K-STATE Research and Extension | Meadowlark District

September 5, 2025

David Hallauer
District Extension Agent, Crops & Soils

Harvest Safety Tips

Consider this: a vehicle traveling 65 miles per hour approaching a combine traveling 15 miles per hour will cover and *catch* that combine in *less than* 20 seconds. It happens fast and with harvest upon us, it's a good reminder for all of us to be alert. Fall and harvest season is a great time and it's most enjoyable when we all can do so safely.

The aforementioned slow moving vehicle example is a good reminder for farm equipment operators *and* people sharing roadways to both be on the lookout for each other. Equipment operators should be aware of vehicles that will likely be moving faster than they are and provide warning by way of equipment hazard lighting that is clean and in good working order. Look ahead for 'emergency exits' that can provide a place to go when an approaching vehicle doesn't keep a safe distance. If you're following slower moving equipment or semis, give yourself plenty of room. Pass only when safe to do so and be aware that vehicles will likely be entering and exiting the roadway at places you may not expect.

When in the field in the operator's seat or on the ground nearby, give equipment a wide berth, paying particular attention to augers and power take off shafts. Combine snapping rolls can pull stalks in at a rate of 12 feet per second – much faster than you can react to pull away. Avoid moving/rotating equipment until the machine is shut down and can be safely approached.

Keep a cell phone, first aid kit, and properly charged fire extinguisher nearby. Keep cell phones charged and because coverage can vary, share harvest plans - including a physical location - with the harvest crew and other family members. It can cut response time later if someone needs to get to you – but you are unable to communicate.

Pay attention to fire hazards. Recent moisture may have provided a little 'buffer', but when moisture levels decline, temperatures increase, and wind picks up, things dry out in a hurry. Be aware of residue buildup around engine/exhaust systems and concealed drive belts/pulleys that can cause friction resulting in fires. Clean equipment regularly and check electrical systems to help prevent potential issues. If possible, consider starting harvest on the downwind side of fields. If a fire does occur, flames will hopefully move towards harvested areas of the field, reducing potential damage. Firefighting tools and water onsite are a good idea and be aware during extreme conditions of the increased pressure on local fire departments trying to assist when fires do occur.

Carve out time to slow down and refresh. Change things up by switching harvest jobs or shutting down to catch a school event. Seemingly small changes of pace can provide good opportunities to slow down and refocus. The marathon of harvest can feel like a sprint, but it will be worse if someone is injured because of physical or mental fatigue.

Harvest is an awesome time. Plan now to make sure it starts *and* finishes that way.

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Ross Mosteller
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Crop Residue Grazing Concerns

The month of September brings the Kansas State Fair, football lights on Friday nights and fall crop harvest. Most farmers become excited to harvest, but as a cow guy, I become excited for the ample new grazing resource provided behind the combine. While forages available in crop residues can provide the necessary nutritional requirements for a grazing ruminant, there are a few health conditions that need to be considered prior to turn out. If grazing crop residues have not been an option in the past, or maybe just if you need a refresher on the health concerns to consider, please read on.

There are two major classes of concerns to be aware of; those that cause digestive upset, acidosis and/or bloat and those that create toxicity, such as nitrates and/or prussic acid. Every crop can provide a different challenge, with environmental factors having an effect as well. Corn residue for example has a low risk of prussic acid, but higher risk of acidosis with dropped ears. Sorghums are known to be nitrate accumulators and run the risk of prussic acid poisoning. The University of Nebraska has a good resource titled Grazing Crop Residues with Beef Cattle to learn more.

Acidosis or grain overload occurs when ruminants consume large amounts of feed that contain high amounts of fermentable carbohydrates, leading to clinical signs in the animal. Whenever there is an excessive amount of grain drop, research shows eight bushel per acre as a threshold, this becomes a risk. Rumen microbes rapidly begin to ferment carbohydrates in the grain, which leads to an increase in lactate formation. When lactate production increases, the rumen pH drops below the normal range of 5.6-6.9 and begins to damage the rumen.

This leads to an increase in acid-loving bacteria and yeast in the damaged rumen. All of these affect the blood volume and hydration status of tissues throughout the body, leading to acute clinical signs of diarrhea, dehydration, depression, and anorexia. Bloat can also be a symptom of acidosis if the animal does not properly ruminate and expels rumen gases. Treatment involves restoring the rumen microbes, correcting dehydration and acidic rumen microenvironment, and managing secondary complications like bloat. Long term consequences of acidosis can include abortions and laminitis.

Management is key to preventing acidosis. Establish a grazing plan by first assessing the amount of downed grain within the field. Some strategies known to help with this management include introducing the animals to an increased amount of carbohydrates in the diet a week to ten days prior to grazing. Strip grazing the residue to help control access to grain and force the animals to balance roughage in their diet as well. Finally, never turn out hungry animals on high grain or lush crop fields.

Focusing on the toxicity side of the equation, nitrates accumulate in plants when uptake by the roots exceed the rate of conversion to protein within the plant. This occurs during periods of drought, plant stress and following rapid growth. When a ruminant consumes high-nitrate plants, the rumen microbes convert the nitrate to nitrite. Excess nitrite is absorbed into the bloodstream, where it changes the oxygen carrying capacity in red blood cells. This reduction of oxygen carrying capacity results in asphyxiation. Clinical signs of nitrate toxicity include weakness, rapid breathing, lethargy, muscle tremors and sudden death. Abortions may occur 10-14 days after ingestion of high nitrites due to lack of oxygen to fetus and is often a sign that high nitrate feed has been consumed.

