

Western N.C. Livestock Newsletter



Volume 2, Issue 1, Spring 2021



Fertility Management of Forages

Ethan Henderson, Extension Agent,
Livestock and Forages, Haywood County

As you are reading this newsletter, no doubt you are dealing with sticker shock from the increase in fertilizer prices this year. The prices seem to be increasing daily, with some fertilizer being as much as \$200 a ton higher than last year. Personally, I have been stressing over the price increase and often find myself asking, "WHY?" There are several reasons for the price increase, including phosphate supply constraints and increased transportation costs due to the rise in petroleum prices. Unfortunately, many of these reasons are simply out of our control. Instead of being frustrated with the high prices, let's focus on ways to decrease our dependence on fertilizer and make better utilization of the fertilizer that we do apply.

With high fertilizer prices, collecting soil samples from pastures and hayfields every 2 to 3 years and applying amendments based on the results is essential. We often see soil samples from pastures and hayfields that are deficient in potassium, also known as potash. Among other things, potassium is important for water regulation in the plant and also winter hardiness. When a ton of fescue hay is removed from a hayfield, we also remove approximately 15 pounds of phosphorous P_2O_5 and 50 pounds of potassium K_2O .

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Upcoming Events

Show Down in the Foothills

May 8th, 2021

Caldwell County Fairgrounds

Lenior, NC

Contact Anna English for more into: 828-484-9111

fertility continued...

Continued use of a complete fertilizer like 17-17-17 may not be replacing the potassium being lost from the removal of the hay. Also, keep in mind that one of the cheapest soil amendments we can add to our pastures and hayfields is lime. Proper soil pH can increase forage yield and improve the efficiency of fertilizer. In North Carolina we recommend a soil pH of 6.0 for pure grass stands and 6.5 for pure stands of legumes or legume mixes.

Incorporating legumes into a pure grass stand is another way to reduce the dependence on fertilizer, specifically nitrogen. Pastures that contain 30 percent or more legumes (ladino clover, red clover, birdsfoot trefoil, or alfalfa) have significantly lower nitrogen requirements than pastures that are pure grass. Legumes can easily be incorporated into grass stands by frost seeding or drilling them into pastures. It is important that legume seeds are properly inoculated with the correct Rhizobium bacteria prior to seeding. Their symbiotic relationship with Rhizobium allows legumes to obtain nitrogen from the atmosphere and fix it in a form that can be used by plants. Nitrogen fixed by legumes is not immediately available to grasses but is made available when legumes are consumed by grazing livestock and then redistributed across the pasture through manure or when parts of the legume plant decompose.

Don't underestimate the benefits of rotational grazing and the ability of livestock to recycle nutrients and return them back to

the pasture system. When livestock consume forages, 80 to 90 percent of the nitrogen in the forages passes through the animal and is deposited back onto the pasture through urine and manure. Approximately 50 percent of the nitrogen in urine can be lost through volatilization, depending on the environmental conditions. Rotationally grazed pastures with at least 3 to 4 inches of vegetation and/or residue have a lower soil temperature, which can decrease losses due to volatilization, resulting in more nitrogen being returned to the pasture. Some research on grazing systems indicates that only 2 to 5 percent of the surface area of a continuous grazed pasture is impacted by urine, whereas 50 percent of a rotationally grazed pasture is impacted by urine. Livestock in continuous grazed pastures deposit nutrients around frequented areas like shade trees and water sources, whereas livestock in rotationally grazed pastures distribute nutrients more evenly across the pasture. Hopefully, you will be able to implement some of the practices mentioned in this article to reduce your dependence on fertilizer or to better utilize the fertilizer you do apply to your pastures and hayfields. Please contact your County Extension Agent for additional information about soil testing, forage variety selection, seeding rates, and implementation of a rotational grazing program.

NC State Small Ruminant Extension Update

Dr. Andrew Weaver, Small Ruminant Extension Specialist



We recently completed our sixth webinar as part of a Beginner Sheep and Goat Producer Webinar Series.

