**Department of Ag. Economics, Mississippi State University**

The percentage of steer and heifer carcasses grading prime so far during 2020 has outpaced normal levels. The average percent prime for the first seven months of 2020 was 10.6 percent which is the highest January-July average on record and about two percent higher than during the first seven months of 2019.

Dressed weights have also been higher during 2020. Average steer and heifer dressed weights were 899 and 829 pounds, respectively, during the first 8 months of 2020. For steers, that was a 32-pound increase over the same period in 2019 while it was a 25.5-pound increase for heifers. Cattle dressed weights are usually seasonally lowest during late spring and then peak in late fall. In 2020, the seasonal decline in the spring did not materialize due to the processing disruptions forcing cattle to stay on feed longer.

The percentage of cattle grading prime was steadily increasing before the 2020 disruptions. Percent prime averaged 4.1 percent during 2010 through 2015 and 7.4 percent from 2016 to 2019. On the opposite end of the grading scale, the percentage of cattle grading select has been declining. Percent select averaged 28.3 percent during 2010 to 2015 and 18.5 percent from 2016 to 2019. The average select percent for the first seven months of 2020 was 14 percent which is the lowest seven-month average on record and 3.5 percent lower than during the first seven months of 2019.

In the middle, the percent of cattle grading choice has increased from 67.3 percent during 2010 to 2015, to 74 percent during 2016 to 2019, and averaged 75.2 percent through July in 2020. Putting prime and choice together, 85.8 percent of cattle graded either prime or choice during 2020 through July. There are longer-term trends that are leading to increasing quality grades; but the percentages in 2020 have been exceptionally strong.

While prime percentages increased, the weighted average carcass premiums for grading prime decreased. The USDA-AMS 5-Area weekly premiums and discounts report showed the average carcass premium for prime from April through July 2020 was \$8.37 per cwt. This was \$3.52 lower than the same period of 2019. For comparison, the average prime premium during April through July for 2015 to 2019 was \$14.03.

The larger totals of prime beef in 2020 occurred as demand for prime took a significant hit. A sharp decline in travel and dining at high-end restaurants impacted the demand for prime beef. The demand decline was coupled with the supply increase and the premiums received for prime carcasses declined. These shifts in supply and demand of prime carcasses in 2020 limited the reward for achieving the prime carcass grade.

The USDA-AMS national weekly comprehensive boxed beef cutout report shows the value of prime relative to choice has increased since the low points earlier this year. From April through July 2020, the prime boxed beef cutout value averaged only \$10.59 higher than the choice cutout. Since the start of August, the weekly difference has averaged \$23.71 including consecutive weekly increases over the past five weeks. This suggests that the difference between choice and prime cutout values may be returning to more normal levels moving forward.

# Proper cow culling is important to your business

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Cull cows represent approximately 20% of the gross income of any commercial cow operation. Cull beef cows represent 10% of the beef that is consumed in the United States. Therefore, ranchers need to make certain that cow culling is done properly and profitably. Selling cull cows when they will return the most income to the rancher requires knowledge about cull cow health and body condition. Proper cow culling will reduce the chance that a cow carcass is condemned at the packing plant and becomes a money drain for the entire beef industry.

**Cull open cows.** Why feed a cow all winter that will not have a calf next spring? Call your veterinarian, schedule a time for pregnancy checking and find which cows have not bred back. Cull them while they are in good body condition after summer pasture and before you spend \$200 or more on the winter feed bill.

**Is she good for another year?** At cow culling time, producers often face some tough decisions. If she is not pregnant, the decision is easier. However what do you do when an older cow is re-bred? Optimum culling of the herd seems to require a sharp crystal ball that could see into the future. Will she keep enough body condition through the winter to deliver a healthy calf next spring? How old is the cow? Is her mouth sound so that she can harvest forage and be nutritionally strong enough to raise a big calf? At what age do cows usually start to become less productive?

There is great variability in the longevity of beef cows. Data from large ranches in Florida would indicate that cows are consistent in the rebreeding performance through about 8 years of age. A small decline was noted as cows aged from 8 to 10 years of age. However the most consistent decline in reproductive performance was noted after cows were 10 years of age. A steeper decline in reproductive performance was found as they became 12 years of age. In other words, start to watch for reasons to cull a cow at about age 8. By the time she is 10, look at her very closely and consider culling; as she reaches her 12th year, plan to cull her before she gets health problems or in very poor body condition.

## Other reasons to cull cows:

**Examine the eye health of the cows.** One of the leading causes of condemned beef carcasses is still "cancer-eye" cows. Although the producers are doing a much better job in recent years of culling cows before "cancer-eye" takes its toll, every cow manager should watch the cows closely for potentially dangerous eye tumors. Watch for small pinkish growths on the upper, lower, or corner eye lids. Also notice growths on the eyeball in the region where the dark of the eye meets with the "white" of the eyeball. Small growths in any of these areas are very likely to become cancerous lesions if left unchecked. Likewise be aware of cows with heavy wart infestations around the eye socket. Many of these become cancerous over time. Culling these cows while the growth is still small, will allow the cow carcass to be utilized normally. If however, cancer engulfs the eyeball and gets into the lymph nodes around the head, the entire carcass will likely be condemned as not fit for human consumption.

