

David Hallauer
District Extension Agent, Crops & Soils

Soil Testing Forage Stands

In last week's column, I mentioned soil sampling as part of forage stand evaluations this time of year. With the base of most of our forage systems rooted in cool season species that respond well to fertilizer, it's a topic deserving of greater attention.

As far as management practices go, soil testing should be done every three to four years. More frequent sampling can help when fertilizer prices dictate more finely tuned management, but sampling every four years can build a fertility history for management of fertilizer programs long term with the hope of avoiding the yield declines associated with lower fertility levels.

Sampling is not as easy as digging up soil and throwing it in a bucket. Start by collecting a nice even core to an appropriate depth. If nutrient stratification is a concern or you are sampling for pH only, shallower samples can be considered, but for most samples, a depth of six inches is best. A soil probe works well for managing depth as well as providing a sample that is the same dimension from top to bottom. If using spade, dig a hole first, then collect an even shovel slice from top to bottom, avoiding 'angled' slices with more volume at the surface than from lower depths. *Sampling in dry soils can significantly affect sampling depth variability.*

Collect plenty of cores (15-20 samples pulled at random preferred) from a predetermined sample area, combining them into a composite sample by mixing thoroughly to get a single representative sample for submission. Areas managed differently in the past should be sampled separately. A good rule of thumb is to limit sampling areas to 40 acres in size, using smaller areas when fields are more variable.

Samples can be submitted for testing through our K-State Soil Testing Lab or any other accredited lab. Most labs run similar tests, with differences in recommendations primarily due less to soil test result and more on the recommendation methodology used by the lab. The K-State Soil Testing Lab bases recommendations on a sufficiency basis (the last unit of fertilizer should result in an economical yield response) using research-based response curves.

If you're interested in setting up a more intense soil testing program – or starting with a program altogether, drop me a line (dhallaue@ksu.edu or any Meadowlark Extension District Office) to discuss options to determine which sampling process might be best for you.

Ross Mosteller
District Extension Agent, Livestock & Natural Resources

Managing Reproduction Questions in Fall Calving Herds

I love calving out my fall cows. There is just something so peaceful about tagging new babies in tall native grass, on warm fall days. As fall calving is wrapping up, it will soon be time to start thinking about breeding cows again. Before the fall breeding season begins, a few simple management procedures in the male and female side of the cow herd will help to increase the likelihood of a high pregnancy percentage. These same principles will hold true for spring calving cow herds as well. Let's take a look at the bull side of the equation to start with.

In multi-sire breeding pastures, ensure that bulls to be pastured together have been in a common trap or pasture prior to the breeding season. Bulls WILL establish a social hierarchy. They will fight to find out who is "king of the mountain." It is better to get this done before the breeding season begins, rather than wait until they are turned out with the cows.

Put young bulls with young bulls, and mature bulls with mature bulls. Mixing the ages will result in the mature bull dominating the younger bull completely, and in some instances causing a serious injury. If the plan is to rotate bulls during the breeding season, then use the mature bulls first, and follow with the yearling bulls in the last third of the breeding season. This way, young bulls have fewer cows to breed, and will be 1-2 months older at breeding time.

Breeding soundness exams will be a cost-effective way to help weed out those bulls that may be dominant in the bull pasture, but due to poor semen quality, could cause a lowered pregnancy rate. Visit with your local veterinarian about testing the bulls soon, so that if replacements are necessary, there is enough time and opportunity to replace. Many producers offer bulls for sale at this time of year, so low or no fertility bulls can be replaced yet this fall.

So, what about the female side of reproductive success? Several factors in the cow can influence pregnancy rate. One big question producers ask is, how soon after calving can a cow become pregnant again? There are some general rules of thumb that help to answer this.

Usually the length of the post-partum interval (PPI, time from calving to the first estrous cycle) is 45-60 days in beef cows. If cows are in good body condition at calving, then the PPI would be in the 50-day range. If in poor condition, the PPI would be longer. First-calf-heifers have a longer PPI compared to mature cows.

If cows are exposed to bulls after calving, then the PPI is usually shorter. If the calf is removed at a young age, the PPI is shorter. So, a beef cow could become pregnant within 50-70 days after calving. To achieve a 365-day calving interval, a cow must become pregnant by 80-82 days post-calving (365 days - 283 days [length of gestation] = 82 days). A 365-day calving interval should be the goal for most every operation.