These webinars and additional resources can be found in a Google Drive folder located at: <https://drive.google.com/drive/folders/15YdjQSS7dHh7Xwdfii7mlzJBScrXwap1>

We will be taking a break from this series while the Piedmont Sheep and Goat Webinar Series takes place during April and May. More information regarding the Piedmont Webinar Series will be released shortly and will be available on our website (<https://smallruminants.ces.ncsu.edu/>).

The Goat Artificial Insemination Short Course will be taking place again this year. The dates are June 7-9, 2021. Registration is almost full. Additional information can be found at: <https://projects.ncsu.edu/cals/ncsu goatAI/CourseInfo2.html>

Thank you to everyone who complete the North Carolina Small Ruminant Producer Needs Assessment Questionnaire. The deadline was March 15. Results are currently being summarized and will be shared with you when complete. I look forward to working with you all in the future and developing extension programs for small ruminant producers in North Carolina.

Face Fly Control

Options for Cattle Operations

Greg Traywick, Cleveland County Extension Director

Wet spring weather usually means greater numbers of face flies, a common pest of pastured cattle in western North Carolina. By developing an effective face fly control program for your beef herd, you can significantly improve animal performance and welfare (comfort), and increase profits.



Female face flies feed on the eyes and muzzle of cattle, moving frequently from one animal to another. Using their stomatal teeth, these parasites rasp away at the hosts' eyes and mucous membranes, garnering nutrition from tears and mucus. This feeding activity is particularly irritating and stressful, causing cattle expend energy throwing their heads and flicking their tails. Grazing is disrupted when animals bunch together with their heads inwards to avoid attacking flies. These behavioral and physiological responses to irritation results in production losses, including reduced fertility, growth, and lactation. Furthermore, flies scratch the cow's eyes and mucous membranes while feeding, creating sites for disease organisms to invade the damaged tissue. Female face flies are known to transmit pinkeye, brucellosis, and IBR. Fortunately, vaccines are available to help prevent these debilitating diseases. Contact your veterinarian regarding their efficacy and their use.

Controlling face flies can be difficult, and none of the presently available control strategies are completely effective. If face fly populations are

high, more than one method of treatment may be required in order to achieve acceptable control.

Dust bags are commercially available and easy to use. Most are sold in kits containing the dust bag, rope for hanging, and two packages of insecticide dust. Refill kits are also available. Dust bags will last for several seasons...especially if hung properly and then taken down and stored in a dry, protected place when fly season ends. Dust bags will only provide good face fly control if they are placed where cattle are forced to use them every day. The most effective way to assure this is to isolate the water source and force the cattle to pass under the dust bags to drink. If you water your cattle out of tanks, it is very convenient to set up forced-use dust bags. The tank can be enclosed with a strong wooden fence, allowing at least 12 feet of room around the tank so animals can drink comfortably. Often, dust bags are hung too high. Hang them low, about knee high, so that the cattle have to pick them up

with their heads when they pass by. They must be hung low to give effective face fly control on small calves as well as on the adult animals.

Ear tags impregnated with insecticide can also provide relief, provided they are used correctly and steps are taken to prevent buildup of resistance in the fly populations to the insecticide in the tags. Otherwise, they'll work well in your herd for only a year or two.

New insecticide formulations aren't developed very often, so it is important to slow the buildup of resistance by paying attention to detail. To avoid this problem, be sure to read and follow label instructions. Be sure to apply two tags per animal if directed (one in each ear), and be sure to tag the calves, too. Don't apply fly tags too early in the spring; wait until you see evidence of face fly activity (flies present, cattle expressing annoyance and defensive behaviors, etc.) Most crucial to preventing a pesticide-resistant fly population... be sure to remove tags at the end of the season (usually first frost).

Feed-through insecticides contained in feed additives or free-choice minerals can also reduce fly populations, especially when used in area-wide control programs.

