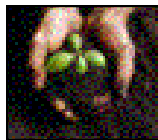


STONE CO. SOIL & WATER LIFE ON THE FARM PHOTO CONTEST!!

If BEEF magazine can offer a photo contest, then so can Soil & Water. We thought it would be fun and interesting to see what you farmers can send us representing life on the farm. This contest will be celebrating Farm Life of course, so may your submitted photos represent just that. Your images can inspire us all. We will share them on our Facebook page and at the upcoming Stone Co. Forage & Livestock Conference Feb. 15th. The photo with the most “Likes” on FB and “Votes” from conference, will be the winner. The deadline for entering your photo is Feb. 14th. Submit photo as a jpeg attachment and email to: melissa.white@swcd.mo.gov The sooner you get me the photo the sooner it goes on our FB page. The winner will receive a \$50 VISA Gift Card sponsored by American Family Insurance, Bradley Smith. Thank you Bradley! The winner will be notified by Friday the 16th. Also if you have not “Liked” us on our Facebook page yet please do so; Stone County Soil & Water Conservation District.

There are various practices for which we have funds available. For instance, if you qualify based on soil loss, funding to re-establish or improve pastures to include nutrients, woodland exclusions, grazing systems— water, water distribution, fence, along with incentive programs such as nutrient & pest management. We have water quality practices such as streambank protection, riparian buffers and well decommissions. If you have a resource concern, lets talk. We can refer to other agencies & their programs too if need be. Call or stop by.



The Soil & Water Conservation District will be holding an Open House & Election in April for Areas 2 and 4 in the district. The nominating committees are in the process of selecting eligible candidates. The current board members serving those areas are willing to continue to serve and will be on the ballot as well. Area 2: Larry Israel, Crane and Area 4: Jerry Youngblood in Blue Eye. Feel free to contact us regarding this election.

**Keep an eye out for our 2018
Grazing School Schedule!**



“Yeah, as a matter of fact, I am ready to order. ... If that little piggy can have the roast beef, then I can have the pork chops.”

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MU Extension Livestock Specialist Addresses Fescue Stockpile Questions

MT. VERNON, Mo. — Last week Eldon Cole, a livestock specialist with University of Missouri Extension, had two similar questions from producers about fescue stockpile's nutrient content.

"Even though the forage involved was similar, the animals grazing it were quite different. One herd was fall calvers while the other was fleshy cows just starting to calve," said Cole.

Each producer had stockpiled fescue remaining but was concerned about the protein level in it.

"I assured them the crude protein level was probably greater than they thought. It's rare to have fescue stockpile test lower than 10 percent crude protein around February 1. I've even seen some hit 15 percent," said Cole.

As for total digestible nutrients (TDN) in the fescue this time of year, Cole says he usually sees it in the low 50's to 55. By Feb. 1, the question of TDN level or quality may be secondary to quantity.

"Each of the callers assured me there was ample forage available for the cattle to get their recommended daily dry matter intake. I would like it in the 8 to 10-inch tall range or more," said Cole.

The requirements for dry matter intake on fall-calving cows that average Oct. 1 birth date on their calves, weighing 1200 lbs. goes down rapidly as their milk production declines and they are well into the first one-third of pregnancy. According to Cole, if body condition scores (BCS) are in the five to upper four range they should easily be meeting their protein and TDN levels with the stockpiled fescue.

"Feeding an energy supplement at this point should only be considered on first-calf heifers and old cows. Here is where sorting cows off that are needy, low, 4 BCS types so they can be supplemented without wasting the feed on fleshy, middle-aged cows," said Cole.

Heavy springing cows that are BCS 6's may be the ones likely to benefit from extra good quality hay or 2 or 3 pounds per day of a commodity mix like soy hulls, corn gluten feed, and distillers grains.

One caller asked about creep feeding the fall calves.

