K-STATE Research and Extension | Meadowlark District

August 8, 2025

David Hallauer
District Extension Agent, Crops & Soils

**The 'Aftermath' of a Fall Armyworm Invasion**

Last week, I expressed hope our annual arrival of fall armyworms wouldn't cause many issues. I was wrong. Numbers in many fields have reached significant injury levels, even in stands with plenty of forage biomass available for feeding.

Feeding has just begun for some and since it could last another week or two, a treatment decision might have to be made. Others are on the back side of feeding with an idea of the extent of injury you're dealing with. Either way, it might be difficult to know 'what's next' in the aftermath of feeding. With so many variables involved, it's difficult to say, but there are a few things to consider.

For starters, what shape was the stand in before feeding? Were fertility levels good? Has it been producing well? When was it harvested and how was it recovering? A grass plant uses a combination of green tissue above ground and reserves from root systems below ground to regrow after harvest. If plants get large enough (four to five leaves), they can continue to replenish root energy reserves as they grow new leaves. That means stands that have recovered well can better tolerate removal of foliage from armyworm feeding than stands that only saw a small amount of regrowth before the armyworms moved through. If that root 'tank' isn't full, recovery may be slower and less consistent.

Second, be vigilant as the season continues. With the entire life cycle of the Fall Armyworm lasting around 30 days, we could see another generation (or two depending on where in the life cycle the Fall Armyworm is in your stand…) before they migrate south. With the potential for additional feeding this fall, keep scouting and be ready for the next round of decision making that comes with more feeding.

Last: look ahead. If the reason one stand suffered and another didn't has to do with fertility, or timing of harvest, or any other factor we might have control over, is there anything we can do to address potential problems next time around? Harvest timing this year may be one of those variables. Some stands had great regrowth after harvest. Those stands aren't immune to feeding but *may* have enough biomass to tolerate feeding. Later hayed stands have less biomass to start with, and feeding *could* cause them to stop growing for a time if feeding is heavy.

Two of the variables we *can't* control are weather and armyworm migration. Good growing conditions (temperature plus moisture) through the remainder of the growing season can help even severely injured stands recover prior to frost. More drought like conditions may hamper that recovery. With luck, the next moth flight will take feeding elsewhere but being prepared for another generation this fall equipped with a better knowledge of what to expect before, during, and after feeding is seldom a bad idea.

K-STATE Research and Extension | Meadowlark District

August 8, 2025

Ross Mosteller
District Extension Agent, Livestock & Natural Resources

**Fall Calving in Heat**

Producers choose calving seasons for many reasons; periods of better weather are often one of those considerations. There is something so rewarding about driving through native grass fall pastures tagging newborns, that has a much better feeling compared to pulling newborns out of snow drifts or fighting muddy spring lots. As it is with everything, there are pros and cons to every situation and those late summer/early fall hot days can present a challenge to fall calving.

The thermoneutral zone for a young calf is between 50 – 77 degrees Fahrenheit. Temperatures outside of this range cause additional stress on the calf, so targeting a calving window in this temperature range is an ideal goal. Weather data for northeast Kansas shows September average highs in the upper 70's and lows in the mid 50's. October is mid 60's to lower 40's, so it stands to reason why September and October calving fits for many fall herds.

The calf stress is not the only issue to consider when calving in the heat. Cows calving in hot weather are more likely to become overheated and exhausted sooner in the partition process than cows calving in cooler temperatures. This can lead to extended calving and more stress on both cow and calf. Heat stress has effects on blood flow within the cow's body. In late gestation cows, this change in blood flow can create signals to initiate parturition, leading to premature calving around heat events.

So, what exactly are the challenges facing fall calving herds in hot weather? The primary challenge is the effect high temperatures have on newborn and young calves.

- Heat stress is harder on young calves than cold stress in many ways. When calves are heat stressed, they lose appetite, eat less and quickly become dehydrated.
- Newborn calves have an immature internal thermostat, which causes them to have more problems regulating body temperature during weather extremes.
- Shade and fresh water are critical to cows and calves alike. In addition to milk, calves need more fresh, cool water in hot weather to prevent dehydration, keep their rumen functioning correctly and maintain health, as well as appetite.
- Effects of heat stress on the dam can also negatively impact calves by reducing the transfer of passive immunity to the calf and consequently have negative effects on weaning weights.
- Black-hided cattle are more susceptible to heat stress than lighter colored cattle, which might be a consideration to calving in a more thermoneutral window.

Some important best management practices for fall-calving herds in heat include providing ample shade for calving cows and the young calves, plenty of fresh water is vital and having calving areas where wind flow is adequate. Young calves need to be able to reach water sources, so keep this in mind if utilizing automatic waterers or tanks. Calves need to be able to reach and navigate drinking water sources. Providing areas of elevation where wind flow can reach the cow and calf is important, especially where shade is limited.

There can be many benefits to fall caving, especially if it truly happens in cooler fall weather. The University of Nebraska has video discussion around this topic of fall calving in heat on their Tailgate Talks YouTube channel, https://www.youtube.com/@tailgatetalks Check it out to watch and learn more. A wealth of weather-related and heat stress information can be found on the Kansas Mesonet website as well at https://mesonet.k-state.edu/

K-STATE Research and Extension | Meadowlark District

August 8, 2025

Laura Phillips
District Extension Agent, Horticulture

**Becoming a Master Gardener**

Calling all gardeners! This September the Meadowlark District will resume our Extension Master Gardener (EMG) program. If you love to garden, or if you have never gardened but always wanted to, this is the program for you.