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These products contain a larvicide or insect growth regulator that passes through the digestive tract and into fresh manure, where female flies lay their eggs. These chemicals keep new generations of flies from developing, but have no direct effect on the adult face flies infesting your cattle. Immigration of flies from neighboring herds can overwhelm control efforts... so if you're using feed-through products, encourage your neighbors to use them too. These feed-through products are designed to be fed 30 days prior to the emergence of flies, so

you will need to start using them in early spring.

Pour-on & spray insecticides can also be effective, especially when combined with other control strategies. If pour-on fly treatments are administered at the same time you put the fly tags in, you get a fast jump on the fly population. You can also use this trip through the chute as an opportunity to deworm your cattle. Whole-animal sprays are cost effective and provide quick temporary relief, but need to be re-applied on a

regular basis, typically every 10-14 days.

In summary, a successful face fly control program requires advance planning, close observation, determining the best control methods that you can implement on your farm, and following label directions on the products you use to get optimum control and decrease the chance of resistance. The payoff is a happier, healthier, and more productive herd.

State 4-H Youth Livestock Update

Upcoming Events

- Western NC Spring Fling , April 9-10
<https://youthlivestock.ces.ncsu.edu/2021/03/wnc-jr-beef-spring-fling/>
- Virtual Nance Family Meat Goat Leadership Institute, Youth ages 10-19
 - o Applications are due April 1
 - o May 4 – NC State University- Small Ruminant tour with Dr. Weaver
 - o May 11- Virtual tour of Hummel Livestock with Dale Hummel, IL
 - o May 18 – Selecting a show prospect with Terry Burke, KY
 - o May 25 – Community Service Project

<https://youthlivestock.ces.ncsu.edu/2021/01/nance-family-meat-goat-leadership-institute-3/>

- Livestock Skillathon Study Sessions
 - o Youth are sent materials bi-weekly to study and then given an online test every other Thursday. This program is designed for youth that have interest in Livestock.
- Livestock Judging & Skillathon Clinics, June 22-23
- 2021 State 4-H Livestock Contests , July 29-31

Information regarding all of these events and other activities can be found on our website. If you have any questions or concerns regarding any of these activities please don't hesitate to reach out to me.



Website: <https://youthlivestock.ces.ncsu.edu>

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Mitigating Pasture Damage After a Wet Winter

Cassie LeMaster, Extension Livestock Agent, Polk County



Does it seem like each year our winter gets wetter and wetter (and muddier and muddier)? Well you're not alone. Many of us are dealing

with pasture damage from yet another excessively wet winter. Wet pasture conditions allow plants to be easily crushed and bruised under the impact of our animal's hooves. The tearing action their hoof creates as they travel across the saturated soil also creates areas of bare ground and subsequent mud. As temperatures warm this spring, these bare areas become the perfect environment for weed seed germination. If you have used a dry lot for much of the winter or allocated a sacrifice lot to contain the damage to a smaller area, you should be able to avoid hefty pasture renovation costs. If not, assess the damage in all your fields, scout for weeds and target their control, manage soil nutrients and plan for renovation if needed. This is best accomplished with the assistance of your Extension Agent.

Assess the Damage

The first step is to determine

how much of the pasture is covered in desirable forages. Estimating this from the gate is deceiving, so it's important to get out and walk through the area. Less than 30% stand loss will likely recover as long as fertility and grazing pressure is managed. Stand losses of 30-60% will need some further assistance from reseeding, and losses greater than that could need full renovation. Something else to consider is the amount of time you have to wait for forage growth. Small acreages are



going to need more aggressive management to bring the pasture back to full production.

Scout for Weeds

Control of most weeds is most effective before they've flowered, which is why scouting is so important. Many weeds crowd and shade desirable grasses and rob the soil of important

nutrients, causing further pasture damage if left untreated. Always use a pasture-approved herbicide, and then comply with any grazing restrictions listed for livestock. Read the label! Each herbicide will list an appropriate amount of time before animals can return for grazing. Again, your Extension Agent can assist with weed identification and help make an appropriate herbicide recommendation.