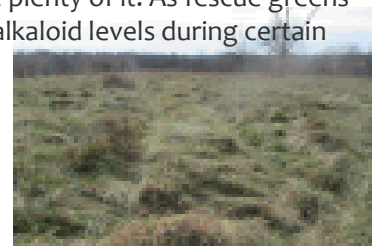
"I said it's usually more practical to creep the calves at this point than to try and feed more milk production from the cow. If you have wheat, rye or triticale pasture coming on they make an excellent creep for fall calves," said Cole.

Alfalfa hay or even top quality haylage also can provide extra nutrition for the fall calf.

"The bottom line on supplementing stockpile fescue is it is better than you think it is if you have plenty of it. As fescue greens up in February, it even gets better with each warm day," said Cole. "Fescue that contains toxic alkaloid levels during certain seasons is probably the least toxic now than at any other time so take advantage of it."

For more information, contact MU Extension specialist Eldon Cole in Lawrence County, [\(417\) 466-3102](tel:417-466-3102)

With Managed Grazing Systems, Stockpiling Fescue and Strip Grazing is Made Easy!! Visit with us at the Soil & Water Office about cost share on components.



Assistance Available to Agricultural Producers through the Conservation Stewardship Program

Washington, Jan. 18, 2018—Agricultural producers wanting to enhance current conservation efforts are encouraged to apply for the Conservation Stewardship Program (CSP).

Through CSP, USDA's Natural Resources Conservation Service (NRCS) helps private landowners build their business while implementing conservation practices that help ensure the sustainability of their entire operation. NRCS plans to enroll up to 10 million acres in CSP in 2018.

Some benefits of CSP include:

- Improved cattle gains per acre
- Increased crop yields
- Decreased inputs
- Wildlife population improvements
- Better resilience to weather extremes

Applications are accepted year round—must be received by March 2, 2018 to be considered for this funding period.

Producers interested in CSP are recommended to contact their local USDA service center or visit www.nrcs.usda.gov/GetStarted

Broomsedge Bluestem Management (*Andropogon virginicus* L.)

From the University of
Missouri Extension

Broomsedge (a.k.a broomsage, broomesedge, yellow bluestem) is a warm season perennial grass found throughout Missouri. Like other warm season grasses, it is dormant during the fall through early spring, as pictured below. Broomsedge growth begins as temperatures consistently stay above 60 degrees F. It produces many seeds that are distributed by wind. It is a poor competitor, has poor forage quality and low palatability. Broomsedge can quickly become the dominant species in overgrazed, low pH (<5.5), low phosphorus, thin (eroded) soils where desired vegetation will not thrive.

Since broomsedge is a perennial that is usually well established when many consider managing, the elimination within a single season is generally not practical. Since this plant thrives on low pH and low fertility soils, soil testing is the first step in managing a broomsedge infested field. Improved soil pH and fertility will shift the competitive edge toward the desirable forages. This component will take various lengths of time depending on soil test levels. If your budget is limited, the priority should be adjusting pH with lime.

There is a very short window when vegetative growth just begins, prior to early boot that cattle may graze broomsedge, but even then it is not choice forage and generally avoided in a continuous grazing system. Broomsedge is also a poor competitor with other forage species.

Managed rotational grazing will help shift the pasture back to desirable forages, if those forages are currently present by reducing over grazing and increasing the potential of grazing of the broomsedge during more palatable stages of growth.

If broomsedge is shading desirable species lower in the canopy, mowing may be necessary to bring in more light. However, neither mowing nor prescribed burning will reduce broomsedge populations. The application of glyphosate during active growth, either as a spot spray or rope wick, can be an effective herbicide option. A broadcast application of glyphosate in a spray-smother-spray program when establishing a new pasture will also help reduce broomsedge populations.



**SOIL TEST—THEN
LETS TALK ABOUT
OUR NUTRIENT
MANAGEMENT
INCENTIVE PRO-
GRAM.**

Publications:
Broomsedge bluestem USDA -
http://plants.usda.gov/factsheet/pdf/fs_anvi2.

Stocking Rate, Number of Cows Per Acre of Pasture, Requires Careful Figuring Rob Kallenbach, Univ. of Mo. Extension

A beef cow eats 3 percent of her body weight in forage daily. A 1,200-pound cow will need 36 pounds of grass per day. Those facts are a start for calculating stocking rates of cows per acre.

