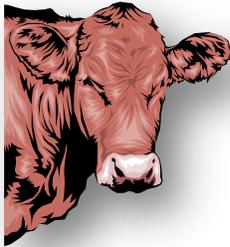


The Back Forty News



FULTON COUNTY U OF A COOPERATIVE EXTENSION SERVICE NEWSLETTER

January 2016



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FROM THE COUNTY AGENT'S DESK...

Winter is upon us, and with it, much hay feeding. Remember that cattle nutrition needs increase in the cold temperatures, and they especially increase when it's cold and wet.

It's pretty much the dead of winter, but there are things to be planned for now. Late winter spraying is right around the corner in late February and early March. The weather won't cooperate, so don't waste that one nice, non-windy day trying to maintain spray equipment or identifying which herbicide you need. Also, the opportunity to overseed legumes in February is also coming up soon. See Dr. Jennings article later in this newsletter.

Stay warm and best of luck getting through winter. May the hay never run out and the cows stay fat. If you need any assistance with planning for spring pasture planting, weed control, or anything else, don't hesitate to give me a call, or I'll gladly make a trip to your farm to help you come up with a plan.



PESTICIDE LICENSE CLASS

Brad Runsick, Fulton County Extension Agent

Local farmers, ranchers, and other agricultural producers who wish to renew an expiring pesticide license or receive a first time private pesticide applicator license will have the opportunity to receive the required training. Some of the folks that are up for recertification will have gotten a letter from the State Plant Board notifying them that their certification is up. If you are receiving this letter, then according to our records and the Arkansas State Plant Board, your license is about to expire.

The training will be held in Salem on Tuesday, January 26th, 2016 at 6:00 p.m. at the Fulton County Fairgrounds in the Hickinbotham-Miller building. This will be the only training in Fulton County for this coming season. The next will not be until Fall 2016. Sharp County will be conducting theirs on February 9th at 10 a.m. with the location TBD. This training is **NOT** for certification of commercial (for-hire) pesticide applicators!

There is a \$10 per person fee which *must* be paid at the door at the time of training. This fee is not related to the licensing fees charged by the State Plant Board. It is only for the training. The fee for the license is \$10 for one (1) year or \$45 for five (5) years. That amount you will pay in later to the State Plant Board, not the Fulton Co. Extension Office. Checks or exact cash preferred.

NOW IS THE TIME FOR PLANTING LEGUMES IN GRASS PASTURES AND HAY FIELDS

Dr. John Jennings, Extension Forage Specialist

Adding legumes to grass pastures and hay fields offers many benefits to forage system sustainability. Legumes in grass pastures improve animal performance, increase nutritional quality of hay and pasture, extend grazing seasons, and reduce the need for nitrogen fertilizer. In a recent survey (2011) over 40% of Arkansas producers reported having added clover to pastures within the past five years and over 25% planted clover in fescue pastures to reduce fescue toxicity in their livestock.

Site selection is important for maintaining good legume stands. Avoid shallow, droughty soils and sites with very low soil fertility or heavy weed infestation. Legumes can be planted into fescue and cool-season grass sods during fall or in late winter. Planting in late winter (February to early March) is sometimes called "frost-seeding" because freezing and thawing of soil helps work the legume seed into the soil surface. Good clover stands can be established with a no-till drill or by broadcast seeding. No-till drills should be calibrated and set to plant the seed no more than 1/2" deep. Fields should be clipped or grazed as closely as possible to remove the grass canopy and excess thatch

before planting. In heavy grass residue, no-till drills perform poorly and broadcast seed will not reach the soil surface. A closely-grazed grass stubble of two inches or less is ideal. Roughing up the short sod by pulling a harrow, tire drag, or even a cedar tree across the field exposes soil and improves legume establishment. Seeds that drop onto a slightly loosened soil surface will become anchored in place by action of frost or rain. White clover is the most popular clover in Arkansas. Seeding rate is 2-3 lbs/acre. Red clover is a better option for hay production. Seeding rate is 8-10 lbs/acre.

Adequate soil fertility is necessary for good root growth and stand persistence. Nitrogen fertilizer is not needed for establishing legumes in grass sods. To get fertilizer and lime recommendations for overseeding legumes, ask for soil test code #116 “Legumes Over-seeded into Grass Sod” when submitting soil samples to the county Extension office. Weed control in mixed grass/legume pastures is a common concern. Reducing the reservoir of weed seeds in the soil before planting legumes should be of primary focus since few options are available for controlling weeds once legumes are established in pastures. Several good herbicides and management practices can be used to reduce weed populations in grass pastures prior to planting legumes. Heavy grazing pressure may control certain weeds.