Manage Soil Nutrients

A soil analysis is the only way to accurately determine and supply the nutrients that your pasture needs. Nitrogen (N) and potassium (K) are mobile in wet soils, so even if a soil analysis was done less than a year ago, the nutrient profile could be different from the last analysis.

Southeastern soils are naturally acidic,

so lime could also be needed depending on the forage species to be planted.

Renovation

Even when weeds are controlled appropriately, the grass may need to be re-seeded to fill in bare spots before summer weeds

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like horse nettle and pigweed begin to germinate. If you have a warm season perennial pasture like bermuda or bahia, then re-seeding in the spring is ideal. However, planting fescue in the spring often fails as stands do not have time to develop an adequate root system before the summer heat arrives. Planting an alternative annual forage such as millet or crabgrass can supply grazing until fall fescue establishment can take place. The use of temporary electric fence systems to fence off re-seeded sections or the ability to take that pasture out of your grazing rotation will be necessary to ensure success for those newly germinating grasses. If you don't currently have a dry lot or sacrifice lot, plan to build or allocate one. This will be essential to saving your pastures during any future conditions not conducive to forage growth.

Research Roundup: Focus on Crabgrass

Dr. Deidre Harmon, Extension Livestock Specialist

Improved varieties of crabgrass have been around since 1988, yet adoption has been slow because of the stigma that crabgrass is an unwanted plant in manicured lawns and golf courses.

Crabgrass is a summer-annual grass that produces good tonnage, has high nutritive value, is a prolific seeder, produces forage during the hot summer months, and cattle will selectively graze it over other forage species. However, little research is available on this forage. The following provides details on 1 of the 2 on-going trials targeted at providing more information on the use of this forage.

Crabgrass Variety Trial

Which variety should I use? Should I broadcast or drill it? Two of the most common questions we are asked.

□ A crabgrass variety trial was conducted at the Mountain Research Station in Waynesville, NC in

the summer of 2020.

□ **Varieties used:** Red River, Dals Big River, Quick-N-Big, Quick-N-Big Spreader, Impact and Mojo (blend of red river and Impact).

□ Crabgrass was planted in small plots and each variety was either no-till drilled or broadcasted.

□ The broadcasted planting method consisted of first rototilling the plots prior to broadcasting the seed, and were then followed up with a cultipacker to ensure good seed to soil contact.

□ **We found no difference in forage yields among any of the crabgrass varieties in this trial**

□ **Crabgrass yields did not differ between seeding methods of broadcasting and no-till drilling.**

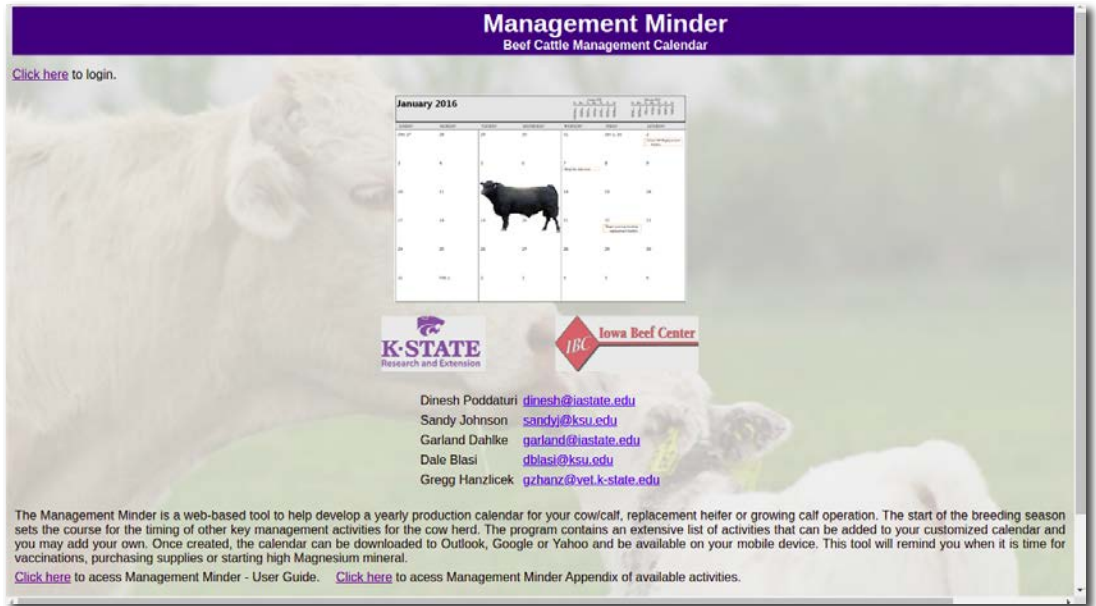
□ *This trial will continue in 2021 to get a more robust data set.*



