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Traffic Zone Tillage

Determining the need for tillage in harvest traffic zones can be a challenge. K-State Soil Management Specialist Dr. DeAnn Presley outlines the multiple step process in the most recent KSU Agronomy eUpdate (<https://eupdate.agronomy.ksu.edu/>): multiple 18-inch-deep holes followed by an evaluation of soil structure looking for platy structure then root penetration. If compaction *is* present, you then have to evaluate the depth of the compaction to determine tillage depth. It might take a little more time than we have to give.

When time is limited, tillage might occur *without* as thorough an evaluation as we'd like. It's a judgement call and in many cases works out well – but what can happen when it doesn't?

For starters, while tillage *does* temporarily loosen soil, because of what happens during a tillage pass (natural soil structure is broken into smaller pieces), tilled soils re-compact and actually become *more dense* with time. If traffic patterns can't be adjusted, the positive initial effects of the tillage pass will likely last only a few years at best.

Longer term, the alteration in soil structure results in subtle changes that may not mean a lot most years but can become increasingly visible in more extreme conditions. Organic matter in tilled soils may not be much different than in no-tilled soils at greater depths in the soil profile, but in the top two inches, studies in Kansas have shown improved infiltration rates of close to an inch per hour (Presley, 2012), a difference that can be quite notable during heavy rainfall events. No-till soils also tend to accumulate more organic matter than conventionally tilled soils and resist future compaction events to a greater degree as well (Blanco, et al., 2009). More organic matter not only contributes nitrogen back to the system but becomes a win-win when it may also reduce the need for tillage in the future due to the 'plasticity' organic matter can provide to soils.

Tillage might be the answer, but it might come as a cost as well. If you're on the fence about post-harvest tillage operations, check out Presley's article at the link above for tips on how to make it as effective as possible.

Ross Mosteller
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Winter Feeding Tips

November is quickly slipping away with Thanksgiving meals and reflection just around the corner. The recent rains have been a welcomed change from the dry start to fall, but created muddy situations quickly. The weathermen today have made mention of the first snow flurries of the season, so winter cow feeding will be here sooner than many may want. Without stockpiled forages, crop residues, cover crops, etc... feeding of harvested forages is an inevitability for the cattle operation. Here are a few things to consider as we enter that season.

As the temperature drops outside, so could a cow's health. While cattle producers may not be able to eliminate all of the stress that winter places on their herds, research shows that there is a significant correlation between feed efficiency and feeding-site selection. The thermo neutral zone (TNZ) for healthy cattle is 32 to 77 degrees F. When the temperature outside falls below or rises above the animal's comfort zone, the body needs to produce more energy to keep the animal cool or warm.

When temperatures fall below the TNZ, cattle need to receive enough nutrition to help keep them healthy, meeting energy needs and in good condition. It is also important that feeding sites be placed in well-drained areas to reduce water, mud and manure buildup. A buildup of water could not only waste portions of hay bales, but could also decrease the nutritional value of the hay, creating a need for alternative nutrient sources to maintain herd health and performance. Excessive mud and manure around feeding sites also mean that cattle will have to exert more energy to reach feed.

Well-drained areas make the best feeding sites because mud accumulation is less likely to occur in these areas. An important consideration for producers is to make sure that waste runoff will have grass or other type of vegetation to filter through before reaching open surface water, such as ponds or streams. To prevent waste buildup, producers should rotate ring feeders before adding new bales of hay. One feeding site can feed approximately 15 to 20 head of cattle depending on the availability of other feed sources besides the hay.

An alternate to feeders is to roll hay out on the ground in a well-drained area. The key to this is approach is that hay needs to be unrolled in proportions that the herd can clean up in one day. Hay that lies on the ground for several days before cattle can clean it up will be wasted. An old adage for unrolling sites is "day one it's the dining room, day two the bedroom, day three the bathroom". Another option to consider is bale grazing, an article in itself for another day. Providing daily feed amounts, regardless of delivery methods, will most always provide the least amount of feed waste.

Winter storage areas for hay are also something that producers need to be thinking about. Rows should line up north to south, about two to three feet apart, so that sunlight will reach a greater surface area of the bales. This orientation will help evaporate moisture from the bales and the ground around them more quickly. Tightly wrapped hay bales will also absorb less moisture than loosely wrapped bales, ultimately ruining a smaller amount of hay. Storing on elevated, firm surfaces helps as well.

November 15, 2024

Laura Phillips
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No news article this week.

Teresa Hatfield
District Extension Agent, Family and Community Wellness

Stay Warm This Winter: Understand the Low Energy Assistance Program (LIEAP) and the Cold Weather Rule

As we get further into fall, the weather starts to cool down and is often downright cold. Kansas has a couple of programs for residents who are concerned about how they can afford to heat their homes. The Low-Income Energy Assistance Program, also known as LIEAP, and the Cold Weather Rule, can be resources that you or your neighbor need to be aware of.