The Extension Master Gardener program, or EMG, is a staple of K-State Research and Extension. The program offers extensive horticulture training on topics ranging from lawn care and to soil fertility, to common plant diseases. These topics are supplemented with hands-on gardening practice and volunteer work. Beyond the learning experiences, EMG programs actively work to embed themselves in their communities and create collaborative and welcoming environments.

The EMG training runs from September through November with a total of 40 hours of training. Each session is taught by different specialists from K-State who share their expertise with our groups. All training courses are recorded and posted online for those who cannot participate in real time. After training, all Master Gardeners complete 40 hours of volunteer work, focusing on educating and inspiring others in their community.

You can email lauraphillips@ksu.edu or call any of our offices to learn more about the program or sign up.

K-STATE Research and Extension | Meadowlark District

August 8, 2025

Teresa Hatfield
District Extension Agent, Family and Community Wellness

**Protein Power: Why We Need It as We Age**

Protein is an essential nutrient, and as we get older, we need to ensure we get the right amount. As we age, we can become more susceptible to muscle loss, thus increasing the risk of falling. Protein is vital for all the cells in our body. Protein is essential for building muscle and bone. Older adults need protein to help preserve muscle mass, support immune function, and promote recovery from illnesses and injury.

The need for the right amount of protein in our diets increases as we get older. Protein is a macronutrient, meaning we need larger amounts. Macronutrients include carbohydrates, lipids (fats), and proteins. Vitamins and minerals are micronutrients; we don't need as much of them. The building blocks of protein are amino acids. Our bodies cannot make all the amino acids we need; these are called "essential", and we need to consume them in our diets.

As we age, we tend to lose muscle mass, called sarcopenia, which begins in our 30s, and the muscle loss accelerates as we age. Without adequate protein in our diets, losing up to 30% of muscle mass by age 80 is possible. This loss contributes to frailty, increased risk of falls, slower recovery time, and reduced independence.

Most adults need 10-30% of their calories from protein. Research shows that older adults may benefit from amounts as high as 25-35 grams of protein per meal. Protein can be found in more than just meat and dairy products. Below is a list of foods containing animal and plant-based protein.

**Protein Sources:**

- **Meat:** beef, bison, deer, pork, lamb
- **Poultry:** chicken, turkey, duck, pheasant
- **Fish and Shellfish:** salmon, tuna, cod, shrimp, lobster, oysters
- **Dairy:** Cheese, milk, whey, yogurt, cottage cheese
- **Eggs**
- **Soy:** Tofu, soymilk, edamame, sprouts, tempeh
- **Legumes:** peanuts, peanut butter, lentils, chickpeas, navy beans, black beans, kidney beans, green peas, black-eyed peas
- **Nuts:** Cashews, almonds, walnuts, pecans, pistachios, pine nuts, macadamia, Brazil nuts, nut butters
- **Seeds:** Sunflower, pumpkin, chia, hemp, flax, and sesame seeds

Protein is one of the cornerstones of healthy aging. By including the right amount of protein in your diet, you can make positive improvements for a healthy life. Contact your healthcare professionals if you have questions about how much protein you need to eat.

**References**

*South Dakota State University Extension: Macronutrients*
*University of Missouri: Protein*

K-STATE Research and Extension | Meadowlark District

August 8, 2025

Cindy Williams
District Extension Agent, Food, Nutrition, Health and Safety

No news article this week.

K-STATE Research and Extension | Meadowlark District

August 8, 2025

Heather Roenne
District Extension Agent, 4-H Youth Development

**Saying Thank You**

The county fair is over. The show box and halters are put away; the ribbons have been hung on a mirror or put under the bed; winning recipes have been refiled in the cabinet; and wonderful memories have been made. What's left? A big part of 4-H is being grateful for the help, support, and awards that were received. A handwritten thank you note can brighten someone's day and let them know that they are appreciated.

Thank you notes don't need to be fancy or poetic. In fact, the simple, down-to-earth language of being yourself will help your message be genuine. These are some easy steps to write a thank you note.

1. Greeting: Begin with a warm, appropriate salutation. Use the recipient's name to make it more personal if possible. An example might be, "Dear Dr. Roach" or "Dear Mr. and Mrs. Greer."
2. Express specifically what you are thankful for. "Thank you for supporting me in the livestock auction at the Jefferson County Fair," or "I appreciate your generosity in sponsoring the champion color photo award at the Jefferson County Fair."
3. Add a personal touch about your project and share how the award made a difference to you. "My market steer project was special to me because it taught me responsibility and patience. I will use my premium for purchasing a steer for next year. I want to continue learning about beef nutrition and how to raise a quality market animal," or "My champion photo was taken in my grandma's garden in Ozawkie. I enjoy trying to catch all the bright colors and being in a place I love."
4. Look ahead and thank them for their continued help and support within 4-H as a whole or in a specific project. Donations are seen in time, expertise, and money; all of these are needed and appreciated.
5. Close your note warmly. Wrap up your note with a friendly closing. It can be as simple as, "Thanks again," or "Best Regards." Then, sign your name.

Thank you notes can help strengthen relationships and can make a lasting impression. Try to send gratitude to people who helped, supported, and donated to your 4-H project work. They are investing in you! This is an important way that you can make the best better!