



BEEF CATTLE TIME

Vol. 27, No. 1

Winter 2009

Is the Bull Ready for the Breeding Season?

*James B. Neel, Professor and Extension
Beef Cattle Specialist
Department of Animal Science*

The breeding season for late winter-early spring calving cow herds will be getting underway around the first of April. Producers should be sure that the bull is “ready to go” when placed with the females. Before the bull is placed with the cows, his reproductive potential should be evaluated. Breeding Soundness Examinations (BSE) should be done on each bull 45 days before the start of the breeding season. Very few bulls are actually sterile, but a large number have problems that will reduce fertility.

Approximately 11 percent of bulls are either sterile or subfertile between 12 and 14 months of age. About 5 percent of proven sires develop fertility problems between seasons. As bulls age, they are more likely to have problems.

An average of 15 percent of the bulls used are unsatisfactory breeders due to unsoundness in feet, legs and eyes and other problems that would reduce their reproductive potential. A BSE includes an evaluation of the bull’s reproductive tract, semen evaluation and structural soundness.

Condition of bulls is related to reproductive potential. Mature bulls should be in a body condition score (BCS) of 6 at the onset of the breeding season. Bulls will need this condition to “draw on” as the breeding season progresses. Yearling bulls recently purchased may need to be “let down.” They should be in a BCS no lower than 6. These bulls will quickly lose weight and condition when turned with females. These young bulls will need to be fed extra grain to maintain appropriate condition and continue to grow.

In travels this past month, I have observed a large number of bulls that were in a BCS of 3 and less. These

bulls will not produce satisfactory semen and will not have the stamina to get the job done unless they gain in condition. From 80 to 100 pounds of weight gain are required to improve body condition one score. A bull in a BCS of 3 would need to gain 240 to 300 pounds to reach a BCS of 6.

Sperm production takes about two months; so that used on the first day of the breeding season was started about 60 days earlier. This process does not speed up during the breeding season.

A BSE does not provide an indication of the bull’s libido or desire to mate with females. Bulls should be observed in the act of breeding to evaluate libido.

Considerations for Selecting the Best Mineral for Your Cattle

*Clyde Lane Jr., Professor and Extension
Beef Cattle Specialist
Department of Animal Science*

The Forage Mineral Survey, conducted between 2002 and 2004, revealed that beef cattle in Tennessee required a mineral supplement that was different than what had previously been utilized to supplement available forages. Specifically, the forages were high in sulfur and low in copper, zinc and selenium. With the sulfur being antagonistic to the other minerals, it was necessary to increase the levels of copper and zinc and use a more available form of selenium. Mineral dealers serving Tennessee beef producers have done an excellent job of formulating the minerals that will work under these difficult nutritional challenges. The problem is that the copper, zinc and selenium levels can be increased only to a certain level before becoming toxic to animals.

The sulfur levels have been high enough to require mineral formulations to contain copper, zinc and selenium at levels near the maximum tolerable limit. Another issue has now surfaced. A large number of

producers are utilizing distillers grains or corn gluten as a cattle feed. Both of these products are high in sulfur. These feeds are being secured as co-products from the plants or may be in commercial feeds. In those situations where there are reproductive problems, lowered productivity, lowered levels of immunity from vaccinations, etc., it may be advisable to reevaluate the mineral program. Nutritionists are very concerned about adding additional amounts of these minor minerals to compensate for the extra sulfur. In some situations the minor minerals available in supplements were adequate before

the additional of the gluten or distillers, but are inadequate now. The best solution may be to limit the use of these high sulfur feeds.

The intent of this article is not to be negative toward corn gluten and distillers grains. These feeds work well in beef cattle rations when used at recommended levels and with proper supplementation. The intent is to make beef cattle owners aware that if they are experiencing problems now that were not present earlier, this might be something to check.

Control of Weeds in Pastures Is Very Important

*Gary Bates, Professor and Forage Agronomist
Department of Plant Sciences and
Clyde Lane Jr., Professor and Extension Beef Cattle Specialist
Department of Animal Science*

As fertilizer prices have risen, beef producers have started looking for ways to increase productivity of their pastures without drastically increasing costs. Controlling weeds is one of the best ways to insure that all fertilizer applied is utilized for grass production. The two tables below show the benefit of controlling weeds.

Table 1. Pasture Response to Weed Control and Fertilizer

Treatment	Weed lbs.	Grass lbs.	Grass lbs. over check
Check, no fertilizer or herbicide	1,893	830	NA
Fertilizer only	1,717	56	(74)
Herbicide, no fertilizer	213	1,920	1,090
Herbicide with fertilizer	323	2,906	2,076

Source: Mississippi State University

Table 2. Fertilization and Weed Control Result Demonstration, Brazoria County, Texas

Treatment	Weed lbs.	Grass lbs.	Grass lbs. over check
Check, no fertilizer or herbicide	1,980	59	NA
Fertilizer only	4,384	469	419
Herbicide, no fertilizer	0	3,886	3,836
Herbicide with fertilizer	0	6,738	6,688

Source: Texas Cooperative Extension

Note that fertilization without weed control results in a major increase in the pounds of weeds produced while adding little to the grass produced. Application of fertilizer after controlling weeds resulted in a significant amount of forage. The data show that removing the weeds allowed the fertilizer to be used for productive purposes. Be sure to soil test so that the appropriate amount of fertilizer needed is applied.

