

## Fescue Toxicosis in Cattle – What is it?

*Jessica Morgan, Livestock Agent, Anson Co.*

As North Carolina's most common forage grass, fescue is both a blessing and a curse. Fescue tolerates poor soil and climate conditions, has a long growing season, and typically quick to establish and easy to maintain a stand. However, soon after the most common cultivar, Kentucky 31, was widely adopted across the Midwest and southern US in the 1940's and 50's, animals grazing the fescue were seen not performing well. Research led to the discovery of a fungus that grows between the cells of the grass known as an endophyte.



The endophyte in fescue can produce toxins that will affect grazing cattle in several ways including low weight gain, loss of body condition, reproductive problems, and consistent high body temperatures which puts them at high risk for heat stress.

Consumption of endophyte infected fescue has led to decrease feed intake, less milk production, unthrifty appearance, and less likely to "shed off" a winter hair coat.

The most obvious way to determine the presence of endophyte in your fescue pastures is poor animal performance and/or health problems described above. Because the endophyte is found inside the plant, you must submit a sample to a laboratory to verify that the endophyte is present. Please contact your local extension agent to assist with sampling procedures.

Next month we will look at management strategies to reduce or eliminate fescue toxicosis in cattle!

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## Selecting a Free-Choice Mineral Supplement

*Glenn Detweiler, Livestock Extension Agent, Catawba & Lincoln Counties*



The Cow Herd Management Calendar for North Carolina producers has specific recommendations listed by month. In the introduction is a list of items to do every month. One reminder says: "Provide clean water....and free access to a high quality mineral supplement. Make sure you use a high magnesium supplement when there is potential for grass tetany." Grass tetany and urinary calculi are the most common mineral related diseases. They are a result of a mineral imbalance or a deficient mineral. Mineral levels and ratios affect immune systems, reproductive performance, and calf weight gain. Some problems caused by imbalanced minerals include rough discolored hair coats, low breeding rates, and low body conditions. Mineral imbalance can also cause a high incidence of lameness, pinkeye, or retained placenta. Oftentimes these problems can be resolved by improving the mineral program. A review of researched information on minerals just before "grass tetany season" may help provide the tools necessary to avoid these diseases, solve other issues throughout the year, and increase profits.

- 1) Know the mineral needs of animals. Also, know the minerals provided by forages within each stage of growth and under various fertilizer regimens.
- 2) A few minerals, which may occur in high concentrations in forages, can cause reduced absorption of other minerals; thereby, creating deficiencies in animals.
- 3) Consider the source of a mineral supplement. Copper should be from copper sulfate or copper chloride. Magnesium should be from magnesium oxide. A protein of the trace minerals - zinc, copper, manganese, cobalt, and selenium - can also be provided in "organic form" which may improve their availability to the animals in some cases. The word most used by companies is

"chelated" (Pronounced "key-lated") mineral. If, despite good management, reproduction or immune status is low, consider organic trace minerals for your program.

- 4) Look on the supplement's label to find the amount of a mineral the manufacturer expects an animal to consume daily. Most minerals are formulated at 2 oz./head/day which translates to 1 pound/head/week. To figure consumption, make note of the weight of the minerals you put in the pasture. Check the weight in 2 weeks. If animals are over consuming, check again in a week. If they are still over consuming, add regular salt with the supplement to allow animals to consume the manufacturer's correct daily amount.
- 5) Dr. Matt Poore has done a substantial amount of forage sampling around the state. He concludes, "...it appears that the trace minerals copper, zinc, and selenium, along with magnesium and sodium (salt) are most likely to be deficient in systems using good forage management. Also in forage systems, high levels of potassium can interfere with the utilization of magnesium in forages thereby causing grass tetany."

The Herd Calendar, during the months of March, April, May, and October, warns specifically to watch for grass tetany. Grass tetany usually results from a low level of magnesium in rapidly growing forages, but has also been associated with nutrients that interfere with the absorption of magnesium. During the early stages of the disease, the cow will appear nervous, walk with a stiff gait, and possibly exhibit muscle tremors. The cow will become dull in appearance and finally go down. It may also thrash violently before death occurs. Prevention, by supplementing magnesium via a high-mag mineral (10-14%) during high risk periods, is most practical. Palatability is low for magnesium. Most manufacturers need to dilute their mineral supplement to encourage animal consumption. Therefore, most high-mag minerals will have consumption at 4oz./head/day rather than the normal 2oz./head/day. To guarantee intake, mix magnesium in a feed supplement at 6% and feed 2 pounds per animal. If you have any questions, contact John Cothren at 651-7348.