The best plan for the prevention of nitrate issues is to know the nitrate levels of plants that will be used as feed, prior to utilizing them. Nitrate samples can be taken from standing plants or baled forages to be sent to the lab for analysis. Forages with greater than 9,000 ppm nitrate (NO_3) may lead to acute toxicity signs and sudden death. Levels over 5,000 ppm (NO_3) should not be fed to pregnant animals due to the increased risk of abortion and stillbirth and shouldn't be the sole ration source for all animals. A test result of less than 3,000 ppm (NO_3) is generally considered safe feed. More information on managing high nitrate forages can be found in the K-State publication Nitrate Toxicity MF-3029.

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Laura Phillips
District Extension Agent, Horticulture

Prepare your soil for next year

As fall gets closer and closer, it is a perfect time to evaluate and improve your soil health. Your garden will thank you in the spring! The first step in evaluating your soil health is to do a soil test, especially if you have not done one in the past two years. Performing the standard gardener soil test through K-State can tell you about your soils' pH, organic matter, phosphorus, potassium, and nitrates. With this information you can make adjustments that optimize your soil for plant growth.

When evaluating soil health, one of the first things to look at is the pH level. Soil that is too acidic or too basic can wreak havoc on your garden. Even if you have sufficient nutrients, an extreme pH level will essentially lock those nutrients in place, making them inaccessible to plants. While not all plants require the same PH range to thrive most, vegetables and ornamentals will grow well with a pH somewhere between 6.0 and 7.0. If your soil test indicates that your pH is too high, you can incorporate sulfur to lower it. If your soil pH is too low, you can incorporate lime to raise it. In Northeast Kansas, many gardeners have slightly basic soils (a pH just above 7.0) and need to incorporate sulfur into their garden.

Adding lime or sulfur to your soil, however, will not alter the pH overnight. In fact, it can take over a year for these amendments to fully react with your soil and alter your pH level. Rather than waiting until spring to mess with your soil pH, make those changes now so that the amendments have time to react with the soil before your next spring planting.

Next you want to look at your organic matter content. Organic matter refers to decaying plant materials or animal waste, which can offer numerous benefits. Beyond providing nutrients, it can improve the soil structure, increase water infiltration and retention, and increase the amount of nutrients available to your plants. If you have low organic matter content, consider applying a thin layer of organic matter to your garden in the fall. This will allow it to break down and incorporate into your soil over the winter. It is important to note that not all compost is equal. Depending on the source of the decomposing matter, it can alter your pH or have high amounts of nutrients your soil already contains. Make sure you are adding organic matter that is suited for your soil.

Once you have added any pH amendments and organic matter, cover your soil for the winter. You can do this either with mulch or cover crops. Bare soil is prone to erosion, nutrient leeching, and damages the soil structure. Additionally, both cover crops and mulch will provide additional organic matter to your soil.

Lastly, you want to look at your soil's nutrient values. You can compare your soil nutrient results to our K-State *Fertilizing Gardens in Kansas* to determine how much phosphorus, potassium, and nitrogen your specific plants will need. You can apply these fertilizers in the spring either before planting or as you plant, and make sure to water them into the soil.

If you have any questions about working with your soil, or need to get a soil test done, reach out to one of our offices for more information.

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Teresa Hatfield
District Extension Agent, Family and Community Wellness

Medicare Open Enrollment is Just Around the Corner

Medicare Open Enrollment is just around the corner, October 15- December 7, 2025. What does this mean for Medicare beneficiaries? Open Enrollment is when you can enroll in or change your Medicare Part D or Medicare Advantage plan. Medicare beneficiaries are encouraged to review their coverage and shop to see if a more cost-effective option is available. Each year, plans can change the monthly premium, annual deductible, co-pays, co-insurance, and list of medications they cover.

Beneficiaries should receive their current plan's annual notice of change letter by September 30. This letter will include information about changes to your plan for next year. You should compare plans even if you are happy with your current plan.

Many things can impact how much you pay for your medication. Your choice of pharmacy can make a difference in the amount you pay for your medications. A preferred pharmacy will cost less than a standard pharmacy. If a pharmacy is out of the network, you would have to pay the total cost of the medication. Mail-order pharmacies may be another option to explore. The cost of generic medication generally costs less than brand-name medication, but not always. Plans can also place restrictions on medication, such as prior authorization, quantity limits, and step therapy.

The maximum Part D deductible for 2025 will increase to $615 annually. In 2025, the cost of insulin is capped at a $35 per month co-pay. The maximum you will pay for your prescription medication will be capped at $2,100 in 2026. We will know more about available plans in our area as the new Medicare and You books arrive later in September. The Medicare and You books will contain all the Part D Prescription drug plans, their costs, and the available Medicare Advantage Plans (Part C).

Plan comparisons can be made on Medicare Plan Finder on the Medicare website at www.medicare.gov. The Medicare.gov website allows you to search for the most cost-effective plans based on your medications. It is common for spouses to be on different plans for Medicare Part D because they take different medications. You want to ensure the plan you choose covers all your medications at the lowest cost.

If you need help negotiating the Medicare Plan Finder, please contact the Meadowlark Extension office to set up a free counseling session. You can call our offices at: Holton: 785-364-4125, Oskaloosa: 785-863-2212, or Seneca: 785-336-2184.

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

No news article this week.