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District Extension Agent, Livestock & Natural Resources

“Cow-pie-ology” - A Management Tool

Extension Agents periodically meet with our Program Development Committee (PDC) to discuss programming and needs assessment. In our last meeting, one astute PDC member questioned my familiarity with cow-pie-ology. I had to admit that I wasn't familiar with that exact term and the work of Dr. Tom Troxel, but any good cowman can tell you the best management of cow nutrition often relies experience and the “art” of watching what goes in and OUT of the cow. Since I've researched this term, it seems like a good topic for a news column, so let's talk a bit about cow pies today.

Cow-pie-ology is the study of cow pies, but it's not necessarily a science discipline you'll find in textbooks. It's an art that beef cattle producers have practiced for years. By observing cow pies, managers can determine when to start supplemental feeding or when to rotate the cattle to a different pasture. The shape, size, color and texture can tell a story about the cow's diet quality. Just like many other measures, it isn't individual pies that need to be considered, but rather the average of the pen, pasture or paddock.

Years of research documents that, as manure piles stack up, more protein is needed in the diet. As rate of passage slows down through the digestive system, due to lower protein levels and hence digestibility, the cow pies stack with a higher fiber content. Conversely, excess protein results in thin manure that spreads out. By observing cow pies, a change in diet quality can be observed before a decrease in body condition occurs. So, what do you look for and how do you adjust?

This time of year, for pre-calving spring cow herds, a good goal is to have average manure piles between 2 to 4 inches high, flat and without layers. Prior to this time, following weaning on dormant forage or crop residue, cow-pie-ology would suggest 3 to 5 inches. The toughest time to stay on top of cows nutritionally is the first few weeks of green-up in early spring. This is the only time of the year when cow-pie-ology doesn't work as well. Mainly because the protein percentages are high and manure will be thin, but often the cattle are not getting enough total protein and TDN, due to the “washiness” of higher moisture content grass and passage rate through the digestive system.

Research shows that manure piles should be read where cattle are resting. If the manure is stacking up and there are layers in it, those cows need protein supplementation. Timing of supplemental feed is key to effective utilization of that input. By applying cow-pie-ology to daily observation, the cows tell you when to start feeding, how much to feed and when to stop. By matching your supplemental feeding to the herd's nutritional needs, feeding becomes more cost-effective and there will be performance efficiencies in cow reproductive status and calf growth measures down the road.

The “art” of cow-pie-ology may indicate a supplement is needed, but it is the “science” of feed/forage testing, along with ration balancing, that indicates which and how much supplement is needed. To be successful in the cow-calf business, producers must mix this art and science of beef cattle production. Forage testing and least-cost rations are important “science” that when combined with the “art” of cow-pie-ology will keep cattle healthy and efficient. If one (science or art) is neglected, then the information required to make management decisions is incomplete.

The popular statement of “you can't manage what you don't measure” can truly come into play with cow pies too! If this is something that you've not paid attention to in your operation, hopefully this cow-pie-ology term discussion will make you look down on the ground, in addition to looking at cow, looking at the ration mix sheet and help to gauge the nutritional status of the cow herd.

Laura Phillips
District Extension Agent, Horticulture

Kansas Forest Service Trees for Sale

As of January 5th, the Kansas Forest Service's annual tree and shrub sale is open! These trees and shrubs are part of the Kansas Forest Service's Conservation Tree Planting Program, which is designed to help landowners in their conservation and restoration efforts.

The program sells tree and shrub seedlings, various seeds, and other materials that can aid in tree planting, like marking flags or barriers to prevent rabbits from eating new seedlings. These plantings can serve a variety of functions, including creating windbreaks, promoting wildlife, growing Christmas trees, or stabilizing riparian areas (streambank).

While these seedlings are great for conservation work, they may not be used for landscape (ornamental) plantings or grown for resale.

The seedlings can either be bareroot or containerized. Certain trees may come as one or the other or both. The seedlings typically vary in species, are low-cost, and range from 8-18 inches tall.

Their seedling selection is based around species that will provide the most benefit to conservation efforts. Many of the varieties provide habitat and food for wildlife, including nectar and pollen for bees, butterflies, and other pollinators. You can purchase a single species in groups of 25, or chose from a bundle that is targeted at promoting specific wildlife, including quail bundle, pheasant bundle, eastern pollinator bundle, and western pollinator bundle.

If you are unsure what trees would be best for your land or conservation goals, the Kansas Forest Service has a guide called "Selecting Trees and Shrubs for Conservation Plantings." You can find the guide online or get a print copy from any of the Meadowlark Extension Offices, located in Seneca, Holton, and Oskaloosa. You can also give me a call for more feedback on which trees will fit your land the best.

Shipping starts March 11th, but if you are set on specific types of trees, its best to place your order now before they run out. You can place orders online at www.kansasforests.org/conservation_trees or call their toll-free number, 1-888-740-8733, to place your order.