"My most frequently asked question is, 'How many cows should I have?'" says Rob Kallenbach, University of Missouri Extension forage specialist. "How many cows? That's the last question in a series of questions to determine stocking rate," Kallenbach says. The answer depends on whether the farm is located in north Missouri or the Ozarks. The type of soil, fertility and forage species affect the pounds of dry matter available per acre.

Also, cow size is important. A 1,500-pound cow needs 50 percent more forage per day than a 1,000-pound cow. Many questions must be answered to determine "How many cows?" There is no more important question in determining the success of a grass farm than the stocking rate, Kallenbach says. Investment in land and cattle must be balanced for best profit potential. With the correct stocking rate, producing the optimum pounds of beef per acre will help the bottom line.

Rule of thumb can be used to determine production and stocking rates.

A farm with good pasture, not great pasture, may grow 3 tons of forage per acre on an annual basis. That lightweight cow will need 5 tons of forage. But if the cow has a calf, as expected, that will increase the forage demand to raise the calf for six months to 7.5 tons.

That shows a need for 2.5 acres per cow-calf pair. But wait, Kallenbach says. That assumes the cattle are totally efficient in harvesting forage, wasting none. "Cows are never 100 percent efficient," Kallenbach says. "Really good operations get 70 percent efficiency. Much more common is 40 percent consumption."

The calculations go on. Different equations will be needed for dairy cows, stocker calves and other types of livestock. "If there is any one thing we've learned about stocking rates it's that management-intensive grazing (MiG) pays," Kallenbach says. "Controlled grazing using hot-wire paddocks to subdivide pastures can double grazing efficiency."

A side benefit of MiG is that more tonnage of higher-quality forage results from proper management. Alternating grazing with resting allows more forage growth. Also, managers will learn the need for measurements for efficient production. That includes measuring forage growth and weighing calves. Actual measurements rather than rules of thumb help gain extra profits from grasslands. "Our best producers are using rising-plate meters to estimate the dry-matter content in each grazing paddock," Kallenbach says. "Measurements guide actual stocking rates." After all calculations are done, Kallenbach advises stocking at about 90 percent. That leaves a safety margin for a dry spell.

With an approved Grazing System in place, we can offer cost share for a one time liming if needed per soil test. LIME IS ONE OF THE MOST IMPORTANT ADDITIVES A PRODUCER CAN APPLY TO A FIELD. A SOIL CONDITIONER ALLOWING OTHER NUTRIENTS TO BECOME AVAILABLE.

Forage and Grazing Conferences Merge for Springfield Event in February

The annual Southwest Missouri Spring Forage Conference and the annual Heart of America Grazing Conference have partnered to present an informative and educational two-day event. This year marks the 34th Southwest Missouri Spring Forage Conference. It is the 16th conference for the Heart of America Grazing Conference which is held throughout a 5-state region of Illinois, Indiana, Kentucky, Ohio, and Missouri.

Monday:

- Four afternoon sessions focusing on **soil health on grasslands**

-Amy Hamilton and Elizabeth Steele from Hamilton Native Outpost;

-Dr. Alan Franzluebbbers from North Carolina State University

-NRCS Soil Health Specialist Doug Peterson

- Social event and trade show
- Dinner: Kentucky Forage Specialist Dr. Garry Lauffield "Gratitude"

Tuesday:

- Key note speaker Dave Pratt "Farming and Ranching is a Business"

- 45 minute breakout sessions:

-Chemical weed control in pastures

-Incorporating sheep and goats into the cattle operation

-Insight on increasing profits

-Beef genetics

-Understanding forage quality

-Bermuda grass for grazing

-Grazing alfalfa

-Getting top dollar for your calves

-Non-chemical weed management

-Adapting to the forage growth curve

-Mineral supplements in pastures

-Conditioning cows for pregnancy

Pre-register by February 16th!!