After legumes have been planted, pastures should be grazed early in spring to reduce grass competition while the clover seedlings are emerging. It is recommended to continue grazing the grass canopy until the legume plants begin to emerge to control competition from the grass and allow more sunlight to reach the new seedlings. As new seedlings emerge, remove livestock until the legumes reach sufficient size for grazing or hay harvest. Sufficient size of the legume will vary with species and intended use of the legume. If the legume is being used for grazing, turn-in livestock when the legume is about 6” -10” in height and remove the livestock when it has been grazed down to 3”. Rotational grazing will allow for more total yield produced over the growing season and will aid in maintaining the stand.

MANAGING THE FALL BREEDING HERD

Dr. Tom R. Troxel, Extension Beef Specialist

For producers with a fall calving herd, December marks the middle of the breeding season. There are a number of December management decisions that can influence the success of the breeding season thus impact the pregnancy rates, weaning rates and weaning weight of the 2016 fall calf crop. The cost effectiveness of each decision should be considered before being implemented. After all, profit potential is the goal which may be more difficult to come by in 2016.

Reducing Feed Cost

Reducing feed cost without reducing cow productivity is the fastest way to reducing production cost and increasing returns. A lot of hay was harvested during the 2015 spring but due to persistent rainfall, much of the hay wasn't

harvested at the highest quality. Most of the harvested hay was over mature and, therefore, not at its peak quality in terms of protein and TDN.

Forage testing each lot of hay and buying the right kind and feeding the right amount of supplemental feed based on the forage test may be the best money spent this winter feeding period. A forage test reveals the nutrient content of hay. Knowing the nutrient composition of hay allows comparisons between hay nutrient levels and the nutrient requirements of the cattle being fed. If the animals' needs are greater than what is provided in the hay, a least cost feed supplement can be developed. Purchasing and feeding the least cost supplemental feed based on a forage test helps insure the cattle will maintain the desired performance level.

To minimize feed costs, cattle with different nutritional requirements should be grouped separately and supplemented accordingly. Commingling cattle with different requirements (for example, nonlactating cows wintered in the same field as lactating cows) can cause either overfeeding and waste of costly supplements or underfeeding and poor cattle performance. A short (75 day) breeding and calving season ensures all cows are in the same state of production, thus having similar nutrient requirements. Knowing the nutrient composition of the forage allows feeding lower quality hay to cattle with lower nutrient requirements and feeding higher quality hay to cattle with greater requirements.

Body Condition Scores

Body condition scores (BCS) are a numerical rating given to cows to suggest the relative fatness or body composition of a cow. A 1-9 grade system is commonly used by researchers where thin cows score 1-3 and fat cows are scored in a relative sense, 6-9. The BCS can be used as a gauge to determine if the nutritional program that cows have been receiving is adequate to keep them in moderate and ideal condition. More importantly, by body condition scoring cows in the fall, BCS can be adjusted with the nutrition program. It is very important to maintain a body condition score of 5 to 6 during the fall breeding season. This is often very difficult to do if the cows didn't calve in good body condition.

Cull Problem Cows

Cull problem cows such as cows with unsound feed or legs, bad eyes, udders, or temperament. Cull cows that may have problems calving (prolapse). Cull cows that didn't calve during the fall calving season. Feed cost is just too high to gamble in cows that may not make it through the winter.

Stockpiled Forages

Tall fescue pasture has both advantages and disadvantages. One of the primary advantages of tall fescue over other cool season forages is the amount of forage produced during the fall that can be stockpiled and grazed during winter. Fescue managed for fall growth out yields sod seeded annual ryegrass or small grains during the same period. Up to one third of the annual yield of fescue is produced during the fall, and the leaves withstand damage from

cold weather much better than many other types of forage. Leaves remain green after early winter freezes and retain forage quality well.

Strip Grazing

Proper grazing practices can extend the grazing period for stockpiled forages. Strip grazing is often used for stockpiled forages and can offer the highest utilization of the pasture. A single electric wire can be placed across the field to allow a strip of pasture large enough for a two to three day allotment of forage for the herd. As cattle graze down the first strip of forage, the wire can be advanced across the field providing fresh strips of forage as needed. Some producers have found that two wires work well for strip grazing. One wire holds the cattle in the strip being grazed, and the other wire is placed one strip ahead to prevent the cattle from moving across the field each time a new strip is offered.

Only one wire needs to be moved each time in a “leapfrog” fashion to provide a fresh strip of forage. The field should be grazed starting at the livestock’s water source. This reduces trampling damage to the remaining forage, because the cattle travel back across the grazed area for water. A back wire is not needed when grazing dormant stockpiled forages.

In Arkansas demonstrations, strip grazing management doubled the number of AU grazing days per acre compared to continuous grazing of the entire stockpiled pasture.