On the cow side, nutrition tends to be the most common reason for a less-than-desirable pregnancy percentage; the most common nutritional problem is lack of Body Condition Score (BCS) before calving. This is primarily an energy deficiency. Post-calving cows need 45% more energy and 40% more protein than a pre-partum cow. Be sure not to shortchange cows at this critical time. Mineral and vitamin deficiencies also can reduce pregnancy percentage. These can include deficiencies of selenium, vitamin E, cobalt, copper, iodine and manganese.

This is just a sampling of the big issue cow/calf producers can deal with relating to reproduction in cow herds. Many other issues including; environment, genetics, disease, and weather can also have effects on reproductive success. The major concern is to give thought to what these factors are and plan to manage them this fall.

October 13, 2023

Laura Phillips
District Extension Agent, Horticulture

No news article this week

Teresa Hatfield
District Extension Agent, Family and Community Wellness

National Women's Blood Pressure Awareness Week

October 15-21, 2023, is National Women's Blood Pressure Awareness Week. According to the Office on Women's Health, heart disease is the number one cause of death for women in the United States, and high blood pressure or hypertension is one of the risk factors. Many women do not understand that heart disease is the number one threat to their health. The theme for this year is "Getting to the Heart of It," which aims to bring awareness to the contributing factors that affect hypertension.

One in two American adults have high blood pressure, which includes 1 in 5 women of childbearing age. Many people do not even know that they have high blood pressure. High blood pressure is the silent killer. High blood means that the force of blood against your artery walls is too strong. This force can damage your arteries, heart, and kidneys and potentially lead to hardening of the arteries. A heart attack can occur when blood flow is restricted to the heart.

Make sure to have your blood pressure checked regularly. Normal blood pressure is less than 120 systolic and less than 80 diastolic. The systolic number (the top number) is the pressure on your arteries when your heart beats. The diastolic (bottom number) is the pressure on your arteries when your heart rests between beats. Many factors contribute to high blood pressure, including lifestyle choices, family history, and race and ethnicity. Some things you can change, others you can't.

Of those factors, you can start by eating a heart-healthy diet, which can help to prevent and manage blood pressure. Eat more vegetables, fruit, and whole grains, and lower your salt intake. Canned vegetables are often high in sodium. Include lean protein in your diet, such as low-fat dairy products, fish, chicken, beans, nuts, and vegetable oil. Limit your intake of saturated (solid) fats. Limit the number of sugary beverages and sweets. Stop smoking, vaping, and using tobacco. These habits harm nearly all parts of your body. Nicotine in tobacco products increases your heart rate and blood pressure. Try to manage your stress. People who experience chronic stress, depression, and anxiety for extended periods are more likely to develop high blood pressure. Make sure to keep moving. Physical activity guidelines recommend getting 150 minutes a week of moderate activity. Exercise can include walking, cycling, gardening, swimming, or anything that raises your heart rate. Remember to talk to your healthcare provider before starting an exercise routine.

A heart attack happens when blood flow to your heart is restricted, and the heart cells begin to die. Women also typically fare worse than men after a heart attack. Women aged 45 and 65 who have a heart attack are more likely to die within a year of the attack than men the same age. Women over age 65 are more likely to die within a few weeks after a heart attack than men the same age. Symptoms of a heart attack in women include pain and discomfort in the chest and upper body, arms, neck, back, jaw, or stomach, shortness of breath, or nausea. Call emergency services if you believe you are having a heart attack. If you do not have emergency services, have someone drive you to the nearest hospital.

Resources: The American Heart Association, Office on Women's Health, Mayo Clinic

Cindy Williams
District Extension Agent, Family & Community Wellness

Healthy Halloween Party Foods with Popcorn

Popcorn is a good choice for healthy eating. It contains fiber, providing roughage the body needs in the daily diet. Popcorn is low in calories---only 31 calories in one cup when popped without added fat.

October is National Popcorn Poppin' Month. Here are some popcorn ideas for another special time in October---Halloween.

1. Bony Fingers: Fill clear plastic gloves (the type designed for waring in the kitchen when preparing food) with popcorn. Tie the end with orange and black ribbon.

2. Halloween Party Popcorn: Combine popcorn with your choice of the following ingredients. By mixing Halloween candy with popcorn, you cut back on the total amount of candy offered. Serve with a scoop from a large bowl. Or, fill a self-closing sandwich bag with popcorn for each child. Some ingredients might include:
 - *raisins and other dried fruit
 - *candy corn
 - *nuts
 - *gummy worms
 - *orange/black candies such as "M & M's or jelly beans

3. Ghosts: Wrap a small popcorn ball in plastic wrap. Place wrapped ball in the middle of a large, sturdy white napkin. Tie the napkin together over the popcorn ball with white string, so the ends of the napkin hang out to form the body. Draw on a scary face with a black marker.