There will be a trade show in conjunction with the conference. Agricultural businesses and organizations will have exhibits and representatives available to discuss their products and services. If interested in becoming an exhibitor or sponsor, contact Nathan Witt at 417-451-1007 ext. 3.

Participants can find more information about the speakers, costs, agenda, attendance options, and how to register at www.springfieldforageconference.com. **Pre-register for the event by February 16th.** Participants may also contact the Laclede County USDA Office at 417-532-6305, ext. 101 for more information.

STONE COUNTY

LIVESTOCK AND FORAGE CONFERENCE



Thursday, February 15, 2018

6:00-8:45 pm—Doors open at 5:30pm

Crane First Baptist Church, Crane, MO

2/10 mile south of Crane on Highway 413,
30 Hallelujah Ave, Crane

Dinner provided:

Ribeye steak dinner grilled by the Southwest Missouri Cattlemen's Association

Reports:

Mark Maples & Hank Smythe, Stone County Commission, Galena

Steve Wilson, NRCS, Ozark

Melissa White, Stone County Soil & Water Conservation District, Crane

If it Wasn't Lightning or Pneumonia, What Killed the Cow?

-Dr. Tim Evans, Associate Professor, MU Veterinary Diagnostic Lab, Columbia

Vaccination Strategies for your Cow-Calf Operation

-Dr. Craig Payne, State Extension Veterinarian, Columbia

\$5 Fee-Pre-Register by February 12th

We have forms at Soil & Water Office

Make check payable to "Stone County Extension"

Form and payment should be received in the Extension Center by February 12th

Mail to: University of Missouri Extension, P.O. Box 345, Galena, MO 65656, 417-357-6812

Preventing Winter (Grass) Tetany

David Wieland

To prevent winter tetany on tetany-prone grass or harvested feeds (grasses, cereal grain hays), feeding alfalfa or other legume hay may reduce the risk. Cows at this time of year (pre-calving) should always have a mineral source available to them that includes a source of magnesium and calcium.

If a problem is suspected, additional magnesium may be added. In tetany-prone situations, chelated magnesium, which is more readily absorbed, may be called for. Remember, magnesium, must be provided on a daily basis to prevent tetany problems.

Producers are the best defense against tetany. As part of management, a complete feed analysis should have been run on the feed pastures at some time. If a producer has a known problem with tetany or suspects a problem, the feeds in question should be analyzed specifically for magnesium, calcium, nitrate, and potassium.

When the feed analysis information is known, a “tetany ratio” can be calculated by the producer, vet, or nutritionist to see if the forage is tetany-prone. The formula is:

$$\text{Tetany ratio} = \frac{\% \text{potassium}}{\% \text{calcium} + \% \text{magnesium}}$$

If the ratio is greater than 2.2, then the forage is tetany prone and preventative measures should be taken.

If grazing wheat pasture, crested wheat or tall fescue—or feeding straw cornstalks or other low-quality, tetany-prone roughage—the producer should be prepared ahead of time to plan preventative measures and reduce losses.

Who's susceptible?

- Mature animals are more susceptible than younger animals
- Cows with young calves are more at risk than steers, heifers, dry cows, and calves with calves <4 months of age
- Heavy milking cows are most susceptible to tetany

Soil testing can show you if you are low in magnesium. Another good reason to think about taking those samples this spring.

Taken from:

Mineral Supplement for Beef

Dr. Eric Bailey
University of Missouri

PAGE 5

Mineral Philosophy—“Do not measure with an axe and cut with a micrometer” — Dr. Tim Steffens

One of the fundamental challenges of forage-based livestock nutrition is the lack of ability to measure how much feed cattle consume daily while grazing. There are general rules of thumb about the amount of forage grazing cattle consume, but the nutrient content of the grazed forage fluctuates based on a number of factors; leaf: stem ratio of grazed forage, time of the year, stocking rate (forage availability). In addition, mineral requirements of domestic livestock are poorly defined; we know the dosage each mineral required to prevent clinical symptoms of deficiency and the dosage of each mineral that causes clinical symptoms of toxicity. Any time a supplement is provided to livestock, we are insuring their performance by ensuring the diet is not going to be deficient in a mineral or two, or more.