Management Minder

Seth Nagy, County Extension Director, Caldwell County Center

I'm not a natural planner. Life gets busy, and timely farm management tasks seem to creep up on me. For example, I may need to start my fly mineral before the fly season, prepare bulls for the breeding season, or remember to switch my feeding schedule before the calving season starts (feeding pregnant cows at dusk will increase the number of cows calving during the day time).



To help farmers keep management tasks on track, K-State Research & Extension and the Iowa Beef Center created a planning tool called Management Minder. This tool creates a customized management calendar for breeding/calving, weaning, grass turnout, or

receiving cattle. Since farming is a little different in Kansas than North Carolina, the grass turnout and the receiving may be less useful, but the breeding/calving and weaning calendars are very appropriate for our use.

Start by creating a free user profile and logging into the site.

Calendar for Breeding

[Help](#)

Desired Calving Date* 4/15/2022 Cow

Get Breeding Activities

Breeding Date* 7/4/2021

Select	Sub Category	Activity	ActivityDate	Notes	Weblink
<input checked="" type="checkbox"/>	BULLS	Shop for new sires	3/5/2021		http://articles.extension.org/pages/72946/beef-sire-selection-recommendations
<input type="checkbox"/>	AI	Shop for AI sires cows	5/4/2021		http://www.asi.k-state.edu/doc/beef-genetics/nbcebeefsireselctionmanual2ndedition.pdf
<input checked="" type="checkbox"/>	AI	Plan AI protocol cows	5/4/2021		http://www.asi.k-state.edu/doc/beef/estrusovulation.pdf
<input type="checkbox"/>	AI	Order AI supplies cows	5/4/2021		
<input checked="" type="checkbox"/>	BULLS	Body condition score sires	5/4/2021		http://beef.unl.edu/cattleproduction/youngbullmanagemen
<input checked="" type="checkbox"/>	BULLS	Semen and Trich test bulls, vaccinate and deworm	5/4/2021		

Then select the automated calendar you want to create. Enter the initial date, and Management Minder builds a customized management calendar. From this customized calendar, you can choose the individual management tasks that are important for your farm. Once a calendar is complete, it

can be saved, printed, or emailed. If emailed, the file can be added to Outlook, Yahoo, or Google Calendars.

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The email comes with instructions on how to do this. In addition, calendars can be rolled over from year to year, saving time on set up for next year if daily tasks remain similar.

I like how Management Minder works with tools like Google Calendar. I don't have to use or learn a new planning tool. This saves time and makes this tool very practical. If there are tasks I want to add to the calendar that are not automatically created, I can add them, too.

Timing of management tasks on cow/calf operations is important for success. For example, getting timely vaccinations into cows/calves is

critical, especially if marketing calves as preconditioned. In addition, remembering which day the bull was turned out, getting a reminder to remove the bull and scheduling pregnancy checks is essential for a well-managed and profitable operation. Having a calendar with all the essential tasks listed in one place makes staying on track easier. If you are like me, more organization will make life more efficient and enjoyable.

If you do not have a good system for planning and reminding yourself of important farm tasks, then check out Management Minder. Create a profile today at www.KSUSBeef.org/

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