Weed Control in Tall Fescue Pastures and Hayfields

*Gary Bates, Professor and Forage Agronomist
Department of Plant Sciences, and
Clyde Lane Jr., Professor and Extension
Beef Cattle Specialist
Department of Animal Science*

Weeds are one of the biggest problems in tall fescue pastures and hayfields. Buttercup, musk thistle, buckhorn plantain and horsenettle are just a few of the weeds that can move quickly into fields and cause production losses. There are several things that can be done to minimize the problems.

Correct stand and soil fertility problems. Weeds move into fields because they are able to out-compete the existing plants. Thick, aggressive stands of tall fescue have little weed pressure. There is no space for a weed seed to germinate and grow. A strong stand of grass minimizes weed pressure. All the weeds can be killed this year, but if large portions of the ground remain bare, a new crop of weeds will germinate and grow. Be sure that poor soil fertility is not the reason for a poor stand. A soil test will provide the information needed for proper fertilization. Soil test and follow the recommendations. Once fertility problems are corrected, evaluate the stand of grass. If it is weak, consider replanting this fall.

Identify the weeds. Before using herbicides, know the specific weeds that need to be killed. Certain weeds are more difficult to kill, so herbicides, application timings and rates may vary. If the name of a weed on the farm cannot be identified, take a sample to the local Extension office for help in identification and for specific herbicide recommendations.

Spray at the appropriate time. Knowing whether a weed grows during the winter or summer is essential in knowing the proper time to spray with a herbicide. For winter weeds such as buttercup, musk thistle and buckhorn plantain, a herbicide should be sprayed during either December or March for adequate control. After two to three days of warm weather, the weed will be growing enough to take up the herbicide and be controlled.

Some weeds, such as horsenettle, pigweed and cocklebur, only grow during the summer. They germinate and grow from May to October/November. The winter or spring application will not adequately control them, because they are not up yet. A late May or June herbicide application is needed for these weeds. Summer sprays are more difficult, mainly due to all of the sensitive crops that are around. Cotton, soybeans, tomatoes and tobacco can be severely damaged by drift from herbicides. Know the surrounding crops before using herbicides, particularly during the summer.

Select the proper herbicide. There are many herbicides available. Be sure to use one that is labeled for pasture and hay. It is illegal to use any herbicide on pastures and hayfields that has not been tested and approved for use. Just because it works does not mean it is safe. Read and follow all label instructions when using herbicides.

Many weeds can be controlled adequately with 2,4-D. Buttercup and musk thistle can be almost totally controlled with a 2-pints-per-acre application. If buckhorn or broadleaf plantain is present, increase the rate to 4 pints per acre. This higher rate will take out both red and white clover. If the application is made in December, clovers can be replanted in February/March.

For weeds that are more difficult to control, particularly summer weeds such as horsenettle and tall ironweed, some new herbicides are available. Grazon P+D, Surmount and PastureGard are examples of those available to kill more difficult weeds. Specific recommendations will depend on where your farm is, which weed you have, and other factors.

Following these recommendations should help minimize weed growth and improve the yield and quality of pasture and hay.

2008 Was Not a Good Year for the Cattle Industry

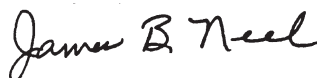
This year was not a kind one to U.S. cattle producers. In fact, 2008 will go down as the worst year ever for cattle feeding and the worst in 10 years for cow-calf operations. In fact, many operations worked all year and ended up not covering their cash expenses. In much of 2008, producers faced surging costs of production (corn, hay, fuel, etc.) and cattle prices that were unable to keep up the pace.

In 2008, annualized estimated cattle feeding returns for the Southern Plains were the lowest ever in the Livestock Marketing Information Center (LMIC) calculations, which date back to the early 1970s. Those returns are based on all costs of feeding out a 750-pound steer in a commercial feedlot. For the year, those calculated losses were about \$120 per steer, which surpassed the previous worst year (2006) by about \$45 per steer. On a monthly basis, the largest losses were for fed cattle sold in the first few months and the last few months of the year. Estimated cattle feeding returns have been negative for every month since May 2007. Those losses are why recent large declines in corn prices, and hence cost of feedlot gain, have not supported calf and yearling prices.

Even some cow-calf producers with lower than average production costs saw their chances to cover their cost of production slip away with the decline in calf prices this fall. Steer calves (500 to 600 pounds) in the Southern Plains this fall quarter were the lowest since 2002, while the estimated cost per cow was up about

\$150 between 2003 and 2008 for a commercial cow-calf operation in the Southern Plains. So, for the first time in 10 years, estimated returns in the Southern Plains did not cover cash costs of production (loss of \$25 to \$30 per cow). Those cow-calf operation losses have translated into increased cow slaughter this fall and cow-calf operations will continue to reduce the number of heifers held for breeding herd purposes in order to pay their expenses.

Source: Livestock Monitor, Livestock Marketing Information Center. 12-05-08. Submitted by Emmitt L. Rawls, Professor and Livestock Marketing Specialist, Department of Agricultural Economics, University of Tennessee.



James B. Neel, Professor
Animal Science

Beef Cattle Time

From:

Leader/Agent

Visit the UT Extension Web site at
<http://www.utextension.utk.edu/>

THE UNIVERSITY of TENNESSEE 
INSTITUTE of AGRICULTURE

21M E12-4415-00-010-09 09-0156

Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development.
University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating.
UT Extension provides equal opportunities in programs and employment.