**++ Extension Cattle Call Giveaway ++**

The Extension Cattle Call Team would again like to invite each of you to participate in a drawing for 2.5 liter of Dectomax Pour-on sponsored by Zoetis and Dr. Bradley Mills. It only takes a minute to enter the drawing. All you need to do is call Wilkes Extension at 651-7331 and tell them the key phrase is “Spring Deworm”. Someone will take your name and number and enter you into the drawing to be held on March 31<sup>st</sup>.

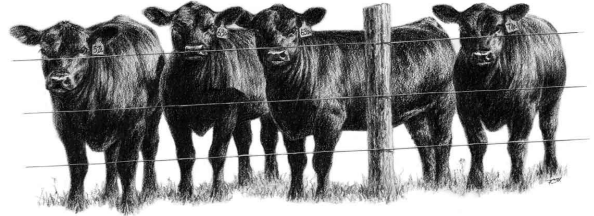
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# Extension

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## Cattle Call



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### It Pays to Pregnancy Check Cows

*John Cothren, Livestock Agent, Wilkes County*

Most beef producers routinely have their cows checked for pregnancy after the breeding season or after weaning. This is an effective tool to help determine which cows to keep and which ones to sell. With today's market cow prices, you cannot afford to have an open cow in your herd.



There are several methods available for pregnancy checking. The most common method is palpation, where the technician (usually a veterinarian) palpates the reproductive tract determining if a fetus is present. You can also learn from the technician valuable information such as how many days bred the cow is to determine a more accurate calving date and if there are any problems with the reproductive tract. Palpation should be done 35-40 days post breeding for best results.

Another method gaining popularity in the beef cattle realm (still very new to our area) is ultrasound. Ultrasound still requires rectal palpation but can detect pregnancy as early as 28 days post breeding. Also, sexing can be done 60 to 90 days post breeding to determine if the calf is going to be a heifer or a bull.

Lastly, you can determine pregnancy by taking a blood sample. For this method, you take a blood sample (usually from the tail vein) and send it off to a commercial laboratory for results. Within a matter of days, sometimes even the next day, the lab will send back results for each individual female. This method works by detecting a molecule in the blood called a pregnancy specific glyco-protein (PAG). These PAGs are only produced by a placenta. So, if used correctly and PAGs are present in the cow or heifers blood, that female is pregnant. Blood pregnancy tests can be used as early as 28-30 days after breeding (depending on the lab and their specific assay). It is important to realize that PAGs can stay in the cow's blood for as much as 80 days after calving. So, taking the blood sample too early can lead to a false positive test result. These tests are very accurate but might result in an occasional false positive where the cow/heifer is called pregnant but does not calve. Most often, the female was actually pregnant when the sample was taken, but loses the pregnancy before calving. The same thing can happen with the other methods of pregnancy determination.

A common question is: "How much does it cost to pregnancy check cows?" Prices for palpation are different among technicians and between methods. Ultrasound is usually more expensive than manual palpation and the blood test is relatively inexpensive per sample. But, a more appropriate question is: "How much does it cost NOT to pregnancy check cows?" Especially for small herd operators, where hay and supplemental feed are more expensive from being purchased or made on a smaller economy of scale, feeding open cows or heifers is extremely wasteful. Consider this; it can cost as much as \$650 a year to maintain a commercial cow. If a cow does not produce a calf, that investment turns into lost profit potential. It does require additional investment to replace open cows. However, that should be weighed against its salvage value and recouped resources, not just the purchase price of replacements.

"Preg. checking" is a good investment and NOT doing so actually costs more than paying to get it done. You will almost certainly find that it is one of the easiest and most rewarding practices you will implement. If you are already doing it, ask about ways to improve the timing and using the data to tighten up your calving season.