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District Extension Agent, Crops & Soils

Finding a Fill-In Forage – MCCC Selector Tool

As cool season grasses get going, last summer's fall armyworm feeding damage will likely become increasingly evident. As it does, you might ask yourself any number of questions: Is more grass going to return? What do I do for weed control? What can I overseed or interseed?

While there aren't a lot of clear cut answers to these questions, for interseeding or overseeding questions, you might consider the Midwest Cover Crops Council online selector tool:

<https://covercroptool.midwestcovercrops.org/>. Designed as tool for selecting cover crops to fit between cash crops, it *could* help provide forage crop options as well.

Based on recommendations from experts from Extension to NRCS to private industry, the foundation of the tool is your location (state/county), followed by goals. Here you can pick from numerous options, two of which we can 'fit' to what we're trying to do in our perennial forage systems: mechanical forage harvest value and good grazing. The tool will kick out a list of available 'crops' with suitability based on the goals selected plus a calendar of reliable establishment windows. It's far from a perfect 'plant this – have success' tool, but it can provide some options along with planting information to go along with it.

What the tool *cannot* do is tell you how well each crop will work in your situation. While providing an idea of optimum planting dates, even some cultural practices, recommendations are not necessarily designed for use when planting a crop within a current one. There are numerous issues with competition with or from the current perennial forage or annual weed pressure or herbicide carryover or availability or even the pest that brought us here in the first place – fall armyworm – that will need consideration on an individual grower and even farm basis.

Other resources are out there as well. KSU has the *Kansas Crop Planting Guide* that includes forage crops and other interseeding resources. Other agencies, retailers, or even knowledgeable individuals may have similar references or ideas. Any/all can be used. This is just one easily accessible online tool that if nothing else, can provide options when the time comes.

Need help walking through it? Drop me a line. We can discuss the tool or even other resources or options as well.

Ross Mosteller
District Extension Agent, Livestock & Natural Resources

Efficient or Inefficient – RFI

The 113th K-State Cattlemen’s Day did not disappoint, both in the beautiful new facility of the Bilbrey Family Event Center and more importantly the quality of presentations given. Topics around mature cow weights, carcass weights and dry matter intake were all on the table. From that event, I traveled to a cattle sale that puts a focus on feed efficient cattle. As the industry continues to struggle with the definition of “efficient” and the antagonism between smaller cows and demand for larger carcasses, residual feed intake is a term that producers need to be familiar with.

Residual feed intake, or RFI, is defined as the difference between the expected intake of the animal and what they consume. Another definition is the feed required to maintain body weight and allow for additional growth. An animal with a low or negative RFI value is very feed efficient while an animal with a high RFI value will be less efficient than its counterpart.

Heritability of residual feed intake is fair to moderate, so it is a trait where changes can be made through selection. However, there are many factors that affect individual RFI values and RFI alone does not paint the entire picture without evaluating rate of gains as well. RFI values vary dramatically among different breeds, so it is important to understand the way in which your breed of interest evaluates and reports RFI. The largest impact for ranchers when using RFI values in a selection program is reduced feed costs. This occurs because cattle with low RFI values consume less feed.

It has been demonstrated in numerous studies that by selecting for lower RFI a decrease in feed intake by young cattle and cows can be seen, with no detrimental effects on growth or mature size of the animal. The benefits of this are twofold. Not only will cattle consume less, but at market time they will still stand up to market conditions and standards. There are challenges that come with testing for RFI, mostly the equipment, time, and cost of doing this testing. Questions about research done in feedlot settings and if they translate to grazing cowherd situations also circulate within the industry.

Work at Oklahoma State University, partly done by one of K-State’s newer beef specialists Dr. Emma Briggs, has boiled down feed efficiency to a practical level for the commercial cattlemen to control cow feed cost by implementing the following concepts: Post weaning forage evaluation of replacement animals, by evaluating average daily gain over a 70-to-100-day post-weaning period, grazing moderate quality forage/hay to select animals who perform well on forage. Emphasizing practical selection methods already in place, such as selecting fertility in cattle challenged with forage-based diets. Using sires with moderate Mature Weight, Dry Matter Intake and Milk EPDs. Finally, purchase sires from breeders reporting cow weights and doing feed intake efficiency testing.

To summarize, residual feed intake values can prove to be very useful as a selection tool in a breeding program looking to reduce cow cost. Ranchers with range cattle must be careful with low RFI value animals because the cattle may not do as well in foraging situations. RFI values are simply another option to utilize during selection. Each producer must analyze individual situations to determine if this tool will be beneficial. Residual feed intake values are another means of selection but should not be the only criteria utilized to select sires and dams.