**Check the feet and legs.** Beef cows must travel over pastures and fields to consume forages and reach water tanks and ponds. Cows with bad stifle joints, severe foot rot infections, or arthritic joints may be subject to substantial carcass trimming when they reach the packing plant. They will be poor producers if allowed to stay on the ranch while severely lame. They may lose body condition, weigh less, and be discounted at the livestock market by the packer buyers. Culling them soon after their injury will help reduce the loss of sale price that may be suffered later. If the cow has been treated for infection, be certain to market the cow **AFTER** the required withdrawal time of the medicine used to treat her infection.

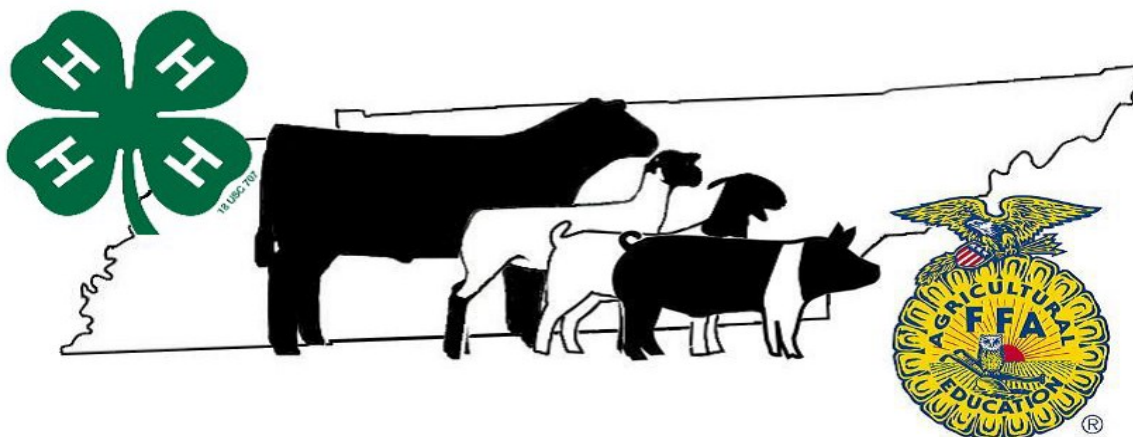
(cont. next page)

(continued from page 5)

**Bad udders should be culled.** One criteria that should be examined to cull cows is udder quality. Beef cattle producers are not as likely to think about udder health and shape as are dairy producers, but this attribute affects cow productivity and should be considered. OSU studied the effect that bad udders had on cow productivity. They found that cows with one or two dry quarters had calves with severely reduced weaning weights (50 - 60 pounds) compared to cows with no dry quarters. Plus, cows with bad udders tend to pass that trait along to daughters that may be kept as replacement heifers. Two key types of "bad" udders to cull include: the large funnel-shaped teats and weak udder suspension. The large funnel-shaped teats may be indicative of a previous case of mastitis and cause the quarter to be incapable of producing milk. In addition, large teats may be difficult for the newborn calf to get it's mouth around and receive nourishment and colostrum very early in life. As some cows age, the ligament that separates the two sides of the udder becomes weakened and allows the entire udder to hang very near to the ground. Again it becomes difficult for the newborn calf to find a teat when the udder hangs too close to the ground. Select against these faults and over time your cow herd will improve its udder health.

**Cull any really wild cattle.** They are hard on you, and your equipment, and they raise wild calves. Wild calves are poor performers in the feedlot and are more prone to producing dark cutting carcasses as they reach the packing plant. "Dark cutters" are discounted severely when priced on the rail.

**Cull cows when in moderate body condition.** Send older cows to market before they become too thin. Generally, severely emaciated cattle have lightly muscled carcasses with extremely small ribeyes and poor red-meat yield. This greatly lessens the salvage value of such animals. Just as importantly, emaciated cattle are most often those which "go down" in transit, as they lack sufficient energy to remain standing for long periods of time. Severe bruising, excessive carcass trim, increased condemnations, and even death are the net results of emaciation. Very thin cows have a low dressing percentage (weight of the carcass divided by the live weight). Because of these factors, cow buyers will pay less per pound for very thin, shelly, cull cows. In addition, thin cows will weigh less. As you combine these two factors (weight and price per pound), thin cull cows return many fewer dollars at sale time than if the cow was sold when in moderate body condition. If they are already too thin, a short (45 to 60 days) time in a drylot with a high quality feed will put condition back on the cows very efficiently. There is no need to put excess flesh or fat on cows. They become less efficient at converting feed to bodyweight after about 60 days and the market will not pay for excessive fatness on cows.



Agriculture Questions or comments for UT Extension, please contact:

**Jerri Lynn Sims—931-296-2543 or [jsims4@utk.edu](mailto:jsims4@utk.edu)**

Adult Agriculture Agent and County Director