Fitting minerals into a cow calf budget

Mineral supplements are among the highest margin products for feed companies, so one should be cautious about the feed additives. Minerals exist in various forms, and the value of each form is largely based on how bioavailable it is in the body. Mineral supplements with high bioavailability have been marked heavily recently, yet their cost can be substantially greater than other forms. Answering the question of whether high-bioavailability mineral supplements are worth it are beyond the scope of this discussion. A common concern noted by producers is, “I’m spending too much on my mineral.” The answer to that statement potentially covers several aspects. One underappreciated aspect of mineral supplement is the intended daily consumption rate of mineral supplements, which ranges between 2 and 8 ounces per head per day. If a supplement is intended to be consumed at 4 ounces per head per day, that represents 91.25 lbs of mineral supplement per head per year. If you factor in an addition 10% for inventory loss, grazing beef cattle should consume two bags of mineral per head per year. Most producers are feeding significantly more than two bags per head per year. Evaluate mineral consumption by your herd and determine if it is in line with feed tag recommended intake.

Mineral supplements represent a small amount in 2018 MU Extension Livestock Budgets. For southern Missouri, the budgets allocate \$45.86 to mineral and protein supplements, against an annual operating cow cost of \$790.25. Mineral and protein supplements represent 5.8% of annual operating costs and is the sixth largest operating expense. Even if mineral cost doubled, it would represent ~11% of operating costs and remain the sixth largest cost, out of 14 listed operating costs. Producers should focus on the largest costs in the budget, cow replacement, purchased and raised forage, and machinery costs when attempting to reduce cow operating costs.

STONE COUNTY SOIL & WATER CONSERVATION DISTRICT

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Forage testing- good investment!

Forage testing is one of the cheapest and best investments for a livestock producer when it comes to nutrition and their herd. The minimal cost of this test will give you the information needed to develop a supplement to meet the livestock's needs. Like testing anything, useful results only come from a good sampling process. Always use a hay probe and take a core sample for your test rather than a simple "grab and go" where you pick a handful from a few bales and call it good. The core sample should be taken from the round side of a round bale or the end of a square bale, going straight toward the center so you get a good representation of the entire bale. You will need to probe somewhere between 10 and 20 bales and have a sample that weighs about a pound to get a good representative sample. Sort hay into "lots" by hay type and harvest window and test each individual lot. When you get the results back from the lab, you will find two columns listed on the results, one labeled "As fed" and one labeled "Dry Matter". The As fed column is exactly that, how the hay was received at the lab and how it will be fed to the livestock. The dry matter column shows values with the samples dried down and all the moisture removed. We generally use the "Dry Matter" column for comparing feed stuffs and developing rations because it takes the moisture factor out of the equation. The "as fed" column is primarily used to look at the moisture in a feedstuff and to determine how much is actually required in a ration. For dry hay samples, the moisture content should be below 20% for proper storage. Haylage on the other hand should be between 45 and 60% moisture for proper fermentation and storage.

Values for several nutrients will be listed under both columns. Generally the first listed is % Crude Protein. Next you will find values for Acid Detergent Fiber (ADF) and Neutral Detergent Fiber (NDF). Fiber levels are used to determine the digestibility of forages and how much an animal will be able to consume. Total Digestible Nutrients (TDN) represents the total of all digestible protein, carbohydrates and fats in the sample. TDN is commonly used in beef rations to represent the energy content of the feed. The next step is to weigh the information against the requirements of the animal being fed.

Spring is around the corner— a good time to take those soil tests!

Type of cattle	# Dry Matter/ Day	% Crude Protein	% TDN
1200# cow 2 nd period	21	7.1	50
1200# cow 3 rd period	24	7.9	54
1200# cow mod milk	30	9.8	58
1200# cow heavy milk	32	10.5	59
1100# heifer 3 rd period	23	8.9	58
1100# heifer mod milk	27	10.4	62
500# steer 1.5#/d gain	12.6	11.2	64
500# steer 2#/d gain	12.7	12.8	69