

David Hallauer
District Extension Agent
Crops & Soils/Horticulture

Soybean Nutrient Removal

In corn/soybean rotations, our focus is typically on corn. That's not necessarily wrong. The need for a fungicide? Greater in corn. Nitrogen (N) needs? Unless you're in a very high yield environment, focus on the plant working for you (via nodulation) rather than applying N fertilizer. What *does* deserve attention in soybeans, however, is nutrient management beyond N.

A 60 bushel per acre soybean crop removes almost 50 pounds of phosphorous (P) and closer to 80 pounds of potassium (K). By comparison, a 180 bushel per acre corn crop removes more P (60 pounds), but less than 50 pounds of K. Soybeans are also high users of sulfur, and while you may not see much response to S in soybeans but it could affect subsequent crops. Zinc and in some instances, Boron deserve at least a little attention as well.

What kind of attention? For starters, apply the same fertility management principles to soybeans as you would to corn: applying what's needed in relation to soil test levels. Soybeans are an 'elastic' crop, but they can't overcome low fertility levels all on their own. Give some thought to planting conditions, too. Planting soybeans earlier? One of the reasons for the focus on starter fertilizer in corn has been because of cooler soil temperatures at planting. When planting soybeans in to similar conditions, you may see increasing responses to enhanced fertility management practices like starter fertilizer, particularly on lower testing soils or medium testing soils with very high yield potentials.

For information on soil test removal levels for soybeans – and other crops – check out our *Soil Test Interpretations and Fertilizer Recommendations* publication available from any District Office (or e-mailing me) or online at: <https://bookstore.ksre.ksu.edu/pubs/mf2586.pdf>.

How Low Should You Go?

Good turfgrass health depends on many things. Fertility and weed management are the two we spend the most time addressing, but mowing height is important as well.

For most of the season, mow Kentucky bluegrass lawns at a height of two to three inches and tall fescue lawns at three to three and a half inches. That's a good height to keep grass growing well, while keeping the stand healthy and competitive against weeds, drought, etc...

However, if you want to drop the deck down a little lower to kick off the year, that's probably fine. In fact, mowing lower than normal the first mowing or two may actually help speed green up by removing old, dead grass and allowing the soil to warm up more quickly. Just don't forget to raise the deck back up after those first couple of cuttings.

What happens if we don't return to normal heights after a couple mowings? Weeds like crabgrass, for example, need light to germinate. Higher mowing heights keep soil surfaces shaded, discouraging crabgrass germination. Higher mowing heights also equal deeper rooting depths. A deeper root system means a more drought-resistant turf.

Make sure you measure deck height as you get started this year. Want to leave it low? Go ahead, but don't leave it for long. Return to optimum height after the second mowing – or before.

Ross Mosteller

District Extension Agent
Livestock & Natural Resources

Watch for Grass Tetany This Spring

Spring is officially here according to the calendar and the greening grass gives hope to those of us feeding livestock and counting how much feed inventory remains, that we will have opportunity to get animals out on growing grass soon. Our ruminants would like to be off the dry winter diet and onto lush growing grass, just as much as we want to get them there, but there is one big factor to consider with early turn out - Grass Tetany.

Grass tetany is primarily a disease of early-lactation beef cows when circulating Magnesium (Mg) is low in the beef animal. The Mg requirement in the pregnant cow is 0.12% of the diet on a dry matter basis and jumps to 0.20% with lactation. It occurs mostly in cattle consuming lush, early-spring, grass or cereal grain pastures. While the earliest growth periods are potentially high risk, the highest risk of having clinical signs seems to be five to ten days after a period of cold, wet weather.

Symptoms include staggering, convulsions, excitability, twitching, and can result in death. While it can affect growing cattle, it generally affects older, lactating cows most often. Many times, the first indication of a problem is finding a dead cow in the pasture with marks of struggling on the ground around her legs and head. Cows in the early stage of the disease may appear as "down cows" similar to a dairy cow with milk fever, but more likely they are nervous, trembling, overly excited or staggering.

Cows on primarily grass or fall-seeded small grain (oats, rye, wheat, rye grass) pastures are at the highest risk because the plants accumulate potassium and tend not to accumulate magnesium. Although pastures with a legume component are less likely to cause problems, cows can suffer grass tetany in these pastures too, due to the fact that the grass grows more quickly than the legume early in the spring and cows tend to prefer the taste of grass versus legume.

A high level of potassium in the forage has one of the highest correlations to the incidence of grass tetany. Heavy fertilization of pastures in the spring with nitrogen and potassium (potash) significantly increases the risk of grass tetany. Historically, many studies pointed to too little magnesium in the soil as the primary cause of grass tetany, but more recent thinking points to the key issue being excessive potassium levels in forages.

A cow suspected of having grass tetany is truly in an emergency situation. Call your herd health veterinarian immediately to confirm the diagnosis and to initiate treatment with an intravenous solution of calcium and magnesium. Treatment is possible, but prevention is always the best approach. While use of a magnesium-containing mineral mix is one of the commonly mentioned preventive strategies, it shouldn't be the only one. Many of the cows typically treated for grass tetany have been on an adequately Mg formulated, free-choice mixture. Magnesium isn't very palatable, so mixing ground corn with the salt/mineral mix helps with consumption. Place this mixture in numerous mineral feeders in the pasture, before the grass greens up.