Teresa Hatfield
District Extension Agent, Family and Community Wellness

Low-Income Energy Assistance Program Now Taking Applications

It's winter in Kansas, and with that comes the costs associated with heating our homes. Some people find it difficult to pay for the home energy needed to keep warm this winter.

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.

The LIEAP application period is December 18, 2023, through the close of business on Friday, March 29, 2024. To qualify for the program, applicants need to meet eligibility requirements.

These include:

- The applicant signing the application must be the person whose name appears on the primary heating source energy bill. If you pay the landlord for fuel costs included in the rent, or owed in addition to rent, you may also qualify and should apply for LIEAP under your name.
- The applicant must demonstrate a recent history or payments toward the purchase of the primary heating energy, and have made recent payments of at least \$80 toward heating costs.
- The program also has income guidelines. The combined gross income (before deductions) of all persons living at the address may not exceed 150% of the federal poverty level.
- Be a U.S. citizen and have been an eligible legally admitted person for permanent residence.

The amount of LIEAP funding received is based on the federal government's funding distribution, the anticipated number of applicants, dwelling type, type of heating fuel, and the number of people living in the household and their incomes.

You can complete a LIEAP application by going to the following website: <https://cssp.kees.ks.gov/apspssp/sspNonMed.portal>. Paper applications can be mailed or faxed to your local DCF office at 500 SW VanBuren, Topeka, KS, 66603, or sent to 785-296-5666. When completing your application, remember to follow these tips:

- Answer all questions on the application
- Include signatures of all the adults living in the home
- Include proof of income for everyone living at the residence
- If applicable, provide a Veterans Administration (VA) award letter, SSA/SSI award letter for pensions
- If claiming self-employment, provide a copy of the most recent tax return
- Provide a copy of all fuel bills
- Proof of child support payments received or court-ordered
- If you are living in subsidized housing, provide a copy of your rental agreement
- Make sure to send copies of the required documents only, as DCF will not return the originals.

You will need to make copies of these documents for yourself before applying. If you need additional information about the program, you can call 1-800-432-0043.

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

Tips for Resolutions that will Last

Did you make some resolutions this year? Are you worried about keeping them? Good intentions alone aren't enough. So, what can you do this New Year to make changes last? It's not too late to make your goals SMART, as in Specific, Measurable, Attainable, Realistic, and Timely. Be specific and think about the "W" words: who, what, where, when, and why. To help make your New Year's resolutions stick, check out these tips:

1. Make them measurable. Make your goals this year measurable by setting criteria for knowing whether you've reached your goal. Ask yourself how you will measure progress and if your goal is attainable.
2. Break up larger goals into smaller ones. Have you ever made a bunch of resolutions, but been overwhelmed with trying to make changes? It's easy to get discouraged with big goals that don't have any payoff in the short-term, so it can help to break up a larger goal into smaller ones.
3. Put your goals on a timeline. Make your goals realistic and that they are something you are willing and able to work toward. Also, do you have a time frame? Push yourself forward by setting a date for smaller and larger goals.
4. Reward yourself in healthy ways. Want to set a New Year's resolution, but have trouble staying motivated to make changes? One way to stay motivated is to reward yourself when you reach "mini" goals or milestones. Avoid using rewards that are not in line with your resolution; reward yourself with something that reinforces your new habit such as health or fitness magazine subscription or fitness equipment.

This year remember to make your New Year's resolutions specific, measurable, attainable, realistic, and timely. By applying these concepts and techniques you can reduce the chances of feeling overwhelmed, anxious, or losing motivation.

David Hallauer
District Extension Agent, Crops & Soils

Biological Soybean Seed Treatments

The number of biological soybean seed treatments are numerous. Products are typically a fungi, amino acid, bacteria, or combination thereof applied (on seed, in-furrow, or broadcast over the crop) with the hopes of eliciting a yield response. As with any researched products, results can vary significantly, as evidenced in a recent field report from the University of Wisconsin.

Shawn Conley is the University of Wisconsin State Soybean Extension Specialist and part of a multi-state team looking at biological seed treatments in soybeans. His study consisted of evaluation of nine products at 10 sites in Wisconsin during the 2023 growing season. All seeds were pre-treated with a common fungicide/insecticide seed treatment with biological treatments then applied according to product label on top of the base seed treatment. Plant populations were done at the V2 growth stage and yield data was collected at harvest.

Across ten locations, no significant differences were found in either yield or population between treatments. While some sites had more variability than others, the across site analysis showed none of the individual treatments were significantly different from each other, including a non-treated control included in the protocol.

Conley's analysis went one step further looking at the probability of a yield response based on a distribution of yield results rather than single points. This analysis showed similar results with one of the nine treatments having a probability of a positive yield response. *NOTE: this information is from a preliminary report with more data to come when the trial is complete.*

While few significant differences were noted, continued testing will occur to see if different years/conditions make a difference. As is the case with most seed treatment products (even non-biologicals) sometimes they provide a good return on investment and sometimes they do not. Planting conditions plus weather post planting affect efficacy to a great degree. A multiple year look at these products will hopefully provide a better view of the consistency of response. Stay tuned for more research results as they become available.