Rotational or strip grazing can allow limit grazing of winter annuals. Forage quality of winter annuals often exceeds requirements of cows. Limit grazing makes use of the high quality forage as a supplemental feed and stretches short hay supplies during late winter.

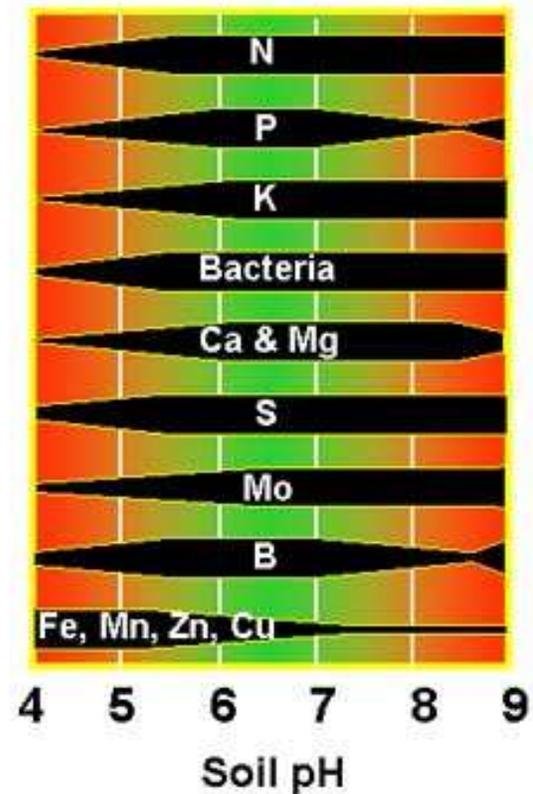
For more information about cattle production, visit <http://www.uaex.edu> or <http://www.arkansas-livestock.com> or contact your county extension office.

PASTURE LIMING DEMONSTRATION

Brad Runsick, Fulton County Extension Agent

Beginning this fall, the Fulton County Extension Office will initiate a pasture liming demonstration/research plots. Much of Fulton County soils have a pH that falls below what we would consider optimum for forage growth. Strictly grass pastures prefer a pH of at least 5.8 or higher. Those with legumes, such as clover, require a higher pH of at least 6.3. These are our current research based recommendations.

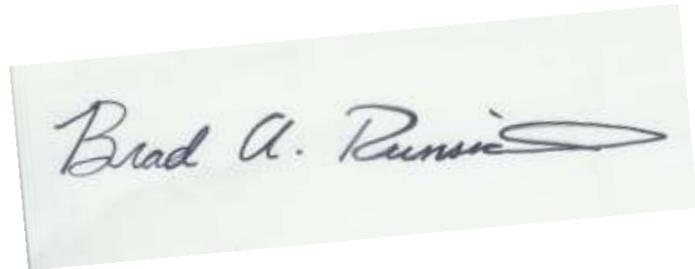
The best way to describe pH is that it is simply a measure of the acidity in the soil. A pH of 7 is neutral. Anything pH value below 7 is considered acidic. Any pH above 7 is considered alkaline, or basic. So why does it matter? Why would a farmer care if the pH is 5.0 or 6.4? The reason lies in the ability of plants grown on that soil to uptake nutrients. Nutrients are necessary for healthy grass stands, forage tonnage, and ultimately building animal tissues in livestock. In short, when the soil pH is low, the ability for plants to uptake nutrients is diminished. Additionally, when pH is too high, the ability to uptake certain nutrients is negatively affected. As such, maintaining a proper pH is often more important than making fertilizer applications. The graphic to the right shows an approximation of the relationship between pH and nutrient uptake.



In regards to liming pastures, there has been a lot of research done concerning how much lime or neutralizing material it takes to raise soil pH. When trying to understand how to change soil pH, think of this bulk of soil acidity that, in order to be neutralized, must undergo a chemical reaction with a bulk of neutralizing material. Not enough neutralizing material...and the pH won't change. Too much...and it'll increase too high.

With these research plots, we will be testing varying rates of both pelletized and agricultural lime. There will be 24 total plots with 3 replications of each of the 8 treatments listed in the table on the next page. The 3 replications are to remove any variance within any single plot. Our hope is to maintain these plots for the next 2-3 years to see what the long term effect on each of these treatments are on the soil's pH. Once an optimum pH is reached, we will adjust our project to look at pH maintenance with pelletized or ag lime rates.

Treatment	Lime rate (lbs/acre)
1. Check - no lime	0
2. Pelleted lime	500
3. Pelleted lime	1000
4. Pelleted lime	2000
5. Ag lime	2000
6. Ag lime	4000
7. Ag lime	6000
8. Ag lime	8000



Brad Runsick

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All of the meetings and activities listed in the newsletter are open to all interested individuals.



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OFFICIAL BUSINESS

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