According to the Kansas Department of Children and Families, the Low-Income Energy Assistance Program (LIEAP) is a Federally funded program that helps eligible households pay a portion of their home energy costs by providing a one-time per-year benefit. LIEAP assists low-income households struggling to pay their energy bills during the cold winter months. The 2025 LIEAP application period will begin November 18, 2024, and end March 31, 2025, at 5 pm.

To qualify, applicants must meet the following requirements:

1. An adult living at the address must be personally responsible for paying the current residence's heating costs, payable to the landlord or the fuel vendor.
2. The combined gross income (before deductions) of all persons living at the address may be at most 150% of the federal poverty level.

The benefit amount is based on federal funding received, the anticipated number of applicants, the type of dwelling, the type of primary heating fuel, the number of household members (citizens), and household income.

How can you apply for LIEAP? Use the secure online portal:

1. Go to www.dcf.ks.gov and click Apply for Services.
2. You must create an account and password the first time you use the DCF Self-Service Portal.
3. After logging in, click on Apply for assistance to get started.

The Cold Weather Rule is another important program that protects residents from having their utilities shut off during the winter months. The Kansas Corporation Commission (KCC) enforces this rule, which applies to residential customers of electric and natural gas utilities under its jurisdiction.

A utility can't disconnect you when the temperature is forecasted to drop below 35 degrees Fahrenheit within the following 48 hours, except in certain circumstances. To prevent disconnection when it is 35 degrees or above or to be reconnected regardless of temperature, you must make pay arrangements with your utility. A utility may start the final notification and disconnection process if there is a 48-hour forecast of temperatures above 35 degrees.

If the 48-hour forecast changes before the period ends and temperatures are forecasted below 35 degrees, the utility cannot disconnect until there is another Cold Weather Rule 48-hour forecast of temperatures above 35 degrees.

Utilities must inform you of the Cold Weather Rule payment plan and other available payment plans. Remember, under the Cold Weather Rule, you can spread your payment over 12 months. Utilities must send written notice to customers 10 days before disconnection and attempt a phone call or personal contact the day before. They must also tell customers about agencies that have funds to help pay utility bills.

If you can't pay your entire bill, call your utility company to make pay arrangements:

- Agree to pay 1/12 of the overdue amount of your bill, plus 1/12 of your current bill, all disconnection and reconnection fees, plus any applicable deposit owed to the utility, and agree to pay the remainder in equal payments over the next 11 months; or
- Negotiate a payment plan to pay the overdue amount off quicker than 12 months.

Remember, you must also pay your full bills for the new service you use while paying off the overdue amount. Apply for federal, state, local, or special funds for which you are eligible. If you are behind in a previous payment plan and cannot catch up, you must make a new payment agreement with the utility.

These two programs can be enormously beneficial for families struggling to pay utility bills. Please share this information with anyone you believe could benefit.

For more information on these programs, visit the [Kansas Department for Children and Families] at <https://www.dcf.ks.gov> or the Kansas Corporation Commission at <https://kcc.ks.gov>.

Stay warm, stay informed, and stay connected!

Cindy Williams
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Tips for a Food Safe Thanksgiving

This month, millions of Americans will gather family and friends around the dinner table to give thanks. But for those preparing the meal, it can be a stressful time. Not to mention, for many it is the largest meal they have cooked all year, leaving plenty of room for mistakes that could cause foodborne illness. To avoid making everyone at the table sick, here are some tips for a safe Thanksgiving:

Tip 1: Don't wash that turkey. According to the most recent Food Safety Survey, conducted by the FDA, 68% of the public washes whole turkey before cooking it. USDA does NOT recommend washing raw meat and poultry before cooking. Washing raw meat and poultry can cause bacteria to spread up to three feet away. Cooking (baking, broiling, boiling, frying or grilling) meat and poultry to the right temperature kills any bacteria that may be present, so washing meat and poultry is not necessary.

Tip 2: Use the refrigerator, the cold-water method or the microwave to defrost a frozen turkey. There are three safe ways to defrost a turkey: in the refrigerator, in cold water and in the microwave oven. Thawing food in the refrigerator is the safest method because the turkey will defrost at a consistent, safe temperature. It will take 24 hours for every 5 pounds of weight for a turkey to thaw in the refrigerator.

Tip 3: Use a meat thermometer. The only way to determine if a turkey (or any meat, poultry or seafood) is cooked is to check its internal temperature with a food thermometer. A whole turkey should be checked in three locations: the innermost part of the thigh, the innermost part of the wing and the thickest part of the breast. Your thermometer should register 165°F in all three of these places.

Tip 4: Don't store food outside, even if it's cold. Storing food outside is not food safe for two reasons. The first is that animals, both wild and domesticated, can get into food stored outside, consuming it or contaminating it. The second is temperature variation. The best way to keep that extra food at a safe temperature (below 40°F) is in a cooler with ice.

Tip 5: Leftovers are good in the refrigerator for up to four days. Cut the turkey off the bone and refrigerate it as soon as you can, within 2 hours of the turkey coming out of the oven. Leftovers will last for four days in the refrigerator, so if you know you won't use them right away, pack them into freezer bags or airtight containers and freeze.