Laura Phillips
District Extension Agent, Horticulture

Spring Lawn Fertilization

As our lawns turn green and start growing, many people wonder when to fertilize their turf grass and what fertilizer to use. Properly timed fertilizers can go a long way in improving your lawn, but incorrectly applied fertilizer is a waste of money and can cause problems for your grass.

There are three main nutrients we add to our lawns: nitrogen, phosphorus, and potassium. Our turfgrass uses up nitrogen but does not add nitrogen back into the soil. While most Kansas turfgrass species can survive on relatively low amounts of nitrogen, they will benefit from a yearly addition of nitrogen. Grass will use phosphorus and potassium, but at much slower rates. You should only add phosphorus and potassium to your lawn when a soil test shows the levels are below optimal.

How much nitrogen you need in a year will depend on the type of grass you have and what quality of lawn you want. For example, zoysia grass needs around 2 pounds of nitrogen per 1,000 square feet for a high-quality lawn, whereas tall fescue will need between 3 and 4 pounds of nitrogen per 1,000 square feet. Usually, you apply only 1 pound per 1,000 square feet at a time. Too much nitrogen at once can cause chemical burn on your grass. A slow-release nitrogen fertilizer is much less likely to burn your lawn.

It is important to note that 1 pound of nitrogen does not equate to 1 pound of fertilizer. Fertilizer bags have a label with three numbers separated by dashes. This tells you what percent of that bag is nitrogen, phosphorus, and potassium, respectively. So, a fertilizer with 24-4-6 contains 24% nitrogen, 4% phosphate, and 6% potassium. It would take 4.2 pounds of a 24-4-6 fertilizer to get 1 pound of nitrogen. The back of the package should have instructions on how much fertilizer to use, but you can also find online fertilizer calculators to help you determine application rates.

For nitrogen fertilizer to work, it needs to be properly timed. The rule of thumb is to fertilize when the grass is actively growing. For warm season grasses, like zoysia or Bermuda, can be fertilized anytime past May 15th and before August 15th. If you fertilize too early, you will mainly be helping the cool-season weeds take over. If you fertilize too late in the season, it will encourage new growth that will be susceptible to damage from colder fall temperatures.

For a cool-season lawn, the timing is nearly opposite. Cool-season lawns can benefit from up to three, spaced-out nitrogen applications. If you are going to do any fertilizing, the most important time to apply nitrogen for a cool-season lawn is in September. This will help promote a healthy root system and encourage a thicker stand of grass. You can fertilize again in November to help the grass build up food reserves for the winter.

You can fertilize a cool-season lawn a third time in Spring, but not until early May. When cool-season grass experiences its first flush of growth in the spring, adding nitrogen can cause it to grow too fast and exhaust its food reserves - which it will need to survive our hot summers. It is best to use a slow-release fertilizer for a May application to provide more controlled growth as summer approaches.

If you have any questions on fertilizing your lawn, you can contact me for more guidance. You can also find K-State's publication "Fertilizing Lawns in Kansas" online for free.

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Teresa Hatfield
District Extension Agent, Family and Community Wellness

No news this week.

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

Thinking About Serving an Easter Ham?

Easter ham is a prominent menu item for many Easter gatherings. When buying a ham, estimate the size needed to the number of servings the type of ham should yield:

- ¼ to 1/3 lb. per serving of boneless ham
- 1/3 to ½ lb. of meat per serving of bone-in ham

Whether you are cooking a raw ham or preparing a ready-to-eat ham product, follow these steps for a ham that is cooked to perfection.

- Ham that is not ready-to-eat but has the appearance of ready-to-eat product will bear a statement on the label indicating the product needs cooking.
- Ham that requires cooking before consumption or fresh, raw ham must reach an internal temperature of 145°F (with a three-minute rest time). Set the oven no lower than 325°F.

Cooked canned ham and cooked vacuum-packaged ham, both from federally inspected plants, can be eaten right out of the package. All of these along with spiral-cut cooked ham are safe to eat cold or can be warmed to an internal temperature of 145°F, as they are already fully cooked. For cooked hams that have been repackaged in any other location outside the processing plant, heat to an internal temperature of 165°F, measured with a food thermometer, before you served it.

Store leftover ham in the refrigerator. Use or freeze leftover ham within 3 to 5 days. Frozen ham is best used within 1 to 2 months. For questions about cooking ham or food safety concerns, contact your local Meadowlark Extension District Office located in Oskaloosa, Holton or Seneca.