Other preventive strategies for grass tetany include:

- * Soil test pastures in the fall and apply appropriate amounts of nutrients at that time (don't over-fertilize with nitrogen; especially not with potassium).
- * Incorporate legumes and other forbs to grass pastures. Monocultures are rarely a good thing!
- * Continue to feed dry hay daily when cows are introduced onto new, lush pasture.
- * Graze "low-risk" animals IE: stocker calves, yearling heifers, cows with calves more than four months, on pastures at high risk for grass tetany before cows with younger calves.

Teresa Hatfield

District Extension Agent
Family and Community Wellness

Considering a Reverse Mortgage? Understand the Facts First

Many older adults have accumulated a large amount of equity in their homes. Many people may owe little to nothing on their traditional mortgages. Reverse mortgages allow qualifying borrowers to access some of that home equity. Many older adults use reverse mortgages to improve their quality of life, pay down other debts, plan for emergencies, or any other reason.

Reverse mortgages are a type of loan where you receive funds from the equity in your home. Unlike traditional mortgages, you don't pay the loan until you no longer live in the house (either by selling the home or by death). As the homeowner receives payments, home equity decreases. The borrower can receive funds in several ways, either as a lump sum, a line of credit, or by monthly payments. Reverse mortgages aren't for everyone, as they are complex and challenging to understand. Knowing how they work and how much they will cost before taking one out is essential. Those considering taking out a reverse mortgage must attend loan financial counseling from an approved Home Equity Conversion Mortgage (HECM) counselor.

Borrowers of reverse mortgages are required to meet specific qualifications, which include:

- You must be at least age 62 or older.
- You must live in the home as your primary residence.
- You must continue not to have any federal debt (owe taxes)
- You must continue to pay property taxes and homeowners insurance.
- You must meet with an HECM counselor.
- Your property must meet specific requirements.

Reverse mortgages require you to pay closing costs, loan origination fees, mortgage insurance premiums, and any unpaid balance on the original mortgage with which you first purchased your home. The amount that will be available to you will depend on the appraised value of your home, the age of the youngest borrower, and the current expected interest rate. A non-borrowing spouse (not yet age 62 at the time of the loan) may also have special considerations should the borrowing spouse pass away. Talk with your HECM counselor for more information.

With a reverse mortgage, remember that you must remain in your home, and the loan must be repaid if you move out. Understand that you must go through a credit check and a financial assessment to determine if and how much you can borrow. Your heirs will have to repay the loan after your death, so they may have to sell the home.

Questions to consider:

- Will my home allow me to age in place?
- Why do I need the money?
- Is my home in good repair? Consider how much your home will appraise and the current market conditions.
- Do you have relationships with the professionals you are likely to need? These people will include; a banker, real estate agent, lawyer, appraiser, inspector, and contractors.

For more information on reverse mortgages, visit the U.S. Department of Housing and Urban Development at www.hud.gov

Resources: Federal Housing Administration

Cindy Williams

District Extension Agent

Family & Community Wellness

Food Prep When the Power Goes Out

Spring is just about here which brings warmer weather as well as severe weather. If you lose power, handling food can be tricky. If you don't have a generator, then consider these options to prepare food with power from the University of Minnesota Extension.

Keep a food thermometer handy. Remember these three temperatures when cooking meats: 145°F for steaks, roasts; chops; 160°F for ground meat; and 165°F for all poultry. If you have limited fuel for cooking, choose quick-cooking foods to reserve fuel.

Prepare one meal at a time so there are no leftovers. Don't leave food sit at room temperature or in warm environments for more than two hours as this can lead to bacterial growth.

There are options to cook food. A fireplace is handy, but do not use charcoal in a fireplace as it can emit carbon monoxide. Get outdoors and use a camp stove, charcoal grill or gas grill.

Stock up on foods that do not require any cooking or refrigeration. Examples include peanut butter, canned meats, whole grain chips or crackers, fresh fruit, canned fruit, dried fruit, and many others. Don't forget your pets! They also need nourishment in an emergency.

Handwashing is still important! Use bottled water and soap if running water is not available. Use disposable utensils and plates for easy clean up. Heat water on the outdoor grill to wash other items.

Clayton Roland
District Extension Agent
4-H Youth Development

National Volunteer Week: A Thank You to the 4-H Volunteers!

National Volunteer Week is celebrated annually during the third week of April, and this year it is from April 16th to the 22nd. This week is about highlighting the individuals who offer their resources of time, money, and knowledge to better our community.

In the Meadowlark District, consisting of Jackson, Jefferson, and Nemaha Counties, there are 229 registered volunteers, and countless others that have yet to register! These selfless individuals assist our offices in doing a multitude of activities, including leading clubs and the 36+ projects areas 4-H offers, serving on the fair boards, and assisting staff and 4-H'ers during the fair.

With that being said, we want to offer a heart-felt thank you to all our volunteers across the district! We understand you aren't always in the spotlight, or recognized for your efforts, but you are the backbone and the engine that makes 4-H go! We could not offer the programs that we do without your assistance.

The Meadowlark District is always looking for new volunteers as well. Please call your local office if you want to become involved in helping achieve the 4-H motto "To Make the Best Better".